



100 *Celebrating*
YEARS



PRODUCT CATALOGUE



SCAN THE QR
CODE TO VISIT
OUR WEBSITE

AUSTRALIAN
MADE & OWNED
SINCE 1926







To deliver innovative and tailored lubricant products and services to our customers, globally.

For 100 years, Penrite has built a sound and trusted brand designed to offer the best service to our customers. We partner together to ensure success is sustainable and long term.

We don't treat customers as "one size fits all". We tailor solutions to meet their needs and requirements. We have over 70 people dedicated to customer service, field sales representation and technical support.

We have a fully trained sales representative dedicated to each of our customers who are recognised as the best within the industry. As trusted advisers, they provide technical advice, training and business support with the goal to make every business partnership successful.

Our friendly and knowledgeable customer service team are available during business hours to receive all orders and assist with other enquiries. We accept all forms of payments with attractive credit terms. Orders can be submitted via online, phone, fax or email 24/7 days a week.



**SCAN THE QR CODE TO
FIND YOUR RITE PRODUCT**

CONTENTS

COMPANY INFORMATION

5

MESSAGE FROM THE CEO	7
TIMELINE	8
OUR HISTORY	10
ABOUT US	16
BRAND ACQUISITIONS	18
FILTERS	19
THE TEAM	20
ENVIRONMENTAL COMMITMENT	22
ENVIRO BOX	23
CONCIERGE	24
PRODUCT RECOMMENDATION APPS	25
MERCHANDISE STORE	26
AMBASSADORS & PARTNERSHIPS	27

PASSENGER

35

ENGINE OILS	37
AUTO TRANS FLUIDS	87
MANUAL GEAR & DIFF OILS	97
COOLANTS	109
POWER STEERING & SUSPENSION FLUIDS	123
BRAKE FLUIDS	129
ADDITIVES & FUEL TREATMENTS	135
AEROSOLS	147

COMMERCIAL

153

HEAVY-DUTY ENGINE OILS	155
HEAVY-DUTY DRIVETRAIN	167
HYDRAULIC FLUIDS	181
INDUSTRIAL	193
GREASES	203

EQUIPMENT & CONSUMABLES 217

MOTORCYCLE 229

MARINE 249

SMALL ENGINE 255

CLASSIC 261

LIGHTNING 275

HAND CARE & CLEANERS 279

CLEANERS & DEGREASERS 287

ACCESSORIES & MAINTENANCE 295

INDEX 300

NOTES 304





COMPANY INFORMATION

PENRITE
AUSTRALIAN OWNED AND TRUSTED SINCE 1926



MESSAGE FROM THE CEO

As we celebrate 100 years as a proudly Australian-made, family-owned business, I want to take a moment to thank the people who made this milestone possible.

To our dedicated staff, past and present - thank you. Your dedication, passion and loyalty are the foundation of everything we do. You have helped shape our legacy and continue to drive our future.

To our customers - thank you for your continued trust and support over the decades. Whether you've been with us for generations or just joined us recently, your loyalty means the world to us. You've helped shape who we are today.

To our suppliers and partners - we value the strong relationships, your collaboration and shared commitment. These qualities have played a critical role in helping to deliver excellence in everything we do.

And last but not least, to my courageous parents who took a chance almost fifty years ago to give me and my brothers and sisters an opportunity to work together as one, to build this highly respected, quality brand - thank you.

This centenary is not just about our past - it's about our future, built on the same values that brought us here today.

We have been driven by the past. We are driven to our future.



Toby Dymond
CEO

1926

At the age of 16, Les blended his first ever batch of oil on his mother's stove at the family home in St Kilda. He sold his oil through service stations, milling factories and the local shipping port using his father's wheelbarrow.

1932

Initially using a petrol station, Les later moved the business to a more appropriate location at 625 Bridge Road, Richmond, that cost 75 pounds to purchase.

1934

Les' brother, Stan, entered Penrite Oil with a Boilermakers Licence. Often he could be found running the air compressor and doing stenciling. He was soon running the business for Les when he was away seeing customers.



1936

The "Penrite" name was registered, and the company became a member of the Pennsylvania Grade Crude Oil Association. The name "PENRITE" was chosen as oils were manufactured from the highest quality lubricants from Pennsylvania (PEN) based stocks, regarded at the time as the best in the world. Only the right oils (RITE) were ever sold to local customers.

1937

Penrite Oil relocated yet again, this time to 71-77 Hoddle Street, Abbotsford. The factory was leased for several years and subsequently purchased.



1951

Penrite became a Proprietary Limited company, and began selling batteries and oil filters along side their range of oils.

1986

First international products exported to England.



1981

John Dymond and eldest son, Mark, launched the HPR range into the Australian market.



1979

Les Mecoles, suffering from poor health, sold the company to John and Margaret Dymond in March of 1979. Shortly after, Les passed away.

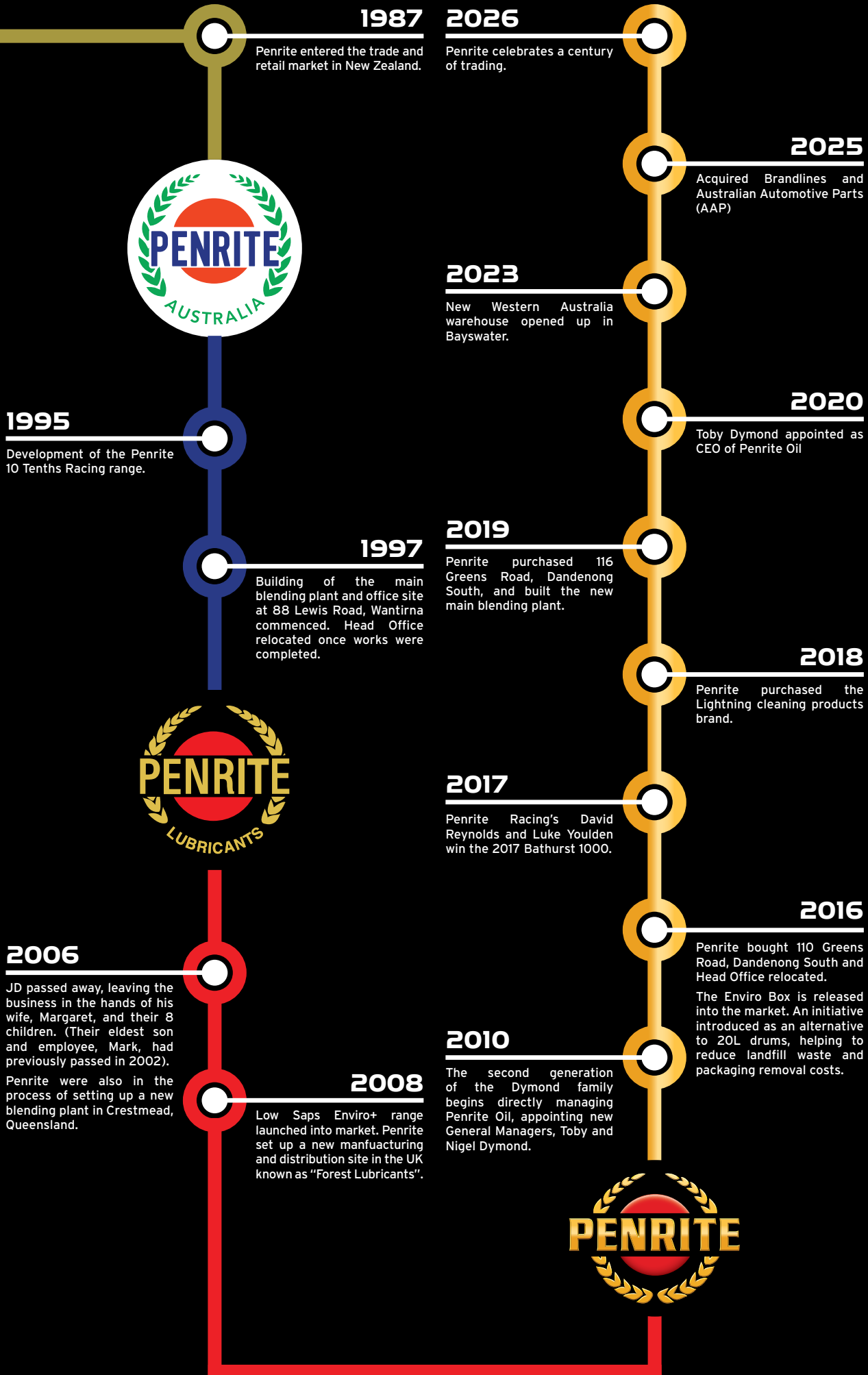
1973

Penrite became an incorporated company.

1965

All buildings on the Penrite side of Hoddle Street (the west side) were compulsorily acquired by the Board of Works for the widening of Hoddle Street. Penrite relocated to 3 Cross Street, East Brunswick.





OUR HISTORY

THE FOUNDER - LES MECOLES

Les Mecoles, the visionary founder of Penrite Oil, began his entrepreneurial journey in the 1920s while still a student at Melbourne High School. He started by importing oils from overseas and acting as an agent for established brands like Shell, Autolene (British American Oil Company), Trogon Oils, and Rigolin, a Latvian company that went into liquidation in the 1940s.

Les' school notebooks were filled with sales figures and formulas for oil blends, reflecting his early business mindset. He officially launched his own company on his sixteenth birthday, March 6, 1926. His school report praised his sharp intellect and excellent memory, though he was largely self-taught.

While selling these well-known products, Les worked to establish his own brand, blending oil on his mother's kitchen stove at the family home in Loch Street, St Kilda, Melbourne, Australia and using his father's wheelbarrow for deliveries, later relying on a courier service as his customer base grew. The family story goes that Les sold his prized leather jacket to fund his first batch of oil.

During this time, Les also developed a passion for photography, cars, and horse racing. If the oil business hadn't worked out, he aspired to become a newspaper photographer or a bookie. A camera or racing guide was never far from him, and he was even absent from his own wedding photos, as he served as the official photographer. In a true reflection of his love for cars, Les left his wedding reception early with his brother to test-drive a car.



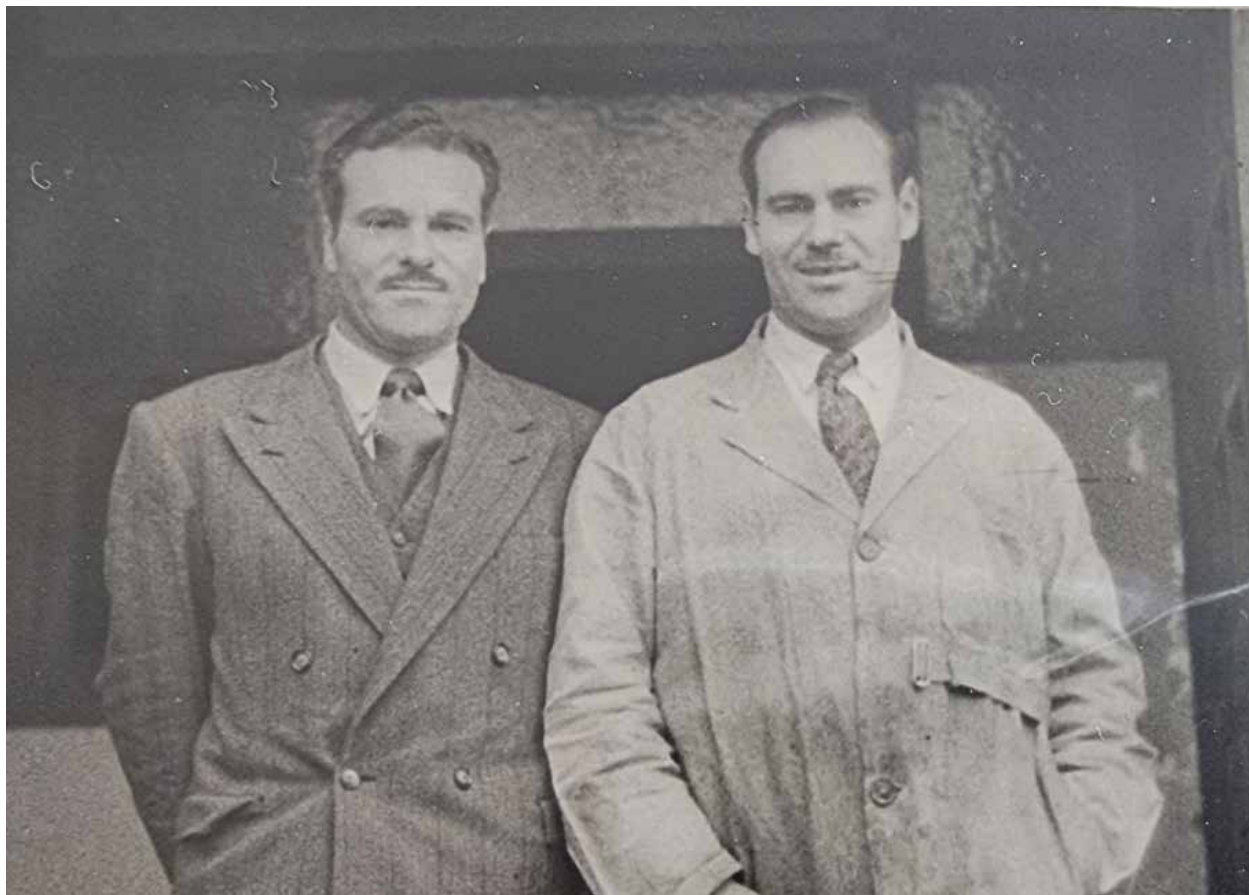
Les Mecoles (Company Founder)
1926 - 1979



First Blend



First Delivery



Les and Stan

THE EARLY YEARS

In the early years, Les Mecoles operated a petrol service station on Hawthorn Road, Caulfield, selling oil and petrol from the curbside. However, as the business grew, he purchased his first factory to expand operations. By 1932, Les relocated the business to a more suitable site at 625 Bridge Road, Richmond, Melbourne, acquiring the property for just £75 – a location now occupied by a McDonald's restaurant.

Over the following years, Les continued to grow the business, acquiring additional properties across Abbotsford and Richmond to import, distribute, and manufacture his own oil under the name L.H. Mecoles Oil Merchant.

In 1934, his brother Stan joined the company to help further expand the business. As the business grew, Les realised his oil needed its own unique name, Les sketched "Oil-Rite" on the back of an envelope. However, the application had to be resubmitted when it turned out the name was already taken. According to the Mecoles family history, it was Stan Mecoles who suggested the name "Pen-Rite" to Les - a clever combination of "Pen" for Pennsylvania crude oil, considered the best at the time, and "Rite" for the "Right" oil.



In 1936, Les eventually registered Penrite with the Commonwealth of Australia and became a member of the Pennsylvanian Grade Crude Oil Association. This membership allowed him to import 100% pure Pennsylvanian Crude Oil, enabling him to blend his oils with the finest base oils available worldwide.

THE WAR YEARS

During the 1930s, Penrite experienced significant growth, including a move to 71-77 Hoddle Street, Abbotsford, and the expansion of its reach to other states across Australia. By the time World War II began, Penrite had evolved beyond just manufacturing oils and lubricants, offering a wider range of products including greases, automotive batteries, and workshop tools to meet the demands of its growing customer base.

Records from this period show that Penrite played an important role in supporting the Allied war effort, producing various products for both the European and Pacific campaigns. The plain green wartime Penrite tins marked a stark contrast to Les' usual marketing style, reflecting practical needs of the time. A January 1942 stocktake revealed that Penrite held £11,000 worth of stock, though the staff had been reduced to under 10 people.

Throughout this challenging period, Les and Stan continued to run the operations, ensuring the production of goods for the Australian government. Meanwhile, their younger brother Samuel Mecoles served as a Squadron Leader with the Royal Australian Air Force during the war, later going on to become a doctor.



3 Cross Street, East Brunswick

POST WAR GROWTH AND LES' HEALTH

After the war, Australia was still experiencing extensive rationing, which greatly impacted manufacturing and daily life. By 1951, Penrite Oil had grown to become a Proprietary Limited company and was proudly promoted as the "Specialist in Lubricating oils and greases for every purpose".

Les often travelled to Brisbane, Sydney, and Adelaide, expanding Penrite's reach. In the later years, he was able to hire salespeople and dedicated considerable effort to training them in the art of salesmanship. One of his earliest recruits was a young man named Ron Walker, who would go on to become the chairman of Fairfax Ltd, Lord Mayor of Melbourne and head of Formula One.

In the late 1960's and early 1970's, the Abbotsford site was forcibly acquired by the Victorian government to make way for a new freeway and Les built a new site at 3 Cross Street, Brunswick.

However, during these later years, Les' health began to deteriorate after battling cancer twice. With no children to pass the business onto, he decided to sell the company.

Les had identified John Dymond, a young oil additives supplier he had grown close to, as a potential successor. The initial discussion between the two men gained momentum when John's wife, Margaret, fully supported the idea. Despite having nine children and limited funds, the Dymond's were able to negotiate a deal, with Les generously agreeing to help finance the purchase to ensure Penrite would remain in good hands.

The deal was finalised in March 1979, with John and Margaret Dymond officially becoming the new owners of Penrite Oil. Unfortunately, Les passed away shortly after, on August 23, 1979.



PENRITE OIL COMPANY

L. H. Mecoles
L. H. MECOLES.

THE DYMOND FAMILY

John Dymond, affectionately known as 'JD' started his career as an apprentice engineer at the Vauxhall Motors factory in Luton, England. He and wife Margaret later migrated to Australia in the late 1950's with John taking on a role with British Petroleum working on the launch of their long-life fuel additive program. John's tenure at BP allowed his keen interest of motoring and engineering the opportunity to work with industry giants in the automotive space and travel extensively across Australia and New Zealand.

This extensive travel gave JD a unique perspective, as he experienced first-hand the diverse Australian landscape and challenging driving conditions. It also led him to identify a significant gap in the market: there was a clear need for oils specifically designed to perform in Australian conditions. After leaving BP, JD joined US-based additive company, Lubrizol, where he worked on developing oil and lubricant solutions tailored for the Australian market.



After more than a decade with Lubrizol, JD, eager for a new challenge, was presented with the opportunity to purchase Penrite from Les Mecoles, the company's founder and a valued customer. According to family history, Les jokingly remarked, "With you and the wife having 9 children, you've already got your own workers sorted".

Upon taking the reins at Penrite, JD quickly identified a major oversight in the Australian lubricants market. The large oil companies were simply importing oils designed for North American and European markets, assuming they would work for Australian cars and climate. JD's vision was to develop oils specifically engineered for the unique Australian environment. He also expanded Penrite's presence internationally, growing exports into New Zealand and Europe.

MARGARET 'MARG' DYMOND

Affectionately known to her Penrite family as 'Marsey' or 'Marg', there are countless stories about Mrs. Dymond that reflect her warmth and dedication. Whether she's chatting with young motorsport competitors in the pits, engaging with motoring enthusiasts at local car shows, or camping at motorcycle events, Marg is always involved. Despite her active presence, she's never one to name-drop or seek the spotlight, so most people wouldn't realise they're speaking to the owner of the business.

For the past 45 years, Marg has been the cornerstone of Penrite, providing the strong family bond that has kept the company united. Her commitment to Australian manufacturing, her strong family values, and her "give it a go" attitude have all played crucial roles in Penrite's success.

As Penrite approaches a major milestone, Marg, is also reaching a similar personal milestone but remains deeply involved in every aspect of the business. Her passion for youth motorsport, small business, and charitable causes keeps her incredibly busy, ensuring her influence continues to shape Penrite's future.





THE NEXT GENERATION

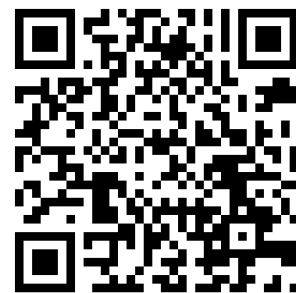
Following the passing of 'JD' and Mark Dymond, the next generation of the Dymond family continued to build on Penrite's growth and technical innovation.

The company is now headed by Toby Dymond as the CEO, with other Dymond family members, Fleur and Jon filling out significant roles within the business.

CELEBRATING 100 YEARS

In 2026, Penrite Oil celebrates its 100th anniversary – a monumental milestone for a family-owned, Australian-made brand that has stood the test of time. This achievement is a testament to the dedication of every person who has been part of the Penrite journey, from its humble beginnings to becoming a trusted name in lubricants and oils. As we mark this significant occasion, we're inviting our valued partners, customers, and supporters to join us in the celebration.

As we celebrate 100 years of innovation and commitment to quality, we remain deeply proud of our roots as a family-owned Australian company. Supporting local manufacturing and staying true to our values of creating high-performance products made right here in Australia is more important than ever. We look forward to sharing this exciting chapter with you and continuing to build on our legacy for another 100 years.



**SCAN THE QR CODE TO
WATCH OUR BRAND STORY**

CREATION OF THE PENRITE LOGO

When JD and Margaret bought Penrite, elements of the current logo were already in place, such as the circle superimposed with the word Penrite across it. That logo and branding had developed over several decades as Les and Stan continually refined the design.

The addition of the laurel wreath, synonymous with motor racing success, was added in the 1980s when a friend of Mark's, Dave Ross, was mucking around with a pen and drew a wreath onto the logo, held it up to JD, and said, "What do you reckon about this?"

Shortly after JD's passing, there was an attempt to change the labels, but it was short-lived, and consistency in packaging and labelling was restored.

1920s



1940s



1960s



1980s



2000s



2020s



ABOUT US

We partner with our customers to deliver sustainable and long term growth through our passion and commitment to excellent service, delivery and product quality.

Penrite Oil Company is a privately owned Australian lubricants company established in 1926. Head Office is located in Dandenong South, Melbourne, Australia, with other major offices in Sydney, Brisbane, Adelaide, Perth and Auckland, New Zealand. Products are locally distributed and exported internationally to over twenty countries throughout Europe, Asian, North America, Africa, and Oceania.

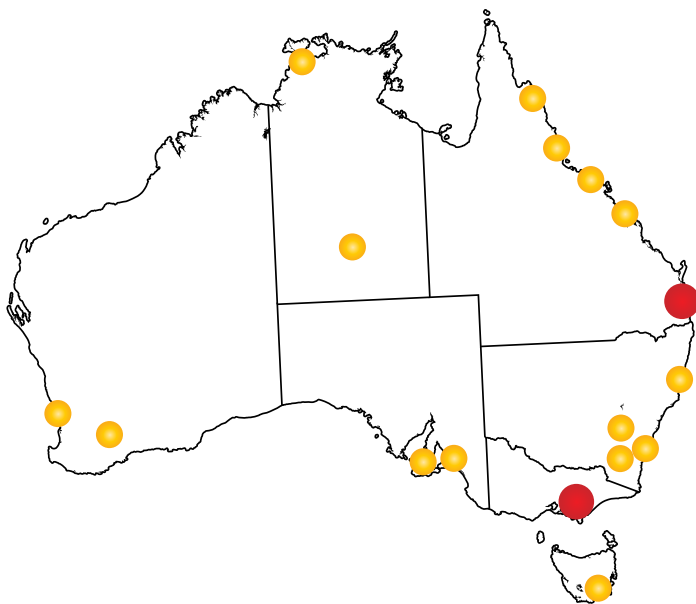
Penrite is very committed to providing a workplace and external environment that meets local and regulatory requirements. It strives to minimise any environmental impact by reducing emissions and developing safe and sustainable, production, packaging, storage and distribution methodologies and is a signatory to the Australian Packaging Covenant.

The Covenant Ensures:

- Compliance with environmental laws, regulations and licenses
- Explore opportunities for waste recycling and recovery
- Recycling product packaging
- Using recyclable packaging
- Ensure environmentally responsible behaviour is practiced
- Minimise waste and conserve resources

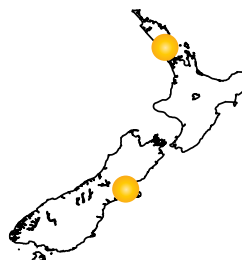
Penrite continues to win prestigious National and International Awards, reflecting its position in the marketplace amongst suppliers and customers. Awards include Retail and Trade Supplier of the Year, Most Innovative Products and Services, Supply Chain Excellence, Environmental Sustainability, Best Sales Representation and Outstanding Manufacturing Service.





Our delivery promise is within 24-48* hours.

Delivered-In-Full-On-Time (DIFOT)



Penrite has built a sound and trusted brand designed to offer the best service to our customers. We have the best supply chain in the industry. With 2 blending plants in Australia, with an annual capability of 46 million Litres, it allows manufacturing and packaging flexibility.

Our automated and in-line filling facilities cater to all types of packaging ranging from 1L to 1000L, with the process constantly monitored by the Quality Control department. With 22 warehousing facilities across Australia and New Zealand, this ensures our customers receive their orders promptly.

Our delivery promise is within 24-48* hours and our DIFOT (Delivered-In-Full-On-Time) is 99.3%. Highly trained team members work together to ensure stock is picked, packed and transported efficiently. As an ISO 9001 Certified Company, we not only talk a lot about the importance of quality, we have the processes, systems and support structures to back it up.

With continuous surveillance audits along the entire supply chain, all products meet the highest standards specified. We pride ourselves on establishing and nurturing strong relationships with our key supply partners, both local and international. We work together to access the latest product technology including packaging. We develop and test these new products in our R&D facility in Melbourne and use customer focus groups to gain feedback. We pride ourselves on being innovative and being first to market with successful products.

We also endeavour to expand our product range to suit customer demands. If we do not have a product and it is feasible to do so, we will, in conjunction with our technology and industry partners, work together with our customers to develop and introduce a product to complement our existing offer.

As part of Penrite's commitment to producing premium, high quality and trusted products, we have quality assurance laboratories based at each blending plant. Utilising state of the art testing equipment, our laboratories ensure that products manufactured on site, pass all analysis requirements prior to packaging.

*72 hours in some regional areas.

We conduct quality assurance testing on all raw materials used in the many and various blending processes. In addition, we integrate these tests into R&D activities during the development phase of many products. Our laboratory staff are highly skilled and experienced in oil testing and assurance, providing a valuable resource for any investigative work.

Penrite manufactures over 440 different products across 12 different market segments ensuring the right product is recommended for every application.

Products include engine oils and coolants that are officially approved and registered by major Original Equipment Manufacturers (OEM) and industry bodies such as API.

Penrite embraces the latest technologies and uses only quality base oils and additives. From hydrocracked Group 2 base oils, right up to premium Group 4 & 5 (PAO & Ester) base oils, Penrite develops and manufactures products to meet and exceed the most current industry specifications including API, ACEA, ILSAC & JASO.

- Heavy-Duty Engine & Drivetrain Oils
- Hydraulic Fluids, Agriculture & Industrial products
- Greases
- Automotive Engine Oils
- Automatic Transmission Fluids
- Manual Gear & Differential Oils
- Automotive & Heavy-Duty Coolants
- Power Steering & Suspension Fluids
- Brake Fluids
- Additives & Fuel Treatments
- Aerosols
- Equipment & Consumables
- Motorcycle & Motorcycle Care range
- Marine
- Small Engine Oils
- Veteran, Vintage & Classic products
- Lightning range
- Filters
- Brandlines - Autolite Spark Plugs, EziLift Gas Struts & Gabriel Shock Absorbers
- Australian Automotive Parts (AAP) - Ultima Brake Components/Shock Absorbers, Selby Suspension Systems & Platinum Gaskets

BRAND ACQUISITIONS

Penrite is increasing its presence in non-oil aspects of vehicles such as automotive parts.

In mid-2025, Penrite took two key steps that marked an exciting new chapter. In July, it acquired Brandlines, an Australian aftermarket business known for its family leadership and top brands, including Autolite Spark Plugs and EziLift Gas Lift Supports. The move extended Penrite's reach into filtration and other parts as the market shifts towards sustainability - an important step for both companies as they combine strengths.

A month later came the purchase of Australian Automotive Parts (AAP), a distributor with more than thirty years in the industry. Supplying suspension, drivetrain, steering, braking and engine parts - and representing brands like Ultima and Selby - AAP brought deep industry knowledge and a loyal customer base.

Together, these acquisitions take Penrite beyond lubricants and deeper into the automotive aftermarket. They highlight the company's aim to diversify while staying true to its core values: quality, service and Australian ownership.

The new Penrite Oil Filter range is available now and exclusive to Supercheap Auto nationwide, both in-store and online. We have purpose built these filters for Australian conditions, combining 98 percent plus filtration efficiency at 20 micron with a robust high burst pressure design, to deliver protection and durability that go beyond typical OE requirements, without compromising value for customers.

Please contact Brandlines/AAP directly to open an account and order parts.





FILTERS



Choose the **RITE FILTRATION**
with **PENRITE!**

PENRITE OIL FILTER

- 19mm Nut for easy removal
- High burst pressure steel canister
- 98%+ efficiency premium media at 20 micron
- Silicone Anti-Drain Valve

PENRITE AIR FILTER

- High efficiency premium media
- Designed and built for maximum performance and quality
- Ultimate engine protection
- Direct Easy Fit



LEARN MORE ABOUT OUR FILTER RANGE

THE TEAM



CUSTOMER SERVICE

Our friendly and knowledgeable Customer Service team is available to receive all orders, and respond to pricing, stock availability, and order status enquiries.

Contact us during business hours (AEST):
1300 PENRITE (1300 736 748)
sales@penriteoil.com.au



TECHNICAL SUPPORT

Our Technical team brings 100+ years of expertise and global resources to deliver the RITE advice, including Penrite equivalents for competitor products.

All our latest material safety data sheets (MSDS), and product/technical information and is available on the Penrite website.

Contact us during business hours (AEST):
1300 PENRITE (1300 736 748)
lubetech@penriteoil.com.au
Live Chat via [penriteoil.com.au](https://www.penriteoil.com.au)



ACCOUNTS

Our Accounts Team plays a vital role in supporting our customers and internal teams by ensuring accuracy, efficiency, and reliability across all account and invoicing processes. With a strong focus on service and attention to detail, they are on hand to assist with account enquiries and provide timely support, helping our customers do business with confidence.



SALES

We have a fully trained sales representative dedicated to each of our customers. As trusted advisers, they provide technical advice, training, and business support with the goal to make every business partnership successful.

To ensure we are servicing customers more effectively and aligning our operations across all regions, we have introduced five dedicated Sales Zones; Western Zone (WA), Southern Zone (VIC, TAS, SA & NT), Eastern Zone (NSW & ACT), Northern Zone (QLD), and New Zealand. Each zone will have full visibility and accountability for its geographic market, enabling decision-making closer to the customer and enhancing our ability to respond to local needs.



MARKETING

The Marketing Team works to represent the Penrite brand and support customers. Their responsibilities include building brand awareness, marketing campaigns, and providing support to the Category Managers and Sales teams. The team draws on product knowledge and industry experience to help customers select appropriate solutions.



PRODUCT MANAGEMENT TEAM

Penrite's product range is guided by a dedicated team of Category Managers specialising in Passenger, Commercial and Specialty segments. Together with our Product Trainer and Technology & Formulations Manager, they develop, manage and optimise our product portfolio.

ENVIRONMENTAL COMMITMENT

Penrite strives to minimise any environmental impact by reducing emissions and developing safe and sustainable, production, packaging, storage and distribution methodologies.

Penrite has committed to a sustainable future by becoming a signatory to the Australian Packaging Covenant (APCO) and their Sustainable Packaging Guidelines. Under the APCO guidelines, Penrite has committed to producing sustainable consumer packaging with efficient use of resources that reduces environmental impacts.

Under the APCO Guidelines, the end-result is to develop sustainable packaging which is:

- Fit-for-purpose
- Resource efficient
- Made from low impact materials
- Recyclable at the end of its useful life

Penrite has developed a sustainability strategy utilising the Australian Packaging Covenant in relation to its packaging by using recycled plastic. Up to 100% of recycled plastic is used in some packaging across Penrite products. All new products are assessed against the APCO Guidelines for their impact on primary, secondary and tertiary packaging requirements.

Our environmental commitment is further enhanced by using 100% recyclable FSC (Forest Stewardship Council) certified cardboard on certain cartons and ensuring we otherwise only source cartons made from recycled cardboard. In addition, we promote and encourage the full recycling of all of our cartons.

Penrite's award-winning Enviro Box™, a bag-in-a-box concept for packaging and dispensing lubricant is another example of our commitment to environmentally conscious packaging. The introduction of the Enviro Box™ has meant a reduction in the number of 5, 10 & 20 Litre HDPE packs that Penrite is putting into the landfill waste.





TODAY'S SOLUTION, FOR A BETTER TOMORROW










WHAT IS ENVIRO BOX™?

Enviro Box™ is a bag-in-a-box concept for packaging and dispensing lubricant. A bladder bag is housed inside a 100% recyclable cardboard box, as opposed to the traditional plastic drum method. It will revolutionise the way lubricants are manufactured, packaged, distributed, handled & stored.

Enviro Box™ is designed to reduce landfill waste, increase productivity and reduce costs.

Penrite Oil Company has been proudly Australian and family owned since 1926. Innovation, premier quality and a focus on local manufacturing are three key attributes behind our 90 year plus success story. Therefore, we are proud to be the first Australian lubricant manufacturer to introduce a new dispensing system that is kind to our environment, decreases packaging wastage, increases bulk lubricant storage capacity and increases workplace safety for trade customers.

BENEFITS

-  90% reduction in landfill waste
-  Now with Hi-Flow Tap
-  Available in 5L, 10L & 20L
-  Made with recycled cardboard & 100% recyclable
-  Simple and compact storage
-  Ease of disposal
-  Keep track of oil usage with 'Litres Used' tracker

*Check website for availability



GOLD
AUSTRALIAN
AUTO
AFTERMARKET
AWARDS

**Australian Auto
Aftermarket Association
2017 Most Innovative
New Packaging Award
WINNER**



MANAGE YOUR ACCOUNT WITH PENRITE CONCIERGE

With Penrite Concierge, you can manage your entire lubricant supply online – quickly, easily, and with the benefit of great pricing and fast, direct delivery.

Benefits include:

- Place new orders or update previous ones
- View recent confirmed online orders
- Save orders and complete them later
- Check product availability at your nearest warehouse
- Access up-to-date pricing instantly
- View or download invoices, statements, and credit notes
- See recommended Penrite product substitutions
- Use the product recommendation guide for the right choice every time
- Purchase Penrite merchandise
- Update your customer details with ease

ALREADY HAVE A PENRITE ACCOUNT?

**SCAN THE QR CODE BELOW TO
REGISTER FOR PENRITE CONCIERGE ACCESS**



NOTE: New and existing customers **MUST REGISTER** to gain access and use the new and improved Concierge portal.



PENRITE

PRODUCT RECOMMENDATION APPS

There seems to be an app for everything these days. But just how helpful are some of them? If you are a mechanic or find yourself recommending oils to consumers in the retail environment, Penrite have developed "must have apps"!

With the complexity of the car parc constantly increasing, it's difficult to keep up with the correct recommendations. It's clear how drastic an incorrect recommendation can be.

Penrite has developed outstanding Product Selector & Filter Finder apps to ensure you have the correct recommendation in the palm of your hand, 24/7. This allows for fast and accurate product selection. The design is responsive, decreasing lag or delay, and is supported across various screen sizes. A detailed description of the product provides you with all the information you need, plus special notations are given to maximise the service experience. Regular updates ensure the most accurate recommendations.



The Penrite Product Selector app assists in fast and accurate retail lubricant recommendations for a comprehensive range of equipment across 13 different categories of automotive vehicles, marine craft, agricultural machinery and industrial equipment. It is the one stop shop to finding the right product every time.

It includes the Product Selector, Rego Search, Grease Guide, 2-Stroke Mix, Cross Reference, Where to Buy, and Find a Mechanic



The Penrite Pro app has been designed specifically for the workshop/commercial environment.

It hosts recommendations for Cars and Commercial vehicles - Light/Medium & 4WD.



The Penrite Filter Finder App helps you find the correct filter quickly and easily. Designed to support workshops, retailers and customers, it allows you to search by your rego, vehicle or application to quickly identify the right Penrite filter with confidence. Penrite Filters are currently available exclusively at all Supercheap Auto stores across Australia and New Zealand.



Finding the right product for your vehicle is now even easier with the Penrite Rego Search.

Simply enter your license plate number and receive the right Product Recommendations for your vehicle.



The Penrite Oil Cross Reference Guide is a tool you can use to review products offered by non-Penrite Oil brands and find the best substitute Penrite Oil product.

MERCHANDISE STORE

The range of merchandise - most featuring Penrite's distinctive black and red - is vast: from stubbie holders, can coolers, and mugs to caps, T-shirts and duffle bags. There's some off-the-wall stuff too, like salt and pepper shakers that look like Penrite oil drums. And it's not just Australian motoring fanatics that snap up Penrite merchandise - sales as far as Poland and Switzerland are common. There are even fans out there with Penrite tattoos.

To order: Visit the Penrite website and click on the Merchandise button and begin shopping.



Trade customers can register their account details via the online store to receive exclusive promotions, discounts and free shipping*

*Free shipping available over \$100



AMBASSADORS & PARTNERSHIPS

With a long and proud history in motorsport spanning back nearly 100 years, the Penrite brand has been part of Australian motorsport DNA.

Partnering with numerous teams and privateers across a wide range of motorsport disciplines, Penrite gain real world testing and analysis while being able to further develop and refine its racing products in actual race conditions.

The Penrite Brand Ambassador Program aims to create positive change in the lives of competitors within grass roots motorsport. With access to market leading products, access to marketing support and technical assistance, Penrite Brand Ambassador's gain the winning edge to take on the competition.

As a family owned and operated business, Penrite are always looking to partner with like-minded, passionate motorsport people.

If you think you are Penrite Brand Ambassador material keep an eye out for application details on the Penrite website between 1st December and 1st January each year.

Penrite Oil have Brand Ambassador representation in:

CARS

Circuit Racing, Drifting, Drag Racing, Burnout, Rally, and Time Attack.

MOTORCYCLES

Motocross, Supercross, Circuit Racing, Desert Racing, Drag Racing, Speedway and Enduro.

MARINE

Jet Boat Racing, Ski Racing, Offshore, and Dingy Racing.

OFF-ROAD

Off-Road Racing, 4WDs and Speedway.

GO KARTS

Circuit Racing, Speedway and Super Carts.



PENRITE RACING



PENRITE RACING
EMPIRE KAWASAKI



PENRITE PROMX AUSTRALIAN
MOTOCROSS CHAMPIONSHIP



PENRITE AUSTRALIAN V8
SUPERBOATS CHAMPIONSHIP

2025 BATHURST 1000 WINNERS



MATTHEW PAYNE | GARTH TANDER
#100 PENRITE RACING FORD MUSTANG



Penrite's motorsport programme has become a strategic pillar of our brand, driven by a strong and progressive partnership with Grove Racing. We first aligned with Kelly Grove Racing in 2021, entering a joint high-performance journey that evolved as the team transitioned to Grove Racing in 2022, where Penrite stepped up as naming rights partner.

The relationship has continued to scale, anchored by shared ambition, technical alignment and a commitment to sustained competitiveness. This year, Penrite extended its major partnership with Grove Racing with a new multi-year deal, reinforcing long term confidence in the programme and its growth trajectory.

The partnership delivered its most significant milestone in 2025 when Matt Payne and Garth Tander secured victory at the Bathurst 1000 in the centenary Number 100 Penrite Mustang, cementing Penrite Racing as a frontline force in the Supercars Championship.





Launched in 2021, Penrite Oil and Motorcycling Australia (MA) have partnered together to usher in a new era in the Australian Motocross Championship. The Penrite ProMX Australian Motocross Championship is the new home of professional motocross racing in Australia.

The Penrite Oil ProMX Championship is designed as a tiered system featuring three racing classes with MX3 providing an environment where juniors are able to safely graduate into the senior ranks.

The professional level classes begin at MX2 where riders at 15 can enter the pro ranks, competing on 122cc to 150cc 2-Stroke & 200cc to 250cc 4-Stroke machines. The MX1 class is the elite category in the championship, seeing many factory-backed teams field the nation's elite athletes against visiting international competition on state-of-the-art 450cc four-stroke machines and 255cc and over two-stroke machines.



PENRITE **PENRITE**
asbk
AUSTRALIAN SUPERBIKE CHAMPIONSHIP MOTORCYCLING AUSTRALIA

In 1989, the premier road racing competition in the country, morphed into what was called, the 'Australian Superbike Championship' run under the Australian Road Race Championship banner.

Over the year, the championship has been run by Motorcycling Australia (MA) as the primary promoter.

Over the following years, the ASBK has seen unprecedented growth and an increased talent pool, with the championship providing the perfect springboard for riders and teams to avail themselves of international opportunities.

The ASBK is structured in a progressive format that caters for a variety of motorcycle classes, riders, and abilities, starting with the Oceania Junior Cup academy for riders 11-U16 years right through to the blue-chip Superbike category.





Penrite Racing Empire Kawasaki stands as one of Australia's leading professional motocross & supercross teams, renowned for its commitment to excellence and performance on the track.

With a talented roster of riders and a dedicated crew, the team consistently showcases remarkable skill and determination in every competition. Their passion for the sport and pursuit of victory make them a formidable force, inspiring fans and fellow competitors alike.

As they continue to push the boundaries of motocross & supercross, Penrite Racing Empire Kawasaki remains a symbol of strength and perseverance in the Australian motorsport landscape.



Australian Karting Association Ltd (Karting Australia) is the sole body in Australia recognised by the Federation Internationale de l'Automobile (FIA) and Motorsport Australia to organise, regulate and control the sport of Karting in Australia. The Penrite Australian Kart Championship is the premier karting Championship in the Southern Hemisphere.

Contested across five rounds throughout four states of Australia, the Championship attracts the best drivers from all across Australia, New Zealand and Asia to compete for the honour of being crowned Australian Champion in their respective Class.

The list of former Champions and Round Winners in the history of the Championship is a lengthy one with many young drivers having graduated from the Championship into other forms of motorsport and success all throughout the world.

AFSA **PENRITE**
**AUSTRALIAN
 V8 SUPERBOATS
 CHAMPIONSHIPS**




Penrite Oil is no stranger to all forms of motorsport, having been a part of a variety of categories over the years. The V8 Superboats Championship gives Penrite the ability to showcase an extensive Marine range. What better place to put engine oils, gear oil, and even greases to the ultimate test than flat out on the water.

The Penrite Australian V8 Superboats Championship is one of the most extreme and spectacular forms of motorsport on the planet. Imagine 1600-horsepower in a purpose-built aluminum boat that can accelerate to 120kph in under 2-seconds, and turn with the kinds of G-forces usually only experienced by fighter pilots.

The Penrite Australian V8 Superboats Championship is contested year-round at dedicated venues in New South Wales (Temora and Griffith), Tweed Coast, and Keith in South Australia starting early in the year and concluding in a season finale in December.



Penrite Oil has signed a two-year deal with Melbourne Football Club to become the newest Major Partner, featuring prominently on the top front and back of the iconic red and blue guernsey.

The Melbourne Football Club, nicknamed the Demons or colloquially the Dees, is a professional Australian rules football club based in Melbourne, Victoria, Australia. It competes in the Australian Football League (AFL), the sport's premier competition and plays its home games at the Melbourne Cricket Ground (MCG).

Fittingly, Melbourne won a Premiership in 1926 the same year Penrite Oil was founded, with the club celebrating its own centenary since the club's iconic win over Collingwood.



PASSENGER

ENGINE OILS	37
AUTO TRANS FLUIDS	87
MANUAL GEAR & DIFF OILS	97
COOLANTS	109
POWER STEERING & SUSPENSION FLUIDS	123
BRAKE FLUIDS	129
ADDITIVES & FUEL TREATMENTS	135
AEROSOLS	147



ENGINE OILS

OIL FUNCTIONS

LUBRICATE PARTS AND PREVENT WEAR

This is the basic function of all oils. Keeping the moving parts separated. In general, the thicker the oil film, the better the wear protection, but the oil additives also play an important role. Modern oil additives allow an oil of lower viscosity to be used and still provide the same level of protection.

REDUCE FRICTION

The film of oil reduces friction simply because there is no metal-to-metal contact. The heavier the oil though, the greater the drag and hence more heat may be generated. Correct oil selection is therefore a balance between what is needed to protect the component without generating excessive drag and heat, thereby decreasing fuel economy.

PROTECT AGAINST RUST AND CORROSION

As oils degrade, they form corrosive by-products so the oil contains anti-corrosion and acid neutralising additives to protect components against rust and corrosion.

PREVENT FOAM

Foam reduces the lubrication properties of the oil, therefore oils must be resistant to foaming or be able to "release" or "dissipate" any foam quickly.

PERMIT EASY STARTING

Most wear occurs in an engine at start up. Therefore, the oil must have the correct low temperature viscosity to flow quickly to the bearings and valve train to prevent wear. Some engines require a low viscosity oil to actually start at all, especially some diesel engines found in four wheel drives, where the oil is used to operate the pump to prime the fuel injectors.

COOL THE ENGINES

At least 40% of the engine is cooled by the oil, not the radiator system. This means the oil is always under heat stress (oxidation) as it transfers heat from hot spots back to the sump. This includes main and big end bearings, the crankshaft, connecting rods, other bearings, pistons and the timing gear.

REDUCE COMBUSTION CHAMBER DEPOSITS

Some oil will always reach the combustion chamber either via the cylinder walls or via the valves. It is then burned off with the fuel. It therefore must burn clean enough that it does not build up on valve seats or piston tops which can cause problems.

KEEP ENGINE COMPONENTS CLEAN

Oils need to be very stable under heat and not cause system deposits. They also have the added responsibility of keeping internal surfaces clean and to prevent sludge. This is achieved by a combination of detergent and dispersant additives.

BE COMPATIBLE WITH SEALS

Above all, oils must lubricate and not cause deterioration, shrinking or hardening of commonly used seals.

BASE OILS

All oils are made up of base oils and additives. The API classifies base oils into 5 main groups.

Group	Sulphur %	Saturates %	VI	Manufacturing Method
I	>0.03	<90	80-119	Solvent Refined
II	<0.03	>90	80-119	Hydro-processed
III	<0.03	> 90	120+	Severely hydro-processed
IV	Poly Alpha Olefins (PAOs)			Oligomerisation (man made)
V	All Others (including esters)			Various

Group III and IV base oils are 100% synthetic. Some very high quality Group II oils (called Group II Plus) are also accepted as having synthetic performance. When looking at the table, think of saturates (relates to aromatics and other hydrocarbon molecules) and sulphur levels as the degree of purity of the oil. The Group III products used by Penrite are over 99% pure. PAOs are even more pure than Group III oils. Group I and II base oils are considered mineral.

Synthetic base oils are used for two main reasons; greater oxidation stability (for longer oil life) and low volatility (to decrease oil consumption). In order to meet the ACEA specifications on oil volatility, many lighter engine oil viscosity grades must use a percentage of these products, especially if Group I base oils are used.

Group V contains all other base oil types not included in Groups I, II, III and IV e.g. Esters, Naphthenics, etc.

From a Penrite perspective, we choose the combination of the above base oils to ensure maximum performance for a given oil.

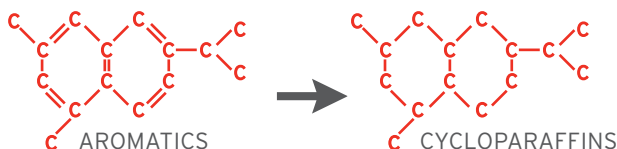


HYDROPROCESSED BASED OILS

WHAT DO THEY LOOK LIKE?

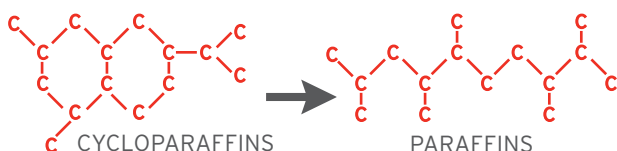
Group II:

- 400°C
- >500 psi H
- Removes sulphur and nitrogen
- Converts aromatic hydrocarbons to cycloparaffins



Group III:

- 425-430°C
- 1,500-3,000 psi H
- Converts cycloparaffins to paraffin chains



SYNTHETIC BASE OILS

PAOs - POLY ALPHA OLEFINS:

PAOs are derived from the oligomerisation, usually of 1-decene. Oligomerisation refers to a process where a monomer or a molecule is linked to many others of the same type to form a long chain.

1-decene is further derived from the oligomerisation of high purity ethylene (C₂H₄).

PAOs are extremely pure:

- Identical molecules
- No sulphur or phosphorus
- No wax

Benefits of PAOs:

- Excellent cold flow properties
- Highly resistant to thermal breakdown
- Excellent shear stability

ESTERS:

Manufactured by reacting an acid and an alcohol to give ester plus water. There are many types of esters, such as diesters and polyolesters.

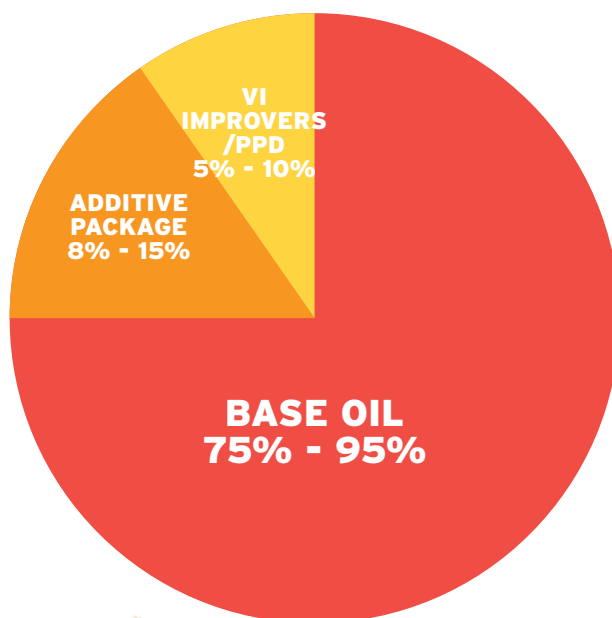
Benefits of Esters:

- Resistant to thermal breakdown
- Good metal-wetting ability
- High film strength
- Good shear stability

OIL COMPOSITION

Different oils require different percentages of additive package depending on viscosity grade, specification, oil type etc.

Typical blended engine oil variations below:



OIL ADDITIVES

There are different types of oils and they use many of the same types of ingredients. However, these are put together a little differently. Not all of these are found in every oil. Firstly you have base oils, made from either crude oil at a refinery or man-made (synthetics). To achieve the functions required by finished lubricants, you must then put additives in with the oil. These all do different things.

Detergents:

Any oil with an API engine rating of SC, or above has a level of detergency. This detergency level is not necessarily related to all of the quoted API ratings of the oil, as some high detergent diesel oils may only meet lower petrol engine oil specifications. It is a balance. Detergents are usually metallic based compounds and they control deposits and keep engines clean.

Dispersants:

These are polar additives that are used to organically keep contaminants and by-products dispersed in the oil helping to prevent deposits and sludge from forming. They are highly effective in controlling low temperature contaminants. They can keep them so fine in suspension, they pass through the oil filter with the oil additives!

Friction Modifiers:

Used to reduce internal engine friction and are common in low viscosity oils where fuel economy is important.

Oxidation Inhibitors:

Reduce oxygen attack or oxidation of the oil, helping to reduce oil thickening, especially at consistently high temperatures experienced over the life of the oil drain period.

Anti-Wear Agents:

Prevent wear from seizure or scuffing of metal surfaces that would otherwise rub or contact each other. They are normally zinc and phosphorus or other organo-metallic based compounds.

Rust and Corrosion Inhibitors:

Prevent rust and corrosion attack on metal surfaces from acids that can build up in oils, by helping to neutralise their effect.

Foam Depressants/Air Release Agents:

Prevent foam from forming, thereby maintaining a lubricating film based on oil not air bubbles, resulting in the ability of the oil to be pumped effectively at the required rate.

Pour Point Depressants (PPD):

Reduce the oils tendency to crystallise at very low temperatures, i.e. its ability to pour or flow. Most oils contain wax and, at very low temperatures, wax can crystallize. PPDs assist to lower the temperature at which this occurs.

Viscosity Index Improvers (VII):

These change the oils rate of thinning or its Viscosity Index (VI). The higher the VI, the lower the rate of thinning of the oil with increase in temperature. They are polymers that expand as temperature increases - think of them as like a slowly uncoiling spring. They also assist in making oils into multigrades.

SAE VISCOSITY

SAE stands for Society of Automotive Engineers. The SAE developed a classification system to define the viscosity or thickness of oil. This system has been progressively modified over the years. It defines "operating temperature" engine oil viscosities for different grades and contains specifications for "cranking" viscosity and pumpability at start up, the "W" grades or winter. A multigrade oil is one that meets both a "W" low temperature viscosity requirement and a 100°C "operating temperature" requirement.

For engine oils there is a specification that must be met at 150°C, known as a High Temperature/High Shear (HT/HS) viscosity. HT/HS simulates what happens in high stress areas of the engine e.g. bearings, cams, etc. It measures the viscosity and indicates the oil film thickness under severe high-speed conditions. An oil that is too thin under these conditions may not provide the required protection to prevent significant wear in these critical engine parts.

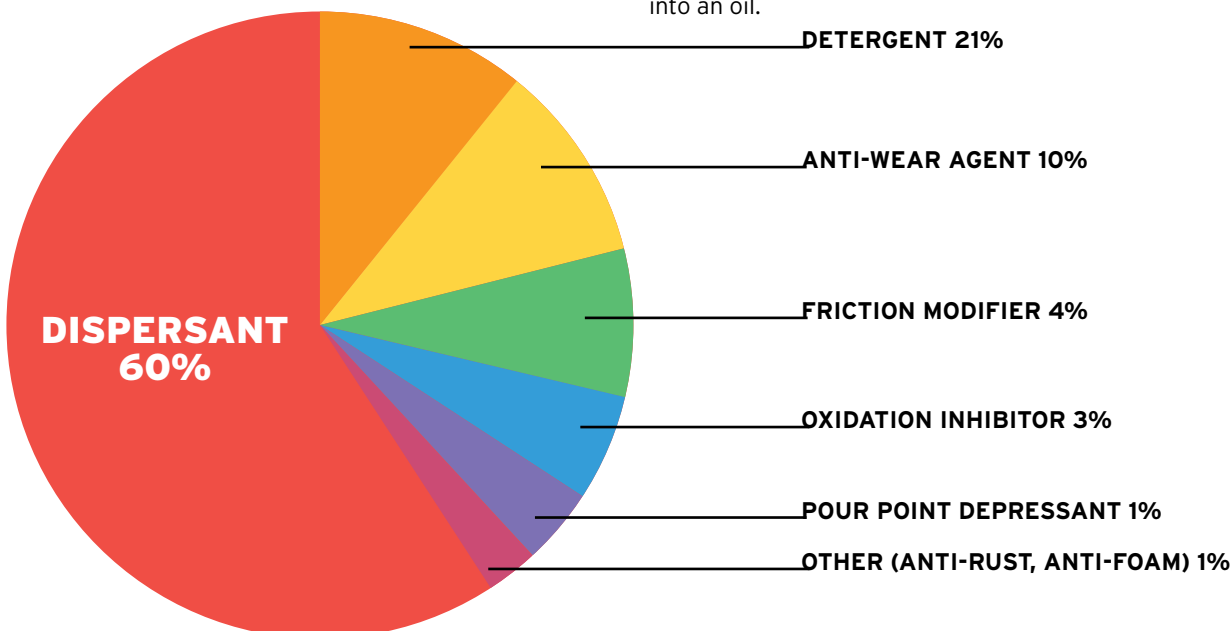
OIL ADDITIVES PACKAGE

Depending on the oil type and specification, the performance pack will alter significantly.

The amount of each depends on the application, this can range from 65% to 93% base oil.

Engine oils are comprised of base oil and additives.

The graph below demonstrates what additives can go into an oil.



In addition, gear oils require a KRL test. This is a severe oil shear test, and the oil must stay in grade or within a nominated range after shear. Its severity is the main reason why 75W-x gear oils are expensive as these are difficult to make.

Centipoise (cP) and Centistokes (cSt) are the units viscosity is measured in.

UNDERSTANDING VISCOSITIES

The number in front of the "W" signifies the viscosity of the oil at cold/start up temperature (tested at -10 to -35°C depending on the grade. Please refer to the SAE J300 - Engine Oils Chart opposite). The lower the first number, the faster the oil flows (pumpability) when the engine is cold.

The second number represents the oil's thickness at operating temperature (100°C). All oils thin out as they get hotter. So, the higher the second number, the less the oil will thin out as it heats up, compared to an oil with a lower second number.



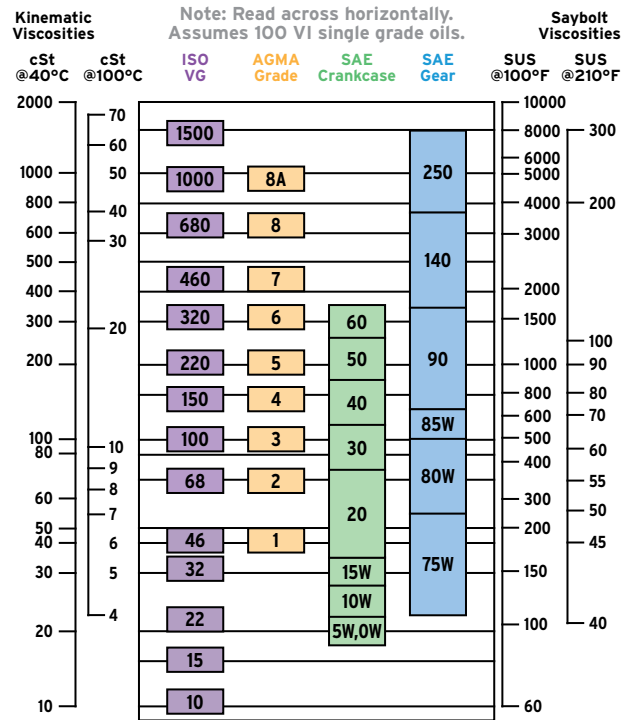
5W-40, 10W-40 & 15W-40 have the same operating temperature and different start up viscosities.

10W-40 & 10W-50 have the same start up viscosities and different operating temperature viscosities.

SAE J300 - Engine Oils 2015					
SAE Grade	Cold Cranking MAX Viscosity cP @Temp, °C	Pumpability Max Viscosity cP @ Temp, °C	Viscosity @ 100°C		HT/HS @ 150°C
			Min cSt	Max cSt	Min cP
0W	6200 @ -35	60,000 @ -40	3.8	NA	NA
5W	6600 @ -30	60,000 @ -35	3.8	NA	NA
10W	7000 @ -25	60,000 @ -30	4.1	NA	NA
15W	7000 @ -20	60,000 @ -25	5.6	NA	NA
20W	9500 @ -15	60,000 @ -20	5.6	NA	NA
25W	13000 @ -10	60,000 @ -15	9.3	NA	NA
8	NA	NA	4.0	<6.1	1.7
12	NA	NA	5.0	<7.1	2.0
16	NA	NA	6.1	<8.2	2.3
20	NA	NA	6.9	<9.3	2.6
30	NA	NA	9.3	<12.5	2.9
40	NA	NA	12.5	<16.3	See note
50	NA	NA	16.3	<21.9	3.7
60	NA	NA	21.9	<26.1	3.7

Note: 3.5cP for 0W-40, 5W-40 & 10W-40 grades, 3.7cP for 15W-40, 20W-40, 25W-40 & 40 grades. Penrite defines "70" engine oils as above 26.1cSt at 100°C & "30W" as less than 13,000cP at -5°C.

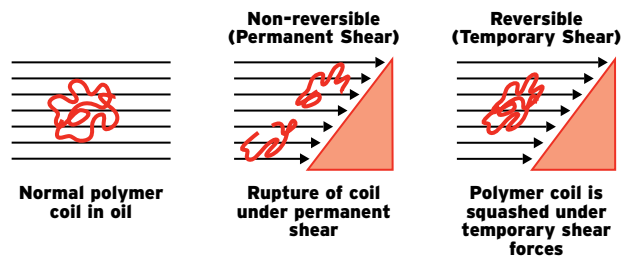
COMPARATIVE VISCOSITY CLASSIFICATIONS



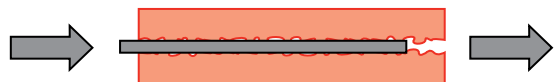
PERMANENT VS TEMPORARY SHEAR

The below diagrams show the two types of shear that can occur with Viscosity Index Improvers (VII). Permanent Shear is defined as the physical breaking apart of the polymer into smaller pieces and hence the oil suffers from a permanent loss of viscosity.

Temporary Shear occurs when the polymer is squashed but does not break apart and hence "springs back" to its original size after going through the area of high stress.



The shearing effect occurs when the oil is forced through areas of tight clearances or is "squashed" (e.g. cam lobe to follower) and if the gap is too small, then the polymer will rupture.



Penrite 10 Tenths Racing range are formulated to be "shear free" and do not use any polymers. A special base oil combination is used to achieve the desired viscosity grades. As such, there are no components in the oil that can suffer from Permanent Shear so the oil holds its original viscosity for the life of the oil drain.

API SERVICE CLASSIFICATIONS

API stands for American Petroleum Institute. In 1970, along with the SAE and ASTM (American Society for Testing and Materials), they established the API Service Classification System to define the performance level of a given oil, unrelated in the main, to oil viscosity.

The API requirements "S" for Spark Ignition (petrol) and "C" for Compression Ignition (diesel) can be briefly described as follows. The latest API "S" and "C" classifications are backwards compatible and suitable for use in place of earlier classifications.

DESIGNATION AND DESCRIPTION:

PETROL:

- SA** Oil without additive. Now obsolete.
- SB** Some antioxidant and anti-scuff properties. Now obsolete.
- SC** Meets 1964-1967 requirements of Automotive manufacturers. Now obsolete.
- SD** Meets 1968-1971 requirements of Automotive manufacturers. Now obsolete.
- SE** Meets 1972-1979 requirements of Automotive manufacturers. Now obsolete.
- SF** Meets 1980-1988 requirements of Automotive manufacturers. Now obsolete.
- SG** Meets 1989-1993 requirements of Automotive manufacturers. Now obsolete.
- SH** Meets 1994-1997 requirements of Automotive manufacturers. Now obsolete.
- SJ** Meets 1998-2000 requirements of Automotive manufacturers.
- SL** Meets 2001-2004 requirements of Automotive manufacturers.
- SM** Meets 2004-2010 requirements of automotive manufacturers. XW-20 and XW-30 grades have chemical limits.
- SN** Introduced in October 2010, designed to provide improved high temperature deposit protection for pistons, more stringent sludge control and seal compatibility. API SN with Resource Conserving matches ILSAC GF-5 by combining API SN performance with improved fuel economy, turbo charger protection, emission control system compatibility and protection of engines using E85 fuel.
- SN PLUS** Introduced in November 2017, this is a new classification that may be used in conjunction with API SN and API SN Resource Conserving. Oils meeting this classification are formulated to provide API SN performance and additional protection against low-speed pre-ignition for turbo charged direct injection petrol vehicles. Backwards compatible to API SN, API SN Resource Conserving and ILSAC GF-5.
- SP** Introduced in May 2020, designed to provide protection against low-speed pre-ignition (LSPI), timing chain wear protection, improved high temperature deposit protection for pistons and turbochargers, and more stringent sludge and varnish control. API SP with Resource Conserving matches ILSAC GF-6A by combining API SP performance with improved fuel economy, emission control system protection and protection of engines operating on ethanol-containing fuels up to E85.

SO

The latest engine oil standard. It has enhanced fuel economy, improved durability, and greater engine cleanliness. Plus it specifically addresses issues like low-speed pre-ignition (LSPI), timing chain wear, reduced oxidation, and accommodating new ultra-low viscosity oils like SAE OW-8

DIESEL:

- CA** Light duty, high sulphur diesel engines built before 1960. Equivalent to MIL-L-2104A. Now obsolete.
- CB** Introduced in 1949 for moderate duty, high sulphur diesel engines built before 1962. Now obsolete.
- CC** Introduced in 1951 for moderate to severe duty diesel engines built before 1991. Equivalent to MIL-L-2104B. Now obsolete.
- CD** Introduced in 1955 for severe duty diesel engines, including turbo and Caterpillar Series 3, built before 1995. Equivalent to MIL-L-2104C. Now obsolete.
- CD-II** Introduced in 1985. API CD plus Detroit Diesel 6V53T approval for two stroke engines built before 1995. Now obsolete.
- CE** Introduced in 1985 for turbo/supercharged heavy duty diesel engines built before 1995. Now obsolete.
- CF** Introduced in 1994, for off-road, indirect injection diesel engines and others using a broad range of fuel types including high sulphur. May be used to replace API CD oils. Now obsolete.
- CF-2** Introduced in 1994 for severe duty two stroke diesel engine service from 1994. Can be used in place of API CD-II oils. Now obsolete.
- CF-4** Introduced in 1990 for severe duty four stroke diesel engines, including turbos. Can replace API CD & CE oils. Now obsolete.
- CG-4** Introduced in 1995 for severe duty four stroke diesel engines meeting 1994 emission standards (less than 0.5% sulphur). Can replace API CD, CE & CF-4 oils. Now obsolete.
- CH-4** Introduced in 1998 for high speed four stroke diesel engines meeting 1998 emission standards (less than 0.5% sulphur). Can replace API CD, CE, CF-4 & CG-4 oils.
- CI-4** Introduced in September 2002 for high speed four stroke diesel engines, designed to meet 2004 exhaust emission standards and using low sulphur fuel (less than 0.5%). Can replace API CD, CE, CF-4, CG-4 & CH-4 oils.
- CI-4 PLUS** As per CI-4 but with further restrictions on after-shear viscosity and performance.

