



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.

That's the opinion of Andrew Goddard, Executive Chairman of Morris Lubricants, who was announced as the new President of the UK Lubricants Association (UKLA), the voice of the industry.

The UK has committed to carbon neutrality by announcing that the sale of internal combustion engine vehicles and hybrids will end by 2030 and 2035 respectively.

Mr Goddard has warned that the lubricants industry faces significant challenges to its products, customers and markets in the near future but backed the sector's record of innovation to evolve with the changing times to take new opportunities.

THERE WILL STILL BE A DEMAND FOR LUBRICANTS

Whether vehicles are powered by electric or hydrogen in the future, he says there will still be a demand for lubricants.

"Regardless of the market sector, the future could well be ultra-efficient engines running on low carbon fuels that use bio-synthetic finished lubricants made from sustainable sources," he added. "We have always been an industry driven by change, from new automotive standards to the advent of synthetic base

stocks that underpin the performance of our finished products, and latterly the move to new sustainable sources of raw materials and environmentally-compliant products.

SURVIVAL RELIES ON CONSTANT INNOVATION

"It seems that at every turn we are confronted by a new set of regulations and a new set of market standards. I say that is a positive step because a constantly changing environment is essential for companies, keeping us on our toes and ensuring that we remain competitive as our own future survival relies on constant innovation.

"Regulation ensures that we continue to meet market expectations and exceed our customers' exacting standards. Even the ending of the sale of internal combustion engine vehicles will drive innovation built on better performing multi-purpose oils and lubricants that are environmentally acceptable."

UKLA members are already developing specially tailored lubricants for electric and hydrogen vehicles and new formulations are being manufactured using more sustainable raw materials, such as corn, maize, soya, and even hydro-based.

"The next 100 years will be typified by companies that can capitalise on the fourth industrial revolution," added Mr Goddard. "The nature and characteristics of our society may well change faster over the next generation than they have over previous decades.



"Global economies will still need to manufacture goods, the service economy will still need to cater for people's needs, there will still be mass transportation, international trade will still need to take place and both people and goods will still need to get around.

PART OF THE SOLUTION, NOT PART OF THE PROBLEM

"Our sector can enable mobility, we can support the free flow of goods across national borders, we can underpin international trade and personal transportation if, and only if, we are seen to be part of the solution and not part of the problem."

Mr Goddard is the second person from Morris Lubricants to become UKLA President, former Chief Executive John Alton having held the post in 2012.

Having been Vice President for eight years, he has agreed to become President for two years and has stood down as Chairman of the Verification of Lubricant Specifications, a subsidiary of the UKLA.

"It is a huge honour and I am very proud to be UKLA President," he said. "I must thank Morris Lubricants for supporting me and allowing me the time to give to this important role.

"It's an exciting time with certainly some challenges ahead, but there will also be a lot of opportunities created as well."

Mr Goddard is the great, great grandson of James Kent Morris, founder of Morris Lubricants. The company has been manufacturing lubricants in Shrewsbury since 1869 and is one of Europe's leading oil blenders and marketers.

Exporting to countries around the world, the company has a reputation for upholding the UKLA's high standards with the quality of its products, research and development and customer service.





GUY MARTIN VISIT

In November 2021, Morris Lubricants Ambassador Guy Martin visited the Shrewsbury headquarters of the global oil, lubricants and greases company.

The TV presenter and engineering enthusiast discovered how the blending facility operates and how the premiumquality oils that Morris Lubricants manufactures are made. Guy Martin made his way around the facility, visiting the blending tanks, filling lines, laboratory, logistics and transport, watching on as staff showed how the products are produced on a day-to-day basis.

The former-TT motorcycle racer was astounded about how thorough and efficient the whole process was, whilst making time to stop for photographs with the staff that made him feel so welcome over the course of the two days.

A series of videos called 'How oil is made with Guy Martin' will be released on the Morris Lubricants website and social media platforms over the coming weeks and months.





Plaque Tribute to Keiron Thorogood at North Norfolk Railway

The Rail and Heritage Account Manager at Morris Lubricants, who died in 2020, has been remembered for posterity at North Norfolk Railway (NNR) where he volunteered.

