

LUBRI NEWS

THE OFFICIAL MORRIS LUBRICANTS NEWSLETTER

MORRIS LUBRICANTS

SUMMER / AUTUMN 2026



Joe Hewes, Morrs Lubricants' New Ambassador

USING THE RIGHT OIL IN THE TANK: INTRODUCING JOE HEWES

Historic vehicles do not come more rugged and robust than military models. The engineering and build quality within can take a lot of work to restore and repair. One person who understands their make-up is restorer, and social media star Joe Hewes. And when it comes to lubrication, he is teaming up with Morris Lubricants.

Classic military vehicles were built for a purpose, but interest in them beyond the battlefield has grown.

For restorer and repairer Joe Hewes, his work is not just a job, but an interest that has grown throughout his life, from one chance encounter. Today, he is not only an expert in his field, but a social media star, and now an ambassador for Morris Lubricants.

Having grown up on the family farm, Joe has lived around heavy industry equipment for all his life. He learnt to keep tractors and other old pieces of equipment going, developing a knowledge for engineering that would carry on into his current work.

"I had to learn pretty quickly how to keep tractors going, and repair machinery, as it is costly to pay others to do it,"

Joe comments. *"As time went on, I got older, went to college and studied farm mechanisation. But when I left, I did not know what to do. Having grown up in agriculture, I wanted to find a new challenge."*

The interest in military vehicles came when Joe went to do some work on a farm that provided paintball events. *"They bought a military vehicle, and I had never seen anything like it,"* he reminisces. *"I ended up speaking with someone about it, and my interest grew from there. I ended up working on their vehicles, and my first job was repairing a Centurion tank."*

For Joe, this interest is borne from the engineering and development that has gone into these military vehicles, rather than their time spent in battle.

"Everything in them is extreme, the engines are pushed to the limit, the gearboxes are rugged, and the weights are crazy. I worked on tractors when growing up, but these machines are in a different league.

"But the engineering, intelligence and technology involved in it is really interesting, and I think people can learn a lot from these vehicles."



Joe Hewes and Alex Sharphouse talking about future projects

BUILDING REPUTATION

Today, Joe has not only built a business restoring tanks and other heavy equipment, but he does so in front of an audience of thousands.

Having started filming his exploits, today, Joe has over half a million followers on TikTok, and more than 450,000 subscribers to his YouTube channel. With almost 300,000 more people watching his work on Facebook and Instagram, he has become instantly recognisable in the field.

"I have always taken videos and photos, and when TikTok became a thing, it was just a natural progression. We started filming the repair work on some of the tanks, and that seemed to do well. We grew quite a large TikTok account, that then transitioned into YouTube, and where we are today."

In the fast-paced world of social media, standing out is key. Joe's work certainly allows for that, with some of his YouTube videos racking up millions of views.

FINDING THE PARTS

As you can imagine, tanks are not cheap, and the parts to repair and restore them are few and far between.

"Any time parts for some of these vehicles come up, I will try and get them. For example, on the Chieftain tank, we have quite a lot of pieces in stock, including 10 or 15 engines, and a similar number of gearboxes. It sounds a lot, but they are not being made anymore, and that stock might just save 10 vehicles over the course of 40 years."

As technology progresses, Joe has found ways to make some parts when it comes to restoration and repair. *"Lots of pieces have to be remanufactured, which is actually easier now thanks to things like 3D printing, and metal 3D printing,"* he comments.

"But it is still costly. Some parts just do not come up for sale, and prices can be ridiculous. You could be paying £100,000 for an engine, or even up to £1 million for something like a Maybach HL230 engine out of a Tiger, for example."



Andrew Goddard, Executive Chairman, gets to look inside one of Joe's tanks

Historic military vehicles, such as tanks, are engineered to be robust. They were designed for use in battle, and while many will now spend more time on show rather than in combat, those mechanical aspects still need a good-quality lubricant to prevent premature wear and tear.

"These tanks have special gearboxes, far more complicated than in most vehicles. Then there is the traverse gearbox, for the turret. The wheel stations all have oil in them, so does the steering system, the axle houses and the brake system. There are so many different oils used, just on one Chieftain. When you think about all of the different types of military vehicles, that is a lot of lubricants."

WHEN OIL IS CRITICAL

Considering the age of these vehicles, and the scarcity of the parts available, ensuring that they run properly is essential. *"Oil is critical, and you have to treat tanks like a Rolls-Royce. The army have to buy it in, and they will not be using cheap oils, it has to be the finest of the finest."*

"Once it comes out to us, the end user, that does not change the type of oil that needs to be used, to keep it serviceable. They still need quality oils and lubricants for each part, especially with so many different oils in the tank."

"You are not buying a cheap vehicle with these historic military models. You are buying what was once worth millions of pounds. No matter its value today, not using the right, and quality oils, will ruin it."



Rolls Royce Meteor 4B engine



WHY MORRIS LUBRICANTS?

This is where Morris Lubricants comes in. With an extensive range of lubricant products, Joe is able to stock various different products that can be useful in his work, and keep these engineering marvels moving.

"When it comes to Morris Lubricants, they offer brand security," he adds.

"They have a name that has been built over many, many years, so you know you can depend on their experience and expertise. That matters in what I do, using just any oil could risk a vehicle that is irreplaceable. That is not an option."

Joe has experience with Morris Lubricants dating back to his days working on the family farm. Recalling the recognisable blue and yellow barrels, he highlights how his knowledge of the right oils grew through the company's expertise.

"We used Morris Lubricants products in the tractors when we were fixing them. It was funny, as at the time my Dad would be looking to save money at every opportunity. But he always bought good quality oil. That is something that has stuck with me today."

LOOKING AHEAD

Joe is certainly not short of work, and he likes to keep busy. *"There are so many doors open to us,"* he highlights. *"We get access to vehicles that we never thought we would be around, and we are very fortunate and grateful for that. It does mean we never know what we will be working on next, with so many good things happening."*

With tanks, cranes, lorries, steam engines and all sorts of mechanical marvels in the pipeline, Joe has no idea where his skills will take him to next. However, he intends to keep on enjoying what he does, building on his experience, and working with Morris Lubricants along the way.

If you would like to learn more about Joe and his work, please visit his page on the Morris Lubricants website.



GUY MARTIN EXPLORES 'HOW OIL IS USED' IN STEAM LOCOMOTIVES

Morris Lubricants' Brand Ambassador, Guy Martin, with Colin Green, Director of Riley & Son (E) Limited, and Adrian Hill, Technical Director.

Guy Martin loves British engineering, and nothing shows off British engineering skill at its finest more than the preservation of historic steam locomotives.

In the new 'How Oil Is Used' video series, Guy Martin & Morris Lubricants' Technical Director, Adrian Hill, meet Riley & Son (E) Limited Director, Colin Green, to discuss the correct oils and lubricants to use for these amazing locomotives, and why it is so important for the heritage of British engineering that only the best quality products are used to maintain them.

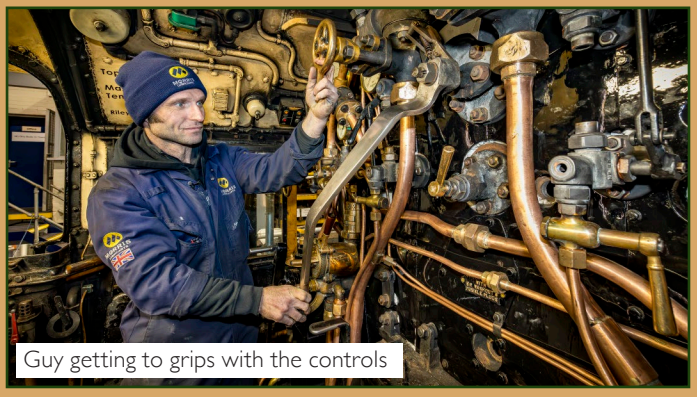
These incredible steam engines are a great example of British heritage rail and require an extensive amount of maintenance to keep them on the tracks. It's extremely important that they are maintained using the correct oils, greases and lubricants to make sure they are looking their best and running smoothly at optimum performance levels. No one knows this better than the team at Riley & Son (E) Limited.

Their talented engineers maintain and operate several legendary steam locomotives that run across the country, including three Stanier Class steam engines, commonly known as the Black Fives. Therefore, this was the perfect location for Guy and Adrian to discuss the oils and lubricants used in these magnificent locomotives.

Each episode sees Guy and Adrian delve into a variety of different elements that are important to consider when maintaining locomotives. Episode 1: reviews the heritage steam locomotive industry and why it is important to do the correct maintenance; Episode 2: Guy, Adrian and Colin look at the importance of using quality steam cylinder oils; Episode 3: the team discuss bearing oils and how they are used on the 'motion' assemblies and in axles; Episode 4: focuses on examining the different lubricants that keep the locomotive controls running smoothly; Episode 5: the team dives into the workshop where Colin explains why they need to be self-sufficient to produce their own components; Episode 6: the series finishes with a look at the wide variety of 'ancillaries' available for all those tough maintenance and cleaning jobs.

Want To Learn More?

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



Guy getting to grips with the controls



Guy taking a tour of the workshop



Why Using The Correct Engine Oil Matters

What Damage Can The Wrong Engine Oil Cause?

Should you concern yourself when choosing and then using an engine oil in a passenger car? What will happen if you use the wrong oil? Engine oils can all look the same, so does it really matter what is used? Can you mix different oils as a top up? Can I use some old unused engine oil that is spare?

Surely It Will All Be Ok? What Could Possibly Go Wrong?

As Morris Lubricants' Technical Director, Adrian Hill, explains *"With passenger cars, you need to be aware of the potential damage that can be caused by using the wrong engine oil. There is no merit to cutting corners, so yes, you should take correct oil choice and use very seriously."*

In this technical article, Adrian explains that Motor Factors need to advise their customers that even though many engine oils may look the same, using the correct oil is a must. Also, the Motor Factor's reputation may suffer if for example, their customers get problems between servicing due to poor engine oil choice and use. Customers may experience unusual smoke from the exhaust, frequent oil top ups, bizarre noises/rattles, reduced power or unexpected component failure if the wrong engine oils have been used.