CJ-4 Introduced in 2006 for 15ppm maximum fuel sulphur. Enhanced wear protection, 1.0% ash maximum. For engines designed to meet 2010 model year on-highway emission standards. Effective where particulate filters and other after-treatment systems are used. Improved performance for soot handling, oxidative thickening, engine wear piston deposit formation, foaming and viscosity loss due to shear. Can replace API CI-4 Plus, CI-4, CH-4, CG-4 & CF-4 oils.

CK-4 API Service Category CK-4 describes oils for use in high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards as well as for previous model year diesel engines. These oils are formulated for use in all applications with diesel fuels ranging in sulfur content up to 500 ppm (0.05% by weight). However, the use of these oils with greater than 15 ppm (0.0015% by weight) sulfur fuel may impact exhaust after treatment system durability and/or oil drain interval. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced after treatment systems are used. API CK-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API CK-4 oils exceed the performance criteria of API CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 and can effectively lubricate engines calling for those API Service Categories. When using CK-4 oil with higher than 15 ppm sulfur fuel, consult the engine manufacturer for service interval recommendations.

FA-4 API Service Category FA-4 describes certain XW-30 oils specifically formulated for use in select high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway greenhouse gas (GHG) emission standards. These oils are formulated for use in on-highway applications with diesel fuel sulfur content up to 15 ppm (0.0015% by weight). Refer to individual engine manufacturer recommendations regarding compatibility with API FA-4 oils. These oils are blended to a high temperature high shear (HTHS) viscosity range of 2.9cP-3.2cP to assist in reducing GHG emissions. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced after treatment systems are used. API FA-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API FA-4 oils are not interchangeable or backward compatible with API CK-4, CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 oils. Refer to engine manufacturer recommendations to determine if API FA-4 oils are suitable for use. API FA-4 oils are not recommended for use with fuels having greater than 15 ppm sulfur. For fuels with sulfur content greater than 15 ppm, refer to engine manufacturer recommendations.

API CERTIFICATION

API "STARBURST" AND "DONUT" LICENSES:

API license two types of Marks or Licenses: a certification mark commonly referred to as a "Starburst" and a service symbol, commonly referred to as a "Donut". These marks identify a quality, API licensed motor oil for petrol and diesel powered engines. API have designed these licenses that define, certify and monitor engine oil performance that vehicle and engine manufacturers as well as the lubricants industry have considered necessary for satisfactory engine life and performance.

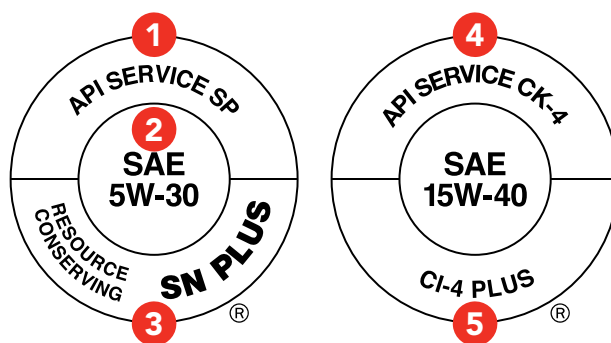
They are intended to assist the end user to identify products that have satisfied the requirements for licensing by the API and therefore provides confidence in the quality of the oil they are purchasing. In some countries, a lubricant cannot be sold without an API quality mark.

API CERTIFICATION MARK OR "STARBURST":

An oil showing this mark identifies it as meeting the current ILSAC (International Lubricant Standardisation and Approval Committee) performance standard for engine protection and fuel economy requirements. The ILSAC GF-6A minimum performance standard is the current basis for issuing a license to use the API Certification Mark or "Starburst."

API SERVICE SYMBOL OR "DONUT":

An oil displaying a "Donut" denotes a licensed oil's performance properties through the use of API "S" service categories and, if applicable, the Resource Conserving and API "C" designations. Below are examples of "Donuts".



THERE ARE DIFFERENT PARTS TO THE SERVICE SYMBOL OR "DONUT":

1. Performance Level

This will indicate the API performance level attained by the oil. Petrol engine oil specifications are designated by API "S" Service Categories, in this case, API SP.

The use of more than one API "S" Service Category in this section of the Service Symbol is prohibited. Diesel engine oil specifications are designated by API "C" categories, such as CK-4.

2. Viscosity Grade

This is where the viscosity grade of the licensed product is shown.

3. Resource Conserving and Energy Conserving

These designations apply to oils intended for petrol engine use. Using these oils may result in an overall saving on fuel use or increased fuel economy.

4. Multiple Performance Levels

This section may include more than one API performance level. Oils designed for diesel use might also meet a petrol performance level. In this case, the "C" category is listed first followed by the "S" category.

5. Service Symbol with CI-4 Plus

The "CI-4 PLUS" designation identifies oils that are formulated to provide a higher level of protection against soot related viscosity increase and viscosity loss due to shear in diesel engines. When originally introduced, "CI-4 PLUS" identified CI-4 oils meeting a higher level or performance. CJ-4 oils include all "CI-4 PLUS" performance requirements. In this case, the "CI-4 PLUS" appears in the lower portion of the "Donut". This portion is also known as where the Performance Designation is listed.

ENGINE OIL IMPROVEMENTS

A3/B4-23 vs A3/B4-04



Spec.	HTHS (cP) SA (%)	SA (%)	P (%)	S (%)	Min T
A3/B4-23	≥3.5	≥1.0 to ≤1.6			≥10.0
A3/B4-04	≥3.5	≤1.6			

- ✓ Better wear protection
- ✓ Protects seals
- ✓ Reduces engine deposits
- ✓ Reduces sludge
- ✓ Better protection against soot thickening

ACEA ENGINE SERVICE CLASSIFICATIONS

ACEA stands for Association des Constructeurs Européens de l'Automobile. This classification system is the European equivalent of the API classification system, but is stricter and has more severe requirements.

Hence an oil that meets both API & ACEA specifications uses a better additive package than one that is designed to meet only API specifications. Unlike the API, ACEA has three main groups - "A/B" for petrol (A) and light duty diesel (B) engines, "C" for light duty three way catalyst (TWC) and Diesel Particulate Filter (DPF) compatible oils, usually Low and Mid SAPS (Sulphated Ash Phosphorus Sulphur) and "E" for heavy duty diesel engines. These can be defined as follows.

DESIGNATION AND DESCRIPTION:

- A1/B1** For use in petrol and light duty diesel engines capable of using low friction, low viscosity, and low HT/HS shear (2.9 to 3.5cP) oils. (Obsolete)
- A3/B3** Stable, stay in grade oil intended for use in high performance petrol and diesel engines or extended drain intervals. (Obsolete)

- A3/B4** For use in direct injection diesel engines where special oils may be required, but also suitable for applications described under A3/B3.
- A5/B5** Similar to A1/B1 but for high performance engines capable of using low friction, low viscosity, and low HT/HS oils. May be unsuitable for use in some engines.
- A7/B7** Similar to A5/B5 but for high performance engines capable of using low friction, low viscosity, and low HT/HS oils without exhaust after treatment technology. May be unsuitable for use in some engines.
- C1** Stable, stay in grade oil for use in vehicles fitted with DPFs & TWCs and in high performance diesel and petrol engines requiring low friction, low viscosity and Low SAPS (Sulphated Ash ≤0.5%) oils, with a minimum HT/HS viscosity of 2.9 cP. (Obsolete)
- C2** Stable, stay in grade oil for use in vehicles fitted with DPFs & TWCs and in high performance diesel and petrol engines requiring low friction, low viscosity and Mid SAPS (Sulphated Ash ≤0.8%) oils, with a minimum HT/HS viscosity of 2.9 cP.
- C3** Stable, stay in grade oil for use in vehicles fitted with DPFs & TWCs and in high performance diesel and petrol engines requiring low friction, low viscosity and Mid SAPS (Sulphated Ash ≤0.8%) oils, with a minimum HT/HS viscosity of 3.5 cP. These oils may also meet A3/B4* and API SN.
- C4** Stable, stay in grade oil similar to C1 but with tighter volatility limits, no lower limit on phosphorus and with a minimum HT/HS viscosity of 3.5 cP.
- C5** Stable, stay in grade oil similar to C2 and C3 but with a lower HT/HS viscosity of 2.6-2.9 cP.
- C6** Provides low speed pre-ignition and wear protection for turbocharged DI gasoline engines as well as diesel turbocharger compressor deposit (TCCD) protection for low SAPS class, being compatible with catalyst & GPF/DPF exhaust after treatment systems.
- C7** Stable, stay-in-grade engine oil for improved fuel economy, with mid-SAPS Level, for DPF compatibility. HTHS viscosity of minimum 2.3 mPa·s. C7 is based on C6 performance levels, but with enhanced fuel economy requirements.
- E2** General purpose oil for naturally aspirated and turbocharged diesel engines, medium to heavy duty service and mostly normal drain intervals. (Obsolete by 2010).
- E4** Stable, stay in grade oil more severe than E7, for significantly extended oil drain intervals. Usually synthetic or predominantly synthetic. Suitable for Euro 3, Euro 4 & Euro 5 engine emission requirements.
- E6** As for E4 but with chemical limits to allow use in engines with particulate filters and SCR NOx reduction systems. Only for diesel fuel with <50ppm sulphur, 1.0% ash, 0.08% phosphorus. Suitable for Euro 4, Euro 5 & Euro 6 engine emission requirements. (Obsolete)
- E7** Designed for use in Euro 3, Euro 4 & Euro 5 emission diesel engines in severe heavy duty service and extended drain intervals, where allowed. More severe than E2/E3 but not as severe as E4.

- E8** Supersedes and is intended to replace E6, with increased emphasis on oxidation stability and aeration performance.
- E9** Designed for Euro 4, Euro 5 & Euro 6 emission diesel engines, with and without DPFs. SAPS limits line up with API CJ-4 & TBN 7 minimum. (Obsolete)
- E11** Supersedes and is intended to replace E9, with increased emphasis on oxidation stability and aeration performance.
- F01** The equivalent of API FA-4.

ACEA specification oils have tighter shear stability and oil volatility requirements than equivalent API specification oils.

ILSAC ENGINE SERVICE CLASSIFICATIONS

ILSAC (International Lubricants Standardisation and Approval Committee) includes the major automobile manufacturers that manufacture vehicles in the USA and Japan. Effectively, ILSAC specifications are the fuel economy version of the API specifications.

- GF-1** Is obsolete.
- GF-2** Is obsolete.
- GF-3** Is obsolete.
- GF-4** Is obsolete.
- GF-5** Is obsolete.
- GF-6A** Is equivalent to API SP (for XW-20 to XW-30).
- GF-6B** Is equivalent to API SP (for XW-16 and under).
- GF-7A** Replaces GF-6A (for XW-20 to XW-30).
- GF-7B** Replaces GF-6B (for XW-16 and under).

ILSAC grades only apply to viscosities XW-30 and under viscosities.

The latest ILSAC specification, GF-7A/B is backwards compatible and is suitable for use in place of earlier ILSAC classifications.

SUMMARY

ILSAC, API and ACEA specifications require a large range of engine and laboratory tests on the oil. Parameters such as high and low temperature wear, oxidation, soot control, oil thickening, deposit control, volatility, stay in grade performance, fuel economy, chemical composition and many others are tested against limits and rated.

In the case of the API, the oil specifications become more severe as the letters climb the alphabet, e.g. SN is more severe than SM. This is not necessarily the case with ACEA as their specifications are more application specific.

GLOBAL SPECIFICATIONS

Developed by ACEA, EMA (Engine Manufacturers Association) & JAMA (Japanese Automobile Manufacturers Association) for diesel oils with different limits to the 'donor' categories.

- HEAVY DUTY:** DHD-1 = E7/CI-4 + JASO tests
- LIGHT DUTY:** DLD-1 = B2 + JASO tests
- DLD-2 = B1 + JASO tests
- DLD-3 = B3 + JASO tests

OEM APPROVALS

Using the correct fluid during the warranty period for a vehicle ensures that you maintain your manufacturer warranty for that vehicle. Using a non-approved oil for servicing during the warranty period can jeopardise the manufacturer's warranty and could lead to engine failure if the product does not meet the OEM specifications for that engine. Penrite has a number of products that are approved by major manufacturers or registered with industry bodies. Below are examples of some of our many approvals.

OTHER FOUR STROKE CLASSIFICATIONS

HEAVY DUTY:

JASO - Japanese Automotive Standards Organization

THEY HAVE 3 HEAVY DUTY CLASSIFICATIONS:

JASO DL-1 Light duty diesel engine oil specification developed for use in engines equipped with an exhaust after treatment device such as a DPF or a catalyst.

JASO DH-1 Heavy duty diesel, higher ash formulation with performance superior to API CF-4. Has additional valve train wear and piston cleanliness requirements.

JASO DH-2 Heavy duty diesel engine oil specification, similar to API CJ-4 and ACEA E9. It was developed for use in engines equipped with an exhaust after treatment device such as a DPF or a catalyst.

MOTORCYCLE:

JASO also have 4 classifications for motorcycle oil, MA, MA1, MA2 and MB. Their differences are determined by a clutch system friction test.

JASO MA Delivers the desired friction performance motorcycles need to prevent slippage in the wet clutch.

JASO MB Delivers to scooters friction performance via friction modifiers in order to provide fuel economy benefits.

MARINE:

NMMA FC-W® Released in 2004 for four stroke outboard oils.

NMMA FC-W® CAT Mid-SAPS oil for four stroke outboard engines with exhaust after treatment catalyst systems.



ACEA LOW AND MID SAPS SPECIFICATIONS

Low and Mid SAPS (Sulphated Ash Phosphorus and Sulphur) engine oils are formulated for modern fuel efficient, low emission engines.

The European body ACEA classes these light duty diesel oils under a "C" grade specification meaning "catalyst compatible", and a numbering system from 1 through to 4. Hence we have ACEA C1, C2, C3, C4, C5 & C6 grade oils, all of which have different chemical and performance standards. The table below shows some of the different chemical requirements for each grade.

ACEA "C" grade oils can be made in various viscosities. ACEA C2 & C3 have similar chemical limits but different HT/HS figures, the lower HT/HS for C2, means it provides better fuel economy, although this HT/HS number is not suitable for all engines.

Some manufacturers also have their own specifications such as Mercedes Benz with MB 229.31/229.51/229.52, BMW Longlife-04 & VW 507 00. The Japanese Standards Organisation also have a specification - JASO DL-1 which is used by some Mazda and Mitsubishi diesels.

REQUIREMENT	ACEA C1 (Low SAPS) - Obsolete	ACEA C2 (Mid SAPS)	ACEA C3 (Mid SAPS)	ACEA C4 (Low SAPS)	ACEA C5 (Mid SAPS)	ACEA C6 (Mid SAPS)	ACEA C7 (Mid SAPS)
Viscosity HTHS @ 150°C	≥ 2.9	≥ 2.9	≥ 3.5	≥ 3.5	≥ 2.6 < 2.9	≥ 2.6 < 2.9	≥ 2.3 < 2.6
Sulphur, Mass %	≤ 0.2	≤ 0.3	≤ 0.3	≤ 0.2	≤ 0.3	≤ 0.3	≤ 0.3
Phosphorus, Mass %	≤ 0.05	≥ 0.07 ≤ 0.09	≥ 0.07 ≤ 0.09	≤ 0.09	≥ 0.07 ≤ 0.09	≥ 0.07 ≤ 0.09	≥ 0.07 ≤ 0.09
Sulphated Ash, Mass %	≤ 0.5	≤ 0.8	≤ 0.8	≤ 0.5	≤ 0.8	≤ 0.8	≤ 0.8

OEM ENGINE OIL SPECIFICATIONS

BMW:

Longlife-98: Special long-life engine oil, approved by BMW. Also meets ACEA A3/B3, API SJ/CD. Usually required for BMWs manufactured before MY 2002. Obsolete since 2009.

Longlife-01: Special BMW approval for full synthetic long-life oil. Product meets ACEA A3/B3 & API: SJ/CD EC-II. Usually required for BMWs built after MY 2002. This specification is based on the N52 engine test and is now obsolete.

Longlife-01 FE: Full synthetic long-life oil with fuel economy properties. Oils meeting this specifications must have a low HTHS viscosity to meet the manufacturer's fuel economy requirements.

Longlife-04: Special BMW approval for full synthetic long-life oil. Viscosities are SAE 0W-30, 0W-40, 5W-30 and 5W-40. Usually required for BMWs equipped with diesel particulate filter (DPF). General performance: ACEA C3. This specification is based on the N52 engine test and now obsolete.

Longlife-12: Special BMW motor oil. Compatible with ACEA C2. Viscosity is SAE 0W-30.

Longlife-14 FE+: Special BMW petrol motor oil. Not allowed for diesel engines. Based on ACEA A1/B1-12.

Longlife-17 FE+: Premium lower SAPS lubricants. They are designed for use in the latest BMW gasoline engines and light-duty diesel engines with gasoline or diesel particulate filters. Typically low HTHS (≥ 2.65cP) SAE 0W-20 based on API Group IV base oils.)

Longlife-19 FE: High-performance, low-viscosity 0W-30 engine oil designed for improved fuel efficiency and engine cleanliness. An evolution of the LL-04 standard, offering increased protection and efficiency. Suitable for both Petrol and Diesel engine types.

Longlife-22 FE++: Special ultra-low viscosity SAE 0W-12 lubricant designed for high-performance, next-generation BMW engines, including mild hybrid systems. Provides enhanced fuel economy and protection. Not backwards compatible with older engines.

CUMMINS:

CES 20071: Cummins Engineering Standard (CES). Heavy duty diesel engine oil specification. For engines without EGR. SAE 15W-40. Complies with API CH-4, API CH-4 + SJ and Global DHD-1.

CES 20072: Heavy duty diesel engine oil specification. Complies with API CH-4, Global DHD-1 & ACEA E5.

CES 20074: Heavy duty engine oil specification. For natural gas B, C, G5.9 & G8.3 engines. SAE 15W-40 or SAE 40.

CES 20075: Heavy duty diesel engine oil specification. Minimum quality for mid-range engines without EGR outside of North America. SAE 15W-40. Complies with API CF-4/SG, JAMA DH-1 & ACEA E2/E3. Oil drain intervals must be reduced to 250 hours/15,000km if CES 20075 oils are used.

CES 20076: Heavy duty diesel engine oil specification. For heavy duty and high horsepower engines without EGR in North America. SAE 15W-40. Complies to API CH-4 with the added requirement of a 300 hour Cummins M11 test.

CES 20077: Heavy duty diesel engine oil specification. For heavy duty and high horsepower engines without EGR in North America. SAE 15W-40. Complies to ACEA E5 with the addition of a 300 hour test to ACEA E5.

CES 20078: Heavy duty diesel engine oil specification. For heavy duty and mid-range engines with EGR. SAE 15W-40 or 10W-30. Complies with API CI-4.

CES 20081: Heavy duty diesel engine oil specification. For heavy duty and mid-range engines with exhaust after-treatments.

CES 20086: Lower Sulphated Ash, Phosphorus and Sulfur (SAPS) engine lubricant designed for use in high performance medium- and heavy-duty diesel engines.

CES 20087: High-performance, low-SAPS (Sulfated Ash, Phosphorus, and Sulfur) lubricant specification designed for modern, fuel-efficient heavy-duty diesel engines, specifically the X15 and X12 models equipped with advanced aftertreatment systems (DPF). It requires a lower high-temperature high-shear (HTHS) viscosity of 2.9-3.2 cP. It aligns with API FA-4 specifications.

FIAT:

9.55535-G1: Qualification for petrol engine lubricants granting fuel economy and extended drain. Synthetic based lubricant.

9.55535-G2: Qualification for petrol engine lubricants with standard characteristics.

9.55535-H2: Qualification for petrol engine lubricants, granting high performances and high viscosity at high temperatures. OEM recommended product also meets API SM, ACEA A3-04/B3-04.

9.55535-H3: Qualification for petrol engine lubricants granting very high performances.

9.55535-D2: Qualification for diesel engine lubricants with standard characteristics.

9.55535-M2: Qualification for lubricants with extended drain. OEM recommended product also meets ACEA B3-04/B4-04, GM-LL-B-025.

9.55535-N2: Qualification for lubricants with a very good characteristics for turbocharged engines, diesel and petrol, with extended drain. Minimum requirement is ACEA A3/B4-04.

9.55535-S1: Qualification for diesel and petrol engine, with exhaust treatment system, lubricants, granting fuel economy and extended drain. OEM recommended product is also approved to ACEA C2.

9.55535-S2: Qualification for diesel and petrol engine, with exhaust treatment system, lubricants, with extended drain. OEM recommended product also meets: ACEA C3-04, MB 229.51 & API SM/CF.

9.55535-GS1: ACEA C2 based, 0W-30 viscosity, Mid-SAPS engine oil for the latest petrol engines of the Fiat Group (Fiat, Alfa-Romeo, Lancia).

9.55535-DS1: ACEA C2 based, 0W30 viscosity, Mid-SAPS engine oil for the latest diesel engines of the Fiat Group (Fiat, Alfa-Romeo, Lancia).

FORD:

M2C171-F1: Engine oil meeting the requirements of API CK-4 with additional Ford requirements. Particularly recommended for use in Ford Power Stroke diesel engines.

M2C913-A: Engine oil, initial and service fill, SAE 5W-30. This specification meets the ILSAC GF-2, ACEA A1-98 & B1-98 and additional Ford requirements.

M2C913-B: Engine oils used for lubrication of spark ignition engines using petrol and for compression ignition engines using diesel fuels. The oil shall meet all the requirements of the ILSAC GF-2 & GF-3 specification, the ACEA A1-98 & B1-98 specification and additional Ford requirements.

M2C913-C: Fully backwards compatible and is strongly recommended for all applications that require the specification and M2C913-B. Provides various benefits to the customer such as improved fuel economy benefits and high robustness to biodiesel fuels. General requirements: ACEA A5/B5.

M2C913-D: High-performance 5W-30 synthetic engine oil specification designed for Ford diesel and gasoline engines, offering improved fuel economy, high shear stability, and superior sludge protection. It is mandatory for most modern Ford diesel vehicles (post-2011) and provides backward compatibility with older M2C913-A/B/C specs. It meets ACEA A5/B5 specifications with a higher TBN for long life durability.

M2C917-A: Viscosity SAE 5W-40 engine oil for pump injector diesel engines. Ford's code for VW specification 505 01. Equivalent performance includes ACEA A3/B4/C3.

M2C934-B: Extended drain engine oil for vehicles equipped with diesel particulate filter (DPF). General requirement is ACEA CI.

M2C937-A: Special engine oil for Ford Focus RS. Viscosity should be SAE 0W-40. General requirement is ACEA A3/B4.

M2C948-B: Largely based on the ACEA C2 oil sequence this specification requires a low SAPS 5W-20 oil and is primarily designed for the 2012- on, 1.0 liter, 3-cylinder EcoBoost engine. Contains in-house tests for fuel economy and piston deposit control. Oils meeting this spec must provide a 0.9% fuel economy improvement over regular 5W-20 oils.

M2C950-A: Special engine oil for Ford Focus Diesel 2.0 manufactured from September 2014, Ford Mondeo Diesel 2.0 manufactured from 2015 and many other late model Ford diesel vehicles. Viscosity should be SAE 0W-30.

GENERAL MOTORS:

GM-LL-A-025: Special GM approval for long-life engine oil for petrol engines. Viscosity is SAE 0W-30. Product meets ACEA A3/B3. Drain interval can be as long as 30,000km. Recommended for vehicles built before MY2011.

GM-LL-B-025: Special GM approval for long-life engine oil for diesel engines. Viscosity is SAE 5W-40. Product meets ACEA A3/B3/B4. Drain interval can be as long as 50,000km. Recommended for vehicles built before MY2011.

GM dexos1™: Designed with petrol engines from MY 2011 onwards, GM dexos1™ replaced the GM-LL-A-025, GM 6094M & GM 4718M specifications. Compared to ILSAC GF-5, it has stricter requirements regarding piston deposit formation, aeration, oxidation stability, wear, low-temperature pumpability and volatility. SAE 0W-20, 5W-20 & 5W-30. Superseded by dexos1™ Gen 2.

GM dexos1™ Gen 2: Introduced in 2015, replacing GM dexos1™. It is backwards compatible to dexos1™ and offers additional protection against LSPI (Low-Speed Pre-Ignition).

GM dexos1™ Gen 3: Compared to dexos1™ Gen 2, dexos1™ Gen 3 demands stricter performance standards to further reduce oil degradation and deposit formation, as well as improved sludge control, and general engine cleanliness. It also must meet higher standards for turbocharger protection and fuel efficiency.

GM dexos2™: The GM dexos2™ specification replaces both GM-LL-A-025 (petrol) and GM-LL-B-025 (diesel) specifications for the European market. Oils meeting GM dexos2™ are required for vehicles manufactured from MY2011 onward but they are also backwards compatible with older models. This specification is built on the ACEA C3 standard but also contains elements from the ILSAC GF-4 deposit formation test and low-temperature sludge build-up test.

GM dexosD™: Also known as GMW 18006/Opel OVO401547. Replaces GM dexos2™. Intended for use in passenger cars and light duty diesel with diesel or petrol engines. Viscosity is SAE 0W-20.

MERCEDES-BENZ:

The name of the MB specifications derives from the Mercedes Bluebook scheme, divided by numbered paragraphs and pages. It is used by dealers to identify the products certified by the manufacturer and their correct application on the engines.

MB 226.5: This specification is required for Mercedes vehicles with petrol engines supplied by the Renault-Nissan Alliance. Specification requirements are similar to MB 229.5.

MB 226.51: This specification is based on RN0720 and is recommended for Mercedes vehicles with DPF fitted diesel engines supplied by Renault. Oils meeting this specification have very good thermal stability and after-treatment compatibility.

MB 228.1: Heavy duty, diesel engine oil specification for MB engines without ASSYST. Meets ACEA E2 and additional MB demands.

MB 228.3: Heavy duty, multigrade, diesel engine oil specification superceding MB 228.1.

MB 228.31: Heavy duty, low ash, diesel engine oil.

MB 228.5: Heavy duty, multigrade, diesel engine oil specification superceding MB 228.3.

MB 228.51: Heavy duty, diesel engine oil specification applicable for high performance engines meeting Euro 4 emissions standards. Can also be used for Euro 3, Euro 2 and Euro 1 requirements.

MB 229.1: For petrol and diesel engines. Minimum quality required ACEA A2/B2 with additional limits on engine.

MB 229.3: For petrol and diesel engines. Minimum quality required ACEA A3/B3/B4 and MB 229.1. It can only certify O/5 W-X oils.

MB 229.31: Multigrade, low SAPS engine oil, advised or both diesel and petrol engines of Mercedes Benz, Smart and Chrysler. Only low viscosity engine oils which can realize a 1,0% saving on used fuel in the M111 Fuel economy test (CEC L-54-T-96) can get this approval. In this test the fuel savings are compared to the performance of the Reference oil RL 191 (SAE 15W-40).

MB 229.5: MB sheet for energy conserving oils for certain car and van engines. Approved oils must meet ACEA A3, B3 & B4 specification and some additional demands by Daimler Chrysler AG. Oil must be on the approval list.

MB 229.51: Low SAPS long life engine oil for diesel engines with particle filter meeting emission EU-4 -> standards.

MB 229.52: Oils meeting this specifications must have lower ash content, at least 1% better fuel economy compared to the requirements of MB 229.31 & MB 229.51 and better oxidation stability for biofuel compatibility. Can also be used where an MB 229.31 or an MB 229.51 oil is required. Just like MB 229.5 and MB 229.51 this spec requires a long life oil. Specification for BlueTEC OM642.xxx engines.

MB 229.71: Low SAPS engine oil corresponding to ACEA C5 performance.

MB 229.72: Low-viscosity OW-20 engine oil for modern petrol and diesel engines requiring high fuel efficiency. Often paired with ACEA C5/C6 standards, typically used for hybrid engines and Turbo Charged Gasoline Direct Injection (GDI) engines preventing Low-Speed Pre-Ignition (LSPI).

PORSCHE:

Porsche A40: Introduced in 2009 for all Porsche petrol cars from 1994 onwards, except for long drain applications for Cayenne V6.

Porsche C30: Porsche engine oil specification for diesel engines. Equivalent to VW 504 00/507 00.

Porsche C40: 100% synthetic engine oil specification designed for high-performance, modern Porsche engines (typically 2018 onwards) equipped with gasoline particulate filters (GPF). It is a Mid-SAPS (Sulfated Ash, Phosphorus, Sulfur) oil requiring high shear resistance and high thermal stability to prevent engine deposits and sludge.

PSA PEUGEOT-CITROËN:

The French PSA group issued a set of oil specifications in 2009 in order to exercise greater control over the motor oils used in their vehicles. All specifications are based on ACEA specs but also require further conditions to be met.

B71 2290: Peugeot/Citroën engine oil specification introduced in 2009. B71 2290 is a low-SAPS oil intended for engines with diesel particulate filters and with Euro 5 emission standards. General specifications are: ACEA C2 or C3 with additional PSA tests.

B71 2294: Peugeot/Citroën engine oil specification introduced in 2009. Main specification: ACEA A3/B4 with additional PSA tests.

B71 2295: Peugeot/Citroën engine oil standard for engine before MY 1998. General specification: ACEA A2/B2.

B71 2296: Peugeot/Citroën engine oil specification introduced in 2009. General specifications: ACEA A3/B4 + additional PSA tests.

B71 2312: Specification for oils able to endure the most severe thermal constraints along with most modern after-treatment systems compatibility. Applies to all Peugeot and Citroën vehicles equipped with "BlueHDi" Diesel engines fitted with SCR (Selective Catalyst Reduction) allowing NOx (Nitrous oxides) treatment through the use of AdBlue® additive or so-called "diesel exhaust fluid". The standard also requires improved cold flow properties to reduce hydrodynamic friction of the oil, in order to obtain fuel economy benefits especially when the oil is cold. Complies to ACEA C1/C2 with additional PSA requirements.

RENAULT:

RN0700: Renault engine oil specification; introduced in 2007 upon introduction of the Laguna III. General requirements: ACEA A3/B4 or ACEA A5/B5.

RN0710: Renault engine oil specification; introduced in 2007 upon introduction of the Laguna III. General requirements: ACEA A3/B4 + additional Renault demands.

RN0720: Renault engine oil specification; introduced in 2007 upon introduction of the Laguna III. General requirements: ACEA C4 + additional Renault demands. RN0720 is designed for use in the latest generation diesel engines equipped with DPF.

RXD: RXD (Renault Extra Long Drain) is a heavy duty engine oil specification, meeting ACEA E4-99, ACEA E7-04 and Volvo VDS-3. Discontinued in 2013. Can be replaced by RLD-2 or ACEA E6.

RN17: Mid SAPS service fill specification for gasoline and EURO 6 diesel vehicles. Replaces older specifications, RN0700 and RN0710.

VOLKSWAGEN:

VW 500 00: Volkswagen specification for multigrade engine oils for petrol engines with SAE 5W-X/10W-X viscosity. This is an "old" oil specification and is applicable to engines built before model year 2000 (up to August 1999). Oils with an approval made post March 1997 were given an alternative, later VW specification.

VW 501 01: Conventional motor oils suitable for some VW petrol engines built before MY 2000. This is an "old" oil specification and is applicable to engines built before model year 2000 (up to August 1999). Oils with an approval made post March 1997 were given an alternative, later VW specification.

VW 502 00: Oil for petrol engines. Successor of VW 501 01 & VW 500 00 specification. Recommended for those which are subject to arduous conditions. It must not be used for any engines with variable service intervals or any which are referred to under other specifications.

VW 503 00: Long-life petrol engine oil for VW cars with WIV (system for longer service intervals). Also meets ACEA A1, SAE OW-30 or 5W-30 specification.

VW 503 01: This specification is specifically for Audi RS4, Audi TT, S3 and Audi A8 6.0 V12 models with outputs of more than 180bhp, running with variable service intervals (30,000km or 2 years). SAE 5W-30. Now superseded by the VW 504 00 specification.

VW 504 00: Long life petrol specification which supercedes the VW 503 00 & VW 503 01 specifications. VW 504 00 oils are suitable for engines meeting the demands of Euro IV emissions standards.

VW 505 00: Passenger car diesel engine oil specification, minimum performance level CCMC PD-2. Lists viscosities SAE 5W-50, 10W-50/60, 15W-40/50, 20W-40/50 requiring 13% max. evaporation loss and SAE 5W-30/40, 10W-30/40 requiring 15% max. evaporation loss.

VW 505 01: Special engine oil for VW turbo diesel engines with pump-injector-unit and for the V8 common rail turbo diesel engines. Meets ACEA B4 SAE 5W-40 specification.

VW 506 00: These oils are suitable for diesel engines with extended service intervals of up to 50,000km / 2 years. Not for use on engines with a single injector pump. Oil change is indicated by the electronic service indicator. Viscosity is SAE OW-30.

VW 506 01: These oils are especially for "Pumpe-Düse" (unit injector or "PD" engines) running on extended service intervals (30,000 - 50,000km / 24 months). Oil change is indicated by the electronic service indicator.

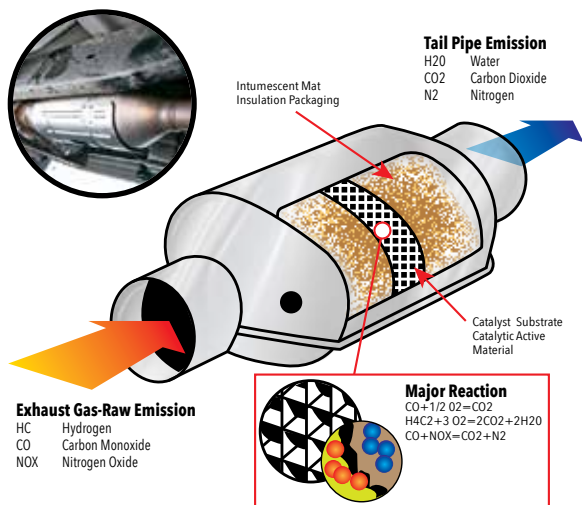
VW 507 00: Low SAPS oils suitable for Euro 4 engines and almost all VAG diesel engines from 2000 onwards with extended service intervals, unitary injector pumps and also Pumpe-Düse ("PD") engines. Excludes V10, R5 engines and VW Commercial vehicles without fitted DPF (diesel particulate filters)-these must use a 50601 specification oil.

VW 508 00: Long life petrol engine oil based on ACEA C5 performance with additional VW tests. SAE OW-20. Not backwards compatible with earlier VW specifications.

VW 509 00: Long life diesel engine oil based on ACEA C5 performance with additional VW tests. SAE OW-20. Not backwards compatible with earlier VW specifications.

DIESEL PARTICULATE FILTERS (DPF) & CORRECT LUBRICANTS

Diesel Particulate Filters (DPF), sometimes known as Catalysed Particulate Filters (CPF), form part of the latest generation systems, designed to clean exhaust emissions in many late model diesel vehicles.



- Exhaust gases enter.
- Particulate matter is trapped by honeycomb patterned filter.
- Cleaner emission gases exit the exhaust.

WHAT DOES A DPF DO AND HOW DOES IT WORK?

- A DPF captures soot and particulates from the exhaust gas until a predetermined amount is reached.
- At set time intervals, it cleans or regenerates itself by burning off captured soot using a high temperature cleaning process.

For optimum performance of the DPF, most vehicles will require a Low or Mid SAPS oil.

WHY DO DPFs NEED LOW OR MID SAPS OILS?

- Ash is produced after combustion and is carried, along with soot, to be trapped by the DPF. Too much ash and it won't be able to be removed during regeneration, thus clogging the filter which can then cause exhaust back pressure and potential engine damage.
- Excessive Phosphorus can poison exhaust system catalysts, reducing their efficiency.
- Excessive Sulphur can poison devices that remove nitrogen oxides from exhaust emissions.

THE EFFECTS OF USING THE INCORRECT OIL IN A DPF

Burnt particulate matter that is starting to block the filter. If the incorrect oil is used, this can block a DPF prematurely and cause expensive repairs.



PARTIALLY BLOCKED DPF

WHY DOES IT NEED CLEANING?

When the regeneration process is not allowed to complete or driving conditions are not suitable, the DPF may become blocked. Penrite Enviro+ DPF Cleaner can assist by lowering the burning temperature of the soot so it burns during regular driving and prevents runaway regeneration.

FUEL COMPATIBLE ENGINE OILS

E85 Fuel is a mixture consisting of 85% ethanol and 15% unleaded petrol. It is important to use engine oils that are compatible with E85 fuel. Oils meeting API SP Resource Conserving, API SN Resource Conserving, ILSAC GF-6A, ILSAC GF-6B and ILSAC GF-5 are best able to handle E85 fuel as a specific test was introduced for oils meeting these specifications for corrosion protection when used with E85 as the fuel.

E10 Fuel is a blend of 90% Unleaded Petrol & 10% ethanol. Many vehicles can run on this blend of fuel and most engine oils, especially those meeting current specifications, with improved additive packs and higher detergency levels, are well suited to providing the protection required.

LPG Fuel (Liquid Petroleum Gas) or dual fuel (Petrol/LPG) powered vehicles need specialised engine oils to counteract effects such as oil nitration and valve seat recession. Oil nitration is the main cause of premature bearing failure in these engines. LPG also runs hotter and dryer than petrol and can cause valve seat recession in engines that are not using a correctly balanced engine oil. LPG oils have effective additives that counter balance the effects of running on LPG.

Diesel Fuel engine oils contain higher quantities of detergents and dispersants to cope with the increased amount of soot created during engine operation. Later model vehicles fitted with DPFs may also need specialised Low or Mid SAPS oils.

Racing Fuels are generally higher octane versions of petrol that provide better engine efficiency and power. Most engine oils can easily cope with high octane fuels, e.g. Avgas.

Methanol/Alcohol Fuels are generally used in motor sport. Most modern oils can provide adequate protection with these fuels providing that the oil does not become too diluted with the fuel. It is recommended that oils used with these fuels, be changed at least after each race meeting.

SHELF LIFE OF OILS

The performance properties of lubricants will remain intact for many years provided they are in protected storage and not exposed to severe high/low temperature cycles and outside contamination. Generally, the simpler the oil formulation, the longer the oil will remain satisfactory. As a rule, shelf life of lubricants is around 5 years, if stored correctly.

1. HYDRAULIC/FOOD GRADE/COMPRESSOR/TURBINE AND GENERAL PURPOSE LUBRICATING OILS:

These oils contain low but very effective additive treatments. They may be stored for 3 years under protected conditions without any significant deterioration in performance.

2. ENGINE/MOTOR OILS & TRANSMISSION OILS:

Although these oils contain high additive contents, they are extremely stable. They may be stored for 5 years under protected conditions without any significant deterioration in performance. However, as the industry is always developing new specifications, these oils may be out of date by the time they are fully used.

3. INDUSTRIAL AND AUTOMOTIVE GEAR OILS:

These highly additised formulations can occasionally exhibit some long term instability. Under protected conditions, they should only be stored for 3 years.

FEATURES & BENEFITS



FULL ZINC

Zinc is part of an anti-wear additive used to coat metal surfaces and be a sacrificial agent against wear. Penrite products containing Full Zinc have between 1000 - 1600 ppm (parts per million) of zinc.

Penrite 10 Tenths Racing (10, 15, 20) and Premium Full Synthetic Oils (5, 10) contain Full Zinc+, which have optimised zinc levels plus boron, to lift the total level of the anti-wear package to over 1800+ ppm for Premium Full Synthetic 5 and 10 and up to 2200+ ppm for the 10 Tenths Racing products. Together with Full Zinc and Extra Ten, this combination provides a double layer of engine wear protection over normal engine oils at operating temperature.

EXTRA TEN

Extra Ten technology is available in all HPR and 10 Tenths range of engine oils. Extra Ten is an increase in the oil's operating temperature viscosity over the normal SAE or manufacturer recommended rating i.e. HPR 10 (10W-50) vs 10W-40. Extra Ten technology was developed over 30 years ago due to local driving conditions and the harsh Australian climatic environment.

It is particularly effective when engines are under load such as when towing and working in harsh conditions.



SHEAR FREE

As engine oils are compressed and pulverised by the workings of an engine, the VI improvers in the oil are cut or sheared, losing their ability to expand when heated which affects the oil's multigrade viscosity. Penrite 10 Tenths Racing oils feature Shear Free technology that prevents viscosity loss.

This unique benefit and the 100% PAO & Ester full synthetic technology provides ultimate engine performance and protection.

100% PAO & ESTER FULL SYNTHETIC

Blended using premium full synthetic 100% PAO (Poly Alpha Olefin) Group IV & Ester Group V base oils for maximum heat resistance and high performance.

PAO (Poly Alpha Olefin) is extremely pure due to its complex petro-chemical manufacturing process. As a result, the chemical structure formation is "flat" compared to lower grade full synthetic chain structures.

Having a "flat" oil structure creates less friction which allows the oil to effectively become "more slippery."

The combination of 100% PAO & Ester together with our premium additives, provides the ultimate protection against oxidation due to their outstanding heat resistance.

Other product benefits include oil pressure stability, longer engine life and greater engine performance.

LOW EMISSIONS

Enviro+ is a wide range of highly advanced, full synthetic, Low and Mid SAPS engine oils that have been developed for late model low emission fuel efficient passenger, light and heavy duty vehicles including those fitted with Diesel Particulate Filters (DPFs).

The range covers petrol, E85 and diesel fuel types. Many of these products are OEM Approved and will not void vehicle warranties, when used in appropriate applications.



ENGINE OIL

UNDERSTANDING THE PRODUCT LABEL



- | | | | |
|-----------------------------------|---------------------------|---|--|
| 1 CELEBRATING 100 YEARS | 5 VISCOSITY | 9 VEHICLE APPLICATION SYMBOLS | 13 REPLACEMENT VISCOSITY RECOMMENDATIONS |
| 2 PRODUCT NAME | 6 WARRANTY APPROVAL STAMP | 10 OFFICIAL OIL & LUBRICANT PARTNER FOR SUPERCARS BATHURST 1000 | 14 KEY BENEFITS |
| 3 BASE OIL INDICATOR | 7 PRODUCT INFORMATION | 11 PRODUCT CODE | 15 KEY SPECIFICATIONS & OEM APPROVALS |
| 4 VEHICLE APPLICATION DESCRIPTION | 8 AUSTRALIAN OWNED | 12 PACK SIZE | 16 ABOUT US - PENRITE OIL 100 YEAR STORY |

INDUSTRY & OEM APPROVALS/LICENSES

Penrite prides itself in having a number of products that are approved by major manufacturers or registered with industry bodies. Below are examples of some of our many approvals:

PRODUCT	INDUSTRY & OEM APPROVALS/LICENSES
HPR 5	• API SQ Licensed • MB-Approval 229.5
ENVIRO+ 0W-20	• API SQ Licensed • ILSAC GF-7A Licensed
ENVIRO+ 5W-30	• Approved under VW Standard 504 00 & 507 00
ENVIRO+ 5W-40	• API SQ Licensed • MB-Approval 229.51
ENVIRO+ 10W-40	• MB-Approval 228.52
ENVIRO+ C3	• MB-Approval 229.52
ENVIRO+ C5	• API SQ Licensed • ILSAC GF-7A Licensed
ENVIRO+ G4 FE	• Approved under VW Standard 508 00 & 509 00
ENVIRO+ GF-S	• API SQ Licensed • ILSAC GF-7A Licensed
ENVIRO+ HYBRID	• API SP Resource Conserving Licensed • ILSAC GF-6B Licensed
CONVOY ULTRA HD 15W-40	• API CK-4 Licensed • Cummins CES 20086 • DFS Oil Specification 93K222 • DTFR 15C100 • Mack EOS-4.5 Approval • Renault Trucks RLD-3 Approval • Volvo VDS-4.5 Approval
MARINE OUTBOARD 2 STROKE	• NMMA TC-W3® Registration Number RL-00419J
MARINE OUTBOARD 4 STROKE 10W-30	• NMMA FC-W® Registration Number FC-38116W
MARINE OUTBOARD 4 STROKE 10W-40	• NMMA FC-W® Registration Number FB-13811W
MARINE INBOARD 4 STROKE 25W-40	• NMMA FC-W® Registration Number FB-13827W
MARINE FULL SYNTHETIC 10W-40	• NMMA FC-W® Registration Number FB-781778Y

LOOK FOR THESE LOGOS



All information provided is correct at time of printing. Visit penriteoil.com.au for the most up-to-date information.

AUTOMOTIVE ENGINE OIL RANGE

CHOOSE THE RIGHT ENGINE OIL FOR YOUR VEHICLE

PRO

TRADE ONLY

- ✓ Designed specifically for workshops
- ✓ Full Synthetic, Semi Synthetic and Premium Mineral
- ✓ Latest industry performance standards

ENVIRO+

- ✓ Application specific
- ✓ Full Synthetic Low and Mid SAPS
- ✓ Latest API and ACEA specifications
- ✓ Catalyst and DPF compatible oils with fuel saving benefits
- ✓ Manufacturer approved to maintain vehicle warranty

HPR

- ✓ Premium
- ✓ Full Synthetic, Semi Synthetic and Premium Mineral
- ✓ Latest API and ACEA specifications
- ✓ Double layer of engine wear protection with Full Zinc and Extra Ten technology
- ✓ Manufacturer approved to maintain vehicle warranty

10TENTHS

100% PERFORMANCE

- ✓ High performance and competition
- ✓ Full Synthetic PAO & Ester base oils (Racing and Premium ranges)
- ✓ Shear free (Racing range) offers start up protection, maintains oil pressure and eliminates viscosity loss
- ✓ Full Zinc+ anti-wear additive package

EVERYDAY

- ✓ Everyday motoring
- ✓ Full Synthetic, Semi Synthetic and Premium Mineral
- ✓ Latest industry performance standards

ENGINE OIL RANGE SUMMARY

BRAND RANGE	PRODUCT NAME	PRODUCT CODE	FULL SYNTHETIC 100% PAO ESTER	FULL SYNTHETIC	FULL SYNTHETIC LOW - MID SAPS	SEMI SYNTHETIC	PREMIUM MINERAL	SAE GRADE	API	ACEA	JASO / ILSAC	OEM APPROVED	PETROL / E10	LPG / DUAL FUEL	E85 FUEL	LIGHT DUTY DIESEL	HEAVY DUTY DIESEL	ZINC PPM
PRO	PRO ZERO NEW	PROZERO020 (NZ)/020BOX/205	✓					0W-20	SQ		ILSAC GF-7A	✓	✓	✓	✓	✓	✓	890
	PRO 5	PRO5020/020BOX/060/205/1000LTR		✓				5W-30	SQ	C2/C3		✓	✓	✓	✓	✓	✓	890
	PRO LITE NEW	PROLITE205			✓			10W-40	SQ		ILSAC GF-7A	✓	✓	✓	✓	✓	✓	860
	PRO EU 5W-30	PROEU020/020BOX/060/205		✓				5W-30	SN	C3		✓	✓	✓	✓	✓	✓	880
	PRO EU 5W-40 NEW	PROEU5W40020/060/205		✓				5W-40	SN	C3		✓	✓	✓	✓	✓	✓	890
	PRO ULTRA	PROULTRA020/020BOX/060/205		✓				5W-40	SQ	C3		✓	✓	✓	✓	✓	✓	890
	PRO 10	PRO10205		✓				10W-30	SQ		ILSAC GF-7A	✓	✓	✓	✓	✓	✓	850
	PRO EXTRA	PROEXTRA020/020BOX/060/205		✓				10W-40	SQ	A3/B4		✓	✓	✓	✓	✓	✓	1090
	PRO DIESEL NEW	PRODSL15W40020/205				✓		15W-40	CI-4/SN	E7	JASO DH-1	✓	✓	✓	✓	✓	✓	1090
	PRO 15 PLUS	PRO15PLUS020/060/205			✓			15W-50	SP	A3/B4		✓	✓	✓	✓	✓	✓	1050
	PRO 20	PRO20020				✓		20W-50	SM/CF			✓	✓	✓	✓	✓	✓	1080
	ENVIRO+ 0W-20	EPLUSOW20001/005/005BOX/010BOX/020/020BOX/060/205		✓				0W-20	SQ		ILSAC GF-7A	✓	✓	✓	✓	✓	✓	850
	ENVIRO+ 5W-20	EPLUSW20001/005/005BOX/007/010BOX/020/020BOX/060/205		✓				5W-20	SN/CF	C5	ILSAC GF-5	✓	✓	✓	✓	✓	✓	890
	ENVIRO+ 5W-30	EPLUSW30001/005/007/010/020/020BOX/060/205		✓				5W-30	SP	C3		✓	✓	✓	✓	✓	✓	850
	ENVIRO+ 5W-40	EPLUSW40001/005/006/007/010/020/020BOX/060/205/1000LTR		✓				5W-40	SQ	C3		✓	✓	✓	✓	✓	✓	890
	ENVIRO+ 10W-40	EPLUS10W40001/005/007/010/010BOX/020		✓				10W-40	CK-4	E11		✓	✓	✓	✓	✓	✓	890
	ENVIRO+ C1	EPLUSC1005/010/020/020BOX/205		✓				5W-30		C1		✓	✓	✓	✓	✓	✓	500
	ENVIRO+ C2	EPLUSC2001/005/007/010/020/020BOX/060/205/1000LTR		✓				0W-30	SP	C2		✓	✓	✓	✓	✓	✓	890
ENVIRO+ C3	EPLUSC3001/005/007/010/020/020BOX/060/205		✓				5W-30	SQ	C3		✓	✓	✓	✓	✓	✓	820	
ENVIRO+ C4	EPLUSC4001/005/007/010/020/020BOX/060/205		✓				5W-30		C4		✓	✓	✓	✓	✓	✓	770	
ENVIRO+ C5	EPLUSC5001/006/007/010/020/020BOX/205		✓				0W-20	SQ	C5/C6	ILSAC GF-7A	✓	✓	✓	✓	✓	✓	820	
ENVIRO+ EU 5W-30	EPLUSEU001/005/010BOX		✓				5W-30	SN	C3		✓	✓	✓	✓	✓	✓	880	
ENVIRO+ EU 5W-40 NEW	EPLUSEU5W40007		✓				5W-40	SN/CF	C3		✓	✓	✓	✓	✓	✓	890	
ENVIRO+ G4 FE NEW	EPLUSG4FE001/005/020		✓				0W-20	SN PLUS	C5		✓	✓	✓	✓	✓	✓	880	
ENVIRO+ GF-S	EPLUSGF5001/005/005BOX/007/010/020/020BOX/060/205		✓				5W-30	SQ		ILSAC GF-7A	✓	✓	✓	✓	✓	✓	820	
ENVIRO+ HYBRID	EPLUSHYBOW16005/020		✓				0W-16	SP R/C		ILSAC GF-6B	✓	✓	✓	✓	✓	✓	890	
ENVIRO+ R17 NEW	EPLUSR17007/020		✓				5W-30	SP	C2/C3		✓	✓	✓	✓	✓	✓	830	
HPR 0	HPR00005/020		✓				0W-30	SQ	A5/B5		✓	✓	✓	✓	✓	✓	850	
HPR 5	HPR05001/005/005BOX/006/007/010/010BOX/020/020BOX/060/205		✓				5W-40	SQ	A3/B4		✓	✓	✓	✓	✓	✓	1240	
HPR 10	HPR10001/005/006/007/010/020/060/205		✓				10W-50	SQ	A3/B4		✓	✓	✓	✓	✓	✓	1080	
HPR 15	HPR15001/005/020/205		✓				15W-60	SQ	A3/B4		✓	✓	✓	✓	✓	✓	1080	
HPR 30	HPR30001/005/020/060/205				✓		20W-60	SM/CF			✓	✓	✓	✓	✓	✓	1530	
HPR 40	HPR40005				✓		25W-70	SL			✓	✓	✓	✓	✓	✓	1450	
HPR 50	HPR50005/020				✓		40-70	SL			✓	✓	✓	✓	✓	✓	1450	
HPR DIESEL 5	HPRD5001/005/007/010/020/020BOX/060/205		✓				5W-40	CI-4 PLUS/SL	A3/B4	JASO DH-1	✓	✓	✓	✓	✓	✓	1090	
HPR DIESEL 10	HPRD10001/005/007/010/010BOX/020/020BOX/060/205		✓				10W-40	CI-4/SL	A3/B4	JASO DH-1	✓	✓	✓	✓	✓	✓	1090	
HPR DIESEL 15	HPRD15001/005/007/010/020/060/205		✓				15W-50	CI-4/SL	A3/B4	JASO DH-1	✓	✓	✓	✓	✓	✓	1090	
HPR DIESEL	HPRD005/010/020		✓				20W-60	CI-4/SL	A3/B3	JASO CD Plus	✓	✓	✓	✓	✓	✓	1090	
HPR GAS 10	HPRG10005			✓			10W-50	CI-4/SL	A3/B4		✓	✓	✓	✓	✓	✓	1090	
RACING 5	RACING5W30005/020		✓				5W-30	SN			✓	✓	✓	✓	✓	✓	1800	
RACING 10	RACING10W40005/020		✓				10W-40	SN/CF			✓	✓	✓	✓	✓	✓	1680	
RACING 15	RACING15W50005/020		✓				15W-50	SN/CF			✓	✓	✓	✓	✓	✓	1680	
RACING 20	RACING20W60005/020		✓				20W-60	SN/CF			✓	✓	✓	✓	✓	✓	1680	
RUNNING-IN OIL 15W-40	RUN005					✓	15W-40	SF/CC			✓	✓	✓	✓	✓	✓	3500	
RUNNING-IN OIL 20W-50 NEW	RUN20W50005					✓	20W-50				✓	✓	✓	✓	✓	✓	3500	
PREMIUM 0	FSOW40005/020		✓				0W-40	SP	A3/B4		✓	✓	✓	✓	✓	✓	1020	
PREMIUM 10	FS10W60005/020/205		✓				10W-60	SN/CF		JASO MA2	✓	✓	✓	✓	✓	✓	1240	
EDS 5	EDS05001/004 (NZ)/006/007/010/020/020BOX/060/205		✓				5W-30	SP	A5/B5		✓	✓	✓	✓	✓	✓	1050	
EDS 10	EDS10001/004 (NZ)/006/007/010		✓				10W-40	SP	A3/B4	JASO MA2	✓	✓	✓	✓	✓	✓	1080	
EVERYDAY 10W-30	ED10W30005			✓			10W-30	SP R/C		ILSAC GF-6A	✓	✓	✓	✓	✓	✓	850	
EVERYDAY 10W-40	ED10W40001/004 (NZ)/005/006			✓			10W-40	SP/SN PLUS	A3/B4	JASO MA2	✓	✓	✓	✓	✓	✓	1080	
EVERYDAY 15W-40	ED15W40001/004 (NZ)/005			✓			15W-40	SN/CF	A3/B4		✓	✓	✓	✓	✓	✓	1050	
PMO 10	PMO10005				✓		10W-30	SP R/C		ILSAC GF-6A	✓	✓	✓	✓	✓	✓	780	
PMO 15	PMO15005				✓		15W-40	SP			✓	✓	✓	✓	✓	✓	910	
PMO 20	PMO20005				✓		20W-50	SN/CF			✓	✓	✓	✓	✓	✓	1080	
STOPS OIL BURNING 30-70	PMO30005				✓		30-70	SJ			✓	✓	✓	✓	✓	✓	1450	



Bazza

PENRITE
PRO EXTRA
100W-40
FULL SYNTHETIC
PETROL & DIESEL

PRO

TRADE ONLY

The Penrite Pro range of engine oils has been specifically developed for workshops, car dealerships and professional vehicle service and repair centres. This professional range of oils has been blended to meet the oil specifications for most Australia, US, European, Korean and Japanese produced vehicles.

BENEFITS

- Designed especially for workshops and garages
- Latest additive technology
- For use in petrol and light duty diesel engines
- Latest API and ACEA industry specifications for better wear protection, improved sludge protection & less piston deposits
- Synthetic, Semi Synthetic & Mineral based product range
- Multi vehicle specification oils to lower inventory costs
- Available in 20L, 60L, 205L and bulk sizes
- Pumping to storage tanks available
- Nationwide support and technical service
- Dedicated Penrite Pro app
- Specialised equipment available

PRODUCTS

		LITRES				
		20	20 BOX	60	205	1000
Pro Zero	NEW	●	●		●	
Pro 5		●	●	●	●	●
Pro Lite	NEW				●	
Pro EU 5W-30		●	●	●	●	
Pro EU 5W-40	NEW	●		●	●	
Pro Ultra		●	●	●	●	
Pro 10					●	
Pro Extra		●	●	●	●	
Pro Diesel	NEW	●			●	
Pro 15 Plus		●		●	●	
Pro 20		●				

● AVAILABLE PACK SIZE



PRO ZERO NEW

20L - PROZERO020 | 20L BOX - PROZERO020BOX | 205L - PROZERO205

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-20

BENEFITS

- Improved wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Reduced turbo charger deposits
- Suitable for 0W-16 & 5W-20
- For E85, hybrid, LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SQ
- ✓ ILSAC GF-7A



PRO 5

20L - PRO5020 | 20L BOX - PRO5020BOX | 60L - PRO5060 | 205L - PRO5205 | 1000L - PRO51000LTR

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Greater heat resistance & high performance
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Catalytic converter compatible
- Suitable for 5W-20 & 7.5W-30
- For diesel (including those with DPFs), hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C2/C3
- ✓ API SQ
- ✓ Fiat 9.55535-S3
- ✓ ILSAC GF-5
- ✓ MB 229.31
- ✓ VW 502 00/505 00



PRO LITE NEW

205L - PROLITE205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Improved wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Reduced turbo charger deposits
- Suitable for 10W-30
- For E85, hybrid, LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SQ
- ✓ Chrysler MS-6395
- ✓ ILSAC GF-7A

PRO EU 5W-30

20L - PROEU020 | 20L BOX - PROEU020BOX | 60L - PROEU060 | 205L - PROEU205



BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Long engine oil drain intervals
- Maintains OEM performance outside of warranty period
- Improved protection for emission control devices
- For diesel (including those with DPFs) & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SN
- ✓ BMW LL-04
- ✓ MB 229.31/229.51
- ✓ Porsche C30
- ✓ VW 504 00/507 00

PRO EU 5W-40 NEW

20L - PROEU5W40020 | 60L - PROEU5W40060 | 205L - PROEU5W40205



BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- Designed for high mileage vehicles to reduce oil consumption
- Exceeds many manufacturer product vehicle specifications
- Long life extended engine oil drain intervals
- For diesel (including those with DPFs), LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SN
- ✓ VW 504 00/507 00

PRO ULTRA

20L - PROULTRA020 | 20L BOX - PROULTRA020BOX | 60L - PROULTRA060 | 205L - PROULTRA205



BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Long engine oil drain intervals
- Improved protection for emission control devices
- Suitable for 5W-30 & 10W-30
- For diesel (including those with DPFs) & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SQ
- ✓ BMW LL-04
- ✓ Chrysler MS-11106
- ✓ Fiat 9.55535-S2
- ✓ Ford M2C917-A
- ✓ GMW 16177 (dexos2™)
- ✓ MB 229.31/229.51
- ✓ Porsche A40
- ✓ VW 502 00/505 00/505 01



PRO 10

205L - PRO10205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Fuel saving
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Suitable for 7.5W-30
- For E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SQ
- ✓ Chrysler MS-6395
- ✓ Ford M2C910-A/M2C929-A/M2C946-A
- ✓ GM 6094M/9986231
- ✓ ILSAC GF-7A



PRO EXTRA

20L - PROEXTRA020 | 20L BOX - PROEXTRA020BOX | 60L - PROEXTRA060 | 205L - PROEXTRA205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Reduces oil consumption & maintains oil pressure
- Suitable for 10W-30
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SQ
- ✓ MB 229.1
- ✓ Renault RN 0700
- ✓ VW 500 00/501 01/502 00/505 00



PRO DIESEL NEW

20L - PRODSL15W40020 | 205L - PRODSL15W40205

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Excellent protection of engine parts
- Resists oxidation and oil thickening
- Shear stable viscosity modifier maintains oil viscosity in service
- Mid Ash formulation controls combustion chamber deposits
- Suitable for use in mixed fleets, reducing the chance of misapplication

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ ACEA E7
- ✓ API CI-4/SN

PRO 15 PLUS

20L - PRO15PLUS020 | 60L - PRO15PLUS060 | 205L - PRO15PLUS205



BASE OIL: Semi Synthetic

VISCOSITY: SAE 15W-50

BENEFITS

- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Reduces oil consumption & maintains oil pressure
- Suitable for 15W-40, 20W-40 & 20W-50
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SP
- ✓ VW 501 01

PRO 20

PRO20020



BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-50

BENEFITS

- Superior performance to older specification engine oils
- Full Zinc anti-wear additive package
- Reduces oil consumption & maintains oil pressure
- Suitable for 20W-40
- For diesel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SM/CF



ENVIRO+TM

Enviro+ engine oils are a range of highly advanced, full synthetic, Low and Mid SAPS engine oils that have been developed for late model fuel efficient low emission passenger, light and heavy duty vehicles including those fitted with DPFs. The Enviro+ range has been developed to provide long lasting protection for vehicles with extended oil drain intervals as well as providing OEM approved products to satisfy new vehicle warranty requirements. The range covers petrol, E85 and diesel fuel types.