A plaque in memory of Keiron Thorogood, who died in his sleep aged 49 at his home in Newton Sudbury, Suffolk, last November, has been erected at the railway.

Keiron's role with Shrewsbury-based Morris Lubricants saw him work closely with heritage and main line railways across the UK. He helped launch the company's Heritage Railway Support Scheme in April 2020 to support railways during the COVID-19 pandemic.

As a tribute to him, Morris Lubricants paid for the plaque to be made and erected at NNR at Weybourne. The railway has been a customer since Keiron's father, Nigel, worked as the company's Area Sales Manager for East Anglia for 23 years.

A PASSION FOR RAILWAYS

Keiron inherited his father's passion for railways and followed in his footsteps by joining the company as Rail and Heritage Account Manager. Keiron worked for Morris Lubricants for 20 years.

Chris Moxon, who works in NNR's carriage and wagon department, said: "Keiron became associated with the NNR professionally through his role as the specialist heritage railway representative for Morris Lubricants.

"He quickly also became involved in a voluntary capacity, training as a



diesel railcar driver. Keiron spoke of the unparalleled beauty of the NNR visible from the cab, which he cited as a deciding factor in signing up as a volunteer despite it being some distance from his home.

"Equally unparalleled was Keiron's passion for his job, and his signature feature was

an extraordinary interest in the railways and locomotives to which he was supplying, something the NNR had never seen in such abundance before in a sales representative.

"He was a true enthusiast, and his passion shone through on every visit. Many people on heritage lines speak of the value of building bridges between different railways, Keiron being one of the few who actually achieved this in practice, a position he was well placed to do travelling the UK with a proactive and likeable nature.

Keiron's qualities as a lively and easy-going member of crew in the cab will not be forgotten. We hope Keiron's family are proud of the positive impact he made to the NNR and the heritage rail industry as a whole."

Nigel Thorogood, who attended the plaque presentation with other family members, said: "It's a marvellous gesture by Morris Lubricants to present this plaque to North Norfolk Railway. Keiron spent a lot of time there, not only on business but in his own leisure time as a driver, and his partner, Helen, would often go with him.



"He had liked the railway since childhood when we went to North Norfolk on caravan holidays. It was also the family's wish that any donations at Keiron's funeral should go to the railway."

Andrew Goddard, Morris Lubricants' Executive Chairman, said: "Keiron was a well-respected member of the rail and heritage community who is dearly missed. Morris Lubricants is proud to present this plaque in honour of his memory".

Video series captures Talisman's first major pull

Morris Lubricants is releasing a series of short videos documenting the first serious road tour and pull by a classic 20th century steam engine built from scratch by Cumbrian engineer Alex Sharphouse is being broadcast next week.

For more than six years, Alex had a mission to recreate Talisman, a Fowler B6 Big Lion Road Locomotive, the 'King of the Road' of its era, capable of hauling loads in excess of 100 tonnes.

Having achieved his dream of completing the build, he decided at the end of last year to take Talisman for a 50-mile tour near his Lake District home, doing what it was built for in the 1920s - moving heavy equipment, in this case a 50 tonne engine on a trailer.

The challenging route, from Threlkeld Mining Museum to Alex's workshop in Bouth, took three days to complete.

Morris Lubricants, a loyal sponsor of Talisman, were there to record the journey and the film is being shared online in a mini-series of short videos, coming soon.

The videos can be viewed here: facebook.com/morrislubricants morrislubricants.co.uk youtube.com/c/morrislubricantsgb

GUY GOES FOR A RIDE

The videos feature Alex chatting to Guy Martin, Morris Lubricants' brand ambassador, TV presenter and engineering enthusiast. Guy who was involved in the original build, finds out from Alex what Talisman has been up to, since its last visit to the Shrewsbury Steam Rally in 2019 and future plans.