The formulations for engine oils used in passenger cars are continually evolving. Using the correct oil is critical to maintaining the car's operational efficiency, emissions control and its longevity on the road. Also, the correct oils have a role to play in protecting the engine and its components as well as any aftertreatment devices that are fitted to the vehicle.

Engine Oils Matter

So, whether diesel, petrol or hybrid engines are used, one of the biggest challenges for engine oils is to provide maximum engine component protection. Using the wrong engine oil, can have a big impact on engine efficiency, cause poor oil circulation as well as give rise to poor sludge and deposit control. These factors can generate major issues leading to the possibility of the engine overheating, putting the engine into limp home mode and, at worse, causing severe damage to the engine components.

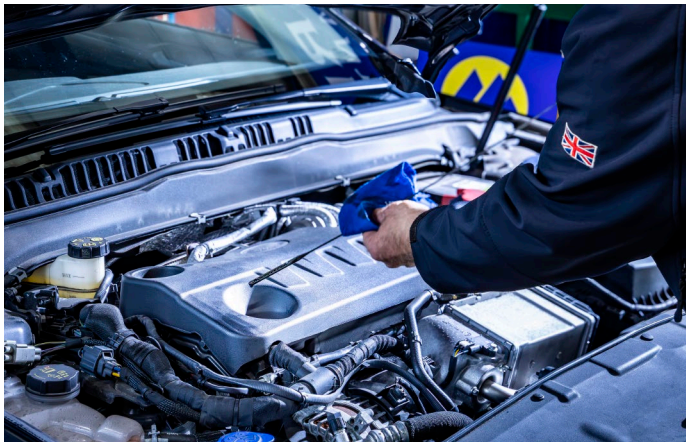
> One of the biggest challenges for engine oils is to provide maximum engine component protection.

For all engine types, the wrong oil can lead to poor corrosion control, and you could soon have sticking valves that can reduce engine efficiency. Furthermore, a crucial role of the engine oil is to maintain the integrity of any aftertreatment devices fitted to the exhaust system, whilst protecting engine components, which can be a tricky balance.

Aftertreatment Device Protection

Aftertreatment devices that are required to control NOx emissions and Particulate Matter (PM) are highly sensitive to engine oil chemistry. Too much sulphur and phosphorous, that are added to the oil formulations for anti-wear performance for example, can poison catalysts used in AdBlue systems. Also, if the engine oil creates too much ash, it can prematurely block diesel and gasoline particulate filters. These are issues which over time may need the aftertreatment device to be replaced.







What About Diesel Engines?

In diesel engines, the use of the wrong engine oil can cause poor soot control that can lead to accelerated wear, due to its abrasive nature, as well as oil thickening, that can inhibit oil flow resulting in oil starvation and engine failure.

Ring soot compaction is another consequence of using the wrong engine oil, that can prematurely wear piston rings and polish cylinder liners, leading to excessive blow-by and reduced power output.

Are Hybrid Engine Oils Different?

Hybrid engines throw additional challenges for the engine oil to overcome. Rapid engine oil circulation from cold, especially under intermittent operation along with fuel and water contamination cause the biggest issues for hybrid engines. Poorly selected engine oils can lead to camshaft, bearing and piston ring wear. The engine oil needs to protect the oil pump from the effects of fuel and water and have increased corrosion control, but the oil formulation must also be balanced to protect aftertreatment devices and make sure they do not fail as well. Also, you need to bear in mind, this could be an engine that has to go from 0-70 mph in seconds! There's a lot that can go wrong if the incorrect engine oil is used.

> Poorly selected engine oils can lead to camshaft, bearing and piston ring wear.

As Adrian explains

"It is a must to use the correct engine oil that complies with the specifications as set by the Original Equipment Manufacturer (OEM). Using the correct engine oils helps maintain performance, give the best possible level of protection and keep the vehicle on the road."

What About Engine Oil Top Ups?

It is also important to take care when topping up engine oils. Mixing different engine oils that have different specifications will have a negative impact on the overall ability of the mixed-up oil in the sump to protect the engine and its components. The OEMs require tailored oil formulations and added chemistry to ensure compliance with their guidelines. Adding different oils with different chemistry will reduce the mixed-up engine oil's ability to perform effectively. It could also invalidate the vehicle's warranty should there be an engine issue.



A wide range of top up oils available in 5 litre and 1 litre bottles

Can You Mix And Match Viscosities And Formulations?

It is important to match the engine oil viscosity grades with the manufacturer's requirements, so for example, avoid mixing a 0W-20 engine oil with a 5W-30 engine oil. If you use the wrong viscosity grades, it may have an impact on the engine's fuel efficiency, which could be costly in terms of the amount of fuel used and then additionally the amount of emissions produced. Correct viscosity grade choice becomes even more vital if we are looking at hybrid engines, due to their operational cycle as outlined earlier. Lower viscosity grades, such as 0W-8, 0W-16 and 0W-20, are essential for rapid circulation otherwise accelerated wear issues can occur.

The other mismatch to consider is engine oil formulation and chemistry. As highlighted earlier, with the advent of aftertreatment devices, such as Diesel Particulate Filters (DPFs), Gasoline Particulate Filters (GPFs) and catalysts to control emissions, older style engine oils that have older chemical profiles can cause damage, even when used as a top up.

As Adrian confirms

"The best advice is if the engine oil is not the same, then don't mix and match it with something else. Even as a top up, as you will compromise the performance of the engine oil and the mixed-up oil will struggle to protect the engine and any aftertreatment devices fitted."

What About Using Old Unused Oil?

Unused engine oil has a shelf life and does not last forever. Unopened engine oil, if stored in dry conditions away from extremes of temperature, can last several years. However, once the container has been opened, the engine oil's shelf life will be shortened and should be used within a 2-year period. Once the container seal has been broken, oxygen and moisture can enter and can cause the active chemical compounds to slowly breakdown and reduce the engine oil's effectiveness. Exposure to significant temperature fluctuations can also make matters worse.

Once the container seal has been broken, oxygen and moisture can enter and can cause the active chemical compounds to slowly breakdown and reduce the engine oil's effectiveness.

As Adrian verifies *"If you do not know how old the engine oil is, best practice is not to use it. If the engine oil looks strange or has an unpleasant odour don't risk using it as the oil is unlikely to perform correctly."*

Confused? Don't Worry, Help Is On Hand!

Morris Lubricants understands that choosing the correct engine oil can be a minefield, therefore it provides help via its online engine oil look up tool, WhatOil, found on morrislubricants.co.uk. This tool uses OEM specifications to suggest the correct oil for a wide range of makes and models of passenger car.

By entering the car's make and model or registration number, the exact engine oils are displayed to help avoid the pitfalls of using the wrong product. The data in WhatOil has been painstakingly collated through liaison with the OEMs and has been vetted to help ensure accuracy. The engine oil recommendations have been selected against OEM requirements by an experienced technical team, that has thorough understanding of oil technology and car manufacturer specifications.



You may be tempted to do a simple internet search or use AI (Artificial Intelligence) tools to find the correct oil to use. But be aware, as these may provide unverified and possibly inaccurate recommendations and may not be fully trusted.

Engine Oils From Morris Lubricants

Multivis from Morris Lubricants provides a wide range of high-quality engine oils that are formulated for use in many different brands of diesel, petrol or hybrid engines. Their chemical profiles and precise oil formulations are tailored to OEM specifications and help ensure maximum component protection and aftertreatment device compatibility. See morrislubricants.co.uk and their social media channels for further details.

Adrian concludes

"The important take home is, use the correct engine oil with specifications as set by the OEM, as engine oil formulations are tailored to comply with their demands. If you ignore these, you run the risk of the engine not functioning correctly and possibly catastrophic engine failure."

MULTIVIS
SUPERIOR QUALITY ENGINE OIL



Morris Lubricants' Brand Ambassador, Dave Jenkins topping up his antifreeze coolant

HEAVY-DUTY DIESEL ENGINES: The Importance Of Antifreeze Coolants

In this article, Adrian Hill, Technical Director at Morris Lubricants, gives an overview of antifreeze coolants. He explains why antifreeze coolants are vital for the correct operation of heavy-duty diesel engines found in commercial vehicles. These often-misunderstood products offer a wide range of benefits when operating a commercial vehicle and are far more than just a coloured fluid.

As Adrian explains, *"It's no secret that engine oil technology has moved at a fair pace over recent years to keep up with engine hardware changes introduced to improve fuel efficiency and reduce emissions in commercial vehicles. But there's another vital fluid that works behind the scenes that is just as essential to optimising engine operation and these are antifreeze coolants."*

To address the demands of engine construction, workloads and duty cycles, Morris Lubricants has a comprehensive range of antifreeze coolants to cover the needs of heavy-duty diesel engines found in commercial vehicles. As highlighted above, they are more than just a coloured fluid, and it is very important to understand what the basic properties of an antifreeze coolant are and why they are critical.

Introduction

Internal combustion engines (ICEs) generate heat and are designed to run at an optimum temperature for maximum efficiency. In commercial vehicles, the heavy-duty diesel engines can be subjected to a whole host of operational conditions, most of them quite severe. The working environment can range from the commercial vehicle sat idling for long periods where traffic flow is congested, through almost non-stop trans-continental long-haul journeys and to the harshness of starting from cold in regions north of the arctic circle. The antifreeze coolant is a critical fluid that ensures effective operational efficiency, while protecting engine components and ensuring reliability. Downtime in the commercial vehicle sector is unacceptable and can have a negative effect on business reputation as well as its profits.

The antifreeze coolant is a critical fluid that ensures effective operational efficiency, while protecting engine components and ensuring reliability.

