LUBRI NEWS

THE OFFICIAL MORRIS LUBRICANTS NEWSLETTER

MORRIS LUBRICANTS

WINTER 2024/25

OIL & LUBRICANT DEVELOPMENT: A LOOK BEHIND THE SCENES

To fully protect commercial vehicles, it is essential to use oils and lubricants that comply with the manufacturer's specifications. Having oils and lubricants available to carry out a multitude of tasks under a myriad of different workloads is the accumulation of years and years behind the scenes development.
A well balanced and validated oil and lubricant formulation doesn't just happen, there is a process and a very precise one.

UNDERSTANDING THE REQUIREMENTS

New oils and lubricants are developed and formulated when a demand arises, usually from the requirements of the OEM (Original Equipment Manufacturer). This may be catalysed by a new engine or transmission design for example, or if a different workload is being introduced, maybe even a different type of fuel. The OEM's work with the leading Technology Providers in the lubricants industry, who develop or even create innovative chemistry.

These Technology Providers in turn work with approved Base Oil Manufacturers. Base oils can be derived from mineral sources (crude oil), synthetic sources (chemical synthesis), or renewable sources (biodegradable oils). Each type of base oil has its own set of properties that affect the performance of the lubricant. The choice of base oil depends on the specific requirements of the application. The Technology Providers and the approved Base Oil Manufacturers deliver a powerful combination of expertise to develop the precise formulation.

The base oil provides a protective film across a wide temperature range, ensures proper heat control, contributes to fuel efficiency and more importantly carries the additive chemistry to all the system components. These chemical compounds are added to the base oil to enhance and refine its performance. Common additives include anti-wear agents, friction modifiers, antioxidants, corrosion inhibitors, detergents and dispersants. Each additive serves a specific purpose, such as reducing wear, preventing oxidation, or keeping the engine clean - it's a long list. Fine tuning the combination of approved base oils and additive chemistry is a lengthy and costly process. The different formulations must also carefully balance the approved base oil and the specific additive chemistry to ensure they work synergistically without causing adverse effects.

TESTING & OPTIMISATION

This combination of approved base oils and additive chemistry is a dynamic process working with the OEM. Feedback is provided to the OEM, who in turn make critical judgements on the formulations being made. A testing regime is initiated that consists of laboratory bench tests, static rig tests and field trials.

LABORATORY BENCH TESTS

The Laboratory bench tests measure properties such as viscosity, volatility, cold flow, pour point, flash point, and thermal stability. The results help identify any weaknesses in the oil and lubricant formulations and make necessary adjustments.

STATIC RIG TESTS

During the static rig tests the oil and lubricant formulations are subject to a series of severe workloads. In essence the engineering department are trying to break the engine or transmission and the chemists are devising oil and lubricant formulation strategies to stop this from happening. In the case of engine oil testing, the engine is coupled to a computerised system which can add varying loads, adjust speeds, sometimes at reduced oil levels, to simulate worst case operating scenarios. Once an oil formulation measures up to these tasks, real world testing is the next step via field trials.

FIELD TRIALS

The field trials phase involves using the oils and lubricants in actual commercial vehicles to assess their performance under typical operating conditions. Field testing provides valuable data on the oil's and lubricant's durability, efficiency, and overall effectiveness. Any issues identified during this phase are addressed through further formulation adjustments and testing. OEMs have their own approaches, but in the case of engine oils, this may include vehicle fleets employed in various duty cycles, long haul, stop-start etc. This can be a lengthy process that may take up to 3 years, as a certain number of road miles or operating hours must be achieved. At the end of this period the engines are stripped, inspected and scrutinised. If the findings comply with the OEMs parameters, the formulation is approved to work.

Field testing provides valuable data on the oil's and lubricant's durability, efficiency, and overall effectiveness.

REGULATORY COMPLIANCE & SUSTAINABILITY

After all the tests have been passed and having a formulation that works in its intended application is still only part of the development process. Before the formulation is released to the after-market, where it can be manufactured in commercial volumes for final end user use, its environmental credentials also have to accessed. Can the components be manufactured in a sustainable way that minimises any environmental impact? Do the oils and lubricants, once blended, have any hazards that may affect how it's handled by the end user? Is any specific labelling required or handling instructions that need to be communicated? Once all these boxes are ticked, the end user can begin to enjoy this new formulation.

SUMMARY

The development and formulation of oils and lubricants is a precise and multi-faceted process that requires a deep understanding of chemistry, engineering, industry and environmental requirements. From initial formulation to final production, each step is crucial in creating oils and lubricants that deliver optimal performance and reliability. As technology advances and new challenges arise, the development of oils and lubricants continue to evolve, driving innovation and efficiency. Only by using approved base oils, quality additive chemistry and following the correct validated formulations agreed by the OEMs can you be confident that the final oils and lubricants produced are going to perform as they should.

To help ensure the production of high quality products, Morris Lubricants' Quality Control Laboratory perform tests on samples that are taken throughout the manufacturing process.

Celebrating Platinum EcoVadis Award Success

Over several years, Morris Lubricants has been developing an action plan in a continued effort to become more sustainable and cement the company's commitment to minimising its impact on the environment.

By taking a group-wide approach and focusing on the various criteria set by EcoVadis, Paterson Enterprises, Morris Lubricants' parent company is proud to announce that it has now achieved the Platinum award rating for 2024 for operations around the Morris Lubricants' site in Shrewsbury. This puts the company in the elite top one per cent of businesses that are evaluated from the industry worldwide.

After achieving this highest accolade, the company has already begun working hard to retain this platinum award in 2025.

The Platinum Ecovadis puts the company in the top one per cent of companies globally

Morris Lubricants and its parent company Paterson Enterprises Ltd, have been awarded the platinum EcoVadis medal for sustainable performance, placing the business in the top one per cent of companies globally. Due to the nature of the company structure, the award is listed under Paterson Enterprises Ltd (Shrewsbury Site). The award is in recognition of activities and initiatives that have taken place throughout 2024.

EcoVadis assesses over 130,000 companies globally on an annual basis and this award recognises companies for their sustainable practices and their relationships with trading partners. Only 35 per cent of companies assessed by EcoVadis, achieve an award, with platinum ranking as the highest accolade possible. Assessment criteria covers four sustainability pillars: the environment, ethics, labour and human rights and sustainable procurement.

The detailed sustainability action plan is a long term commitment. The EcoVadis journey started with the bronze award in 2022, the silver in 2023 and in 2024 saw the huge leap to achieve the platinum award.

Andrew Goddard, Executive Chairman

Caroline Walton, Regulatory Affairs Manager

Andrew Goddard, Morris Lubricants' Executive Chairman, said:

"The lubricants industry must be seen as part of the solution and not part of the problem as the world evolves to a greener, more sustainable future."

"We therefore have a strong emphasis throughout the company on continuous improvement, so that Morris Lubricants progresses with its achievements year on year. This platinum award is testament to the hard work and commitment of the whole team and our wider supply chain partners. I couldn't be prouder!"

THE ROAD TO SUSTAINABILITY

Morris Lubricants employs principles of innovation and evolution throughout its supply, manufacturing and distribution base to ensure it minimises its environmental impact.

There are several actions the company is performing to reduce these emissions. A field trial to evaluate switching to hydrotreated vegetable oil (HVO) in the company's fleet as a fuel alternative was performed. After successful completion of the trial, the company is now implementing HVO into its operations strategy which will see a reduction in fleet emissions.

Morris Lubricants has also been making significant strides in using renewable energy at its Shrewsbury manufacturing facility. 31 per cent of the electricity used is generated on site from solar panels, and the remainder, the company purchases zero carbon energy from its electricity supplier. Heat, and the associated energy required in the production and blending processes has been another area of focus for the business. Thanks to recent investment in ultrasonic blending technology, which reduces the need for heat during blending, and the replacement of the condensate pump in the boiler house, the percentage of water used by the boilers has dropped from 40 per cent of the total volume in 2021-22 to just nine per cent.

Recycling has also been taken into consideration when considering the company's product packaging. Morris Lubricants is one of the few lubricants manufacturers that continues to produce a large quantity of its products in metal containers, which can be recycled. The company's striking yellow and blue 20 litre and 25 litre steel drums as well as 5 litre containers are made from tin and the 205 litre steel barrels make sure that Morris Lubricants' products are instantly recognisable to customers as a sign of quality.

Where metal is not being used the company has also added a range of packaging that includes 35 per cent recycled plastic.

The business also scored highly for its social sustainability commitments related to labour and human rights and ethics, with highlights including its skills development plans, including apprenticeship schemes, graduate programmes and accredited CPD (Continuing Professional Development) initiatives.

Andrew Goddard concluded:

" We work in an industry that does not stand still. It constantly faces new and significant challenges to its products, customers and markets, but we remain committed to improving our sustainability credentials in this changing marketplace."