BENEFITS

- Designed for low emission engines
- Full Synthetic
- Latest API and ACEA industry specifications
- Vehicle manufacturer approvals
- Maximises DPF and exhaust catalyst life
- Fuel saving technology on selected products
- E85 fuel compatible for selected products

PRODUCTS

	LITRES											
	1	5	5 BOX	6	7	10	10 BOX	20	20 BOX	60	205	1000
Enviro+ 0W-20	●	●	●				●	●	●	●	●	
Enviro+ 5W-20	●	●	●		●		●	●	●	●	●	
Enviro+ 5W-30	●	●			●	●		●	●	●	●	
Enviro+ 5W-40	●	●		●	●	●		●	●	●	●	●
Enviro+ 10W-40	●	●			●	●	●	●				
Enviro+ C1		●				●		●	●		●	
Enviro+ C2	●	●			●	●		●	●	●	●	●
Enviro+ C3	●	●			●	●		●	●	●	●	
Enviro+ C4	●	●			●	●		●	●	●	●	
Enviro+ C5	●			●	●	●		●	●		●	
Enviro+ EU 5W-30	●	●					●					
Enviro+ EU 5W-40	NEW				●							
Enviro+ G4 FE	NEW	●						●				
Enviro+ GF-S	●	●	●		●	●		●	●	●	●	
Enviro+ Hybrid		●						●				
Enviro+ R17	NEW				●			●				
CARTON QTY	6	4	4	3								

● AVAILABLE PACK SIZE



ENVIRO+ 0W-20

1L - EPLUS0W20001 | 5L - EPLUS0W20005 | 5L BOX - EPLUS0W20005BOX | 10L BOX - EPLUS0W20010BOX | 20L - EPLUS0W20020 | 20L BOX - EPLUS0W20020BOX | 60L - EPLUS0W20060 | 205L - EPLUS0W20205

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-20

BENEFITS

- API licensed for quality assurance
- Latest oil specification technology
- Improved engine durability, better fuel economy & increased wear protection
- Long engine oil drain intervals
- Maximum engine life
- Mid SAPS additive technology
- For E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ API SQ
- ✓ ILSAC GF-7A

PERFORMANCE LEVELS

- ✓ Chrysler MS-6395
- ✓ Ford M2C945-A/M2C947-A
- ✓ GMW 16182



ENVIRO+ 5W-20

1L - EPLUS5W20001 | 5L - EPLUS5W20005 | 5L BOX - EPLUS5W20005BOX | 7L - EPLUS5W20007 | 10L BOX - EPLUS5W20010BOX | 20L - EPLUS5W20020 | 20L BOX - EPLUS5W20020BOX | 60L - EPLUS5W20060 | 205L - EPLUS5W20205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-20

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Long engine oil drain intervals
- Extended exhaust catalyst and oxygen sensor life
- Emissions system friendly
- Highly shear stable
- Mid SAPS additive technology
- For hybrid & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C5
- ✓ API SN/CF
- ✓ Chrysler MS-6395
- ✓ Ford M2C946-A/M2C948-B
- ✓ GM 4718M/6094M
- ✓ ILSAC GF-5
- ✓ STJLR.03.5004/STJLR.51.5122



ENVIRO+ 5W-30

1L - EPLUS5W30001 | 5L - EPLUS5W30005 | 7L - EPLUS5W30007 | 10L - EPLUS5W30010 | 20L - EPLUS5W30020 | 20L BOX - EPLUS5W30020BOX | 60L - EPLUS5W30060 | 205L - EPLUS5W30205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- OEM approved
- Long engine oil drain intervals
- Maintains fuel economy
- Mid SAPS additive technology
- For diesel (including those with DPFs) & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ Approved under VW Standard 504 00/507 00

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SP
- ✓ BMW LL-04
- ✓ Chrysler MS-11106
- ✓ Fiat 9.55535-S3
- ✓ MB 229.31/229.51
- ✓ Porsche C30



ENVIRO+ 5W-40

1L - EPLUS5W40001 | 5L - EPLUS5W40005 | 6L - EPLUS5W40006 | 7L - EPLUS5W40007 |
 10L - EPLUS5W40010 | 20L - EPLUS5W40020 | 20L BOX - EPLUS5W40020BOX |
 60L - EPLUS5W40060 | 205L - EPLUS5W40205 | 1000L - EPLUS5W401000LTR

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- OEM approved
- API licensed for quality assurance
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Mid SAPS additive technology
- For diesel (including those with DPFs) & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ MB-Approval 229.51

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SQ
- ✓ BMW LL-04
- ✓ Fiat 9.55535-S2
- ✓ GMW 16177 (dexos2™)
- ✓ Porsche A40
- ✓ VW 502 00/505 01



ENVIRO+ 10W-40

1L - EPLUS10W40001 | 5L - EPLUS10W40005 | 7L - EPLUS10W40007 | 10L - EPLUS10W40010 |
 10L BOX - EPLUS10W40010BOX | 20L - EPLUS10W40020

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- OEM approved
- API licensed for quality assurance
- Maximises DPF life
- Suitable for 15W-40
- For diesel (including those with DPFs) fuel types

APPROVALS/LICENSES

- ✓ MB-Approval 228.52

PERFORMANCE LEVELS

- ✓ ACEA E11
- ✓ API CK-4
- ✓ Cummins CES 20081
- ✓ Ford M2C171-E
- ✓ MAN 3277CRT/M 3271-1/3477
- ✓ Renault RLD-4
- ✓ Volvo VDS-4/VDS 4.5



ENVIRO+ C1

5L - EPLUSC1005 | 10L - EPLUSC10010 | 20L - EPLUSC10020 | 20L BOX - EPLUSC10020BOX | 205L - EPLUSC10205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Maximises DPF life
- Superior cold start protection
- Extends exhaust catalyst life
- Long engine oil drain intervals
- Emissions system friendly
- Maximises fuel economy
- Low SAPS additive technology
- For diesel (including those with DPFs) fuel types

PERFORMANCE LEVELS

- ✓ ACEA C1
- ✓ Ford M2C934-B
- ✓ JLR STJLR 03.5005



ENVIRO+ C2

1L - EPLUSC2001 | 5L - EPLUSC2005 | 7L - EPLUSC2007 | 10L - EPLUSC2010 | 20L - EPLUSC2020 | 20L BOX - EPLUSC2020BOX | 60L - EPLUSC2060 | 205L - EPLUSC2205 | 1000L - EPLUSC21000LTR

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-30

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Shear stable VI improves help maintain oil viscosity
- Maximum performance & protection
- Long engine oil drain intervals
- Maximises fuel economy
- Latest oil specification technology
- Mid SAPS additive technology
- For diesel (including those with DPFs), LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C2
- ✓ API SP
- ✓ BMW Longlife-12 FE
- ✓ Fiat 9.55535-DS1/9.55535-GS1
- ✓ Ford M2C950-A
- ✓ STJLR.03.5007
- ✓ VW 506 01



ENVIRO+ C3

1L - EPLUSC3001 | 5L - EPLUSC3005 | 7L - EPLUSC3007 | 10L - EPLUSC3010 | 20L - EPLUSC3020 | 20L BOX - EPLUSC3020BOX | 60L - EPLUSC3060 | 205L - EPLUSC3205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- API licensed for quality assurance
- ACEA C2 fuel economy with ACEA C3 wear protection
- Long engine oil drain intervals
- Improved fuel economy
- Latest oil specification technology
- Mid SAPS additive technology
- For diesel (including those with DPFs), LPG & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ MB-Approval 229.52

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SQ
- ✓ BMW LL-04
- ✓ Chrysler MS-11106
- ✓ Fiat 9.55535-S3/9.55535-S1
- ✓ Ford M2C946-A
- ✓ GMW 16177 (dexos2™)
- ✓ MB 229.31/229.51/229.52



ENVIRO+ C4

1L - EPLUSC4001 | 5L - EPLUSC40005 | 7L - EPLUSC40007 | 10L - EPLUSC40010 | 20L - EPLUSC40020 | 20L BOX - EPLUSC40020BOX | 60L - EPLUSC40060 | 205L - EPLUSC40205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Maximises DPF life
- Long engine oil drain intervals
- Extended exhaust catalyst life
- Maximises fuel economy
- Low SAPS additive technology
- For diesel (including those with DPFs) fuel types

PERFORMANCE LEVELS

- ✓ ACEA C4
- ✓ Ford M2C934-B (level)
- ✓ MB 226.51/229.31/229.51
- ✓ Renault RN0720



ENVIRO+ C5

1L - EPLUSC5001 | 6L - EPLUSC5006 | 7L - EPLUSC5007 | 10L - EPLUSC5010 | 20L - EPLUSC5020 | 20L BOX - EPLUSC5020BOX | 205L - EPLUSC5205

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-20

BENEFITS

- API licensed for quality assurance
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Shear stable VI improvers help maintain oil viscosity
- Enhanced LSPI protection
- Extends exhaust catalyst life
- Mid SAPS additive technology
- For diesel, E85, hybrid, LPG & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ API SQ
- ✓ ILSAC GF-7A

PERFORMANCE LEVELS

- ✓ ACEA C5/C6
- ✓ BMW Longlife-17 FE+
- ✓ Ford WSS-M2C947-B1
- ✓ JLR STJLR 03.5006
- ✓ MB 229.71
- ✓ Opel OV0401547

GOT A DPF?



Enviro+ DPF Cleaner is a patented, liquid bimetallic platinum & cerium catalyst, diesel fuel additive specifically formulated to clean blocked DPFs (Diesel Particulate Filters) as well as improve the operation and reduce maintenance of the DPF & emissions control systems in diesel engine applications. Its formulation is soluble and stable in traditional diesel & bio-diesel fuels. It cleans and assists in regeneration of diesel particulate filters (DPFs), reduces engine particle matter, cleans injectors, improves diesel fuel combustion improving fuel economy, engine efficiency and maximising catalyst life. 375mL bottle treats 30L of diesel fuel for 1st stage blockage.

Page 141



ENVIRO+ EU 5W-30

1L - EPLUSEU001 | 5L - EPLUSEU005 | 10L BOX - EPLUSEU010BOX

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Long engine oil drain intervals
- Maintains OEM performance outside of warranty period
- Mid SAPS additive technology
- For E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SN
- ✓ BMW LL-04
- ✓ MB 229.31/229.51
- ✓ Porsche C30
- ✓ VW 504 00/507 00



ENVIRO+ EU 5W-40 **NEW**

7L - EPLUSEU5W40007

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- Designed for high mileage vehicles to reduce oil consumption
- Exceeds many manufacturer product vehicle requirements
- Long engine oil drain intervals
- For diesel (including those with DPFs), LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C3
- ✓ API SN/CF



ENVIRO+ G4 0W-20 **NEW**

1L - EPLUSG4FE001 | 5L - EPLUSG4FE005 | 20L - EPLUSG4FE020

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-20

BENEFITS

- OEM approved
- Formulated with PAO (Poly Alpha Olefin) for maximum performance
- Increased wear protection, minimum sludge formation & reduced piston deposits
- For diesel (including those with DPFs), E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ Approved under VW Standard 508 00/509 00

PERFORMANCE LEVELS

- ✓ ACEA C5
- ✓ API SN Plus
- ✓ Ford WSS-M2C956-A1
- ✓ Porsche C20
- ✓ VW TL 52577



ENVIRO+ GF-S

1L - EPLUSGF5001 | 5L - EPLUSGF5005 | 5L BOX - EPLUSGF5005BOX | 7L - EPLUSGF5007 | 10L - EPLUSGF5010 | 20L - EPLUSGF5020 | 20L BOX - EPLUSGF5020BOX | 60L - EPLUSGF5060 | 205L - EPLUSGF5205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- API licensed for quality assurance
- Latest oil specification technology
- Improved engine durability, better fuel economy & increased wear protection
- Mid SAPS additive technology
- For E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ API SQ
- ✓ ILSAC GF-7A

PERFORMANCE LEVELS

- ✓ Chrysler MS-6395
- ✓ Ford M2C929-A/M2C946-A
- ✓ GM 4718M/6094M
- ✓ GMW 17332 (dexos™ 1 Gen 2)



ENVIRO+ HYBRID

5L - EPLUSHYBOW16005 | 20L - EPLUSHYBOW16020

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-16

BENEFITS

- API licensed for quality assurance
- Latest oil specification technology
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Mid SAPS additive technology
- For hybrid & petrol/E10 fuel types

APPROVALS/LICENSES

- ✓ API SP Resource Conserving
- ✓ ILSAC GF-6B



ENVIRO+ R17 NEW

7L - EPLUSR17007 | 20L - EPLUSR17020

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Reduced Turbo Charger Deposits For diesel (including those with DPFs), hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA C2/C3
- ✓ API SP
- ✓ Fiat 9.55535-S1/9.55535-S2
- ✓ MB 226.52/229.52
- ✓ Peugeot PSA B71 2290
- ✓ Renault RN 0700/RN 0710/RN17



PENRITE
100 YEARS
HPR 10
FULL SYNTHETIC
PETROL & DIESEL
10W-50
EXTRA-TEN

HPR™

Penrite recognises that different engine designs require a range of oils to properly lubricate and protect while preserving the fuel economy or power of the engine. The first consideration is the original oil requirement for start up viscosity at typical ambient conditions. Then the most appropriate oil grade in our range is applied that would ensure good protection at operating temperatures. This is one of the reasons why Penrite engine oils have some of the widest multigrade ranges of any oil company.

Penrite HPR premium quality engine oils are a performance range of engine lubricants designed for Australian conditions. The Penrite HPR range has been engineered with a unique double layer of engine wear protection with Full Zinc and Penrite's advanced Extra Ten technology.

The Penrite HPR range has been developed for use in vehicles from modern compact, multi-valved family cars through to high performance Supercars, racing & competition machines, 4WDs, SUVs, light & heavy commercials.

Penrite's HPR range of engine oils have the "Extra Ten" in the oil's operating temperature viscosity grade which provides for a slightly thicker oil film between the engine components when the engine is at operating temperature.

BENEFITS

- Extra Ten provides an extra layer of protection
- Full Zinc to minimise engine wear (except HPR 0)
- OEM approved
- Latest API and ACEA technology
- Available in multiple sizes to suit most applications

PRODUCTS

	LITRES										
	1	5	5 BOX	6	7	10	10 BOX	20	20 BOX	60	205
HPR 0		●						●			
HPR 5	●	●	●	●	●	●	●	●	●	●	●
HPR 10	●	●		●	●	●		●		●	●
HPR 15	●	●						●			●
HPR 30	●	●						●		●	●
HPR 40		●									
HPR 50		●						●			
HPR Diesel 5	●	●			●	●		●	●	●	●
HPR Diesel 10	●	●			●	●	●	●	●	●	●
HPR Diesel 15	●	●			●	●		●		●	●
HPR Diesel		●				●		●			
HPR Gas 10		●									
CARTON QTY	6	4	4	3							

● AVAILABLE PACK SIZE



HPR 0

5L - HPR00005 | 20L - HPR00020

BASE OIL: Full Synthetic

VISCOSITY: SAE 0W-30

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Less oil consumption
- Enhanced LSPI protection
- Suitable for 0W-20 & 5W-20
- For diesel, hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A5/B5
- ✓ API SQ
- ✓ BMW Longlife-01 FE
- ✓ MB 229.6
- ✓ Volvo VCC 95200356



HPR 5

1L - HPR05001 | 5L - HPR05005 | 5L BOX - HPR05005BOX | 6L - HPR05006 | 7L - HPR05007 | 10L - HPR05010 | 10L BOX - HPR05010BOX | 20L - HPR05020 | 20L BOX - HPR05020BOX | 60L - HPR05060 | 205L - HPR05205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- OEM approved
- API licensed for quality assurance
- Latest oil specification technology
- Suitable for 5W-30 & 10W-30
- For petrol & light duty diesel fuel types

APPROVALS/LICENSES

- ✓ API SQ
- ✓ MB-Approval 229.5

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ BMW LL-01
- ✓ Ford M2C153-H/M2C912-A/M2C913-A/M2C913-B
- ✓ GM 4718M
- ✓ GM-LL-B-025
- ✓ VW 502 00/505 00



HPR 10

1L - HPR10001 | 5L - HPR10005 | 6L - HPR10006 | 7L - HPR10007 | 10L - HPR10010 | 20L - HPR10020 | 60L - HPR10060 | 205L - HPR10205

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-50

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Outstanding protection & longer engine life
- Suitable for 10W-40 & 15W-40
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SQ
- ✓ BMW LL-01/LL-98
- ✓ Ford M2C153-G/M2C905-A3/M2C910-A
- ✓ GM 9986126
- ✓ GM-LL-B-025
- ✓ Holden HN 2100
- ✓ MB 229.1/229.3
- ✓ Peugeot PSA E-02
- ✓ Rover RES.22.OL.22
- ✓ VW 501 01/502 00/505 00



HPR 15

1L - HPR15001 | 5L - HPR15005 | 20L - HPR15020 | 205L - HPR15205

BASE OIL: Full Synthetic

VISCOSITY: SAE 15W-60

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Suitable for 15W-50, 20W-40 & 20W-50
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SQ
- ✓ Ford M2C153-E/M2C902-A3
- ✓ GM 6094M
- ✓ MB 229.1
- ✓ VW 501 01/502 00/505 00



HPR 30

1L - HPR30001 | 5L - HPR30005 | 20L - HPR30020 | 60L - HPR30060 | 205L - HPR30205

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Reduces oil consumption & maintains oil pressure
- Suitable for 20W-40, 20W-50, 25W-60 & SAE 30
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ API SM/CF
- ✓ Ford M2C153-E/M2C902-A3
- ✓ GM 6094M
- ✓ Holden HN 2314
- ✓ MB 228.3/229.1
- ✓ VW 501 01/502 00/505 00



HPR 40

5L - HPR40005

BASE OIL: Premium Mineral

VISCOSITY: SAE 25W-70

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Reduces oil consumption & maintains oil pressure
- Suitable for 25W-50, 25W-60 & SAE 40
- For petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SL



HPR 50

5L - HPR50005 | 20L - HPR50020

BASE OIL: Premium Mineral

VISCOSITY: SAE 40-70

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Prolongs engine life
- Suitable for SAE 50
- For petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SL



HPR DIESEL 5

1L - HPRD5001 | 5L - HPRD5005 | 7L - HPRD5007 | 10L - HPRD5010 | 20L - HPRD5020 | 20L BOX - HPRD5020BOX | 60L - HPRD5060 | 205L - HPRD5205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 5W-40

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Minimises sludge formation
- Suitable for 5W-30, 10W-30 & 10W-40
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API CI-4 Plus/SL
- ✓ Ford M2C153-H/M2C171-C/M2C912-A1/M2C913-B
- ✓ Global DLD-3
- ✓ JASO DH-1
- ✓ MB 228.3
- ✓ Opel B 040 2098
- ✓ Peugeot PSA D-02
- ✓ VW 502 00/505 00



HPR DIESEL 10

1L - HPRD10001 | 5L - HPRD10005 | 7L - HPRD10007 | 10L - HPRD10010 | 10L BOX - HPRD10010BOX | 20L - HPRD10020 | 20L BOX - HPRD10020BOX | 60L - HPRD10060 | 205L - HPRD10205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Minimises sludge formation
- Can replace 10W-30
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API CI-4/SL
- ✓ Ford M2C153-H/M2C171-C
- ✓ Global DLD-3
- ✓ JASO DH-1
- ✓ MB 228.3
- ✓ Opel B 040 2098
- ✓ Peugeot PSA D-02
- ✓ VW 502 00/505 00



HPR DIESEL 15

1L - HPRD15001 | 5L - HPRD15005 | 7L - HPRD15007 | 10L - HPRD15010 | 20L - HPRD15020 | 60L - HPRD15060 | 205L - HPRD15205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 15W-50

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Minimises sludge formation
- Suitable for 15W-40, 20W-40 & 20W-50
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API CI-4/SL
- ✓ Caterpillar ECF-1-a
- ✓ Cummins CES 20078
- ✓ Ford M2C153-G/M2C171-C
- ✓ JASO DH-1
- ✓ Mack EO-N Premium Plus 03
- ✓ MAN 3275
- ✓ MB 228.3
- ✓ Renault RLD-2
- ✓ Volvo VDS-3



HPR DIESEL

5L - HPRD005 | 10L - HPRD010 | 20L - HPRD020

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Minimises sludge formulation
- Suitable for 20W-40, 20W-50 & SAE 30
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B3
- ✓ API CI-4/SL
- ✓ Ford M2C911-A1
- ✓ Global DLD-1
- ✓ JASO CD Plus
- ✓ MAN 3275
- ✓ MB 228.3
- ✓ MTU Type 2
- ✓ Peugeot PSA D-99
- ✓ Renault RLD
- ✓ Volvo VDS-2
- ✓ VW 501 01



HPR GAS 10

5L - HPRG10005

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-50

BENEFITS

- Extra Ten technology provides an extra layer of engine protection
- Full Zinc anti-wear additive package
- Minimises sludge formation
- Suitable for 10W-40, 15W-40 & 15W-50
- For LPG/dual fuel, petrol/E10 & diesel fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API CI-4/SL
- ✓ China National GB 11122-2006
- ✓ Ford M2C153-G/M2C905-A3/M2C910-A
- ✓ Holden HN 2314
- ✓ MB 228.1/229.3
- ✓ Peugeot PSA D-02/E-02
- ✓ VW 501 01/502 00/505 00



100 YEARS

GT INTERCONTINENTAL GT CHALLENGE 100

GT

PENRITE



APEX

Michelin

PIRELLI

Gates

Gates

10 TENTHS™

100% PERFORMANCE

Penrite 10 Tenth's Racing & Premium range are high performance, premium 100% PAO & Ester and full synthetic engine oils that provide the ultimate protection in on-road and competition applications.

Designed, tested and proven in tough Australian conditions. They are used by Factory Race Teams to provide the ultimate in performance and protection.

BENEFITS

- 100% Premium PAO & Ester and full synthetic base oils for ultimate performance (except Running-In Oil & Race Castor Oil)
- Full Zinc+ additive pack for excellent wear protection
- Latest oil specification technology for less wear, sludge and piston deposits
- Competition proven and trusted for performance engines
- Longer oil life in high performance vehicles
- European-standard additive package
- Protects engine at start up
- Shear free formulation reduces viscosity loss (10 Tenth's Racing range and Premium 0 only)

PRODUCTS

	LITRES			
	1	5	20	205
Racing 5		●	●	
Racing 10		●	●	
Racing 15		●	●	
Racing 20		●	●	
Running-In Oil 15W-40		●		
Running-In Oil 20W-50		●		
Race Castor Oil	●		●	
Premium 0 NEW		●	●	
Premium 10		●	●	●
CARTON QUANTITY	6	4		

● AVAILABLE PACK SIZE



RACING 5

5L - RACING5W30005 | 20L - RACING5W30020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Blended for maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 5W-20
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ API SN
- ✓ Chrysler MS-6395
- ✓ Ford M2C910-A/M2C929-A/M2C946-A
- ✓ GM 4718M/6094M/9986231



RACING 10

5L - RACING10W40005 | 20L - RACING5W30020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Blended for maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 10W-30
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ BMW LL-98
- ✓ MB 229.3
- ✓ Porsche GL
- ✓ VW 502 00/505 00



RACING 15

5L - RACING15W50005 | 20L - RACING5W30020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 15W-50

BENEFITS

- Blended for maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 15W-40 & 20W-40
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ BMW LL-98
- ✓ MB 229.1
- ✓ Porsche GL
- ✓ VW 502 00/505 00



RACING 20

5L - RACING20W60005 | 20L - RACING20W60020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 20W-60

BENEFITS

- Blended for maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 20W-50 & 25W-60
- For diesel, LPG/dual fuel, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ BMW LL-98
- ✓ MB 229.1
- ✓ VW 502 00



RUNNING-IN OIL 15W-40

5L - RUN005

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Ultra-High Zinc levels (3500 PPM)
- Non friction modified
- Prevents glazing of the engine cylinder bores
- Suitable for 10W-40 & 20W-40
- For diesel, LPG & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SF/CC



RUNNING-IN OIL 20W-50 **NEW**

5L - RUN20W50005

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-50

BENEFITS

- Ultra-High Zinc levels (3500 PPM)
- No other supplements or additives needed
- Allows ring, camshafts, lifters and overhead gear to bed in correctly
- Suitable for SAE 30, SAE 40 & SAE 50
- For petrol racing and methanol fuel types



RACE CASTOR OIL

1L - RCAS001 | 20L - RCAS020

BASE OIL: Castor/Synthetic Ester

VISCOSITY: SAE 20W-40

BENEFITS

- Soluble in methanol & petrol
- Longer engine life
- Dramatically reduced sticky deposits compared to full castor blends
- Reduced formation of lacquers on engine components
- Suitable for SAE 30 & SAE 40
- For petrol/E10 & racing fuel types



PREMIUM 0

5L - FS0W40005 | 20L - FS0W40020

BASE OIL: PAO & Full Synthetic

VISCOSITY: SAE 0W-40

BENEFITS

- Blended for outstanding protection & longer engine life
- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- OEM approved
- Suitable for 0W-30 & 5W-40
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SP
- ✓ BMW LL-01
- ✓ MB 229.5
- ✓ Porsche A40
- ✓ Renault RN0700/RN0710
- ✓ VW 502 00/505 00



PREMIUM 10

5L - FS10W60005 | 20L - FS10W60020 | 205L - FS10W60205

BASE OIL: 100& PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-60

BENEFITS

- Blended for maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Competition proven
- Suitable for 10W-50 & 15W-50
- For petrol & light duty diesel fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ BMW LL-98
- ✓ JASO MA2
- ✓ MB 229.1
- ✓ VW 502 00



NEED A COOLANT?

10 Tenths Race Coolant Inhibitor (Concentrate) is a red coloured, hybrid-organic, Type "B", non-glycol based corrosion inhibitor concentrate that effectively lowers engine temperatures whilst providing maximum protection against corrosion, cavitation, scaling and oxidation for 3 to 5 years. It can be used as a coolant inhibitor in on and off-road vehicles and in competition and race vehicles where glycol-based products are banned. It has an extremely effective wetting agent that reduces cavitation and heat spot areas inside the engine, allowing for lower running temperatures and preventing engine damage from overheating.

Page 121





EVERYDAY™

Penrite “Everyday” engine oils are high quality full synthetic, semi synthetic, and premium mineral engine lubricants developed to meet the demands of everyday driving in modern passenger cars, light & heavy commercial vehicles.

The range covers ideal viscosity ranges for everyday driving conditions as well as the latest industry specifications as demanded by modern vehicle manufacturers to meet their requirements including extended oil drain periods.

BENEFITS

- Complete engine protection
- Rotary engine compatible oils*
- E85 compatible oils**

* Selected products

** Check PDS for specified products

PRODUCTS

	LITRES									
	1	4	5	6	7	10	20	20 BOX	60	205
EDS 5	●	● (NZ)		●	●	●	●	●	●	●
EDS 10	●	● (NZ)		●	●	●				
Everyday 10W-30			●							
Everyday 10W-40	●	● (NZ)	●	●						
Everyday 15W-40	●	● (NZ)	●							
PMO 10			●							
PMO 15			●							
PMO 20			●							
Stops Oil Burning 30-70			●							
CARTON QUANTITY	6	4	4	3						

● AVAILABLE PACK SIZE



EDS 5

1L - EDS05001 | 4L - EDS05004 (NZ) | 6L - EDS05006 | 7L - EDS05007 | 10L - EDS05010 | 20L - EDS05020 | 20L - EDS05020BOX | 60L - EDS05060 | 205L - EDS05205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Complete engine protection
- Full Zinc anti-wear additive package
- Low shear VI improves reduce oil consumption & maintains oil pressure
- Suitable for 5W-20
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A5/B5
- ✓ API SP
- ✓ Ford M2C912-A/M2C913-D
- ✓ Renault RN0700



EDS 10

1L - EDS10001 | 4L - EDS10004 (NZ) | 6L - EDS10006 | 7L - EDS10007 | 10L - EDS10010

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Complete engine protection
- Full Zinc anti-wear additive package
- Outstanding protection & longer engine life
- Suitable for 10W-30
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SP
- ✓ BMW LL-01
- ✓ JASO MA2
- ✓ MB 229.5
- ✓ VW 501 01/502 00



EVERYDAY 10W-30

5L - ED10W30005

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Reduced turbo charger Deposits
- Fuel saving
- Shear stable VI improvers help maintain oil viscosity
- Suitable for 5W-30
- For E85, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SP Resource Conserving
- ✓ Chrysler MS-6395
- ✓ Ford M2C910-A/M2C929-A/M2C946-A
- ✓ GM 6094M
- ✓ ILSAC GF-6A



EVERYDAY 10W-40

1L - ED10W40001 | 4L - ED10W40004 (NZ) | 5L - ED10W40005 | 6L - ED10W40006

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Complete engine protection
- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Suitable for 10W-30
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SP/SN Plus
- ✓ JASO MA2
- ✓ MB 229.3
- ✓ Renault RN0700/RN0710
- ✓ VW 500 00/501 01/502 00/505 00



EVERYDAY 15W-40

1L - ED15W40001 | 4L - ED15W40004 (NZ) | 5L - ED15W40005

BASE OIL: Semi Synthetic

VISCOSITY: SAE 15W-40

BENEFITS

- Complete engine protection
- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Suitable for 20W-40
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ API SN/CF
- ✓ MB 229.1
- ✓ Renault RN0710
- ✓ VW 501 01/502 00/505 00



PMO 10

5L - PM010005

BASE OIL: Premium Mineral

VISCOSITY: SAE 10W-30

BENEFITS

- Latest oil specification technology
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Better fuel economy & retention
- Blended using premium hydrocracked base oils
- For E85, hybrid, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SP Resource Conserving
- ✓ ILSAC GF-6A



PMO 15

5L - PM015005

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Enhanced LSPI protection
- Reduced turbo charger deposits
- Shear stable VI improves help maintain oil viscosity
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SP



PMO 20

5L - PM020005

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-50

BENEFITS

- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Shear stable VI improves help maintain oil viscosity
- Catalyst & oxygen sensor friendly
- For diesel, LPG/dual fuel & petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF



STOPS OIL BURNING 30-70

5L - PM030005

BASE OIL: Premium Mineral

VISCOSITY: SAE 30-70

BENEFITS

- Protection of engine parts from wear
- Reduces excessive oil consumption
- Resistance to sludge formation
- Catalytic converter compatible
- Maintains oil pressure
- For petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API SJ





SHIFT LOCK

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AUTOMATIC TRANSMISSION FLUIDS

SPECIAL PROPERTIES FOR AUTOMATIC TRANSMISSION FLUIDS

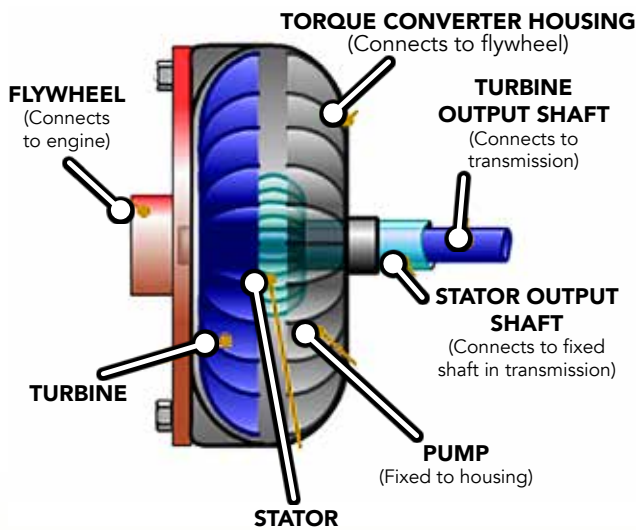
- They're a power transition fluid for the torque converter.
- Act as a hydraulic fluid for hydraulic (and electronic) control systems.
- They must transmit sliding friction energy in bands and clutches. This property varies between transmission makes and is why there are so many different ATFs on the market. Friction is the key.
- They transmit this energy in such a way that the shift is always smooth.

HOW DOES AN AUTOMATIC TRANSMISSION WORK?

Automatic transmissions do not have a solid style conventional clutch like manual transmissions. Instead, they use a fluid coupling called a torque converter to transmit power from the engine to the transmission.

The changes in the ratios by the planetary gear sets (as distinct from hypoid or bevel type used in differentials or manual gearboxes), are done through the combined use of multiple disc clutches, one-way clutches and bands. These are the friction elements.

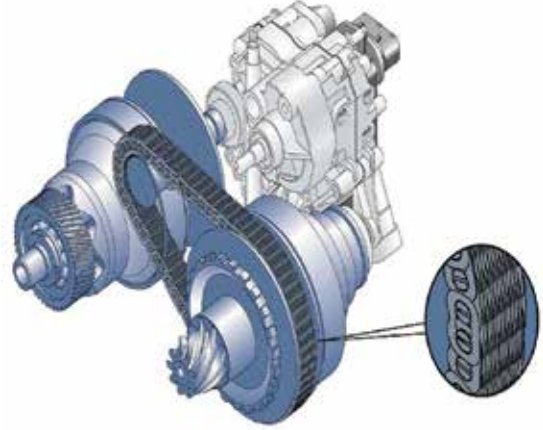
The shift points are now electronically controlled (instead of simple hydraulic pressure) and these electronics in the valve bodies are also reliant on the correct oil.



HOW DOES A CVT WORK?

A CVT (Continuously Variable Transmission) is different again. There are two types of CVT. They both work on the basis of keeping the engine at the most efficient rev range for power and economy.

Traditional automatic transmissions use gears. CVTs don't have a gearbox but they operate on a pulley system that allows an infinite variability between highest and lowest gears with no discrete feeling of gear change.



Most CVTs only have three basic components:

- A high-power metal or rubber belt
- A variable-input "driving" pulley
- An output "driven" pulley

The variable-diameter pulleys are the heart of a CVT. Each pulley is made of two 20-degree cones facing each other. A belt rides in the groove between the two cones. V-belts are preferred if the belt is made of rubber.

When the two cones of the pulley are far apart (when the diameter increases), the belt rides lower in the groove, and the radius of the belt loop going around the pulley gets smaller. When the cones are close together (when the diameter decreases), the belt rides higher in the groove, and the radius of the belt loop going around the pulley gets larger. This is how it "changes gear". CVTs may use hydraulic pressure, centrifugal force or spring tension to create the force necessary to adjust the pulley halves.

Variable-diameter pulleys must always come in pairs. One of the pulleys, known as the drive pulley (or driving pulley), is connected to the crankshaft of the engine. The driving pulley is also called the input pulley because it's where the energy from the engine enters the transmission. The second pulley is called the driven pulley because the first pulley is turning it. As an output pulley, the driven pulley transfers energy to the drive shaft. Both types put specific strains on the oil and it must be very shear stable.

WHAT IS A DUAL CLUTCH TRANSMISSION?

A Dual Clutch Transmission (DCT) is effectively two gearboxes in one. Two clutches to eliminate shift shock - one closes as the other opens. Sophisticated electronics and hydraulics control the clutches, just as they do in a standard automatic transmission.

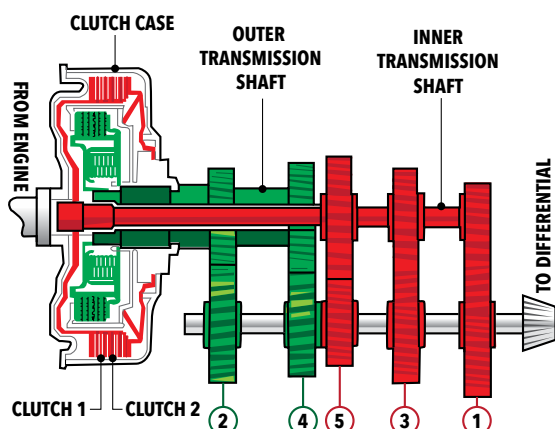
In a DCT, however, the clutches operate independently. One clutch controls the "odd" gears, while the other controls the "even" gears. Using this arrangement, gears can be changed without interrupting the power flow from the engine to the transmission. The gear shafts have constantly meshed gears and synchronisers, so the driving style is very much like a conventional automatic transmission.

Some DCTs use a wet clutch system and some use a dry clutch system - so slightly different oils are required.

Advantages:

- No torque loss or limitation
- Overcomes "shift shock" associated with the more conventional automated manual transmissions
- Fuel efficiency: +15% vs 5-speed stepped automatic transmissions
- Uses existing manual transmission manufacturing facilities
- Better acceleration than a manual transmission
- Handles higher torque loads than CVTs
- Size

It is expected DCTs will become more widely used and across a wide range of vehicles.



AUTOMATIC TRANSMISSION OEM FLUID SPECIFICATIONS

GENERAL MOTORS:

TYPE A & TYPE A SUFFIX A: The original fluids. They came out in 1949 & 1957 respectively and are obsolete.

DEXRON®-IID: Now obsolete, it was the closest we had to an industry specification. Indeed, it formed the basis of many other OEM (Original Equipment Manufacturer) ATF specifications. It is still used by GM Europe up until recently and by other European and some Japanese OEMs.

DEXRON®-IIE: A development that had better low temperature properties than IID. Now superseded.

DEXRON®-III: For many years it was in "F" & "G" specifications, which had the same low temperature characteristics as the -IIE version, but with modifications to antioxidancy and friction material. The 2003 -IIH specification was for 160,000km drain intervals and extended durability and superseded "G". This specification became obsolete at the end of 2006 and was replaced by DEXRON®-VI.

DEXRON®-VI: Initially released in 2005, this is a special low viscosity fluid which replaced DEXRON®-III in all GM manufactured automatic transmissions. It has a very long oil drain capability of up to 400,000km.

DEXRON®-ULV: Introduced in 2014, this is an ultra low viscosity fluid designed for GM 10 speed transmissions.

DEX-CVT®: Special specification for CVTs.



FORD:

M2C33-F & M2C33-G: F came out for the USA and G for Europe. These are non-friction modified fluids and as such cannot be used in most transmissions. F is commonly known as Type F.

M2C138-CJ & M2C166-H: Introduced to deal with problems with the C-6 and C-5 transmissions, these are satisfied by DEXRON®-IID.

MERCON®: The original MERCON® fluids were again satisfied by DEXRON®-IID and the revised MERCON®-IV fluids by DEXRON®-IID/E & DEXRON®-III (now obsolete).

MERCON®-C: Special specification for CVTs.

MERCON®-V: This is the first MERCON® fluid not satisfied by a standard DEXRON® type fluid. Usually semi or full synthetic, it has more severe requirements on friction, fluidity, shear loss and oil drain. While fluids meeting MERCON®-V must pass DEXRON®-III initially, they are then subjected to many other tests. Updated in mid 2008. Backwards compatible with MERCON®.

MERCON®-SP: Based around a ZF specification used in six speed automatic transmissions, for both front and rear wheel drive.

MERCON®-LV: Introduced in 2007, LV stands for "Low Viscosity". Ford M2C938-A is the specification for MERCON®-LV.

MERCON®-ULV: Introduced in 2014, this is an ultra low viscosity fluid designed for Ford 10 speed transmissions.

BTR 5M-52: Special fluid for Ford Australia that uses the BTR 4 speed automatic models, 85/91/95LE. Modified GM DEXRON®-IID type.

CHRYSLER:

ATF+3® (MS-7176F/MS-7176E): Satisfied by modified GM DEXRON®-IID/IIE type fluids such as MM SP and MM SP2.

ATF+4® (MS-9602): Synthetic or semi synthetic product with special shift requirements.

DAIMLER TRUCK:**DTFR 13C100:** ATF for 4/5-Speed automatic transmissions.**DTFR 13C110:** ATF for ZF/ AG4 automatic transmissions.**DTFR 13C120:** ATF for Type A Suffix A.**DTFR 13C130:** ATF for 7-Speed DCT.**DTFR 13C140:** ATF for steering/automatic transmissions.**DTFR 13C150:** For automatic transmissions.**DTFR 13C160:** For automatic transmissions.**DTFR 13C170:** For Allison/automatic transmissions.**DTFR 13C180:** For Allison/Retarder transmissions.**DTFR 13C190:** For Allison/Retarder transmissions.**MERCEDES-BENZ:**

They have the 236.x series of approvals. Some are GM DEXRON®-IID/III type and some are not. With some of the newer transmissions, highly specific products are used. Their sheet numbers also may be indicative of a transmission from a supplier such as ZF. The more common ones are shown below.

236.1: For MB, Allison and ZF transmissions.**236.2:** Older specification used in power steering and manual transmissions, although it is also used in some MAN automatics and in the Differential Lock in UNIMOG.**236.6, 236.7:** Most common ones used, and satisfied by GM DEXRON®-IID.**236.9:** Long drain fluid usually a GM DEXRON®-III type with more severe shear stability limits.**236.10:** For 5 speed Mercedes EC3 transmissions (NAG-1).**236.11:** For 5 speed ZF automatics used by Mercedes.**236.12:** For 7 speed Mercedes automatics (NAG-2) (now replaced).**236.13:** Issued as an in-service 'fix' oil for transmissions specifying 236.12**236.14:** New initial and service fill specification for NAG-2 transmissions.**236.15:** Very low viscosity initial and service fill specification.**236.16:** Mercedes-Benz ATF specification for 9-speed transmissions (9G-TRONIC)**236.17:** Mercedes-Benz ATF specification for 9-speed transmissions (9G-TRONIC), replaces MB 236.16 from 2017 and on.**236.20:** For CVTs.**236.21:** High-performance synthetic transmission for use in the 7G-DCT (7-speed Dual Clutch Transmissions). Primarily designed for vehicles with Getrag DCTs.**236.22:** Specialised ATF designed for 7-speed (724.1) 8G-DCT dual-clutch transmissions. Full synthetic, low-viscosity oil.**236.23:** Gear oil for electric drive system front axle.**236.24:** ATF E-Drive fluid.**MITSUBISHI:****MM SP & MM SP-II:** GM DEXRON®-III fluidity but with different frictional characteristics.**MM SP-III:** A more developed version with better low temperature properties and longer drain life and shift durability. Semi-synthetic at minimum.**PA:** Special ATF for Mitsubishi V5 AWF 5-Speed automatic transmission.**ALLISON:****C-4:** Designed for heavy-duty transmissions in off-highway vehicles. ATFs and special fluids are qualified against it. Supercedes C-3.**TES 295:** Special formulation-specific, PAO based fluid for heavy duty applications.**TES 389:** Introduced in 2006 to cover GM DEXRON®-III applications. Now required for all on-highway transmissions instead of C-4.**TES 668:** Premium, full-synthetic automatic transmission fluid specification for on-highway automatic transmissions (1000-4000 series). Backward compatible with TES 295 and replaces TES 295, TES 389 & TES 468 fluids.**CATERPILLAR:****TO-4:** Specialised fluid for Caterpillar units. Oils meeting TO-4 & C-4 find wide application in heavy-duty construction equipment manufactured by many OEMs such as Komatsu.**OTHER OEM SPECIFICATIONS WORTH NOTING:**• **Honda:** ATF 96, Z1 • **Nissan:** Matic C, D, J, K, S• **Mazda:** M-III, M-IV, M-V • **Toyota:** T-II, T-III, T-IV, WS

Penrite manufacture a range of automatic transmission fluids (ATFs) that can be used in passenger, light and heavy duty vehicles. They may also be used as compressor fluids or as power steering fluids where ATFs are specified.

BENEFITS

- Multi Vehicle application means the same fluid can be used across multiple vehicles. Full synthetic (ATF LV, ATF BMV and ATF FS) as well as semi synthetic (ATF MHP) covers a majority of the Australian vehicle market. Penrite also makes a Multi Vehicle mineral product (ATF DX-III).
- A complete range of fluids covering most vehicles.
- Extended long drain periods.
- Smooth shift durability (ATF FS, ATF MHP, ATF LV and ATF BMV).
- Specialist fluids (ATF 33, CVT Fluid V, CVT Low Vis, CVT Chain and DCT Fluid).
- Passenger car, 4WD and heavy vehicle applications.

PRODUCTS

	LITRES				
	1	4	20	60	205
ATF ULV NEW		●	●		●
ATF LV	●	●	●	●	●
ATF BMV		●	●	●	●
ATF FS	●	●	●	●	●
ATF MHP	●	●	●	●	●
ATF DX-III	●	●	●	●	●
ATF 33 (Type F)		●	●		
DCT Fluid	●	●	●		
CVT Fluid Low Viscosity		●	●		
CVT Fluid V		●	●		
CARTON QUANTITY	6	4			

● AVAILABLE PACK SIZE



ATF ULV NEW

4L - ATFULV004 | 20L - ATFULV020 | 205L - ATFULV205

BASE OIL: Full Synthetic

BENEFITS

- Improved fuel economy and transmission efficiency
- Full Synthetic base oils heat resistance and wear protection
- Shear Stable formulation for long life and extended wear protection
- Smooth power transfer, cold weather performance & reduced deposit formation
- Compatible with all seal types
- Red colour

PERFORMANCE LEVELS

- ✓ Aisin AW-2
- ✓ Ford M2C949-A/MERCON® ULV
- ✓ GM DEXRON® ULV
- ✓ Mazda ATF A7
- ✓ MB 236.17
- ✓ Nissanmatic P ATF



ATF LV

1L - ATFLV001 | 4L - ATFLV004 | 20L - ATFLV020 | 60L - ATFLV060 | 205L - ATFLV205

BASE OIL: Full Synthetic

BENEFITS

- Designed to meet friction requirements for low viscosity fluids
- 2.5x smooth shift durability over the life of the fluid
(JASO M349 industry anti-shudder test)
- Extends transmission life through superior wear protection
- Improved power transfer, fuel economy & reduced deposit formation
- Red colour

PERFORMANCE LEVELS

- ✓ Ford M2C938-A/MERCON® LV
- ✓ GM DEXRON®-VI
- ✓ Honda DW-1
- ✓ Hyundai/Kia SP-IV
- ✓ Infiniti/Nissan Matic S
- ✓ JASO 2A-02
- ✓ Mitsubishi DiaQueen PA/SP-IV
- ✓ Toyota WS



ATF BMV

4L - ATFBMV004 | 20L - ATFBMV020 | 60L - ATFBMV060 | 205L - ATFBMV205

BASE OIL: Full Synthetic

BENEFITS

- One product for multiple applications reduces misapplication
- Designed to meet friction requirements for low viscosity fluids
- Extends transmission life through superior wear protection
- Improved power transfer, fuel economy & reduced deposit formation
- Extended service life utilising synthetic base oils and a shear stable formulation
- Amber colour

PERFORMANCE LEVELS

- ✓ ATF RED-1/RED-1K
- ✓ Ford MERCON® SP/WSS-M2C919-D
- ✓ Hyundai SP-IV-RR
- ✓ Kia SP-IV-RR
- ✓ MB 236.10/236.11/236.12/236.13/236.14/236.15/236.16
- ✓ SsangYong DSIH 5M-66
- ✓ ZF TE ML-11

ATF FS

1L - ATFFS001 | 4L - ATFFS004 | 20L - ATFFS020 | 60L - ATFFS060 | 205L - ATFFS205



BASE OIL: Full Synthetic

BENEFITS

- 5x smooth shift durability over the life of the fluid
(JASO M349 industry Anti-Shudder test)
- Designed to meet friction requirements for low viscosity fluids
- Prevents clutch shudder in modulated torque converters
- Stable synthetic base oil that resists oxidation
- Extends transmission life through superior wear protection
- Dark red colour

PERFORMANCE LEVELS

- ✓ BTR 95LE
- ✓ Chrysler ATF+4/MS-9602 (ATF+4)
- ✓ Ford MERCON® V
- ✓ GM DEXRON®-IIIH/GMN10055
- ✓ LT 71141
- ✓ Mazda M-III Fluid/MV
- ✓ MB 236.11/236.2/236.5/236.7
- ✓ MERCON® V
- ✓ Mitsubishi SP-III
- ✓ Nissan Matic K
- ✓ Subaru
- ✓ Toyota T-IV

ATF MHP

1L - ATFMHP001 | 4L - ATFMHP004 | 20L - ATFMHP020 | 60L - ATFMHP060 | 205L - ATFMHP205



BASE OIL: Semi Synthetic

BENEFITS

- 3x smooth shift durability over the life of the fluid
(JASO M349 industry Anti-Shudder test)
- Prevents clutch shudder in modulated torque converters
- Extended oil drain intervals
- Maximises equipment life by maintaining wear protection
- Maintains oil film strength throughout the drain interval
- Red colour

PERFORMANCE LEVELS

- ✓ BTR 95LE
- ✓ Chrysler ATF+4/MS-9602 (ATF+4)
- ✓ Ford M2C924-A/MERCON®
- ✓ GM 6297M/DEXRON®-IIIH
- ✓ Honda ATF Z1/
- ✓ LT 71141
- ✓ MB 236.7.
- ✓ Mitsubishi SP-III
- ✓ Nissan Matic K
- ✓ Toyota T-IV
- ✓ VW 052990/Part No. G 052 162A

ATF DX-III

1L - ATFDX3001 | 4L - ATFDX3004 | 20L - ATFDX3020 | 60L - ATFDX3060 | 205L - ATFDX3205



BASE OIL: Premium Mineral

BENEFITS

- Extended drain period up to 160,000km
- Smooth gear changes over the life of the fluid
- Prevents clutch shudder in modulated torque converters
- Extends transmission life through superior wear protection
- Compatible with a wide range of seal materials
- Red colour

PERFORMANCE LEVELS

- ✓ Allison C-4/TES-389/V-730D
- ✓ BTR 95LE
- ✓ Ford MERCON®
- ✓ GM DEXRON®-IIIH
- ✓ LT 71141
- ✓ MB 236.7
- ✓ Toyota D2/T-II
- ✓ Volvo 97341



ATF 33 (TYPE F)

4L - ATF33004 | 20L - ATF33020

BASE OIL: Premium Mineral

BENEFITS

- Resists oxidation
- Designed for optimum (sharp) shift for drag racing
- Provides excellent wear protection
- Gives instant power transfer on acceleration
- Red colour

PERFORMANCE LEVELS

- ✓ Ford M2C33-F/M2C33-G/SQM-2C9007-AA
- ✓ John Deere J21A
- ✓ Type F/Type G



DCT FLUID

1L - DCTF001 | 4L - DCTF004 | 20L - DCTF020

BASE OIL: Full Synthetic

BENEFITS

- Anti-shudder performance
- Long life performance
- Multi vehicle applications for wet DCT transmissions
- Minimises friction for smooth shifting
- Excellent wear protection for prolonged gearbox life
- Maintains fuel economy
- Amber colour

PERFORMANCE LEVELS

- ✓ BMW 83 22 2 148 579
- ✓ Ferrari TF DCT-F3
- ✓ Ford M2C936-A
- ✓ MB 236.21
- ✓ Mitsubishi DiaQueen SSTF-1
- ✓ Porsche Oil No. 999.917.080.00
- ✓ Peugeot PSA 9734.S2
- ✓ Volvo 1161839
- ✓ VW TL 052 182/TL 052 529



“We’ve had a partnership with Penrite for 22 years and we developed a fabulous relationship over that time. Making that transition to Penrite was the best business decision I reckon we’ve ever made. Penrite’s a huge part of our race program, a huge part of our lives, makes us feel like we’re part of a bigger thing.”

D&D MECHANICAL & 4WD

CVT FLUID LOW VISCOSITY

4L - CVTLOW004 | 20L - CVTLOW020



BASE OIL: Full Synthetic

BENEFITS

- Minimises wear & maximises equipment life
- Long life performance
- Minimises friction between belts & pulleys
- Protects against component fatigue
- Excellent low temperature fluidity, reducing start up wear
- Green colour

PERFORMANCE LEVELS

- ✓ Mitsubishi DiaQueen CVTF-J4
- ✓ Nissan NS-3
- ✓ Suzuki CVTF Green 2
- ✓ Toyota CVTF FE

CVT FLUID V

4L - CVTV004 | 20L - CVTV020



BASE OIL: Full Synthetic

BENEFITS

- Minimises wear & maximises equipment life
- Long life performance
- Minimises friction between belts & pulleys
- Excellent low temperature fluidity, reducing start up wear
- Red colour

PERFORMANCE LEVELS

- ✓ Audi Multitronic Chain CVT/ TL 52180
- ✓ Audi/VW TL 52180 (G 052 180)
- ✓ Ford CVT30/MERCON® C
- ✓ Honda HCF-2/Z-1 (CVT)
- ✓ MB 236.20
- ✓ Mini Cooper EZL 799
- ✓ Mitsubishi CVTF-J1/SP-III (CVT)
- ✓ Mopar CVT Fluid +4
- ✓ Nissan Matic D (CVT)/NS-2
- ✓ Subaru CV-30/ECVT/High Torque CVT Fluid/iCVT/iCVT FG/ KO425Y0710/Lineartronic CVTF/ Lineartronics Chain CVT
- ✓ Toyota CVTF TC/T-IV (CVT) /WS (CVT)
- ✓ Volvo 4959



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2 4 R 5
3

MANUAL GEAR & DIFFERENTIAL OILS

SPECIAL PROPERTIES FOR MANUAL GEAR & DIFFERENTIAL OILS

- Capable of providing an easy gearshift for the life of the oil drain. This is a function of both friction modifiers and viscosity.
- Maintain long clutch life and prevent seal leaks.
- Must protect against pitting, spalling, scoring and scuffing caused by the large shear loads placed on the oil by the gear set.
- Protect against copper corrosion. Older technologies were not kind to copper alloys and used to turn them black via chemical attack. Most modern hypoid oils do not tend to do this due to advances in technologies.
- Limited slip oils must enable the cone or clutch to work properly when distributing power to the drive wheels. As such, they contain a special friction modifier to achieve this. It should be noted that oils designed for use in limited slip differentials can be used in standard hypoid differentials.

GEAR OIL DESIGNATION AND DESCRIPTION

For gear oils, API has the following GL (Gear Lube) classifications:

GL-1	Oil without EP additive.
GL-2	Usually contains fatty materials.
GL-3	Contains a mild EP additive.
GL-4	Equivalent to MIL-L-2105B and is usually satisfied by a 50% GL-5 additive level.
GL-5	Equivalent to MIL-PRF-2105E. Primary field service recommendation for passenger cars and trucks worldwide.
GL-6	Obsolete
MT-1	For non-synchronised manual transmissions in buses and trucks at a higher level than GL-4.
MIL-PRF-2105E	Designed by the US military, it takes conventional GL-5 and adds more demands to the specification. Most hypoid oils conform to this standard. Now superseded by SAE J2360 (2003).

SAE J306 GEAR OILS				
SAE Grade	Max Temperature for Viscosity of 150,000cP (°C) ¹	Viscosity @ 100°C		
		Min (cSt) ³	Max (cSt) ²	
70W	-55	3.8	NA	
75W	-40	3.8	NA	
80W	-26	8.5	NA	
85W	-12	11.0	NA	
65	NA	3.8	<5.0	
70	NA	5.0	<6.5	
75	NA	6.5	<8.5	
80	NA	8.5	<11.0	
85	NA	11.0	<13.5	
90	NA	13.5	<18.5	
110	NA	18.5	<24.0	
140	NA	24.0	<32.5	
190	NA	32.5	<41.0	
250	NA	41.0	NA	

Note: ¹ Using ASTM D983. ² Using ASTM D445.
³ Limit must still be met following CEC L-45-A-99, Method C (20h)

MANUAL TRANSMISSION FLUID & GEAR OIL OEM SPECIFICATIONS



HONDA MTF-94/ROVER MTF-94: Describes a GL-4 type 10W-30/75W-80 oil that is semi synthetic for long drain and good low temperature shift feel.

MAN 341: API GL-4 type. There are many variance of this specification.

MAN 342: API GL-5 type.

CATERPILLAR TO-4: The SAE 30, 50 & 60 versions can be used in manual transmissions and some final drive units.

CATERPILLAR FD-1: Describes a fluid used in differentials of heavy duty Caterpillar equipment where additional wear protection is needed. Cannot be used in wet-brake applications. Usually a SAE 60 grade or multigrade synthetic.

DTFR 12B100: Gear oil for hypoid gears.

DTFR 12B110: Gear oil for mineral oil.

DTFR 12B120: Gear oil for hypoid gears.

DTFR 12B130: Gear oil for hypoid gears.

DTFR 12B140: Gear oil for hypoid gears.

DTFR 12C100: Axle oil for Meritor 156 RWD, 156 FWD and 176 SOLO Actros C.

DTFR 12C110: Axle oil for Meritor 156 RWD, 156 FWD and 176 SOLO Actros C with reduced oil chain intervals.

DTFR 13A100: General information on gear oils.

DTFR 13A110: Specified gear oils (commercial vehicles).

DTFR 13A120: Specified gear oils (commercial vehicles).

DTFR 13B100: Gear oil for steering/manual transmissions.

DTFR 13B110: Gear oil for transfer cases.

DTFR 13B120: Gear oil for 235.12 specification.

DTFR 13B130: Gear oil for historical manual transmissions.

DTFR 13B140: Gear oil for gears.

DTFR 13B150: Gear oil for gears.

DTFR 13B160: Gear oil for gears.

DTFR 13B170: Gear oil for transfer boxes.

DTFR 13D100: Gear oil for Retarder.

DTFR 13D110: Gear oil for Retarder.

DTFR 13D120: Gear oil for Retarder.

DTFR 13D130: Gear oil for ATF/Retarder.

DTFR 13E100: Transmission oil for ZF TraXon ZF12TX 2420, 2421 TD, TraXon ZF12TX 2620, 2621 TD Actros C.

MB 235.0: Heavy duty API GL-5 type oils for long drains.

MB 235.5: Heavy duty API GL-4.

MB 235.6: Heavy duty API GL-5 type oils for long drains.

MB 235.10: Light duty, synthetic performance 75W-80 for Mercedes-Benz Sinter Synchronmesh transmissions.

MACK GO-J: Designed to delivery 250,000km oil drain intervals. More severe than API GL-5. GO-J/S is the synthetic version.

MACK TO-A PLUS: Specialised manual transmission fluid with long life.

VOLVO 1273.07: SAE 30 type (SAE 80) oil based on GL-4.

VOLVO 1273.10: API GL-5, SAE 80/90.

VOLVO 1273.12: SAE 50 (SAE 90) type usually satisfied by TO-4 type oils.

ZF TE-ML 01: Non-synchro, heavy duty manual truck transmissions.

ZF TE-ML 02: Manual and automatic transmissions for trucks, buses and light commercials. Various sub-groups.

ZF TE-ML 03: Transmissions in off-road vehicles.

ZF TE-ML 04: Marine transmissions, SAE 30/40 engine oils.

ZF TE-ML 05: Axles in off-road vehicles. Various sub groups for different grades and types.

ZF TE-ML 06: Tractor transmissions and hydraulics.

ZF TE-ML 07: Hydrostatic and mechanical drives and electric drive systems.

ZF TE-ML 11: Manual and automatic transmissions in cars.

ZF TE-ML 12: Axles for cars, commercial vehicles and buses. Various sub-groups.

ZF TE-ML 14: Powershift transmissions, Ecomat type, for trucks and buses.

ZF TE-ML 15: Brake systems for special vehicles.

ZF TE-ML 16: Transmissions for rail vehicles.

ZF TE-ML 17: Transmissions for Axles for lift trucks.

ZF TE-ML 19: Transfer and offset transmissions for commercial vehicles.

ZF TE-ML 20: Powershift transmissions, type EcoLife, for buses and trucks.

ZF TE-ML 21: Tractor axles, transmissions for harvesters and final drives.

ZF TE-ML 23: Stationary applications.

ZF TE-ML 24: Historical Manual Transmissions for Trucks and Passenger Cars.

ZF TE-ML 25: Powershift transmissions, type EcoLife Offroad 1, EcoLife Offroad 2 and PowerLine Offroad as well as DynamicPerform wet starting clutch for special vehicles and stationary applications.

ZF TE-ML 26: Powershift transmissions type PowerLine.

ZF TE-ML 27: Transmissions for industrial and mobile applications.

ZF TE-ML 28: Electric drive systems for trucks and buses.

ZF TE-ML 29: CeTrax electric central drive for city buses and special vehicles.

ZF TE-ML 30: Electric drive systems for cars.

ZF TE-ML 31: Powershift transmissions type PowerLine (US production).

BTR SPECIFICATIONS: 5M-42, 5M-31, 5M-36, 5M-41, 5M-50, 5M-48

FORD SPECIFICATIONS: M2C86-A/B/C, M2C105-A, M2C1013-A, M2C108-A, M2C197-A, M2C1006-B, M2C104-A, M2C200-C

HOLDEN SPECIFICATIONS: HN 1855, HN 1820, HN 1046, HN 1070, HN 1181, HN 386, HN 1561, HN 1187, HN 2017, HN 2040

ROCKWELL: O-76A, O-76B, O-76N, O-76D

EATON FULLER: PS-164 (Rev. 7), PS-386

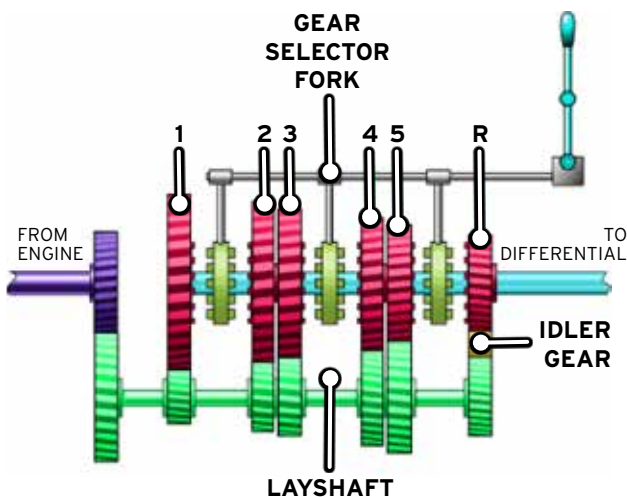


HOW DOES A MANUAL TRANSMISSION WORK?

A manual transmission consists of a set of gears along a pair of shafts, the input shaft and output shaft. The gears on one shaft engage with those on the other shaft.

The resulting ratio between the gear selected on the input shaft and the gear engaged on the output shaft determines the overall gear ratio for that "gear". Gears in a manual transmission are selected by moving a shift level, which engages a linkage that controls the movement of the gears along the input shaft.

Moving the lever forward or rearward chooses between the two gears available on a given linkage; cars with four gears, or speeds, use two linkages; cars with five or six speeds use three linkages. The driver changes between linkages by moving the shift lever left and right.



To engage a gear in a manual transmission, the clutch pedal is pressed, disconnecting the engine from the input shaft of the transmission. This frees the gears on the input shaft (layshaft) to move, so when the engine is sending torque through the input shaft, the gears on it are engaged.

Once the clutch has disconnected the power from the engine to the transmission, the user selects the appropriate gear (i.e. first, third, reverse). Both the input shaft gear and the output shaft gear need to be spinning at the same speed to avoid clashing of the gears during engagement, preventing clashing of the gear sets.

Once the clutch is released, engine power is re-engaged to the input shaft propelling the vehicle with the selected gear ratio.

Other types of Manual Transmissions include:

Automated Manual Transmission (AMT) - A manual transmission where shifting and clutch operation is done by hydraulic or electric actuators under electronic control.

Dual Clutch Transmissions (DCT) allow shifting without torque interruption. This is achieved through employing 2 clutches and an additional countershaft.

HOW DOES A DIFFERENTIAL WORK?

The wheels are connected to the differential unit via half shafts. Power from the transmission drives the pinion gear which in turn drives the ring gear. The ring gear is connected to 1 or 2 pairs of smaller bevel gears (known as spider gears), and ultimately power is transferred to the wheels.

It is these smaller bevel gears that form the heart of the differential unit: A mechanical device that detects when one wheel is turning faster than the other, and uses the spider gears to absorb the different speeds of both wheels and allow smooth cornering.

TYPES OF DIFFERENTIALS:

Open Differential (The most basic differential):

- Under good traction, it applies the same torque to both wheels
- However when traction is poor and one wheel slips on ice or mud, the slipping wheel will receive all the torque whilst the other wheel receives none, even though it does have grip

Limited Slip Differentials are better suited in poor traction conditions:

- Similar to open differentials but they have clutch packs inside the differential carrier, which apply friction between the side gears and the carrier
- The friction from the clutches encourages the side gears to turn at the same speed as the differential carrier
- When torque is applied under slippery conditions, friction from the clutch packs prevents the wheel with little traction from spinning wildly and ensures that some torque is transmitted to the other wheel which has grip

Locking Differentials contain a mechanism to fully lock both halves of the axle at the same speed:

- Must not be locked on a hard surface, but quite common to improve traction in heavy trucks, especially in poor weather conditions and off-road applications
- Locking differentials may be automatically activated (when the difference in wheel speeds reaches a given point) or driver-actuated



Torque Sensing or Torsen® Differentials:

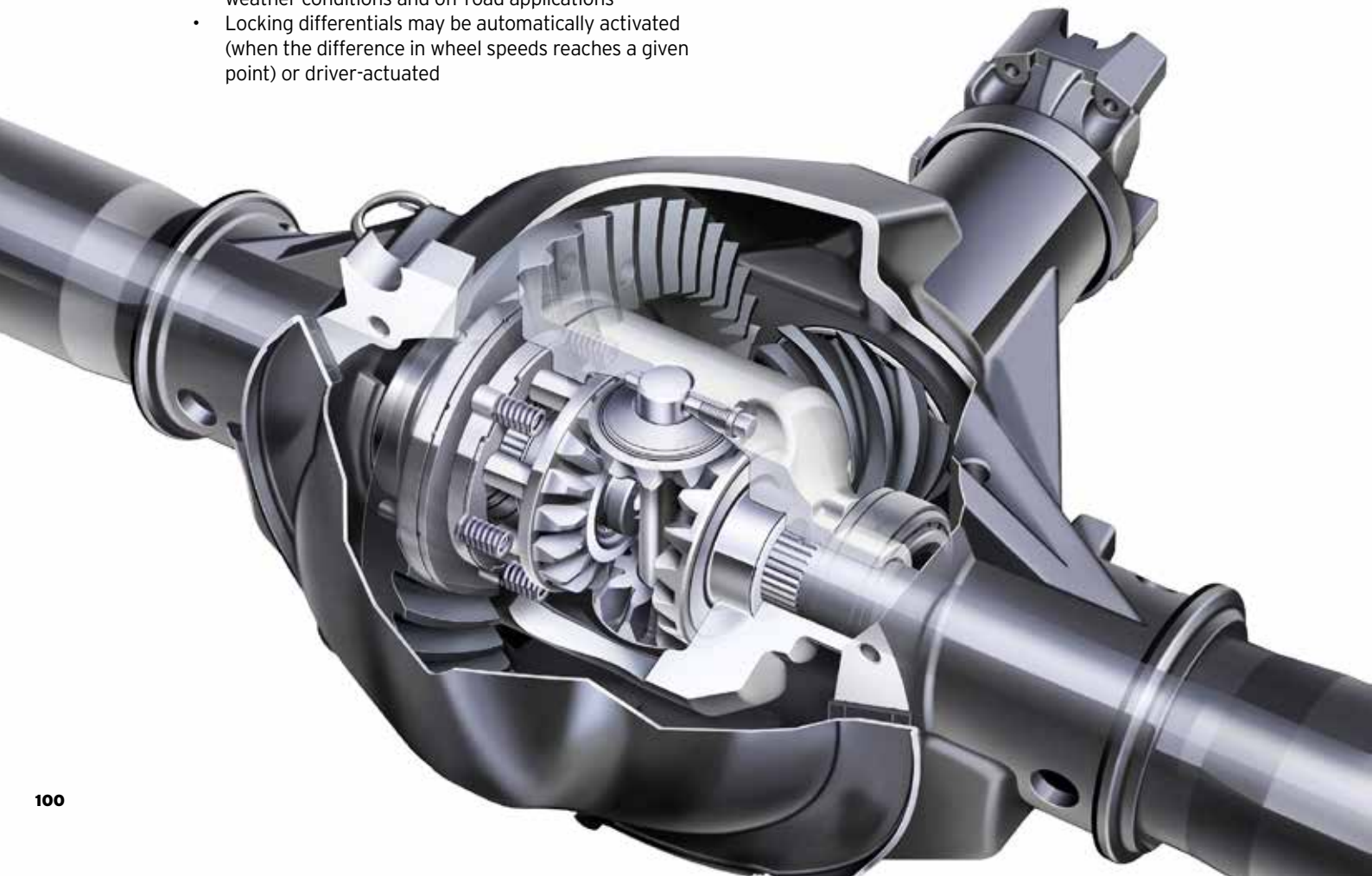
- These tend to be complex arrangements of spur, helical and/or bevel gears, which prevent extreme differences in wheel speeds, therefore maintaining useful traction at each wheel all the time
- They do not use clutches or electronics, so are both reliable and durable, and are used in many rear, front and centre differentials

Transfer cases manage the power split between front and rear axles or axle pairs, in vehicles with more than one drive axle:

- Transfer cases can be any of the above mentioned types, or can be viscous coupling similar to a torque converter in operation

Limited Slip Differentials with Electronic Control:

Similar to limited slip differentials with clutch packs to prevent slipping of one wheel. The friction of the clutches is controlled externally using sensors at the wheels to detect slipping. The hydraulic pressure needed for the clutches is electronically controlled.