High Temperature Operation



When a commercial vehicle engine reaches running temperature, it is essential that it doesn't exceed this as damage will arise. Water is great as a cooling medium, however, there is a catch! In the hotter parts of the engine, particularly around the combustion chamber area, the temperature will exceed the boiling point of water, which is 100°C. If the water boils away, catastrophic damage can occur.

At abnormally high temperatures it is possible that engine components can expand, affecting build tolerances and possibly cause seizure or disastrous failure.

To combat this, the addition of Monoethylene Glycol (MEG) elevates the boiling point up to around 108°C typically. Engine coolant systems are pressurised raising this further to between 120°C and 130°C. This provides a good level of safety margin and prevents boiling and thus protecting the engine.

Low Temperature Operation



Before any commercial vehicle engine reaches its optimum operating temperature, it has to start from cold. Given the work that a commercial vehicle must perform, another operational consideration is that the heavy-duty diesel engine can be subject to very low ambient temperatures at start up, especially if they have been parked up enroute overnight. As highlighted above, the best cooling medium is water, which is extremely effective at removing heat and ensuring that the engine operates at its optimum temperature. Great news, but at 0°C water freezes and turns to ice and this is an issue when ambient temperatures are very low. Ice is less dense than water and expands, taking up a greater volume in the system. In the engine cooling system, there is nowhere for the expansion to take place, and high internal pressures can be generated that can crack heads, cause splits in cylinder liners and damage hoses etc. MEG is added to the water to reduce its freezing point, potentially driving it down to -35°C. This is very effective and the MEG works by disrupting the formation of ice crystals.

The Role Of Inhibitors

The use of antifreeze coolants in commercial vehicles has many other benefits which are supported by the addition of various inhibitors. These inhibitors provide further important functions of an antifreeze coolant including the prevention of any metallic components in the system from rusting or corroding. For these benefits to work, essential additional chemistry is required. The inhibitor package is a combination of chemical compounds chosen to optimise its ability to protect the coolant system. This chemistry is referred to as either inorganic or Organic Acid Technology (OAT).

Inorganic chemistry is extremely active and will seek out all materials in the system, whether susceptible to rusting / corrosion or not. This constant level of activity results in it becoming depleted after around 2 years. At this point it should be drained and changed.

Organic Acid Technology (OAT) only targets materials where rusting / corrosion is starting to take place. This chemistry is selective and does not become depleted as quickly and will work for up to 5 years. Some manufacturers may require a combination of these technologies and 'hybrid' antifreeze coolants are available for specific engine designs. For instance, one 'old school' addition, in the form of silicate, is very effective at protecting water pumps and may be added to a 5-year OAT antifreeze coolant to boost performance.

The Original Equipment Manufacturers (OEMs) that design the commercial vehicle engines, are very particular about the type of chemistry used in the formulation of antifreeze coolants. As the designs for heavy-duty diesel engines evolve and become more complex, so too does the formulation of the antifreeze coolants to help ensure efficient and effective operation.

Each OEM may have experienced issues that have been resolved with tailored chemistry. For example, some heavy-duty diesel engines experience cavitation corrosion that can cause wet cylinder liner damage leading potentially to the formation of pin hole leaks. This phenomenon is combated by the added inhibitors in the antifreeze coolants. Certain chemical compounds deposit as a protective layer that prevent collapsing coolant bubbles (formed by combustion chamber shock waves) from damaging the cylinder liner. Others may affect the surface tension helping to prevent or reduce the formation of bubbles.

Commercial vehicle coolant systems are manufactured using a wide variety of materials, including metals, alloys, plastics, rubber and elastomers. All these components must be protected from rusting, corrosion, deterioration and degradation, etc. Additional additives may also form part of the antifreeze coolant to help protect these materials,



such as antioxidants to stop corrosive acid formation, as well as compounds to prevent hard water deposits. The addition of pH buffering agents are present to maintain an optimum pH level (around 8) which, like antioxidants, stop the formation of acids that can attack system materials, particularly metals.

Furthermore, as the antifreeze coolant is pumped and churned around the cooling system, air can become entrained, and so the product must also have antifoaming properties. Foam is basically air bubbles, and air is not very good at removing heat. This will not only lead to overheating, but also cavitation that will impede antifreeze coolant flow, making matters even worse. Antifoam chemical additives 'break' the foam and release the air.

Don't Select On Colour

The final characteristic is colour. The language of antifreeze coolants tends to be based on their colour. But be aware, colour is not an indication of quality or performance and is purely cosmetic having no impact on how the antifreeze coolant performs in terms of engine protection.



What Does This All Mean?

The take home here is that antifreeze coolants have numerous benefits, perform a wide range of tasks and protect the heavy-duty diesel engine in many different ways. Antifreeze coolants provide protection in the engine all year round and do not just cover the winter months when the ambient temperature is cold. In reality, engines spend more time running at operating temperature than they do starting from cold, so the antifreeze coolant's high temperature performance should not be overlooked. The correct antifreeze coolant mixture ensures maximum operational efficiency, preventing damage and ensuring the integrity of the system components.

This combined with the many different engine designs means that no single antifreeze coolant is universally suitable for all types of heavy-duty engines. Antifreeze coolant formulations are developed and tailored to meet the strict demands of the OEMs, of whom there are many.

The delicate balance of chemistry in the formulation of commercial vehicle antifreeze coolants is essential to protect the engine, its components and ensure maximised operating efficiencies. The OEMs drive the development of these formulations, targeting which chemical additives are needed and hence buying and using the correct antifreeze coolant is essential.

As Adrian concludes,

"Antifreeze coolants have many tasks and benefits for the commercial vehicle plus they are important all year round. There is no one antifreeze coolant to suit all types of commercial vehicle. Correct selection is vitally important, so use antifreeze coolants based on the OEMs specifications and not the colour. Get it wrong and there is a risk of breakdown and engine failure. If there is any doubt, as to which antifreeze coolant is required, check with the manufacturer or seek independent technical advice."

The Morris Lubricants Antifreeze Coolant Range Has You Covered!

Morris Lubricants has developed the Ultralife range of antifreeze coolants to cover a wide range of heavy-duty engines and across many different manufacturers. The Ultralife range is ideal for fleet managers, dealerships and mechanics that are responsible for a variety of different vehicle technologies, OEM brands and commercial vehicle models.



Confused? Too Much Choice? Not Sure What To Use?

There is no need to worry, you can seek help from Morris Lubricants and use the company's online oil, lubricant and functional fluid finder, WhatOil. Searches are easy, and often, by just entering a registration number or the vehicles details, you can see which antifreeze coolants are recommended. Alternatively, you can call the experts in the Morris Lubricants Technical Services Team.

For more information call 01743 232 200 or visit morrislubricants.co.uk



Ryan Woolley, Technical Manager



Why Hydraulic Oil Quality Matters In Agricultural Equipment

Selecting the right hydraulic oil is often overlooked in agricultural maintenance, yet it can have a major impact on equipment performance, reliability and operating costs. Drawing on the expertise of Morris Lubricants' Technical Director, Adrian Hill, this article explains why hydraulic oil quality matters and how farmers can protect valuable machinery through informed lubricant selection.

When it comes to maintaining agricultural machinery, it is easy to focus attention on engines, transmissions and visible mechanical components. However, one of the most critical elements in many tractors, telehandlers, combine harvesters, crop sprayers and other farm machinery is often the least understood: hydraulic oil.

Hydraulic systems are the driving force behind a vast range of agricultural functions, from lifting and steering to power transmission and implement control. Yet hydraulic oils are frequently treated as commodities, with purchasing decisions based largely on viscosity grade or price. The reality is that selecting the correct high-quality hydraulic oil can significantly improve equipment reliability, reduce downtime and lower whole-life operating costs.

The Hydraulic Oil Does Much More Than Transfer Power

Many people think hydraulic oil simply transfers power around the system. While this is one of its primary jobs, it actually performs several critical functions simultaneously.

A HYDRAULIC OIL MUST:

- ✓ ***Act as an energy transfer medium***
- ✓ ***Lubricate and protect system components***
- ✓ ***Transfer and dissipate heat***
- ✓ ***Seal small clearances between moving parts***

To perform these functions effectively, the oil must be formulated using high-quality base oils and carefully balanced additive technology. Inferior products may meet a basic viscosity requirement but lack the performance characteristics needed to protect modern hydraulic equipment.

Not All Hydraulic Oils Are Created Equal

One of the biggest misconceptions is that all hydraulic oils with the same viscosity grade are identical.

Hydraulic oils are commonly identified by ISO viscosity grades such as 32, 46 or 68. However, viscosity tells only part of the story. Two ISO 46 hydraulic oils may have significantly different performance capabilities depending on the quality of their base oils and additive packages.

In agriculture, machinery often operates under demanding conditions, from sub-zero winter mornings to prolonged periods of heavy summer workloads. Under these circumstances, oil quality becomes even more crucial.

A poorly formulated hydraulic oil can lose viscosity as temperatures rise, reducing pump efficiency and making it more difficult to maintain system pressure. Conversely, premium hydraulic oils are designed to maintain performance across a much wider temperature range, ensuring consistent operation whether equipment is starting cold or working hard in the field.

Protecting Expensive Hydraulic Components

The hydraulic pump is the heart of any hydraulic system and one of the most expensive components to replace.

Whether the machine uses rotary vane, gear or variable displacement piston pumps, each design relies on the hydraulic oil to provide effective lubrication, wear protection and sealing performance. Modern piston pumps in particular operate with extremely tight tolerances and require high levels of anti-wear protection.

Quality hydraulic oils contain specialised additive technology to:

- ✓ **Minimise component wear**
- ✓ **Protect bearings and moving surfaces**
- ✓ **Reduce corrosion and rust formation**
- ✓ **Prevent deposit build-up**
- ✓ **Control foaming**
- ✓ **Maintain reliable system response**

Using an inferior oil may increase wear rates, reduce hydraulic responsiveness and ultimately shorten component life. What appears to be a saving on purchase price can quickly become an expensive repair bill and costly downtime during critical farming operations.