Caroline Walton, Regulatory Affairs Manager has completed a full sustainability report for Paterson Enterprises Ltd including Morris Lubricants.
To download a copy please visit the Paterson Enterprises website: **patersonenterprises.co.uk**

Information, Advice, Education & Support: Inside the Morris Lubricants' Technical Services Department

Providing information, advice, education and support for buyers and users of oils, greases, lubricants and other maintenance products has been part of the Morris Lubricants' service offering for many, many years. It has always been the underlying philosophy at Morris Lubricants that selling a quality product should be backed up with technical support when required.

To compliment the sales and commercial functions, a dedicated team in the form of the Technical Services Department was set up back in the early 1980s to provide buyers and users with a point of contact, should help and advice be needed. Today, the Morris Lubricants' Technical Services Department is headed up by Adrian Hill, Technology Manager, who has accumulated over 40 years of oil and lubricant industry experience. Adrian leads a team of advisors who have chemistry backgrounds, hands on mechanical experience and various lubricant industry qualifications. It is with this combination of skills and deep practical knowledge that helps the team to provide and deliver accurate guidance and assistance.

The oil and lubricant industry does not stand still and is ever changing. The OEMs (Original Equipment Manufacturers) are continually developing new engine designs, harnessing alternative power hardware systems and increasing performance requirements to cope with environmental and legislative impacts. The Technical Services Department, not only caters for past and existing equipment and specifications, but also closely follow trends and emerging technologies to ensure that the product portfolio offered is current and can match customer requirements. This vigilance and support not only covers the UK, but also extends across all of Morris Lubricants' export markets around the globe.

Contact with the Morris Lubricants' Technical Services Department is not all office based. Rapid correspondence via telephone calls, e-mails, social media DMs (direct messages) and website contact forms, are actioned by all the team, including Ian Haslum, Technical Advisor. The team also make visits to customer's premises to assess their vehicles, equipment and machinery to check what oil and lubricant solutions are required. These visits are often managed by Morris Lubricants' Technical Support Engineer, Ryan Woolley, who can provide hands on help where face-to-face is a preferred form of contact. Advice can also be sought from the company's online oil and lubricant lookup tool Whatoil, which

Adrian gives a lecture to local students

can be found on the Morris Lubricants' website and can therefore be accessed 24 hours a day 7 days a week. The correct product can be found on this look up tool by entering a car or truck registration number, or you can select from a wide variety of different vehicles, equipment and machinery by using a series of simple dropdown menus. Once the vehicle or piece of equipment is selected, various oils, coolants and maintenance fluids are presented.

With the vast array of scientific and practical experience on hand, the Technical Services Department also use a variety of databases and other collected material to provide advice across many generations of vehicles and equipment from the early 1900s to the present day.

Apart from helping with immediate needs, especially if a vehicle is sat on a ramp in a workshop, more extensive and detailed reporting can be employed, especially if equipment lists and multiple vehicle fleet surveys are required. The Technical Services Department can provide advice on how to rationalise product stock holdings whilst maintaining conformity to OEM specifications and best practices.

The Technical Services Department also offers used oil analysis from an independent specialist laboratory. This is an important role, especially where customers are seeking advice on equipment in service, to diagnose system conditions. With enough data it is also possible to use these tests and analysis as a preventative measure to reduce downtime or predict failure, enabling corrective action to be implemented, saving money and lost productivity. Site visits can also be arranged, especially in industrial environments, to provide training on fluid management and risk control.

The support does not stop at providing technical advice. Another important service offered by the Technical Department is product training and education. Providing product training on theory and product application to buyers and end users is a vital support role. A deeper understanding allows customers and end users to make more confident and informed decisions on what products to select and use.

Face-to-face is the preferred method of training, although for more remote customers, including those overseas, webinars are of course available. The Morris Lubricants' Training Academy is run to provide product knowledge and training across all market sectors. The content is designed to provide different levels of detail, from the fundamentals of lubricant theory to deep dives into individual product lines. This of course isn't set in stone and presentations can be fine-tuned to customer's needs. There are also many different educational and informative videos on the Morris Lubricants' YouTube channel. These often include the company's brand ambassadors, such as Guy Martin and truck racer Dave Jenkins, who ask Adrian some real tricky questions.

The company also partakes and facilitates educational sessions with students from schools, colleges, universities and apprenticeship programmes. The focus is on educating the next generation of users, engineers and employees in the lubricant industry. These educational sessions cover a wide selection of topics ranging from an appreciation of the industry and potential career paths, through to product awareness and specific product training.

As the company has now been trading for over 150 years, Morris Lubricants continues to evolve to meet the challenges and developments of today and the future. Members of the Technical Services Department are often asked to give talks at different industry events and conferences throughout the world. This is to showcase best practice and engage in thought leadership sessions on important industry topics. The company's ability to push forward, maintaining its presence in existing, established markets and to seek new opportunities isn't down to individuals, but the collective and collaborative efforts of all its employees.

As highlighted by Adrian Hill, Technology Manager,

"Whatever the future brings, Morris Lubricants will be well placed to supply whatever is needed. We are committed to providing the high-quality products, all backed up with the information, advice, support, training and education so that buyers and users are making the correct informed choice and not relying on guess work. At Morris Lubricants we are here to help"

WORKSHOPCHAT

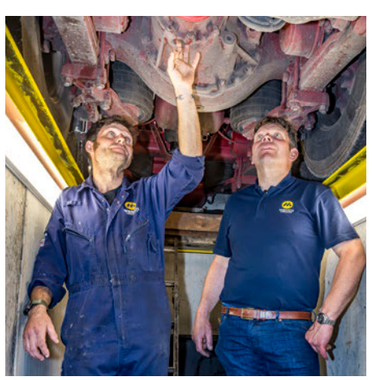
With Guy & Dave

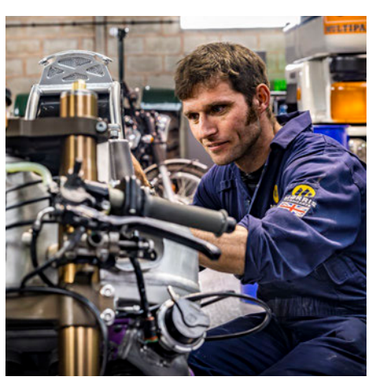
Brand ambassadors Guy Martin and Dave Jenkins chat with Adrian Hill, Morris Lubricants' Technology Manager

A brand new video series is out now called Workshop Chat, featuring brand ambassadors Guy Martin and Dave Jenkins.

Guy Martin is no stranger to a mechanic's workshop, whether he is working on trucks, tractors or his 300mph mile bike. He knows the importance of using the correct oils, greases and lubricants to make sure they are all running at their best.

In this new series Morris Lubricants' Technology Manager, Adrian Hill catches up with Guy and Truck Racer Dave to discuss the changes and developments they have seen for oils and lubricants in their garages at work, at the race track and at home. They consider the importance of selecting the correct oils for these very different environments and the crucial differences in these products that ensure their vehicles maintain optimum performance.





Each episode sees Guy, Dave & Adrian review the different uses of oils, greases and lubricants in the workshops they operate. Episode one looks at their place of work maintaining and repairing commercial vehicles. Episode two heads to the track to look at Dave's race truck. Episode three sees Guy explain to Adrian and Dave the latest updates on his 300mph mile bike challenge. Episode four takes a technical review of Guy's 300mph bike that puts Morris Lubricants products to the ultimate test. Episode five reviews Guy & Dave's use of Morris Lubricants products in their workshops at home. Then to finish the series, a quick-fire round of questions that looks at Guy & Dave's favourite event, dream vehicle, their go-to product and why they trust Morris Lubricants with all their vehicles.

Watch Now!

To watch this new video series, featuring brand ambassadors Guy Martin and Dave Jenkins, simply visit the Morris Lubricants website: morrislubricants.co.uk, Facebook, Instagram, LinkedIn, X or YouTube channel.

NEW Video Series!

Want to learn more?

You can watch this series and other videos on morrislubricants.co.uk or by looking for the videos on the Morris Lubricants social media and YouTube channels.

WORKSHOP PRO

WORKSHOP PRO PREMIUM HAND CLEANSER

Are you finding it difficult to get your hands really clean after working hard?

Workshop Pro Premium Hand Cleanser is a professional hand scrub made from natural ingredients to help remove dirt, grease, oil, tar, bitumen and paint.

Workshop Pro Premium Hand Cleanser is pH neutral to the skin, is free from silicone, free from any solvents and free from plastic micro-beads. To help scrub your hands, it contains a finely ground rounded off walnut shell, that is a waste product and will not clog any drains.

Workshop Pro Premium Hand Cleanser cleans deep into the pores, providing lasting skin-protection. It also replaces the skin's natural oils as it contains high levels of natural emollients from plant extracts and maintains the skin moisture at optimum levels.

WORKSHOP PRO TRAFFIC FILM REMOVER

Is your vehicle dirty and hard to get clean?

Morris Lubricants' Workshop PRO Traffic Film Remover can make light work of the dirty work when cleaning a car, van, truck, motorbike, tractor, digger or any type of filthy vehicle.