Alex also speaks about interesting parts of Talisman that are invisible to the naked eye before showing Guy Talisman's true power by taking him on a ride along the streets of Shrewsbury, where the interview was recorded at Morris Lubricants' headquarters

Talisman weighs 20 tonnes, has mighty back wheels seven feet high and produces 10 hp - not to be confused with brake horsepower. It's the equivalent of a very large, modern lorry with a top speed of 20mph. The engine was one of only five Fowler B6 Locos that were built for the famous Norman E. Box haulage company in Manchester up to 1931.

Besides being its first serious challenge, Talisman's road tour helped raise money for Cystic Fibrosis Trust in memory of Angus McIntosh, Alex's nephew who sadly died in 2018 aged 25 after a lifelong battle with the genetic condition.

Angus filmed and produced the original video to launch the Talisman fundraising campaign which attracted vital sponsorship for the build.







To date, nearly £8,500 has been raised in his memory on a JustGiving page, surpassing the initial £5,000 target. Alex and Morris Lubricants hope the release of the videos will raise even more money for the charity.

"I always wanted to raise money for the Cystic Fibrosis Trust to support people with the same condition as Angus," said Alex. "We are delighted with the money raised to date and it's great that there are thousands of people who now know who Angus was. I hope he would be proud of our efforts."

Donations can be made online at: justgiving.com/fundraising/talisman-tour/

TOTAL SUCCESS

Speaking about the road trip, he said: "All in all, it went very well. From our point of view, it was a total success and it seems to have caused quite a publicity stir in the steam world.

"We were a bit unsure whether the engine would perform, but we learnt a hell of a lot from the trip which is what it was all about.

"When you look back at our journey over the past eight years, Talisman is a massive achievement not just by myself but by all the people who have been involved from start to finish, including my wife, Charlotte, friends and Morris Lubricants.

"I'm very proud of what has been achieved, as very few people can say they have done something like this."

As for the future, Alex is talking to Morris Lubricants about a "special challenge" this year, possibility linked to the Queen's Platinum Jubilee.

Praising Morris Lubricants, he said: "I am honoured to be associated with such a fantastic business that has always been there in the background supporting me. Our relationship works very well.

"Without their support, we wouldn't be where we are today with Talisman. I use their quality oils, lubricants and greases in all my engineering projects."

For more information on Morris Lubricants premium quality oils, lubricants and greases head to morrislubricants.co.uk



Motorsport provides an arena for Morris Lubricants to showcase the capabilities of their high-performance lubricants in an unforgiving, high-pressure environment. Tried, tested and endorsed by trailblazing motorsport professionals, including world record breaker Guy Martin, the range includes engine and transmission oil, brake fluid and coolant, all of which have been specifically formulated – a process which can take up to five years – to withstand extreme and demanding operating conditions.

The 2021 season marked another exciting chapter in the successful partnership between Morris Lubricants and racing ambassador Lydia Walmsley - who proves that hard work and talent pay off. Since becoming an ambassador for Morris Lubricants in 2018, Lydia has risen up the Mini Challenge Championship ranks and signed off her debut season racing in the John Cooper Works Class as part of BTC Racing with a top-10 finish. "To have similar lap times as drivers who have won races and been championship contenders is pretty special," says Lydia. "I think it's something we can all be proud of."

Demonstrating great determination and courage Lydia has flourished behind the wheel of her 2.0-litre turbocharged John Cooper Works (JCW) Mini. The vehicle is twice as powerful as the Cooper she previously raced and because of its "unpredictable" and "twitchy" characteristics, it has invited her to explore new psychological and physical limits as a driver.

"At first it was quite intimidating," says the Morris Lubricants ambassador, who experienced thumb and wrist strain as a consequence of her initial unease. "I was hanging on for dear life and wasn't relaxing my muscles like I should have been, it all felt very alien and was mentally tiring, but I'm comfortable in the car now and we're working well together."

Studying data generated by sensors on her JCW, as well as reviewing footage taken externally, has been key to this progression because it's enabled the track-side BTC Racing team to make pre-race changes to configuration and empowered Lydia to fine-tune her performance and race strategy. "The benefit of being in such a big team is all the resources and knowledge they have, which I've not been able to access before. It's certainly been unusual coming into the pitlane and seeing 10-15 people waiting, rather than just my dad, but it's fantastic to have so much support."