PENRITE HAVE A RANGE OF MANUAL GEAR/ DIFFERENTIAL OILS TO SUIT ALL APPLICATIONS:

PRO GEAR: Oils include 100% PAO & Ester Full Synthetics, manufactured utilising a special combination of synthetic base oils with an advanced additive system, to provide performance and protection under severe service. Suitable for use in manual gearboxes, transaxles, transfer cases and differentials.

The benefits of 100% PAO & Ester gear oils are excellent cold flow properties, resistance to thermal breakdown due to heat, superior shear stability, resistance to oxidation, longer drain intervals, and a high VI (Viscosity Index) stable oil film across a wide range of temperatures.

TRANS GEAR: Full Synthetic automotive gear oils are manufactured from a blend of highly refined base oils, the latest technology additives, friction enhancers and an advanced viscosity modifier. Suitable for use in manual gearboxes, transaxles, transfer cases and differentials.

GEAR OIL: Premium Mineral automotive gear oils are manufactured with modern extreme pressure additives and friction modifiers. This formulation allows the one range of gear oil to be used in both limited slip and hypoid type differentials, eliminating the need for multiple products. Can also be used in some manual gearboxes, transaxles and transfer cases.

BENEFITS

- Specifically designed additives to improve the shift feel for the life of the oil drain.
- Enhanced oxidation stability, reducing harmful deposits.
- Excellent wear protection.
- Compatible with different metal components to protect against corrosion.
- Common differential oils for both limited slip and hypoid differentials.

PRODUCTS

	mL	LITRES						
	150	1	2.5	4	20	60	205	1000
Pro Gear 70W-75			●			●		
Pro Gear 75W-85		●	●			●	●	
Pro Gear 75W-90		●	●			●	●	●
Pro Gear 80W-140		●	●			●	●	●
Pro Gear GL-4			●			●	●	
Pro Gear GL-5			●			●	●	
Trans Gear 75W-80		●	●			●	●	
Trans Gear 75W-90		●	●	●		●	●	
Gear Oil 80W-90		●	●	●		●	●	●
Gear Oil 85W-140		●	●			●	●	●
Gear Oil 140			●			●	●	
HDPS Fluid		●						
Limslip Additive	●							
CARTON QUANTITY	6	6	4	4				

● AVAILABLE PACK SIZE



PRO GEAR 70W-75

2.5L - PROG70750025 | 20L - PROG7075020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 70W-75

BENEFITS

- Smooth shift feel for the life of the oil
- Enhanced oxidation stability & reduces harmful deposits
- Improved load carrying capacity
- Very fast flow at start up for slick gear shifts
- For manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-4 Plus
- ✓ MTF BOT 338
- ✓ Tremec (T-56)
- ✓ ZF TE-ML 11 (manual)



PRO GEAR 75W-85

1L - PROG7585001 | 2.5L - PROG75850025 | 20L - PROG7585020 | 60L - PROG7585060

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 75W-85

BENEFITS

- Smooth shift feel for the life of the oil
- Reduces harmful deposits
- Will not harm brass or bronze
- Excellent wear protection
- Suitable for 80W-85 & SAE 80
- For manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-4 Plus
- ✓ BTR 5M-42
- ✓ Chrysler MS-9224
- ✓ Ford M2C200-C
- ✓ GM 12346190/HN 1855/HN 2276
- ✓ MAN 341
- ✓ MB 235.5
- ✓ Opel 040 0063/040 1067
- ✓ ZF TE-ML 08



PRO GEAR 75W-90

1L - PROG7590001 | 2.5L - PROG75900025 | 20L - PROG7590020 | 60L - PROG7590060 | 205L - PROG7590205

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 75W-90

BENEFITS

- Smooth shift feel for the life of the oil
- Reduces harmful deposits
- Excellent wear protection
- Suitable for 80W-90 & SAE 90
- For hypoid/limited slip differentials, manual gearboxes & transaxles

PERFORMANCE LEVELS

- ✓ API GL-5/GL-6/MT-1
- ✓ BTR 5M-50
- ✓ Dana Axle
- ✓ Eaton Axle Bulletin 90-104
- ✓ Ford M2C200-C
- ✓ GM HN 2013
- ✓ Mack GO-H/S/GO-J
- ✓ MIL-L-PRF-2105E
- ✓ Rockwell O-76N
- ✓ SAE J2360
- ✓ ZF TE-ML 05D/07A/08/12D/16F/19C/21

PRO GEAR 80W-140

1L - PROG80140001 - 2.5L - PROG801400025 | 20L - PROG80140020 | 60L - PROG80140060 | 205L - PROG80140205



BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 80W-140

BENEFITS

- Ultimate protection
- Race proven performance
- Longer drain intervals
- Suitable for 75W-140, 85W-140 & SAE 140
- For hypoid/limited slip differentials, manual gearboxes & transaxles

PERFORMANCE LEVELS

- ✓ API GL-5/GL-6/MT-1
- ✓ BTR 5M-48
- ✓ Dana
- ✓ Eaton Axle Bulletin 90-104
- ✓ Ford M2C190-A
- ✓ GM HN 2040
- ✓ Mack GO-J
- ✓ MIL-L-PRD-2105E
- ✓ Rockwell O-76B
- ✓ SAE J2360
- ✓ ZF TE-ML 05B/07A

PRO GEAR GL-4

2.5L - PROGL40025 | 20L - PROGL4020 | 60L - PROGL4060



BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 75W-90

BENEFITS

- Smooth shift feel for the life of the oil
- Reduces harmful deposits
- Will not harm brass or bronze
- Compatible with synchromesh materials
- Excellent wear protection
- For manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-4 Plus
- ✓ Ford M2C200-C
- ✓ GM 12346190/HN 2013
- ✓ MAN 341SL (level)
- ✓ ZFN 13010 (level)

PRO GEAR GL-5

2.5L - PROGL50025 | 20L - PROGL5020 | 60L - PROGL5060



BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 75W-85

BENEFITS

- Maximum performance, protection & longer life
- Optimised for differentials requiring a low viscosity fluid
- Suited to many late model vehicle requirements
- Enhanced wear protection additive pack
- Suitable for SAE 80
- For hypoid/limited slip differentials & transaxles

PERFORMANCE LEVELS

- ✓ API GL-5



TRANS GEAR 75W-80

1L - TG7580001 | 2.5L - TG75800025 | 20L - TG7580020 | 60L - TG7580060

BASE OIL: Full Synthetic

VISCOSITY: SAE 75W-80

BENEFITS

- Smooth shift feel for the life of the oil
- Reduces harmful deposits
- Excellent wear protection
- Will not harm brass or bronze
- For manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-4 Plus
- ✓ Chrysler MS-9224
- ✓ Honda MTF 7289
- ✓ Land Rover MTF 94
- ✓ MB 235.10
- ✓ ZF TE-ML 02D



TRANS GEAR 75W-90

1L - TG7590001 | 2.5L - TG75900025 | 4L - TG7590004 | 20L - TG7590020 | 60L - TG7590060

BASE OIL: Full Synthetic

VISCOSITY: SAE 75W-90

BENEFITS

- Smooth shift feel for the life of the oil
- Reduces harmful deposits
- Excellent wear protection
- Suitable for 80W-90
- For differentials, manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-5/MT-1
- ✓ China National GB 13895-1992
- ✓ Mack GO-J (level)
- ✓ MAN 342 M2/342 N
- ✓ MB 235.6
- ✓ MIL-L-2105D
- ✓ Volvo 1273-10
- ✓ ZF TE ML 08/TE-ML 02

GEAR OIL 80W-90

1L - G08090001 | 2.5L - G080900025 | 4L - G08090004 | 20L - G08090020 | 60L - G08090060 | 205L - G08090205 | 1000L - G080901000LTR



BASE OIL: Premium Mineral

VISCOSITY: SAE 80W-90

BENEFITS

- Maximum protection
- Anti-shudder additive technology
- Superior thermal stability
- Superior protection against scoring & spalling wear
- Suitable for 85W-90 & SAE 90
- Green/Blue colour
- For hypoid/limited slip differentials, manual gearboxes, transfer cases & transaxles

PERFORMANCE LEVELS

- ✓ API GL-5/GL-6/MT-1/PG-2
- ✓ BTR 5M-36
- ✓ China National GB 13895-1992
- ✓ Chrysler MS-9020
- ✓ Ford M2C1006-B/M2C1013-A/M2C104-A/M2C105-A/M2C197-A
- ✓ GM HN 1187/HN 1386/HN 1561
- ✓ International B-22
- ✓ Mack GO-J
- ✓ MIL-L-2105D/MIL-L-PRF-2105E
- ✓ SAE J2360
- ✓ ZF TE-ML 02B/05C/07A/08/12C/17B

GEAR OIL 85W-140

1L - G085140001 | 2.5L - G0851400025 | 20L - G085140020 | 60L - G085140060 | 205L - G085140205 | 1000L - G0851401000LTR



BASE OIL: Premium Mineral

VISCOSITY: SAE 85W-140

BENEFITS

- Maximum protection
- Anti-shudder additive technology
- Superior thermal stability
- Superior protection against scoring & spalling wear
- Blue colour
- For hypoid/limited slip differentials

PERFORMANCE LEVELS

- ✓ API GL-5/GL-6/MT-1/PG-2
- ✓ BTR 5M-36
- ✓ China National GB 13895-1992
- ✓ Chrysler MS-9020
- ✓ Ford M2C1006-B/M2C1013-A/M2C105-A/M2C197-A
- ✓ GM HN 1187/HN 1386/HN 1561
- ✓ International B-22
- ✓ Mack GO-J
- ✓ MIL-L-2105D/MIL-L-PRF-2105E
- ✓ SAE J2360
- ✓ ZF TE-ML 05C/07A/08/12C/16/21

GEAR OIL 140

2.5L - G01400025 | 20L - G0140020 | 205L - G0140205



BASE OIL: Premium Mineral

VISCOSITY: SAE 140

BENEFITS

- Maximum protection
- Anti-shudder additive technology
- Superior thermal stability
- Superior protection against scoring & spalling wear
- Blue colour
- For hypoid/limited slip differentials

PERFORMANCE LEVELS

- ✓ API GL-5/GL-6/MT-1/PG-2
- ✓ BTR 5M-31/5M-41
- ✓ China National GB 13895-1992
- ✓ Ford M2C1006-B
- ✓ GM HN 1561
- ✓ MIL-L-2105D
- ✓ MIL-L-PRF-2105E
- ✓ SAE J2360



HDPS FLUID (HONDA DUAL PUMP SYSTEM)

1L - HDPS001

BASE OIL: Semi Synthetic

BENEFITS

- Good low temperature fluidity
- Protects against rust & corrosion
- Field proven
- Extended fluid life
- Resists oxidation
- Reduces differential squawk & lock up
- Amber colour
- For rear differentials

PERFORMANCE LEVELS

- ✓ Honda DPSF



LIMSLIP ADDITIVE

150mL - LSADD000150

BASE OIL: Premium Mineral

BENEFITS

- Compatible with hypoid & limited slip gear oils
- Can be used in mineral or synthetic oils
- Improves differential performance
- Reduces squeal, squawk or chatter
- Purple colour

PERFORMANCE LEVELS

- ✓ Chrysler MS-5630
- ✓ Dana 40819
- ✓ Ford M2C118-A/Motorsport 7098
- ✓ GM Part Number 1052358





CAUTION

UPGRADED

PENRITE Celebrating 100 YEARS

OEM COOLANT READY TO USE

PREMIX 12 YEAR READY TO USE

ANTI-FOAM | ANTI-CORROSION

ANTI-FREEZE | G40 LICENSED APPROVED

5L

PRODUCT WATER CLEAN

COOLANTS

WHAT IS COOLANT?

Automotive coolant is a solution mixed with water to improve heat transfer and control the operating temperature of an engine. Besides its function in cooling down the engine, coolant also contains ingredients that inhibit rust, corrosion and scale. These are called inhibitors. They also prevent cavitation which is the rapid formation and collapse of vapour or air pockets, a frequent cause of structural damage.

Some coolants have an Anti-Freeze Anti-Boil package that raises the boiling point and lowers the freezing point of water. Some coolants change the surface tension of the water allowing it to circulate better, removing heat spots and actually lowering the running temperature of an engine.

ENGINES CAN BE AIR COOLED OR WATER COOLED

Water cooled engines use coolant to assist the heat transfer process from the engine as it operates. Air cooled engines do not use liquid to transfer heat away from the engine.

WHAT MUST ENGINE COOLANT DO?

- Be an effective heat exchange fluid
- Protect against rust, corrosion, cavitation, freezing and overheating in allow, mixed metal and cast iron engines
- High temperature stability
- Be compatible with plastics and rubbers
- Be chemically stable (i.e. no "drop out")
- Mix readily with water
- Prevention of deposits
- Little foaming tendency

THERE ARE TWO TYPES OF COOLANTS

TYPE "A" COOLANTS - ANTI-FREEZE ANTI-BOIL:

- Inhibitors
- Water
- Glycols

Type "A" has an Anti-Freeze Anti-Boil component such as Ethylene Glycol or Propylene Glycol that raises the boiling point of the water and lowers the freezing point.

There are different types of inhibitor packages used in Type A Anti-Freeze Anti-Boil coolants and different dosages of glycol depending on the application.

TYPE "B" COOLANTS:

Type "B" typically has no Anti-Freeze Anti-Boil performance and are essentially inhibitors only. There are different types of inhibitor formulations used in Type B coolants. Not all are compatible with one another.

HINT - COOLANT COLOUR:

Just because a coolant is coloured doesn't mean it's an Anti-Freeze Anti-Boil product. The colour in coolant is a dye and should never be used to distinguish the type of coolant. Penrite coolants are clearly labelled Type "A" or Type "B".

ANTI-FREEZE ANTI-BOIL COOLANT HISTORY

Ethylene Glycol Anti-Freeze was first used in Automotive Cooling Systems in 1926 (the same year Penrite was born).

Alcohol made from methanol was originally used as Anti-Freeze as it had a lower freezing point than water. The problem with alcohol is that it can accelerate corrosion in metals and would evaporate over time. Other glycols used are Propylene Glycol and Glycerol which are non-toxic.

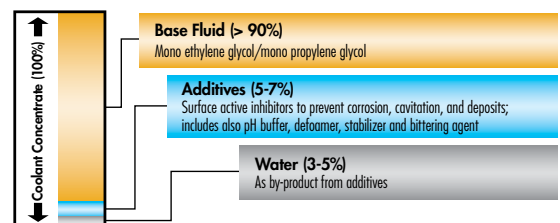
Ethylene Glycol is very toxic if ingested and should be disposed of carefully if changing a vehicle's coolant.

COOLANT COMPOSITION

Water is an excellent heat transfer liquid especially in an internal combustion engine but when it freezes, it actually expands. If the water freezes inside a radiator or engine, it can then cause damage due to this expansion.

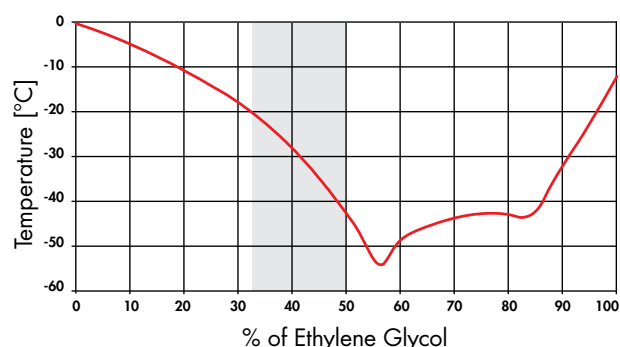
Water combined with glycol and inhibitors form a Type "A" engine coolant. The typical composition of a concentrate Type "A" is shown on the chart below. Glycol and water form the majority of the cooling system solution. Inhibitors are only a small percentage of the coolant.

CHEMICAL COMPOSITION OF COOLANTS:



GLYCOL CONTENT

Coolants that have an Anti-Freeze Anti-Boil function generally have a glycol base. Glycol never loses its Anti-Freeze Anti-Boil properties but inhibitors deplete over time, causing the need to change coolant. The level of glycol in the coolant mixture, gives an indication of the freezing point and boiling points. The coolant mixture needs to be between 33% and 50% for best results.



DOSE FREEZING / POINT BOILING POINT - UNPRESSURISED:

33%	-18°C	104°C
50%	-38°C	109°C

CORROSION INHIBITORS

A corrosion inhibitor is a chemical compound that, when added to a liquid (in this case coolant), decreases the corrosion rate of a material, typically a metal or alloy.

A common mechanism for inhibiting corrosion involves formation of a coating, often a passivation layer, which prevents access of the corrosive substance to the metal.

Inhibitors only make up a small fraction of the overall coolant as water and glycol form the majority of the product but they have a significant effect on the performance of the coolant in maintaining the system in good condition.

ADDITIVES MAY INCLUDE

THESE ALL FULFIL DIFFERENT FUNCTIONS WITHIN THE COOLANT:

- Organic acid salts
- Silicates
- Nitrites
- Defoamers
- Borates
- Phosphates
- Nitrates

THE THREE BASIC "TYPES" OF INHIBITOR PACKAGES

CONVENTIONAL: Uses conventional technology, in other words, does not use any of the newer style, organic inhibitors.

ORGANIC: Uses 100% organic acid salts.

HYBRID: These products use mainly organic acids but with up to two or three conventional inhibitors.

Automotive manufacturers may specify silicate and phosphate inhibitor inclusion. Heavy duty engine manufacturers may specify nitrite and molybdate inhibitor inclusion.

OAT FORMULATIONS

OAT (Organic Acid Technology) formulations are sometimes not compatible with conventional formulations. Care needs to be taken when mixing coolants.

CHARACTERISTICS OF OAT COOLANT:

- Low inhibitor depletion rates, "fill for life" coolant (Long Life)
- Compatibility with many coolant standards
- Extreme stability under high temperatures
- Provides excellent heat transfer rate

HYBRID FORMULATIONS

Hybrid formulations contain ingredients from both OAT and conventional formulas. Hybrid formulations contain significant concentrations of conventional inhibitors as well as organic carboxylate or other salts.

CHARACTERISTICS OF HYBRID COOLANT:

- Nitrites help form a stable layer that protects the internal iron surfaces against corrosion, cavitation and scaling.
- High reliability.
- Compatible with engines and cooling systems of different design.
- Good expertise over years from many car producers.
- Extended change intervals.

OTHER COOLANT FACTS:

- Type "A" Anti-Freeze Anti-Boil coolants are now found in new vehicles.
- The type of coolant, whether it be an OAT or hybrid formulation, is dependent upon the vehicle manufacturer and determined by region, climate, type of vehicle etc.
- The colour of the coolant is a dye only and may change from region to region depending on the preference of the vehicle manufacturer and the supplier of the coolant to the manufacturer.
- Depletion rates of inhibitors determines the lifespan of coolants. Long Life coolants can last up to and beyond 10 years.
- There are OEM Approvals on coolants for some manufacturers.

STORAGE LIFE OF COOLANTS

Concentrated coolants have a safe shelf life of 3 years when stored correctly. Keep in a cool location out of direct sunlight.

RADIATOR FLUSHES

“WHEN IN DOUBT, FLUSH IT OUT”

Flushing the cooling system prior to using new coolant ensures that the old fluid won't contaminate the new (especially as they may be incompatible), as well as improving the operating efficiency of the cooling system by cleaning out the system internally.

CHARACTERISTICS OF A GOOD RADIATOR FLUSH:

- Be fast acting
- Remove rust, scale and other deposits
- Prepare the system for the new coolant
- Neutralises any leftover coolant remaining in the engine
- Be harmless for all metals
- Safe for rubber and hoses
- Compatible with all coolants



RADIATOR STOP LEAKS

A radiator stop leak product provides a temporary repair for leaking radiators, heater cores, hoses and joints, weeping head gaskets and welsh plugs. They are designed to be compatible with most coolants.

It is important that these types of products are used as a temporary repair until mechanical work can be obtained to permanently fix leaking cooling systems. Failure to fix leaking cooling systems can lead to expensive engine repair work from overheating.



RADIATOR OIL REMOVER

A highly alkaline cooling system flush additive specifically designed to remove oil from an engine's cooling system. It emulsifies oil that has entered the engine's cooling system allowing it to be flushed clean.

It can be used in all types of liquid-cooled engines that are contaminated with engine oil, transmission oil or hydraulic oil. It can be poured directly into the radiator, overflow or expansion bottle. It is safe to use and won't harm plastics, hoses, gaskets, seals, header tanks, water pumps, radiator or engine.



OTHER USES FOR COOLANT

HYDROLASTIC SUSPENSION FLUID:

Suspension fluid for Morris, Austin, Leyland BMC and Wolseley vehicles.

Hydrolastic Suspension Fluid is a “fluid” system that was used on a number of Morris 1100 derivatives, Austin and Morris 1800s, Minis between 1964 and 1971 and Wolseley 18/85s as well as MG/F's produced from 1995 to 2002.

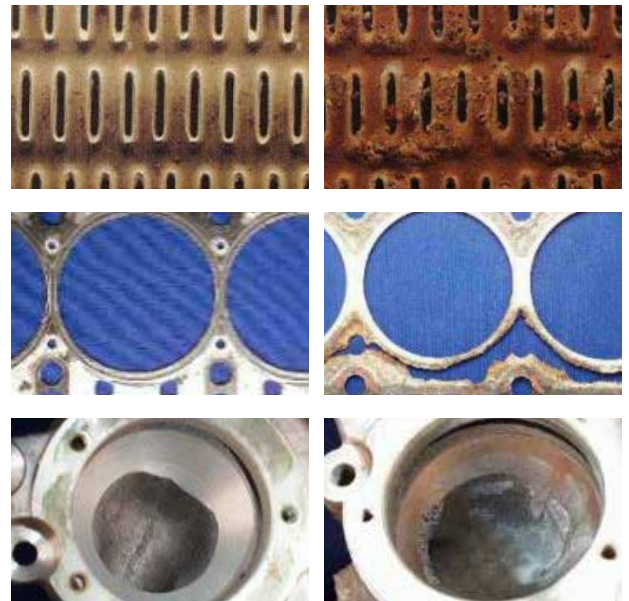
The units were filled with a mixture of alcohol, water and additives to prevent corrosion. A valve in the top of the fluid separating chamber replaced the conventional damper of other systems.

When either wheel on one side of the car hit a bump in the road, the fluid was displaced and caused the unit on the other wheel to react. In this way a bump at the front made the rear of the car rise to a corresponding height and the car always remained level.

There is not a particular dedicated product replacement for the original fluid. Available off the shelf in most outlets, a comparable product for this application can be made mixing: 33% by volume Anti-Freeze Anti-Boil coolant with 67% by volume distilled water.

RESULTS WITH & WITHOUT COOLANT

RADIATOR, HEAD GASKET AND THERMOSTAT HOUSING:



FREQUENTLY ASKED QUESTIONS

WHAT HAPPENS IF YOU MIX DIFFERENT COOLANTS TOGETHER?

Different types of coolants have different types of additive packs in them to stop corrosion, rust, scaling etc.

Some of these additive technologies aren't compatible with others and can cause a chemical reaction that can cause major damage to the cooling system and ancillary parts.



OEM APPROVED COOLANTS

Using the correct fluid during the warranty period for a vehicle ensures that you maintain your manufacturer warranty for that vehicle. Using a non-approved product for servicing during the warranty period can jeopardise the manufacturer's warranty and could lead to engine failure if the product does not meet the OEM specifications for that engine. Universal Top Up Coolant is a special blend product designed to mix with all coolant types that does not degrade the original coolant, and will not discolour the original coolant if used at under 10% volume. It is ideal as an emergency top up for someone who does not know what type of coolant is in their vehicle. Penrite has a number of products that are approved by major manufacturers or registered with industry bodies. The below list are OEM Approved Coolants.

PINK 12YR OEM COOLANT (Premix)

- Afnor NFR 15-601
- AS 2108-2004
- ASTM D 3306/D 4985
- BS 6580:2010
- Cuna NC 956-16
- JIS K 2234-2006
- ÖNORM V 5123
- SAE J1034
- SANS 1251:2005
- SH 0521-1999

PURPLE 12YR OEM COOLANT (Concentrate/Premix)

- Audi TL 774-L
- Bentley TL 774-L
- Bugatti TL 774-L
- Deutz DQC CC-14
- Lamborghini TL 774-L
- Porsche TL 774-L
- SEAT TL 774-L
- Skoda TL 774-L
- VW TL 774-L

RED 12YR OEM COOLANT (Concentrate/Premix)

- Audi TL 774-G
- Bentley TL 774-G
- Bugatti TL 774-G
- Cummins CES 14603
- Lamborghini TL 774-G
- MAN 324 Type Si-OAT
- MB-Approval 325.5
- MB-Approval 325.6
- MB-Approval 326.6
- Porsche (From 2010)
- SEAT TL 774-G
- Skoda TL 774-G
- Smart MB-Approval 325.6
- VW TL 774-G

BLUE 12YR OEM COOLANT (Concentrate/Premix)

- Audi TL 774-D/F
- Bentley TL 774-D/F
- DAF MAT 74002
- Deutz DQC CB-14
- Lamborghini TL 774-D/F
- MAN 324 SNF
- MB-Approval 325.3
- Mini Diesel (2007-2011)
- MTU MTL 5048
- Porsche (1996-2009)
- SEAT TL 774-D/F
- Skoda TL 774-D/F
- VW TL 774-D/F

GREEN 12YR OEM COOLANT (Concentrate/Premix)

- Audi TL 774-C
- BMW GS 94000
- Deutz DQC CA-14
- Jenbacher TA-Nr. 1000-021
- Liebherr LH-00-COL3A
- MAN 324 NF
- MB-Approval 325.0
- Mini BMW GS 94000
- MTU MTL 5048
- Opel / Vauxhall (Until 2000) B 040 0240
- Porsche (Until 1995)
- Rolls Royce (From 1998) BMW GS 94000
- Saab 690 1599
- SEAT TL-774-C
- Skoda TL 774-C
- Smart MB-Approval 325.0
- Tesla (From 2013)
- Volvo Truck (From 2005)
- VW TL 774-C

Penrite's premium range of OEM approved coolants and inhibitors, cover most vehicles on the road. As with engine oils, different vehicle manufacturers specify different types of engine coolants and inhibitors for their vehicles. Therefore, the correct engine cooling product for your vehicle is critical in maintaining its performance and longevity as well as preserving your vehicles manufacturer warranty. Penrite coolants are suitable for passenger cars, commercial vehicles, 4WD's, heavy duty vehicles, motorcycles, marine, racing, veteran, vintage & classic and many more.

BENEFITS

- Many OEM Approved products, 100% guaranteed to meet vehicle warranty requirements
- Latest Si-OAT technology, Organic Acid Technology (OAT), Hybrid and Conventional coolant types
- Type A (Anti-Freeze Anti-Boil with corrosion inhibitor) and Type B (corrosion inhibitor only)
- Conventional long life non approved coolants
- Ethylene and Propylene Glycol products available
- Available in concentrate and premix formulations
- Long term protection against rust and corrosion
- Freezing and boiling protection
- Specialised products for racing and classic vehicles

PRODUCTS

	mL	LITRES										
		500	1	2	2.5	5	10	20	20 BOX	60	205	1000
Pink 12YR OEM Coolant (Premix) NEW			●			●		●				
Purple 12YR OEM Coolant (Concentrate)			●			●		●				
Purple 12YR OEM Coolant (Premix)			●			●						
Red 12YR OEM Coolant (Concentrate)			●			●		●	●	●		
Red 12YR OEM Coolant (Premix)			●			●		●			●	●
Blue 12YR OEM Coolant (Concentrate)			●			●		●				
Blue 12YR OEM Coolant (Premix)			●			●		●			●	
Green 12YR OEM Coolant (Concentrate)			●			●		●	●	●	●	
Green 12YR OEM Coolant (Premix)			●			●		●			●	●
500,000km Green Coolant (Concentrate)			●		●	●		●		●	●	
500,000km Green Coolant (Premix)			●			●	●	●				●
500,000km Red Coolant (Concentrate)			●		●	●		●		●	●	
500,000km Red Coolant (Premix)			●			●	●	●				
Universal Top Up Coolant (Premix)			●									
Power Sports Coolant (Premix)			●									
PG UXL Coolant (Premix) NEW								●			●	●
HD Longlife ECO1 Coolant (Concentrate)								●			●	
HD Longlife ECO1 Coolant (Premix)								●			●	●
Radiator Corrosion Inhibitor	●	●										
10 Tenths Race Coolant Inhibitor (Concentrate)		●										
Demineralised Water		●	●			●		●				
CARTON QUANTITY	6	6	6	4	3							

● AVAILABLE PACK SIZE



PINK 12YR OEM COOLANT (PREMIX) **NEW**

1L - COOLPINKPMX001 | 5L - COOLPINKPMX005 | 20L - COOLPINKPMX020

TECHNOLOGY: Type A P-OAT

BENEFITS

- Ready to use at 50% concentrate
- 12 year or 800,000km drain intervals
- Formulated for Toyota vehicles (from 2018)
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Pink colour

PERFORMANCE LEVELS

- ✓ Afnor NFR 15-601
- ✓ AS 2108-2004
- ✓ ASTM D 3306/D 4985
- ✓ BS 6580:2010
- ✓ Cuna NC 956-16
- ✓ JIS K 2234-2006
- ✓ ÖNORM V 5123
- ✓ SAE J1034
- ✓ SANS 1251:2005
- ✓ SH 0521-1999



PURPLE 12YR OEM COOLANT (CONCENTRATE)

1L - COOLPURPLE001 | 5L - COOLPURPLE005 | 20L - COOLPURPLE020

TECHNOLOGY: Type A PSi-OAT

BENEFITS

- 12 year or 800,000km drain intervals
- Genuine Glysantin® G65® OEM, fully licensed and warranty approved
- Improved tolerance for flux-brazed aluminium heat exchangers
- Compatible with plastics, rubbers & seals
- Purple colour

OEM APPROVALS

- ✓ Audi/Bentley/Bugatti/Lamborghini/Porsche/SEAT/Skoda/VW TL 774-L
- ✓ Deutz DQC CC-14
- ✓ G12evo

PERFORMANCE LEVELS

- ✓ AS 2108-2004
- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-3306/D-4985
- ✓ BS 6580:2010
- ✓ SAE J1034
- ✓ Toyota Long Life TSK2601G



PURPLE 12YR OEM COOLANT (PREMIX)

1L - COOLPURPLEPMX001 | 5L - COOLPURPLEPMX005

TECHNOLOGY: Type A PSi-OAT

BENEFITS

- Ready to use at 50% concentrate
- 12 year or 800,000km drain intervals
- Genuine Glysantin® G65® OEM, fully licensed and warranty approved
- Improved tolerance for flux-brazed aluminium heat exchangers
- Compatible with plastics, rubbers & seals
- Purple colour

OEM APPROVALS

- ✓ Audi/Bentley/Bugatti/Lamborghini/Porsche/SEAT/Skoda/VW TL 774-L
- ✓ Deutz DQC CC-14

PERFORMANCE LEVELS

- ✓ AS 2108-2004
- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-4985
- ✓ BS 6580:2010
- ✓ SAE J1034
- ✓ Toyota Long Life TSK2601G



RED 12YR OEM COOLANT (CONCENTRATE)

1L - COOLRED001 | 5L - COOLRED005 | 20L - COOLRED020 | 20L BOX - COOLRED020BOX | 60L - COOLRED060 | 205L - COOLRED205

TECHNOLOGY: Type A Si-OAT

BENEFITS

- 12 year or 800,000km drain intervals
- Genuine Glyscantin® G40® OEM, fully licensed and warranty approved
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Phosphate free formulation allows use with hard water
- Borate, nitrite & amine free
- Red colour

OEM APPROVALS

- ✓ Audi/Bentley/Bugatti/Lamborghini/SEAT/Skoda/VW TL 774-G
- ✓ Cummins CES 14603
- ✓ Deutz DQC CC-14/Fahr Harvesters (from 04/2017)
- ✓ MAN 324 Type Si-OAT
- ✓ MB-Approval 325.5/325.6/326.6
- ✓ Smart MB-Approval 325.6



RED 12YR OEM COOLANT (PREMIX)

1L - COOLREDPMX001 | 5L - COOLREDPMX005 | 20L - COOLREDPMX020 | 205L - COOLREDPMX205 | 1000L - COOLREDPMX1000LTR

TECHNOLOGY: Type A Si-OAT

BENEFITS

- Ready to use at 50% concentrate
- 12 year or 800,000km drain intervals
- Genuine Glyscantin® G40® OEM, fully licensed and warranty approved
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Phosphate free formulation allows use with hard water
- Borate, nitrite & amine free
- Red colour

OEM APPROVALS

- ✓ Audi/Bentley/Bugatti/Lamborghini/SEAT/Skoda/VW TL 774-G
- ✓ Cummins CES 14603
- ✓ Deutz DQC CC-14/Fahr Harvesters (from 04/2017)
- ✓ MAN 324 Type Si-OAT
- ✓ MB-Approval 326.5/326.6
- ✓ Porsche (From 2010)
- ✓ Smart MB-Approval 325.6



BLUE 12YR OEM COOLANT (CONCENTRATE)

1L - COOLBLUE001 | 5L - COOLBLUE005 | 20L - COOLBLUE020

TECHNOLOGY: Type A OAT

BENEFITS

- 12 year or 800,000km drain intervals
- Genuine Glyscantin® G30® OEM, fully licensed and warranty approved
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Phosphate free formulation allows use with hard water
- Silicate, nitrite, nitrate & amine free
- Blue colour

OEM APPROVALS

- ✓ Audi/Bentley/Lamborghini/SEAT/Skoda/VW TL 774-D/F
- ✓ DAF MAT 74002
- ✓ Deutz DQC CB-14
- ✓ Ferrari (from 2005)
- ✓ MAN 324 SNF
- ✓ MB-Approval 325.3
- ✓ Mini Diesel (2007-2011)
- ✓ MTU MTL 5048
- ✓ Porsche (1996-2009)
- ✓ Siemens (approved)



BLUE 12YR OEM COOLANT (PREMIX)

1L - COOLBLUEPMX001 | 5L - COOLBLUEPMX005 | 20L - COOLBLUEPMX020 | 205L - COOLBLUEPMX205

TECHNOLOGY: Type A OAT

BENEFITS

- Ready to use at 50% concentrate
- 12 year or 800,000km drain intervals
- Genuine Glysantin® G30® OEM, fully licensed and warranty approved
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Phosphate free formulation allows use with hard water
- Silicate, nitrite, nitrate & amine free
- Blue colour

OEM APPROVALS

- ✓ Audi/Bentley/Lamborghini/SEAT/Skoda/VW TL 774-D/F
- ✓ DAF MAT 74002
- ✓ Deutz DQC CB-14
- ✓ Ferrari (from 2005)
- ✓ MAN 324 SNF
- ✓ MB-Approval 326.3
- ✓ Mini Diesel (2007-2011)
- ✓ MTU MTL 5048
- ✓ Porsche (1996-2009)
- ✓ Siemens (approved)



GREEN 12YR OEM COOLANT (CONCENTRATE)

1L - COOLGREEN001 | 5L - COOLGREEN005 | 20L - COOLGREEN020 | 20L BOX - COOLGREEN020BOX | 60L - COOLGREEN060 | 205L - COOLGREEN205

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- 12 year or 800,000km drain intervals
- Genuine Glysantin® G48® OEM, fully licensed and warranty approved
- Protects all surfaces from corrosion
- Phosphate free formulation allows hard water use
- Nitrite & amine free
- Green colour

OEM APPROVALS

- ✓ Audi/SEAT/Skoda/VW TL 774-C
- ✓ BMW/Mini/Rolls Royce (from 1998) GS 94000
- ✓ Ferrari (1979-2005)
- ✓ MB-Approval 325.0
- ✓ Opel/Vauxhall (until 2000) B 040 0240
- ✓ Porsche (until 1995)
- ✓ Saab 690 1599
- ✓ Setra MB-Approval 325.0
- ✓ Smart MB-Approval 325.0
- ✓ Tesla (from 2013)



GREEN 12YR OEM COOLANT (PREMIX)

1L - COOLGREENPMX001 | 5L - COOLGREENPMX005 | 20L - COOLGREENPMX020 | 205L - COOLGREENPMX205 | 1000L - COOLGREENPMX1000LTR

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- Ready to use at 50% concentrate
- 12 year or 800,000km drain intervals
- Genuine Glysantin® G48® OEM, fully licensed and warranty approved
- Protects all surfaces from corrosion
- Phosphate free formulation allows hard water use
- Nitrite & amine free
- Green colour

OEM APPROVALS

- ✓ Audi/SEAT/Skoda/VW TL 774-C
- ✓ BMW/Mini/Rolls Royce (from 1998) GS 94000
- ✓ Ferrari (1979-2005)
- ✓ MB-Approval 326.0
- ✓ Opel/Vauxhall (until 2000) B 040 0240
- ✓ Porsche (until 1995)
- ✓ Saab 690 1599
- ✓ Setra MB-Approval 325.0
- ✓ Smart MB-Approval 325.0
- ✓ Tesla (from 2013)



500,000KM GREEN COOLANT (CONCENTRATE)

1L - COOL500GREEN001 | 2.5L - COOL500GREEN0025 | 5L - COOL500GREEN005 | 20L - COOL500GREEN020 | 60L - COOL500GREEN060 | 205L - COOL500GREEN205

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- 500,000km drain intervals
- Meets many manufacturer specifications
- Compatible with plastics, rubbers & seals
- Green colour

PERFORMANCE LEVELS

- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-3306
- ✓ BS 6580
- ✓ Chrysler MS 9769
- ✓ Cummins CES 14603
- ✓ Ford ESE M97-B44A/WSS M97B51-A1
- ✓ Holden HN 1825M/HN 1899/HN 2043
- ✓ JCB STD00088
- ✓ MAN Liste 3.3.7
- ✓ SAE J1034



500,000KM GREEN COOLANT (PREMIX)

1L - COOL500GREENPMX001 | 5L - COOL500GREENPMX005 | 10L - COOL500GREENPMX010 | 20L - COOL500GREENPMX020 | 1000L - COOL500GREENPMX1000LTR

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- Ready to use at 33% concentrate
- 500,000km drain intervals
- Meets many manufacturer specifications
- Compatible with plastics, rubbers & seals
- Green colour

PERFORMANCE LEVELS

- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-3306
- ✓ BS 6580
- ✓ Chrysler MS 9769
- ✓ Cummins CES 14603
- ✓ Ford ESE M97-B44A/WSS M97B51-A1
- ✓ Holden HN 1825M/HN 1899/HN 2043
- ✓ JCB STD00088
- ✓ MAN Liste 3.3.7
- ✓ SAE J1034



500,000KM RED COOLANT (CONCENTRATE)

1L - COOL500RED001 | 2.5L - COOL500RED0025 | 5L - COOL500RED005 | 20L - COOL500RED020 | 60L - COOL500RED060 | 205L - COOL500RED205

TECHNOLOGY: Type A OAT

BENEFITS

- 500,000km drain intervals
- Meets many manufacturer specifications
- Compatible with plastics, rubbers & seals
- Red colour

PERFORMANCE LEVELS

- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-3306/D-4985
- ✓ BS 6580
- ✓ Fiat 9.55523
- ✓ Ford ESE M97-B44D
- ✓ GM 1825M/1899M/6277M
- ✓ Holden HN 1825M
- ✓ Mitsubishi ES-X64217
- ✓ MTU MTL 5048
- ✓ Nissan NES M5059
- ✓ Renault 41-01-001Q Type D
- ✓ SAE J1034



500,000KM RED COOLANT (PREMIX)

1L - COOL500REDPMX001 | 5L - COOL500REDPMX005 | 10L - COOL500REDPMX010 | 20L - COOL500REDPMX020

TECHNOLOGY: Type A OAT

BENEFITS

- Ready to use at 33% concentrate
- 500,000km drain intervals
- Meets many manufacturer specifications
- Compatible with plastics, rubbers & seals
- Red colour

PERFORMANCE LEVELS

- ✓ AS/NZS 2108-2004 Type A
- ✓ ASTM D-3306/D-4985
- ✓ BS 6580
- ✓ Fiat 9.55523
- ✓ Ford ESE M97-B44D
- ✓ GM 1825M/1899M/6277M
- ✓ Holden HN 1825M
- ✓ Mitsubishi ES-X64217
- ✓ MTU MTL 5048
- ✓ Nissan NES M5059
- ✓ Renault 41-01-001Q Type D
- ✓ SAE J1034



UNIVERSAL TOP UP COOLANT (PREMIX)

1L - AFABPMXYELLOW001

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- Ready to use at 50% concentrate
- Compatible with all coolant types
- Will not discolour original coolant
If not mixed at greater than 10% of system capacity
- Compatible with plastics, rubbers & seals
- Protects all internal surfaces from corrosion, including aluminium
- Yellow colour

PERFORMANCE LEVELS

- ✓ ASTM D-3306/D-4985
- ✓ BS 6580
- ✓ Chrysler MS-9769
- ✓ Ford M97-51A/M97-B44-D
- ✓ GM 1899M/6277M/Holden 6277M
- ✓ Holden HN 2043/HN 2217
- ✓ Mitsubishi ES-X64217
- ✓ Nissan NES M5059
- ✓ SAE J1034
- ✓ Toyota Long Life TSK2601G



POWER SPORTS COOLANT (PREMIX)

1L - COOLPOWERPMX001

TECHNOLOGY: Type A

BENEFITS

- Ready to use at 50% concentrate
- Low toxicity compared to mono ethylene glycol based coolants
- Provides long life protection for all metals
- Provides anti-freeze anti-boil protection
- Dark blue colour

PERFORMANCE LEVELS

- ✓ ASTM D-6211/D-6257
- ✓ TMC RP 330



PG UXL COOLANT (PREMIX) **NEW**

20L - PGUXLPMX020 | 205L - PGUXLPMX205 | 1000L - PGUXLPMX1000LTR

TECHNOLOGY: Type A Hybrid Propylene Glycol

BENEFITS

- Ready to use at 50% concentrate
- Nitrate, amine, phosphate, silicate (NAPS) and 2-EHA free
- Provides ultra long life protection for all metals
- Excellent protection for aluminium & heavy diesel wet sleeve liners
- Low toxicity compared to Mono Ethylene Glycol based coolants
- Contains nitrite and molybdate for cylinder liner protection
- Red colour

PERFORMANCE LEVELS

- ✓ Caterpillar EC1
- ✓ Cummins 14603
- ✓ Detroit Diesel 7SE 298
- ✓ Freightliner 48-22880
- ✓ Kenworth R026-170-97
- ✓ Mack CN
- ✓ MAN 324 NF
- ✓ Mercedes Benz DBL 325.5
- ✓ MTU MTL 5048
- ✓ Volvo Heavy Truck



HD LONGLIFE ECO1 COOLANT (CONCENTRATE)

20L - AFABECO1020 | 205L - AFABECO1205

TECHNOLOGY: Type A Hybrid HOAT

BENEFITS

- 8 year heavy duty drain intervals
- 15,000 hour drain intervals in off highway engines
- Protects all internal surfaces from corrosion, including aluminium
- Deep Red colour

PERFORMANCE LEVELS

- ✓ ASTM 4985/6210/D-3306
- ✓ Caterpillar EC-1
- ✓ Detroit 7SE-298
- ✓ Freightliner 48-2288D
- ✓ Isuzu (GM6277M)
- ✓ Kenworth R026-170-97
- ✓ Mack 014 GS 17009
- ✓ MAN 324
- ✓ MTU MTL 5048
- ✓ SAE J1034/J1941
- ✓ Volvo Heavy Truck (Approved)/VCS



HD LONGLIFE ECO1 COOLANT (PREMIX)

20L - AFABECO1PMX020 | 205L - AFABECO1PMX205 | 1000L - AFABECO1PMX1000LTR

TECHNOLOGY: Type A Hybrid (HOAT)

BENEFITS

- Ready to use at 50% concentrate
- 8 year heavy duty drain intervals
- 15,000 hour drain intervals in off highway engines
- Protects all internal surfaces from corrosion, including aluminium
- Deep red colour

PERFORMANCE LEVELS

- ✓ ASTM 4985/6210/D-3306
- ✓ Caterpillar EC-1
- ✓ Detroit 7SE-298
- ✓ Freightliner 48-2288D
- ✓ Isuzu (GM6277M)
- ✓ Kenworth R026-170-97
- ✓ Mack 014 GS 17009
- ✓ MAN 324
- ✓ MTU MTL 5048
- ✓ SAE J1034/J1941
- ✓ Volvo Heavy Truck (Approved)/VCS



RADIATOR CORROSION INHIBITOR

500mL - COOL10005 | 1L - COOL1001

TECHNOLOGY: Type B

BENEFITS

- Protects all internal surfaces from corrosion, including aluminium
- Safe for all plastics, rubber hoses & seals
- Helps prevent wet liner erosion
- Contains an anti foam agent to help protect against cavitation
- 1L makes up to 20L
- Green colour

PERFORMANCE LEVELS

- ✓ AS/NZS 2108.1-1997 Type B
- ✓ Deutz-MWM 0199-209
- ✓ Ford ESD-M99B166C
- ✓ MAN 248/B&W D36 5600
- ✓ Sulzer Diesel ZBS0503
- ✓ Wartsila 32-9011



10 TENTHS RACE COOLANT INHIBITOR (CONCENTRATE)

1L - RCI001

TECHNOLOGY: Type B

BENEFITS

- Lowers engine operating temperatures preventing damage
- Leaves no slippery residue if dropped on a race track
- Contains a conventional hybrid inhibitor
- Removes cavitation for better heat dissipation
- 1L makes between 10 - 20L
- Red colour

PERFORMANCE LEVELS

- ✓ AS 2108-2004 Type B



DEMINERALISED WATER

1L - DEWATER001 | 2L - DEWATER002 | 5L - DEWATER005 | 20L - DEWATER020

BENEFITS

- 100°C boiling point
- 7.2pH level
- Complete 100% solubility
- Maximises life of engine coolants & lead acid batteries
- Can be mixed with all types of engine coolants
- Suitable as an engine coolant top up
- Multiple applications in various industries
- Clear colour



POWER STEERING & SUSPENSION FLUIDS

OVERVIEW

Power Steering Fluids are hydraulic fluids that help take the manual effort out of turning the steering wheel.

Some vehicles use ATF (Automatic Transmission Fluids) as Power Steering Fluids, others use specialised fluids, but like all systems within a vehicle, the right type of product needs to be used for the system to function as intended. The most common fluid used is DEXRON® based ATF and many suppliers use this as their base product for Power Steering Fluid. Some systems require fluids that also work with other hydraulic systems and can specify synthetic specialty fluids that contain additives to suit that particular system. Careful attention must be paid to getting the right fluid for your particular application.

HOW OFTEN SHOULD YOU CHANGE YOUR POWER STEERING FLUID?

Most manufacturers will have defined service intervals for power steering fluid and these will vary by vehicle and manufacturer. These service intervals should be followed to protect the service life of the system. If not defined by a manufacturer in the service schedule, the fluid should be changed approximately every 50,000km.

HOW DO I KNOW WHAT POWER STEERING FLUID MY VEHICLE TAKES?

The vehicle owner's manual will normally advise what type of fluid is required or alternatively, you can use the Penrite Product Guide to find the right fluid and volume needed.

HOW DO YOU BLEED A POWER STEERING SYSTEM?

Power Steering Systems are relatively easy to bleed. Simply fill the reservoir to the full mark. Leave the cap slightly ajar, start the vehicle and turn the steering wheel from one side to the other. Do this until the steering becomes smooth and easy to turn. Stop engine, and check the fill level of the power steering fluid reservoir. Top up if needed and refit reservoir cap.

WHY CAN'T I USE DEXRON® 3 IN MY FORD FALCON?

Ford EL-FG series vehicles require a special fluid with a specification number of M2C134-C/D. Although an ATF based fluid, it has properties that are not available in ATF fluids and therefore a product that meets M2C134-C/C is required.

MY CAR HAS ELECTRIC POWER STEERING, DO I NEED TO CHECK ANYTHING?

Vehicles with electric power steering will still have a reservoir of hydraulic fluid to drive the system. These should be inspected at regular intervals.

WHAT ARE THE BENEFITS OF USING A POWER STEERING FLUID OVER AN ATF?

Power Steering Fluids can be adjusted with additives to benefit a power steering system such as anti-shudder additives. They can also be doused with additives such as stop leak to prevent system leaks. Full synthetic fluids can also be engineered to last longer than standard ATFs in a power steering application.

Power steering fluids are formulated with purpose designed additives for power steering systems that can often provide better control of shuddering noise and squawk over the recommended ATF.



At Penrite, we manufacture a wide range of general and specialty Power Steering & Suspension Fluids to ensure that the correct product and specification is available for each vehicle. Modern vehicles use an array of different products with different specifications in their power steering and suspension systems and selecting the correct type of product is critical to the performance and safety of each particular vehicle.

Penrite provides a range of products that cover the vast majority of cars, 4WDs, light and heavy commercial vehicles. The range includes full synthetic, semi synthetic and premium mineral fluids, applicable to vehicles manufactured in Europe, Japan, Korea, China, USA, and Australia as well as many other countries.

PRODUCTS

	MILLILITRES	LITRES	
	500	1	20
Power Steering Fluid	●	●	●
LDAS		●	
LHM Plus		●	
PAS Fluid		●	
HPSO		●	
MB15 Suspension Fluid		●	
CARTON QUANTITY	6	6	

● AVAILABLE PACK SIZE



POWER STEERING FLUID

500mL - PSF0005 | 1L - PSF001 | 20L - PSF020

BASE OIL: Premium Mineral

BENEFITS

- Minimises shudder (noise & chatter) in power steering pumps
- Effective anti wear additives provide wear protection
- Protects against rust & corrosion
- Long service through good thermal stability
- Reduces system leaks
- Amber colour

OEM APPROVALS

- ✓ Chrysler MS-1872
- ✓ Ford M2C134-D
- ✓ GM 9985010
- ✓ PS 11872



LDAS

1L - LDAS001

BASE OIL: Full Synthetic

BENEFITS

- Good flow rates of fluid at extremes of temperature
- Excellent lubricating properties
- High thermal stability
- Excellent protection against wear & corrosion
- Green colour

OEM APPROVALS

- ✓ Chrysler MS-11655
- ✓ DIN 51524T2
- ✓ Ford M2C204-A
- ✓ ISO 7308
- ✓ MB 345.0.
- ✓ Opel B 040 0070
- ✓ Pentosin CHF 11S/CHF 202
- ✓ Peugeot PSA B71 2710/S71 2710
- ✓ Volvo 1273.36/30741424
- ✓ VW G 002 000/TL 52 146.01/TL 521 46 (G2000/G4000 M2)
- ✓ ZF TE-ML 02K



LHM PLUS

1L - LHMP001

BASE OIL: Premium Mineral

BENEFITS

- Protects against wear & corrosion
- Good flow rates of fluid at extremes or temperature
- Compatible with LHM/LHM+ OEM fluids
- Will not harm internal parts, seals & hoses
- Green colour

OEM APPROVALS

- ✓ Citroen B71 2710
- ✓ Ford ESN-M6C59-A
- ✓ ISO 7308
- ✓ Massey Ferguson MF 1151
- ✓ Peugeot PSA B71 2710
- ✓ VW 2000



PAS FLUID (POWER ASSISTED STEERING)

1L - PAS001

BASE OIL: Semi Synthetic

BENEFITS

- Minimises shudder & noise
- Extends seal & hose life
- Good low temperature fluidity
- Protects against rust & corrosion
- Green colour

OEM APPROVALS

- ✓ Chrysler MS-5931/MS-9462
- ✓ Ford M2C128-D/M2C195-A (power steering only)
- ✓ GM 9985819/9985835
- ✓ MB 236.3/341.0
- ✓ Opel 90 513486
- ✓ PAS 14315
- ✓ Pentosin CHF 4548/CHF 7.1
- ✓ VW TL VW-570-26
- ✓ ZF TE ML 09B



HPSO (HONDA POWER STEERING OIL)

1L - HPS0001

BASE OIL: Full Synthetic

BENEFITS

- Correct viscosity for Honda power steering units
- Compatible with OEM fluid
- Reduces power steering shudder (noise & chatter)
- Extends seal & hose life
- Multiple use power steering & suspension
- Long service life
- Protects against rust & corrosion
- Amber colour

OEM APPROVALS

- ✓ Ford M2C134-D
- ✓ Fork Oil SAE Grade 20
- ✓ Honda PSF-II/PSF-S/PSF-V



MB15 SUSPENSION FLUID

1L - MB15001

BASE OIL: Premium Mineral

BENEFITS

- Provides excellent wear & anti-corrosion protection
- Good low temperature flow properties
- Compatible with OEM fluids
- Amber colour

PERFORMANCE LEVELS

- ✓ ISO 15
- ✓ MB 343.0



BRAKE FLUIDS

CHOOSING THE RIGHT BRAKE FLUID

Most drivers today probably don't have much of an idea of what type of brake fluid they have in their vehicle. Brake fluids that do not meet the appropriate DOT specifications can speed up the deterioration of brake components and can also lead to the malfunctioning of ABS (Anti Brake Skid), ESP (Electronic Stability Program) or AEB (Automatic Emergency Braking) systems.

BRAKE FLUID SPECIFICATIONS

DOT (Department of Transportation), is an American government transport department. DOT set standards such as FMVSS (Federal Motor Vehicle Safety Standard) very similar to the JIS in Japan or DIN in Germany. AS (Australian Standards), SAE & ISO also set standards for brake fluids.

The table below shows brake fluid specifications.

PROPERTY	AS 1960.1			FMVSS 116			SAE		ISO
	GRADE 1	GRADE 2	GRADE 3	DOT 3	DOT 4	DOT 5.1	J1703	J1704	4925
DERBP °C min	230	260	260	205	230	260	205	230	205
WERBP °C min	140	155	170	140	155	180	140	155	140
VISCOSITY (-40°C) max	1500	1800	1800	1500	1800	900	1800	1800	1800

DERBP (Dry Equilibrium Reflux Boiling Point):

Boiling point temperature when the fluid is brand new, no moisture absorption.

WERBP (Wet Equilibrium Reflux Boiling Point):

Boiling point temperature with fluid that has 3.7% water by volume, typically after 1-2 years of fluid use.

OTHER BRAKE FLUIDS

Mineral Brake Fluid:

Mineral based brake fluids as used by Rolls Royce in a few of its models during the 1980's as well as other makes are suspension and brake fluids that have different properties to DOT fluids. These are more like an oil.

Silicone Brake Fluid:

A silicone brake fluid is also known as a DOT 5 brake fluid. Silicone brake fluids are not hygroscopic so they do not absorb moisture. They are extremely expensive compared to standard polyglycol based fluids, and may require compatible braking system components before these can be used. DOT 5 fluids will not mix with any other DOT specification or a mineral brake fluid.

VISCOSITY

A measure to represent the brake fluid flow property. The higher the value, the more difficult for the fluid to flow. If the value is high when the air temperature is low, the fluid can have a negative effect on ABS performance.

pH

Shows the acidity/basicity of the fluid. If the pH value is lower than 7.0 (acidic), the fluid can accelerate corrosion of other brake components.

MIXING BRAKE FLUIDS

This is not recommended. By adding new brake fluid to old brake fluid, you are potentially mixing water absorbed brake fluid with new product, lessening the effect and lowering the lifespan of the newer fluid. DOT 3, DOT 4, Super DOT 4 & DOT 5.1 fluids are miscible although this is not recommended. DOT 5 fluid is NOT mixable with DOT 3, DOT 4, Super DOT 4 or DOT 5.1 fluids.

FREQUENTLY ASKED QUESTIONS

WHAT IS BOILING POINT TEMPERATURE?

The temperature at which the fluid boils. Water boils at 100°C whereas brake fluid with high boiling point will boil at over 300°C, and low boiling point brake fluid will boil around 140°C depending on condition of fluid.

HOW FREQUENTLY SHOULD BRAKE FLUID BE REPLACED?

For everyday drivers who use brake fluids that exceed DOT 4 specification, fluid replacement once every 2 years is acceptable. For people who use DOT 3 fluid, replacement every year is recommended. For people who drive aggressively on winding roads, fluid replacement every six months to a year is recommended. For people who drive their cars on the race circuit, replacement before each event is recommended.



Penrite market a complete range of brake fluids designed for most applications. Our products meet and exceed industry specifications and include premium synthetic fluids as well as a petroleum based mineral oil (LHM Plus). They are designed for use in brake and clutch systems in passenger cars, light and heavy commercial vehicles, 4WDs, tractors, motorcycles and wherever these type of fluids are specified by the manufacturer.

BENEFITS:

- Complete range of DOT fluids
- Excellent braking response due to minimal vapour formation over a wide temperature range, ensuring good braking performance
- Compatible with all common brake system materials
- Product application from road to racing vehicles

The range includes DOT 3, Super DOT 4 and DOT 5.1 for colder temperatures and micro-valved ABS systems as well as ultra high boiling point Racing Brake Fluid and a DOT 5 Silicone brake fluid.