With a mix of surface active agents, sequestrants and alkaline builders, Morris Lubricants Workshop PRO Traffic Film Remover is formulated to remove road film from vehicles. Developed in Scandinavia, it will decrease the need for mechanical agitation. The product rapidly lifts road film, dirt and grime from paintwork, metal surfaces, glass and rubber.

Morris Lubricants Workshop PRO Traffic Film Remover is simple to use, effective in hard and soft water areas and is biodegradable.

To find out more about the Workshop Pro range, visit the Morris Lubricants website morrislubricants.co.uk

LAMMA 2025, NEC Birmingham

Morris Lubricants were delighted to showcase Agrimax, a range of agricutural products at LAMMA.

The Agrimax range of oils and lubricants is specifically developed for the farming and agricultural sectors. Applications include engines, gearboxes, hydraulics, cooling systems, oil immersed brakes and general maintenance in a wide range of agricultural equipment, such as tractors, combine harvesters, mini diggers, all terrain vehicles and a variety of other agricultural machinery.

The sales team were on hand to speak to new customers

Visit morrislubricants.co.uk to view the Agricultural range

HELP PREVENT RUST WHEN SALT HITS THE ROAD

Did you know that Morris Lubricants has a product perfect to keep rust at bay?

Ankor Wax is a special solvent deposited, long term corrosion preventative, having low viscosity and surface tension, thereby enabling it to spread rapidly, penetrating into all inaccessible areas and covering all surfaces however irregular. It dries to leave a continuous firm wax protective coating that imparts excellent corrosion protection properties. Ankor Wax has de-watering properties and therefore can be used where the metal parts to be treated are wet. All traces of water are displaced before the protective film is applied. Ankor Wax is effective in damp and humid climates and gives excellent protection against salt spray.

This product is ideal to apply to the underneath of vehicles or in wheel arches that do not have plastic guards. The product is regularly used in the agricultural sector to protect tools, cutting blades and other agricultural parts free from rust during the winter months. Just apply it using a brush or pump spray and let Ankor Wax do its magic!

Further details can be found on morrislubricants.co.uk

An Eventful Year For Dave Jenkins

It has been a tightly fought season in the British Truck Racing Championship for Morris Lubricants' ambassador Dave Jenkins. With another competitive year completed, Dave finished the season in 2nd place overall.

There were many highlights over the season with Dave topping the podium on multiple occasions. One to remember was a nail-biting race at Donington with Dave bringing back a first-place podium at his local circuit. This was extra special as he was celebrating 40 years in British Truck Racing, with Dad, Tony Jenkins present to celebrate the success, safe to say Dave brought a tear to his Dad's eye.

Dave's truck has had Morris Lubricants' quality oils, lubricants and greases flowing through it for over 10 years and his performances show why using the correct quality oils and lubricants in their vehicles is essential.

Another exciting moment in Dave's year was filming a series of videos with Morris Lubricants ambassador Guy Martin. 'Workshop Chat' saw Dave & Guy catch up with Morris Lubricants' Technology Manager, Adrian Hill to discuss the changes and developments they have seen for oils and lubricants in their garages at work, at the race track and at home.

One of the videos took an in-depth review of Dave's race truck and why using the correct quality oils, lubricants and grease from Morris Lubricants helps his truck to reach optimal performance and not let him down when he needs it most out racing on the track.

You can watch the videos by heading to the Morris Lubricants' website.

MGA TO THE ARCTIC:
THE TECHNICAL CHALLENGE

Charlotte Vowden (right) and her Father Steve (left) arrive at the Arctic Circle

Charlotte Vowden, writer, presenter, automotive adventurer, and award-winning journalist and her father, mechanic, Steve successfully drove her 1960s MGA from the UK to the Arctic Circle and back whilst using Morris Lubricants products throughout the journey.

With approximately 2,000 miles travelled in her 64-year-old MGA before reaching the Arctic Circle, and a further 800 miles to reach Nordkapp in Norway, the northernmost point in Europe that can be accessed by car, this approximate 6,000-mile round-trip from the UK was not to be a relaxing endeavour. By clocking up to 500 miles per day, similar to that of a HGV driver, she completed this epic journey in 20 days. The MGA had to operate to its maximum potential and there was no time to dwell.

Morris Lubricants' products used throughout the journey

The overall preparation, plus a total mental focus and of course, confidence in the car, were essential on an expedition of this nature. It was the furthest Charlotte's late grandfather's sixties roadster had ever ventured from home. Travelling at a maximum speed of 60mph, the route took in mountains and moorland, forests, hill climbs and tunnels beneath the sea. What a journey and a limit-pushing trip of woman, man and machine.

To keep the MGA running as safely and efficiently as possible, Morris Lubricants' Technology Manager, Adrian Hill, advised on which oils, greases and lubricants should be used and why. The trip required a careful eye on the car and to administer any required first aid, and top up levels during maintenance checks that were performed at least twice every day, Charlotte carried a variety of functional fluids on board. It was a tight squeeze to allocate a significant amount of the soft-tops limited storage space to Morris Lubricants' products but you can say that this was a testament to their vital role in the expedition to the Arctic.

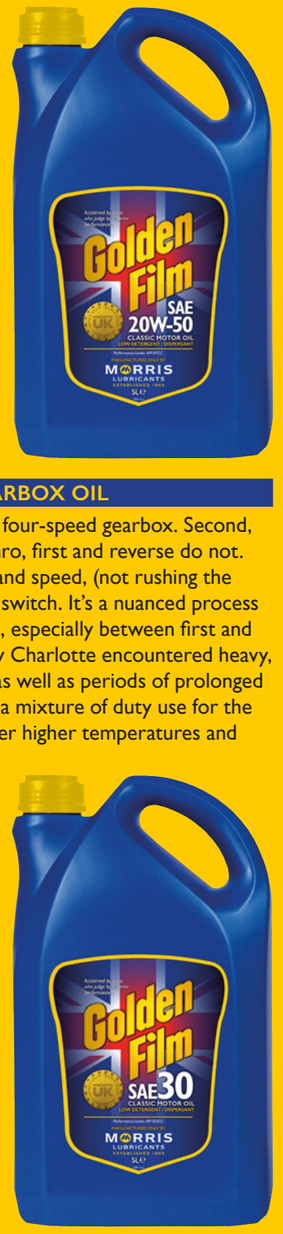
"Providing this technical support gave Charlotte and Steve one less thing to worry about," says Adrian. ***"This is a serious off-the-beaten track journey and when you add the sentimental value of the car into the mix, there's a lot of responsibility on our shoulders at Morris Lubricants but we've earned their trust and loyalty because of the consistent quality of our products. We're proud to be helping them prove how far you can push our oils and lubricants that are formulated and produced to the highest standards."***

Here's what Morris Lubricants' products were used:

GOLDEN FILM SAE 20W-50 ENGINE OIL

The challenge: The MGA's 79bhp 1600cc engine ran for a minimum of eight hours per day and the conditions were far from genteel. Original in its mechanics, the four-stroke 1960 machine had to accomplish long, arduous inclines, as well as cope in variable weather conditions. In lower mainland Europe, temperatures reached over 37°C, but the further north Charlotte travelled, the climate cooled down.

Adrian says: *"To cater for classic, vintage and veteran vehicles, the Golden Film products honour the oil formulations that would have been on the shelf in the past but the benefit of using Morris Lubricants' products is the refinement of the raw materials, such as the base oils that we use. These product formulations are tailored to a level which is suitable for the classic, vintage and veteran market and offer enhanced stability, robustness, quality and performance than those that would have been available back in the day. Modern materials are tailored to suit older requirements. Classic vehicles such as the MGA were designed to be used every day, and although they may not have been pushed in the way that Charlotte pushed hers, outstanding engine cleanliness, wear, rust and corrosion protection form the bedrock that capable oil formulations are built on."*



DOT 4 BRAKE FLUID

The challenge: In Sweden, there were big hazards ahead as moose roam on the roads. In Norway, the moving hazards continued again, but this time it was reindeer. For their sake, and the drivers', the MGA's brakes needed to be as effective as possible. Towards North Cape, Charlotte and her father drove through one of the longest and northernmost subsea tunnels. Reaching a depth of 212 metres at a gradient of 9%, it's over four miles from start to finish. Scenarios such as this can cause the brakes to become hot, so it was a must to make sure the car performed safely.

Adrian says: *"Using fresh Dot 4 brake fluid from an unopened container is vital for good stopping performance. Brake fluid is hydroscopic, which means it absorbs water from the atmosphere, and that process reduces its boiling point. Under hard braking, perhaps in an emergency, the temperature of the fluid rapidly increases, causing water to boil away as steam and create a vapour lock. Steam is compressible so braking effectiveness and precision will be severely impaired. Using fresh brake fluid prevents this from happening and also ensures good braking performance even when everything is cold."*

Morris Lubricants' quality Dot 4 brake fluid exceeds vehicle manufacturers' standards and has been formulated with special additives that prevent fluid oxidation, rust and the swelling of the piston seals. This meant trouble free braking for Charlotte and Steve throughout the challenge.