Temperature Performance Is Critical

Agricultural equipment rarely operates under constant conditions. A tractor may start work on a freezing winter morning and reach full operating temperature several hours later while performing demanding tasks.

Hydraulic oils must therefore provide excellent low-temperature flow properties while maintaining sufficient viscosity at high operating temperatures. High-performance hydraulic oils use advanced polymer technology to achieve this balance, ensuring dependable operation and efficient power transmission throughout the working day.

For machinery such as material handlers and specialist agricultural equipment that require dedicated hydraulic oils, selecting products that meet OEM (Original Equipment Manufacturer) performance requirements are especially important. Operational efficiency and component protection can be compromised when using oils of insufficient quality.

Clean Oil Is Just As Important As The Correct Oil

Even the best hydraulic oil cannot protect equipment if contamination is allowed to enter the system.

Hydraulic pumps, valves and control systems are manufactured with extremely fine tolerances, making them highly sensitive to dirt and contamination. Many operators assume that new oil is automatically clean oil, but this is not always the case.

Hydraulic oil should be properly filtered during manufacture and supplied in clean, dry containers. Maintaining reservoir cleanliness and following good housekeeping practices during servicing can significantly extend agricultural equipment life and preserve system efficiency.

Best Practice Is To Follow OEM Specifications

One of the most important maintenance practices is ensuring hydraulic oils meet both the viscosity and performance specifications required by the OEM.

Leading pump manufacturers and industry bodies establish performance standards to ensure hydraulic fluids deliver the levels of wear protection, oxidation resistance and efficiency needed by modern systems. Selecting an oil solely on price, rather than specification compliance, can compromise performance and reliability.

As we often advise, maintenance decisions should be guided by performance rather than purchase price. The correct lubricant will generally repay any additional upfront investment through improved reliability, reduced downtime and longer equipment life.



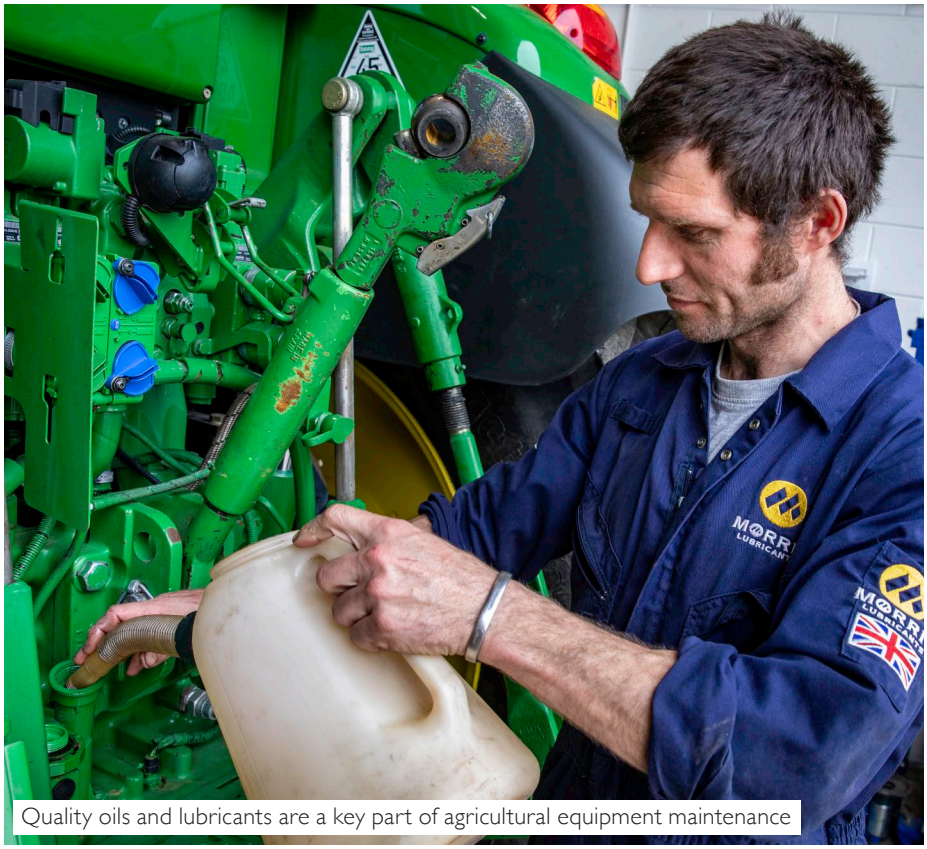
Guy Martin knows the importance of using quality hydraulic oil in his tractors

A Small Investment That Protects Larger Ones

Modern agricultural equipment represents a significant capital investment, and machinery downtime can be costly, particularly during time-critical operations such as planting, spraying and harvesting.

Hydraulic oil plays a central role in maintaining operational efficiency, protecting expensive components and ensuring consistent machine performance. By selecting a high-quality hydraulic oil that meets OEM specifications, maintaining correct fluid levels and cleanliness standards, farmers can maximise productivity while reducing the risk of unexpected repair costs.

In short, hydraulic oil should never be considered a commodity. It is a critical system component that deserves the same attention as any major mechanical part. Not all hydraulic oils are the same, even if some of the basic qualities appear equal, such as viscosity. Price shouldn't be the only factor when choosing a hydraulic oil, as it can be a false economy that may lead to expensive repairs and downtime, further down the line. Choosing the right product today can help keep valuable farm equipment working in the field tomorrow.



Quality oils and lubricants are a key part of agricultural equipment maintenance

Morris Lubricants provides a wide range of high-quality hydraulic oils and fluids for many different applications. From mineral oil to High Viscosity Index (HVI), to fire-resistant and biodegradable. Morris Lubricants hydraulic oils are formulated with advanced additives to help ensure your equipment does not let you down when you need it most.

Morris Lubricants also manufactures Agrimax, which is an innovative range of advanced multifunctional lubricants for the agricultural industry. Agrimax is designed to help reduce downtime, improve fuel efficiency and contribute to the reduction in engine emissions.

You can find out more about these products on the agricultural section of the website.

AGRIMAX
SUPERIOR QUALITY AGRICULTURAL OILS





OFF-HIGHWAY GREASES

For The Toughest Working Conditions

Morris Lubricants provide a wide range of greases for the tough demands of the off-highway sector. Equipment and vehicles used in off-highway environments operate in extreme conditions, so their components need to be well maintained. The Morris Lubricants' off-highway range is designed and manufactured to help ensure a vehicle's performance, efficiency and longevity.

Morris Lubricants provide an extensive range of high-performance greases, that have many different benefits and can be used in a wide variety of applications. So, whether you need a general multipurpose grease or one for a specific application, Morris Lubricants has the product range to help meet the requirement of the task in hand.

WHAT ENVIRONMENTS ARE THE GREASES DESIGNED FOR?

The Morris Lubricant range of high-performance greases have properties and benefits specially designed for:

- ✓ **Adverse conditions**
- ✓ **Extreme operating temperatures**
- ✓ **Anti-friction**
- ✓ **High shock loading**
- ✓ **Water resistance**



WHAT SIZES CAN I GET THE GREASES IN?

The range of greases are available in various sizes ranging from easy to apply aerosols sprays to 400g cartridges, 500g tubs, 3kg tins, 12.kg kegs, 50kg kegs and 180kg barrels, there is a Morris Lubricants pack size of grease to meet the need.



SO HOW DOES GREASE WORK?

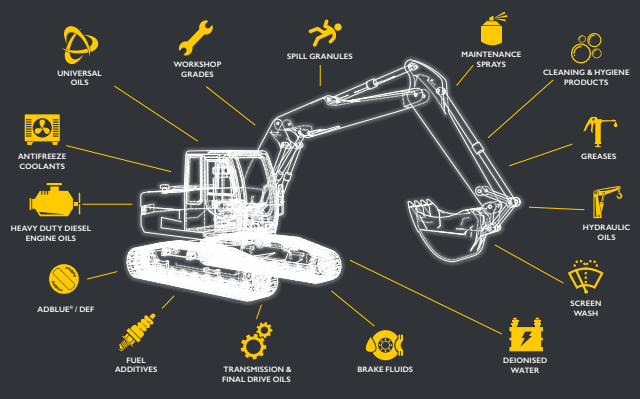
Greases are a complex mixture of thickeners, base oils and additives and have specific roles to play in the lubrication of equipment. They act as lubricant reservoirs which can reduce maintenance frequency, provide high load carrying capacity and, in some cases, reduce noise and vibration. Greases can provide effective seal against environmental contamination, eliminate dripping and leakage and allow additional flexibility in the design and construction of mechanical systems.

The composition of a grease can be tailored to suit a variety of applications. By choosing the appropriate thickener, base oil type and enhancing this further with additive chemistry, optimum protection can be achieved.

A grease can be used at extremely high temperatures, low temperatures, in the presence of water, where there's sliding contact, where there's incidental food contact or where fire resistance is required and so on.

Finally, grease colours vary by manufacturer and are purely cosmetic, with no bearing on the performance of the grease.

Always seek technical advice and guidance to ensure the correct type and grade of grease is selected per application.



Morris Lubricants Supply More Than Just Greases!

For more information on Morris Lubricants' extensive range of greases, and other Off-Highway oils, lubricants and functional fluids, please visit morrislubricants.co.uk

Have You Seen The Change?

2HSS Universal 2-Stroke Oil One-Shot Premix has a fresh new look!



Morris Lubricants' popular 2HSS Universal 2-Stroke Oil One-Shot Premix 100ml has been given a fresh new look, combining improved convenience with the same trusted formulation inside.

The new sachet-style packaging has been thoughtfully created to offer greater convenience for customers while maintaining a consistent look across the product range. Featuring Morris Lubricants' distinctive blue and yellow colour scheme, and a Union Jack emblem, the new easy-use sachet proudly highlights that the product is manufactured in Britain.