Labelling the top speed, she's reached in her JCW as "classified" information, Lydia's success has been measured by more than lap times and chequered flags. "This season was about gaining experience as it was such a competitive field," she says. "The first races were daunting, I didn't know what to expect, but I believe I've progressed steadily every weekend and by the end of the year I felt like I deserved to be on the grid. It's been a challenge, but it's one that I've enjoyed."

Returning to Knockhill, the circuit Lydia had been most apprehensive about tackling, proved to be a tough but character-building weekend. At the end of start-finish straight, as she headed into the track's first corner, Lydia saw the car ahead of her spin out – the collision was unavoidable. Neither driver was hurt, but Lydia's JCW Mini sustained damage significant enough to force her to retire – her first DNF in three years.

"I was caught, with nowhere to go," explains Lydia. "Although my amazing team worked through the night, unfortunately technical issues meant I wasn't able to compete on day two and so I had to frustratingly watch from the sidelines."

GETTING BACK ON TRACK

With COVID-19 restrictions lifted, and following Motorsport UK's 'Getting Back on Track' guidance, Lydia welcomed members of the Morris Lubricants team and their customers into the BTC paddock at circuits across the country.

Hosting familiar faces and making new friends beneath the awning, she says, is one of the most rewarding aspects of her role as a Morris Lubricants brand ambassador because it allows her the opportunity to give people a behind the scenes insight into a BTCC event, as well as say thanks to those who work directly for Morris Lubricants, and those who support the company with their business.

"Many of Morris' customers are new to the world of live motorsport and don't know what to expect, but after showing them around the garages and seeing the cars in action, they became hooked," reveals Lydia. "It's nice that their day with BTC Racing is so good that they became fans within a couple of hours. We must make a good impression on the customers as many came to the next rounds for another day with us, they were so enthusiastic."

VISIT TO MORRIS LUBRICANTS FACTORY

Off-track, Lydia has celebrated her fourth year with Morris Lubricants, which began with a photo shoot at the company's headquarters – a facility that she describes as "amazing" – to showcase the JCW Mini and its livery. "It was special showing Morris Lubricants' employees around the car that I had been talking about since I first began my partnership with the lubricants manufacturer back in 2018."

To gain a deeper understanding of the technical support Morris Lubricants offers customers, Lydia embraced the opportunity to learn from Technology Manager Adrian Hill, "From their extensive laboratory, which was full of fascinating equipment, to the high-tech factory, with all the blending machines and filling lines, you can really see the amount of effort that goes into every bottle of Morris Lubricants product," says Lydia. "This attention to detail makes their products stand out, and this is reflected in the level of technical support they provide – Morris Lubricants wants to make sure people choose the correct oil that's fit for the purpose it's intended. You can see this with the amount of effort they put into supporting their customers"

On her latest visit to Shrewsbury, Lydia filmed a series of fan Q&A sessions which have been released on the Morris Lubricants website and social media channels.

Motivated and keen to move up a gear next season as part of the "Graduate class" of drivers in their second year of the championship, Lydia has already set out her 2022 goals: "to compete continuously in the top 10, and potentially secure podium places."



In the Garage with Truck Racer and Business Owner Dave Jenkins

At the turn of the twentieth century, James Kent Morris had an idea; to blend his own range of lubricants. He established a production plant in a converted stable block and mixed oils in a tub using a wooden paddle. It was a humble beginning, but the founder of Morris Lubricants set a new, and unrivalled, standard of industry excellence.

Today, the company's state-of-the-art blending facilities — which are located at the iconic Castle Foregate headquarters in Shrewsbury — are fully-computerised and operate under strict quality control standards to ensure formulations are correctly followed. Producing over 750,000 litres of product a week, Morris Lubricants is one of the UK's largest independent manufacturers of automotive and industrial lubricants.

The company's ongoing relationship with British Truck Racing Champion and business owner Dave Jenkins is testament to the diversity and superiority of its products. Responsible for the service and repair of HGVs that play a vital role in keeping Britain's supply chain moving, Dave and the team of mechanics and engineers that run his commercial vehicle workshop in Stone, Staffordshire, use heavy duty, fully synthetic engine oils from the Morris Lubricants' Versimax range – including HD8 10W-40 and HD9 10W-40 – because their performance can be relied upon for the long-haul. Manufactured specifically for diesel engines, these OEM-approved oils from Morris Lubricants are suitable for previous and current generation engines, including those that utilise after treatment devices.