GOLDEN FILM SAE 30 GEARBOX OIL

The challenge: The MGA has a four-speed gearbox. Second, third and fourth gear have synchro, first and reverse do not. Timing, (getting the right revs,) and speed, (not rushing the transition,) are key to a smooth switch. It's a nuanced process that requires practice and effort, especially between first and second. Throughout this journey Charlotte encountered heavy, stop-start traffic around cities, as well as periods of prolonged undulating territory. Therefore, a mixture of duty use for the vehicle will put the gearbox under higher temperatures and levels of wear.

Adrian says: *"A lot of early gearboxes ran on monograde engine oil formulations such as Golden Film SAE 30. A 1960s gearbox is much less complex in design than a modern transmission and generally has nowhere near the same level of power being pushed through it. These early boxes rely on good anti-wear performance to look after synchro components and gear sets, as well as good high-temperature performance for the bearings during prolonged operation."*

WORKSHOP PRO MD4 MAINTENANCE SPRAY

The challenge: A can of MD4 is a go-to solution for many problems, as well as preventing them. Charlotte and Steve have used it extensively during expedition preparation. It was useful to carry a can of MD4 for when they had to carry out any roadside repairs or remove any corroded or stubborn components.

Adrian says: *"MD4 is a true Swiss Army knife when it comes to maintenance aerosols. As well as providing an effective oil film for lubrication, it penetrates where there may be difficult to budge nuts, bolts and fittings, it displaces water, is ideal for damp distributor caps and also protects components from rusting."*

The benefit of using Morris Lubricants products is the refinement of the raw materials, such as the base oils...

WORKSHOP PRO SCREEN WASH

The challenge: It was important to have a clean windscreen throughout the journey. A dirty windscreen is dangerous, it creates blind spots, and on a trip like this, everything must be done to reduce risk to the drivers, the car and other road users. Dust, mud, dead insects and much more coated the MGA's narrow window whilst on the road so the team needed to make sure they could see through it. The effectiveness of the screen wash was vital, if it smeared this could create a hazy, glaring effect when sunlight or headlights hit.

Adrian says: *"Workshop Pro Screen wash not only has good wetting properties to help clean dirt and debris from the windscreen, but mixed 50:50 with water will give outstanding freezing protection. In other words, even when the outside temperature gets below zero degrees, you can still keep safe."*

Morris Lubricants Workshop Pro Quality Screen Wash helped to clear the dirt and provide a smear-free view of the road ahead throughout the journey.

MEG ANTIFREEZE COOLANT

The challenge: Because Charlotte was covering a journey with varying ambient temperatures it was important to make sure the engine temperature was managed correctly. There was a need to protect the MGA's engine and maintain its optimum running temperature in extreme climatic conditions. Throughout the journey, the engine got hot and cold.

Adrian says: *"A well formulated antifreeze coolant is essential to optimising engine performance and protects it from damage, whether hot or cold. A mixture of 50:50 antifreeze coolant and distilled water will prevent the engine from overheating, especially when doing some decent road miles and ensure that damaging ice crystals do not form when the temperature drops below 0°C. This mixture will also combat any rust or corrosion issues. If the integrity of the cooling system is good, minimal top up should be required. Antifreeze coolant choice is important and should be based on the specifications set by the car manufacturer. You should not pick and use an antifreeze coolant based on colour. Morris Lubricants has a wide range of antifreeze coolants covering over 171 different specifications."*

Other products Adrian recommended for the journey:

K323 PREMIUM BLUE GREASE

A good all-rounder, this grease will cope with prolonged operation, even under high loads and high temperatures. It has good water washout resistance and demonstrates good adhesive properties. Ideal for use on wheel bearings.

GOLDEN FILM 80W-90 DIFFERENTIAL OIL

A robust old school extreme pressure gear oil, that will protect meshing gear sets and bearings from wear whether the vehicle is accelerating under load or cruising for extended periods. This was used in the MGA's rear differential and provided trouble free operation throughout the epic journey.

WORKSHOP PRO PREMIUM HAND CLEANSER

An effective hand cleaner that is gentle on the skin. This product uses natural abrasives that will remove ingrained dirt, grease and oil leaving hands clean and moisturised. When you find it difficult to get your hands really clean after working hard, then Workshop Pro Premium Hand Cleanser is ideal.

WORKSHOP PRO WHITE SPRAY GREASE

An easy-to-apply grease in aerosol form, White Spray Grease is ideal for small jobs such as lubricating hinges, catches and springs particularly where drips are not desirable. Offers long lasting protection against corrosion.

With Charlotte and Steve taking on this epic challenge, whilst using Morris Lubricants' products, demonstrates the strength and the technical capabilities of the product range

To WATCH the videos of the initial preparation and maintenance planning of the car for this epic journey, head to the Morris Lubricants website, YouTube and social media channels.

Don't forget, Morris Lubricants offer oils, greases and lubricants for a wide variety of vehicles from vintage and heritage vehicles to the latest hybrids. To view more about these products, head to morrislubricants.co.uk.

Graduate Scheme Helps Elliot To Rise To Group Purchasing Manager


Elliot Hotchkiss, Purchasing Manager

The graduate scheme at Morris Lubricants, has provided the springboard for Elliot Hotchkiss to climb through the ranks and recently become Purchasing Manager.

He is now responsible for all direct and indirect spend within Morris Lubricants.

With a focus on Morris Lubricants' sustainability action plan, he is constantly looking for savings to make the company more efficient and sustainable without impacting on product quality.

A physics graduate from Cardiff University, Elliot first encountered Morris Lubricants and its products where they were used throughout his father's car servicing and repair business, ACH Autos in Telford and also when Elliot used the products racing competitively as a teenager in the junior British Autograss Series.

"We always used Morris Lubricants' products when maintaining the racing cars," he recalls. "Everyone swore by the products and the company was very well respected. When the opportunity came up to work as a graduate in their Purchasing Department, I applied and was delighted to get the post against strong competition."

After working in a variety of departments in the company, Elliot settled into his role in the Purchasing Department where he began to build his knowledge in procurement. In his first year at Morris Lubricants, Elliot studied for and quickly achieved the industry-recognised UKLA (United Kingdom Lubricants Association) Certificate of Lubricant Competence.

Having demonstrated a considerable amount of study and hard work he was promoted to buyer, responsible for raw materials and indirect spend and then senior buyer after completing his level 4 and 5 CIPS diplomas. He extended his studies further and qualified as a member of the Chartered Institute of Procurement Supply Chain Management (CIPS) achieving the level 6 qualification.

With the oil and lubricant industry constantly developing, there are many things that Elliot has to consider *"I have a challenging job but it's an exciting time to be part of a company which is looking for continuous growth. To put it in simple terms, my job is to ensure that raw materials and consumables arrive at the right time, in the correct quantity, and at the right price. This makes sure production and operations can run smoothly and our products can remain competitive"* **he explains.**

"But the role goes much further than that. The industry is becoming much more focused on sustainability and corporate social responsibility. This applies to the manufacturing of existing products and also the introduction of new products for the next generation of vehicle power technologies. I work closely with major global suppliers to make sure we are sourcing high-quality raw materials, base oils and additives. All to make sure that Morris Lubricants' customers are receiving the correct quality products that meet the tough demands and specifications of Original Equipment Manufacturers (OEMs)."

"Working with recognised global suppliers on long-term agreements, gives Morris Lubricants and its customers supply security and consistent market-leading quality".

"With sustainability high on the Morris Lubricants agenda, we have been working hard to make sure that our raw materials are as sustainable as possible, thereby reducing our carbon footprint. We have also been making big strides in our sustainable packaging with a large percentage of the company's products filled in metal containers which can be recycled. For the remainder, there has been a recent introduction of containers that include 35% recycled plastics. These initiatives can help make a big difference in reducing the company's impact on the environment".

As highlighted by Morris Lubricants' Executive Chairman Andrew Goddard,

"I would like to congratulate Elliot in his recent promotion. We are entering a challenging and exciting time with the lubricants industry with a huge focus on us all being more sustainable. Our success and continued growth rely on the commitment and skills of the many people we employ. Elliot's recent promotion is not only well deserved, but also a testament to our commitment to nurturing talent, focusing on being more sustainable and helping grow our business for years to come."

Lars Amble, Sales and Category Manager at PERMAKEM AS

MORRIS LUBRICANTS, A BRITISH BRAND WITH A GLOBAL REACH

During her epic expedition to the Arctic Circle using Morris Lubricants' products in her car, Charlotte Vowden visited Morris Lubricants' distributor PERMAKEM AS.

Based in Oslo, Norway's capital, PERMAKEM AS gave an in-depth insight on how working with British-based Morris Lubricants gives them a leading edge in the Norwegian oil and lubricant market. As one of the country's most prominent companies in the import and distribution of raw materials and chemicals for industry, PERMAKEM AS serves sectors including gas, construction, aquaculture and transport.