Suitable for a wide range of two-stroke engines, 2HSS Universal Oil One-Shot Premix remains the simple, pre-measured solution for users who need accurate fuel-to-oil mixing without the guesswork.

While the packaging has been updated, customers can continue to rely on the same high-quality performance and protection that has made 2HSS a popular choice for years.

The 2HSS Universal 2-Stroke Oil One-Shot Premix is suitable for use in a variety of horticultural and garden machinery, including:

- Chainsaws
- Brushcutters & strimmers
- Hedge trimmers
- Leaf blowers
- Other air-cooled two-stroke engines where the manufacturer recommends this type of lubricant

The specially formulated oil helps to provide:

1. Excellent engine cleanliness
2. Reliable wear protection
3. Reduced exhaust smoke
4. Protection against piston and ring sticking
5. Consistent performance in demanding operating conditions





Simple. Accurate. Convenient.

The new single-use sachet has been designed with ease of use in mind. Simply tear open the top of the sachet and add the contents to 5 litres of petrol for the optimum dosage level.

To make fuel preparation even easier, 2HSS is dyed red, allowing users to clearly see when the oil has been mixed into the 5 litres of fuel.

With its convenient one-shot format, 2HSS helps ensure the correct amount of oil is added every time, making fuel mixing fast, clean and hassle-free.









NEW RETAIL DISPLAY PACKAGING

Alongside the updated sachet design, 2HSS One-Shot Premix is now supplied in a new branded retail display box, offering an attractive merchandising solution for distributors and retailers.

Designed to stand out on trade counters and retail shelves, the eye-catching display box showcases the bold Morris Lubricants branding while keeping sachets neatly presented and easily accessible for customers. The ready-to-display format helps maximise product visibility, enhances point-of-sale presentation, and provides a professional, organised display for stockists.

Whether on the counter, in the workshop or on the shop floor, the new display packaging helps create greater impact at the point of sale while reinforcing the strong Morris Lubricants brand identity.



For more information about 2HSS Universal 2-Stroke Oil One-Shot Premix, please call our Sales Team on 01743 232200, or visit the Morris Lubricants website.

MORRIS LUBRICANTS ENJOYS A BUSY SHOW SEASON!

The team at Morris Lubricants has had a busy summer attending shows including Cereals at Diddly Squat Farm, Hillhead Quarry, and the Road Transport Expo. These were all fantastic opportunities to engage with customers on any queries they may have had about the wide range of products Morris Lubricants offer.

Cereals 2026 was a huge success, with our sales team delighted to give their expert advice to the thousands of farmers, contractors, and industry professionals who attended the UK's flagship arable event. Visitors to the Morris Lubricants' stand enjoyed looking over the full Agrimax oils and lubricants range that was on display.

The Agrimax range is designed to improve fuel efficiency, minimise machinery downtime, reduce emissions, support long term reliability, and deliver consistent performance in harsh conditions. This makes the range ideal for meeting the demands of modern machinery and intensive farm operations, with its uses including tractors, combines, balers, telehandlers, and ATVs. Don't forget, Morris Lubricants supplies much more than just engine oil. The company also provides gear and transmission oils, hydraulic fluids, maintenance sprays, and antifreeze coolants, which are all essential to maintaining a healthy agricultural vehicle.



Hillhead Exhibition

The next show on the calendar was Hillhead 2026. The largest quarrying, construction and recycling exhibition in the UK brought together leading suppliers and thousands of industry professionals. This provided a fantastic opportunity for our customers to explore the wide range of off-highway oils, lubricants and greases that Morris Lubricants has to offer.

One example is Liquimatic XT284, a high-performance gear and transmission oil, specifically designed for the off-highway market. It maintains the integrity of hydraulic systems, as well as providing anti-wear and extreme pressure protection to gear systems. Liquimatic XT284 has advanced wet brake performance, making it ideal for use in arduous off-highway conditions. This grade also provides superior resistance to oxidation, rust and corrosion, as well as an improved antifoam performance.

It is important to select a high-quality oil that is well suited to the needs of off-highway vehicles because of the heavy loads, extreme temperatures and abrasive materials that machinery is frequently subjected to. Consequently, using cheaper, poorer quality oils, lubricants and greases can result in weaker protection, increased wear, and potentially catastrophic failure.



Adrian Hill on the panel at RTX

The Road Transport Expo (RTX) 2026 was another successful show for our team. Over the course of the three days many fleet managers, mechanics and vehicle technicians from across the country attended the event, making use of the Morris Lubricants stand. The exhibit was a triumph, with customers finding great value in meeting our technical experts face to face, who could answer any questions and discuss the extensive selection of products that Morris Lubricants has available for commercial vehicles.

Morris Lubricants' Technical Director, Adrian Hill was invited to take part in a panel discussing if diesel could be phased out through managed decline or if the idea was simply a policy fantasy.

Adrian focused on the role policy plays in guiding this transition, which has already been demonstrated in Europe. He also acknowledged that the rest of the world can have a different view on the timescales of change, with some countries opting to delay this transition and use different incentives to achieve it. Adrian stated that Morris Lubricants would have a role to play in this future, due to our size allowing the company to adapt and quickly evolve our technical strategy, whilst still including diesel and petrol engine oils in our portfolio due to their remaining relevance in the market.

Adrian summarised by reinforcing his belief that sharing opinions with others from across the industry can be refreshing, bring in new perspectives and help to benefit the industry as a whole.

For more information on Morris Lubricants' extensive range of oils, lubricants and greases for agricultural, off-highway and commercial vehicles, please visit morrislubricants.co.uk



A Quality Move:
Thomas Roycroft Earns Promotion To Laboratory Manager

Thomas Roycroft has recently been promoted to Laboratory Manager, meaning he now leads the team responsible for maintaining the high quality of Morris Lubricants' products.

Thomas feels honoured and excited to take on the role, stating *"It's a privilege to work with such an amazing team, and I'm looking forward to supporting them as we continue to deliver the high standards Morris Lubricants is known for."*

He has been a part of the Morris Lubricants' team for 8 years now, although the laboratory has changed significantly in that time. Thomas continues, *"The company has invested in new laboratory equipment as well as providing some level of automation to existing ones. This helps us increase our sampling capacity, as well as making sure Morris Lubricants' products are always up to date with the latest industry requirements."*

The laboratory takes steps to ensure every product meets Morris Lubricants' quality expectations, as Thomas explains. ***"We work with industry leading suppliers for all the raw materials that we use in our lubricants. Once we start the blending process it goes through a series of quality control tests to make sure we're happy and conforming to industry standards before it gets transferred into storage. We also carry out a final check on filling samples before packaging, helping ensure each product meets Morris Lubricants' quality expectations from start to finish."***

The testing process that a product goes through before leaving the site is extremely rigorous, as Thomas explains. *"When every sample arrives to the laboratory it gets booked in through our Laboratory Information Management System (LIMS). This creates a unique ID which the individual sample is tied to. Once created, a workbook can be generated where a series of tests are carried out which is recorded and stored. By having everything electronically logged it allows us to refer to anything very easily and provides us with a great level of traceability from start to finish."*

This process gives confidence to customers as quality is checked at each key stage: raw materials, blended batches, and final filling samples. This means that every product is inspected throughout production before it reaches the customer.



The laboratory's testing and analysis can directly help customers solve a problem, as Thomas outlines.
"We retain samples from every batch, each with a unique ID linked to its test information and results. If a customer raises a query, we can review or retest the retained sample and, where needed, send it to a third party for verification. This gives customers clear feedback and reassurance that the lubrication is suitable for its intended application."

Staying up to date with industry standards and testing methods is highly important to Thomas, as he explains how they achieve this.



"We stay up to date through long-standing partnerships with leading suppliers, active memberships of the United Kingdom Lubricants Association (UKLA) and Verification of Lubricant Specifications (VLS), and use of the ASTM* Compass platform which provides access to the latest standard and test methods. These help us keep aligned and up to date with current industry standards and testing methods. Our laboratory equipment is therefore expansive to cover this."

The range of equipment used includes HTHS (High Temperature High Shear) and MRV (Mini Rotary Viscometer) which measure the viscosity of engine oil at various temperatures. This involves a test at 150°C in the high shear conditions of a running engine, and at a low temperature to determine whether an oil can be pumped through an engine during very cold starts. Thomas and his team also verify the correct formulation and additive package for a product, and can identify any contamination, degradation or product conformity before the oil leaves the laboratory.

Morris Lubricants takes great pride in the development of its employees, seeing them take on new and exciting roles as they continue to grow. The development of our laboratory team is a key reason behind the continued quality of Morris Lubricants products, with their regular and rigorous testing ensuring our high standard is maintained both now and into the future.

*American Society for Testing and Materials

Morris Lubricants Take On Greenhous In Annual Charity Football Match

Morris Lubricants recently took on Greenhous in a friendly charity football game, in support of Lingen Davies Cancer Support.

The two businesses are both local to Shrewsbury and have held their annual charity football match for various worthy causes over the years.

Held at the Salop Unison Club in Shrewsbury, the event brought together friends and family from both companies. A great crowd of over 100 supporters thoroughly enjoyed the entertainment and warm weather, which contributed to a fantastic afternoon for all who attended.

Morris Lubricants took the lead early on through a goal by Ian O'Keefe, Production Operative; however, Greenhous scored twice just before halftime, helping to turn the momentum in their favour.



The Morris Lubricants squad lining up before kick-off

Adrian Eccles, Logistics Supervisor rolled back the years to put in some fantastic challenges throughout the game, but despite his efforts, Greenhous continued their dominance into the second half, resulting in a 4-1 victory.

Morris Lubricants and Greenhous have agreed to make a joint £100 contribution per goal, raising a total of £500 for Lingen Davies Cancer Support.