I USE MORRIS LUBRICANTS IN WHAT I DO FOR A LIVING AS WELL AS WHEN I'M COMPETING

"It's in the garage where my work meets my passion for motorsport," says Dave, as he tops up Number 69, his MAN TGX 12000cc racing truck, with the Morris Lubricants high-performance engine oil, Multivis MLR 10W-60. The wall behind him is decorated with two and a half decades worth of truck racing trophies and winner's laurel wreaths. "I use Morris Lubricants in what I do for a living as well as when I'm competing; I can absolutely endorse it because I'm surrounded by it all the time. Their product – whether it's engine oil, Lodexol gear oil, Multitrans ACV, or Workshop PRO MD4 – is fantastic, there is nothing else that's as high quality in the marketplace."

Following a "tense" battle at Brands Hatch in November 2021, Dave celebrated his 25th consecutive championship campaign with a second place, division one, podium finish. "To still be competing at the top level is something I'm proud of. We'd been in and out of the lead all season and to take it to the very last round in a thirty round championship shows how exciting it was. Everyone was racing hammer and tongs, but unfortunately an incident occurred; I was hit, I spun off the track and I was knocked out of the running. I went with the intention of having a fair fight, giving a good account of myself and there was no way - win, lose or draw - that I was going to come away upset because as a team we did the best we could."

Driven by his ambition to win back the title in 2022, the father of three dismisses the idea of retirement following such a milestone year. A clear sign of his intention, the MAN truck was restored to race-condition within two weeks of returning home from the dramatic season finale. "I can't not go and do what I'm good at, and I couldn't bear to see 'MAN in Black' not looking its best. I get in from a 12-hour day, put the kids to bed and go down to the workshop. It's my passion, it's what I do," says Dave. "It would have been a nice round number to finish it all off, but I can't stay away. After twenty-five years I'm still motivated to go racing. The main thing is that my family, my team and my loyal supporters all enjoy themselves, but of course, what we really enjoy is winning."







LOVING THE PRODUCTS

Reflecting on his role as a Morris Lubricants ambassador, Dave washes away remnants of grease and oil using a little Workshop PRO Premium Hand Cleanser before popping the kettle on. He has been wearing the company logo on his overalls and his race suit for the last decade, but the support, he says, is more important now than ever before.

"I wouldn't be where I am today without the help I've received from Morris Lubricants and their products."

"I even used them in the complex and sympathetic restoration of a Leyland Roadtrain truck for my father's 80th birthday. It was quite an emotional process because it took me back to the beginning of my love affair with trucks as an eight-year-old boy. From the engine oil to the degreasers, everything I used had to be of the highest quality."

Over a cuppa, Dave shares insight into how it felt to welcome guests of Morris Lubricants back beneath the Team Jenkins awning during race weekends. "I'm always surprised by the wide range of industries that customers who come along represent. From food, to building and road haulage

businesses, it's so interesting to engage with them all; sometimes we draw comparisons about the products we use, and other times I get to learn or share my own knowledge. You also get the mums, dads and kids that are just there to enjoy a behind the scenes experience and have a bacon sandwich with the team. It's great."

It's clear to see Dave's confidence and commitment to the independently run company and as the lights go out in the workshop for the day, he takes a last look and heads home, moving past the Morris Lubricants blue and yellow-branded workbenches, posters, oil drums and products that surround his championship-winning truck.



25th Anniversary

It was a double celebration for Andrew Goddard towards the end of 2021. Not only did he become UKLA President, but he also celebrated his twenty-fifth year with the company.

Andrew, who started with the company in 1996, received a commemorative watch from his father, and company director, Mr. David Goddard at the AGM before Christmas. The Goddards are direct descendants from James Kent Morris, the original founder of the company back in 1869.