As soon as Charlotte arrived on site, she was given a warm welcome by Lars Amble, Sales and Category Manager at PERMAKEM AS, who is responsible for purchasing and maintaining the supply of high-quality oils and lubricants to PERMAKEM AS' customers. Here's what Lars told her over a much-needed cup of coffee:

"Morris Lubricants are a recognised name in many sectors, and they take their responsibility in all of them very seriously, just as we do. The fact you [Charlotte] are using their oils and lubricants in your car throughout the journey from the UK to the Arctic Circle and back shows how good Morris Lubricants' products are. The Morris Lubricants' product range is highly regarded by the people who use these products every day. As a representative of Morris Lubricants in Norway, my goal is to make sure that all PERMAKEM AS' customers know about their products and to grow the Morris Lubricants brand throughout all our Nordic markets.

PERMAKEM AS was established in 1992 and is a family-owned company. We have been working with Morris Lubricants since early 2000. Being a family-owned business, our reputation is built on ensuring that everything we deliver meets the highest standards, reflecting our company's name and legacy. Integrity and honesty are at the heart of our operations and we take immense pride in the quality of our products and services. We believe in doing business the right way, even when it's not the easiest path. It is this commitment to ethics that builds trust with our customers and our partners. The core values that we uphold set us apart.

Morris Lubricants is an ideal supplier for us because they meet our high standards for quality, reliability, technical excellence, and adaptability. Their dedication to delivering superior products and ability to innovate and respond to changes make them a valuable partner. Their oils and lubricants consistently meet and often exceed industry standards, ensuring optimal performance in a wide range of applications.

Our customers who use lubricants range from construction and transport companies to municipalities, car part distributors and service garages. They all demand oils and lubricants that provide superior protection against wear and tear, ensure smooth operation, reduce friction, and enhance the longevity of engines, vehicles, machinery and equipment, as well as other mechanical components. Product reliability is paramount and this minimises downtime and maintenance costs and helps to ensure our customer's equipment, machinery and vehicles operate smoothly and efficiently. We even supply oils for steamboats as one of our customers has the world's oldest preserved paddle steamer in timetabled service!

Morris Lubricants' rigorous quality control processes and advanced formulation techniques help to guarantee that they supply us with products that deliver exceptional results every time. Their oils and lubricants are engineered to perform consistently under varying conditions, from extreme temperatures, through to high-pressure environments.

It is good to know that we can depend on Morris Lubricants providing us, and our customers, with the confidence to meet operational deadlines and maintain high levels of productivity.

Another one of our key customers is a distributor of oils and automotive parts for a network of auto repair shops and garages, and they depend on reliable lubricants for everything from routine oil changes to more extensive engine work. If the lubricants they use are subpar, it can lead to increased engine wear, more frequent breakdowns, and dissatisfied customers. Supplying them with Morris Lubricants' products means we do not need to worry, and our customer

Charlotte, Lars and Steve

can confidently assure their customers that they are getting a product that meets the highest standards of performance and durability.

This trust and high performance translates into a better service, fewer returns and complaints, more repeat business, and a stronger reputation in the market, which in turn, helps the distributor maintain a competitive edge and grow their business.

In today's fast-paced and ever-evolving industrial landscape, the ability to adapt to changing specifications and requirements is essential. Our customers require products that not only meet current standards but also push the boundaries of what's possible, so Morris Lubricants' commitment to innovation ensures we have access to cutting-edge solutions and the best products around. The research and development team at Morris Lubricants continually strive to improve and refine their products, incorporating the latest technological advancements. This technical excellence is evident in the performance and efficiency of their oils and lubricants.

Whether it's new regulatory standards, advancements in machinery/vehicle technology, or specific customer needs, the team at Morris Lubricants is adept at quickly adjusting their formulations and developing new products to meet these changes. This agility ensures that our customers can always rely on Morris Lubricants to provide the appropriate solutions for their evolving needs.

The off-highway sector is also an important area for PERMAKEM AS and we are relying heavily on the Morris Lubricants' product range which is backed up with their technical team's know-how and experience. We trust Morris Lubricants in recommending and accommodating the oil and lubricants needed for the heavy-duty machinery and vehicles used in tunnelling operations. With Morris Lubricants' technical team available to provide advice and support both to us and our customers, gives us the confidence that the correct products are being used and to keeps the risk of breakdowns of these machines and vehicles to a minimum.

Being a family-owned business, allows us to maintain a personal touch. We treat our customers and employees like family, fostering a supportive and collaborative environment. Without the constraints of a large corporate structure, we can quickly adapt to changes in the market and respond to the unique needs of our customers, providing bespoke solutions that larger companies might not be able to offer.

The relationship between PERMAKEM AS and Morris Lubricants is unique. Both companies share similar values and priorities, such as a long-term vision, a strong emphasis on relationships, and a deep commitment to quality and integrity, and these commonalities foster a sense of trust and mutual respect.

A more personal and hands-on approach leads to more direct and meaningful communication and this alignment in business philosophy and operational style creates a more synergistic and cooperative relationship, enhancing our ability to work together effectively and achieve common goals.

It is the combination of their top-tier products and excellent customer support that makes Morris Lubricants unique in the market. For us, it's important to know that the lines of communication are open not only for regular support, but also for advice and technical management, which are available when we need them. The special thing about Morris Lubricants having such an open, welcoming and dedicated team, is that we not only look at Morris Lubricants as our supplier but as our partner and part of our team."

CAR ENGINE OILS: An Important Role In The Emissions Jigsaw

Petrol

Diesel

Hybrid

New and improved engine technologies, advanced power systems and the latest technological advancements are all being deployed in the challenge of reduced emissions in the automotive sector. There are different pieces to the complex 'emissions' jigsaw and each must be in place, for the true overall benefits to be realised. So, whether it is a diesel, petrol or hybrid engine, the engine oil has an important part to play in this jigsaw and in the mission to reduce emissions.

Over the years, a variety of emission reduction technologies have been introduced to control the levels of NOx gases, carbon dioxide and particulate matter (harmful solid debris). This includes aftertreatment devices such as EGR (Exhaust Gas Recirculation), SCR (Selective Catalytic Reduction), DPF (Diesel Particulate Filter) and GPF (Gasoline Particulate Filter). Each has different ways to reduce any harmful emissions, but they all do require the correct oil use to perform. Using the wrong grade or poor-quality engine oil can block or poison these aftertreatment devices, reducing their effectiveness and prompting the engine management systems to put the vehicle into reduced power mode (or limp mode) until the situation has been remedied. Once blocked or poisoned these aftertreatment devices need to be replaced, which can be timely and expensive.

The introduction of EGR also brings the undesirable side effect of increased soot levels due to incomplete combustion. Soot finds its way into the sump of the engine and, if left uncontrolled, can cause several issues. Soot is abrasive and so boosted anti-wear protection in the engine oil is required. Soot can thicken the engine oil impairing its ability to flow and cool. Therefore, engine oil needs formulating with good levels of dispersancy to stop the soot particles sticking together which could also potentially block oilways and oil feeds, causing oil starvation and failure.

Engine oils must be correctly produced to ensure the additive chemistry and formulation provides suitable levels of protection against wear, corrosion and contaminants while ensuring the maximum service life from the various aftertreatment devices.

Another strategy employed to reduce emissions is to improve fuel efficiency. If less fuel is used, then emissions are also reduced. This sounds simple but the implications can be massive for the engine oil. The engine will require oils that produce thinner oil films in the bearings and along the cylinder liners. These thinner oil films result in less drag and therefore offer more useable energy that can be directed to the wheels.

In hybrid engine cars, thinner oils are also needed to provide rapid circulation from cold, as power demand can be instantaneous. Intermittent engine use can also result in fuel and water contamination that will have an impact on oil pump life if left unchecked. This is another job for the appropriately formulated engine oil.

To ensure that component integrity is not compromised, these thinner engine oils are fortified with polymer chemistry to ensure there is no metal-to-metal contact. New low viscosity engine oils, such as 0W-8, 0W-16, 5W-20 and 0W-20s, contribute to significant improvements in fuel efficiency.

Morris Lubricants' Multivis is a range of superior quality automotive engine oils that use the latest synthetic technology materials and oil formulations required in the operation of these low-emission engine designs and to cover new and existing specification requirements. The chemical profiles in the Multivis range are carefully tailored to ensure maximum aftertreatment device compatibility found with petrol, diesel & hybrid engines.

Engine oil choice should not be taken lightly, and the original equipment manufacturer's guide should always be followed. The mixing of different types of oil must always be approached with caution, as using an inferior oil will result in a sump full of inferior oil. As always, seek professional advice if there is any doubt.

If you are unsure which oil will suit your needs, call the Morris Lubricants Technical Helpline on 01743 237541, or use the company's Whatoil online lookup tool on the website at morrislubricants.co.uk

ANTIFREEZE COOLANTS – WHAT COLOUR?