Lingen Davies has been supporting cancer services in Shropshire for 46 years. They are an amazing charity and Morris Lubricants is proud to support the valuable work they do.

If you would like to learn more about Lingen Davies and their work or make a donation, please visit their website.

Wayne Clocks Up 25 Years Of Service At Morris Lubricants

Wayne Higgins is celebrating 25 years of service with Morris Lubricants, having joined the oil and lubricant manufacturer in 2001. Over the past quarter of a century, he has built extensive experience through a variety of roles across the business, developing a broad understanding of its operations and contributing to its continued success.



Andrew Goddard presents Wayne Higgins with his gold watch for 25 years of service

Originally recruited as a cleaner, he has worked on the filling line, in the warehouse, as a screen printer, and on export orders. Wayne is now working at the company's Worldwide Distribution Centre in Shrewsbury. He is part of the diligent logistics team that prepares and loads Morris Lubricants' products for dispatch around the world.

Upon first joining the company, Wayne confessed that he mistakenly thought that Andrew Goddard, now the Executive Chairman of Morris Lubricants, was a shopfloor worker because he had his overalls on and was working alongside the rest of the team.

Both Andrew and his brother Edward Goddard, who is now Managing Director of Morris Leisure, Morris Lubricants' sister company, started their working careers learning the ropes on the factory shopfloor, thereby gaining the respect of their workmates.

"I have a lot of time for the Goddard family because they treat us with a lot of respect which creates a comfortable workplace,"* added Wayne. *"It's one of those places where, when you get up in the morning, you look forward to going to work."

Rising demand for automotive and commercial vehicle products over the years has led to investment in the Worldwide Distribution Centre. This marks a major step forward for Morris Lubricants as the business continues to grow both in the UK and overseas. The Worldwide Distribution Centre has already transformed the company's ability to store, manage and dispatch an increasingly diverse range of products that are ideal for a variety of cars, buses, coaches, lorries, trucks and tractors, all while supporting safer operations and more reliable delivery performance.

The move to a larger distribution centre has been coupled with major efficiency improvements to the production facilities. These improvements include increasing blending capacity by 30% with the installation of a bulk blending tank, which can manufacture up to 37,000 litres of product at once. This gives Morris Lubricants the ability to manufacture in large bulk quantities and means that products can be produced in a shorter timeframe.

These changes have led to Morris Lubricants being better equipped than ever to meet increasing demand and maintain the high standards expected by its customers. The business is well positioned to build on this achievement and continue to strengthen its supply chain for the future.

Wayne continues, *"The company is much bigger now than when I started and I think it will continue to grow because they have a very good team in place and continue to invest in the business."*

As Andrew presented Wayne with a gold watch to commemorate his 25 years of servicem he said:

"Wayne has been a fantastically loyal and versatile member of the team. One can only imagine how many pallets he has loaded into shipping containers over the years. This is a real milestone, and we are delighted that Wayne continues to carry out his duties in an impeccable manner."



Motorcycle Lubricants: Meeting The Demands Of Modern And Classic Machines

According to statistics from The Department for Transport at the end of December 2025, in the UK, a motorcycle's average age (years) since first use was a massive 16 years old*. This surprising statistic becomes more interesting when the type of lubricants required to keep motorcycles maintained is explored.

With a vast array of motorcycles on the road today, correct lubricant choice and use is more important than ever. From vintage and classic machines that emerge only on sunny weekends, to daily commuter bikes, long-distance touring motorcycles, cruisers and the latest high-performance superbikes, there is no longer a "one oil fits all" solution. Each motorcycle has unique design characteristics and operating conditions that must be considered when selecting the correct lubricant. Thankfully, Morris Lubricants has a wide selection of motorcycle oils, lubricants and greases. Designed for modern and classic applications and suitable for a large range of different makes and models of bike.

Motorcycle owners, regardless of the type or age of machine they ride, share common expectations, that their motorcycle will be reliable, deliver consistent performance and start first time when called upon.

Achieving these requires a comprehensive maintenance regime, of which regular oil and lubricant changes form a critical part. However, the rapid evolution of motorcycle engine technology, coupled with increasingly stringent emissions regulations, has created significant challenges for lubricant formulators.

Adrian Hill, Technical Director at Morris Lubricants, examines how modern motorcycle lubricants are evolving to protect both contemporary and classic machines.

*Vehicle licensing statistics, United Kingdom: 2025 - GOV.UK

The Impact Of Emissions Legislation

As with the automotive industry, the motorcycle sector has been strongly influenced by the tightening of emissions regulations. Motorcycle manufacturers continue to develop increasingly sophisticated engine technologies to comply with these standards whilst also delivering improved fuel economy, higher performance and enhanced durability.

Modern motorcycle engines are producing greater power from smaller capacities, resulting in increased power densities and operating temperatures. While these developments help reduce fuel consumption and emissions, they also place significantly greater demands on the lubricants used.

Motorcycles routinely operate under extreme conditions: high engine speeds, rapid acceleration, elevated temperatures and compact engine designs, all create a challenging environment for the lubricants to perform under. The modern shift from carburettors to electronic fuel injection has improved fuel metering accuracy and combustion efficiency, helping to reduce exhaust emissions. However, these advances often result in higher combustion temperatures, which can increase piston deposit formation and accelerate engine oil degradation.

To address these challenges, lubricant technology has advanced considerably. Modern formulations incorporate enhanced detergent systems to maintain piston cleanliness and minimise deposit formation. Equally important are improvements in oxidation resistance and thermal stability, ensuring oils retain their protective properties over extended service intervals and under severe operating conditions.

These performance requirements have contributed to the lubricant industry's progression towards API SN PLUS and API SP engine oil specifications, which provide improved protection against oxidation, wear and deposits, while supporting modern engine designs.

Balancing Wear Protection And Emissions Performance

One of the most significant challenges facing lubricant formulators is maintaining wear protection while protecting sensitive exhaust aftertreatment systems.

The widespread adoption of high-efficiency three-way catalytic converters has made lubricant compatibility increasingly important. Phosphorus-based anti-wear additives remain highly effective at protecting critical engine and gearbox components from wear. However, under high operating temperatures, a small proportion of phosphorus can enter the exhaust stream and accumulate within catalytic converters.

Over time, excessive phosphorus exposure can reduce catalyst efficiency by blocking the active surfaces responsible for converting harmful exhaust gases into less harmful emissions. As a result, modern lubricant formulations carefully balance phosphorus levels to maximise catalyst durability while maintaining robust wear protection.

This balance has driven significant innovation in additive technology, particularly within API SP formulations, where enhanced protection is achieved without compromising emissions system performance.

As On-Board Diagnostic (OBD) systems become increasingly prevalent on motorcycles worldwide, maintaining catalyst efficiency becomes even more important. These systems continuously monitor emissions performance and can alert riders to potential issues should catalyst functionality deteriorate. Consequently, using lubricants that meet manufacturer specifications is essential, not only for performance but also for maintaining warranty compliance.



Morris Lubricants offers a range of products for modern motorcycles

Wet Clutches, Gearboxes And Friction Control

Unlike many passenger cars, most four-stroke motorcycles utilise a common lubricant for the engine, gearbox and wet clutch system. This creates unique lubrication demands.

Motorcycle oils must provide excellent wear protection for heavily loaded gearbox components while simultaneously delivering the precise frictional characteristics required for wet clutch operation. Excessively slippery oils can lead to clutch slip, reduced power transfer and accelerated clutch wear.

To ensure consistent performance, motorcycle lubricants are certified against the JASO T903 specification. The latest JASO T903:2023 standard includes updated requirements covering chemistry, physical properties, clutch performance and gear durability.

As modern motorcycles continue to deliver higher torque outputs and increased power densities, maintaining effective clutch engagement becomes increasingly critical. Advanced friction modifier technology allows modern lubricants like those in Morris Lubricants' Race Range to optimise clutch performance while preserving durability and supporting emissions objectives.





Morris Lubricants offers products for classic motorcycles too!

Lubricating And Protecting Older Motorcycles

While modern motorcycles require technologically advanced lubricants, older and classic motorcycles present a different set of challenges.

Many vintage and classic motorcycles were designed at a time when lubricant technology and engine design differed significantly from today's standards. Bearing materials, seal technology, manufacturing tolerances and valve train designs may all require specific consideration when selecting a lubricant.

For older motorcycles that are used infrequently, corrosion protection becomes particularly important. Extended periods of storage can allow condensation to form inside engines, fuel systems and gearboxes. High-quality lubricants like Morris Lubricants' Golden Film Range containing effective rust and corrosion inhibitors help protect internal components from moisture-related damage during lay-up periods.

Classic motorcycles may also be more susceptible to oil leakage due to ageing seal materials. Selecting an appropriate viscosity grade can help maintain oil pressure while minimising leakage and consumption.

Many older motorcycles still utilise carburettors and may experience fuel contamination, varnish formation or deposit build-up, particularly when modern fuels are left standing for extended periods. Regular engine oil changes, fuel system maintenance and the use of quality lubricants help minimise these issues and support long-term reliability.



Where motorcycles are stored over winter, owners should consider changing the lubricants before storage rather than after. Fresh lubricants remove contaminants such as fuel dilution, moisture and acidic combustion by-products, helping protect internal surfaces throughout the storage period.

The other consideration is the type of oil filtration fitted as it will impact on the type of chemistry required. Modern engine oils have excellent levels of detergency to keep the hot parts of the engine clean and they work with dispersants to carry the debris generated, to a full flow filter, where the contamination is removed. Early designs had a simple mesh strainer on the oil pump intake and are unable to remove this debris, which can be abrasive. If this debris continues to circulate around the engine, it can cause wear issues. In these instances, low detergency / dispersancy engine oils should be considered as they don't hold this contamination in suspension and drop it out into the sump out of harm's way.

In addition to engine oils, maintaining classic motorcycles requires careful attention to chain lubricants, steering head bearings, wheel bearings, cables and chassis greases. A comprehensive lubrication programme can significantly extend component life while preserving originality and reliability.