Support for Local Children's Hospice

Shrewsbury-based Morris Lubricants have signed up to support Hope House and Tŷ Gobaith Children's Hospices by announcing it as the company's charity of the year for 2022.

Andrew Goddard, Executive Chairman of Morris Lubricants commented: "We are extremely excited to be able to hold events and raise money for such a wonderful and local cause like Hope House and $T\hat{y}$ Gobaith. To help support a local hospice and the families that the support is something that means a huge amount to a family company like Morris Lubricants."

Hope House Children's Hospices provide specialist nursing care and support to more than 750 children from birth up to 25 years, and their families, who live in Shropshire, Cheshire, North and Mid Wales. The charity has two hospices - Hope House in Oswestry, Shropshire, and Tŷ Gobaith in Conwy, North Wales.

Alison Marsh, Head of Fundraising, added: "Our corporate support is hugely important to us and we are extremely grateful to Morris Lubricants for making us its charity of the year.

"Without this kind of support, we simply could not raise the money we need to make sure we are there for those that need us the most."



GRADUATE TRAINING SCHEME

Two recent graduates have joined the company, with Elliot Rogers (left) joining the Laboratory as a Technical Support Chemist Graduate and Josh Fieldhouse (right) joining the Export Department as an Export Commercial Graduate. Elliot recently graduated in Chemistry and Josh graduated in International Business.



Partnership with Rugby Club

Morris Lubricants have continued their sponsorship of Shrewsbury Rugby Club.

Having sponsored the club for over 15 years, Morris Lubricants are delighted to continue the partnership as shirt sponsor with the club, who's First XV ply their trade in the Midlands 3 West (North) Division.

As well as the First XV, the club have a second team, third team, a touch team and junior teams ranging from under 18s to under 13s, with mini teams from the age of under 6s to under 12s.

Andrew Goddard, Executive Chairman at Morris Lubricants. commented:

"We have long been supporters of Shrewsbury Rugby Club and this was an easy decision to continue this long-term partnership. With the number of teams and people involved in the club, such as players at all levels, fans, coaches, parents



and families, as a family company, it's great to get involved in a local project like this."

Glyn Jones, President of Shrewsbury Rugby Club, added: "Morris Lubricants have been a long-term supporter of the rugby club and we are delighted that this will continue for the current season. It's fantastic to have teams back playing after a season without rugby due to COVID and great to have a local, global company like Morris Lubricants supporting us".

COLLABORATION WITH STFC

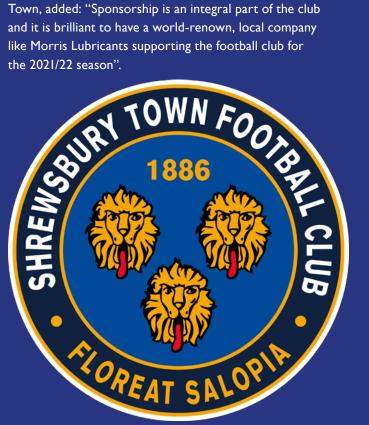
Shrewsbury-based Morris Lubricants, are delighted to continue their long-term sponsorship of Shrewsbury Town.

Morris Lubricants, who were the first team shirt sponsor from 2005 to 2007, are sponsoring boards in the Montgomery Waters Meadow stadium and have a section in the matchday programme.

Andrew Goddard, Executive Chairman of Morris Lubricants, commented:

"We are a proud company that has been based in Shrewsbury since the company was formed back in 1869. With Shrewsbury Town forming in 1886, it is wonderful to have two proud local mainstays of the town continuing to work together in this long-term partnership".

Andrew Tretton, Commercial Manager at Shrewsbury Town, added: "Sponsorship is an integral part of the club and it is brilliant to have a world-renown, local company like Morris Lubricants supporting the football club for the 2021/22 season".





Hydraulic systems are employed in a multitude of applications, operating in a wide-variety of working conditions. Consistent system performance relies on many factors, but one of the biggest contributors is the hydraulic oil. Hydraulic oils are a critical system component, but their importance is generally understated and they are wrongly considered to be commodities.