Blue, red, violet, orange, green, all the colours of the rainbow, but which one of these antifreeze coolants should you choose for your engine? The quick answer is, forget the colour, think, "Which specification is correct and demanded by the vehicle's Original Equipment Manufacturer (OEM)?"

So why were dyes introduced to antifreeze coolants in the first place? Apart from some specialities, antifreeze coolants are based on Monethylene Glycol (also known as MEG), which is virtually colourless. So when mixed with water you couldn't really tell the difference, which is why dye was introduced as a visual indicator. This is the only reason we have all these different colours. They do not enhance or provide any performance benefits, which is why when choosing an antifreeze coolant, specifications should always be prioritised.

The specification or performance level requires balanced chemistry to ensure maximum system and component protection.

So now that colour has been demystified, what are the other features and benefits of an antifreeze coolant?

TEMPERATURE CONTROL

Engine antifreeze coolants are never used neat and are always diluted with water (you need to use deionised, distilled or demineralised water) before use. The optimised mixture is 50% antifreeze coolant and 50% water by volume.

In its concentrated form, an engine antifreeze coolant, as previously mentioned, consists mainly of MEG. The presence of MEG at low temperatures disrupts the formation of ice crystals. This is important as ice is less dense than water and takes up a greater volume. This is where damage can occur, and the formation of ice can crack heads, damage head gaskets or split pipes.

However, MEG on its own is not very good at carrying heat away from the hot parts of the engine and this is why we have to mix it with water. Water cools extremely effectively. But, when the engine reaches running temperature, the heat around the combustion chamber climbs rapidly and the temperature starts to exceed the boiling point of water, which is 100°C. Most engine coolant systems are sealed and operate under increased pressure, which can elevate the boiling point of water so that it boils higher than 100°C. As this temperature rises and to stop the antifreeze coolant from boiling, MEG has another job to do. MEG increases the boiling point of water and at 50% solution mix it can push it as high as 108°C.

Engine overheating becomes a potential reality, particularly in the summer months, where ambient temperatures will be seasonally higher. Factor into that heavy, slow moving traffic conditions, where air flow through the radiator is minimal and the engine is relying on an electronic fan to assist, overheating needs to be avoided at all costs. This is when the engine antifreeze coolant earns its medals and helps to manage any heat excess and remove the likelihood of damage occurring.

MEG helps the antifreeze coolant from freezing at low temperatures and prevents it from boiling at high temperatures.

INHIBITORS

Of course, weather conditions, hot or cold, traffic conditions, standstill or cruising are only part of the challenge. Another important function of an antifreeze coolant is to prevent any metallic components in the system from rusting or corroding. As we have already said, water excels at cooling, but it has a detrimental effect on metals, particularly at elevated temperatures. This is where essential extra chemistry is required, referred to as the inhibitor package.

The inhibitor package is a combination of different types of chemical compounds that are designed to give varying degrees of protection and may be even be used to target more sensitive metals such as aluminium in certain water pumps for example. You may see the type of chemistry used referred to as inorganic or organic depending on the family of compounds used and the type of protection the antifreeze coolant is designed to offer.

In general, inorganic acid technology (IAT) is extremely active and will seek out all materials in the system, whether susceptible to rusting/corrosion or not. Because it is very active and doesn't discriminate, it becomes depleted after around 2 years and the antifreeze coolant solution should be changed.

An alternative is organic acid technology (OAT) that only targets materials in the system that start to show signs of rusting/corrosion. This type of inhibitor system is selective and as such does not become depleted as quickly and can be left in the cooling system for up to 5 years.

Some OEMs may require a combination of these technologies and 'hybrid' antifreeze coolants are available for specific engine designs. These may be referred to as P-OAT (phosphorous containing), or SI-OAT (silicate containing) for example.

The good news is that all these technologies are covered by the Morris Lubricants' range of antifreeze coolants.

OTHER ADDITIVES

In addition to the inhibitor package, other components may be added to improve the antifreeze coolant's performance. Stabilisers are used to stop the inhibitor additives from separating, as well as compounds to prevent hard water deposits, pH buffering agents to maintain an optimum pH level and antifoam additives to get the antifreeze coolant right and working well. It is a balancing act between engine metallurgies and the antifreeze coolant's chemical formulations. Remember it has nothing to do with the colour of the product!

SUMMARY

Engine antifreeze coolants perform in the engine all year round and do not just cover the winter months when the weather gets cold or in the summer months when the temperature is hot. The correct antifreeze coolant mixture ensures maximum operational efficiency when the engine is running, preventing damage and ensuring the integrity of the system components.

Antifreeze coolant choice should be made based on the engine manufacturer's requirements and not colour. If there is any doubt as to which antifreeze coolant is required, check with the manufacturer or seek independent technical advice.

With 171 engine manufacturer specifications and international standards, using OAT, PSi-OAT, P-OAT, IAT and MEG technologies, Morris Lubricants' Antifreeze Coolant Range has you covered. Don't select poor quality. Don't select based on colour. Select the correct specification products from Morris Lubricants.

There is a video series that explains more about antifreeze coolants on the Morris Lubricants' YouTube channel

AVOID Selecting Coolants Based On Colour

CHECK Engine Manufacturer's Specification

technicalhelpdesk@morris-lubricants.co.uk

Call the Technical Team: 01743 237 541

whatoil? whatoildoineed.com

CONSULT Independant Technical Advice

Product Updates

NEW Versimax HD15 With VDS-5

Versimax HD15 is a new 5W-30 heavy-duty diesel engine oil that holds the latest Volvo VDS-5 specification approval along with other original equipment manufacturer (OEM) qualifications.

The introduction of Volvo VDS-5 is a step change in Volvo's approach to improving engine efficiency and reducing emissions. This heavy-duty engine oil specification sees the introduction of a lower High Temperature High Shear (HTHS) requirement, between 2.9 and 3.5 cP (centipoise).

HTHS simulates and measures the thickness of the oil film generated between certain components in a working engine, such as journal/bearing face and the ring/liner area. Reducing oil film thickness in these areas means less drag on the components, which translates into energy savings and ultimately reduced emissions. A further advantage of this new Versimax HD15 5W-30 grade for Volvo VDS-5 is its ability to extend oil drain intervals by a further 50%.

Versimax HD 15 5W-30 grade for Volvo VDS-5 is specified for use in 13 Litre Euro VI Step D engine designs. Its precise formulation has been developed so that it can be used in diesel engines fitted with exhaust gas re-circulation (EGR), selective catalytic reduction (SCR – Adblue) NOx reduction systems, diesel oxidation catalysts (DOC) and diesel particulate filters (DPF). Versimax HD15 5W-30 maximises fuel efficiency potential by producing a thin strong oil film whilst under load, which in turn reduces energy losses and CO_2 output.

It is important to stress that this engine oil specification is not suitable for use in older engine platforms as they are not designed to operate with lubricants providing a thinner oil film at this level.

In order to bring this specific oil formulation to market Volvo VDS-5 has seen extensive testing during its development, as thinner oil films and extended oil drain intervals increases stress levels on engine components and the engine oil. Only when all the critical parameters were robustly met did Volvo Truck approve and validate this precise candidate formulation. The field testing regime for Volvo VDS-5 took two years and included a cross section of Volvo vehicles undertaking duties from long haul to couriers. Morris Lubricants has now released Versimax HD15 5W-30 and it is believed to be one of the few candidate formulations currently available in the aftermarket that has gained formal Volvo approval for VDS-5. A copy of the formal approval letter is available upon request from the Morris Lubricants Technical Services Team.

Versimax HD15 5W-30 also has Renault RLD-5 and Mack EOS-5 approvals and has the following performance levels API FA-4/SN, JASO DH-2, Daimler DTFR 15C130, Cummins CES 20087 and Detroit Diesel DFS 93K223.

Ian Douglas, Morris Lubricants' Sales Director explains:

"The HGV market has witnessed significant changes in recent years. The OEMs are designing internal combustion engines that have improved fuel efficiency and reduced CO_2 emissions.

Heavy-duty engine oils must keep up with this innovation and oil formulations have now become more complex. Oil viscosity levels are now becoming a lot thinner, even down to passenger car engine oil levels. The launch of Versimax HD15 5W-30 for Volvo VDS-5 with full Volvo approval means that Morris Lubricants' customers have access to the correct approved high quality engine oils. This approval gives our customers complete peace of mind."

Versimax HD15 5W-30 is readily available in 25 litre drums, 205 litre barrels and in bulk supply.

The new Versimax HD15 5W-30 is part of the Versimax range, a series of approved, superior quality, heavy-duty diesel engine oils. These are manufactured at the Morris Lubricants facility in Shrewsbury. The Versimax range is designed to help reduce downtime, improve fuel efficiency and contribute to the reduction in engine emissions. Used by fleet operators, maintenance technicians, mechanics, and drivers, Versimax engine oils from Morris Lubricants helps rationalise usage where mixed fleets of vehicles and engine technologies are in operation. This is done by offering a range of oils that are suitable for previous and current generation of heavy-duty diesel engines, including those with aftertreatment devices.