PRODUCTS

	MILLILITRES	LITRES	
	500	4	20 BOX
DOT 3 Brake Fluid	●	●	●
Super DOT 4 Brake Fluid	●	●	●
DOT 5.1 Brake Fluid	●		
Racing Brake Fluid 600	●		
Silicone Brake Fluid	●		
CARTON QUANTITY	6	4	

● AVAILABLE PACK SIZE



DOT 3 BRAKE FLUID

500mL - DOT30005 | 4L - DOT3004 | 20L - DOT3020

BASE OIL: Full Synthetic

BENEFITS

- Excellent braking response due to the high boiling point of the fluid
- High wet boiling point ensures long term retention of fluid performance
- Compatible with all common brake system materials
- Amber colour

OEM APPROVALS

- ✓ AS 1960-2005 Grade 1
- ✓ DOT 3
- ✓ ISO 4925 Class 3
- ✓ SAE J1703
- ✓ US FMVSS No 116 DOT 3



SUPER DOT 4 BRAKE FLUID

500mL - BF0005 | 4L - BF004 | 20L - BF020

BASE OIL: Full Synthetic

BENEFITS

- Excellent braking response due to the high boiling point of the fluid
- High wet boiling point ensures long term retention of fluid performance
- Better performance for life of fluid compared to DOT 3 fluids
- Amber colour

OEM APPROVALS

- ✓ AS 1960.1-1995
- ✓ DOT 3/4
- ✓ Ford ESZ-M6C55-A
- ✓ Holden HN 1796
- ✓ ISO 4925
- ✓ JIS K2233 (Japan)
- ✓ SAE J1703/J1704
- ✓ SUPER DOT 4
- ✓ US FMVSS No 116 Super DOT 4



DOT 5.1 BRAKE FLUID

500mL - DOT510005

BASE OIL: Full Synthetic

BENEFITS

- Suitable where DOT 5.1 fluids are required and for ESP & AEB braking systems
- Low viscosity (at -40°C), suitable for faster fluid circulation in micro-valves of ABS systems
- High boiling point 275°C/525°F
- Amber colour

OEM APPROVALS

- ✓ DOT 3/4/5.1
- ✓ FMVSS 116 DOT 5.1
NON SILICONE BASE
- ✓ Ford WSS-M6C65-A2
- ✓ ISO 4925 Class 4/5.1/6
- ✓ SAE J1703/J1704



RACING BRAKE FLUID 600

500mL - RBF0005

BASE OIL: Full Synthetic

BENEFITS

- Excellent braking response due to the high boiling point of the fluid
- High wet boiling point ensures long term retention of fluid performance
- Better performance for life of fluid compared to Super DOT 4 fluids
- Amber colour

OEM APPROVALS

- ✓ AS 1960.1-2005
- ✓ DOT 4
- ✓ SAE J1704
- ✓ SUPER DOT 4/PLUS
- ✓ US FMVSS No 116 Super DOT 4



SILICONE BRAKE FLUID

500mL - BFSIL0005

BASE OIL: Full Synthetic

BENEFITS

- Excellent braking feel due to stable viscosity over a wider temperature range than polyglycol type fluids
- Does not absorb water, is safe for paintwork & non-toxic
- High boiling point (>300°C/572°F) resisting fade & vapour lock
- Amber colour

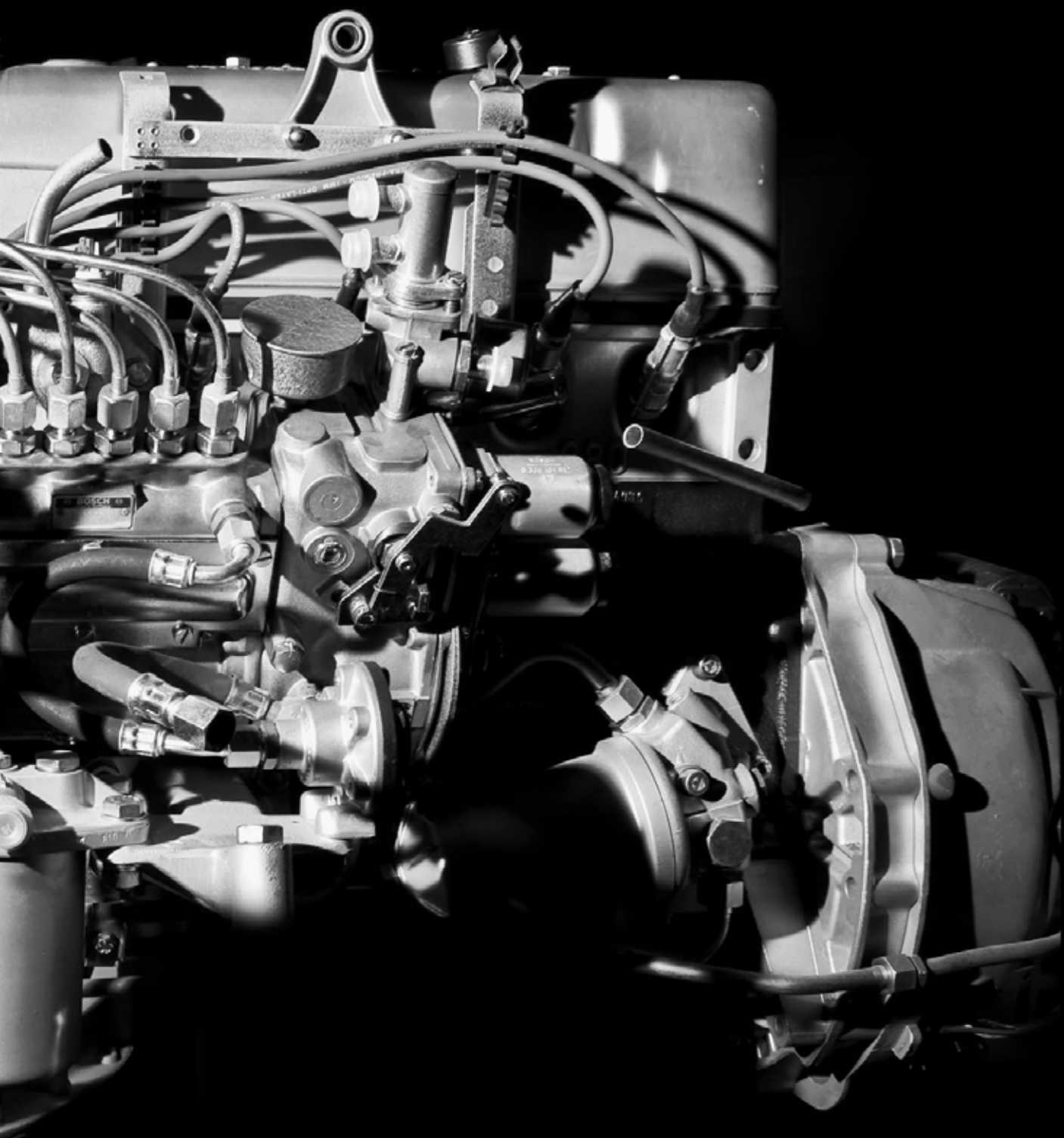
OEM APPROVALS

- ✓ DOT 5 (Silicone)
- ✓ US FMVSS 116 DOT 5

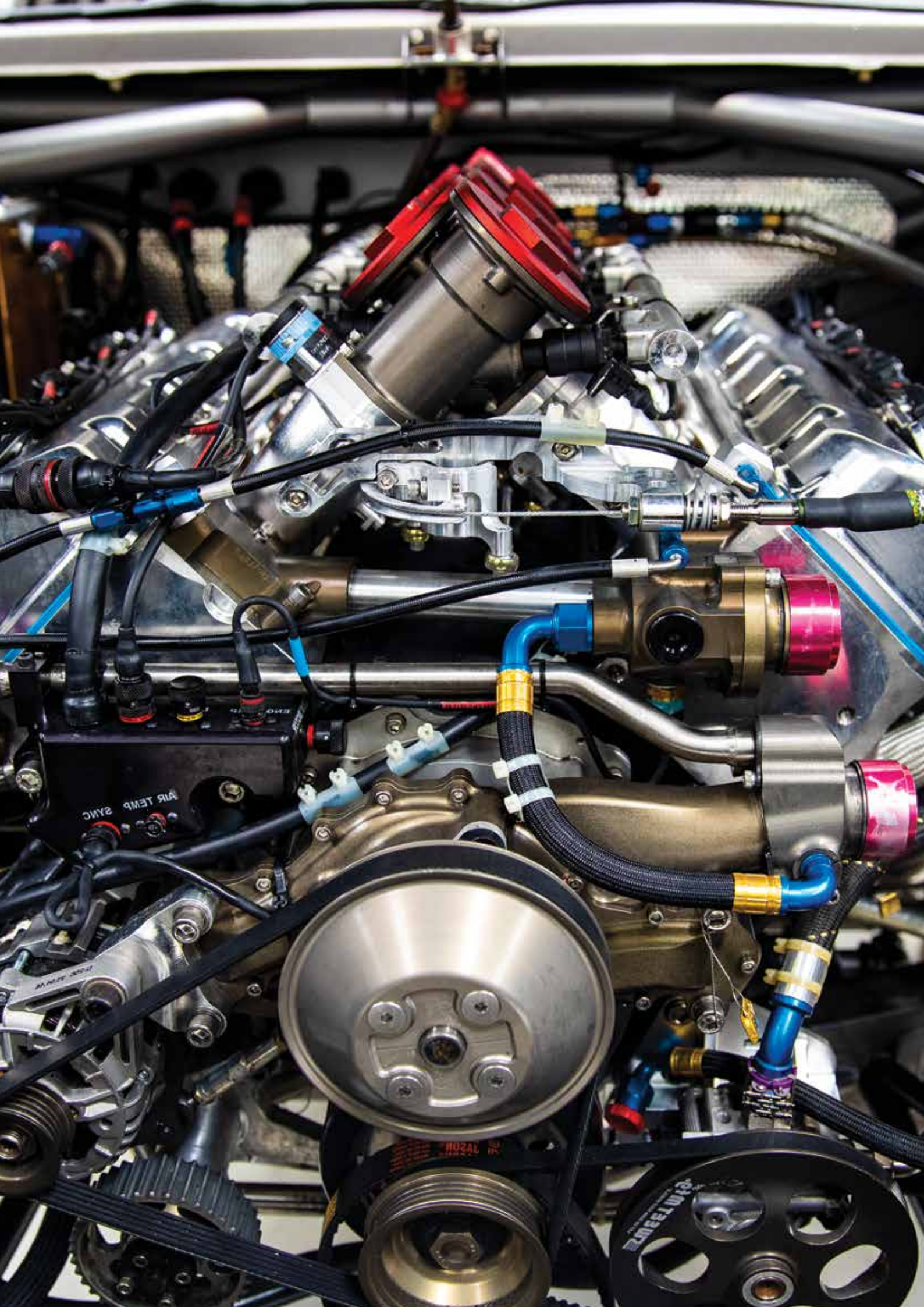


Penrite's award-winning EnviroBox™ revolutionised the way lubricants are manufactured, packaged, distributed, handled and stored. They are designed to reduce landfill waste, increase productivity and reduce costs.

The EnviroBox™ range includes **DOT 3 Brake Fluid** and **Super DOT 4 Brake Fluid**. Brake Fluids are naturally hygroscopic and will absorb water from the air. The 20L bladder reduces exposure to air and prolongs brake fluid storage ability.



ADDITIVES & FUEL TREATMENTS



Penrite in conjunction with its international technology partners, have developed and manufactured a range of additive products. Penrite's additive range has been designed to enhance a vehicle's durability, reliability, economy and performance. At Penrite, we believe in setting the standard, so like all Penrite products, our additive range offers real benefits and improved performance from industry firsts that are unique in the marketplace.

BENEFITS:

- Meet engine emission requirements
- Enhance engine performance
- Additives to reduce emissions
- Improve fuel economy
- To reduce maintenance costs

PRODUCTS

	MILLILITRES					LITRES							
	30	125	250	375	500	1L	3.5	7	10	20	20 BOX	210	1000
Ultimate Fuel Stabiliser			●										
Petrol Injector Cleaner				●						●			
Petrol Total System Cleaner				●									
Octane Booster				●									
Pro Series EGR & CAT Clean+					●								
Valve Shield			●										
Diesel Biocide Fuel Treatment						●				●			
Diesel Injector Cleaner				●						●			
Diesel Total System Cleaner				●									
Enviro+ DPF Cleaner				●									
Convoy DPF Cleaner						●							
PenBlue (AdBlue®)						●	●	●	●			●	●
Engine Stop Smoke				●									
Engine Flush				●							●		
Engine Stop Leak				●									
Lifter & Tappet Fix				●									
Racing Zinc Top Treat NEW				●									
Shift Eze		●	●										
Radiator Flush				●									
Radiator Oil Remover				●									
Radiator Stop Leak				●									
Block & Cylinder Head Seal			●										
Clear Screen	●		●							●			
CARTON QUANTITY	30	6	6	6	6	6	4						

● AVAILABLE PACK SIZE



ULTIMATE FUEL STABILISER

250mL - ADUFS250

BENEFITS

- Prevents fuel from going stale for up to 12 months
- Prevents gum, sediments, and polymer formation in the fuel
- Protects fuel systems against rust and corrosion
- Extends the life of fuel injectors, pumps, and diesel catalysts
- Inhibits the tendency of Biodiesel to react with oxygen, thereby prolonging its shelf life
- Suitable for use with premixed 2 stroke blends
- Economical when compared to replacing old or stale fuel
- Contains detergents to clean and maintain the fuel system
- 250mL treats 200L
- Orange colour



PETROL INJECTOR CLEANER

375mL - ADPIC375 | 20L - ADPIC020

BENEFITS

- Fuel economy gains of up to 2.4%
- Cleans blocked fuel injectors & carburettors
- Increases engine power by up to 2.6%
- Easier starting & smoother idling
- Reduces intake valve deposits
- Protects fuel system against rust & corrosion
- For LPG/dual fuel, petrol/E10 & racing fuel types
- 750mL treats up to 60L for blocked/fouled fuel injectors
- 375mL treats up to 60L, every 3,000km for maintenance
- Red colour



PETROL TOTAL SYSTEM CLEANER

375mL - ADPTSC375

BENEFITS

- Cleans fuel tank, lines, injectors, carburettors & inlet valves
- Prevents fuel system deposits & contaminants
- Improves power & performance
- Improves fuel economy & reduces emissions
- 375mL treats 75L, every 10,000km
- Amber colour

PERFORMANCE LEVELS

- ✓ ASTM D-5500-98 (2014)/D-5598-01 (2012)/D-6201



OCTANE BOOSTER

375mL - ADOCTB375

BENEFITS

- Increases octane rating by up to 2.5
- Keeps injectors clean
- Improves power & acceleration
- Enhances fuel economy
- For hybrid, petrol/E10 & racing fuel types
- 375mL treats up to 50L
- Orange colour



PRO SERIES EGR & CAT CLEAN+

500mL - PSECC0005

BENEFITS

- Powerful low cost alternative to costly repairs
- Reduces exhaust emission
- Increases engine performance & improves fuel economy
- For diesel (including those with DPFs), E85, hybrid, LPG/dual fuel & petrol/E10 fuel types
- 500mL treats 25L of fuel as a complete treatment
- Blue colour



VALVE SHIELD

250mL - ADVS250

BENEFITS

- Protects against valve seat recession
- Cleans & protects fuel system components
- Provides a lubricant into the fuel system which is absent with the "dry" LPG
- Prevents power loss by lowering intake deposits on valves
- 250mL treats 250L for prevention of VSR & upper cylinder lubrication
- 100mL treats 50L for added cleaning benefits
- Red colour



DIESEL BIOCIDIC FUEL TREATMENT

1L - ADDSLTREAT001 | 20L - ADDSLTREAT020

BENEFITS

- Contains a biocide to eliminate & control the growth of bacteria in the fuel
- Prevents fuel system & filter blockages
- Suitable for decontaminating on-site storage & tank facilities
- 1L treats 250L for shock dose/bacterial growth
- 1L treats 500L for blocked injectors/fuel systems
- 1L treats 2,000L for maintenance
- Amber colour



DIESEL INJECTOR CLEANER

375mL - ADDIC375 | 20L - ADDIC020

BENEFITS

- Can improve fuel economy by up to 2.5%
- Cleans blocked injectors & reduces nozzle blockages
- Restores acceleration & power
- Reduces exhaust emissions
- Easier starting, smoother idling
- For diesel (including those with DPFs) fuel types
- 375mL treats up to 75L for blocked/fouled fuel injectors
- 375mL treats up to 200L, every 2,500km for maintenance
- Greenish blue colour



DIESEL TOTAL SYSTEM CLEANER

375mL - ADDTSC375

BENEFITS

- Cleans fuel tank, lines, injectors, rails & inlet valves
- Prevents fuel system deposits & contaminants
- Improves power & performance
- Improves fuel economy & reduces emissions
- Improved idling & engine starting
- Safe for emission systems & oxygen sensors
- Reduces soot & smoke emissions
- 375mL treats 75L, every 10,000km
- Straw colour



ENVIRO+ DPF CLEANER

375mL - ADDPFC375

BENEFITS

- Cleans blocked DPFs
- Lowers DPF regeneration temperature
- Improves fuel economy & reduces CO₂ emissions
- Visibly reduces smoke & opacity
- 375mL treats 30L for regeneration assist on 1st stage filler blockage
- 375mL treats 60L, every 5,000km for maintenance
- Amber colour

PERFORMANCE LEVELS

- ✓ European and EPA registered
- ✓ MSHA-accepted
- ✓ VERT-approved with DPF



CONVOY DPF CLEANER

1L - DPFC001

BENEFITS

- Lowers DPF regeneration temperature
- Improves fuel economy and reduces CO₂ emissions
- Safe for use with SCR/DPF systems
- Minimises unscheduled maintenance and operations costs
- Maximises DPF life
- 1L treats 200L of diesel fuel
- Brown colour



PENBLUE (AdBlue®)

1L - PENBLUE001 | 3.5L - PENBLUE0035 | 7L - PENBLUE007 | 10L - PENBLUE010 | 210L - PENBLUE210 | 1000L - PENBLUE1000LTR

BENEFITS

- Reduces the NO_x emissions generated during the combustion process
- Non toxic & safe to handle
- Registered & licensed product - AdBlue®
- Clear colour

PERFORMANCE LEVELS

- ✓ AUS 32
- ✓ DIN 70070
- ✓ Ford M99C130-A
- ✓ ISO 22241



ENGINE STOP SMOKE

375mL - ADESS375

BENEFITS

- Reduces exhaust smoke
- Revitalises worn seals and gaskets
- Minimises oil burning and consumption
- Reduces costly repairs
- Reduces engine noise
- Compatible with mineral and synthetic oils
- 375mL treats up to 6L, every oil change
- Amber colour



ENGINE FLUSH

375mL - ADEF375 | 20L BOX - ADEF020BOX

BENEFITS

- Contains zinc for added wear protection
- Fast acting, cleans in 10 minutes
- Solvent free to prevent engine seal damage
- Removes engine sludge, varnish & deposits with oil drain
- 375mL treats 7.5L, every oil change
- Amber colour



ENGINE STOP LEAK

375mL - ADESL375

BENEFITS

- Revitalises worn seals & gaskets
- Reduces system leaks
- Reduces oil consumption
- Compatible with mineral & synthetic oils
- Reduces oil burning
- Can reduce costly repairs
- Prevents messy oil stains
- Reduces risk of fire from leaks
- 375mL treats up to 6L, every oil change
- Amber colour



LIFTER & TAPPET FIX

375mL - ADLTF375

BENEFITS

- Unique combination of solvents, base oils & additives cleans and quietens noisy lifters in one application
- Safe for all types of engine oils & will not harden oils seals
- Frees up roller lifters & rockers reducing abrasive overhead valve train wear
- Removes varnish & other engine deposits
- Cleans oil galleries preventing future lubrication problems
- Suitable for pushrod & overhead camshaft engines
- 375mL treats up to 6L
- Amber colour



RACING ZINC TOP TREAT NEW

375mL - RACINGZTT375

BENEFITS

- Shown to reduce wear by up to 3% in laboratory testing
- Reduces friction by up to 10% (shown in laboratory HFRR test)
- Decreases friction as temperature increases (tests results compared at 70°C, 100°C and 130°C)
- Compatible with modern emission control systems including catalytic converters and DPFs
- Helps maintain power output under severe operating conditions
- Can improve fuel economy in on-road applications
- Base DI (Detergent Inhibitor) pack maintains the balance of the base engine oil performance
- Compatible with mineral and synthetic oils



SHIFT EZE

125mL - SHIFTEZE000125 | 250mL - SHIFTEZE000250

BENEFITS

- Improves cold changing performance
- Smoother easier gear shifting
- Quietens noisy gearboxes, transaxles, transfer cases & differentials
- Extra protection for competition & vehicles under heavy load
- Mixes with all types of gear oils
- 250mL treats 2.5L for initial dose
- 125mL treats 2L for maintenance
- Grey to yellow-brown colour



RADIATOR FLUSH

375mL - ADRF375

BENEFITS

- Fast acting, cleans in 7 minutes
- Removes internal rust & corrosion
- Improves cooling system circulation
- Harmless to all metals, rubber & water pump seals
- Compatible with all types of coolants
- Non-acidic formulation
- 375mL treats up to 15L
- Blue colour



RADIATOR OIL REMOVER

375mL - ADROR375

BENEFITS

- Dissolves oil in the cooling system
- Prevents expensive replacement of cooling system parts that have been contaminated
- Safe for cooling system & engine
- Cleans scale, corrosion & rust from the cooling system improving efficiency
- Prepares cooling system for new coolant
- 375mL treats up to 15L
- Green colour



RADIATOR STOP LEAK

375mL - ADRSL375

BENEFITS

- Stops coolant leaks
- Safe for rubber hoses & all metals, including aluminium
- Compatible with anti-freeze anti-boil solutions
- 375mL treats up to 12L
- Blue colour



BLOCK & CYLINDER HEAD SEAL

250mL - ADBCS250

BENEFITS

- Latest ceramic fibre & copper technology
- Seals leaks in one application
- Fixes expensive cylinder head & gasket repairs
- Very economical compared with mechanical repairs
- Compatible with all coolants, metals, plastic & rubber
- 250mL treats up to 19L
- Copper colour



CLEAR SCREEN

30mL - ADCS030SINGLE | 250mL - ADCS250 | 20L - ADCS020

BENEFITS

- Cuts through road grime & insect splatter
- Anti-smear properties
- Concentrated formula for less waste
- Measuring chamber on 250mL pack allows correct dosage every time
- Won't induce stress cracks in polycarbonate headlight lenses
- 30mL supplied in a shelf-ready display carton
- Provides clear vision in seconds
- 30mL treats 3L
- Orange colour



AEROSOLS

LEGEND

900

LIMITED EDITION



Penrite provides a range of professional aerosol maintenance products designed to perform cleaning and lubrication applications quickly and effectively in the workshop or home environment. They have been trialled and tested to provide excellent and reliable performance for their intended applications. Whether it be degreasing, brake cleaning, intake cleaning or general lubrication, the Penrite aerosol range has products designed to provide the ultimate in professional performance in all environments.

BENEFITS:

- Professional strength formulations
- Quick and easy to use
- Various products to complete a range of tasks

PRODUCTS

	GRAMS / MILLILITRES			
	130	200	240	400
P26 Multi-Purpose MoS2 Lubricant				●
P26 Petrol Foaming Intake Cleaner			●	
P26 Diesel Foaming Intake Cleaner	●			
P26 DPF Cleaner Aerosol				●
P26 Throttle Body & Carb Cleaner				●
P26 Brake & Parts Cleaner				●
P26 Multi-Purpose Degreaser				●
P26 Mass Air Flow Sensor Cleaner		●		
CARTON QUANTITY	6	6	6	6

● AVAILABLE PACK SIZE



P26 MULTI-PURPOSE MoS₂ LUBRICANT

400mL - P26MPL0004

BENEFITS

- Protects against corrosion, rust & oxidation
- Acts as a water displacement fluid
- Stops squeaks & creaks
- Many & varied product uses
- New design spray nozzle with built-in tube
- Brown-grey colour



P26 PETROL FOAMING INTAKE CLEANER

240mL - P26PETAIC000240

BENEFITS

- Improves engine performance & fuel economy
- Reduces engine emissions
- Smooths rough idling
- Safe for use catalytic converters & oxygen sensors
- Reduces engine pinging
- Improves compression ratio
- Contains no CFCs, LPG propelled
- Light yellow colour



P26 DIESEL FOAMING INTAKE CLEANER

130mL - P26DSLAI000130

BENEFITS

- Improves engine performance & fuel economy
- Reduces engine emissions & smoke output
- Smooths rough idling
- DPF & sensor safe
- Reduces pre-ignition from carbon deposits
- Improves compression ratio
- Contains no CFCs, LPG propelled
- Clear colour



P26 DPF CLEANER AEROSOL

400mL - P26DPFCA0004

BENEFITS

- Cleans DPFs without the need for total dismantling
- Extends the life of DPFs
- Restores engine performance and the capacity of the DPF
- Metal free and does not leave any residue after evaporation
- Resolves DPF clogging and the associated symptoms like increased fuel consumption and power loss
- Clear colour



P26 THROTTLE BODY & CARB CLEANER

400g - P26TBCC0004

BENEFITS

- Professional strength formulation
- Breaks down grime, sediment & sludge with ease
- Fast acting, quick drying formulation
- Cleans parts without the need for dismantling
- Lubricates throttle plates/butterfly valves & bushings
- Easy aerosol application
- Clear colour



P26 BRAKE & PARTS CLEANER

400mL - P26BAPC0004

BENEFITS

- Professional strength
- Evaporates completely without residue or staining
- Fast acting, non-corrosive formulation
- Safe for ABS sensors
- Cleans brake parts without the need for dismantling
- Cleans & degreases
- Free from aromatic or halogenated hydrocarbons
- Clear colour



P26 MULTI-PURPOSE DEGREASER

400g - P26MPD0004

BENEFITS

- Professional strength
- Breaks down grease, oil & sludge with ease
- Fast acting, non corrosive formulation
- Cleans parts without the need for dismantling
- Easy aerosol application
- Free from aromatic or halogenated hydrocarbons
- Clear colour



P26 MASS AIR FLOW SENSOR CLEANER

200mL - P26MAF0002

BENEFITS

- Professional strength
- Safe on all types of sensors
- Fast-acting, quick-drying formula free of residue
- Cleans parts without the need for dismantling
- Restores engine performance and fuel economy
- Easy aerosol application
- Clear colour



GLOBETROTTER

LUCAS

OVER

SIZE

XS21DY

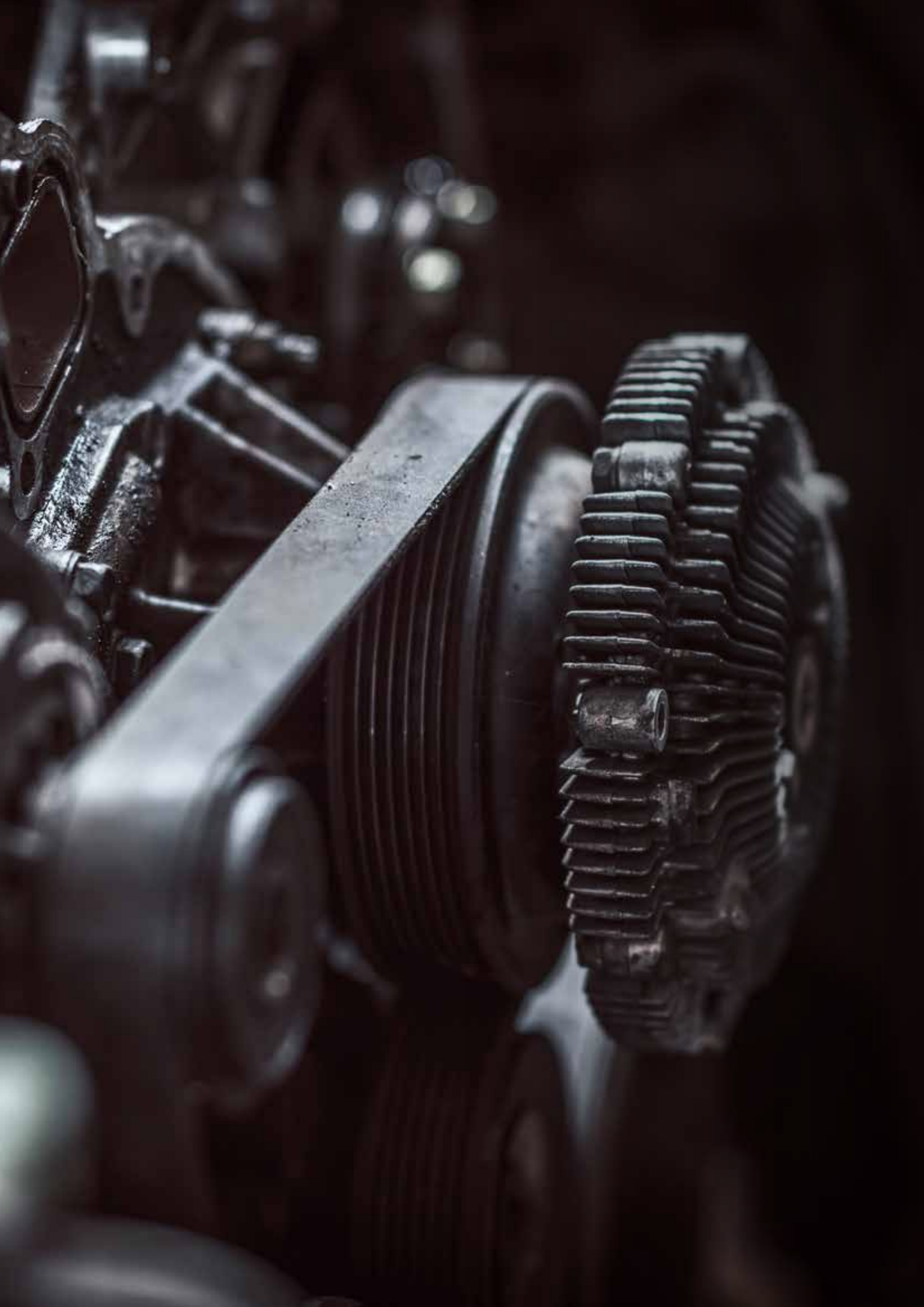
VOLVO

COMMERCIAL

HEAVY-DUTY ENGINE OILS	155
HEAVY-DUTY DRIVETRAIN	167
HYDRAULIC FLUIDS	181
INDUSTRIAL	193
GREASES	203



Penrite's commercial range is engineered to meet the demands of workshops, fleets and industrial operation, delivering trusted performance across a wide range of applications. From convenient small packs for top-ups and servicing, through to bulk storage for high-volume use, Penrite commercial lubricants are available in 5L, 7L, 10L, 20L, 60L, 205L and 1000L pack sizes – giving you the flexibility to choose the right volume for everything from everyday servicing to high-demand bulk applications.



HEAVY-DUTY ENGINE OILS

API SERVICE CLASSIFICATIONS

API stands for American Petroleum Institute. In 1970, along with the SAE and ASTM (American Society for Testing and Materials), they established the API Service Classification System to define the performance level of a given oil, unrelated in the main, to oil viscosity.

The API requirements "S" for Spark Ignition (petrol) and "C" for Compression Ignition (diesel) can be briefly described as follows. The latest API "S" and "C" classifications are backwards compatible and suitable for use in place of earlier classifications.

DESIGNATION AND DESCRIPTION:

DIESEL:

- CA** Light duty, high sulphur diesel engines built before 1960. Equivalent to MIL-L-2104A. Now obsolete.
- CB** Introduced in 1949 for moderate duty, high sulphur diesel engines built before 1962. Now obsolete.
- CC** Introduced in 1951 for moderate to severe duty diesel engines built before 1991. Equivalent to MIL-L-2104B. Now obsolete.
- CD** Introduced in 1955 for severe duty diesel engines, including turbo and Caterpillar Series 3, built before 1995. Equivalent to MIL-L-2104C. Now obsolete.
- CD-II** Introduced in 1985. API CD plus Detroit Diesel 6V53T approval for two stroke engines built before 1995. Now obsolete.
- CE** Introduced in 1985 for turbo/supercharged heavy duty diesel engines built before 1995. Now obsolete.
- CF** Introduced in 1994, for off-road, indirect injection diesel engines and others using a broad range of fuel types including high sulphur. May be used to replace API CD oils. Now obsolete.
- CF-2** Introduced in 1994 for severe duty two stroke diesel engine service from 1994. Can be used in place of API CD-II oils. Now obsolete.
- CF-4** Introduced in 1990 for severe duty four stroke diesel engines, including turbos. Can replace API CD & CE oils. Now obsolete.
- CG-4** Introduced in 1995 for severe duty four stroke diesel engines meeting 1994 emission standards (less than 0.5% sulphur). Can replace API CD, CE & CF-4 oils. Now obsolete.
- CH-4** Introduced in 1998 for high speed four stroke diesel engines meeting 1998 emission standards (less than 0.5% sulphur). Can replace API CD, CE, CF-4 & CG-4 oils.
- CI-4** Introduced in September 2002 for high speed four stroke diesel engines, designed to meet 2004 exhaust emission standards and using low sulphur fuel (less than 0.5%). Can replace API CD, CE, CF-4, CG-4 & CH-4 oils.
- CI-4 PLUS** As per CI-4 but with further restrictions on after-shear viscosity and performance.

CJ-4

Introduced in 2006 for 15ppm maximum fuel sulphur. Enhanced wear protection, 1.0% ash maximum. For engines designed to meet 2010 model year on-highway emission standards. Effective where particulate filters and other after-treatment systems are used. Improved performance for soot handling, oxidative thickening, engine wear piston deposit formation, foaming and viscosity loss due to shear. Can replace API CI-4 Plus, CI-4, CH-4, CG-4 & CF-4 oils.

CK-4

API Service Category CK-4 describes oils for use in high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards as well as for previous model year diesel engines. These oils are formulated for use in all applications with diesel fuels ranging in sulfur content up to 500 ppm (0.05% by weight). However, the use of these oils with greater than 15 ppm (0.0015% by weight) sulfur fuel may impact exhaust after treatment system durability and/or oil drain interval. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced after treatment systems are used. API CK-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API CK-4 oils exceed the performance criteria of API CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 and can effectively lubricate engines calling for those API Service Categories. When using CK-4 oil with higher than 15 ppm sulfur fuel, consult the engine manufacturer for service interval recommendations.

FA-4

API Service Category FA-4 describes certain XW-30 oils specifically formulated for use in select high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway greenhouse gas (GHG) emission standards. These oils are formulated for use in on-highway applications with diesel fuel sulfur content up to 15 ppm (0.0015% by weight). Refer to individual engine manufacturer recommendations regarding compatibility with API FA-4 oils. These oils are blended to a high temperature high shear (HTHS) viscosity range of 2.9cP-3.2cP to assist in reducing GHG emissions. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced after treatment systems are used. API FA-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API FA-4 oils are not interchangeable or backward compatible with API CK-4, CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 oils. Refer to engine manufacturer recommendations to determine if API FA-4 oils are suitable for use. API FA-4 oils are not recommended for use with fuels having greater than 15 ppm sulfur. For fuels with sulfur content greater than 15 ppm, refer to engine manufacturer recommendations.

ACEA ENGINE SERVICE CLASSIFICATIONS

ACEA stands for Association des Constructeurs Européens de l'Automobile. This classification system is the European equivalent of the API classification system, but is stricter and has more severe requirements.

Hence an oil that meets both API & ACEA specifications uses a better additive package than one that is designed to meet only API specifications. Unlike the API, ACEA has three main groups - "A/B" for petrol (A) and light duty diesel (B) engines, "C" for light duty three way catalyst (TWC) and Diesel Particulate Filter (DPF) compatible oils, usually Low and Mid SAPS (Sulphated Ash Phosphorus Sulphur) and "E" for heavy duty diesel engines. These can be defined as follows.

DESIGNATION AND DESCRIPTION:

- E2** General purpose oil for naturally aspirated and turbocharged diesel engines, medium to heavy duty service and mostly normal drain intervals. (Obsolete by 2010).
- E4** Stable, stay in grade oil more severe than E7, for significantly extended oil drain intervals. Usually synthetic or predominantly synthetic. Suitable for Euro 3, Euro 4 & Euro 5 engine emission requirements.
- E6** As for E4 but with chemical limits to allow use in engines with particulate filters and SCR NOx reduction systems. Only for diesel fuel with <50ppm sulphur, 1.0% ash, 0.08% phosphorus. Suitable for Euro 4, Euro 5 & Euro 6 engine emission requirements. (Obsolete)
- E7** Designed for use in Euro 3, Euro 4 & Euro 5 emission diesel engines in severe heavy duty service and extended drain intervals, where allowed. More severe than E2/E3 but not as severe as E4.
- E8** Supersedes and is intended to replace E6, with increased emphasis on oxidation stability and aeration performance.
- E9** Designed for Euro 4, Euro 5 & Euro 6 emission diesel engines, with and without DPFs. SAPS limits line up with API CJ-4 & TBN 7 minimum. (Obsolete)
- E11** Supersedes and is intended to replace E9, with increased emphasis on oxidation stability and aeration performance.
- F01** The equivalent of API FA-4.

ACEA specification oils have tighter shear stability and oil volatility requirements than equivalent API specification oils.

GLOBAL SPECIFICATIONS

Developed by ACEA, EMA (Engine Manufacturers Association) & JAMA (Japanese Automobile Manufacturers Association) for diesel oils with different limits to the 'donor' categories.

- HEAVY DUTY:** DHD-1 = E7/CI-4 + JASO tests
- LIGHT DUTY:** DLD-1 = B2 + JASO tests
- DLD-2 = B1 + JASO tests
- DLD-3 = B3 + JASO tests

OTHER FOUR STROKE CLASSIFICATIONS

HEAVY DUTY:

JASO - Japanese Automotive Standards Organization

THEY HAVE 3 HEAVY DUTY CLASSIFICATIONS:

JASO DH-1 Heavy duty diesel, higher ash formulation with performance superior to API CF-4. Has additional valve train wear and piston cleanliness requirements.

JASO DH-2 Heavy duty diesel engine oil specification, similar to API CJ-4 and ACEA E9. It was developed for use in engines equipped with an exhaust after treatment device such as a DPF or a catalyst.

OEM ENGINE OIL SPECIFICATIONS



CATERPILLAR:

ECF-1-A: Heavy duty diesel engine oil specification. Replaces ECF-1. Effective from March 1, 2007. API CH-4 requirements.

ECF-2: Heavy duty diesel engine oil specification. Replaces ECF-1 and is preferred over ECF-1-A oils. API CI-4/CI-4 Plus requirements. Effective from March 1, 2007.

ECF-3: Heavy duty diesel engine oil specification. For both on and off-road truck engines. Based on API CJ-4 requirements. Effective from March 1, 2007. These oils are strongly recommended for Caterpillar engines with DPF.

CUMMINS:

CES 20071: Cummins Engineering Standard (CES). Heavy duty diesel engine oil specification. For engines without EGR. SAE 15W-40. Complies with API CH-4, API CH-4 + SJ and Global DHD-1.



CES 20072: Heavy duty diesel engine oil specification. Complies with API CH-4, Global DHD-1 & ACEA E5.

CES 20074: Heavy duty engine oil specification. For natural gas B, C, G5.9 & G8.3 engines. SAE 15W-40 or SAE 40.

CES 20075: Heavy duty diesel engine oil specification. Minimum quality for mid-range engines without EGR outside of North America. SAE 15W-40. Complies with API CF-4/SG, JAMA DH-1 & ACEA E2/E3. Oil drain intervals must be reduced to 250 hours/15,000km if CES 20075 oils are used.

CES 20076: Heavy duty diesel engine oil specification. For heavy duty and high horsepower engines without EGR in North America. SAE 15W-40. Complies to API CH-4 with the added requirement of a 300 hour Cummins M11 test.

CES 20077: Heavy duty diesel engine oil specification. For heavy duty and high horsepower engines without EGR in North America. SAE 15W-40. Complies to ACEA E5 with the addition of a 300 hour test to ACEA E5.

CES 20078: Heavy duty diesel engine oil specification. For heavy duty and mid-range engines with EGR. SAE 15W-40 or 10W-30. Complies with API CI-4.

CES 20081: Heavy duty diesel engine oil specification. For heavy duty and mid-range engines with exhaust after-treatments.

CES 20086: Lower Sulphated Ash, Phosphorus and Sulfur (SAPS) engine lubricant designed for use in high performance medium- and heavy-duty diesel engines.

CES 20087: High-performance, low-SAPS (Sulfated Ash, Phosphorus, and Sulfur) lubricant specification designed for modern, fuel-efficient heavy-duty diesel engines, specifically the X15 and X12 models equipped with advanced aftertreatment systems (DPF). It requires a lower high-temperature high-shear (HTHS) viscosity of 2.9-3.2 cP. It aligns with API FA-4 specifications.

DAIMLER TRUCK:

DTFR 15A100: Single-grade service engine oils.

DTFR 15A110: Service engine oils.

DTFR 15B100: Service engine oils.

DTFR 15B110: Multi-grade service engine oils.

DTFR 15B120: Multi-grade service engine oils.

DTFR 15C100: Low SPAsh multi-grade service engine oils.

DTFR 15C110: Low SPAsh multi-grade service engine oils.

DTFR 15C120: Low SPAsh multi-grade service engine oils.

DTFR 15C130: Low SPAsh multi-grade service engine oils.

DTFR 15C140: Low SPAsh multi-grade service engine oils.

DTFR 15D100: Low SPAsh multi-grade service engine oils.

DTFR 15E100: Engine oil for Cummins X12/X13 Actros C (CES 20100).

DETROIT DIESEL:

DFS 93K222: Heavy duty diesel engine oil specification for use with and without after-treatment systems. Similar to API CK-4.

PGOS 93K214: Heavy duty diesel engine oil specification designed to meet cooled exhaust gas recirculation (EGR) technology and existing retarded fuel injection timing introduced in October 2002.

PGOS 93K218: Heavy duty diesel engine oil specification. Based on API CJ-4.



MACK:

EO-N Premium Plus 03: Heavy duty diesel engine oil, exceeding API CI-4 and must pass Mack T-10 & T-11 tests. Available in multiple viscosities but a 5W-40 must be synthetic.

EO-0 Premium Plus: Heavy duty diesel engine oil, intended for use in engines which meet the 2007 (EPA 07) and later emissions requirements. These engines are designed with exhaust after-treatment systems. They are based on API CJ-4 with additional performance requirements, to fulfil the drain interval demands of Mack engines. It supercedes EO-N Premium Plus and is comparable to Volvo VDS-4.

EOS-4.5: Special heavy duty Mack specification based on API CK-4 with some additional requirements.

EOS-5: High-performance 5W-30 synthetic engine oil designed for 2021 and newer Mack MP 8 engines, offering up to 0.5% better fuel efficiency than 10W-30. It features low-SAPS (sulfated ash, phosphorus, and sulfur) technology for enhanced wear protection, reduced deposit formation, and improved oxidation resistance, promoting longer drain intervals. It meets API FA-4 specifications

MAN:

M3271-1: Heavy duty diesel engine oil specification for CNG/LPG engines.

M3275: Heavy duty diesel engine oil specification for high return engines.

M3277: Heavy duty diesel engine oil specification for high return engines.

M3277 CRT: Heavy duty diesel engine oil specification for high return engines.

M3377: Heavy duty diesel engine oil specification for super high performance engines intended for extended oil change intervals. These oils have better performance on deposits and piston cleanliness compared to M3277 engine oils.

M3477: Heavy duty, high performance diesel engine oil specification for oils meeting SAE 0W-XX, 5W-XX or 10W-XX viscosity grades. Suitable for engines fitted with after-treatment devices up to and including those meeting Euro 4 emission standards. Low SAPS oil complying to ACEA E6.

M3677: Heavy duty diesel engine oil specification for high performance oils which can be used for extended oil drains intervals for Euro 6 engines.

RENAULT:

RD-2: Heavy duty engine oil specification complying with ACEA E3-96 issue 4 and Volvo VDS-2. Discontinued in 2013. Can be replaced by RLD-2.

RLD: RLD (Renault Long Drain), is a heavy duty engine oil specification that complies with ACEA E7 and Volvo VDS-3. Discontinued in 2013. Can be replaced by RLD-2.

RLD-2: Heavy duty engine oil specification complying with ACEA E7-02 and Volvo VDS-3.

RLD-3: Heavy duty engine oil specification for Euro 5 engines. General requirements are ACEA E9-08 & Volvo VDS-4.

VOLVO:

VDS: Heavy duty diesel engine oil specification. A field test is required in 3 trucks equipped with Volvo 12 litre intercooled engines. The test is run for a minimum of 300,000km with oil change intervals of 50,000km. Viscosity of SAE 10W-30 or 15W-40. API CD/CE upgraded with the above field test.



VDS-2: Heavy duty diesel engine oil specification. A field test is required in 3 trucks equipped with Volvo TD 123 series, 12 litre intercooled engines. The test is run for a minimum of 300,000km with oil change intervals of 60,000km.

VDS-3: Heavy duty diesel engine oil specification, based on VDS & VDS-2 but modified for Euro 3 engines. It contains more stringent requirements on piston cleanliness and cylinder polishing and includes quality requirements for ACEA E5.

VDS-4: Heavy duty diesel engine oil specification. Suitable for Tier III engines using exhaust after-treatment. Meets API CJ-4 performance level.

VDS-4.5: Heavy duty diesel engine oil specification based on API CK-4, to reduce emissions and improve fuel economy. Backwards compatible with older Volvo specifications.

VDS-5: High-performance, low-viscosity (5W-30) engine oil specification developed for modern Euro 6 Step D and 2021+ GHG-certified Volvo 13-liter engines. It offers up to 0.5% improved fuel economy and supports extended oil drain intervals. VDS-5 is designed for advanced after-treatment systems (DPF, SCR, EGR) and is not backward compatible. It meets API FA-4 and ACEA F01 specifications.

INDUSTRY TYPES

ON-HIGHWAY machines are those that spend the majority of their time on paved or sealed roads primarily in transport. They can be Passenger Cars, Light Commercial Vehicles, Trucks, Buses and Motorcycles. They need to be able to comply with road regulations in terms of lighting, mirrors and safety standards etc.

In commercial business they are mainly described as transport vehicles for either passengers or cargo.

OFF-HIGHWAY machines are those that spend their working life away from paved roadways. They can be Tractors, Bulldozers, Excavators, Harvesters, Mining Trucks, ATVs etc. They are built for rougher terrain such as mud, sand and rock. Their drivetrains are optimised for traction off paved surfaces and they don't normally need to comply with all of the safety requirements that On-Highway vehicles need, such as mirrors, lights, indicators etc.

Sometimes, they are too big and wide to be used on public roads.

THE PENRITE CONVOY RANGE OF PRODUCTS COVERS BOTH ON-HIGHWAY VEHICLES AND OFF-HIGHWAY MACHINERY:

CONVOY FLEET GEAR products are primarily designed for **ON-HIGHWAY** drivetrains found in trucks and buses. The range covers manual and automatic transmissions as well as transfer cases, differentials and retarders.

CIVIL FLEET GEAR products are optimised for **OFF-HIGHWAY** drivetrains found in off-road machinery. The range encompasses specialty products for high load transmissions and final drives.

OPERATING HOURS

Operating hours refers to the actual time a machine or engine has been running since its last servicing, generally since the last oil drain.

WHY ARE THE OPERATING HOURS IMPORTANT?

Operating hours are important as they are generally set by the manufacturer to accurately set maintenance schedules for:

- Lubricant replacement
- Filter replacements
- Greasing
- Coolant service
- Inspections

Service intervals vary by machinery type. In transport, they may be measured by travelled distance where as in off-road machinery, they are normally measured in operating hours.

Operating hours and distances can also be affected by duty type and environmental conditions in which the machinery operates. In adverse conditions, shorter service intervals may be required by the manufacturer. If operating conditions are favourable, extended oil drain intervals may be possible.

EXTENDED DRAIN INTERVALS CAN REDUCE OVERALL RUNNING COSTS BY:

- Lowering fluid usage
- Lowering labour costs
- Extended parts usage
- Reduced waste disposal costs
- Increased equipment availability

NOTE: Any extension to manufacturer recommended oil service intervals should be supported by an in-service oil monitoring program.

OIL ANALYSIS

As part of Penrite's on going service commitment to its customers, a comprehensive Oil Analysis Program is available via an independent company (ALS) to monitor:

- Engine Lubricants
- Drivetrain Lubricants
- Coolants
- Hydraulic Fluids
- Greases

USING AN OIL ANALYSIS PROGRAM CAN ADDRESS KEY AREAS IN MAXIMISING EQUIPMENT USAGE BY:

- Early detection of possible issues - Oil testing can show where future failures may occur preventing downtime on expensive equipment.
- Optimising lubricant service intervals - Scheduled testing at key intervals can help operators maximise their lubricants for extended drain intervals.
- Reliability improvement - Testing can assist with preventative maintenance on machinery to improve reliability.
- Extends equipment life - Testing can assist in reducing wear on critical parts, extending the life of equipment.
- Detection of contaminants - Testing can detect if contaminants are present in the system that could cause damage or repair bills.

PENRITE CAN SET UP:

- Oil, Fuel and Coolant Analysis Services
- PDF, Report Summary and Online Web Portal & Mobile App Notification Services
- Oil Analysis Training Courses
- Webtrieve Training Courses
- Data Analytics
- API Access for Custom Dashboards through PowerBI

Online viewing and records can be accessed by companies as part of the program. A KPI dashboard can be set as an instant overview of assets. In addition, monthly KPI reports can be generated for equipment and customers. An additional service is Micro Particle Analysis to prevent wear and future failures.

Sample kits can be purchased from Penrite so companies can maintain ongoing oil analysis of their machinery. To access this Penrite program, please discuss your needs with your Penrite representative.



CONVOY

Penrite blends a range of Heavy Truck, Commercial and Farm lubricants that meet and exceed the requirements for major engine manufacturers. Our heavy duty diesel range now spans from monograde 2 stroke oils through to the latest European engine emission standard oils.

BENEFITS

- Latest industry specifications
- OEM and industry approved formulations
- Premium Mineral, Semi Synthetic & Full Synthetic range of products
- Products for the latest to classic heavy duty vehicles
- Proven, tried and test formulations
- Australian made and owned
- Made for Australia's most severe conditions
- Multiple sizing options to suit most needs
- Pumping available for bulk deliveries
- Online ordering saving time and money
- Technical service assistance by phone or online
- Online and mobile recommendation guides for heavy duty
- Equipment available for dispensing and storage

PRODUCTS

	LITRES						
	5	7	10	20	60	205	1000
Convoy Ultra HD 15W-40	●		●	●	●	●	●
Convoy Ultra HD 10W-40				●	●	●	●
Convoy Ultra HD 5W-30				●		●	
Convoy Multi-Fleet Diesel 15W-40				●		●	●
Convoy Multi-Fleet Diesel 10W-40				●		●	
Convoy Super FX 15W-40	●	●	●	●	●	●	●
Convoy Super FX 20W-60 NEW				●		●	
Convoy Mono Truck 30				●		●	
Convoy Mono Truck 40				●		●	
Convoy Mono Truck 50				●			
CARTON QUANTITY	4						

● AVAILABLE PACK SIZE



Formerly Convoy DHD

CONVOY ULTRA HD 15W-40

5L - DHD005 | 10L - DHD010 | 20L - DHD020 | 60L - DHD060 | 205L - DHD205 | 1000L - DHD1000LTR

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Latest API CK-4 specification with improved Shear Stability, Oxidation Resistance and Aeration Control
- API Licensed for quality & assurance
- Manufacturer Approved product to maintain vehicle warranty
- Maximises DPF life and emission control system durability
- Controls oil consumption through use of low volatility hydrocracked base oils
- Advanced formulation offers ideal wear and deposit protection
- Reduces soot thickening

APPROVALS/LICENSES

- ✓ API CK-4
- ✓ Cummins CES 20086 Approved
- ✓ DFS Oil Specification 93K222
- ✓ DTFR 15C100
- ✓ Mack EOS-4.5 Approval
- ✓ Renault Trucks RLD-3 Approval
- ✓ Volvo VDS-4.5 Approval

PERFORMANCE LEVELS

- ✓ ACEA E11
- ✓ Caterpillar ECF-3
- ✓ Detroit Diesel 93K222
- ✓ Deutz DCQ III-10 LA
- ✓ JASO DH-2



Formerly Convoy DLA

CONVOY ULTRA HD 10W-40

20L - DLA020 | 60L - DLA060 | 205L - DLA205 | 1000L - DLA1000LTR

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Latest API CK-4 specification with improved Shear Stability, Oxidation Resistance and Aeration Control
- Maximises Diesel Particulate Filter life and engine performance
- Suitable for SCR and EGR systems
- Suitable for extended oil drain intervals
- Controls oil consumption through use of low volatility, hydro-processed synthetic base oils

PERFORMANCE LEVELS

- ✓ ACEA E11
- ✓ API CK-4
- ✓ Cummins CES 20086
- ✓ Detroit Diesel 93K222
- ✓ JASO DH-2
- ✓ Mack EOS-4.5
- ✓ MAN M 3477
- ✓ Renault VI RLD-3
- ✓ Scania Low Ash
- ✓ Volvo VDS-4.5



Formerly Convoy DSP

CONVOY ULTRA HD 5W-30

20L - DSP020 | 205L - DSP205

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W-30

BENEFITS

- Latest API CK-4 specification with improved Shear Stability, Oxidation Resistance and Aeration Control
- Maximises Diesel Particulate Filter life and engine performance
- Suitable for SCR and EGR systems
- Fuel efficient, heavy duty diesel engine oil
- Extended oil drains of up to 100,000km, reducing overall cost of ownership

PERFORMANCE LEVELS

- ✓ ACEA E11
- ✓ API CK-4
- ✓ Cummins CES 20086
- ✓ Detroit Diesel 93K222
- ✓ DTFR 15C120
- ✓ JASO DH-2
- ✓ Mack EOS-4.5
- ✓ MAN M3677/M3777
- ✓ Scania LDF 4
- ✓ Volvo VDS 4.5

CONVOY MULTI-FLEET DIESEL 15W-40

20L - MULTIFD15020 | 205L - MULTIFD15205 | 1000L - MULTIFD151000LTR



Formerly Convoy MFD

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Latest API CK-4 and ACEA E11 performance
- Excellent protection of engine parts
- Resists oil thickening
- Shear stable viscosity modifier maintains oil viscosity in service
- Mid Ash formulation controls combustion chamber deposits
- Can be used in mixed fleets, reducing the chance of misapplication

PERFORMANCE LEVELS

- ✓ ACEA E11
- ✓ API CK-4
- ✓ JASO DH-2
- ✓ Caterpillar ECF-3
- ✓ Cummins CES 20081
- ✓ Detroit Diesel 93K218
- ✓ Mack EO-O Premium Plus
- ✓ MB 228.31
- ✓ Volvo VDS-4

CONVOY MULTI-FLEET DIESEL 10W-40

20L - DLD020 | 205L - DLD205



Formerly Convoy DLD

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Suitable for OEM Long Drain and extended performance requirements
- EGR and SCR compatible
- Controls oil consumption
- Provides ideal wear, bore polish and deposit protection
- Effective dispersant additives keep soot in suspension, reducing wear

PERFORMANCE LEVELS

- ✓ ACEA E7
- ✓ API CI-4
- ✓ Cummins CES 20078
- ✓ Deutz DQC IV-18
- ✓ DTFR 15B120
- ✓ Mack EO-N
- ✓ MAN M3277
- ✓ MTU Type 3
- ✓ Renault RLD-2
- ✓ Scania LDF-3
- ✓ Volvo VDS-3



GOT A DPF?

Convoy DPF Cleaner is a diesel fuel additive specifically formulated to improve the operation and reduce maintenance of Diesel Particulate Filters (DPFs) and emission control systems in heavy duty diesel applications. It is formulated to be soluble and stable in diesel fuels where it acts as a catalyst during regeneration of the DPF. It initiates passive regeneration (soot oxidation) at lower temperatures preventing DPF blockages from high soot loading. It reduces engine particle matter by improving diesel fuel combustion, increasing engine efficiency and lowering fuel consumption. 1L bottle treats 200L of diesel fuel.

Page 141



Formerly Convoy DFX

CONVOY SUPER FX 15W-40

5L - DFX005 | 7L - DFX007 | 10L - DFX010 | 20L - DFX020 | 60L - DFX060 | 205L - DFX205 | 1000L - DFX1000LTR

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40

BENEFITS

- Excellent protection of engine parts
- Resists oil thickening
- Shear stable viscosity modifier maintains oil viscosity in service
- Mid Ash formulation controls combustion chamber deposits
- Can be used in mixed fleets, reducing the chance of misapplication

PERFORMANCE LEVELS

- ✓ ACEA A3/B4
- ✓ ACEA E7
- ✓ API CI-4/SN
- ✓ Caterpillar ECF-2
- ✓ Cummins CES 20077
- ✓ DTFR 15B120
- ✓ JASO DH-1
- ✓ Mack EO-M Plus
- ✓ MAN 3275
- ✓ MIL-PRF-2104G
- ✓ Renault RLD-2
- ✓ Volvo VDS-3



CONVOY SUPER FX 20W-60 NEW

20L - SFX020 | 205L - SFX205

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Higher operating temperature viscosity for better engine protection under severe operating conditions
- Full Zinc anti-wear additive package for ultimate engine wear protection
- Reduces oil consumption and maintains oil pressure
- Protects against corrosion, oil oxidation and engine sludge
- Reduces wear by controlling soot deposits

PERFORMANCE LEVELS

- ✓ API CH-4/SJ
- ✓ Ford WSS-M2C911-A1
- ✓ Global DLD-1
- ✓ JASO CD Plus
- ✓ MAN 3275
- ✓ MB 228.3
- ✓ MTU Type 2
- ✓ Renault RLD
- ✓ Volvo VDS-2



"We've been using Penrite for over 16 years across our fleet of 28 trucks and 58 trailers. From engine oils to coolants, brake cleaner to greases, Penrite delivers every time. Their products extend service intervals, reduce wear, and keep our engines running strong, even after 1.6 million kilometres. Being Australian-owned and manufactured means a lot to us, and their service is second to none. Penrite works, simple as that."

LES HART TRANSPORT

CONVOY MONO TRUCK 30

20L - MONO30020 | 205L - MONO30205



BASE OIL: Premium Mineral

VISCOSITY: SAE 30

BENEFITS

- Balanced base oil & additives pack provides ultimate engine protection
- Low Ash formulation minimises engine & combustion chamber deposits
- Multi-use product minimising inventory costs
- Keeps engine clean & prolongs engine life

PERFORMANCE LEVELS

- ✓ ACEA E1
- ✓ Allison C-3
- ✓ API CF-2/SG
- ✓ Caterpillar TO-2
- ✓ Detroit 7SE-270
- ✓ Mack EO-K/2
- ✓ MB 227.0/228.0
- ✓ MIL-L-2104F

CONVOY MONO TRUCK 40

20L - MONO40020 | 205L - MONO40205



BASE OIL: Premium Mineral

VISCOSITY: SAE 40

BENEFITS

- Balanced base oil & additives pack provides ultimate engine protection
- Low Ash formulation minimises engine & combustion chamber deposits
- Multi-use product minimising inventory costs
- Keeps engine clean & prolongs engine life

PERFORMANCE LEVELS

- ✓ ACEA E1
- ✓ Allison C-3
- ✓ API CF-2/SF
- ✓ Caterpillar TO-2
- ✓ Detroit 7SE-270
- ✓ Mack EO-K/2
- ✓ MB 227.0/228.0
- ✓ MIL-L-2104F

CONVOY MONO TRUCK 50

20L - MONO50020



BASE OIL: Premium Mineral

VISCOSITY: SAE 50

BENEFITS

- Balanced base oil & additives pack provides ultimate engine protection
- Low Ash formulation minimises engine & combustion chamber deposits
- Multi-use product minimising inventory costs
- Keeps engine clean & prolongs engine life

PERFORMANCE LEVELS

- ✓ ACEA E1
- ✓ Allison C-3
- ✓ API CF-2/SF
- ✓ Caterpillar TO-2
- ✓ Detroit 7SE-270
- ✓ Mack EO-K/2
- ✓ MB 227.0/228.0
- ✓ MIL-L-2104F





HEAVY-DUTY DRIVETRAIN

WHAT IS A HEAVY-DUTY TRANSMISSION?

A heavy-duty transmission is a type of transmission specifically designed to handle high levels of torque, load, and stress typically found in commercial vehicles, industrial equipment, off-road machinery, and high-performance applications. These transmissions are built to be stronger, more durable, and longer-lasting than standard automotive transmissions.

KEY CHARACTERISTICS OF HEAVY-DUTY TRANSMISSIONS:

High Torque Capacity

Can handle much more torque than standard transmissions – essential for moving heavy loads. Often used in vehicles like semi-trucks, buses, construction equipment, and military vehicles.

Reinforced Components

Made with stronger materials (like hardened steel). Components such as gears, bearings, and shafts are oversized and engineered for durability.

Cooling Systems

Often include external coolers or advanced internal cooling to manage the extra heat generated under load.

Manual, Automatic, or Automated Manual (AMT)

Can be any type of transmission, but heavy-duty versions are engineered for reliability under strain. Modern heavy trucks often use automated manual transmissions (AMTs) for efficiency and driver comfort.

Multiple Gear Ratios

Usually have more gear ratios or gear splitting options to help manage power and efficiency under varying loads.

Designed for Harsh Conditions

Built to perform in environments with dust, mud, extreme temperatures, and rough terrain.

EXAMPLES OF HEAVY-DUTY TRANSMISSION APPLICATIONS:

Commercial Transport Vehicles

Semi Rigid, Rigid and Articulated commercial vehicles

Construction Equipment

Bulldozers, excavators, wheel loaders, graders, mining vehicles

Military Vehicles

Armored personnel carriers or tanks

Agricultural Machinery

Large tractors, combine harvesters, etc.

Buses and Coaches

Light and Heavy-Duty buses, long distant, municipal and city stop start buses

WHO USES HEAVY DUTY TRANSMISSION & GEAR OILS?

Who uses HDEO:

What are they looking for?

Fleet Operators

Long-life, high-protection for their vehicles

Agriculture

Heavy equipment protection under tough conditions

Construction/Mining

High-load, products for dirty & harsh environments

Industry

Commercial gearbox fluids

Owner-Operators

Protect their investment, save on maintenance

Marine Operators

Continuous-duty in harsh conditions

Heavy Duty Workshops

Products for servicing gearboxes, differentials etc.

DIYers

Wear protection in transmissions & axles

Military/Emergency

Trucks, Tanks and support vehicle servicing

Government & Council

Variety of products for vehicles and machinery

Basically, wherever engine oils are used, gear & transmissions fluids are used.

AUTOMATIC TRANSMISSIONS

HEAVY-DUTY AUTOMATIC TRANSMISSION TYPES

Fully Automatic (Hydraulic)

Uses a torque converter and planetary gearsets. Makers: Allison, Voith, ZF

Automated Manual (AMT)

Electronically controlled manual and clutch automation. Makers: Eaton, ZF, Volvo, Daimler

Powershift

Gear changes under load using hydraulic actuators. Makers: CAT, Komatsu

Electric Drive/e-Transmissions

For EV commercial vehicles. Makers: Allison eGen Power, ZF eTrac

COMMON TYPES/SPECIFICATIONS

Allison TES 295

Synthetic fluid for Allison automatic transmissions in severe-duty applications

Allison TES 668

Newer specifications; backward compatible with TES 295

Voith 55.6335 (G1363)

For Voith heavy-duty automatic transmissions

ZF TE-ML 14C/04D

For ZF transmissions in commercial vehicles

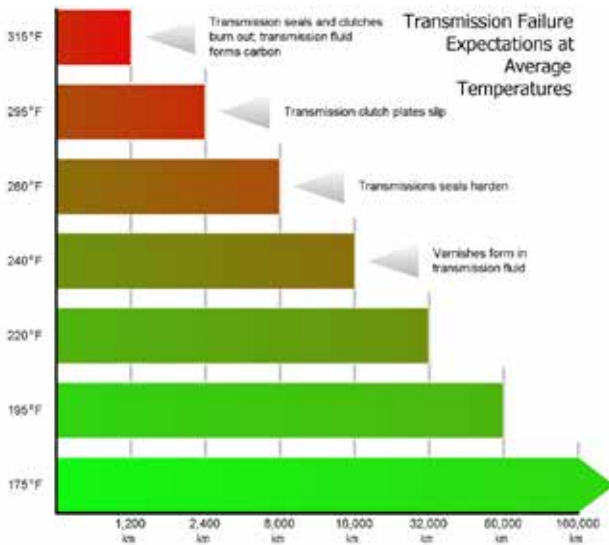
MANUAL TRANSMISSIONS

What are Heavy-Duty Manual Transmission Fluids (MTFs)?

These are lubricants designed for manual or synchromesh transmissions in heavy-duty applications (trucks, buses, off-road equipment). They need to withstand:

- High torque
- Frequent shifting under load
- Wide temperature ranges
- Extended drain intervals
- Protection of synchronizers, gears, bearings, seals etc.

They differ from heavy-duty automatic transmission fluids (HD ATFs) in that they typically do not have the same friction modifiers or torque converter requirements but must often be compatible with brass/yellow metals (synchros), plus resist wear and oxidation.



Key Specifications/Standards

Common specs or classifications for heavy-duty manual transmission fluids:

API MT-1: U.S. industry spec for heavy-duty manual transmissions. Covers severe duty, high torque, temperature extremes, etc.

Eaton PS-164 (rev 7): Eaton's specification for heavy manual transmissions

Mack TO-A Plus: Mack Trucks' spec for manual transmissions

Meritor O-81: Another OEM spec

Navistar TMS 6816: For Navistar/International heavy-duty applications

ZF Freedomline: For some ZF heavy duty transmissions

Viscosity grades commonly used are SAE 40, SAE 50, or in multigrade forms such as 75W-90, especially where cold-temperature performance is required.

MANUAL VERSES POWERSHIFT TRANSMISSIONS

Manual Transmission

Driver controls everything manually. The driver uses a clutch pedal to disengage the engine from the transmission, then moves the gear shift level to select the desired gear.

- Gear shifts require clutch operation: The clutch pedal must be pressed each time to change gears
- Gear engagement: Gears are selected by physically moving the gear lever to mesh gears manually
- Common in: Older trucks, cars, and machinery where the driver manually controls gear changes

Powershift Transmission

Automated clutch and gear shifting: Uses a system a hydraulics and electronic controls to shift gears without the driver needing to operate a clutch pedal.

- No clutch pedal: The clutch is operated automatically by the transmission system, which "powershifts" between gears
- Smooth, quick shifts: Designed to shift gears under load without interrupting power delivery, improving efficiency and driver comfort
- Common in: Heavy-duty trucks, construction equipment, agricultural machinery, and off-road vehicles where seamless shifting under heavy loads is essential

AUTOMATED MANUAL TRANSMISSIONS

Automated Manual Transmission (AMT)

Based on a manual transmission: The mechanical setup is essentially a standard manual gearbox with gears and a clutch.

- Clutch and gear shifts automated: Instead of the driver operating the clutch pedal and gear lever, actuators (hydraulic, electric) control the clutch and gear changes
- Sequential gear shifts: Gear changes happen in the same way as a manual – physically engaging/disengaging gears – but automated
- No torque converter: Unlike traditional automatics, AMTs don't use a torque converter
- Common in: Commercial trucks, buses, light vehicles, and some tractors – often used to combine manual transmission efficiency with automated ease

Powershift Transmission

- Uses multiple clutch packs or planetary gearsets: Powershifts shift gears under load without interrupting torque to the wheels
- No clutch pedal: The transmission uses hydraulic clutches or torque converters controlled electronically
- Smooth, seamless shifts: Designed to shift gears *while power is being transmitted*, with no torque interruption
- More complex and heavier: Compared to AMT, because of the hydraulic systems and gearsets
- Common in: Heavy-duty trucks, agricultural and construction equipment, where maintaining power during gear changes is essential



HEAVY-DUTY AXLE/ FINAL DRIVE FLUIDS

What are Heavy-Duty Axle Oils?

These lubricants are formulated for the harsh operating conditions in heavy-duty axles/differentials/final drives, including:

- Hypoid gears or spiral bevel gears which have sliding and rolling contact
- Very high loads (especially torque and shock loads)
- Wide temperature ranges (very hot under load, possibly cold in ambient conditions)
- Exposure to water, dust, contaminants (off-road, mining, construction etc.)
- Need for corrosion/oxidation resistance
- Limited slip differential (LSD) functionality (when required)

They are often specified by API GL-classes, OEM builder specs, SAE viscosity grades and sometimes Military specifications.

Key Specifications/Standards

Common specs or classifications for heavy-duty manual transmission fluids:

API GL-5: A common heavy-duty specification for axles/diffs requiring extreme pressure (EP) protection. Protects hypoid gear surfaces

API MT-1: For very severe conditions, very high heat and load. Often required in heavy-duty truck transmissions etc.

SAE Viscosity Grades: Determines performance in high temp/cold start. Thicker oils for heavier loads/higher temps etc. (e.g. 75W-90, 80W-90, 85W-140 etc.)

MIL-L-2105: U.S. military spec for gear oils – often used or referenced

OEM/Builder Specs: (e.g. Mack GO-J, Meritor, ZF TE-ML, Rockwell, etc.). Axle or differential maker's own requirements. Using oil that meets or exceeds them is needed for warranty and durability.

Limited Slip Additives: If differential is LSD/clutch type, the oil may need or have built-in additives (friction modifiers) to prevent chatter.