FUNCTIONS OF A HYDRAULIC OIL

Within a hydraulic system, the hydraulic oil has four main important functions:

- To act as an energy transfer medium
- To lubricate and protect system components
- · To transfer and dissipate heat
- · To seal small clearances between moving parts

To effectively deliver these functions, hydraulic oils have to be carefully formulated with high-quality base fluids and performance additives.

VISCOSITY

In the main, hydraulic oils tend to be referred to by their viscosity (or thickness), i.e. 32, 46 or 68.

These are the most common ISO classification grades, although there are thinner or thicker alternatives, depending on the machine's requirements. However, this only tells part of the story and not every 32 grade, for example, is the same as another. Providing the oil has been manufactured by a reputable company it will also be expected to have many other performance features to fully protect the equipment.

COMPONENT PROTECTION

The heart of any hydraulic system is the pump and this is where correct lubrication is absolutely essential. Common designs include rotary vane, gear and variable displacement piston pumps.

Each design has specific lubrication requirements and hydraulic oils are formulated to address these various operational demands:

- I Rotary vane: Powerful anti-wear chemistry protects the sliding vanes and bearings and provides an oil film to seal the vanes against the cylinder. This sealing ability ensures the hydraulic oil itself is compressed to provide the required discharge pressure.
- 2 Gear (Internal and external): Prevents the gear teeth from wearing, seals the space between the gear teeth and cylinder and also protects bearings.
- 3 Variable displacement piston pump: These pumps are extremely complex, with various metal types that require a high level of anti-wear chemistry. Sealing of the pistons is also required to deliver the required working pressure.

Hydraulic oils are also treated to ensure they can withstand high temperatures for prolonged periods of time without breaking down and causing deposits in the system. They will also have the ability to combat rusting or corrosion of components which can occur due to the ingress of airborne moisture or the working environment. Mechanical churning of the oil can cause foaming which in turn results in 'sponginess' and poor hydraulic response and accelerated wear. To prevent this anti-foam additives are also incorporated.



OPERATING TEMPERATURES

As an energy transfer medium, it has to perform consistently over the equipment's operating temperature and load range, allowing precise control when needed. Hydraulic oils formulated using inferior base fluids have a limited temperature range and at high temperatures they lose their viscosity making it difficult for the pump to push the oil around the system. The effectiveness of a pump is referred to as its volumetric efficiency which will decrease if the oil thins down too dramatically. Well formulated hydraulic oils, using quality base fluids, minimise this affect as temperature increases.

Where equipment is operating in applications with extremes of temperature, high performance hydraulic oils are required to cope with these varying conditions. This is achieved using polymer technology that allows the oil to flow at low temperatures, but delivers effective working pressure when the equipment is hot and working hard.

CLEANLINESS

Pumps, control valves and pressure relief valves are all machined with fine tolerances and are therefore susceptible to contamination within the system. Harmful solid matter can be

removed safely by a filter or filters, however, even contamination by particles invisible to the naked eye can cause damage and this can be introduced from new oil.

New oil does not necessarily mean clean oil and its important that any oil is supplied having been correctly filtered at the point of manufacture and into clean and dry containers or bulk delivery units.



MAIN TYPES OF HYDRAULIC OIL

Hydraulic oils can be formulated with different base oil types depending on the final application. In general, mineral oil-based formulations, with a correctly balanced additive system, form the majority of products on the market. But variations do exist to provide a tailored approach.

If fire resistance is required there are families of base oils that are non-combustible, or formulations that are self-extinguishing, i.e., they may contain water. Biodegradable options are also available, either based on vegetable oils or synthetic esters that mimic vegetable oil, where environmental impact has to be taken onto consideration. In some specialised applications, food safe maybe specified and again the appropriate base oil has to be selected.

Morris Lubricants have a wide variety of hydraulic oils, which can be found at morrislubricants.co.uk.

SPECIFICATIONS

In order to ensure full compliance with the systems requirements it also worth noting the specifications relevant to this industry. The main pump manufacturers have their own performance levels or specifications (Bosch, Denison, Parker, etc.) and there are several general industry specifications (DIN, US Steel, ISO, etc.) that end users should be aware of. As with any equipment, always ensure that an oil with the correct viscosity grade and specification is chosen, as issued by the manufacturer, for the highest level of protection and system efficiency.