Multivis ADT DV 5W-30

Multivis ADT DV 5W-30 has been updated! Morris Lubricants' Multivis ADT DV 5W-30 is a synthetic technology engine oil formulated to cope with the exacting demands of Original Equipment Manufacturers (OEMs) requiring low-viscosity engine oils. It is available in the following sizes: 1 litre, 5 litres, 25 litres, 205 litres and bulk.

Multivis ADT DV 5W-30 has a wide selection of performance levels and has been updated to now include the following specifications

- GM dexos® 1 Gen 3
- ILSAC GF-6A

General Motors specification GM dexos® 1 Gen 3 demonstrates a significant performance uplift over the previous Gen 2. This has been necessary to keep pace with evolving engine technology and duty demands.

Strong wear protection and sludge handling are still high on the agenda, with additional improvements in cleanliness and fuel economy.

ILSAC GF-6A provides additional turbocharger protection, but more importantly, it has been developed to combat the side effects of Low-Speed Pre-ignition (LSPI) associated with small highly rated petrol engines.

Multivis ADT DV 5W-30 is part of the Multivis range, a selection of superior quality automotive engine oils that are suitable for a wide variety of petrol, diesel and hybrid engines. These oils are manufactured using the latest synthetic technology materials and oil formulations required in the operation of low-emission engine designs to meet the performance specifications from a wide variety of OEMs.

The chemical profiles and formulations throughout the whole of the Multivis range of engine oils are tailored carefully to ensure maximum aftertreatment device compatibility.

MULTIVIS

To find out more or explore the Morris Lubricants' Multivis range of automotive engine oils, head to the Morris Lubricants' website or speak to a member of the Sales Team on 01743 232200.

For any technical queries either email info@morris-lubricants.co.uk or call our technical helpdesk on 01743 237541

Product Updates

Liquimatic HV46

Over many years Morris Lubricants has organised and implemented an action plan to optimise sustainable manufacturing and minimise the company's impact on the environment.

As part of this action plan, a review of the use of dyes in its products was agreed. The aim is to where possible, reduce the use of artificial dyes in its product formulations. As some of these dyes can be harmful to the environment and in certain applications have no physical or chemical benefit to the product and are there for cosmetic purposes.

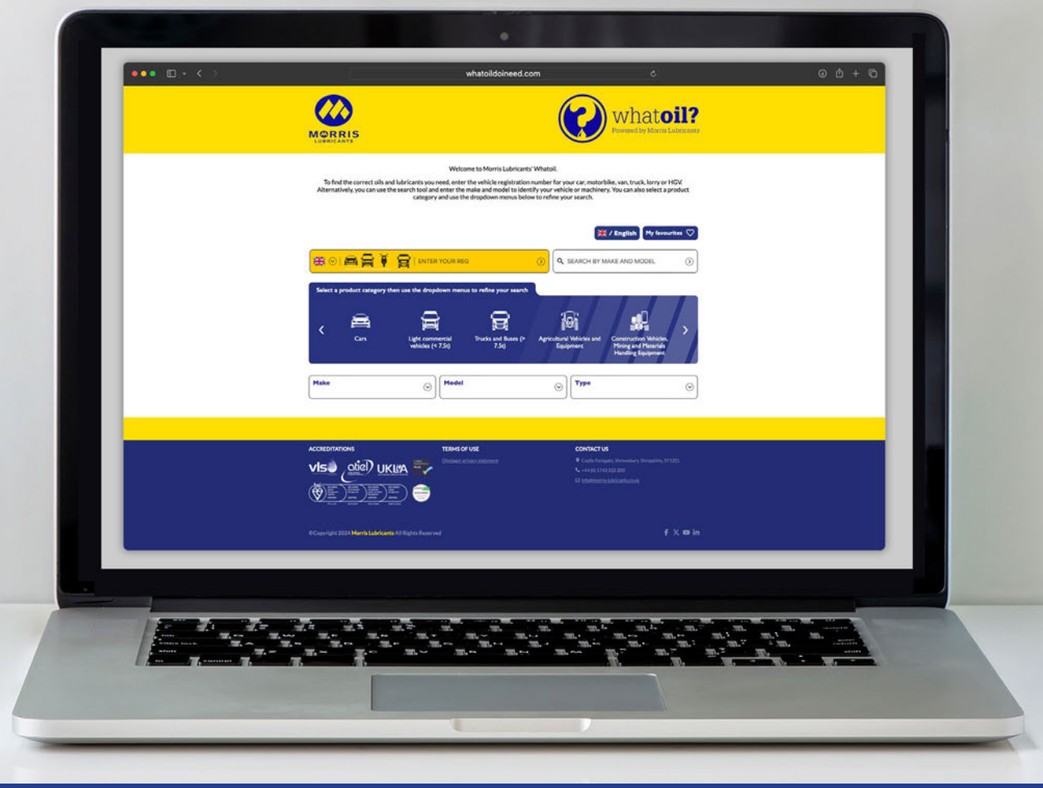
One of the first of these products to go through this change is Liquimatic HV 46. Which has gone from a blue colour to a pale straw colour (yellow).

Liquimatic HV 46 is a high viscosity index hydraulic oil, formulated from high quality minerals oils and the latest anti-wear technology. This grade utilises a shear stable polymer that ensures that the oil does not thin down during its working life. It is ideal for hydraulic systems subjected to extreme operating conditions and temperatures, from frozen food stores (-20°C). to industrial hydraulic systems and off-highway equipment that run at elevated temperatures.

Liquimatic HV 46 is also corrosion and oxidation inhibited and will provide protection even in the presence of seawater. Excellent anti-wear and EP (Extreme Pressure) properties provide protection with anti-foam additives to control foam and facilitate rapid air release, ensuring correct hydraulic function and meeting the stringent filterability requirements of modern machines and robotics.

Recommended for both industrial and off highway hydraulic systems, where extreme operating conditions are encountered. Liquimatic HV 46 can also be used in hydrostatic drives, power steering systems, brake systems and other applications where a product of this type and specification is required. Liquimatic HV 46 is particularly recommended for contractor's plant vehicles and machinery.

For more information on this product, visit morrislubricants.co.uk or to speak to a member of our technical team by emailing technicalhelpdesk@morris-lubricants.co.uk



New And Improved Whatoil Launched

Morris Lubricants has launched a big update to its powerful oil, lubricant and functioning fluid lookup tool WHATOIL?

Whist retaining all the great features of the old look up tool, the new and improved Whatoil online tool has been now updated with new features and added benefits. When you click onto the Morris Lubricants' Whatoil online tool or head to whatoildoineed.com you can see the new, easy-to-use design as well as many new additional features:

- **NEW** Use your registration number to find the correct oil and lubricant requirements for classic cars.
- **NEW** Use your registration number to find the correct oil and lubricant requirements for motorbikes.
- **NEW** Use your mobile phone to scan a registration number rather than having to type it in.
- **NEW** Images of manufacturer brands and models when using the drop-down menus.
- **NEW** Results showing an example image of your vehicle.

Please note that the image is just a representation – the colour may be different to your actual vehicle.

These new added features and benefits have been designed for fleet operators, mechanics, maintenance professionals and resellers to find the correct specification of oils, lubricants, fluids with ease. The Whatoil tool can find the correct oils, lubricants and fluids for different makes and models of cars, classic cars, vans, trucks, buses, commercial vehicles, motorbikes, agricultural vehicles and equipment and off-highway vehicles and equipment, as well as a collection of compressors, pumps and generators.

Available 24 hours a day 7 days a week, WHATOIL? has the potential to cut out huge amounts of time and eliminate any costly guesswork. Why not give it a go now and visit whatoildoineed.com or the Morris Lubricants website.

If you have any difficulty or notice any inaccuracies, please contact our technical team on 01743 237541 or email them on technicalhelpdesk@morris-lubricants.co.uk
We really hope you like our new whatoil tool

Still not sure? Alternatively, if you are still unsure which oil will suit your needs, you can also call the Morris Lubricants' Technical Helpline on 01743 237541, who are on hand to answer your query.

VLS: Product Compliance For Your Peace Of Mind

Do you know what the Verification of Lubrication Specifications (VLS) does?

It is an independent organisation set up to investigate false or misleading claims made on the various lubricant products sold.

The VLS helps to assure buyers that the oils sold on the market are compliant and perform to the standards that are claimed.

The table shows the status of the failed and closed cases as well as the outcomes.