Heavy-Duty and Industrial Equipment, both on and off-road require drivetrain systems to efficiently transfer power from the engine to the surface they are operating on. The power transfer can be through a Transmission/Gearbox/Transfer Case/Retarders/Axles and or Final Drives in this equipment.

These systems need to be able to handle heavy torque loads whilst requiring minimum maintenance time for extended service intervals with the ability to handle heavy loads and perform through a myriad of environmental conditions.

From rugged construction vehicles to powerful agricultural machinery, Heavy-Duty Drivetrain products provide the backbone for dependable, high-performance operations.

Penrite Heavy-Duty Drivetrain products are developed to provide superior performance and protection for all types of heavy-duty equipment for both on and off-road applications.

PENRITE'S RANGE OF HEAVY-DUTY DRIVETRAIN PRODUCTS CONSISTS OF:

CONVOY FLEET GEAR: On-highway range of full synthetic, semi synthetic and premium mineral heavy-duty drivetrain lubricants.

CONVOY HEAVY-DUTY: On-highway range of full synthetic heavy-duty automatic transmission fluids meeting the latest industry standards.

CIVIL FLEET GEAR: Off-highway range of premium mineral drivetrain lubricants for heavy-duty machinery.

PRODUCTS

	KILOGRAMS		LITRES			
	180	850	10	20	205	1000
Convoy Fleet Gear SAE 40				●		
Convoy Fleet Gear SAE 50				●	●	
Convoy Fleet Gear 75W-80				●	●	
Convoy Fleet Gear 75W-90				●	●	
Convoy Fleet Gear Semi Synthetic 80W-90				●	●	●
Convoy Fleet Gear 80W-90				●	●	
Convoy Fleet Gear 85W-140				●	●	●
Convoy Fleet Gear SAE 140	NEW			●	●	
Convoy HD ATF Eco-Z	NEW			●	●	
Convoy HD ATF 668	NEW			●	●	
Civil Fleet Gear SAE 10W				●	●	●
Civil Fleet Gear SAE 30				●	●	●
Civil Fleet Gear SAE 50				●	●	●
Civil Fleet Gear SAE 60	NEW				●	●
Civil Fleet Gear FD-01					●	
Farmrite Tractor Transmission & Hydraulic Oil (UTTO)			●	●	●	●
Farmrite Universal Farm Oil (STOU)				●	●	

● AVAILABLE PACK SIZE

CONVOY FLEET GEAR SAE 40

20L - SYN40020



Formerly Convoy Synfleet 40

BASE OIL: Full Synthetic

VISCOSITY: SAE 40/75W-90

BENEFITS

- Outstanding protection of transmission components
- Reduced friction, improved fuel economy
- Outstanding oil life, extended drain capability
- Year-round performance, smooth shifting in all temperature conditions
- Reduces maintenance and downtime

PERFORMANCE LEVELS

- ✓ Allison TES-439
- ✓ API GL-4/MT-1
- ✓ Eaton PS-386
- ✓ Mack TO-A Plus
- ✓ Meritor O-81 (Synthetic)
- ✓ Volvo 97319/97315

CONVOY FLEET GEAR SAE 50

20L - FG50FULLSYN020 | 205L - FG50FULLSYN205



Formerly
Convoy Fleet Gear 50 Full Syn

BASE OIL: Full Synthetic

VISCOSITY: SAE 50/75W-90

BENEFITS

- Superior protection of transmission components
- Long oil life, extended drain capability
- Year-round performance, smooth shifting in high and low temperatures
- Reduces maintenance and downtime

PERFORMANCE LEVELS

- ✓ API GL-4/MT-1
- ✓ Eaton PS-164 Rev 7
- ✓ Mack TO-A Plus
- ✓ Meritor O-81
- ✓ Volvo 97315



LOOKING FOR SOMETHING ELSE?

Pro Gear 75W-90 & Pro Gear 80W-140 are premium full synthetic, heavy duty gear oils manufactured with 100% PAO Ester synthetic base oils, with an advanced additive system to provide the ultimate performance and protection under all operating conditions.

Page 102/103

CONVOY FLEET GEAR 75W-80

20L - HDZ75W80020 | 205L - HDZ75W80205



Formerly Convoy HD Z

BASE OIL: Full Synthetic

VISCOSITY: SAE 75W-80

BENEFITS

- Long drain oil performance
- Reduces gearbox noise
- Smooth gear shifting for longer
- Excellent performance under high temperatures and load conditions
- Reduces friction and increases fuel mileage
- High Viscosity Index allows excellent lubrication at high & low temperatures

PERFORMANCE LEVELS

- ✓ API GL-4
- ✓ DTFR 13B160
- ✓ MAN 341 Type Z5
- ✓ MB 235.28
- ✓ Volvo 97307
- ✓ ZF TE-ML 01E/01L/02E/02L

CONVOY FLEET GEAR 75W-90

20L - HDTD75W90020 | 205L - HDTD75W90205



Formerly Convoy HD TD

BASE OIL: Full Synthetic

VISCOSITY: SAE 75W-90

BENEFITS

- Excellent wear protection
- Smooth gear operation for longer
- Outstanding performance under high temperatures and load conditions
- Full Synthetic base oils for long life and heat resistance
- Minimises inventory with one oil for the total driveline
- High Viscosity Index allows excellent lubrication at high & low temperatures

PERFORMANCE LEVELS

- ✓ API GL-5/GL-4/MT-1
- ✓ DTFR 12B140
- ✓ Mack GO-J
- ✓ MAN 341 Type Z2/342 Type S1
- ✓ MB 235.8
- ✓ Meritor O-94
- ✓ MIL-PRF 2105E
- ✓ SAE J2360
- ✓ Scania STO 1:0/1:1G/2:0A FS
- ✓ Volvo 97312
- ✓ ZF TE-ML 02B/05A/07A/08/12B/12N/16B/17B/19C/21A

CONVOY FLEET GEAR SEMI SYNTHETIC 80W-90

20L - HDMD8090020 | 205L - HDMD8090205 | 1000L - HDMD80901000LTR



Formerly Convoy HD MD

BASE OIL: Semi Synthetic

VISCOSITY: SAE 80W-90

BENEFITS

- Semi Synthetic for enhanced durability and stability
- Long life drain performance for extended servicing
- Superior thermal stability for long life protection in severe conditions
- Maximum protection against scoring & spalling wear
- Suitable for use in Hypoid and LSD differentials
- Minimises inventory as can be used in transmissions and final drives

PERFORMANCE LEVELS

- ✓ API GL-5/MT-1
- ✓ Mack GO-J
- ✓ MAN 342 Type M3
- ✓ Meritor O-76
- ✓ SAE J2360
- ✓ ZF TE-ML 05A/07A/08/12E

CONVOY FLEET GEAR 80W-90

20L - HDG08090020 | 205L - HDG08090205



Formerly HD Gear Oil 80W-90

BASE OIL: Premium Mineral

VISCOSITY: SAE 80W-90

BENEFITS

- Maximum protection
- Formulated for heavily loaded drivetrains
- High thermal stability for heavy duty usage
- Maintains cleanliness and reduces abrasive wear of critical parts
- Longer drain intervals by resisting high temperature degradation
- Superior protection against scoring and spalling wear

PERFORMANCE LEVELS

- ✓ API GL-5/MT-1
- ✓ Ford WSP-M2C197-A
- ✓ Mack GO-J
- ✓ Meritor O-76
- ✓ SAE J2360
- ✓ ZF TE-ML 05A/07A/08/12E

CONVOY FLEET GEAR 85W-140

20L - HDG085140020 | 205L - HDG085140205 | 1000L - HDG0851401000LTR



Formerly HD Gear Oil 85W-140

BASE OIL: Premium Mineral

VISCOSITY: SAE 85W-140

BENEFITS

- Maximum protection
- Formulated for heavily loaded drivetrains
- High thermal stability for heavy duty usage
- Maintains cleanliness and reduces abrasive wear of critical parts
- Longer drain intervals by resisting high temperature degradation
- Superior protection against scoring and spalling wear

PERFORMANCE LEVELS

- ✓ API GL-5/MT-1
- ✓ Mack GO-J
- ✓ Meritor O-76
- ✓ SAE J2360
- ✓ ZF TE-ML 05A/07A/08/12E

CONVOY FLEET GEAR SAE 140 **NEW**

20L - HDG0140020 | 205L - HDG0140205



BASE OIL: Premium Mineral

VISCOSITY: SAE 140

BENEFITS

- Suits both conventional and limited slip differentials, minimising inventory
- Incorporates anti-shudder additive technology
- Superior wear protection for highly loaded gears
- Resists deposit formation, maintains cleanliness of components

PERFORMANCE LEVELS

- ✓ API GL-5
- ✓ MIL-PRF-2105E
- ✓ SAE J2360

CONVOY HD ATF ECO-Z **NEW**

20L - HDATFECOZ020 | 205L - HDATFECOZ205



BASE OIL: Full Synthetic

BENEFITS

- Exceptional cleanliness of the transmission system
- Significant decrease in wear, extending equipment life
- Smooth gear shifting for longer
- Excellent performance at high temperatures
- Fast circulation and outstanding lubrication at very low temperatures
- High resistance to foaming tendency

PERFORMANCE LEVELS

- ✓ DEXRON® III H
- ✓ MAN 339 Type V1/Z3/Z12
- ✓ MB 236.9
- ✓ Voith 15.014524/15.014524.xx/H55.6335.xx
- ✓ Volvo 97341
- ✓ ZF TE-ML 14C/20C/25C

CONVOY HD ATF 668 **NEW**

20L - HDATF668020 | 205L - HDATF668205



BASE OIL: Full Synthetic

BENEFITS

- Excellent friction durability for smooth shifting throughout the service interval
- Outstanding oxidation resistance and thermal stability for long fluid life
- Protection against wear, sludge, deposits and varnish formation
- Protects against rust & corrosion
- Outstanding low-temperature properties for easier shifting in cold weather
- Good seal compatibility and foam resistance
- Backward compatible with Allison TES-295 applications & earlier

PERFORMANCE LEVELS

- ✓ Allison TES 668®/TES 468®/TES 389®/TES 295®
- ✓ DEXRON® III H
- ✓ DTFR 13C190
- ✓ JASO M315 Type 1A
- ✓ MAN 339 Type V1
- ✓ MERCON®
- ✓ Voith H55.6335.xx
- ✓ Volvo 97341



“When a machine goes down, it can take a whole fleet down so reliability is everything for our business. We chose Penrite 20 years ago, they’ve supported our product, we have good reliability and good support. We get oil deliveries to some pretty remote locations and Penrite takes care of us and keeps our fleet going. Without the right lubricants, machines can go down and costs many tens of thousands of dollars per day. Penrite have never let us down.”

LUCAS TCS



Formerly Convoy Fleet Gear 10

CIVIL FLEET GEAR SAE 10W

20L - FG10020 | 205L - FG10205 | 1000L - FG101000LTR

BASE OIL: Premium Mineral

VISCOSITY: SAE 10W

BENEFITS

- Wide application range allows for rationalisation of products
- Longer equipment life
- Designed for heavier load than engine oils
- Longer oil life through enhanced oxidation stability
- Reduces component wear in transmission and hydraulic systems

PERFORMANCE LEVELS

- ✓ API GL-4
- ✓ Caterpillar TO-4
- ✓ Eaton (Vickers) M-2950-S
- ✓ Komatsu KES 07.861.1
- ✓ ZF TE-ML 03C



Formerly Convoy Fleet Gear 30

CIVIL FLEET GEAR SAE 30

20L - FG30020 | 205L - FG30205 | 1000L - FG301000LTR

BASE OIL: Premium Mineral

VISCOSITY: SAE 30

BENEFITS

- Wide application range allows for rationalisation of products
- Longer equipment life
- Designed for heavier load than engine oils
- Longer oil life through enhanced oxidation stability
- Reduces component wear in transmission and hydraulic systems

PERFORMANCE LEVELS

- ✓ Allison C4 (obsolete)
- ✓ API GL-4/CD (obsolete)
- ✓ Caterpillar TO-4
- ✓ Eaton (Vickers) M-2950-S
- ✓ Komatsu KES 07.861.1
- ✓ ZF TE-ML 03C/07F



Formerly Convoy Fleet Gear 50

CIVIL FLEET GEAR SAE 50

20L - FG50020 | 205L - FG50205 | 1000L - FG501000LTR

BASE OIL: Premium Mineral

VISCOSITY: SAE 50

BENEFITS

- Wide application range allows for rationalisation of products
- Longer equipment life
- Designed for heavier load than engine oils
- Longer oil life through enhanced oxidation stability
- Reduces component wear in transmissions and final drives

PERFORMANCE LEVELS

- ✓ API GL-4/CD (obsolete)
- ✓ Caterpillar TO-4



CIVIL FLEET GEAR SAE 60 NEW

205L - FG60205 | 1000L - FG601000LTR

BASE OIL: Premium Mineral **VISCOSITY:** SAE 60

BENEFITS

- Wide application range allows for rationalisation of products
- Longer equipment life
- Designed for heavier load than engine oils
- Longer oil life through enhanced oxidation stability
- Reduces component wear in transmissions and final drives

PERFORMANCE LEVELS

- ✓ API GL-4/CD (obsolete)
- ✓ Caterpillar TO-4



CIVIL FLEET GEAR FD-01

205L - FD01205

BASE OIL: Premium Mineral **VISCOSITY:** SAE 60

BENEFITS

- Superior extreme pressure properties compared to TO-4 fluids
- Protects against rust & corrosion
- Excellent foam control
- Improved shock load capability
- Extends component life
- Long oil drains reduces downtime

PERFORMANCE LEVELS

- ✓ Caterpillar FD-1

Formerly
Convoy Final Drive Fluid



Heavy-Duty Coolants are specialised engine coolants formulated for high load diesel applications, such as trucks, buses, construction machinery, agricultural equipment, mining, marine and other heavy-duty vehicles. Their job is to regulate engine temperature and to protect against corrosion, cavitation, and deposit build-up in all types of conditions. Penrite's Heavy-Duty Coolant range includes **PG UXL Coolant (Premix)**, **HD Longlife ECO1 Coolant (Concentrate)** and **HD Longlife ECO1 Coolant (Premix)**.

Page 120

FARMRITE TRACTOR TRANSMISSION & HYDRAULIC OIL (UTTO)

10L - TTH010 | 20L - TTH020 | 205L - TTH205 | 1000L - TTH1000LTR



BASE OIL: Premium Mineral

VISCOSITY: SAE 10W-30/75W-80

BENEFITS

- Reduces inventory holding
- Minimises squawk and chatter from wet brake systems
- Effective anti-wear additives
- Protects against rust & corrosion
- Long service through good thermal stability
- Latest technology for maximum protection
- Suitable for ISO VG 68

PERFORMANCE LEVELS

- ✓ Allison C4
- ✓ API GL-4
- ✓ CNH MAT 3525/MAT 3526/MAT 3540
- ✓ Ford M2C134-D
- ✓ Ford M2C86-B/C
- ✓ John Deere J20C

FARMRITE UNIVERSAL FARM OIL (STOU)

20L - UFO020 | 205L - UFO205



BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-40/80W-90

BENEFITS

- One oil for both hydraulic and engine applications
- Saves on inventory costs
- Reduces the chances of mis-matching products
- Can be used in both petrol & diesel applications
- Suitable for 15W-30, 20W-40, SAE 80 & SAE 90

PERFORMANCE LEVELS

- ✓ ACEA E3
- ✓ Ford M2C159-B/C
- ✓ Ford M2C86-A
- ✓ John Deere JD20A/C
- ✓ MAN 271
- ✓ Massey Ferguson MF M1135/M1139/M1141/M1143/M1145
- ✓ MB 227.1
- ✓ New Holland 420A/82009201/82009202/82009203



HEAVY-DUTY DRIVETRAIN



HYDRAULIC FLUIDS

HYDRAULIC FLUIDS

Hydraulic Fluid, also known as hydraulic oil, is a specialised liquid used in hydraulic systems to transmit power. These systems are commonly found in machinery and equipment such as excavators, lifts, brakes, and power steering systems.

HYDRAULIC FLUID SERVES SEVERAL KEY FEATURES:

- 1. POWER TRANSMISSION:**
It transfers force within the hydraulic system, enabling movement or lifting.
- 2. LUBRICATION:**
Reduces wear and friction between moving parts.
- 3. HEAT TRANSFER:**
Carries away heat generated by the system to prevent overheating.
- 4. CORROSION PROTECTION:**
Contains additives to prevent rust and corrosion of metal parts.

IMPORTANT PROPERTIES OF HYDRAULIC FLUID:

- 1. VISCOSITY (VG - ISO 32, 46, 68 etc.):**
Resistance to flow (affects efficiency and protection).
- 2. TEMPERATURE STABILITY:**
Must work well across various temperatures.
- 3. ANTI-WEAR CHARACTERISTICS:**
Protect internal components.
- 4. WATER SEPARATION:**
Prevents water mixing with oil and causing damage.
- 5. BE THERMALLY & OXIDATIVELY STABLE:**
Resists breaking down under heat & load
- 6. COMPONENT COMPATIBILITY**
- 7. ENVIRONMENTAL PROPERTIES**

WHO USES HYDRAULIC FLUID?

Hydraulic fluid is used by a wide range of industries and professionals who rely on hydraulic systems to power machinery or perform mechanical functions. Here's a breakdown of who uses hydraulic fluid:

- 1. CONSTRUCTION INDUSTRY:**
Users: Equipment operators, contractors, mechanics
Equipment: Excavators, bulldozers, backhoes, loaders, cranes
Purpose: To power hydraulic arms, lifts, & movements
- 2. AGRICULTURE:**
Users: Farmers, agricultural technicians
Equipment: Tractors, harvesters, balers, sprayers
Purpose: Operate implements like loaders, steering systems, and lifting mechanisms
- 3. MANUFACTURING & INDUSTRIAL PLANTS:**
Users: Plant engineers, maintenance crews
Equipment: Hydraulic presses, injection moulding machines, conveyor systems
Purpose: Control and automate manufacturing processes
- 4. TRANSPORTATION & LOGISTICS USERS:**
Users: Fleet operators, mechanics
Equipment: Trucks (especially with hydraulic lift gates or tippers), forklifts, trailers
Purpose: Power lift systems, brakes, and steering

5. MARINE INDUSTRY USERS:

Users: Ship engineers, port operators
Equipment: Ship steering, winches, cranes, stabilisers
Purpose: Hydraulic operation of heavy marine equipment

6. WASTE MANAGEMENT & RECYCLING USERS:

Users: Sanitation workers, recycling facility operators
Equipment: Garbage trucks, compactors, balers
Purpose: Lift bins, compress waste, operate mechanical arms

7. FORESTRY USERS:

Users: Logging operators, equipment maintainers
Equipment: Feller bunchers, skidders, harvesters
Purpose: Drive cutting, grabbing, and moving systems

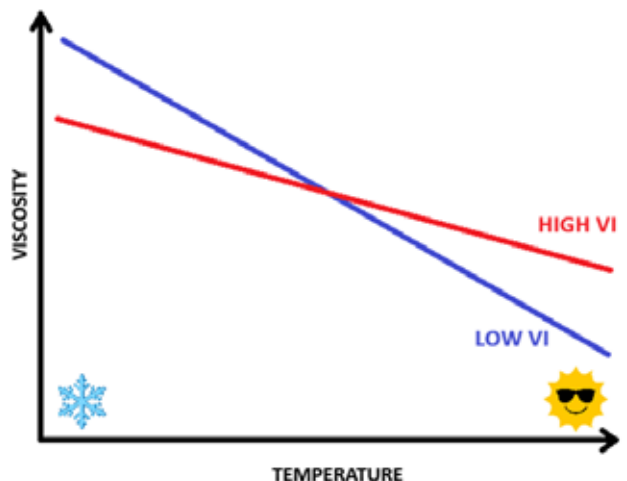
8. HEAVY EQUIPMENT RENTAL & MAINTENANCE SERVICES:

Equipment: Rental companies, service technicians
Purpose: Maintain a fleet of machines in peak operating condition

HYDRAULIC FLUID CLASSIFICATIONS

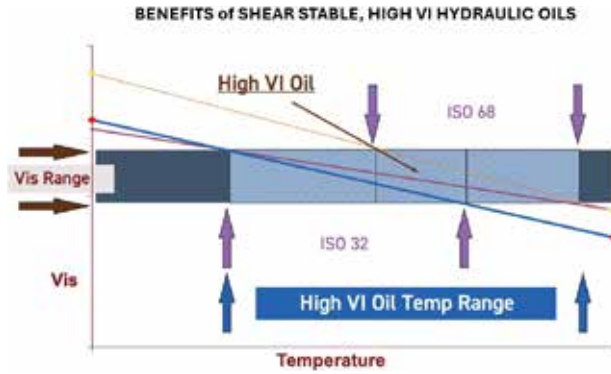
Hydraulic Fluids are generally mineral oil-based, with suitable additives. The requirements for hydraulic fluid are set out in ISO 6743-4 with the designations HL, HM, HV. Germany designations - HL, HLP, HVLP are standard, in accordance with DIN 51524.

H & HH	Mineral oil with no active ingredients (Obsolete).
HL	Contains active ingredients to increase the corrosion protection and resistance to aging.
HM	Contains active ingredients to increase the corrosion protection and resistance to aging and to reduce wear due to scoring in the mixed friction area.
HLP	Further active ingredients in addition to HL oil to reduce wear and increase resistance in the mixed friction area - widest application in practice.
HV & HVLP	Similar to HLP with increased resistance to aging, with improved high temperature-viscosity.
HLPD	Like HLP, but with additives to improve particle transport (detergent effect) and dispersion capacity (water carrying capacity) and active ingredients to increase the corrosion protection (German designation, not standardised).



BENEFITS OF SHEAR STABLE, HIGH VI HYDRAULIC FLUIDS

- Can provide fuel efficiency gains
- Can provide productivity gains (work efficiency)
- Superior cold start performance
- Greater hydraulic power under full load conditions

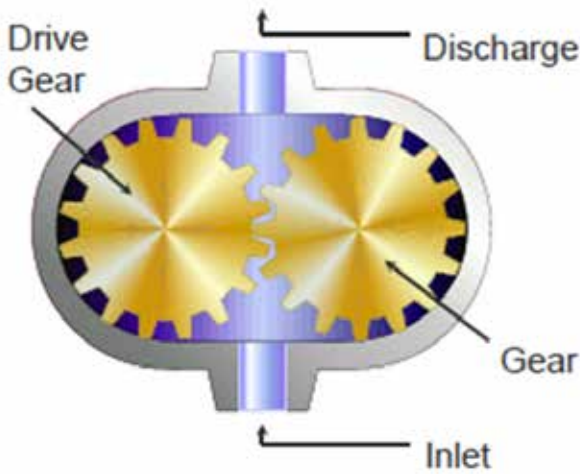


HYDRAULIC SYSTEMS KEY COMPONENTS

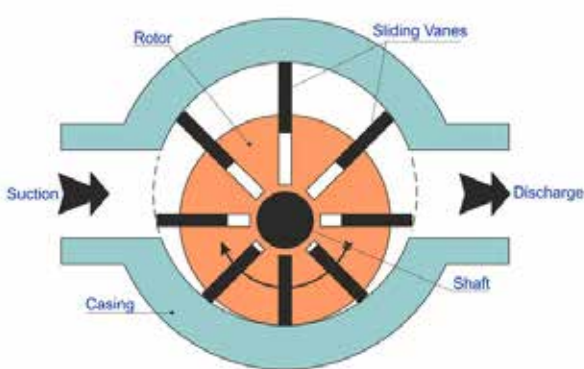
PUMPS

- Converts mechanical 'work' to hydraulic energy
- Supplies system with pressurised fluid

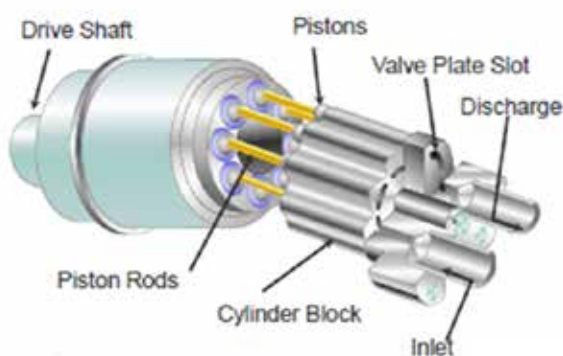
GEAR PUMP



VANE PUMP



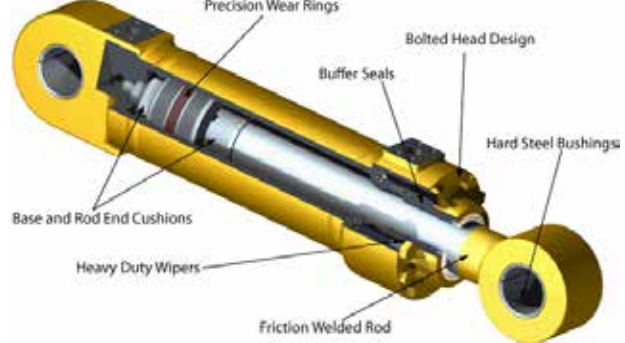
AXIAL PISTON PUMP



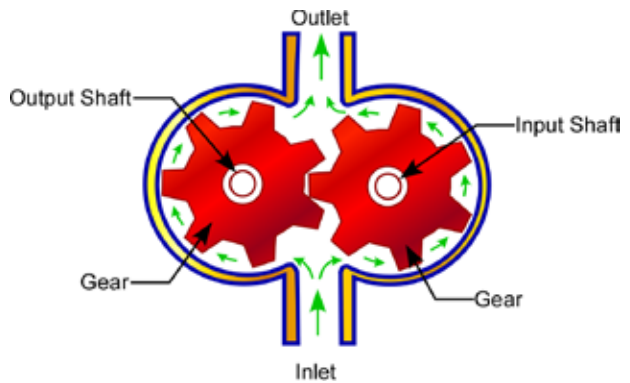
ACTUATOR

- Converts hydraulic energy to mechanical work
- Produces linear or rotary motion

CYLINDER



HYDRAULIC MOTOR



HYDRAULIC FLUID RANGE

CHOOSE THE RIGHT FLUID FOR YOUR APPLICATION

CORE

- ✓ Economy range
- ✓ Zinc Based formulation
- ✓ Mono Grade hydraulic fluid
- ✓ Amber colour
- ✓ Available in ISO 32, 46 & 68 viscosities

PRO

- ✓ Premium range
- ✓ Zinc Based formulation
- ✓ Mono Grade hydraulic fluid
- ✓ Pale Yellow/Clear colour
- ✓ Available in ISO 22, 32, 46 & 68 viscosities

MID RANGE

- ✓ High Quality range
- ✓ Zinc Free formulation
- ✓ Mid/High Viscosity Index
- ✓ Multi-Grade hydraulic fluid
- ✓ Blue colour
- ✓ Available in ISO 46 & 68 viscosities

SUPER HV

- ✓ High Quality range
- ✓ Zinc Based formulation
- ✓ High Viscosity Index
- ✓ Multi-Grade hydraulic fluid
- ✓ Blue colour
- ✓ Available in ISO 46 & 68 viscosities

ULTRA HV

- ✓ Premium range
- ✓ Zinc Free formulation
- ✓ High Viscosity Index
- ✓ Multi-Grade hydraulic fluid
- ✓ Green colour
- ✓ Available in ISO 46, 68 & 100 viscosities

BIODEGRADABLE

- ✓ Premium range
- ✓ Fatty Acid Ester Based formulation
- ✓ Biodegradable
- ✓ Fire Resistance hydraulic fluid
- ✓ Amber colour
- ✓ Available in ISO 46 & 68 viscosities

Penrite has a complete range of Hydraulic Fluids suitable for most applications and budgets including mono grade and Multi-Grade (HV) types with both Zinc and Zinc Free Anti-Wear additives.

PENRITE'S RANGE INCLUDES

CORE HYDRAULIC: Value range of Hydraulic Fluids available in ISO 32, 46 and 68. They feature a Zinc enhanced anti-wear additive system and are suitable for or use in hydraulic systems such as in outdoor mobile equipment (excavators, loaders, cranes, bulldozers, tractors etc.), marine, mining, manufacturing, construction, civil, agriculture/harvesting, transport & forestry.

PRO HYDRAULIC: A premium range of Zinc Enhanced Hydraulic Fluids available in ISO 22, 32, 46 & 68 grades suitable for most applications including outdoor mobile equipment (excavators, loaders, cranes, bulldozers, tractors etc.), marine, mining, manufacturing, construction, civil, agriculture/harvesting, transport & forestry.

It is also recommended for all types of hydraulic systems using vane, piston or gear pumps, air-line lubricators, vacuum pumps, lightly loaded gear sets and bearing (such as headstocks, windmill gears) and hydraulic hoists and jacks.

MID RANGE: High quality, Zinc-Free, multi-grade hydraulic oil made from premium base oils using a highly shear stable viscosity modifier and an organic advanced anti-wear additive. It is formulated to maintain a stable thickness across a wide range of temperatures (hot and cold), ensuring superior viscosity control. It is available in ISO 46 and 68 grades.

SUPER HV: High quality HVI (High Viscosity Index), zinc enhanced hydraulic oil made from premium base oils using highly shear stable viscosity modifier and zinc (ZDDP) advanced anti-wear additive. It is formulated to maintain stable thickness across a wide range of temperatures (hot & cold) ensuring superior viscosity control. Available in ISO 46 and 68 grades.

ULTRA HV: Premium quality, HV (High Viscosity Index), Zinc-Free (ZF), hydraulic oil made from premium base oils and a highly shear stable viscosity modifier and an organic advanced AW (anti-wear) additive. It is formulated to maintain stable thickness across a wide range of temperatures (hot and cold) for superior viscosity control. Available in OS 46, 68 & 100 grades.

PRODUCTS

		LITRES			
		5	20	205	1000
Core Hydraulic 32	NEW		●	●	
Core Hydraulic 46	NEW		●	●	●
Core Hydraulic 68	NEW		●	●	●
Pro Hydraulic 22	NEW		●	●	
Pro Hydraulic 32		●	●	●	●
Pro Hydraulic 46		●	●	●	●
Pro Hydraulic 68		●	●	●	●
Mid Range 46 (Zinc Free)	NEW		●		●
Mid Range 68 (Zinc Free)			●		●
Super HV 46	NEW		●	●	●
Super HV 68	NEW		●	●	●
Super HV 100	NEW				●
Ultra HV 46 (Zinc Free)			●	●	
Ultra HV 68 (Zinc Free)			●	●	●
Ultra HV 100 (Zinc Free)			●	●	
Biodegradable Hydraulic Oil ISO 46	NEW		●	●	●
Biodegradable Hydraulic Oil ISO 68	NEW		●	●	●
CARTON QUANTITY		4			

● AVAILABLE PACK SIZE



CORE HYDRAULIC 32 **NEW**

20L - COREHYD32020 | 205L - COREHYD32205

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 32

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ ASTM D6158 (HM)
- ✓ DIN 51524-2 (HLP)
- ✓ ISO 11158 (ISO-L-HM)



CORE HYDRAULIC 46 **NEW**

20L - COREHYD46020 | 205L - COREHYD46205 | 1000L - COREHYD461000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 46

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ ASTM D6158 (HM)
- ✓ DIN 51524-2 (HLP)
- ✓ ISO 11158 (ISO-L-HM)



CORE HYDRAULIC 68 **NEW**

20L - COREHYD68020 | 205L - COREHYD68205 | 1000L - COREHYD681000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ ASTM D6158 (HM)
- ✓ DIN 51524-2 (HLP)
- ✓ ISO 11158 (ISO-L-HM)

PRO HYDRAULIC 22 NEW

20L - PROHYD22020 | 205L - PROHYD22205



BASE OIL: Premium Mineral **VISCOSITY:** ISO VG 22

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ AIST (USS) 126/127
- ✓ ASTM D6158 (HM)
- ✓ Bosch Rexroth Fluid Rating RDE 90245
- ✓ China GB 11118.1 L-HM
- ✓ DIN 51524 Part 2 (HLP Type)
- ✓ Eaton E-FDGN-TB002-E/Vickers I286-S/Vickers M-2950-S
- ✓ ISO 11158 (ISO-L-HM)
- ✓ Kawasaki Heavy Industries JCMAS D-041
- ✓ Komatsu KES 07.841.1
- ✓ Parker Denison HF-0/HF-1/HF-2

PRO HYDRAULIC 32

5L - PROHYD32005 | 20L - PROHYD32020 | 205L - PROHYD32205 | 1000L - PROHYD321000LTR



BASE OIL: Premium Mineral **VISCOSITY:** ISO VG 32

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ Cincinnati Milacron P-68 (32)
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2 (HLP Type)
- ✓ ISO 32/6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S/M-2950-S

Formerly Indus Pro Hydraulic 32

PRO HYDRAULIC 46

5L - PROHYD46005 | 20L - PROHYD46020 | 205L - PROHYD46205 | 1000L - PROHYD461000LTR



BASE OIL: Premium Mineral **VISCOSITY:** ISO VG 46

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ Cincinnati Milacron P-70 (46)
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2 (HLP Type)
- ✓ ISO 46/6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S/M-2950-S

Formerly Indus Pro Hydraulic 46



Formerly
Indus Pro Hydraulic 68

PRO HYDRAULIC 68

5L - PROHYD68005 | 20L - PROHYD68020 | 205L - PROHYD68205 | 1000L - PROHYD681000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties to provide water separation
- Zinc enhanced for anti-wear protection

PERFORMANCE LEVELS

- ✓ Cincinnati Milacron P-69
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2 (HLP Type)
- ✓ ISO 68/6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S/M-2950-S



MID RANGE 46 (ZINC FREE)

NEW

20L - INDMR46020 | 1000L - INDMR461000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 46

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties provide excellent water separation
- Zinc Free additive pack for anti-wear protection
- Shear stability maintains equipment performance
- Wide range of temperature usage
- Lower start up viscosity increases energy efficiency

PERFORMANCE LEVELS

- ✓ AAMA 524 Part 2
- ✓ Bosch Rexroth RE90 220
- ✓ Cincinnati Milacron P-69
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2
- ✓ German Steel SEB 181 222
- ✓ Hagglunds AC-4.8
- ✓ ISO 6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S3/M-2952-S



Formerly Indus MR 68

MID RANGE 68 (ZINC FREE)

20L - INDMR68020 | 1000L - INDMR681000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge & deposits
- Excellent air release
- Demulsibility properties provide excellent water separation
- Zinc Free additive pack for anti-wear protection
- Shear stability maintains equipment performance
- Wide range of temperature usage
- Lower start up viscosity increases energy efficiency

PERFORMANCE LEVELS

- ✓ AAMA 524 Part 2
- ✓ Bosch Rexroth RE90 220
- ✓ Cincinnati Milacron P-69
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2
- ✓ German Steel SEB 181 222
- ✓ Hagglunds AC-4.8
- ✓ ISO 6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S3/M-2952-S

SUPER HV 46 NEW

20L - SUPERHV46020 | 205L - SUPERHV46205 | 1000L - SUPERHV461000LTR



BASE OIL: Premium Mineral	VISCOSITY: ISO VG 46
BENEFITS <ul style="list-style-type: none"> • Combats against rust, foaming & oxidation (oil degradation) • Reduces sludge & deposits • Excellent air release • Demulsibility properties provide excellent water separation • Zinc enhanced for anti-wear protection • Shear stability maintains equipment performance • Wide range of temperature usage • Lower start up viscosity increases energy efficiency 	PERFORMANCE LEVELS <ul style="list-style-type: none"> ✓ AIST (USS) 126/127 ✓ ASTM D6158 (HV) ✓ Bosch Rexroth Fluid Rating RDE 90245 ✓ China GB 11118.1 ✓ DIN 51524-2 (HVL P) ✓ Eaton E-FDGN-TB002-E ✓ Eaton Vickers I-286-S/M-2950-S ✓ ISO 11158 (ISO-L-HV) ✓ Parker (Denison) HF-0/HF-1/HF-2

SUPER HV 68 NEW

20L - SUPERHV68020 | 205L - SUPERHV68205 | 1000L - SUPERHV681000LTR



BASE OIL: Premium Mineral	VISCOSITY: ISO VG 68
BENEFITS <ul style="list-style-type: none"> • Combats against rust, foaming & oxidation (oil degradation) • Reduces sludge & deposits • Excellent air release • Demulsibility properties provide excellent water separation • Zinc enhanced for anti-wear protection • Shear stability maintains equipment performance • Wide range of temperature usage • Lower start up viscosity increases energy efficiency 	PERFORMANCE LEVELS <ul style="list-style-type: none"> ✓ AIST (USS) 126/127 ✓ ASTM D6158 (HV) ✓ Bosch Rexroth Fluid Rating RDE 90245 ✓ China GB 11118.1 ✓ DIN 51524-2 (HVL P) ✓ Eaton E-FDGN-TB002-E ✓ Eaton Vickers I-286-S/M-2950-S ✓ ISO 11158 (ISO-L-HV) ✓ Parker (Denison) HF-0/HF-1/HF-2

SUPER HV 100 NEW

1000L - SUPERHV1001000LTR



BASE OIL: Premium Mineral	VISCOSITY: ISO VG 100
BENEFITS <ul style="list-style-type: none"> • Combats against rust, foaming & oxidation (oil degradation) • Reduces sludge & deposits • Excellent air release • Demulsibility properties provide excellent water separation • Zinc enhanced for anti-wear protection • Shear stability maintains equipment performance • Wide range of temperature usage • Lower start up viscosity increases energy efficiency 	PERFORMANCE LEVELS <ul style="list-style-type: none"> ✓ AIST (USS) 126/127 ✓ ASTM D6158 (HV) ✓ Bosch Rexroth Fluid Rating RDE 90245 ✓ China GB 11118.1 ✓ DIN 51524-2 (HVL P) ✓ Eaton E-FDGN-TB002-E ✓ Eaton Vickers I-286-S/M-2950-S ✓ ISO 11158 (ISO-L-HV) ✓ Parker (Denison) HF-0/HF-1/HF-2

ULTRA HV 46 (ZINC FREE)

20L - INDUSHV46020 | 205L - INDUSHV46205



Formerly Indus HV 46

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 46

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge and deposits
- Demulsibility properties to provide water separation
- Zinc Free formulation allows no ash residue (ashless)
- Suitable for servo valve systems
- Organic anti-wear (AW) additive to reduce friction and protect metal components
- Can be used over a wide range of temperatures

PERFORMANCE LEVELS

- ✓ AAMA 524 Part 3
- ✓ AFNOR NFE 48-603/NFE 48-690
- ✓ Bosch Rexroth RE90 220
- ✓ Cincinnati Milacron P-70
- ✓ Denison HF-0 (T6H20C)/HF-2
- ✓ DIN 51524 Part 3 (HLP/HVLP)
- ✓ German Steel SEB 181 222
- ✓ Hagglunds AC-4.8
- ✓ ISO 46/11158/11184/6743 Part 4, Type HV
- ✓ SAE MS 1004 Type HV
- ✓ US Steel 127
- ✓ Vickers I-286-S3/M-2952-S

ULTRA HV 68 (ZINC FREE)

20L - INDUSHV68020 | 205L - INDUSHV68205 | 1000L - INDUSHV681000LTR



Formerly Indus HV 68

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge and deposits
- Demulsibility properties to provide water separation
- Zinc Free formulation allows no ash residue (ashless)
- Suitable for servo valve systems
- Organic anti-wear (AW) additive to reduce friction and protect metal components
- Can be used over a wide range of temperatures

PERFORMANCE LEVELS

- ✓ AAMA 524 Part 3
- ✓ AFNOR NFE 48-603/NFE 48-690
- ✓ Bosch Rexroth RE90 220
- ✓ Cincinnati Milacron P-69
- ✓ Denison HF-0 (T6H20C)/HF-2
- ✓ DIN 51524 Part 3 (HLP/HVLP)
- ✓ German Steel SEB 181 222
- ✓ Hagglunds AC-4.8
- ✓ ISO 11158/11184/6743 Part 4, Type HV
- ✓ SAE MS 1004 Type HV
- ✓ US Steel 127
- ✓ Vickers I-286-S3/M-2952-S

ULTRA HV 100 (ZINC FREE)

20L - INDUSHV100020 | 205L - INDUSHV100205



Formerly Indus HV 100

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 100

BENEFITS

- Combats against rust, foaming & oxidation (oil degradation)
- Reduces sludge and deposits
- Demulsibility properties to provide water separation
- Zinc Free formulation allows no ash residue (ashless)
- Suitable for servo valve systems
- Organic anti-wear (AW) additive to reduce friction and protect metal components
- Can be used over a wide range of temperatures

PERFORMANCE LEVELS

- ✓ AAMA 524 Part 3
- ✓ AFNOR NFE 48-603/NFE 48-690
- ✓ Bosch Rexroth RE90 220
- ✓ Denison HF-0 (T6H20C)/HF-2
- ✓ DIN 51524 Part 3 (HLP/HVLP)
- ✓ German Steel SEB 181 222
- ✓ Hagglunds AC-4.8
- ✓ ISO 100/11158/11184/6743 Part 4, Type HV
- ✓ SAE MS 1004 Type HV
- ✓ US Steel 127
- ✓ Vickers I-286-S3/M-2952-S

BIODEGRADABLE HYDRAULIC OIL ISO 46 **NEW**

20L - BIOHYD46020 | 205L - BIOHYD46205 | 1000L - BIOHYD461000LTR



BASE OIL: Fatty Acid Ester **VISCOSITY:** ISO VG 46

BENEFITS

- Outstanding fire resistance
- Excellent hydrolytic stability performance
- Biodegradable and environmentally friendly
- Anti-oxidation performance
- Excellent rust and corrosion resistance properties
- Outstanding lubricating properties

PERFORMANCE LEVELS

- ✓ ISO 12922
- ✓ ISO 6743-4 HFDU
- ✓ NB/SH/T 6045

BIODEGRADABLE HYDRAULIC OIL ISO 68 **NEW**

20L - BIOHYD68020 | 205L - BIOHYD68205 | 1000L - BIOHYD681000LTR



BASE OIL: Fatty Acid Ester **VISCOSITY:** ISO VG 68

BENEFITS

- Outstanding fire resistance
- Excellent hydrolytic stability performance
- Biodegradable and environmentally friendly
- Anti-oxidation performance
- Excellent rust and corrosion resistance properties
- Outstanding lubricating properties

PERFORMANCE LEVELS

- ✓ ISO 12922
- ✓ ISO 6743-4 HFDU
- ✓ NB/SH/T 6045



As part of Penrite's ongoing commitment to customer service, a comprehensive oil analysis program is available through an independent provider (ALS). This program can be used to monitor engine oils, drivetrain lubricants, hydraulic fluids, coolants, and grease upon request.

Using Penrite's **Oil Analysis Kit** can help optimise lubricant service intervals (including extended hours or kilometres), provide early detection of potential issues, improve reliability, detect contaminants, and extend equipment life.

Page 225



INDUSTRIAL



TYPES OF INDUSTRIAL OILS

HYDRAULIC FLUIDS

The primary purpose of a hydraulic oil is to transmit force applied at one point in a system to another. As well as this, it must also protect seals, lubricate, transfer heat and protect against wear.

The viscosity of the oil is important to ensure efficient power transfer. Too heavy and high-pressure drops may occur, the system becomes sluggish and power usage increases. If too light, then wear can be a problem, efficiency decreases and leaks may occur.

Typically, these products contain anti wear, anti-rust/corrosion and anti-oxidation inhibitors. These may be ashless (non-metallic) or use a zinc di-thiophosphate type system. Some older, high zinc additives can be corrosive to silver, so many manufacturers may specify a zinc free oil.

Hydraulic oils may also be of high viscosity index types. These oils provide better flow when cold and also don't thin out as much when at operating temperatures.

INDUSTRIAL GEAR OILS

Typically API GL-3 oils which use low doses of conventional sulphur-phosphorus additives. They tend to be straight grade oils utilising the ISO VG viscosity classification.

COMPRESSOR OILS

Compressors may use a multitude of different products, depending on the type of compressor and its service. Types of oils include:

- Conventional motor oils
- Non-metallic (zinc) hydraulic oils
- Ashless engine oils
- Specialised compressor oils (mineral or synthetic)
- Automatic transmission fluids
- Refrigeration oils

The use of the wrong oil can cause wear, failure, carbon build up and even reaction with the gas being compressed, so great care must be taken when recommending fluids.

HEAT TRANSFER FLUIDS

As the name suggests, they transfer heat in a system. They must be highly oxidation stable to minimise build up of carbon deposits (which of course inhibit heat transfer).

MISCELLANEOUS

There are many special products used by industry that are not covered here. The mining and food industries have some special lubricants for very specific applications. These may be fire resistant fluids, specialised greases, control fluids and many others.

Penrite knows what it takes to be competitive and successful in Australia. Since 1926, we have listened and worked closely with generations of Australian businesses/construction companies to understand, not only your product requirements, but also your business needs.

We understand it's not just about quality products that meet the latest requirements of global manufacturers. We recognise the importance of inventory management, reducing maintenance requirements and downtime,

increasing profitability and the service life of equipment. From these learnings, we continue to tailor the highest quality lubricants and fluids for your vehicles, equipment and machinery. Our locally produced performance products cover all your needs for your entire commercial, mining and construction fleet, whether aged or modern.

Penrite is not only made in Australia, but tried and tested for the harshest and toughest conditions.

PRODUCTS

	LITRES			
	5	20	205	1000
Indus Gear Oil EP 68			●	
Indus Gear Oil EP 150		●	●	
Indus Gear Oil EP 220		●	●	
Indus Gear Oil EP 320		●		
Indus Gear Oil EP 460			●	
Gear Oil Syn 220		●	●	
Indus Compressor Oil 2KH ISO 68		●		
Indus Compressor Oil 4KH ISO 46		●		
Indus Compressor Oil 4KH ISO 68	●			
Indus Compressor Oil 8KH ISO 68		●		
Rockslide ISO 68		●		
Rockslide ISO 150			●	
Rockslide ISO 320		●	●	●
Honing Oil		●		
Soluble Oil	●	●		
CARTON QUANTITY	4			

● AVAILABLE PACK SIZE



INDUS GEAR OIL EP 68

205L - G068205

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Compatible with copper alloy components
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Good oxidation & thermal stability for long life
- Minimises foaming
- Excellent demulsibility

PERFORMANCE LEVELS

- ✓ AGMA 2005-D94/250.04
- ✓ AAPI GL-3
- ✓ Cincinnati Milacron
- ✓ Clean Panel Coker and S-200 Oxidation
- ✓ US Steel 224



INDUS GEAR OIL EP 150

20L - G0150020 | 205L - G0150205

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 150

BENEFITS

- Compatible with copper alloy components
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Good oxidation & thermal stability for long life
- Minimises foaming
- Excellent demulsibility

PERFORMANCE LEVELS

- ✓ AGMA 250.04/2005-D94
- ✓ API GL-3
- ✓ Cincinnati Milacron
- ✓ Clean Panel Coker and S-200 Oxidation
- ✓ US Steel 224



INDUS GEAR OIL EP 220

20L - G0220020 | 205L - G0220205

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 220

BENEFITS

- Compatible with copper alloy components
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Good oxidation & thermal stability for long life
- Minimises foaming
- Excellent demulsibility

PERFORMANCE LEVELS

- ✓ AGMA 250.04/2005-D94
- ✓ API GL-3
- ✓ Cincinnati Milacron
- ✓ Clean Panel Coker and S-200 Oxidation
- ✓ DIN 51517 Part 3 (CLP)
- ✓ US Steel 224

INDUS GEAR OIL EP 320

20L - G0320020



BASE OIL: Premium Mineral

VISCOSITY: ISO VG 320

BENEFITS

- Compatible with copper alloy components
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Good oxidation & thermal stability for long life
- Minimises foaming
- Excellent demulsibility

PERFORMANCE LEVELS

- ✓ AGMA 250.04/2005-D94
- ✓ API GL-3
- ✓ Cincinnati Milacron
- ✓ Clean Panel Coker and S-200 Oxidation
- ✓ US Steel 224

INDUS GEAR OIL EP 460

205L - G0460205



BASE OIL: Premium Mineral

VISCOSITY: ISO VG 460

BENEFITS

- Compatible with copper alloy components
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Good oxidation & thermal stability for long life
- Minimises foaming
- Excellent demulsibility

PERFORMANCE LEVELS

- ✓ AGMA 250.04/2005-D94
- ✓ API GL-3
- ✓ Cincinnati Milacron
- ✓ Clean Panel Coker and S-200 Oxidation
- ✓ US Steel 224

GEAR OIL SYN 220

20L - GOSYN220020 | 205L - GOSYN220205



BASE OIL: Full Synthetic

VISCOSITY: ISO VG 220

BENEFITS

- Premium performance & durability
- Protects against rust & corrosion
- Minimises wear by using effective extreme pressure additives
- Outstanding oxidation & thermal stability for long life

PERFORMANCE LEVELS

- ✓ AIST 224
- ✓ ANSI/AGMA 2005-E02 EP
- ✓ API GL-3
- ✓ DIN 51517 Part 3 (CLP)
- ✓ HITACHI CONSTRUCTION
- ✓ Joy TO-SMEP (ISO220)
- ✓ MAG Cincinnati Machine P-74 (ISO 220)
- ✓ US Steel 224



INDUS COMPRESSOR OIL 2KH ISO 68

20L - CO2KH68020

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Up to 2000 hour oil drains
- High resistance to oxidation, reducing sludge deposits
- Good water demulsibility
- Excellent protection against wear
- Excellent filterability

PERFORMANCE LEVELS

- ✓ Cincinnati Milacron
- ✓ DIN 51506 VDL/51524 Part 1
- ✓ Hagglunds Denison HF-1



INDUS COMPRESSOR OIL 4KH ISO 46

20L - CO4KH46020

BASE OIL: Full Synthetic

VISCOSITY: ISO VG 46

BENEFITS

- Up to 4000 hour oil drains
- Reduced system deposits
- Good water demulsibility
- Excellent protection against wear

PERFORMANCE LEVELS

- ✓ DIN 51506 VDL
- ✓ ISO 6743-3A-DAJ/DAH
- ✓ SAE MS 1003-2





INDUS COMPRESSOR OIL 4KH ISO 68

5L - C04KH68005

BASE OIL: Full Synthetic

VISCOSITY: ISO VG 68

BENEFITS

- Up to 4000 hour oil drains
- Reduced system deposits
- Good water demulsibility
- Excellent protection against wear

PERFORMANCE LEVELS

- ✓ DIN 51506 VDL
- ✓ ISO 6743-3A-DAJ/DAH
- ✓ SAE MS 1003-2



INDUS COMPRESSOR OIL 8KH ISO 68

20L - C08KH68020

BASE OIL: Full Synthetic

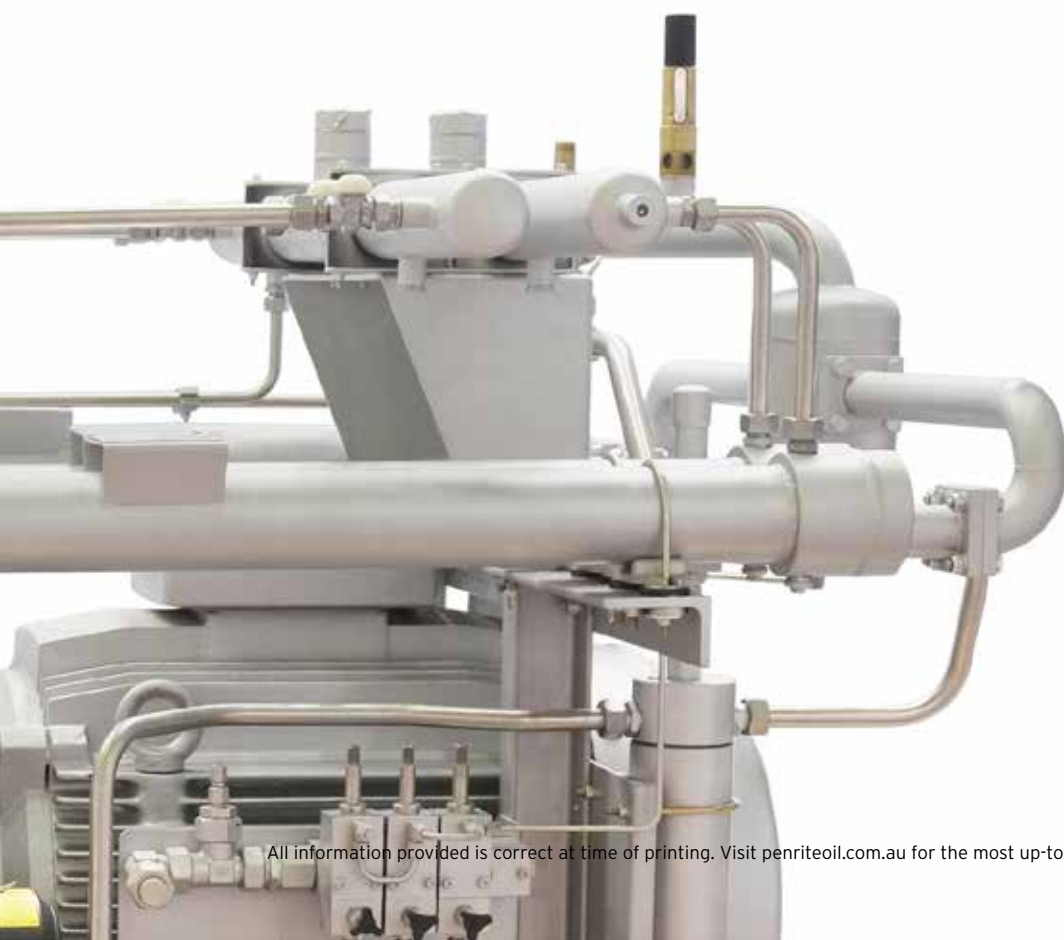
VISCOSITY: ISO VG 68

BENEFITS

- Up to 8000 hour oil drains
- Reduced system deposits
- Good water demulsibility
- Excellent protection against wear

PERFORMANCE LEVELS

- ✓ ISO 68
- ✓ SAE MS 1003-2





ROCKSLIDE ISO 68

20L - RS68020

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 68

BENEFITS

- Outstanding cutting fluid compatibility
- Excellent hydraulic performance including wet & dry filterability
- Brugger performance for steel fatigue prevention
- Ideal friction requirements for stick-slip performance
- Effective tackifier additive to ensure adherence to moving parts

PERFORMANCE LEVELS

- ✓ AGMA 250.04
- ✓ API GL-3
- ✓ Cincinnati Machine Gear P-63/ Machine Slideway P-47
- ✓ DIN 51502 CGLP68
- ✓ Muller Weingarten
- ✓ US Steel 224



ROCKSLIDE ISO 150

205L - RS150205

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 150

BENEFITS

- Outstanding cutting fluid compatibility
- Excellent hydraulic performance including wet & dry filterability
- Brugger performance for steel fatigue prevention
- Ideal friction requirements for stick-slip performance
- Effective tackifier additive to ensure adherence to moving parts

PERFORMANCE LEVELS

- ✓ AGMA 250.04
- ✓ API GL-3
- ✓ Cincinnati Machine Gear P-77
- ✓ DIN 51502 CGLP150
- ✓ Muller Weingarten
- ✓ US Steel 224



ROCKSLIDE ISO 320

20L - RS320020 | 205L - RS320205 | 1000L - RS3201000LTR

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 320

BENEFITS

- Outstanding cutting fluid compatibility
- Excellent hydraulic performance including wet & dry filterability
- Brugger performance for steel fatigue prevention
- Ideal friction requirements for stick-slip performance
- Effective tackifier additive to ensure adherence to moving parts

PERFORMANCE LEVELS

- ✓ AGMA 250.04
- ✓ API GL-3
- ✓ Cincinnati Machine Gear P-59
- ✓ DIN 51502 CGLP320
- ✓ Muller Weingarten
- ✓ US Steel 224



HONING OIL

20L - HON020

BASE OIL: Premium Mineral

BENEFITS

- Excellent surface finish obtainable
- Economical operation by providing superior cooling with minimal drag out
- Maintains stone cleanliness & maximises operation life
- Removes heat from tool & work pieces
- Facilitates rapid settling of swarf & chips
- Excellent anti-weld properties
- Low odour & misting
- Amber colour



SOLUBLE OIL

5L - SOL005 | 20L - SOL020

BASE OIL: Premium Mineral

BENEFITS

- Forms highly stable emulsions
- Helps prevent rust & corrosion
- Low foaming
- Resists biological degradation
- Amber colour



GREASES



GREASE CHARACTERISTICS

GREASE = BASE OIL + ADDITIVES + THICKENER

A lubricating grease is made by mixing 2-15% of a thickener and other additives into a base oil.

HOW DOES GREASE WORK?

The thickeners in grease contain oil and additives and release them like a sponge when under pressure. The oil prevents friction and creates a barrier or film between moving parts.

WHAT IS GREASE EXPECTED TO DO?

- Reduce friction and wear
- Provide corrosion protection
- Seal bearings from water and contaminants
- Resist leakage, dripping and throw off
- Resist change in structure or consistency during service
- Maintain mobility under conditions of application
- Be compatible with seals
- Tolerate or repel moisture
- Be suitable for a wide range of temperatures

WHAT ARE THE PROPERTIES OF GREASE?

- Amount and type of thickener
- Additives
- Solids (i.e. Moly, Graphite)
- Water wash out and spray off
- Mechanical stability
- Oil separation
- Storage life
- Oxidation resistance
- Rust/corrosion resistance
- Viscosity and type of base oil
- Bearing life (wheels, electric motors)
- Compatibility (other greases, seals)
- Low temperature torque

WHAT TYPE OF THICKENERS ARE USED?

- Clay (Organo Clay, i.e. Bentone)
- Lithium
- Lithium Complex
- Lithium/Calcium Mixed Complex
- Calcium Complex
- Aluminium Complex
- Others (Calcium, Sodium, Polyurea)

WHAT TYPES OF BASE OILS ARE USED?

- Castor Oils
- Mineral Oils
- Synthetic Oils (Group 3, PAO & Ester)
- White Oils (Pharmaceutical Grade)
- Vegetable Oils (Food Grade)

GREASE ADDITIVES

- Extreme Pressure (EP) additives
- Rust/Corrosion inhibitors
- Tacky Additive - adhesive/cohesive (polymers/resins)
- Insoluble solids (Moly, Copper, Graphite, Zinc Oxide)
- Oxidation inhibitors
- Anti-wear additives
- Dyes, pigments

GREASE TYPES

There are many types of greases which are shown below. As can be seen, they have different properties which helps to define where they are best suited.

THICKENER	DROP POINT (°C)	MAX SERVICE CONTINUOUS OPERATING TEMP (°C)	HIGH TEMP USE	STRUCTURE	SHEAR STABILITY	WATER RESISTANCE
Calcium	100	<80	☐	☐	○	■
Lithium	160 - 200	125	■	☐	■	■
Calcium Complex	>260	150	■	☐ △	■	■
Lithium Complex	>240	160	■	☐	■	■
Aluminium Complex	>260	150	■	☐ △	■	■
Barium Complex	>200	150	■	▽	○	■
Polyurea	>230	150	■	■	■	■
Bentone	N/A	150	■	☐	○	■
Sodium	170 - 190	125	■	▽	■	☐

☐ Very Poor ☐ Poor ○ Fair ■ Good ■ Excellent
 △ Buttery ☐ Smooth ▽ Fibrous ▽ Gel ■ Opaque

GREASE SERVICE CLASSIFICATION

There are different categories for greases developed by the NLGI (National Lubricating Grease Institute). The classification (ASTM D 4950), covers greases designed for the lubrication of chassis components and wheel bearings of passenger cars, truck and other vehicles.

CONSISTENCY

The degree of stiffness of a grease and may vary considerably with temperature i.e. from fluid to very hard. This is determined by the NLGI Grade Penetration. The viscosity of the base oil used in grease also varies from ISO 15 (very thing) to 1500 (extremely thick), and can have an effect on consistency.

NLGI GRADE PENETRATION

NLGI is measure by a cone drop method. A special cone is dropped into the grease at 25°C and the depth of the fall is measured. This describes the consistency of a grease via an NLGI grade number. A grease is identified by an NLGI number that ranges from 000 to 6. NLGI 000 is a pourable or fluid grease and an NLGI 6 grease is solid, like wax.

NLGI GRADE PENETRATION @ 25°C (1/10TH MM)	NLGI GRADE PENETRATION @ 25°C (1/10TH MM)		
	000	445 - 475	Fluid
00	400 - 430	Semi-Fluid	
0	355 - 385	Very Soft	
1	310 - 340	Soft	
2	265 - 295	Normal	
3	220 - 250	Firm	
4	175 - 205	Very Firm	
5	130 - 160	Hard	
6 (block grease)	85 - 115	Very Hard	

GREASE TESTING

DROP POINT TEST:

The dropping point of grease is the temperature at which the thickener can no longer hold the base oil. Grease is placed in a small cup and heated in an oven-like device. When a drop of oil falls from the low opening of the cup, the dropping point of the grease is calculated using the temperatures in the oven and inside the cup.

4 BALL WELD TEST:

A 12.7mm steel ball is rotated against three stationary balls of the same size. Lubricant surrounds the balls. Test conditions are 1770rpm, 25°C and 10 seconds duration. Testing steps continue with new balls and an increase load until welding of the four balls occurs.

GREASE SHELF LIFE

The shelf life of any grease is affected by the type and amount of thickener used, consistency of the grease, manufacturing method employed and the formulation complexity. Generally, straight Lithium, Lithium Complex and Calcium Complex greases remain stable for a long time. Aluminium Complex greases tend to set and harden, but remain stable. Bentone and Barium greases tend to soften on aging. Based on these observations:

The shelf life of most Penrite greases is about 5 years. However, Semi Fluid Grease only has a 2 year shelf life.

GREASE COMPATIBILITY

Occasionally, grease substitution in an application may be necessary to correct problems arising from the original product in service. If the thickeners are incompatible, the mixture will not meet the properties of the individual greases and in some cases, the greases will fall apart. The below table provides a rough guide.

	Calcium	Lithium	Calcium Complex	Lithium Complex	Aluminium Complex	Barium Complex	Polyurea	Bentone	Sodium
Calcium		✓	✓	✓	●	✗	✓	✗	✗
Lithium	✓		✓	✓	●	●	✓	✗	●
Calcium Complex	✓	✓		●	✗	●	●	✗	✗
Lithium Complex	✓	✓	●		●	●	✓	✗	●
Aluminium Complex	✗	●	✗	●		✗	●	✗	✗
Barium Complex	✗	●	●	●	✗		●	✗	✗
Polyurea	✓	✓	●	✓	●	●		✗	✗
Bentone	✗	✗	✗	✗	✗	✗	✗		✗
Sodium	✗	●	✗	●	✗	✗	✗	✗	

✓ Compatible ✗ Incompatible ● Borderline

It is strongly advised that, in all cases, the old grease be purged or cleaned out from the system before a new one is introduced. Compatibility between greases is also temperature dependent. As the temperature rises, the problems associated with incompatibility also increase. With unknown competitors' products, it is strongly advised to treat them as incompatible.

GREASE COLOUR

A grease's colour is determined by base oil, thickener, additive and dye. A grease can be made to almost any colour to suit a particular environment, application or for identification purposes.

WHICH GREASE DO I USE? FOLLOW THE "L.E.T.S." PRINCIPLE

When selecting a grease to use there are four main considerations to be made. These are referred to as the "L.E.T.S." principle.

LOAD • **E**NVIRONMENT • **T**EMPERATURE • **S**PEED

LOAD				
Load	ISO	NLGI	Additives/Base	Recommended Penrite Grease
High	220 460 680	1 - 2	High Base Oil Viscosity EP & AW Additives	Extreme Pressure Grease Agricultural & Construction Equipment Grease Heavy Duty Bearing Grease
Low	100 150 220	2 - 3	Low Base Oil Viscosity Firm Consistency	High Speed & Temperature Grease

When selecting the correct grease, what sort of load will it have placed on it? High load products may have a higher degree of extreme pressure and anti-wear additives than a grease that is only exposed to lower loadings. There can also be a difference in the base oil viscosity with heavily loaded greases having higher viscosity base oils.

ENVIRONMENT			
Environment	Protection Type	Additives/Base	Recommended Penrite Grease
Water	Rust Protection Water Resistance	Corrosion Preventative Adhesiveness Tackiness	Marine Grease
Long Dispensing Lines	Good Pumpability Soft Consistency		Indgrease Lithium EP 0

Where a grease has to work is an important criteria for selecting the correct product. Environmental factors such as weather, wet, dry, dusty, cold, hot etc. requires special properties in the grease to cope. A good example is a grease that has to operate in a marine environment where it's exposed to salt and water. It needs to stay in place to prevent corrosion and still provide lubrication. It needs good water wash out and spray protection and high levels of anti-corrosion to protect from rust and oxidation.