In summary, 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 fluid as it can be a false economy that may lead to expensive repairs and downtime, further down the line.



Distributed Energy Show

Morris Lubricants were delighted to attend its first exhibition in over two years at the Telford International Centre on 8th and 9th December 2021.

The Distributed Energy Show brought together the entire supply-chain that is focused on generating and distributing energy resources. The show provided visitors with a comprehensive array of technologies and systems to enable them to generate, store, manage and distribute their own power and heat.

SHOWCASING THE GEO RANGE

The show was an important event for Morris Lubricants, as the GEO range of oils were showcased. These oils are specifically developed for the gas engine market which currently supports over 200MW of power generation in the UK, which is enough energy to power over 400,000 homes.

The Morris Lubricants GEO range of products have been specially formulated to improve operating efficiencies of large gas engines and offer enhanced corrosion protection, oxidative and nitration stability, wide-operating temperature range, low deposit forming performance together with robust

acid neutralisation system with protracted field proven drain times. The GEO range has undergone extensive testing and analysis by technicians at the company's own laboratory, as well as being field-tested and approved by many of the world's leading gas engine manufacturers.

As well as the Morris Lubricants stand on gas engines, there were exhibitors showcasing gas turbines, wind turbines, combined heat and power, energy storage systems, small hydro, fuel cells, smart energy systems and platforms, virtual power plant systems, cabling, converters, power electronics, heat networks and more.

THRILLED TO EXHIBIT ONCE AGAIN

Mark Brighty, Business Development Manager for Large Engines at Morris Lubricants, commented: "We were thrilled to be exhibiting again at the Distributed Energy Show after a two-year wait. We showcased our gas engine products and services that Morris Lubricants has to offer to this important market. The company has some of the best technical and industry expertise and we have created a range of products that are versatile and flexible enough to support a wide-range of gas types, including natural gas, landfill, biogas and syngas".



Morris Lubricants is proud to have been innovating and developing lubricants solutions for the agricultural industry for over 150 years. During 2021, due to large growth in the agricultural sector and utilising decades of knowledge and experience, Morris Lubricants launched its innovative range of advanced multifunctional lubricants which were designed specifically for agricultural requirements. This range is called Agrimax, with maximum quality and versatility for agricultural vehicles and equipment.

The Agrimax range is for use in applications including engines, gearboxes, hydraulics and oil immersed brake systems for use in tractors, combine harvesters and other agricultural machinery that use previous and current technologies.

The range of Agrimax products have been developed with the most up-to-date additive technologies and premium-quality base oils and the range will offer top-of-the-range operational and protective performance even in the most of extreme of operating conditions.

The move consolidates the inventory of products that the agricultural sector uses and achieves a wide-range of OEM approvals, which maximise vehicle performance, service life and reliability. The Morris Lubricants Research and Development department is constantly innovating to develop the next generation of world-class and world-renown products, which can be said for the Agrimax range.





MORRIS LUBRICANTS TRAINING ACADEMY DATES 2022

Pre-COVID, Morris Lubricants ran a number of live training events at our Shrewsbury headquarters to help educate and inform customers that they are choosing and supplying the right products.

Since the pandemic, Morris Lubricants moved its training online, creating a series of free one-hour, concise webinars that take a look at the various aspects of lubricants, oils and greases.

The sessions are run by technical lubricants expert and Technology Manager, Adrian Hill where attendees receive a certificate of attendance.

Adrian has presented a variety of lubricants conferences all over the world, including in India, New Zealand and Iraq, just to name a few, as well as working with brand ambassador Guy Martin and being a keynote speaker at national exhibition events, such as Automechanika. He has worked within the lubricants industry for nearly forty years, which is why lubricants training from Adrian will be training that you cannot find anywhere else.

To book onto any of the **FREE** training sessions below, or for further information on the courses, please email marketing@morris-lubricants.co.uk



Social Media

We are extremely social here at Morris Lubricants, we like to share all our news and keep you up to date with what's happening.











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