Case No.	Company/ Brand/ Product	Date Submitted	Status	Date Investigation Complete	Date Of 6 Month Review	Date To Be Archived	Outcome
VLS 010214	**Company:** Rock Oil **Brand:** Synthesis F **Product:** 5W-30 ACEA A5/B5	18/07/24	Product Not Compliant Following Investigation – Case Not Resolved	25/11/24	25/05/25		**Product: 5W30 ACEA A5/B5.** Case No VLS010214 18/07/2024 This case was accepted by VLS 25/11/2024 VLS received a complaint concerning the above product which is available for sale in the United Kingdom, and its compliance against the performance claims listed based on its own stated technical specification. The Complaint was as follows:- When tested the product returned a Phosphorous content of 0.0921%. which exceeds the API SN specification of maximum 0.08%. VLS upheld the claim based on its technical merits and procured and tested a sample of the product. The test results on the independent sample were as follows:- Phosphorous 0.0910% m/m. The product is making a claim against API SN 'Excluding Phosphorous'. Under API 1509, an oil marketer can't just claim "SN excluding phosphorous" without also claiming API CH-4, CI-4 or CJ4. If a claim is made against CH-4, CI-4 or CJ-4, then it is possible to claim SN without meeting and waive the phosphorous requirement. If the oil claims CK-4/FA-4, then it is not possible to apply this "excluding phosphorous" waiver. VLS therefore found that the product is not compliant against the claim API SN requiring a Phosphorous limit of a maximum of 0.08% m/m due to the absence of a claim against CH-4, CI-4 or CJ-4 . The Lubricant Marketer relied on information from their technology provider in making the claim API SN (excluding Phosphorous). However, the claim was not in accordance with API 1509 underpinning the API SN category. The Lubricant Marketer therefore responded by removing reference to API SN 'Excluding Phosphorous', in accordance with API 1509, but cited third party documentation that provided engine test data for an API SN performance that was used to support the original claim. A six month review will be undertaken of the case in line with VLS's stated process.
VLS 010207	**Company:** Certas Lubricant Solutions **Brand:** Kerax Hyperdrive KXR **Product:** 5W-30 ACEA C1/ B1-12	18/07/24	Product Not Compliant Following Investigation – Case Not Resolved	11/11/24	11/05/25		**Product: 5W30 ACEA C1/B1-12.** Case No VLS010207 18/07/2024 This case was accepted by VLS 11/11/2024 VLS received a complaint concerning the product claims ACEA A1/B1-12 which alleged that the TBN when measured at 6.7mgKOH/g is not compliant with ACEA A1/B1-12. The ACEA A1/B1 2012 limit for TBN is stated as being equal to or greater than 8.0 mgKOH/g. Additionally, the product claimed API CF which is an obsolete category and caution should be used as it is not suitable for use in most diesel-powered automotive engines built after 2009. Later "C" category oils are usually suitable or preferred for diesel automotive engines for which "CF" oils were specified. Older equipment and/or two-stroke diesel engines, especially those calling for monograde products, may however require "CF" category oil. VLS upheld the claim based on its technical merits and procured and tested a sample of the product. The test results were as follows:- TBN 6.2mgKOH/g VLS therefore found that the product was not compliant against the claim ACEA A1/ B1-12. ACEA A1/B1-12 remains a valid claim if the technical specification can be met at the time the sequence category was withdrawn which it was for the ACEA 2016 engine oil sequences. The claim against Ford M2C913B requires a TBN of greater than or equal to 7.5 mgKOH/g, and so the product is also not compliant against this performance claim. The Lubricant Marketer acknowledge receipt of the correspondence and carried out an internal investigation, one of the finds was that the formulation used in manufacture did not meet the additive suppliers recommended treat rate for the performance levels claimed. The stock identified was a historical product no longer available in the marketplace and has since been discontinued on the takeover of the company by Certas Lubricant Solutions. The legacy product has not been blended or filled at their blending plant since November 2021, and they have confirmed that the product was withdrawn from their production portfolio in April 2022 and that all stock of labels for this product were disposed of at this time. The Lubricant Marketer has also contacted their distributor of the product and stock of this product has been quarantined and disposed of. Following the actions taken by the Lubricant Marketer, VLS is content to close the investigation subject to a six-month review in line with its stated process.
VLS 010205	**Company** Aztec Oils **Brand:** Hydratec **Product:** HVI46	13/06/24	Product Not Compliant Following Investigation – Case Not Resolved	08/10/24	08/04/25		**Product: HVI46.** Case No VLS010205 18/06/2024 This case was accepted by VLS 08/10/2024 The case complaint concerned the product's compliance with a number of specifications including DIN 51524 Part III HVLP, Dension HF-0, HF-1, HF-2 and ISO 6743-4 Type HV regarding its demulsibility and foaming characteristics. VLS sourced and tested a sample of the product and found that its foaming characteristics were in compliance with the specifications claimed, but its demulsibility characteristics were not in compliance. VLS wrote to the Lubricant Marketer who responded that they believed the product formulation, both base oils and additives were correct and the non-compliance stemmed from a contamination issue. In response the Lubricant Marketer is implementing a number of improvements planned as part of their continuous improvement plan to reduce the likelihood of cross contamination in future. They have also checked their stock and distributors stock, and stated that If a customer wished to exchange their current product then they would be happy to do so, however no recall has been issued at this point. VLS requested copies of documents sent to their distributors advising them of the non compliance issue and their remedial action taken, and this was refused by the Lubricant Marketer on confidentiality grounds. A six month review of the case will be undertaken by VLS in line with its stated process.
VLS 010204	**Company:** OptimOil **Brand:** OptimOil HLP 32 **Product:** Industrial Hydraulic Oil ISO 32	13/06/24	Product Not Compliant Following Investigation – Case Not Resolved	11/11/24	11/05/25		**Product: Industrial Hydraulic Oil ISO 32.** Case No VLS010204 17/06/2024 This case was accepted by VLS 11/11/2024 VLS received a complaint regarding the above product which claims; DIN 51524-2 (HLP), AFNOR NF E 48-603, Eaton (Vickers) I-286-S, US Steel 127, Dension HF-2, SEB 181222 and ISO 6743-4. The Complainant alleged that when tested the product returned the following results; Against specification DIN 51524 Part 2: Demulsibility, minutes, max. (DIN ISO 6614), 54°C: Less than 30 Result: Failed Denison HF-2: Demuslibility, minutes, (D1401), 40/37/3: less than 30 Result: Failed US Steel 127: Water emulsion test: D1401 at 130°F: 40 ml Oil / 37 ml water / 3ml emulsion =< 30 mins Result: Failed SEB 181222 Demuslibility at 54°C, time to 40ml, minutes, max, 42/38/0: 20 minutes max. Result: Failed VLS procured and tested an indpendently sourced sample of the product and found that the product was out of specification in terms of demulsibility. The Named Party acknowledged the out of specification test results, the batch in question was manufactured in April, since then they have changed supplier. The Named Party also confirmed that no further stock of the April batch is available in the marketplace. VLS is content to close the investigation pending a six month review in line with its stated process.
VLS 010198	**Company:** Westway Lubricants **Brand:** Westway **Product:** PCEO 5W-30 VW Audi LL3	17/10/23	Product Compliant Following Investigation – Case Resolved	24/11/23	24/05/24	22/12/24	**Product: PCEO 5W-30 VW Audi LL3.** Case No VLS010198 20/10/2023 This case was accepted by VLS 24/11/2023 VLS received a complaint about the above product concerning the technical data and product labelling claims ACEA A3, B4, C3. The Complainant alleged that ACEA A and B categories and the ACEA C category are mutually exclusive as distinguished by their TBN limits: ACEA A/B greater than 10 mg/KOH/g, ACEA C less than 10 mg/KOH/g. TBN on the website states 6.00 mg/KOH/g. This combination of ACEA specifications is not possible.VLS upheld the claim on the basis of the incompatible ACEA claims, A3/B4 and C3, however this is on the basis of Sulphated Ash content and not TBN. The TBN of ACEA C3 ≥ 6.0 and A3/B4's limit is ≥10.0 (i.e., theoretically the TBN requirements are compatible). However, A3/B4's sulphated ash limit is 1.0-1.6 % m/m compared to C3's limit of <0.8% m/m. In response the Named Party revised the claims made to the product 5w30 VW LL3, by deleting any reference to ACEA A3/B4 claims. With a commitment to amend the product labelling and website description. VLS considers that the Named Party has met the complaint in full and the product is compliant. It will undertake a six-month review of the case in line with its stated process. 22/10/2024 VLS recently undertook a six-month review of the case in line with its stated process. Our findings were that the claim against ACEA A3/B4 had continued to be withdrawn and the use of the obsolete API CF claim was acceptable with the support of their technology provider although it is an obsolete category not suitable for most diesel cars built after 2009. However, the continued use of ACEA C3, requires that they should be registered with SAIL. It has been confirmed that the Named Party has registered with SAIL and are now able to make claims against the ACEA engine oil sequences, on this basis we are content to close the case.

To find out more and see the outcomes of all cases being investigated by the VLS please visit ukla-vls.org.uk. If you have any concerns or questions, please contact a Morris Lubricants' Sales Manager on 01743 232 200.

This table comprises of data from the VLS website, ukla-vls.org.uk/case-outcomes/. Date of data extraction: 13/12/2024. The table will be updated in the next issue of LubriNews.

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