TEMPERATURE

Temperature	Protection Type	Additives/Base	Recommended Penrite Grease
Very High	Up to 180°C	Clay Based Greases	Copper Eze Marine Grease
High	Up to 170°C	Complex Greases	High Temp Wheel Bearing Grease
Moderate	Up to 140°C	Lithium Greases	Indgrease Moly HT Agricultural & Construction Equipment Grease
Low	Down to -20°C	Lithium & Complex Greases	Extreme Pressure Grease Molygrease EP3% High Speed & Temperature Grease Agricultural & Construction Equipment Grease

Greases are developed to work at different temperature ranges. These can be from extremely cold or arctic conditions through to sizzling hot if working in a wheel bearing with a disc brake rotor. Greases are engineered differently for each type of temperature based application.

SPEED

Speed	Load	ISO	NLGI	Additives/Base	Recommended Penrite Grease
High	Low	100 to 150	2 - 3	Low Base Oil Viscosity Firm Consistency	High Speed & Temperature Grease
Low	High	220 to 680	2	High Base Oil Viscosity Soft Consistency	Indgrease Moly HT

Speed is another consideration. Greases designed to work at high speed need to have strong anti-fling properties so they don't just spin off the surface they are protecting. Generally, the higher the speed, the less the load. A grease designed for low speed applications may need to take heavy loads.

APPLICATION CHART

		HIGH TEMP WHEEL BEARING GREASE	HEAVY DUTY BEARING GREASE	MARINE GREASE	AGRICULTURAL & CONSTRUCTION EQUIPMENT GREASE	CV JOINT GREASE	POWER SPORTS GREASE	INDGREASE MOLY HT	HIGH SPEED & TEMPERATURE GREASE	INDGREASE LITHIUM EP 0	INDGREASE SEMI EP 00	EXTREME PRESSURE GREASE	MOLYGREASE EP 3%	SEMI FLUID & STEERING BOX GREASE	CAM ASSEMBLY LUBE	PIN & BUSH GREASE	COPPER EZE	RUBBER GREASE	WHITE GREASE	
		LITHIUM COMPLEX										LITHIUM			CLAY BASED (BENTONE)		ALUMINIUM COMPLEX			
SPECIFICATIONS	NLGI GRADE	2	2	2	2	1.5	2	1.5	2	0	00	2	2	00	Paste	2	1.5	2	2	
	COLOUR	Blue	Purple	Dark Green	Red/Orange	Grey/Black	Green	Grey/Black	Brown	Dark Brown	Dark Brown	Red	Grey/Black	Light Brown	Grey/Black	Yellow	Copper	Red	White	
	EXTREME PRESSURE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	
	SOLIDS AND %	No	No	No	No	5	No	5	No	No	No	No	3	No	Yes	No	20	No	No	
	"ISO" BASE OIL VISCOSITY	220	220	220	800	460	220	460	100	180	180	320	220	150	NA	320	460	320	NA	
	BASE OIL TYPE	Min	Min	Min	Semi Syn	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Castor	Min	Castor	Min	
	DROP POINT, °C	290	275	290	>270	300	275	300	275	195	195	190	190	170	NA	275	Non Melt	275	265	
	RECOMMENDED OPERATING TEMPERATURE RANGE, °C	Minus 10 to plus 170	Minus 30 to plus 180	Minus 30 to plus 180	Minus 20 to plus 140	0 to plus 160	Minus 15 to plus 170	Minus 20 to plus 160	Minus 20 to plus 160	Minus 20 to plus 120	Minus 20 to plus 120	Minus 20 to plus 130	Minus 20 to plus 130	Minus 20 to plus 130	NA	Minus 9 to plus 80	0 to plus 1093	Minus 9 to plus 80	Minus 30 to plus 160	
	FOUR BALL WELD LOAD, KG	315	620	315	350	500	315	500	315	200	200	400	315	250	NA	NA	NA	NA	200	
	CONTAINS TACKY ADDITIVE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	No	No	No	No	
AUTOMOTIVE	WHEEL BEARINGS	R	R	R			R		S											
	ENGINE ASSEMBLY														R					
	CHASSIS	R	R	S	S	S	S	R	S	R	R	R	R						S	
	GENERAL PURPOSE	R	R	S	S		S		S			R	R						R	
	CV JOINTS					R		S					S							
	PETROL RESISTANT															R		R		
	TYRE MOUNTING															R		R		
	UNIVERSAL JOINTS	S	S	S		R	S	R					R							
	STEERING BOXES									R	R			S						
	TRUCK & BUS	WHEEL BEARINGS	S	S	S	R		S												
CHASSIS		S	S	S	S	S	S	R	S	R	R	S	R						S	
GENERAL PURPOSE		S	S	S	S		S		S			S	S						R	
TRAILER COUPLINGS						R		R						R						
UNIVERSAL JOINTS						R	R		R											
FIFTH WHEEL						S		S						S	S					
INDUSTRIAL	TRUCK MOUNTED AUTOMATED GREASING SYSTEMS								R	R										
	HIGH SPEED	R	R	R			R		R											
	LOW SPEED	S	S		S	R		R				S	S						S	
	ELECTRIC MOTORS/FANS								R											
	HIGH TEMPERATURE	R	R	R	R	R	R	R	R								R			
	HIGH LOAD	S	S	S	R	R	S	R				S	R							
	CENTRAL SYSTEMS					S		S	S	R	R	S		S						
	LONG LIFE				R	S		S	R											
	SHOCK LOADS	S	S	S	S	R		S	R	R			S	R						
	ANTI SEIZE																R			
AGRI	SLIDING SURFACES/SPLINES								R	R			R							
	WET ENVIRONMENTS	S	S	R	S	S	R	S	S				R			S		R		
	GENERAL PURPOSE	R	R		S	S		S	S			S	S						S	
	SLASHER GEARBOXES													R						
	SUGAR MILLS																			
	MINING & CONSTRUCTION	WHEEL BEARINGS	S	S	S	R		S												
		KING PINS/SHACKLES				S	R		R					S						
		GEARBOXES													S					
		ANTI SEIZE																R		
		WIRE ROPES																		
VIBRATING CONDITIONS					R	R		R					S							
HIGH TEMPERATURES		R	R	R	R	R	R	R	R											
WET ENVIRONMENTS		R	R	R	R	R	R	R	R				S						R	
CENTRAL SYSTEMS									S	R	R			S						
MARINE		BOAT TRAILER BEARINGS	R	R	R			R	S											
	DECK EQUIPMENT	S	S	R	S	S	R	S	S				S						R	
	ANTI SEIZE																R			
	OPEN GEARS																			
WIRE ROPES & CABLES																			S	

Penrite has an extensive range of grease products covering most applications in the industrial and automotive sectors, from wheel and trailer bearings to anti-seize and assembly compounds. The range also includes semi-fluid greases, right up to very firm greases and also includes molybdenum disulphide and graphite containing greases to suit all lubrication requirements.

PRODUCTS

	GRAMS			KILOGRAMS					LITRES	
	100	450	500	2.5	20	175	180	850	205	1000
Extreme Pressure Grease		●	●	●	●		●			
High Temp Wheel Bearing Grease		●	●	●	●		●			
Molygrease EP 3%		●	●	●	●		●			
Heavy Duty Bearing Grease		●			●		●			
Marine Grease		●	●	●						
Semi Fluid & Steering Box Grease		●	●		●					
Agricultural & Construction Equipment Grease		●					●			
Copper Eze	●		●							
Rubber Grease	●		●							
Cam Assembly Lube	●									
CV Joint Grease	●									
Power Sports Grease	●									
Pin & Bush Grease	NEW	●								
White Grease			●							
Indgrease Moly HT	●	●			●		●			
High Speed & Temperature Grease		●								
Indgrease Lithium EP 0					●	●				
Indgrease Semi EP 00	NEW					●				
Cotton Picker Grease	NEW						●	●		
Cotton Spindle Cleaner	NEW								●	●
CARTON QUANTITY	6	6	6	6						

● AVAILABLE PACK SIZE



EXTREME PRESSURE GREASE

450g - EPGR00045 | 500g - EPGR0005 | 2.5Kg - EPGR0025 | 20Kg - EPGR020 | 180Kg - EPGR180

SOAP TYPE: Lithium

NLGI GRADE: 2

BENEFITS

- Extreme pressure performance for protection against shock loadings
- Resists water wash out
- Protects against rust & corrosion
- Long service life
- Tackiness additive helps grease stay in place
- Temperature range: -20°C to 130°C
- Red colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2K-30
- ✓ ISO 6743: ISO-L-XCDHB 2
- ✓ NLGI 2



HIGH TEMP WHEEL BEARING GREASE

450g - HTGR00045 | 500g - HTGR0005 | 2.5Kg - HTGR0025 | 20Kg - HTGR020 | 180Kg - HTGR180

SOAP TYPE: Lithium Complex

NLGI GRADE: 2

BENEFITS

- High temperature performance
- Excellent resistance to water wash out
- Protects against rust & corrosion, even in salt water
- Contains tackifiers to help grease stay in place
- Temperature range: -10°C to 170°C
- Light blue colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2N-30
- ✓ ISO 6743: ISO-L-XCDIB 2
- ✓ NLGI 2
- ✓ Volvo 97720 (level)



MOLYGREASE EP 3%

450g - MOLY00045 | 500g - MOLY0005 | 2.5Kg - MOLY0025 | 20Kg - MOLY020 | 180Kg - MOLY180

SOAP TYPE: Lithium

NLGI GRADE: 2

BENEFITS

- Protects against shock loadings
- Excellent resistance to water wash out & squeeze out
- Protects against rust & corrosion
- Tackiness additive helps grease stay in place, extending regreasing intervals
- Temperature range: -20°C to 130°C
- Grey/black colour

PERFORMANCE LEVELS

- ✓ Ford ESA-M1C75-A/ESA-M1C75-B
- ✓ Holden HN 1416
- ✓ NLGI 2



HEAVY DUTY BEARING GREASE

450g - HDBG00045 | 20Kg - HDBG020 | 180Kg - HDBG180

SOAP TYPE: Lithium Complex

NLGI GRADE: 2

BENEFITS

- Excellent extreme pressure performance
- Protection against shock loadings
- Outstanding resistance to water wash out
- Protects against rust & corrosion, even in salt water
- Temperature range: -30°C to 180°C
- Purple colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2N-30
- ✓ ISO 6743: ISO-L-XCDIB 2
- ✓ NLGI 2
- ✓ Volvo 97720 (level)



MARINE GREASE

450g - MARGR00045 | 500g - MARGR0005 | 2.5Kg - MARGR0025

SOAP TYPE: Lithium Complex

NLGI GRADE: 2

BENEFITS

- Enhanced protection against rust & corrosion
- Protects against shock loadings
- Excellent resistance to water wash out
- Contains tackiness additives to help grease stay in place
- Temperature range: -30°C to 180°C
- Dark green colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2R-30
- ✓ ISO 6743: ISO-L-XCFIB2
- ✓ NLGI 2



SEMI FLUID & STEERING BOX GREASE

450g - SEMI00045 | 500g - SEMI0005 | 20Kg - SEMI020

SOAP TYPE: Lithium

NLGI GRADE: 00

BENEFITS

- Extends bearing and gear life by minimising wear & shock loads
- Does not splash so maximises lubrication efficiency
- Resists leakage even under heavily loaded conditions
- Protects against rust & corrosion
- Temperature range: -20°C to 130°C
- Light brown colour

PERFORMANCE LEVELS

- ✓ NLGI 00

AGRICULTURAL & CONSTRUCTION EQUIPMENT GREASE

450g - ACTXEP200045 | 180Kg - ACTXEP2180



Formerly Indgrease ACT XEP2

SOAP TYPE: Lithium Complex **NLGI GRADE:** 2

BENEFITS

- Heavy duty multi-purpose grease
- Excellent load carrying capacity
- Longer re-lubrication intervals
- Excellent water resistance
- Protects against wear & corrosion
- Excellent stay-in-place properties
- Temperature range: -20°C to 140°C
- Orange colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2N-20
- ✓ ISO 6743: ISO-L-XBDIB 2
- ✓ NLGI 2



COPPER EZE

100g - CEZE0001 | 500g - CEZE0005

SOAP TYPE: Clay **NLGI GRADE:** 2

BENEFITS

- Protects against corrosion in severe environments
- Reduces friction & wear
- Synthetic lubricant prevents galling
- Does not wash or burn off in everyday use
- Protects against seizing
- Temperature range: 0°C to 1093°C
- Copper colour

PERFORMANCE LEVELS

- ✓ NLGI 1.5



RUBBER GREASE

100g - RUBGR0001 | 500g - RUBGR0005

SOAP TYPE: Clay **NLGI GRADE:** 2

BENEFITS

- Excellent lubricity
- Compatible with natural & synthetic rubbers
- Easy to use
- Temperature range: -9°C to 80°C
- Red colour

PERFORMANCE LEVELS

- ✓ NLGI 2



CAM ASSEMBLY LUBE

100g - CAM0001

SOAP TYPE: Lithium

BENEFITS

- Withstands loads greater than 200,000psi
- Added zinc for increased anti-wear protection
- Has a tacky additive & will not run off surfaces like normal engine oil
- Provides highest protection possible in the vital first seconds after starting
- Will not harm white metal bearings
- Grey/black colour



CV JOINT GREASE

100g - CVJGR0001

SOAP TYPE: Lithium Complex

NLGI GRADE: 1.5

BENEFITS

- Extreme pressure grease for high load applications
- Contains molybdenum disulphide for boundary lubrication protection
- High product stability & shear resistance for long life protection
- Excellent water wash out resistance
- Temperature range: 0°C to 160°C
- Grey/black colour

PERFORMANCE LEVELS

- ✓ NLGI 1.5



POWER SPORTS GREASE

100g - PSGR0001

SOAP TYPE: Lithium Complex

NLGI GRADE: 2

BENEFITS

- High water resistance & low water wash out
- Excellent rust & corrosion protection
- Multi-purpose product suitable for many greasing applications
- High shock loading protection
- Temperature range: -15°C to 170°C
- Green colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2N-30
- ✓ ISO 6743: ISO-L-XCDIB 2
- ✓ NLGI 2



PIN & BUSH GREASE NEW

100g - PBGR0001

SOAP TYPE: Clay

NLGI GRADE: 2

BENEFITS

- Excellent lubricity
- Compatible with natural & synthetic rubbers
- Easy to use
- Long storage life
- Protects against rust & corrosion
- Resists hydrocarbon solvents (such as petrol)
- Temperature range: -9°C to 80°C
- Yellow colour

PERFORMANCE LEVELS

- ✓ NLGI 2

WHITE GREASE

500g - ZWG0005



SOAP TYPE: Aluminium Complex

NLGI GRADE: 2

BENEFITS

- Reduced wear under high or shock loads
- Excellent resistance to water wash out
- Superior protection against rust & corrosion
- Temperature range: -30°C to 160°C
- White colour

PERFORMANCE LEVELS

- ✓ NLGI 2



INDGREASE MOLY HT

450g - INDGRSMOLYHT00045 | 20Kg - INDGRSMOLYHT020 | 180Kg - INDGRSMOLYHT180

SOAP TYPE: Lithium Complex

NLGI GRADE: 1.5

BENEFITS

- Extreme pressure for high load applications
- Contains molybdenum disulphide for boundary lubrication protection
- Excellent water wash out resistance
- Adhesive, cohesive grease, resisting "squeeze out"
- Temperature range: -20°C to 160°C
- Grey/black colour

PERFORMANCE LEVELS

- ✓ NLGI 1.5



HIGH SPEED & TEMPERATURE GREASE

450g - INDGR100LXEP200045

SOAP TYPE: Lithium Complex

NLGI GRADE: 2

BENEFITS

- Reduced wear under high speed & shock loads
- Long life protection
- Superior protection against rust & corrosion
- High temperature capability
- Temperature range: -20°C to 160°C
- Brown colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP2N-20
- ✓ ISO 6743: ISO-L-XCDIB 2
- ✓ NLGI 2

Formerly Indgrease 100LX EP2



INDGREASE LITHIUM EP 0

20Kg - IGRLITHEP0020 | 175Kg - IGRLITHEP0175

SOAP TYPE: Lithium Complex

NLGI GRADE: 0

BENEFITS

- Reduced wear under high or shock loads
- Superior protection against rust & corrosion
- Excellent resistance to water wash out
- Excellent mechanical stability
- Temperature range: -20°C to 120°C
- Dark brown colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KP0K-20
- ✓ ISO 6743: ISO-L-XCCFB 0
- ✓ NLGI 0



INDGREASE SEMI EP 00 NEW

175Kg - IGRSEMI00175

SOAP TYPE: Lithium Complex

NLGI GRADE: 00

BENEFITS

- Extends bearing and gear life by minimising wear and shock loads
- Does not splash so maximises lubrication efficiency
- Resists leakage even under heavily loaded conditions
- Resists squeeze out
- Temperature range: -20°C to 120°C
- Dark brown colour

PERFORMANCE LEVELS

- ✓ DIN 51502: KPOK-20
- ✓ ISO 6743: ISO-L-XCCFB 0
- ✓ NLGI 00



COTTON PICKER GREASE NEW

180Kg - CPGREASE180 | 850Kg - CPGREASE850

SOAP TYPE: Lithium Hydroxystearate

NLGI GRADE: 00

BENEFITS

- Excellent protection against oxidation, rust and corrosion particularly in the presence of vegetable saps
- High film strength
- Low co-efficient of friction which means less stress on the drivetrain
- Excellent pumpability
- Economic grease usage rate
- Temperature range: -20°C to 120°C
- Green colour

PERFORMANCE

- ✓ DIN 51502: K00K-20
- ✓ ISO 6743-9: L-XBCEA00



COTTON SPINDLE CLEANER NEW

205L - CSCLEANER205 | 1000L - CSCLEANER1000LTR

BENEFITS

- Maintains picker spindle free from lint, dirt & sap
- Reduces crop staining
- Adhesiveness enhances lubrication in the presence of water with oil film sustainability
- Minimise deposits



EQUIPMENT & CONSUMABLES

Penrite provides a comprehensive selection of workshop equipment designed to complement our premium oils, greases, and coolants. From oil pumps, hoses, and reels to drum trolleys, stands, pressure packs, and consumables. Complete workshop fit-outs can be accommodated using our partnered trusted industry professionals.

DPF CLEANING RANGE TRADE

STARTER SET - DPFSTARTER | FLUIDS - DPFCKIT | GUN PROBE - DPFPROBE



A range of professional cleaning products, developed as a cost and time effective method for cleaning clogged Diesel particulate Filters (DPF).

INCLUDES

- ✓ DPF Cleaning Fluid (Step 1) & DPF Flushing Fluid (Step 2) are designed to work in conjunction with each other to loosen, disperse, remove, and flush out soot to facilitate a full regeneration of the Diesel Particulate Filter (DPF)
- ✓ DPF Cleaning Gun is a special cleaning gun, purposely designed to be used with Penrite DPF Cleaning Fluids
- ✓ DPF Cleaning Gun Probe is a direct cleaning probe to be used with the DPF Cleaning Gun when used in a sensor opening which allows for a direct spray onto the filter monolith

EGR & INTAKE CLEANING RANGE

TRADE NEW

MACHINE - EGRICM | 1L FLUID - EGRICF001



A professional automotive cleaning range designed to effectively clean the build up of deposits on intake and exhaust gas recirculation (EGR) systems.

INCLUDES

- ✓ EGR Cleaning Machine is designed to suit most vehicles using a wide range of available engine adapters
- ✓ EGR & Intake Cleaning Fluid is designed for use in all diesel vehicles fitted with EGR systems

ENVIRO+ PARTS WASHER RANGE

TRADE NEW

MACHINE - EPLUSPW | 20L FLUID - EPLUSWFPX020 | 4 TABLETS - EPLUSPWT



A professional biological parts washer range designed to be safer for the user and the environment, containing no solvent or Volatile Organic Compounds (VOCs). It uses the principle of natural regeneration, employing microorganisms to transform pollutants into a food and energy source and can handle most automotive and industrial part cleaning requirements.

INCLUDES

- ✓ Enviro+ Parts Washer is a 60L parts washing machine with a built-in 13L soaking tank, which keeps a consistent temperature of 38°C and is designed with eco and boost modes
- ✓ Enviro+ Parts Washer Fluid is a 20L solvent-free, premixed surfactant fluid specially designed to be used in the Enviro+ Parts Washer
- ✓ Enviro+ Parts Washer Tablets are a pack of 4 tablets containing a concentration of microorganisms that have been designed to continuously purify the Enviro+ Parts Washing Fluid inside the parts washing machine



ENVIRO BOX™ POUR STAND TRADE

20EBOXPOURSTAND

BENEFITS

- Dispense up to 6 different lubricants
- Store up to 120 Litres of lubricant for easy product access and to maximise workshop efficiency
- Dimensions: 1000mm (W) x 1858mm (H) 355mm (D)



CUBE STAND TRADE

20CUBESTAND

BENEFITS

- Designed for storing and dispensing Penrite Enviro Box™ and 20L cubes
- Capable of storing up to 9 cubes or Enviro Box™ products
- Dimensions: 100mm (W) x 1850mm (H) x 670mm (D)



ADDITIVES STAND TRADE

ADDSTAND

BENEFITS

- For workshop foyers and where space is restricted
- Four adjustable shelves
- Dimensions: 550mm (W) x 2000mm (H) x 355mm (D)



AIR FRESHENERS TRADE

50 PACK - CCAF

BENEFITS

- Celebratory 100 year design
- New car fragrance
- 50 air fresheners per pack
- 8cm x 8cm size

SEAT COVERS TRADE

SEATCOVER



Penrite “throw over” seat covers feature a red beading with a printed logo on a black background. Helps protect the seats from dirt, grease, oil, wear and tear and is easy to fit.

BENEFITS

- Universal fitting, suits modern and classic vehicles
- Simple slip-on (and off when necessary)
- Lightweight
- Polyester fabric
- Machine washable
- Includes two seat covers
- Printed Penrite logo

GUARD COVER TRADE

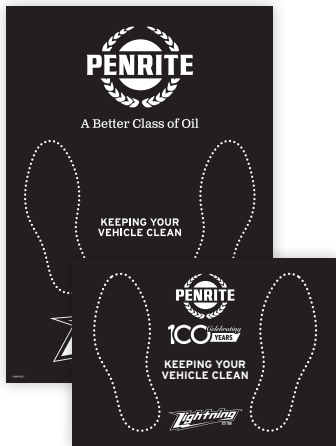
GCOVER

Penrite printed guard covers with a Penrite printed logo on a black background. Helps to protect the paintwork from solvent, abrasion and impact damage.



BENEFITS

- Universal fitting, suits modern and classic vehicles
- Easy to clean
- Printed Penrite logo
- Protects against paintwork damage

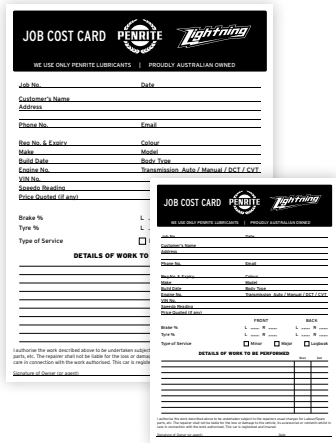


FLOOR MATS TRADE

A3 - FLMATR | A2 - FLMATRA2

BENEFITS

- 100 mats per pack
- Available in A3 and A2 sizes

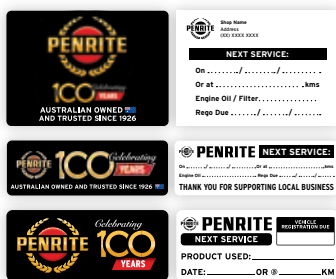


JOB COST CARDS TRADE

A4 - JOBCARD | A5 - JOBCARDA5

BENEFITS

- 100 cards per pack
- Available in A5 and A4 sizes



SERVICE STICKERS TRADE

COMMERCIAL - LUBECOMM | REGULAR - LUBEREG | SLIM - LUBESLIM

BENEFITS

- Generic or Personalised
- 100 stickers per pack
- Available in commercial, regular or slim styles



205 LITRE DRUM GAUGE TRADE

XDG205

BENEFITS

- Easily measures drum contents
- Suitable for use with 205L drums

1:1 AIR OPERATED OIL PUMP KIT

TRADE

205AIROPPUMP

A 1:1 air-operated oil pump, delivering fast and consistent transfer directly from 205L drums with minimal effort. Its durable all-metal construction and controlled flow make it an ideal solution for workshops and industrial environments.

BENEFITS

- High flow rate (up to 40 LPM) for fast, efficient oil transfer
- Comes complete with oil pump, suction tube for 205L drums, bung adaptor, oil bar tap fittings and filter-regulator
- Designed to handle demanding workshop and industrial environments
- Compatible with 205L drums for bulk fluid handling
- Suitable for low to medium viscosity oils



60/205/210 LITRE PLASTIC ROTARY COOLANT/PENBLUE PUMP TRADE NEW

205CP

A plastic rotary pump designed to be used on 60L, 205L and 210L coolant or AdBlue drums.

BENEFITS

- Approximately 3 rotations per Litre
- Rotary action
- Lightweight and economical
- Suitable for all types of coolants and PenBlue (AdBlue®)
- Telescopic suction tube suitable for 60L, 205L and 210L drums
- 2" BSP to 2" Trisure adaptor included for compatibility with 210L PenBlue (AdBlue®)



60/205 LITRE ROTARY PUMP TRADE

205RP

60L or 205L Rotary Pump suitable for oil and diesel transfer. 3 revolutions per Litre of fluid.

BENEFITS

- 3 revolutions per Litre
- Rotary action
- Solid cast iron construction
- 3 piece steel suction pipe
- Suitable for most motor oils
- 2" bung adaptor
- Suitable for diesel
- Suitable for 60L or 205L drums



60/205 LITRE LEVER PUMP TRADE

XDA495

60L or 205L Lever Pump that delivers 400mL per stroke. Heavy-duty for long-lasting performance.

BENEFITS

- Heavy-duty lever-actuated pump
- Approximately 400mL per stroke
- Zinc diecast construction
- Multi-directional handle
- Telescopic suction pipe
- 2" bung thread
- Swivel non-drip spout
- Suitable for 60L and 205L drums

205 LITRE DRUM DOLLY TRADE

205DOLLY

BENEFITS

- Rated for up to 400Kg
- Features 4 phenolic castor wheels with 360° rotation
- Easily maneuver drums around the workshop
- Suitable for oils, grease and coolant drums





60 LITRE SPRING LOADED PUMP TRADE

60SLP

Spring-loaded pump designed to be used with Penrite 60L drums

BENEFITS

- Easy downstroke action
- Approximately 2.2 strokes per Litre
- Suitable for gear oil, engine oil, ATF and hydraulic oil
- 1.4m anti-kink hose
- Ground shaft with "o" ring seal
- Nylon head and handle
- Fitted with anti-nozzle and drain back nozzle holder



60 LITRE ATF PUMP TRADE

60ATFP

BENEFITS

- 14 stroke per Litre
- Easy downstroke displacement
- 1.5m anti-kink hose



60 LITRE GEAR OIL PUMP TRADE

60GOP

BENEFITS

- 14 stroke per Litre
- Easy downstroke displacement
- 1.5m anti-kink hose

OIL ANALYSIS KIT TRADE

2 PACK - EQOTK | 10 PACK - WCCETEN

The Oil Analysis Kits contain all that is required for oil sampling, including oil sample bottles, sampling tubes, sample information forms, and prepaid postage bags. Oil analysis is conducted by ALS, an independent laboratory.

BENEFITS

- Available in 2-pack or 10-pack options
- Includes everything required to have an oil tested
- Optimises lubricant service intervals (e.g. kilometres or hours)
- Provides early detection of potential issues
- Suitable for testing engine oils, driveline fluids, hydraulic fluids, and more



60 LITRE DRUM TROLLEY TRADE

60TROL

Steel 60L and 20L drum trolley makes it convenient to move bulk fluids around the workshop. Great for moving fluids that are pumped into vehicles whilst on the hoist such as ATFs, Gear Oils etc.

BENEFITS

- Suitable for 20L and 60L drums
- Solid steel construction
- Lightweight and easy to use





QUICK GLOVES

10 pack - LQG10L (Large)
50 pack - LQG50S (Small) | LQG50M (Medium) | LQG50L (Large) | LQG50XL (Extra Large) | LQG50XXL (Double Extra-Large)

Non-slip, tough, durable, latex and silicone-free disposable gloves that last up to 5 times longer than normal disposable gloves.

BENEFITS

- Patented non-slip grip for dry, wet and greasy conditions
- Touch screen friendly
- 100% Nitrile, Silicone and Latex free
- Chemical resistant
- Better puncture resistance compared to normal disposable gloves
- Moulds to the hand for better fitment
- Snag resistant design
- Ambidextrous and maximum dexterity
- Available in a range of sizes to fit most hands



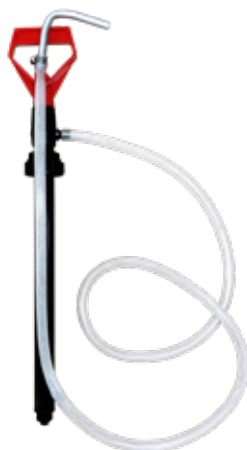
LITTLE MATE PUMP

EQLMP

Designed to replace the Penrite cap to create your own pump pack compatible with 1L, 2.5L & 4L Penrite bottles fitted with a 40mm cap.

BENEFITS

- Ergonomic, easy to use small hand pump
- Compatible with Penrite 1L, 2.5L and 4L bottles fitted with a 40mm cap
- Suitable for ATF and gear oils
- 500mm flexible hose
- 10-15mL dispense rate per stroke
- Variable shaft to fit different bottle depths



BIG MATE PUMP

20EOP

Compatible with Penrite cubes with 58mm caps, replace the Penrite cap to create your own pump pack.

BENEFITS

- Easy to use hand pump
- Suitable for all engine oils, ATF and gear oil
- Adjustable shaft for compatibility with Penrite 7L, 10L and 20L cubes
- 2 metre braided hose with anti-drip clip
- 200mL per stroke dispense rate



THE FOAMER

EQTF002

A hand-pressurised foamer with big foaming capabilities. Designed specifically to work with Penrite & Lightning products, it is suitable for a wide range of wash/cleaning liquids.

BENEFITS

- Big foaming capabilities
- Compatible with various Penrite and Lightning products
- Ergonomic, easy to use design
- Trigger locking system for easy use
- 2L capacity
- Adjustable foaming volume
- Easy to read fill markings
- Translucent bottle design for easy liquid detection



1.5 LITRE PRESSURE PACK

PPP0015

Designed for spraying bulk products. Suitable for degreasers, brake cleaners, tyre shine, glass cleaner, surface cleaners, deodorants and more. Pumps easily with an adjustable nozzle.

BENEFITS

- Convenient 1.5L size
- Suitable for many liquids, including solvents
- Easy to refill when required
- Adjustable spray atomiser



6 LITRE MEASURING JUG

JUG - PMJ006 | NOZZLE - PMJ006NOZZLE

6L plastic pouring jug with flexible pouring nozzle

BENEFITS

- 6L capacity
- Flexible pouring nozzle
- Easily dispense product
- Replaceable nozzle attachment



MOTORCYCLE

MOTORCYCLE 4-STROKE ENGINE OIL RANGE

CHOOSE THE RIGHT ENGINE OIL FOR YOUR VEHICLE



- ✓ Red Labels & Red Caps
- ✓ 6x Variants - 10W-30, 10W-40, 10W-50, 10W-60, 15W-50 & 20W-50
- ✓ 100% PAO Ester Full Synthetic base oil
- ✓ Full Zinc+ anti-wear additive packs
- ✓ Shear Free - 10W-30, 10W-40, 15W-50 & 20W-50
- ✓ Factory Racing - used by factory race teams
- ✓ JASO MA for wet clutch compliance and optimum clutch slip characteristics
- ✓ API SP - latest industry specification
- ✓ Maximum power and acceleration



- ✓ Yellow Labels & Black Caps
- ✓ 1x Variant - 10W-40
- ✓ Full Synthetic base oil
- ✓ Full Zinc anti-wear additive packs
- ✓ JASO MA2 for wet clutch compliance and optimum clutch slip characteristics
- ✓ Maximum power and protection
- ✓ Economical Full Synthetic
- ✓ Available in 1, 4, 20 and 205 Litre sizes



- ✓ Blue Labels & Black Caps
- ✓ 4x Variants - 10W-30, 10W-40, 10W-50 & 15W-50
- ✓ Semy Synthetic base oil
- ✓ Full Zinc anti-wear additive packs for maximum protection
- ✓ JASO MA for wet clutch compliance and optimum clutch slip characteristics
- ✓ Available in 1, 4, 20 and 205 Litre sizes
- ✓ Ideal for workshops and service centres



- ✓ Green Labels & Black Caps
- ✓ 3x Variants - 15W-50, 20W-50 & SAE 50
- ✓ Premium Mineral base oil
- ✓ JASO MA for wet clutch compliance and optimum clutch slip characteristics
- ✓ Available in 4, 20 and 205 Litre sizes
- ✓ Ideal for workshops and service centres

TWO STROKE OILS

These are low ash or ashless oils depending on the end use. Products can be used in oil injection systems or premixed with the fuel. As they are consumed with the fuel, two stroke oils must not cause excessive combustion chamber or piston deposits, or engine failure may result.

THE MOST COMMON TWO STROKE SPECIFICATIONS ARE:

AIR COOLED:

API TC:

Provides good wear protection and engine cleanliness.

ISO EG-B/JASO FB:

Provides good protection against scuffing and varnish.

ISO EG-C/JASO FC:

As per EG-B/FB but with severe restrictions on exhaust smoke, system blocking and detergency.

ISO EG-D/JASO FD:

Enhanced detergency and varnish protection compared to EG-C/FC.

Protect your motorcycle with the same expert care as used by professional race teams, with Penrite's premium quality range of motorcycle engine oils and specialty products. Our motorcycle range is suitable for late model Japanese, European and US sourced bikes, Asian made pit bikes all the way through to early model and classic American, British and European bikes.

Our range carries the latest industry specifications and offers 100% PAO & Ester full synthetic, semi synthetic and premium mineral ranges with Full Zinc for anti-wear protection. They are compatible with petrol and racing fuels such as Avgas & methanol/alcohol. Penrite is proud to have a comprehensive range offering quality and value.

BENEFITS:

- Range of 2 and 4 stroke engine oils
- Available in 100% PAO & Ester, full synthetic, semi synthetic and premium mineral
- Comprehensive range of ancillary products
- Full zinc to minimise engine wear
- Early American and European product range
- Latest JASO and industry specifications
- 2 Stroke available in 1L chamber pack

PRODUCTS

	g / mL		LITRES					KIT
	400	500	1	2.5	4	20	205	1
MC-4ST 10W-30			●		●			
MC-4ST 10W-40			●	●	●	●		
MC-4ST 10W-50			●		●			
MC-4ST 10W-60			●		●			
MC-4ST 15W-50			●		●	●		
MC-4ST V-Twin 20W-50					●			
MC-4ST Full Synthetic 10W-40			●		●	●	●	
MC-4ST Semi Synthetic 10W-30			●		●			
MC-4ST Semi Synthetic 10W-40			●		●	●	●	
MC-4ST Semi Synthetic 10W-50			●		●	●		
MC-4ST Semi Synthetic 15W-50					●			
MC-4ST Premium Mineral 15W-50					●			
MC-4ST Premium Mineral 20W-50					●	●	●	
MC-4ST Premium Mineral HD 50					●			
MC-2ST Full Synthetic			●					
MC-2ST Semi Synthetic			●					
MC Gear Oil			●					
MC Fork Oil 5			●					
MC Fork Oil 10			●					
MC Fork Oil 15			●					
Chain Lube Race		●						
Chain Lube Road	●							
Chain Cleaner	●							
Foam Filter Oil	●		●					
Foam Filter Cleaner			●		●			
MC Foam Filter Cleaning Kit								●
Race Chain Pack								●
Road Chain Pack								●
CARTON QUANTITY	6	6	6	4	4			

● AVAILABLE PACK SIZE



MC-4ST 10W-30

1L - MC410W30001 | 4L - MC410W30004

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA



MC-4ST 10W-40

1L - MC410W40001 | 2.5L - MC410W400025 | 4L - MC410W40004 | 20L - MC410W40020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 10W-30
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA



MC-4ST 10W-50

1L - MC4FS10W50001 | 4L - MC4FS10W50004

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-50

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Competition proven
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA



MC-4ST 10W-60

1L - MC410W60001 | 4L - MC410W60004

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 10W-60

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Competition proven
- Suitable for 10W-50 & 15W-50
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA2



MC-4ST 15W-50

1L - MC415W50001 | 4L - MC415W50004 | 20L - MC415W50020

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 15W-50

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 15W-40 & 20W-40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA



MC-4ST V-TWIN 20W-50

4L - MC4VT20W50004

BASE OIL: 100% PAO & Ester
Full Synthetic

VISCOSITY: SAE 20W-50

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc+ anti-wear additive package
- Shear free formulation maintains oil pressure & eliminates viscosity loss
- Competition proven
- Suitable for 20W-40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA



MC-4ST FULL SYNTHETIC 10W-40

1L - MC4FULL10001 | 4L - MC4FULL10004 | 20L - MC4FULL10020 | 205L - MC4FULL10205

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Maximum heat resistance & high performance
- Full Zinc anti-wear additive package
- Maximum wear protection, minimum sludge formation & reduced piston deposits
- Shear stable for long term protection
- Suitable for 10W-30
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN/CF
- ✓ JASO MA2



MC-4ST SEMI SYNTHETIC 10W-30

1L - MC4SEMI10W30001 | 4L - MC4SEMI10W30004

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Premium quality blended base stock
- Outstanding engine & gearbox protection
- Trusted & proven protection for engines
- Wet clutch compatible
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SL/CF
- ✓ China National GB 11121-2006
- ✓ JASO MA



MC-4ST SEMI SYNTHETIC 10W-40

1L - MC4SEMI10W40001 | 4L - MC4SEMI10W40004 | 20L - MC4SEMI10W40020 | 205L - MC4SEMI10W40205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Full Zinc anti-wear additive package
- Maximum power & acceleration
- Shear stable for long term protection
- Competition proven
- Greater high temperature engine protection
- Suitable for 10W-30
- For petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SN
- ✓ JASO MA2

MC-4ST SEMI SYNTHETIC 10W-50

1L - MC410W50001 | 4L - MC410W50004 | 20L - MC410W50020



BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-50

BENEFITS

- Full Zinc anti-wear additive package
- Maximum power & acceleration
- Shear stable for long term protection
- Greater high temperature engine protection
- Competition proven
- Suitable for 10W-40 & 15W-40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API CH-4/SL
- ✓ China National GB 11121-2006
- ✓ JASO MA

MC-4ST SEMI SYNTHETIC 15W-50

4L - MC4SEMI15004



BASE OIL: Semi Synthetic

VISCOSITY: SAE 15W-50

BENEFITS

- Full Zinc anti-wear additive package
- Maximum power & acceleration
- Shear stable for long term protection
- Greater high temperature engine protection
- Competition proven
- Suitable for 15W-40 & 20W-40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API CI-4/SL
- ✓ China National GB 11121-2006
- ✓ JASO MA

NEED A CASTOR OIL?



10 Tenths Race Castor Oil is an ashless SAE 20W-40 engine oil manufactured from high quality castor vegetable oil, synthetic ester, anti-corrosion additives and an advanced anti-oxidant. This helps to reduce or eliminate traditional problems such as lacquers and deposits. It has retained the advantages of a castor-based product, including a naturally higher and stronger film strength, very high load carrying capacity, better wetting properties and reduced power loss due to friction. Designed for use in ultra-high speed two stroke engines such as International Class Go Karts (Ratio 16:1), model aircraft engines and other high performance engines requiring a castor based oil.

Page 78



MC-4ST PREMIUM MINERAL 15W-50

4L - MC4MIN15004

BASE OIL: Premium Mineral

VISCOSITY: SAE 15W-50

BENEFITS

- Full Zinc anti-wear additive package
- Maximum power & acceleration
- Shear stable for long term protection
- Competition proven
- Suitable for 15W-40 & 20W-40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API CG-4/SL
- ✓ China National GB 11121-2006
- ✓ JASO MA



MC-4ST PREMIUM MINERAL 20W-50

4L - MC420W50004 | 20L - MC420W50020 | 205L - MC420W50205

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-50

BENEFITS

- Full zinc anti-wear additive package
- Maximum power & acceleration
- Shear stable for long term protection
- Competition proven
- Suitable for 20W-40 & SAE 30
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SL-CF
- ✓ China National GB 11121-2006
- ✓ JASO MA



MC-4ST PREMIUM MINERAL HD 50

4L - MC4HD50004

BASE OIL: Premium Mineral

VISCOSITY: SAE 50

BENEFITS

- Full Zinc anti-wear additive package
- Maximum power & acceleration
- Competition proven
- Extends engine life
- Suitable for SAE 40
- For diesel, LPG, petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API SG/CD



MC-2ST FULL SYNTHETIC

1L - MC2FULLSYN001CP

BASE OIL: Full Synthetic

BENEFITS

- Extends engine life
- Superior anti-scuff properties
- Synthetic protection
- Red/orange colour
- For petrol/E10 & racing fuel types

PERFORMANCE LEVELS

- ✓ API TC
- ✓ Aprilia DiTechSR50 (Performance)
- ✓ ISO EG-D
- ✓ JASO FD
- ✓ Piaggio Hexagon (Performance)



MC-2ST SEMI SYNTHETIC

1L - MC2SEMISYN001CP

BASE OIL: Semi Synthetic

BENEFITS

- Extends engine life
- Superior anti-scuff properties
- Low ash formulation
- Red/orange colour
- For petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ API TC
- ✓ ISO EG-C
- ✓ JASO FC



MC GEAR OIL

1L - MCG080001

BASE OIL: Premium Mineral

VISCOSITY: SAE 10W-40

BENEFITS

- Smooth & precise gear shifts
- Competition proven
- Optimum clutch slip prevention in 4 stroke motorcycles with wet clutches
- Purpose designed additives improve the shift feel for the life of the drain
- Suitable for 10W-30, 15W-40, 80W-85 & SAE 80 viscosity

PERFORMANCE LEVELS

- ✓ API GL-4



MC FORK OIL 5

1L - MCFO05001

BASE OIL: Full Synthetic

VISCOSITY: SAE 5W

BENEFITS

- Stable viscosity over temperature variations
- Protects system from wear
- Compatible with brass & copper alloys
- Excellent low temperature properties
- For petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ Fork Oil Grade 7.5 (Non SAE)
- ✓ Fork Oil SAE Grade 5



MC FORK OIL 10

1L - MCFO10001

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W

BENEFITS

- Stable viscosity over temperature variations
- Protects system from wear
- Compatible with brass & copper alloys
- Excellent low temperature properties
- For petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ Fork Oil SAE Grade 10



MC FORK OIL 15

1L - MCFO15001

BASE OIL: Full Synthetic

VISCOSITY: SAE 15W

BENEFITS

- Stable viscosity over temperature variations
- Protects system from wear
- Compatible with brass & copper alloys
- Excellent low temperature properties
- For petrol/E10 fuel types

PERFORMANCE LEVELS

- ✓ Fork Oil SAE Grade 15



CHAIN LUBE RACE

500mL - MCRCL0005

BASE OIL: Full Synthetic

BENEFITS

- Competition proven
- Protects chain and sprockets from wear & corrosion
- Fast acting for competition use
- Low friction for maximum performance
- Highly tenacious lubricant film
- White colour



CHAIN LUBE ROAD

400mL - MCCHAIN0004

BASE OIL: Full Synthetic

BENEFITS

- Protects chain and sprockets from wear & corrosion
- Highly tenacious lubricant film
- Designed to not fling off the chain
- Dries to a clear film
- Easy to apply
- Clear colour



CHAIN CLEANER

400g - MCACC0004

BENEFITS

- Competition proven
- Economical & fast acting
- Easily breaks down grease, dirt & grime
- Non corrosive formulation
- Cleans parts without the need for dismantling
- Clear colour



FOAM FILTER OIL

400mL - MCFOAM0004 | 1L - MCFOAM001

BENEFITS

- Competition proven
- Fast acting for competition use
- Remains tacky at all times
- Traps airborne dirt & abrasive dust
- Prolongs life of engine induction systems
- Blue colour
- Also available in 400mL aerosol



FOAM FILTER CLEANER

1L - MCFFC001 | 4L - MCFFC004

BENEFITS

- Easily & effectively cleans all types of foam filters
- Non-caustic & non-corrosive to metal parts
- Does not leave harmful deposits
- Extends filter life
- Washes away cleanly
- White colour



MC FOAM FILTER CLEANING KIT

MCFFCKIT

All you need to effectively clean foam air filters for motorcycles, ATVs, UTVs, cars, 4WDs and other machines that use an oil impregnated foam air filter.

INCLUDES

- ✓ 15L Cleaning Bucket
- ✓ 4L Foam Filter Cleaner
- ✓ 1L Foam Filter Oil
- ✓ 100g Power Sports Grease
- ✓ 3L filter container and lid
- ✓ Pair of black nitrile gloves
- ✓ Filter Oil Tray
- ✓ Filter Rack (Grit Tray)
- ✓ Penrite Sticker



RACE CHAIN PACK

MCRACEPACK

An economical motorcycle chain care kit with full-sized products and a MC Chain Brush, a great gift idea.

INCLUDES

- ✓ 500mL Chain Lube Race
- ✓ 400g Chain Cleaner
- ✓ Chain Brush



ROAD CHAIN PACK

MCROADPACK

An economical motorcycle chain care kit with full-sized products and a MC Chain Brush, a great gift idea.

INCLUDES

- ✓ 400mL Chain Lube Road
- ✓ 400g Chain Cleaner
- ✓ Chain Brush



NEED A COOLANT?

Power Sports Coolant (Premix) is a Type A, low toxic, propylene glycol based, blue coloured anti-freeze anti-boil coolant. It contains low levels of silicate, is phosphate and amine free and is much safer for the environment than standard ethylene glycol based coolants. It uses a hybrid inhibitor to provide long lasting corrosion protection for the entire cooling system. It has been especially formulated to provide protection for sports machinery such as off-road motorcycles, UTVs, jet skis, snow mobiles, and marine engines with closed loop cooling systems. Premixed at 50% concentrate with 50% demineralised water and does not require any further dilution.

Page 119

MC CARE

Lavish your motorcycle with the same expert care as used by professional race teams, with Penrite's premium quality range of motorcycle care and specialty products. Our motorcycle care range was developed specifically with your motorcycle in mind.

Our range is all you need to clean, polish and protect your motorcycle to keep the factory new look. Using the latest industry technology, Penrite is proud to have a comprehensive range offering quality and value.

PRODUCTS

	GRAMS / MILLILITRES				LITRES	KIT	UNIT
	60	250	300	740			
MC Ultimate Wash (Concentrate)					•		
MC Ultimate Wash (Premix)					•		
MC Ultimate Detailer				•			
MC Matte Detailer		•					
MC Bio Degreaser				•			
MC Ultimate Shine			•				
MC Rain Repel	NEW	•					
MC Anti Fog	NEW	•					
MC Ultimate Helmet Pack						•	
MC Big Wash Brush							•
MC Spoke & Wheel Brush							•
MC Chain Brush							•
MC Super Sucker Towel							•
MC Ultimate Detailing Bucket						•	
CARTON QUANTITY		12	6	6	6	6	6

• AVAILABLE PACK SIZE



MC ULTIMATE WASH (CONCENTRATE)

1L - MCUWCO01

A highly concentrated, rapid foaming formula, designed to remove dirt, insects, mud and road grime quickly and thoroughly. Makes 4 refills of the sprayer pack or it can be used for bucket washing.

BENEFITS

- Economical refill pack, mix with water to create 4L of product
- Cleans & protects
- Glossy finish
- Safe on many motorcycle surfaces



MC ULTIMATE WASH (PREMIX)

1L - MCUWASH001

A ready to use, rapid foaming formula, designed to remove dirt, insects, mud and road grime quickly and thoroughly.

BENEFITS

- Creates a long-lasting foam, without the need for further attachments
- Cleans & protects
- Quicker & easier than conventional bucket washing
- Glossy finish
- Safe on many motorcycle surfaces



MC ULTIMATE DETAILER

740mL - MCUD000740

A convenient hydrophobic spray that provides a waterless wash, coat and shine.

BENEFITS

- Waterless spray & wipe formula
- Easy to use
- Lasts up to 3 weeks
- Glossy finish
- Safe on many motorcycle surfaces



MC MATTE DETAILER

250mL - MCMD000250

A gentle cleaning spray that provides a waterless wash, without the shine. Its premium gentle formula leaves a clean, matte finish without damaging motorcycle paintwork.

BENEFITS

- Waterless spray and wipe formula
- Easy to use
- Prevents water spotting and greasy marks
- Matte finish
- Safe on many motorcycle surfaces including tanks, fairings, helmets and other matte surfaces



MC BIO DEGREASER

740mL - MCBDO00740

An extreme strength, biodegradable, water-based degreaser formulated to quickly and easily remove built-up oil, grime and grease.

BENEFITS

- Biodegradable water-based formula
- Cuts through grime, oil & grease
- Safe on many motorcycle surfaces
- Leaves no oily residue
- Fresh citrus fragrance



MC ULTIMATE SHINE

300g - MCUS0003

Detailing spray based on a special blend of silicone, solvents and cleaners.

BENEFITS

- Restores surfaces to factory new finish
- Reduces further adhesion of dirt
- Repels water
- Suitable for many surfaces including vinyl, plastic, chrome, stainless steel, and carbon fibre
- Easy to use
- Displaces moisture to assist damp start



MC RAIN REPEL **NEW**

60mL - MCRR0006

A rain repellent spray that provides a crystal polymer coating to reduce the adherence of rain, dirt, sand, soil and road grime. The coating creates a hydrophobic effect, sheeting water off the screen, enhancing the rider's view and reducing the need for cleaning.

BENEFITS

- Streak-free formula
- Crystal polymer coating creates a hydrophobic effect
- Safe on all plastics and glass
- Reduces cleaning by making your screen/goggles repel rain, dirt, sand, oil and road grime
- Ideal for helmet visors, MX goggles, snowboard goggles, glasses & other applications
- Supplied in a shelf-ready display carton



MC ANTI FOG **NEW**

60mL - MCAF0006

A 2-in-1 anti-fog and cleaning spray that provides a coating that reduces the adherence of fog and mist.

BENEFITS

- Streak free formula
- 2-in-1 cleans and protects
- Provide anti fog that can last up to 7 days
- Safe on all plastics and glass
- Ideal for helmet visors, MX goggles, snowboard goggles, glasses & other applications
- Supplied in a shelf-ready carton

MC ULTIMATE HELMET PACK

MCUHCP

The complete helmet care pack for refreshing and maintaining vision during good and adverse conditions on the road or the track.

INCLUDES

- ✓ MC Rain Repel 60mL
- ✓ MC Anti Fog 60mL
- ✓ MC Anti Odour 100mL
- ✓ Bonus Microfibre Cloth





MC BIG WASH BRUSH

MCBWBUSH

Soft touch bristles designed to efficiently clean large areas including fairings, frame, forks and more.



MC SPOKE & WHEEL BRUSH

MCSWBRUSH

Dual prong brush easily cleans hard to reach dirt and grime on wheels, spokes, pegs, bars and levers.



MC CHAIN BRUSH

CHAINBRUSH

Chain brush takes the effort out of cleaning your chain. With its 3 sided brush, it cleans multiple sides at once, drastically reducing cleaning time.



MC SUPER SUCKER TOWEL

MCSST

A large versatile microfibre towel that can be used for drying, polishing and cleaning.

BENEFITS

- Machine washable and easy to dry & store with its hanging loop
- Soft deluxe 600gsm plush pile
- Large 60 x 30cm size to hold more water with less wringing
- Soft edges to prevent scratches & smears
- Safe for most surfaces
- Versatile and can be used for drying, polishing & cleaning

MC ULTIMATE DETAILING BUCKET

MCUDB

All you need to clean, polish and protect your motorcycle to keep the factory-new look. This collection of ultimate products are designed specifically with your motorcycle surfaces in mind.

INCLUDES

- ✓ 15L Cleaning Bucket & Lid
- ✓ MC Ultimate Wash (Premix) 1L
- ✓ MC Ultimate Detailer 740mL
- ✓ MC Bio Degreaser 740mL
- ✓ MC Ultimate Shine 500mL
- ✓ MC Chain Lube Road 400mL
- ✓ Lightning Metal Polish 90mL
- ✓ MC Super Sucker Towel
- ✓ MC Big Wash Brush
- ✓ MC Spoke & Wheel Brush
- ✓ MC Key Ring





CRUISE WHITSUNDAYS
PENRITE CUSTOMER

MARINE

MARINE OILS SPECIFICATIONS & NMMA STANDARDS

Marine oils are specifically designed for harsh marine environments, providing protection against corrosion, moisture and sustained high load operation. Suitable for both 2-stroke and 4-stroke engines, these oils should meet the strict NMMA certification standards to ensure performance and durability.

Like automotive engine oils, our 4-stroke marine oils are formulated to meet API performance standards, with additional NMMA requirements specific to marine applications.

UNDERSTANDING MARINE OIL STANDARDS (NMMA CERTIFICATION)

The National Marine Manufacturers Association (NMMA) sets the global benchmark for marine lubricant performance. Always look for the FC-W® & TC-W3 certification when selecting marine oil.

THE MOST COMMON MARINE SPECIFICATIONS ARE:



4-STROKE (FC-W®):

Designed for modern high-performance 4-stroke marine engines. Provides superior wear protection, corrosion resistance in saltwater environments and excellent engine cleanliness.



4-STROKE (FC-W CATALYST COMPATIBLE®):

Specially designed to protect exhaust catalysts while delivering the performance and durability required for modern marine engines operating under high load and harsh conditions.



2-STROKE (TC-W3®):

Specifically formulated for water-cooled 2-stroke engines. Ashless formulation prevents deposits and ensures clean combustion.

TWO-STROKE MARINE OILS

These are low ash or ashless oils depending on the application. Products can be used in oil injection systems or premixed with fuel. As they are consumed with the fuel, two-stroke marine oils must burn cleanly and not cause excessive combustion chamber or piston deposits, or engine failure may result.

WATER COOLED VS AIR COOLED:

WATER COOLED (TC-W3®):

Ashless formulation for minimal deposits. Designed for lower operating temperatures with enhanced corrosion protection, ideal for saltwater environments and improved fuel mixing.

AIR COOLED:

Low ash formulation designed for higher operating temperatures. Leaves slight deposits for protection but is not suitable for marine use.

IMPORTANT: Air-cooled oils must not be used in marine outboard engines where TC-W3® oils are required. Some high-performance 2-stroke engines (such as certain PWC or racing applications) may require API TC oils. Always refer to the manufacturer's specifications for the correct oil type.

Marine oils are specifically developed to withstand constant exposure to moisture and saltwater, extended high load operation and the risk of internal corrosion.

Our marine range meets the latest NMMA specifications and is formulated to maintain engine cleanliness, reduce wear and extend engine life. Suitable for a wide range of modern and older marine engines, ensuring reliability and performance in all conditions.

BENEFITS:

- NMMA certified formulations (FC-W® & TC-W3®)
- Protection against rust and corrosion
- Cleaner combustion and reduced deposits
- Extended engine life and reduced wear
- Suitable for 2-stroke and 4-stroke engines
- Designed for harsh marine environments

PRODUCTS

	mL	LITRES					
	500	1	4	5	20	205	1000
Marine Outboard 4 Stroke 10W-30				●	●		
Marine Full Synthetic 10W-40			●				
Marine Outboard 4 Stroke 10W-40				●	●	●	
Marine Outboard 2 Stroke		●	●		●		
Marine Inboard 4 Stroke 25W-40				●	●		
Marine Diesel 4 Stroke 15W-40					●	●	●
Marine Gear Oil 75W-90	●				●		
Marine Gear Oil SS300					●		
CARTON QUANTITY	6	6	4	4			

● AVAILABLE PACK SIZE



MARINE OUTBOARD 4 STROKE 10W-30

5L - MAR10W30005 | 20L - MAR10W30020

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Specially formulated for protection in marine salt water environments
- Registered NMMA FC-W® approved oil
- Superior high temperature wear protection
- Longer engine life
- Ensures correct catalyst operation & life

OEM APPROVALS

- ✓ NMMA FC-W® Registration Number FC-38116W

PERFORMANCE LEVELS

- ✓ API SM
- ✓ ILSAC GF-4



MARINE FULL SYNTHETIC 10W-40

4L - MARFULL10W40004

BASE OIL: Full Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Registered NMMA FC-W® approved oil
- Specially formulated for protection in marine salt water environments
- Maximum heat resistance & high performance
- Full Zinc anti-wear additive package
- Suitable for 10W-30

OEM APPROVALS

- ✓ NMMA FC-W® Registration Number FB-781778Y

PERFORMANCE LEVELS

- ✓ API SL
- ✓ China National GB 11121-2006
- ✓ JASO MA



MARINE OUTBOARD 4 STROKE 10W-40

5L - MAR10W40005 | 20L - MAR10W40020 | 205L - MAR10W40205

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-40

BENEFITS

- Specially formulated for protection in marine salt water environments
- Registered NMMA FC-W® approved oil
- Fast start up oil flow with superior high temperature wear protection
- Full Zinc anti-wear additive package
- Suitable for 15W-40

OEM APPROVALS

- ✓ NMMA FC-W® Registration Number FB-13811W

PERFORMANCE LEVELS

- ✓ API SL
- ✓ China National GB 11121-2006
- ✓ JASO MA



MARINE OUTBOARD 2 STROKE

1L - OUTB001 | 4L - OUTB004 | 20L - OUTB020

BASE OIL: Semi Synthetic

BENEFITS

- Minimises plug fouling, pre-ignition, ring sticking & exhaust port blockages
- Low smoke performance
- Provides excellent anti-seize & anti-scuff performance
- Correct viscosity for consistent flow rates in oil-injected engines
- Blue/green colour

OEM APPROVALS

- ✓ NMMA TC-W3® Registration Number RL-00419J

PERFORMANCE LEVELS

- ✓ API TC
- ✓ ISO EG-B
- ✓ JASO TB



MARINE INBOARD 4 STROKE 25W-40

5L - MAR25W40005 | 20L - MAR25W40020

BASE OIL: Semi Synthetic

VISCOSITY: SAE 25W-40

BENEFITS

- Specially formulated for protection in marine salt water environments
- Registered NMMA FC-W® approved oil
- Complete anti-wear additive package
- Suitable for SAE 30

OEM APPROVALS

- ✓ NMMA FC-W® Registration Number FB-13827W

PERFORMANCE LEVELS

- ✓ API SL
- ✓ China National GB 11121-2006



MARINE DIESEL 4 STROKE 15W-40

20L - MARD15W40020 | 205L - MARD15W40205 | 1000L - MARD15W401000LTR

BASE OIL: Semi Synthetic

VISCOSITY: SAE 15W-40

BENEFITS

- Meets long drain requirements of European, U.S., & Japanese engines
- Excellent anti-corrosion protection of engine parts
- High TBN to protect against & neutralise acid build up
- Resists oil thickening
- Start-up viscosity protection
- Suitable for 20W-40

PERFORMANCE LEVELS

- ✓ Allison C-4
- ✓ API CI-4
- ✓ Caterpillar ECF-1-a
- ✓ China National GB 11122-2006
- ✓ Cummins CES 20078
- ✓ Detroit DDC
- ✓ JASO DH-1
- ✓ Mack EO-M Plus
- ✓ MAN M3277
- ✓ MB 228.5 (level)
- ✓ MTU Type 3
- ✓ Renault RLD-2/RXD
- ✓ Volvo VDS-3



MARINE GEAR OIL 75W-90

500mL - MAR75900005 | 20L - MAR7590020

BASE OIL: Full Synthetic

VISCOSITY: SAE 75W-90

BENEFITS

- Synthetic performance & service life
- Easy gear engagement at low temperatures
- Longer component life
- Superior thermal & oxidation stability
- Outstanding protection at operating temperatures
- Suitable for 80W-90 & SAE 90
- Blue colour

PERFORMANCE LEVELS

- ✓ API GL-5

MARINE GEAR OIL SS300

20L - MGOSS300020



BASE OIL: Semi Synthetic

VISCOSITY: ISO 300

BENEFITS

- Excellent wear protection, superior to API GL-3
- Suitable for automotive and marine applications
- Will not harm bronze, brass or white metal components
- Compatible with synchro materials
- Multigrade style blend provides faster flow at start up
- Special synthetic base oil helps to control deposits
- Excellent protection against rust and corrosion

PERFORMANCE LEVELS

- ✓ API GL-4
- ✓ MAN 341SL (level)
- ✓ ZFN 13010 (level)



NEED A GREASE?

Marine Grease is an NLGI No 2 green coloured, tacky, high temperature multi-purpose lithium complex grease. It contains a special anti-rust additive for enhanced protection against rust and corrosion in marine and salt water environments. It also contains tackiness additives to allow it to stay in place providing excellent water resistance and shock loading under all operating conditions. Its applications include winch gears, stern drives, prop shaft splines, steering tubes and cables, throttle lines and linkages, dog seals, trunnion steering mounts, shaft support bearings and most other general on-board greasing points.

Page 210



SMALL ENGINE

Small internal combustion engines require just as much care as larger capacity engines. Smaller engines also come in different variations such as two stroke, four stroke, industrial, general purpose & stationary. Small capacity engines are also not designed to run on late specification, friction modified engine oils as used in many modern passenger vehicles. Many small engines do not have filters, so changing oil is essential to enhance durability of the engine. At Penrite we provide a range of dedicated engine oils, designed for small engines.

BENEFITS:

- Range of 2 stroke and 4 stroke oils
- Available in range of sizes for the home handy man or professional landscape gardener
- 2 stroke oils maximise spark plug life through low ash formulation and are formulated to mix readily with fuel
- Provide for excellent engine cleanliness and wear protection

PRODUCTS

	mL		LITRES						
	200	500	1	2.5	4	5	20	205	1000
Small Engine 4 Stroke 10W-30			●	●		●	●		●
Small Engine 4 Stroke SAE 30			●	●	●		●		
Chain Saw Bar Oil			●		●		●	●	
Hi-Per 2 Stroke			●						
Greenkeepers 2 Stroke	●		●	●			●		
Hydraulic Jack Oil		●							
Pneumatic Tool Oil		●							
CARTON QUANTITY	12	6	6	4	4	4			

● AVAILABLE PACK SIZE

2 STROKE MIX RATIO CHART

Fuel/Oil Ratio	mL per 1L of fuel	mL per 5L of fuel	mL per 10L of fuel	mL per 20L of fuel
10:1	100	500	1000	2000
20:1	50	250	500	1000
25:1	40	200	400	800
50:1	20	100	200	400
100:1	10	50	100	200



SMALL ENGINE 4 STROKE 10W-30

1L - SEFS1030001 | 2.5L - SEFS10300025 | 5L - SEFS1030005 | 20L - SEFS1030020 | 1000L - SEFS10301000LTR

BASE OIL: Semi Synthetic

VISCOSITY: SAE 10W-30

BENEFITS

- Excellent engine cleanliness
- Ultimate wear protection
- Protects against rust & corrosion

PERFORMANCE LEVELS

- ✓ ACEA A3/B3
- ✓ API SL/CF
- ✓ China National GB 11121-2006



SMALL ENGINE 4 STROKE SAE 30

1L - SEFS30001 | 2.5L - SEFS300025 | 4L - SEFS30004 | 20L - SEFS30020

BASE OIL: Premium Mineral

VISCOSITY: SAE 30

BENEFITS

- Excellent engine cleanliness
- Ultimate wear protection
- Protects against rust & corrosion

PERFORMANCE LEVELS

- ✓ API SG/CD
- ✓ MIL-L-2104B



CHAIN SAW BAR OIL

1L - CSB001 | 4L - CSB004 | 20L - CSB020 | 205L - CSB205

BASE OIL: Premium Mineral

BENEFITS

- Tacky additives reduce throw or fling off
- Lubricates chain, bar & sprocket
- Special additive system reduces wear of components
- Provides corrosion protection to chain & bar
- Suitable for electric & petrol type chainsaws

PERFORMANCE LEVELS

- ✓ ISO 125



HI-PER 2 STROKE

1L - SEHPTS001

BASE OIL: Semi Synthetic

BENEFITS

- Low smoke, low ash formulation
- Extends engine life
- Good anti-scuff properties
- Maximises spark plug life
- Reduces exhaust port blockages
- Keeps piston rings free from deposits
- Mixes readily with petrol
- Enhanced lubricity & detergency, keeping engines clean

PERFORMANCE LEVELS

- ✓ API TC
- ✓ ISO EG-C
- ✓ JASO FC



GREENKEEPERS 2 STROKE

200mL - SEGNKTS0002 | 1L - SEGNKTS001 | 2.5L - SEGNKTS0025 | 20L - SEGNKTS020

BASE OIL: Premium Mineral

BENEFITS

- Maximises spark plug life through low ash formulation
- Reduces exhaust port blockages
- Keeps piston rings free from deposits
- Mixes readily with petrol
- Base oil selection offers excellent lubricity
- Provides piston pick up protection

PERFORMANCE LEVELS

- ✓ API TC
- ✓ JASO FB



NEED A FULL SYN 2-STROKE OIL?