The Emergence Of Lower Viscosity Oils

Looking ahead, the industry is beginning to adopt lower viscosity grades such as SAE 5W-30 for selected motorcycle applications. These oils help reduce internal friction losses, contributing to improved fuel efficiency and lower emissions.

However, despite their lower viscosity, these advanced formulations must continue to provide exceptional wear protection, clutch compatibility and gearbox durability. This requires increasingly sophisticated base oils and additive technologies to ensure performance is not compromised.

It is also worth noting that these new generation low viscosity engine oils are not suitable for older vintage and classic designs, as they form thin oil films for improved fuel efficiency and reduced emissions. Older engines, unless they have been re-machined to modern tolerances, will have more 'play' for the engine oil to take up, especially when it's necessary to achieve good ring sealing and good compression. For these applications, monogrades, such as Golden Film SAE 40 or Golden Film SAE 50 should be chosen.

Choosing The Right Lubricant

With a diverse mix of modern, used, classic and vintage motorcycles sharing today's roads, lubricant selection is becoming increasingly complex. Riders should always choose products that meet the relevant industry specifications and motorcycle manufacturer requirements.

For owners of classic motorcycles, selecting a lubricant developed with heritage applications in mind can be equally important. Correct lubricant choice and use can help ensure component wear protection, corrosion resistance and compatibility with older engine designs.

The correct choice of engine oils, transmission lubricants, greases and maintenance products remains fundamental to delivering long-term reliability, performance and protection, whether the motorcycle is a cutting-edge superbike or a cherished classic.

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 lubricant lookup on the website at morrislubricants.co.uk.

Simply enter a registration number for a motorcycle or search a wide variety of bikes by entering the age, make and model and the recommended oil is shown.

Race MOTORCYCLE ENGINE OILS

For more than 100 years, Morris Lubricants has been formulating and manufacturing specialist motorcycle lubricants to support every generation of motorcycle. Today, Morris Lubricants' comprehensive Race & Golden Film Motorcycle ranges of oils, lubricants, greases and maintenance products are trusted by professional racers, touring riders, enthusiasts and Morris Lubricants' Brand Ambassador Guy Martin, helping keep both modern and classic machines performing at their best.

Further information about Morris Lubricants' range of Motorcycle products can be found on morrislubricants.co.uk. You can also speak to the Morris Lubricants' Sales Team on 01743 232200.



Product Updates



Morris Lubricants Launches New Engine Oil Versimax HD19 10W-30 With DAF PSQL 2.4 LD Specification

Morris Lubricants has launched Versimax HD19, a new 10W-30 heavy-duty diesel engine oil developed to meet the latest DAF PSQL 2.4 LD specification along with other Original Equipment Manufacturer (OEM) qualifications.

Versimax HD19 10W-30 is a high-quality heavy-duty diesel engine oil formulated for modern diesel engines and advanced emissions systems, including Diesel Particulate Filters (DPFs), Selective Catalytic Reduction (SCR, AdBlue®), Exhaust Gas Recirculation (EGR), and Diesel Oxidation Catalysts (DOCs). Its low SAPS (Sulphated Ash, Phosphorous and Sulphur) technology provides excellent engine protection, even under demanding operating conditions and extended drain intervals.

This new engine oil is suitable for use in Euro IV, V and VI compliant engines, as well as Tier 3/Stage III, Tier 4/Stage IV and Stage V off-highway counterparts. Versimax HD19 is designed to meet the needs of today's commercial vehicles and it is suitable for use with low-sulphur diesel fuel. This high-quality heavy-duty diesel engine oil has a demanding job to do and is formulated to deliver dependable performance when commercial vehicles are needed most.

Morris Lubricants' Versimax HD19 10W-30 is one of the first engine oils in the commercial vehicle aftermarket that is compliant with the DAF PSQL 2.4 LD specification. This is a long drain heavy-duty diesel engine oil specification that is designed to improve fuel economy and reduce emissions. This specification demands a high level of protection against wear, oxidation, deposits and soot-related thickening to help maximise engine life and reduce commercial vehicle downtime. Its extended oil drain capabilities make it ideally suited for long haul applications as well as protecting engine components where commercial vehicles are subjected to stop / start or prolonged idling conditions.

Versimax HD19 10W-30 is one of the first engine oils in the commercial vehicle aftermarket that is compliant with the DAF PSQL 2.4 LD specification.

Chris Sharpe, Morris Lubricants' Internal Sales Manager, explains: "*As commercial vehicle engine designs and technologies advance, engine oil performance must keep pace. Today's heavy-duty diesel engine oils are more complex than ever, formulated not only to ensure engine component protection but to also work with aftertreatment devices fitted to the commercial vehicle such as DPFs, SCR (AdBlue®), EGR, and DOCs.*"

"The launch of Versimax HD19 10W-30 heavy-duty diesel engine oil means that Morris Lubricants' customers have access to the correct high-quality engine oils needed to keep commercial vehicles out on the road and operating reliably."



Morris Lubricants' Versimax HD19 10W-30 delivers a broad range of manufacturer and industry performance levels and has recently gained approval against the following specifications: Volvo VDS-4.5, Mack EO-S 4.5, Renault Trucks RLD-3. These additional approvals create more opportunities for product rationalisation across mixed on and off-highway fleets, while helping operators maintain warranty compliance for vehicles requiring these specifications.

The new Versimax HD19 10W-30 engine oil from Morris Lubricants is part of the Versimax range, a series of high quality, heavy-duty diesel engine oils that can be used in many different brands of commercial vehicle. Morris Lubricants' Versimax oils can be used in engines found in Volvo, MAN, Mack, Scania, Cummins, Caterpillar, Mercedes Benz, DAF, Renault and many more. 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, the Versimax range of engine oils helps to simplify selection where mixed fleets of vehicles and engine technologies are in operation. This is done by offering a wide range of oils that are suitable for previous and current generation of heavy-duty diesel engines, across different brands, including those engines fitted with aftertreatment devices.

Versimax HD19 10W-30 engine oil also has a wide OEM specification profile, including:

- DAF PSQL 2.IE LD / PSQL 2.4 / PSQL 2.4 LD
- ACEA E7 / E8 / E11
- API CK-4 / SN
- CAT ECF-3
- Detroit Diesel 93K218 / 93K222
- Deutz DQC IV-18 LA
- JASO DH-2-24
- DTFR 15C100, 15C110, 15C120
- MTU category 3.1
- MAN M3775
- Cummins CES 20081 / CES 20086
- Renault Truck RLD-3 (Approved)
- Volvo VDS-4.5 (Approved)
- Mack EO-S 4.5 (Approved)



Versimax HD19 10W-30 from Morris Lubricants is readily available in 25L drums, 205L barrels and in bulk supply. For more information visit morrislubricants.co.uk or call 01743 232 200

VERSIMAX
SUPERIOR QUALITY DIESEL ENGINE OIL

"Our Versimax range of heavy-duty diesel engine oils are fantastic! They are suitable for previous and current generation diesel engines, including those that utilise aftertreatment devices. They help our customers to rationalise stock holding when operating different brands of truck". **Chris Sharpe.**

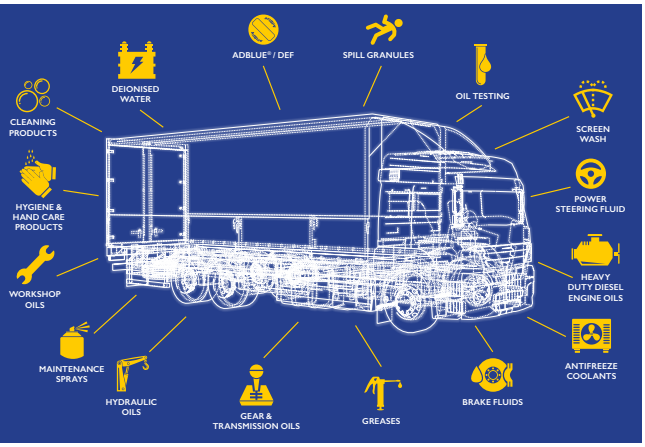
To find out more or explore the Morris Lubricants' Versimax range of heavy-duty diesel engine oils, please call our sales team on 01743 232200, or visit our website: morrislubricants.co.uk.

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



Chris Sharpe, Internal Sales Manager

Don't Forget... Morris Lubricants Supplies More Than Just Engine Oils!





WORKSHOP PRO MD4 MULTIPURPOSE MAINTENANCE SPRAY

Keeping Performance At Its Peak

In a busy workshop, reliability isn't just expected - it's essential! Workshop Pro MD4 Multipurpose Maintenance Spray is a powerful, all in one solution engineered to keep equipment moving and protected.

Designed for professional and everyday maintenance use, this superior performance penetrating fluid combines four essential functions in one versatile product: rapid water displacement, deep penetrating action, long lasting corrosion protection and smooth, reliable lubrication.

Whether freeing seized components, driving out moisture, or protecting metal surfaces against rust, Workshop Pro MD4 delivers dependable results you can trust. Its multifunctional performance reduces the need for multiple products, saving both time and cost in the workshop or on site. Available in a convenient 400ml aerosol for fast, precise application, as well as a 5-litre metal container for high volume maintenance requirements, Workshop Pro MD4 is the smart choice for comprehensive maintenance and protection.

Also Available In 5 Litres

Workshop Pro MD4 is also available in 5 litre tins for bulk spraying applications.



4 BENEFITS OF WORKSHOP PRO MD4



1. WATER DISPLACEMENT

Workshop Pro MD4 is excellent at displacing water. Active chemistry draws MD4 to the component surface and displaces any problematic water that may be present. This makes MD4 ideal for assistance with internal combustion engine damp starts, as it can be used on distributor caps, plugs and leads.