MC-2ST Full Synthetic is a premium fully synthetic, ester based two-stroke engine oil for maximum power and protection in all two stroke engines. It uses a powerful, practically ashless clean burning high performance additive package for maximum lubricity and low piston deposits.

Page 237



HYDRAULIC JACK OIL

500mL - HJ00005

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 46

BENEFITS

- Formulated to combat rust, oxidation, wear & foaming
- Reduces sludge formation
- Compatible with silver components
- Provides good water separation
- Compatible with other hydraulic oils
- Amber colour

PERFORMANCE LEVELS

- ✓ Cincinnati Milacron P-69 (HM)
- ✓ Denison HF-2
- ✓ DIN 51524 Part 2 (HLP Type)
- ✓ ISO 46/6743 Part 4, Type HM
- ✓ US Steel 127
- ✓ Vickers I-286-S/M-2950-S



PNEUMATIC TOOL OIL

500mL - PT00005

BASE OIL: Premium Mineral

VISCOSITY: ISO VG 22

BENEFITS

- Anti-wear formulation for outstanding machine protection
- Highly resistant to thermal breakdown
- Low toxicity zinc free formulation
- Compatible for all types of hydraulic hoses & seals
- Protects against rust & corrosion
- For use in wet & dry environments
- Amber colour

PERFORMANCE LEVELS

- ✓ DIN 51524 Part 2 (HLP Type)



*Classic*TM



PENRITE

*Classic*TM

ENGINE OIL RANGE



CLASSIC RANGE:

For vehicles made between Post War and 1989.



SHELSELY RANGE:

For vehicles made between 1920s and 1950s.



HERITAGE RANGE:

For vehicles made Pre-1920s.

VETERAN, VINTAGE & CLASSIC OILS - FREQUENTLY ASKED QUESTIONS

ENGINE INFORMATION

WHY DO OUR HOBBY CARS NEED A SPECIAL ENGINE OIL RATHER THAN THE LATEST PRODUCTS ON THE MARKET?

Modern engine oils are formulated to meet the requirements of the latest designs and also the fuel consumption and emission targets laid down by the legislators in many parts of the world. To meet these targets the largest engine oils are very light viscosity multigrades which whilst being suitable for modern engine designs, are not suitable in earlier veteran and historic engines.

These cars were originally built with different technologies and tolerances to late model vehicles. They also spend the vast majority of their time idle. Whilst a non-working engine is not wearing itself out, unprotected surfaces such as cylinder walls, camshafts etc., can be subject to corrosion. Modern thin oils designed to circulate quickly through an engine will drain away from the internal surfaces back to the sump leaving little protection to the parts above the oil level and therefore prone to corrosive attack.

Penrite Heritage, Shelsley and Classic oils are specially formulated to overcome this problem in two ways:

1. Incorporation of a tacky additive which makes the oil remain on the surface of the hot metal which not only provides an oil film to protect the surface from corrosion but overcomes the dry "start-up" problem.
2. Making sure that the residual oil film has exceptional corrosion protection by means of special anti-corrosion additives in the oil formulation.

The engine is thus protected whether it is running or laid up.

WHAT ARE THE ROLES OF DETERGENTS AND DISPERSANTS IN ENGINE OILS?

Detergents are incorporated into all modern motor oil formulations and have been since the 1940s. Their function, as the name suggests, is to maintain internal engine cleanliness particularly in areas of high temperatures such as piston skirts, ring lands (the slots in which the rings sit) and other components. They are also useful in combating the effect of acid contamination of the crankcase oil caused by the by-products of combustion.

Dispersants keep all the soot particles and other solid contaminants in a "dispersed" condition and stops these collecting together (agglomerating) into large molecules and forming engine sludge and other harmful deposits. These two additives are mainly instrumental in giving marked improvement in engine lubrication when comparing today's formulations with those of the vintage and classic period.

These improvements are:

1. All the contaminants that can cause sludging in engines are now neutralised and removed during oil change. This is why modern oils discolour with use but the engine stays clean whereas in the past, oils stayed clean but the engine became dirty. To summarise, if modern oil gets dirty, it's doing its job.
2. Problems of piston ring sticking have been virtually eliminated and engine life extended. Corrosion of bearings etc. are now a thing of the past.

In cars with restored engines, the use of an engine oil containing detergents and dispersants will not cause any problems.

IS THERE A PROBLEM WITH MODERN MULTIGRADE OILS ATTACKING RUBBER SEALS?

Many years ago, an inferior supply of synthetic rubber seals gave no end of trouble, causing significant leaking problems. Rubber seals today are made from Viton and poly-acrylate and, if properly fitted, will certainly do their intended job. Prior to the use of rubber, seals were either made of cork or felt, and before that leather, and trying to make them leak proof was nearly an art in itself! Modern oils will not harm these seals.

Cars still fitted with original type seals may encounter leakage past the seal due to hardening. In such cases the seal should be replaced.

PENRITE PRODUCES A RANGE OF ENGINE OILS CALLED "HERITAGE", "SHELSELY" & "CLASSIC". WHAT ARE THESE OILS?

These oils have been designed specifically to cater for veteran, vintage and classic vehicles based around the characteristics of engine design of the period.

HERITAGE: Comprises two grades and caters for vehicles up to 1920. The oil for these engines has been designed around the lubrication system incorporated in these early vehicles; namely total loss, wick feed, mechanical and the early forms of pressurised lubrication.

SHELSELY: Comprises three oils and relates to the manufacturing period of 1920-1950. The oils in this range have been formulated to cover a wide span of ambient temperatures, which is more beneficial in these types of vehicles than the more modern oils used in vehicles today.

CLASSIC: Comprises three oils and covers the period from 1950-1989. The additive package used in these oils differs from the Shelsley and Heritage ranges in that these oils have been designed specifically for vehicles of this period, but with far superior performance levels than those used at the time.

MY CAR IS 1920'S VINTAGE AND I'VE BEEN TOLD THAT I MUST USE A MONOGRADE OIL BECAUSE THAT IS WHAT WAS USED WHEN NEW. IS THIS CORRECT?

There is no problem using 1920s technology if you are prepared to put up with the problems associated with these types of oils. One of the problems encountered in the '20s was that prior to moving off from cold, the engine had to be warmed up to reduce the viscosity to enable the oil to "flow". The thickness of the oil probably determined the time it took to warm up.

Another problem encountered with monograde oils was how rapidly the viscosity fell away once the oil was hot, leaving little oil pressure, and consequently little in the way of engine protection. The Shelsley range of engine oils has been developed to offer good low temperature flow, the necessity to "warm up" being reduced. Coupled to that, the rate of viscosity loss with increasing oil temperature is far superior than the original oils used, thus maintaining better oil pressure, oil consumption and general overall protection.

WHY CAN'T I USE MODERN THIN GRADE MULTIGRADES SUCH AS OW-30 OR 5W-40 IN MY OLD CAR?

There are a number of reasons why it is imperative to use a high viscosity multigrade oil in the lubrication of veteran, vintage, and classic cars.

Listed here are just a few:

1. Most of the early engines stipulated a SAE 40 or 50 grade engine oil or equivalent. In many cases, oil travelling down vertical shafts usually ended up lubricating bevel gears and cross shafts etc. A thin oil being used in the same application would result in the oil being thrown from the bevel gears leaving the cross shaft gears dry.
2. Most of the cars covering this period had, by modern standards, poor oil pumps. A light viscosity oil will not provide the sealing required and loss of both volume and pressure will be noticed.
3. Oil seals in these vehicles are somewhat rudimentary, and oil leakage would certainly be a problem with the use of thin grade multigrade.
4. Oil consumption and smoking will be noticeably higher with low viscosity oils due to ring design and lack of valve stem seals. It is therefore important to choose the correct oil for the right application and period.

I HAVE A SLEEVE VALVE ENGINE. WHAT SHOULD I BE USING?

The Charles Knight designed sleeve valve engine used in large vintage cars such as Minerva, Daimler and Mors have always had a reputation of consuming large amounts of oil mainly due to poor sealing of the sleeves. It was of great importance to build up a good carbon seal, which would aid this consumption problem. Today this problem has been largely overcome by better machining practices and the use of far superior lubricants, which certainly go a long way in reducing oil consumption.

Having said that, sleeve valve engines today are far better off using an oil such as those found in the Penrite Shelsley range, the most common grade being Shelsley Medium. Being of a heavy viscosity when hot, this oil will go towards both sealing sleeves and reducing consumption and at the same time maintain excellent oil pressure.

ARE THERE ANY MAJOR BENEFITS IN USING SYNTHETICS IN OLD CAR ENGINES?

To the average classic car owner, there would probably be none. However, the competition enthusiast, competing in historic rallying or prolonged highway road racing using a synthetic oil, may find a more sustainable level of oil pressure on the gauge and, coupled with longer drain intervals and better high temperature performance are benefits one will see in using a synthetic based engine oil.

As most synthetics today are fairly low in viscosity, it is not recommended to use these oils in any pre-1970 engine unless used in reasonably hard long distance competition or a heavy synthetic oil is used.

WHAT CAN YOU TELL ME ABOUT CASTOR OILS AND ARE THEY OKAY FOR USE TODAY?

Castor based oils were developed as far back as 1912, and were used initially in rotary aero engines before being widely used in both production and racing cars. Vegetable based as opposed to mineral based oils, they were made from castor or bean oils and treated with an oxidation inhibitor. Whilst castor based oils provided excellent lubrication in aero engines with total loss oiling systems, in car engines, the use of this type of oil produced excessive carbon deposits, the end result being in having to "de-coke" the engine every 1,000 miles or so.

The other drawback was high viscosity at low temperatures and a very rapid drop of viscosity as temperatures increased. The high viscosity problem at low temperatures was solved by gently warming the engine, or to be more precise, the engine's lubricant. Today, castor-based oil differs remarkably to their ancestors. Still incorporating vegetable oils, they are now blended with synthetics used to reduce the formation of gum and lacquer deposits and are of a multi-grade type viscosity. Their application is mainly associated with two stroke engines or where fuels such as methanol/alcohol are used in competition engines.

Running a vintage car or a racing car on old style castor oil is now a dated and long since superseded technology. Its use, although traditional, should no longer be contemplated. The only thing that castor can do that mineral oil cannot is to make the right smell and this can still be achieved by adding a cupful of castor synthetic in with the petrol, thus re-smelling the glorious past.

LEAD FUEL REPLACEMENT

LEAD REPLACEMENT FUELS ARE NO LONGER AVAILABLE. WHAT SHOULD I USE IN MY CLASSIC CAR?

Leaded fuel was introduced in the mid-1930s so every car made before that date ran, when new, on unleaded fuels. Lead based additives (Tetra Ethyl Lead or TEL) were blended into petrol to improve the octane rating, which enabled the use of higher compression ratios, which improved engine efficiency.

Octane number is the measure of the anti-knock qualities of a fuel. The higher the number the higher the compression ratio that can be used. One of the side benefits of TEL has been to act as a lubricant to eliminate exhaust valve seat wear. Valve seat recession will be experienced in engines designed to run on leaded fuels, if using unleaded petrol.

Penrite Valve Shield is an unleaded petrol treatment formulated primarily for vehicles originally designed and manufactured to run on leaded fuel. It protects these engines against valve seat recession (VSR) using current unleaded or premium unleaded fuels. Penrite Valve Shield is sold in a 250mL bottle which incorporates a 25mL measuring chamber - enough product to treat 25L of fuel.

VALVE SEAT RECESSION

If you drive a pre-1986 vehicle, you have to know about VSR or Valve Seat Recession.

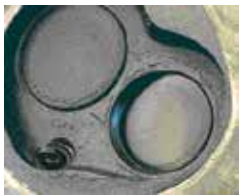
Valve Seat Recession is when the valves from an internal combustion engine embed themselves into the cylinder head. This is generally due to a lack of lubrication between the valve and the cylinder head.

The lead in petrol pre-1987, greatly improved combustion and increased octane levels. This high-octane fuel enabled cars to run higher compression ratios than cars of today. In addition, the lead oxides that formed during combustion would settle on the valve seats and act as a cushion, protecting the seats from erosion.

When leaded fuel was phased out, car manufacturers lowered compression ratios and started using hardened valve seats that did not require the lubricating properties of lead.

Consequently, when cars designed to run on leaded fuels were run on unleaded fuels, they run the risk of suffering valve seat recession.

Valve seat recession generally affects the exhaust valve in the head. This is because this is the valve that opens to expel the burnt combustion gas. Inlet valves are lubricated by the petrol fuel mixture or only have air passing by them and hence are closed during and after combustion.



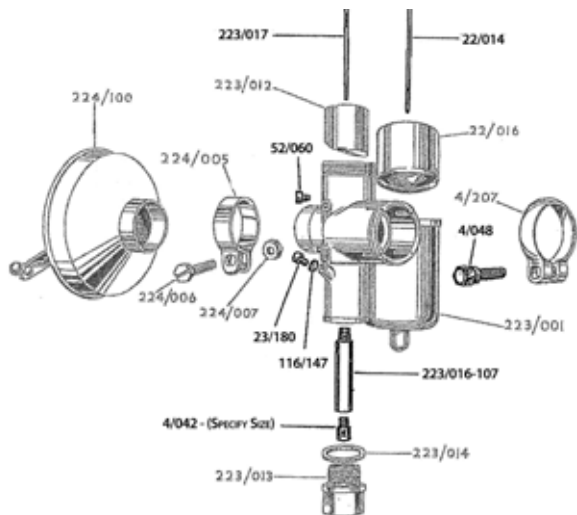
CARBURETTORS

WHAT'S THE DIFFERENCE BETWEEN DASHPOT AND DAMPER OIL?

Both of the oils are used for the lubrication of S.U. type carburettors.

Penrite SU Dashpot Oil is suitable for early pre-1940 carburettors, which do not incorporate a damper in the dashpot assembly. Removing the dashpot can readily identify this type carburettor design. There is no damper rod on the inside.

Penrite SU Damper Oil on the other hand is required for post-1940 vehicles using S.U. or Stromberg carburettors incorporating a damper in the dashpot assembly. The damper assembly is attached to the dashpot cap and can be seen when the cap is removed.



GEAR OIL INFORMATION

DOES YOUR TRANSOIL RANGE OF GEAR OILS CONTAIN ADDITIVES?

The only additive used in straight gear oils is an anti-foam and some anti-wear agents. Excessive foaming, through agitation leads to ineffective lubrication. Water contamination can also lead to foaming.

These oils can therefore be used in veteran, vintage car and motorcycle transmissions without the worry of chemical additives attacking yellow metals.

The Penrite Transoil range of gear oils is available in grades of SAE 90, 140 and 250.

MY 1950S CAR REQUIRES AN EP90 GEAR OIL IN THE REAR AXLE. CAN I USE A MODERN 80W-90 HYPOID GEAR OIL?

The Penrite equivalent of an EP90 gear oil of the 1950s is Mild EP Gear Oil. This oil is a mild extreme pressure gear oil suitable for early forms of hypoid gear design. This design was such that the oil required the addition of chemical-based additives to control wear.

Many of these rear axles contained yellow metals, therefore the additional additive packages used have to be compatible with the likes of brass, bronze and copper.

COOLANT INFORMATION

I DON'T THINK A GLYCOL BASED COOLANT IS THE WAY TO GO IN VINTAGE CARS. WHAT ELSE CAN I USE?

Penrite Classic Car Coolant is a non-glycol based corrosion inhibitor which offers a host of benefits for the vintage car enthusiast both in cars on the road or during restoration. It is a very efficient inhibitor against electrolysis and oxidation. Its effectiveness in "soft" and "hard" water is well proven. The product contains no glycol as mentioned and is also biodegradable and non-toxic. Once diluted with water, the product never becomes corrosive, nor does it change the basic cooling characteristics of water. Engines indeed will run cooler, yet not suffer from internal corrosion.

However, Classic Car Coolant whilst being a very effective anti-boil agent because of its superior heat transfer characteristics, it is not an anti-freeze. If you use your car under conditions where freezing may be experienced then the use of a glycol product is essential and to ensure that the correct concentration is used. Otherwise corrosion, and damage to radiator and engine could be experienced.

You may even want to boost the level of corrosion protection in situations when using glycol. This is fine, the glycol will not harm Classic Car Coolant. If you are using Classic Car Coolant, and wish to do some restoration work over winter, then simply drain the cooling system of water and coolant.

STEERING BOX INFORMATION

MY MANUAL EXPLAINS THAT FOR THE STEERING BOX I NEED A MIXTURE OF GREASE AND OIL. WON'T THE OIL SIT ON TOP OF THE GREASE?

The lubrication of steering boxes in the early days centred around the use of gear oils which were fine when cold, but had a tendency to leak out past the drop arm when hot. Grease was added to the oil to give it a bit more "body" but usually the grease would "slump" to the bottom of the box, with the oil on top, thereby offering very little to lubrication of the working surfaces of the gears. Penrite Semi Fluid & Steering Box Grease is a high viscosity grease containing non-corrosive extreme pressure additives to provide film strength and is ideal for the task.

WHAT OIL DO I USE IN A RACK AND PINION STEERING BOX?

In these particular units, the correct lubrication calls for a mild extreme pressure gear oil such as Penrite Mild EP Gear Oil.

It's often the case however, because of leakage, people tend to use a semi fluid grease. This is incorrect, as the product is far too heavy for this application. It would be imperative that if leakage is a problem, that the unit be removed, the seals replaced, and filled with the correct lubricant.



Penrite is the only company in Australia manufacturing a complete range of products for Veteran, Vintage, Classic and Edwardian vehicles, dating to the beginning of the last century.

Penrite is very proud to be one of the few remaining companies around the world with a complete range of products specifically designed to meet the original requirements of Veteran, Vintage & Classic vehicles.

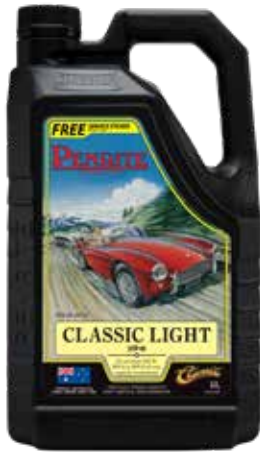
Penrite has been blending the highest quality oils since 1926, when Veteran, Vintage & Classic vehicles were considered cutting edge technology. Since then, Penrite has been utilising the latest technology to protect your investment, passion or everyday drive with 90 years of R&D experience.

Modern lubricants may contain additives that can have adverse effects in many older vehicles. Yellow metals such as brass and copper used in mechanical manufacturing, as well as early types of lubrication systems need specialised lubricants.

PRODUCTS

	MILLILITRES		LITRES		
	150	500	1	5	20
Classic Light				•	•
Classic Medium				•	
Classic Mini				•	
Shelsley Light				•	
Shelsley Medium				•	
Heritage LTM				•	
Gear Box Oil 30			•		
Gear Box Oil 40			•		
Mild EP Gear Oil			•		
Transoil SAE 90			•		
Transoil SAE 140			•		
Transoil SAE 250			•		
Shocker Oil No. 1		•			
Shocker Oil No. 2		•			
SU Damper Oil	•				
SU Dashpot Oil	•				
Classic Car Coolant (Concentrate)			•		
CARTON QUANTITY	6	6	6	4	

• AVAILABLE PACK SIZE



CLASSIC LIGHT

5L - CLASL005 | 20L - CLASL020

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Formulated to give much improved low temperature pumpability
- Improves operating temperature wear protection
- Extends bearing and gear life by minimising wear and shock loads
- Optimised zinc levels for wear protection
- Suitable for SAE 30, 20W-50 & 25W-60
- For diesel, LPG, petrol & racing fuel types

PERFORMANCE LEVELS

- ✓ API SG/CD



CLASSIC MEDIUM

5L - CLASM005

BASE OIL: Premium Mineral

VISCOSITY: SAE 25W-70

BENEFITS

- Formulated to give much improved low temperature pumpability
- Improves operating temperature wear protection
- Extends bearing and gear life by minimising wear and shock loads
- Optimised zinc levels for wear protection
- Suitable for SAE 40
- For diesel, LPG, petrol & racing fuel types

PERFORMANCE LEVELS

- ✓ API SG/CD



CLASSIC MINI

5L - CLASMINI005

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-50

BENEFITS

- Excellent combined engine & gearbox lubrication for all classic Minis
- Smoother gear shift & excellent gear wear protection
- Stay-in-grade engine protection
- High zinc levels for wear protection
- Protects against rust & corrosion
- Suitable for SAE 30 & 20W-40
- For petrol & racing fuel types

PERFORMANCE LEVELS

- ✓ API SJ/CE
- ✓ CCMC G2
- ✓ MB 227.1
- ✓ MIL-L-2104D



SHELLSLEY LIGHT

5L - SHELL005

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Formulated to give improved low temperature pumpability
- Improves operating temperature wear protection
- Extends bearing and gear life by minimising wear and shock loads
- Optimised zinc levels for wear protection
- Suitable for SAE 30, 20W-40 & 20W-50
- For diesel, kerosene (paraffin) & petrol fuel types

PERFORMANCE LEVELS

- ✓ API SC/CC



SHELLSLEY MEDIUM

5L - SHELM005

BASE OIL: Premium Mineral

VISCOSITY: SAE 25W-70

BENEFITS

- Formulated to give improved low temperature pumpability
- Improves operating temperature wear protection
- Extends bearing and gear life by minimising wear and shock loads
- Optimised zinc levels for wear protection
- Suitable for SAE 40, 25W-50 & 25W-60
- For diesel, kerosene (paraffin) & petrol fuel types

PERFORMANCE LEVELS

- ✓ API SC/CC



HERITAGE LTM

5L - HERLTM005

BASE OIL: Premium Mineral

VISCOSITY: SAE 30

BENEFITS

- Non-detergent formulation for pre-1920s vehicles
- Contains modern additives to provide corrosion protection
- Improved water resistance
- Tacky additive provides increased storage protection
- For diesel, kerosene (paraffin) & petrol fuel types



GEAR BOX OIL 30

1L - GB30001

BASE OIL: Premium Mineral

VISCOSITY: SAE 20W-60

BENEFITS

- Does not contain friction modifiers
- Will not cause overdrives & pre-selector bands to slip
- Does not contain EP additives
- Compatible with synchro cones & other metal parts
- Suitable for SAE 30

PERFORMANCE LEVELS

- ✓ API GL-1



GEAR BOX OIL 40

1L - GB40001

BASE OIL: Premium Mineral

VISCOSITY: SAE 25W-70

BENEFITS

- Does not contain friction modifiers
- Will not cause overdrives & pre-selector bands to slip
- Does not contain EP additives
- Compatible with synchro cones & other metal parts
- Suitable for SAE 40 & SAE 50

PERFORMANCE LEVELS

- ✓ API GL-1



MILD EP GEAR OIL

1L - MILD001

BASE OIL: Premium Mineral

VISCOSITY: SAE 110

BENEFITS

- Protects against wear
- Good anti-friction characteristics
- Compatible with copper alloy components
- Protects against corrosion
- Increased load carrying capacity
- Suitable for SAE 90 & SAE 140

PERFORMANCE LEVELS

- ✓ API GL-4



TRANSOIL SAE 90

1L - T90001

BASE OIL: Premium Mineral

VISCOSITY: SAE 90

BENEFITS

- Does not corrode ferrous & non-ferrous materials
- Compatible with leather & synthetic rubber seals

PERFORMANCE LEVELS

- ✓ API GL-1



TRANSOIL SAE 140

1L - T140001

BASE OIL: Premium Mineral

VISCOSITY: SAE 140

BENEFITS

- Does not corrode ferrous & non-ferrous materials
- Compatible with leather & synthetic rubber seals

PERFORMANCE LEVELS

- ✓ API GL-1



TRANSOIL SAE 250

1L - T250001

BASE OIL: Premium Mineral

VISCOSITY: SAE 250

BENEFITS

- Does not corrode ferrous & non-ferrous materials
- Compatible with leather & synthetic rubber seals

PERFORMANCE LEVELS

- ✓ API GL-1



SHOCKER OIL NO.1

500mL - SHOK10005

BASE OIL: Premium Mineral

BENEFITS

- Replaces old style damper oil
- Specialised product for lever arm & piston type
- Formulated to exceed original requirements
- Green colour

PERFORMANCE LEVELS

- ✓ ISO 46



SHOCKER OIL NO.2

500mL - SHOK20005

BASE OIL: Premium Mineral

BENEFITS

- Replaces old style damper oil
- Specialised product for lever arm & piston type
- Formulated to exceed original requirements
- Green colour

PERFORMANCE LEVELS

- ✓ ISO 68



SU DAMPER OIL

150mL - SUDAMP000150

BASE OIL: Premium Mineral

BENEFITS

- Specifically formulated for dampers
- Convenient size & pouring mechanism
- Amber colour

PERFORMANCE LEVELS

- ✓ ISO 68



SU DASHPOT OIL

150mL - SUDASH000150

BASE OIL: Premium Mineral

BENEFITS

- Specifically formulated for dashpots
- Convenient size & pouring mechanism
- Amber colour

PERFORMANCE LEVELS

- ✓ ISO 15



CLASSIC CAR COOLANT (CONCENTRATE)

1L - VCI001

TECHNOLOGY: Type B

BENEFITS

- Suitable for use in both hard & soft water
- Biodegradable & non-toxic
- Will not stain engine castings or radiator surrounds
- Overdosing will not cause corrosion or deposition
- Can lower running temperatures by 8-10°C cooler than glycol treatments
- 1L makes up to 15L
- Clear colour

PERFORMANCE LEVELS

- ✓ AS 2108-2004 Type B





The Art of Cleaning



1961

The Lightning brand was first registered for business by Werthiem Laboratories



1978

Under the Lightning name, the iconic Scrubber product was introduced to the market



2004

Continued growth necessitated the move to a larger premises in Altona



1975

The Lightning brand was acquired by Red Star Products



1985

Began pioneering the use of orange citrus in hand cleaners



2018

Penrite Oil Company acquired the Lightning brand

ABOUT US

Charles Goodall saw an opportunity in 1955 to start his own business from the backyard of his suburban house selling eucalyptus oil products. As the business grew, he moved to larger premises in Williamstown and at the same time acquired the Red Star business. Red Star was first registered in 1936 as a manufacturer of hand cleanser soap bars and as the retiring owners of the business knew Charles well, the transaction to sell the business was made.

His son, Leigh, joined the business in 1963 and continued the growth and evolution of the Red Star brand and in 1975, after taking over the reins of the business, Leigh acquired the Lightning brand of hand cleaner products.

In 1978, the popular and iconic Scrubber product was introduced to the market and it is still widely in use today.

In 1985, Leigh began pioneering the use of orange citrus in hand cleaners and as the business grew, he soon realised he had to move to larger premises. So in 2004, he moved to a new site in Altona and to this day, he has continued to be at the forefront of product innovation.

In 2018, the Penrite Group was given the opportunity to take over the Lightning brand and the inspiration is to make the Lightning name synonymous with cleaning, care & protection.





HAND CARE & CLEANERS

WHAT IS AN INDUSTRIAL HAND CLEANER?

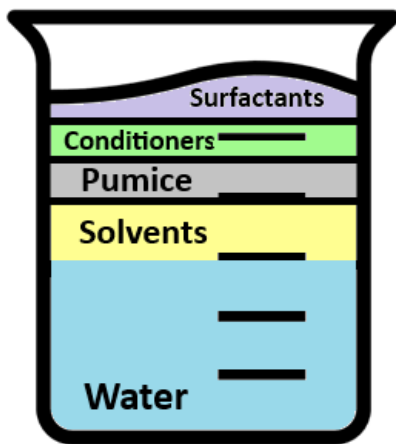
An industrial hand cleaner is a heavy-duty hand-washing product designed to remove tough industrial contaminants that ordinary hand soaps cannot.

What they remove:

- Grease and heavy oils
- Fuel and diesel
- Paint, inks, resins and adhesives
- Carbon, grime and metal dust

What they contain:

- Pumice or grit
- Soaps and surfactants
- Mild solvents
- Fragrances
- Emollients or conditioners
- Water



FREQUENTLY ASKED QUESTIONS

What's the difference between Scrubber and Jell?

Scrubber contains pumice, whereas Jell is pumice free. Both are pink and have a gel consistency. Scrubber also contains citrus oil.

How do I know which hand cleaner to use?

It is mostly personal preference; many customers prefer to use what they've always used e.g. Scrubber.

A simple way to decide; Pumice or no pumice? Orange or another fragrance? Gel or cream consistency? Solvent or non-solvent?

What is different about Lightning hand cleaners compared to competitors?

Lightning hand cleaners differ to our competitors as we still supply the "older" style solvent products, while these can be drying to some people's skin, they work incredibly well. All our solvent formulations include skin conditioners.

STEP 1	STEP 2	STEP 3
BARRIER CREAM Protect your hands	SCRUBBER Clean away grime	Revive Cream Soothe & Repair
		

Lightning hand care and cleaners offer a wide variety of solutions including scrubbers, jell and creams to meet your growing needs. Our hand care range expands from everyday use to industrial grade.

From the iconic Scrubber products to the newly developed Walnut Hand Scrub, our hand wash range has the strength to remove grease, oil, grime, paint, adhesives, and all other soils.

Together our Barrier Hand Cream and Revive Skin Conditioner act as the perfect hand care routine for your working hands. The Barrier Hand Cream acts as a barrier between the skin and hard soils while Revive Skin Conditioner helps prevent your hands from drying out and cracking.

PRODUCTS

	LITRES / KILOGRAM						
	100mL	500mL	2L	4L/Kg	19Kg	20L/Kg	20Kg BOX
Scrubber		●		●		●	●
Scrubber Lite						●	
Jell		●			●		
Orange Pumice		●	●	●		●	
Citrus Cream		●		●			
Eucalyptus Fresh		●	●				
Walnut Hand Scrub (Tuffnut)		●		▲			
Barrier Hand Cream	●	●					
Revive Skin Conditioner		●					
CARTON QUANTITY	12	6	4	▲ x 2 ● x 4			

● / ▲ AVAILABLE PACK SIZE



SCRUBBER

A heavy duty petroleum-based hand cleaner that quickly removes all types of hard industrial soils. It contains soaps, surfactants, mild solvents and high quality fine pumice plus emollients to help moisturise the skin.

BENEFITS

- Heavy duty to clean and remove soil & grime
- High quality fine pumice abrasive
- Contains lanolin for skin care
- Citrus lemon fragrance

Note: Not suitable for use with pumps

500g - 390C

4Kg - 390I

20Kg - 390J

20Kg Box - 390BB



SCRUBBER LITE

An easy to pump version of the popular Scrubber. It is a heavy duty petroleum-based hand cleaner that quickly removes all types of hard industrial soils. It contains soaps, surfactants, mild solvents and high quality fine pumice plus emollients to help moisturise the skin.

BENEFITS

- Easy to pump formula
- Heavy duty to clean and remove soil & grime
- High quality fine pumice abrasive
- Contains lanolin for skin care
- Fresh citrus fragrance

20L - 397JP



JELL

The original heavy duty petroleum-based hand cleaner quickly removes most types of hard industrial soils. It contains soaps, surfactants, mild solvents and citrus oil plus lanolin to moisturise the skin.

BENEFITS

- Heavy duty to clean and remove soil & grime
- No abrasive & does not require rinsing
- Contains lanolin for skin care
- Fresh citrus fragrance

Note: Not suitable for use with pumps

500g - 052C

19Kg - 052J



ORANGE PUMICE

A heavy duty hand cleaner that contains citrus oil and pumice quickly removes most types of hard industrial soils.

BENEFITS

- Heavy duty to clean and remove soil & grime
- Contains fine pumice for quick & effective cleaning
- Added skin moisturiser
- Contains a natural citrus oil (d-limonene) & leaves a fresh orange fragrance
- Suitable for both hard & soft water areas

500mL - 899C

2L - 899F

4L - 899I

20L - 899J



CITRUS CREAM

A unique heavy duty hand cleaner that contains natural citrus oils (d-limonene) and lanolin that quickly removes most types of hard industrial soils. It is recommended for use as a commercial and domestic hand cleaner that doesn't contain pumice. It can be used for automotive workshops and service centres, marine, industrial, agriculture, mining and forestry industries.

BENEFITS

- Heavy duty to clean and remove grease, carbon, rubber, soil & grime
- Contains no abrasive
- Contains lanolin for skincare
- Fresh citrus fragrance

500mL - 999C

4L - 999I



EUCALYPTUS FRESH

A premium quality, heavy duty biodegradable hand cleaner that contains eucalyptus oil and quickly removes all types of hard industrial soils. It contains soaps, surfactants, mild solvents and high quality pumice plus lanolin to moisturise the skin.

BENEFITS

- Heavy duty to clean and remove soil & grime
- High quality pumice abrasive
- Contains lanolin for skincare
- Pleasant eucalyptus fragrance
- Biodegradable

500mL - 820C

2L - 820F



WALNUT HAND SCRUB (TUFFNUT)

A heavy duty, biodegradable hand cleaner containing all natural abrasives with no harsh solvents. Formulated with surfactants, walnut shells and pumice to help exfoliate the skin and remove even the toughest soils. It contains mild cleansers and skin conditioners that are gentle and leave hands clean and smooth.

BENEFITS

- Ideal for industrial & automotive shops
- Free from harsh solvents & gentle on the skin
- Formulated with surfactants
- Uses walnut shells & pumice to exfoliate the skin
- Contains mild cleansers and skin conditioners to leave hands clean & smooth
- Biodegradable
- Pleasant rainforest scent

Note: LTWSD (4L Black Wall Mounted Dispenser)

500mL - LTWS0005

4L - LTWS004

4L Dispenser - LTWSD



BARRIER HAND CREAM

A hand protection cream that creates an insulating barrier between the skin and hard soils to help retain moisture and avoid skin irritations. It contains almond and avocado oils that make hands easier to clean, and vitamin E to prevent the skin from drying and cracking.

BENEFITS

- Provides a protective barrier for the skin
- Contains vitamin E to soften & moisturise the hands
- Non-greasy formula that protects for hours
- Prevents skin irritations
- Utilises natural plant-based oils without added fragrances
- Makes hands easier to clean afterwards

100g - 055B

500mL - 055C



REVIVE SKIN CONDITIONER

Non-greasy, after-work hand cream that penetrates dry and chafed skin to soften, and repair skin damaged in hard working environments. It is infused with aloe vera and kakadu plum extract, offering gentle and soothing relief.

BENEFITS

- Soothing relief for irritated skin and dry skin
- Contains vitamin E and antioxidants to soften and protect the skin
- Non-greasy formula
- Deeply hydrates dry and damaged skin
- Safe for all-over body protection
- Pleasant subtle fragrance
- Infused with aloe vera and Australian kakadu plum extracts

500mL - 150C

HAND CLEANER COMPARISON CHART

PRODUCT	BASE	ACTIVE INGREDIENTS	SCRUBBING AGENT	COLOUR	FRAGRANCE
Scrubber	Gel Thick Paste	Solvents, Surfactants, Citrus Oil	Pumice	Pink	Citrus
Scrubber Lite	Light Gel	Solvents, Surfactants	Pumice	Pink	Lemon
Jell	Gel	Solvents, Surfactants	N/A	Pink	Lemon
Orange Pumice	Viscous Liquid	Solvents, Surfactants, Citrus Oil	Pumice	Orange	Citrus
Citrus Cream	Viscous Liquid	Solvents, Surfactants	N/A	White	Citrus
Eucalyptus Fresh	Viscous Liquid	Solvents, Surfactants, Eucalyptus Oil	Pumice	White	Eucalyptus
Walnut Hand Scrub (Tuffnut)	Cream	Aqueous (non-petroleum), Surfactants	Pumice & Walnut Shell	Light Tan	Woody



Always test products on an inconspicuous area prior to direct application to a surface.





CLEANERS & DEGREASERS

WHAT IS A CLEANER/DEGREASER?

Lightning cleaners and degreasers are designed to work on a range of applications such as: workshop floors, driveways, tools and equipment, brakes and parts, as well as bathrooms, kitchens, BBQs and glass.

What they remove:

- Grease and heavy oils
- Fuel and diesel
- Dirt and road grime
- Cooking fats and sugars

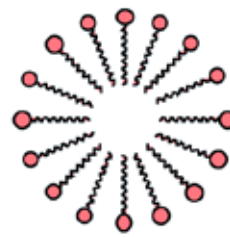
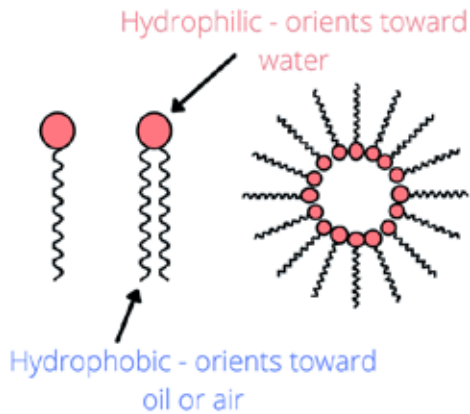
What they contain:

- Solvents
- Hydrocarbons
- Ketones
- Surfactants – differ from those used in hand cleaners
- Emulsifiers

WHAT IS A SURFACTANT?

A surfactant is a chemical that lowers surface tension.

Each surfactant molecule has a hydrophilic or water-loving component and a hydrophobic or water-fearing component.



micelle

Examples

- detergent
- emulsifier
- wetting agent
- foaming agent

WHY ARE LIGHTNING CLEANERS AND DEGREASERS ALKALINE/CAUSTIC?

Caustic cleaners (pH 9-14) are ideal for removing organic soils like oil, grease and fats.

Bio CaustiClean is our highest pH cleaner and degreaser, it needs to be diluted for some applications like engine blocks and painted surfaces.

Car and truck washes are typically pH neutral, making them safer for painted surfaces.



Lightning cleaners and degreasers are designed to deliver powerful, reliable performance across a wide range of cleaning applications. Formulated to cut through grease, oil, grime, and built-up contaminants, they are ideal for use in automotive, industrial, and general workshop environments. The range includes versatile solutions for everything from heavy-duty engine cleaning to general surface maintenance, helping to improve efficiency, maintain equipment, and support a clean, professional workspace.

PRODUCTS

	LITRES / KILOGRAM						
	250mL	500mL	4L	20L	200L	205L	1000L
Tuff Cleaner/Degreaser (Concentrate)			●	●	●		●
Tuff Cleaner/Degreaser (Ready to Use)		●					
Solvit Citrus Clean	●	●		●			
W66 Multi-Surface & Glass Cleaner		●		●			
Solvent Degreaser				●		●	
Parts Washing Fluid				●			
Brake & Parts Cleaner				●	●		
Bioclean				●			
Bio Causticlean				●			
Eucalyptus Disinfectant				●			
CARTON QUANTITY	6	6	4				

● AVAILABLE PACK SIZE



TUFF CLEANER/DEGREASER (CONCENTRATE)

A non-flammable, biodegradable, water-based, industrial-strength concentrated cleaner and degreaser that uses the natural cleaning power of citrus (d-limonene) and eucalyptus oils.

BENEFITS

- Multi-purpose cleaning & degreasing
- Versatile cleaner for both inside & outside use
- Penetrates porous surfaces to remove grime
- Dissolves grease & oil-based stains on most surfaces

4L - 930N

20L - 930T

200L - 930BU

1000L - 930IBC



TUFF CLEANER/DEGREASER (READY TO USE)

A ready to use, non-flammable, biodegradable, water-based, industrial-strength cleaner and degreaser that uses the natural cleaning power of citrus (d-limonene) and eucalyptus oils.

BENEFITS

- Multi-purpose cleaning & degreasing
- Versatile cleaner for both inside & outside use
- Penetrates porous surfaces to remove grime
- Ready to use & no mixing required (prediluted at 25%)

500mL - 930C



SOLVIT CITRUS CLEAN

A powerful, 100% natural cleaner and stain remover made from the extracts of orange peel and the distilled solvent from sugar cane. It has superior levels of active ingredients and does not use synthetic or perfume boosters for application or smell.

BENEFITS

- Powerful fast-acting surfactants
- Multiple uses for cleaning & spot removing
- Pleasant orange fragrance
- Dissolves glue, wax, sap & gum

250mL - 260B

500mL - 260C

20L - 260T

W66 MULTI-SURFACE & GLASS CLEANER



A streak-free multi-surface and glass cleaner that is quick-drying and anti-static to repel dust and grime keeping surfaces cleaner for longer.

It is recommended for removing dust, dirt and grime from all the types of surfaces found in the home and workplace including kitchens, bathrooms, toilets, laundries, and other hard surface wet areas.

BENEFITS

- Glass & multi-surface cleaner in one
- Streak-free cleaning
- Anti-static to repel dust & grime
- Safe for most surfaces

500mL - 066C

20L - 066T

SOLVENT DEGREASER



A professional-strength, solvent-based degreaser that rapidly dissolves oil, grease, brake dust, silicone, and other contaminants. Its solvent base consists of a blend of emulsifying agents and petroleum hydrocarbons that rapidly breaks down oily residue, grease and sludge.

BENEFITS

- Professional-strength
- Solvent base breaks down grease, oil & sludge with ease
- Fast-acting, non-corrosive formulation
- Cleans parts without the need for dismantling

20L - MASD020

205L - MASD0205

PARTS WASHING FLUID



A solvent-based, non-emulsifiable degreaser designed specifically for use in automotive and industrial parts washing machines. It quickly dissolves all petroleum-based oils and greases from ferrous & non-ferrous metals, most plastic and painted surfaces.

It is ideal for use in circulating, agitating, immersion & continuous parts washing machines, cleaning & soaker tanks.

BENEFITS

- Dissolves grease & oil from most surfaces
- Excellent for use in parts washing machines
- Ideal as a soaker for parts cleaner

20L - LTPWF020



BRAKE & PARTS CLEANER

A professional-strength, residue-free cleaner rapidly dissolves oil, grease, brake dust, silicone, and other contaminants on brake components. Surfaces are left clean and dry even after removing the most stubborn of contaminants.

BENEFITS

- Professional-strength
- Evaporates completely without residue or staining
- Fast-acting & non-corrosive
- Cleans brake parts without the need for dismantling
- Cleans & degreases
- Free from aromatic or halogenated hydrocarbons

20L - MABAPC020

200L - MABAPC200



BIOCLEAR

An industrial-strength, all purpose, heavy duty product that can be used as both a degreaser and detergent. It is water-based, biodegradable and phosphate-free, making it environmentally safer to use. It is also a quick-break detergent, allowing oil and water to separate making it easier to remove the oil/grease layer when used with oil/water separators, interceptor pits and oil traps.

BENEFITS

- Water-based, non-flammable
- Biodegradable, quick-break formulation
- Effective degreaser & detergent
- Easy & economical to use; easy to rinse off
- Pleasant citrus fragrance
- Wide range of applications; suitable for most surfaces

20L - BIOCLEAR020



BIO CAUSTIC CLEAN

A professional strength, cleaner and degreaser that rapidly removes oil, grease, grime and other contaminants from concrete, asphalt, and other surfaces. Its highly alkaline formula contains caustic salts that rapidly breaks down oily residue, grease, and sludge.

It is fully miscible with water, biodegradable and red in colour for ease of identification.

BENEFITS

- Biodegradable and non-flammable
- Breaks down oil, grease and grime
- High strength degreaser and detergent
- Easy and economical to use; easy to rinse off
- Suitable to be used on driveways and roadways

20L - BIOCC020



EUCALYPTUS DISINFECTANT

A general and commercial grade, heavy duty disinfectant. It contains fast acting surfactants that provide exceptional performance and efficiency for cleaning and disinfecting.

BENEFITS

- Powerful fast-acting surfactants
- Multiple uses for cleaning & disinfecting
- Pleasant eucalyptus fragrance
- Cleans, deodorises & sanitises
- Suitable for food preparation areas
- Kills germs & bacteria

20L - 017T

CLEANERS & DEGREASERS COMPARISON CHART

PRODUCT	BENEFITS	APPLICATIONS	DILUTION RATES	AVAILABLE SIZES
Tuff Cleaner/Degreaser (Concentrate)	Biodegradable, water based, contains eucalyptus & citrus oils	General cleaning & degreasing, workshop floors & walls, tools & equipment, BBQ, taut liner curtains	20:1 - NEAT	4L 20L 200L
Tuff Cleaner/Degreaser (Ready to Use)	Biodegradable, water based, contains eucalyptus & citrus oils, ready to use	General cleaning, tools & equipment, BBQ, garden furniture	Premixed at 25%	500mL
Solvit Citrus Clean	100% natural, orange fragrance, contains d-limonene	Removes graffiti, gum, glue and sticky substances/residue	NEAT	250mL 500mL 20L
W66 Multi-Surface & Glass Cleaner	Streak free, multi-surface cleaner, anti-static	Glass & general cleaning such as benches, toilets and bathrooms, upholstery	NEAT	20L
Solvent Degreaser	Solvent based, fast acting, non corrosive	General degreasing, engine parts and drive trains, lawn and garden equipment, work clothes	NEAT	20L 205L
Parts Washing Fluid	Non-emulsifiable, solvent based, suitable for parts washing machines	Parts washing machines including circulating, agitating, immersion and continuous washing machines	NEAT	20L
Brake & Parts Cleaner	Solvent based, fast acting, residue free	Cleaning brake disk rotors, brake callipers, sliding pins, hub & bearing assemblies, engines & drivetrains	NEAT	20L
Bioclean	Quick break formula, water based biodegradable, phosphate free, citrus fragrance	General degreasing, ferrous & nonferrous surfaces including concrete and painted surfaces	NEAT	20L
Bio Causticlean	Biodegradable, highly alkaline with caustic salts	General cleaning & degreasing, workshop floors, concrete and asphalt	50:1 - NEAT	20L



ACCESSORIES & MAINTENANCE

Lightning offers a range of automotive accessories and maintenance solutions designed to keep vehicles looking their best and in peak condition. From powerful car and truck wash formulas that cut through grime, to premium metal polishes that restore shine and protect surfaces, Lightning delivers reliable results for both everyday drivers and service professionals. Lightning maintenance products are a trusted choice for effective and easy-to-use vehicle care with accessories designed to complement our range.

PRODUCTS

	MILLILITRES		LITRES			UNITS
	90	250	20	50	200	30
Flash Wash			●			
Multi-Purpose Wash			●		●	
Tyre Shine			●			
Brite Metal Polish	●	●				
Quick Rag						●
E-Zorb NEW				●		
Pumps & Taps						▲
CARTON QUANTITY	6	6				● x 12

● / ▲ AVAILABLE PACK SIZE



20L - 501T

FLASH WASH

A biodegradable, non-phosphate concentrated vehicle wash designed to remove all soils on vehicle paintwork and chassis. It contains a water soluble wax and fluoropolymer to give a residual shine and protective coating that helps prevent re-soiling of the surfaces for a freshly washed look that lasts longer. It also has a built-in rust inhibitor to protect all metal surfaces from corrosion.

BENEFITS

- Biodegradable, phosphate-free formulation
- Contains a rust inhibitor for metal protection
- Leaves surfaces shining
- Works in all pressure wash systems



20L - DETCTW020

MULTI-PURPOSE WASH

A heavy duty, multi-purpose, biodegradable, detergent cleaner, capable of cleaning the most heavily soiled vehicles. Its unique formulation will not cause damage or streaking to the paintwork. It is safe to use on all modern automotive paintwork finishes and will not harm aluminium, vinyl, rubber, glass or fibreglass. It is pH neutral and free of phosphate and salt, making it environmentally safer to use. It is also a quick-break detergent, allowing oil and water to separate, making it easier to remove the oil/grease layer when used with oil/water separators, interceptor pits and oil traps.

BENEFITS

- Water-based & non-flammable
- Biodegradable, quick-break formulation
- pH neutral, phosphate & salt-free
- Easy & economical to use
- Capable of heavy duty cleaning

200L - DETCTW200



20L - CCTS020

TYRE SHINE

A long-lasting, rich, deep shine, "Wet Look" spray for the tyres. It simultaneously improves the appearance of the tyres and maintains and protects them from cracking, premature aging, brown discolouration and colour bleaching. It improves the appearance of the vehicle and gives it a finishing touch.

Can be used as a tyre maintenance product for all types of vehicle tyres. Suitable for passenger cars, 4WD's, light and heavy duty commercial vehicles. It is easy to apply and can last for several weeks depending on conditions.

BENEFITS

- Cleans & protects tyres
- Stops tyres from prematurely aging & cracking
- Provides a professional job presentation
- Spray formulation for easy & even coverage
- Economical, quick & easy to use



BRITE METAL POLISH

A cream metal cleaner and polish that removes oxidation, tarnish and corrosion from metal surfaces. It contains specialised microcrystalline waxes to seal the polished surface and protect it from further oxidation.

BENEFITS

- Wipe on wipe off, easy application with no residue
- Removes oxidation, tarnish & corrosion from surfaces
- Leaves surfaces with an extreme shine
- Suitable for most metals

90mL - 82390

250mL - 823D



QUICK RAG

Clean, soft and reusable microfibre cloths for use where a clean, dry and non-scratch cloth is needed for spills, wipe ups, and many other tasks.

It can be used for tasks such as vehicle polishing, window cleaning, wiping hands, wiping spills and general cleaning where a normal cloth rag was once used.

BENEFITS

- Clean, dry & soft cloths
- Large 30cm x 30cm size
- Economical 30 per box size
- Convenient, washable & reusable
- Can be used wet or dry, with or without chemicals
- No hard edges that can scratch surfaces
- Highly absorbent for cleaning up spills
- Excellent for all types of cleaning jobs

30 Pack - LQR030



E-ZORB NEW

An all-natural, non-toxic, 100% organic, industrial peat moss oil absorbent that is economical, non-abrasive, non-leaching and biodegradable.

The inherent capillary action of the E-Zorb peat moss provides a powerful wicking action that encapsulates oils, solvents, heavy metals, pesticides, herbicides, and other organic chemicals on contact. Once contaminants are absorbed and contained, peat moss can be incinerated or disposed of in landfills with no detrimental effects to the environment.

BENEFITS

- Ultra-absorbent; absorbs 10x its own weight
- Organic and biodegradable
- Non-leaching
- 100% organic, natural, and environmentally friendly
- Suitable to be used with oils, solvents, fuel, and paints
- Reduces combustion and suppresses vapours
- Quick and easy to use

50L - LTEZORB050



PUMPS & TAPS

Easily decant a range of Lightning products with these specially designed pumps and taps.

No need to open lids with these easy to use hand pumps designed for Lightning products.

CODE	SIZE	USED FOR
TAP58MM	58mm Tap	Universal Application
TAP	20L Bung Tap	Universal Application
707P NEW	20Kg Tin Pump	397JP/899J
58CUBESPAN NEW	58mm Cube Spanner	Universal Application



Always test products on an inconspicuous area prior to direct application to a surface.



INDEX

#

1:1 Air Operated Oil Pump Kit	222
1.5L Pressure Pack	227
6L Measuring Jug	227
10 Tenths Premium 0	78
10 Tenths Premium 10	78
10 Tenths Race Castor Oil	78
10 Tenths Race Coolant Inhibitor (Concentrate)	121
10 Tenths Racing 5	76
10 Tenths Racing 10	76
10 Tenths Racing 15	76
10 Tenths Racing 20	77
10 Tenths Running-In Oil 15W-40	77
10 Tenths Running-In Oil 20W-50	77
60L ATF Pump	224
60L Drum Trolley	225
60L Gear Oil Pump	224
60L Spring Loaded Pump	224
60/205L Lever Pump	223
60/205L Rotary Pump	223
60/205/210L Plastic Rotary Coolant/PenBlue Pump	222
205L Drum Dolly	223
205L Drum Gauge	222
500,000km Green Coolant (Concentrate)	118
500,000km Green Coolant (Premix)	118
500,000km Red Coolant (Concentrate)	118
500,000km Red Coolant (Premix)	119

A

Additives Stand	219
Agricultural & Construction Equipment Grease	211
Air Fresheners	220
ATF 33 (Type F)	94
ATF BMV	92
ATF DX-III	93
ATF FS	93
ATF LV	92
ATF MHP	93
ATF ULV	92

B

Barrier Hand Cream	284
Big Mate Pump	226
Bio Causticlean	292
Bioclean	292
Biodegradable Hydraulic Oil ISO 46	191
Biodegradable Hydraulic Oil ISO 68	191
Block & Cylinder Head Seal	145
Blue 12YR OEM Coolant (Concentrate)	116
Blue 12YR OEM Coolant (Premix)	117
Brake & Parts Cleaner	292
Brite Metal Polish	298

C		
Cam Assembly Lube	212	
Chain Cleaner	239	
Chain Lube Race	239	
Chain Lube Road	239	
Chain Saw Bar Oil	257	
Citrus Cream	283	
Civil Fleet Gear FD-01	177	
Civil Fleet Gear SAE 10W	176	
Civil Fleet Gear SAE 30	176	
Civil Fleet Gear SAE 50	176	
Civil Fleet Gear SAE 60	177	
Classic Car Coolant (Concentrate)	273	
Classic Light	268	
Classic Medium	268	
Classic Mini	268	
Clear Screen	145	
Convoy DPF Cleaner	141	
Convoy Fleet Gear 75W-80	173	
Convoy Fleet Gear 75W-90	173	
Convoy Fleet Gear 80W-90	174	
Convoy Fleet Gear 85W-140	174	
Convoy Fleet Gear SAE 40	172	
Convoy Fleet Gear SAE 50	172	
Convoy Fleet Gear SAE 140	174	
Convoy Fleet Gear Semi Synthetic 80W-90	173	
Convoy HD ATF 668	175	
Convoy HD ATF Eco-Z	175	
Convoy Mono Truck 30	165	
Convoy Mono Truck 40	165	
Convoy Mono Truck 50	165	
Convoy Multi-Fleet Diesel 10W-40	163	
Convoy Multi-Fleet Diesel 15W-40	163	
Convoy Super FX 15W-40	164	
Convoy Super FX 20W-60	164	
Convoy Ultra HD 5W-30	162	
Convoy Ultra HD 10W-40	162	
Convoy Ultra HD 15W-40	162	
Copper Eze	211	
Core Hydraulic 32	186	
Core Hydraulic 46	186	
Core Hydraulic 68	186	
Cotton Picker Grease	215	
Cotton Spindle Cleaner	215	
Cube Stand	219	
CV Joint Grease	212	
CVT Fluid Low Viscosity	95	
CVT Fluid V	95	
D		
DCT Fluid	94	
Demineralised Water	121	
Diesel Biocide Fuel Treatment		140
Diesel Injector Cleaner		140
Diesel Total System Cleaner		140
DOT 3 Brake Fluid		132
DOT 5.1 Brake Fluid		132
DPF Cleaning Range		218
E		
EDS 5		82
EDS 10		82
EGR & Intake Cleaning Range		218
Engine Flush		142
Engine Stop Leak		142
Engine Stop Smoke		142
Enviro+ 0W-20		62
Enviro+ 5W-20		62
Enviro+ 5W-30		62
Enviro+ 5W-40		63
Enviro+ 10W-40		63
Enviro+ C1		64
Enviro+ C2		64
Enviro+ C3		64
Enviro+ C4		65
Enviro+ C5		65
Enviro+ DPF Cleaner		141
Enviro+ EU 5W-30		66
Enviro+ EU 5W-40		66
Enviro+ G4 FE		66
Enviro+ GF-S		67
Enviro+ Hybrid		67
Enviro+ Parts Washer Range		218
Enviro+ R17		67
Enviro Box™ Pour Stand		219
Eucalyptus Disinfectant		293
Eucalyptus Fresh		283
Everyday 10W-30		83
Everyday 10W-40		83
Everyday 15W-40		83
Extreme Pressure Grease		209
E-Zorb		298
F		
Farmrite Tractor Transmission & Hydraulic Oil (UTTO)		178
Farmrite Universal Farm Oil (STOU)		178
Flash Wash		297
Floor Mats		221
Foam Filter Cleaner		240
Foam Filter Oil		240
G		
Gear Box Oil 30		270
Gear Box Oil 40		270

Gear Oil 80W-90			
Gear Oil 85W-140			
Gear Oil 140			
Gear Oil Syn 220			
Green 12YR OEM Coolant (Concentrate)			
Green 12YR OEM Coolant (Premix)			
Greenkeepers 2 Stroke			
Guard Cover			
H			
HD Longlife ECO1 (Concentrate)	120		
HD Longlife ECO1 (Premix)	120		
HDPS Fluid (Honda Dual Pump System)	106		
Heavy Duty Bearing Grease	210		
Heritage LTM	269		
High Speed & Temperature Grease	214		
High Temp Wheel Bearing Grease	209		
Hi-Per 2 Stroke	258		
Honing Oil	201		
HPR 0	70		
HPR 5	70		
HPR 10	70		
HPR 15	71		
HPR 30	71		
HPR 40	71		
HPR 50	72		
HPR Diesel	73		
HPR Diesel 5	72		
HPR Diesel 10	72		
HPR Diesel 15	73		
HPR Gas 10	73		
HPSO (Honda Power Steering Oil)	127		
Hydraulic Jack Oil	259		
I			
Indgrease Lithium EP 0	215		
Indgrease Moly HT	214		
Indgrease Semi EP 00	215		
Indus Compressor Oil 2KH ISO 68	198		
Indus Compressor Oil 4KH ISO 46	198		
Indus Compressor Oil 4KH ISO 68	199		
Indus Compressor Oil 8KH ISO 68	199		
Indus Gear Oil EP 68	196		
Indus Gear Oil EP 150	196		
Indus Gear Oil EP 220	196		
Indus Gear Oil EP 320	197		
Indus Gear Oil EP 460	197		
J			
Jell	282		
Job Cost Cards	221		
L			
LDAS	126		
LHM Plus	126		
Lifter & Tappet Fix	143		
Limslip Additive	106		
Little Mate Pump	226		
M			
Marine Diesel 4 Stroke 15W-40	252		
Marine Full Synthetic 10W-40	251		
Marine Gear Oil 75W-90	253		
Marine Gear Oil SS300	253		
Marine Grease	210		
Marine Inboard 4 Stroke 25W-40	252		
Marine Outboard 2 Stroke	252		
Marine Outboard 4 Stroke 10W-30	251		
105		Marine Outboard 4 Stroke 10W-40	251
105		MB15 Suspension Fluid	127
105		MC Anti Fog	245
197		MC Big Wash Brush	246
117		MC Bio Degreaser	244
117		MC Chain Brush	246
258		MC Foam Filter Cleaning Kit	240
220		MC Fork Oil 5	238
		MC Fork Oil 10	238
		MC Fork Oil 15	238
		MC Gear Oil	237
		MC Matte Detailer	244
		MC Rain Repel	245
		MC Spoke & Wheel Brush	246
		MC Super Sucker Towel	247
		MC Ultimate Detailer	243
		MC Ultimate Detailing Bucket	247
		MC Ultimate Helmet Pack	245
		MC Ultimate Shine	244
		MC Ultimate Wash (Concentrate)	243
		MC Ultimate Wash (Premix)	243
		MC-2ST Full Synthetic	237
		MC-2ST Semi Synthetic	237
		MC-4ST 10W-30	232
		MC-4ST 10W-40	232
		MC-4ST 10W-50	232
		MC-4ST 10W-60	233
		MC-4ST 15W-50	233
		MC-4ST Full Synthetic 10W-40	234
		MC-4ST Premium Mineral 15W-50	236
		MC-4ST Premium Mineral 20W-50	236
		MC-4ST Premium Mineral HD 50	236
		MC-4ST Semi Synthetic 10W-30	234
		MC-4ST Semi Synthetic 10W-40	234
		MC-4ST Semi Synthetic 10W-50	235
		MC-4ST Semi Synthetic 15W-50	235
		MC-4ST V-Twin 20W-50	233
		Mid Range 46 (Zinc Free)	188
		Mid Range 68 (Zinc Free)	188
		Mild EP Gear Oil	270
		Molygrease EP 3%	209
		Multi-Purpose Wash	297
O			
		Octane Booster	139
		Oil Analysis Kit	225
		Orange Pumice	283
P			
		P26 Brake & Parts Cleaner	150
		P26 Diesel Foaming Intake Cleaner	149
		P26 DPF Cleaner Aerosol	150
		P26 Mass Air Flow Sensor Cleaner	151
		P26 Multi-Purpose Degreaser	151
		P26 Multi-Purpose MoS2 Lubricant	149
		P26 Petrol Foaming Intake Cleaner	149
		P26 Throttle Body & Carb Cleaner	150
		Parts Washing Fluid	291
		PAS Fluid (Power Assisted Steering)	127
		PenBlue (AdBlue®)	141
		Petrol Injector Cleaner	138
		Petrol Total System Cleaner	138
		PG UXL Coolant (Premix)	120
		Pin & Bush Grease	213
		Pink 12YR OEM Coolant (Premix)	115
		PMO 10	84
		PMO 15	84
		PMO 20	84
		Pneumatic Tool Oil	259

Power Sports Coolant (Premix)	119	SU Dashpot Oil	273
Power Sports Grease	212	Super DOT 4 Brake Fluid	132
Power Steering Fluid	126	Super HV 46	189
Pro 5	56	Super HV 68	189
Pro 10	58	Super HV 100	189
Pro 15 Plus	59		
Pro 20	59	T	
Pro Diesel	58	The Foamer	227
Pro EU 5W-30	57	Trans Gear 75W-80	104
Pro EU 5W-40	57	Trans Gear 75W-90	104
Pro Extra	58	Transoil SAE 90	271
Pro Gear 70W-75	102	Transoil SAE 140	271
Pro Gear 75W-85	102	Transoil SAE 250	271
Pro Gear 75W-90	102	Tuff Cleaner/Degreaser (Concentrate)	290
Pro Gear 80W-140	103	Tuff Cleaner/Degreaser (Ready to Use)	290
Pro Gear GL-4	103	Tyre Shine	297
Pro Gear GL-5	103		
Pro Hydraulic 22	187	U	
Pro Hydraulic 32	187	Ultimate Fuel Stabiliser	138
Pro Hydraulic 46	187	Ultra HV 46 (Zinc Free)	190
Pro Hydraulic 68	188	Ultra HV 68 (Zinc Free)	190
Pro Lite	56	Ultra HV 100 (Zinc Free)	190
Pro Series EGR & CAT Clean+	139	Universal Top Up Coolant (Premix)	119
Pro Ultra	57		
Pro Zero	56	V	
Pumps & Taps	299	Valve Shield	139
Purple 12YR OEM Coolant (Concentrate)	115		
Purple 12YR OEM Coolant (Premix)	115	W	
		W66 Multi-Surface & Glass Cleaner	291
Q		Walnut Hand Scrub (Tuffnut)	284
Quick Gloves	226	White Grease	213
Quick Rag	298		
R			
Race Chain Pack	241		
Racing Brake Fluid 600	133		
Racing Zinc Top Treat	143		
Radiator Corrosion Inhibitor	121		
Radiator Flush	144		
Radiator Oil Remover	144		
Radiator Stop Leak	144		
Red 12YR OEM Coolant (Concentrate)	116		
Red 12YR OEM Coolant (Premix)	116		
Revive Skin Conditioner	284		
Road Chain Pack	241		
Rockslide ISO 68	200		
Rockslide ISO 150	200		
Rockslide ISO 320	200		
Rubber Grease	211		
S			
Scrubber	282		
Scrubber Lite	282		
Seat Covers	220		
Semi Fluid & Steering Box Grease	210		
Service Stickers	221		
Shelsley Light	269		
Shelsley Medium	269		
Shift Eze	143		
Shocker Oil No.1	272		
Shocker Oil No.2	272		
Silicone Brake Fluid	133		
Small Engine 4 Stroke 10W-30	257		
Small Engine 4 Stroke SAE 30	257		
Soluble Oil	201		
Solvent Degreaser	291		
Solvit Citrus Clean	290		
Stops Oil Burning 30-70	85		
SU Damper Oil	272		

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