2. PENETRATING

Workshop Pro MD4 is an effective penetrating fluid for freeing all seized and corroded metal parts. It has a very low surface tension that ensures excellent penetrating power. This makes an ideal choice for loosening corroded nuts, bolts and other fixings. When these items are seized, reach for MD4 to help you out.



3. CORROSION PROTECTION

Workshop Pro MD4 is a short-term corrosion preventative due to the robust oil component it contains, which is fortified with anti-rust and anti-corrosion chemistry. This makes it ideal to be used on components that are being stored between processes or awaiting assembly. It is also ideal for use on metal tools.



4. LUBRICATING

Workshop Pro MD4 can be used as a light-duty lubricant, ideal for component assembly or for lubricating mechanisms and fittings. Applications are endless and MD4 is ideal to be used on chains, hinges, pulleys, rollers, gears and cutting blades, whether in an industrial, agricultural, or horticultural setting.

To find out more about Workshop Pro MD4, visit morrislubricants.co.uk or call 01743 232200

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 Six Month Review	Date To Be Archived	Outcome
VLS 010239	**Company:** Independent Motor Trade Factors Associated Ltd **Brand:** Ad-Tec 48 **Product:** 5W-30 C3-ST	01/10/2025	Product Compliant Following Investigation – Case Resolved	25/03/2026	25/09/2026		**Product** 5W-30 C3-ST **Case No** VLS010239 **02/10/2025** This case was accepted by VLS. **25/03/2026** The complaint alleged that the Stellantis specification FPW9.55535/03 is being claimed for this product, it is understood that there is currently no proven market general additive technology available that supports this specification claim. The marketer should be approached to provide documented evidence that demonstrates that the chemical, physical, performance and engine test requirements of Stellantis FPW9.55535/03 have been met to support this demanding specification claim. VLS accepted the case and asked the marketer to provide technical evidence from their technology provider that the product was capable of meeting the claims made. The marketer contacted their supplier who asked their toll blender who provided a letter of assurance to VLS that the technology partially supported the claim being made but did not provide evidence of support from their technology provider to the claim being made in its entirety. The marketer and toll blender agreed to amend the claim to version 1 of the Stellantis FPW 9.55535/03 specification which is valid until July 2026. On this basis VLS is content to close the investigation subject to the usual six-month review in line with its stated process.

This table comprises of data from the VLS website, ukla-vls.org.uk/case-outcomes/. Date of data extraction: 13/08/2026. The table will be updated in the next issue of Lubrinews.

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.

More Cases Overleaf...

Case No.	Company/ Brand/ Product	Date Submitted	Status	Date Investigation Complete	Date Of Six Month Review	Date To Be Archived	Outcome
VLS 010236	**Company:** SCT Vertriebs GmbH **Brand:** MANNOL Energy Formula PSA 5W-30 7703 **Product:** PCEO 5W-30	01/10/2025	Product Compliant Following Six Month Review – Case Concluded	10/08/2026	22/06/2026	10/10/2026	**Product** PCEO 5W-30 **Case No** VLS010236 **02/10/2025** This case was accepted by VLS **22/12/2025** The complaint alleged that the Stellantis specification FPW9.55535/03 is being claimed for this product, it is understood that there is currently no proven market general additive technology available that supports this specification claim. The marketer should be approached to provide documented evidence that demonstrates that the chemical, physical, performance and engine test requirements of Stellantis FPW9.55535/03 have been met to support this demanding specification claim. In response SCT Vertriebs GmbH advised that the Stellantis FPW9.55535/03 claim on the product has been removed. An updated Technical Data Sheet and updated product label has been provided. The website description for the product has also been updated. VLS is content to close the investigation subject to a six-month review in line with its stated process. **10/08/2026** A six-month review of the case was undertaken in line with VLS's stated process. During the review we found that SCT Vertriebs GmbH have maintained the removal of the Stellantis claim FPW 9.55535/03 and consequently the product remains in compliance. VLS is therefore content to close the investigation and the case based on the product being in continued compliance at the six-month stage.
VLS 010235	**Company:** Rapid Group UK **Brand:** Pro+ Power Ultra **Product:** 5W-30 C3-ST	01/10/2025	Product Compliant Following Investigation – Case Resolved	25/03/2026	25/09/2026		**Product** 5W-30 C3-ST **Case No** VLS010235 **02/10/2025** This case was accepted by VLS **25/03/2026** VLS accepted the case The complaint alleged that STELLANTIS FPW9.55535/03 is being stated as a specification on this product, and there is no market general official additive technology available to cover this. https://www.propoweroil.com/products?pID=1414 VLS accepted the case and asked the marketer to provide technical evidence from their technology provider that the product was capable of meeting the claims made. The marketer contacted their supplier who contacted their toll blender who provided a letter of assurance to VLS that the technology partially supported the claim being made but did not provide evidence of support from their technology provider to the claim being made in its entirety. The marketer and toll blender agreed to amend the claim to version 1 of the Stellantis FPW 9.55535/03 specification which is valid until July 2026. On this basis VLS is content to close the investigation subject to the usual six-month review in line with its stated process.
VLS 010233	**Company:** Granville Oil & Chemical Ltd **Brand:** Hypalube **Product:** FS-ST 5W-30	27/06/2025	Product Compliant Following Investigation – Case Resolved	25/03/2026	25/09/2026		**Product** FS-ST 5W-30 **Case No** VLS010233 **01/07/2025** This case was accepted by VLS. **25/03/2026** The case concerned the complaint that the product claimed to meet Stellantis FPW9.55535/03 on the label when it was alleged that there is no official market general additive technology widely available. Nor can it be a rebrand of an official oil as the claim set does not match known official oils (and the price suggests it isn't also). If asked for additive supplier supporting data we feel that this will be unavailable. VLS accepted the case and asked the marketer to provide technical evidence from their technology provider that the product was capable of meeting the claims made. The marketer contacted their toll blender who provided a letter of assurance to VLS that the technology partially supported the claim being made but did not provide evidence of support from their technology provider to the claim being made in its entirety. The marketer and toll blender agreed to amend the claim to version 1 of the Stellantis FPW 9.55535/03 specification which is valid until July 2026. On this basis VLS is content to close the investigation subject to the usual six-month review in line with its stated process.

Case No.	Company/ Brand/ Product	Date Submitted	Status	Date Investigation Complete	Date Of Six Month Review	Date To Be Archived	Outcome
VLS 010227	**Company:** Silverhook **Brand:** Silverhook Fuel Efficient **Product:** PCEO 0W-20	17/04/2025	Product Compliant Following Six Month Review – Case Concluded	22/06/2026	03/04/2026	22/08/2026	**Product** PCEO 0W-20 **Case No** VLS010227 **17/04/2025** This case was accepted by VLS **23/09/2025** The case concerned alleged non-compliance with the following market standards; 1.SAE J300 specifies that the Low Temperature Pumping Viscosity for an SAE 0W-20 grade should be < 60 000 mPa.s at -40°C and that no Yield Stress should be observed. On the sample analysed a Low Temperature Pumping Viscosity of 68400 mPa.s at -40°C was recorded and a Yield Stress <105 g was observed, which does not meet the requirements of the SAE, ACEA, API and OEM specifications claimed for the product. 2.ACEA C5 & C6 mandates a phosphorus content of between 0.07 and 0.09%, a level of 0.06% was determined on the sample analysed. VLS accepted the case and procured a sample of the product for testing. The test results showed that the sample was compliant for Phosphorous content at 789 mg/kg or 0.0789%, but was not compliant for Yield Stress at -40 degrees centigrade measured at <105g, or Apparent Viscosity at -40 degrees centigrade measured at 74,200 m.Pa.s. In response Silverhook stated that they had amended the formulation prior to the VLS investigation which would bring the product back into compliance and these actions had been agreed with a third party. On the basis of assurances given by the third party that the case had been closed, VLS is content to close the investigation subject to a six-month review in line with its stated process. **22/06/2026** VLS undertook a six-month review of the complaint to ensure continued compliance in line with its stated process following Silverhook's amendment of the formulation. As part of the review, VLS procured and tested a new sample of the product with a batch date following the closure of the initial investigation. Testing indicated that the Low Temperature Pumping Viscosity is now within specification, and VLS is content to close the case.
VLS 010226	**Company:** Silverhook **Brand:** Ultra-V **Product:** PCEO 0W-30	22/04/2025	Product Compliant Following Six Month Review – Case Concluded	06/07/2026	25/05/2026	06/09/2026	**Product** PCEO 0W-30 **Case No** VLS010226 **22/04/2025** This case was accepted by VLS. **25/11/2025** The case concerned the compliance of the PCEO with SAE J300 which specifies that for an SAE 0W-X grade the Low Temperature Pumping Viscosity (MRV) should be a maximum of 60,000 mPa.s. with no yield stress. Upon analysis a sample of the batch named was found to be 119,000 mPa.s and a yield stress of < 210 g was observed. Consequently, the product it was alleged, did not meet the ACEA and API specifications claimed. In response Silverhook stated that the issue had been brought to their attention previously by SAIL in their compliance monitoring programme and they had resolved the issue with SAIL to their satisfaction in line with the guidance set out in EELQMS Bulletin 11. Silverhook did identify that following testing on some of their engine oils they identified that one did not meet MRV at -40. They subsequently spoke to their additive suppliers to correct the issue and have now amended the formulation. A six-month review of the case will be undertaken in line with VLS's stated process. **06/07/2026** A six-month review of the case was undertaken in line with VLS's stated process. As part of its six-month review, VLS procured and tested a new sample of the product with a batch date following the closure of the investigation. The test results were as follows:- Yield Stress at -40 degrees centigrade was <35g. Apparent Viscosity at -40 degrees centigrade was 47,500 mPa.s VLS consider that the results confirm that the product is in compliance for MRV at the six-month stage and both the investigation and the case can now be closed.

Have You Watched Our Power And Performance Youtube Channel?

Brought to you by Morris Lubricants, Power and Performance explores the very best of British engineering.

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