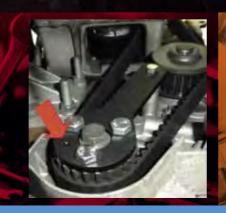


Tips and tricks, new to range, offers, technical advice and a great deal more!

PLUS...
TECHNICAL
FOCUS
FIAT 500 TIMING BELT
INSTALLATION



SPECIAL
OFFERS
ON SMART CHARGERS,
DIAGNOSTICS AND MORE







SMART CHOICE TERMS & CONDITIONS

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the responsibility of the company on behalf of whom they are made and are not the liability of the IFA or its agents. E & OE. All lease payment examples are based on a 60 month repayment period and with a NIL DEPOSIT facility. All lease figures quoted are subject to VAT and status. Alternative lease plans are available and can be tailored to your exact requirements. If you have any questions regarding lease facilities please call Alliance & General Leasing on 02478 220 000.



For more information contact your local branch today

LAUNCH UK

www.launchtech.co.uk



AVAILABLE AS STANDARD 2 Years of Software Updates PLUS: 2 years warranty!

X-431 PRO 5 LINK

- Local intelligent diagnostics
- Remote diagnostic, using the Launch SRD platform
- Compatible with multiple protocols Supports DOIP and Pass
- Through Technology One year Launch CarSet

electronics powered by Haynes Pro



Year Lease £25.21pw

Years of Software Updates

AVAILABLE AS STANDARD 2 Years of Software Updates PLUS: 2 years warranty!

X-431 EURO TAB III

The Euro Tab III is a newly-developed highend vehicle diagnostic device. Using the Android 9.0 operating system the Euro Tab III builds on the highly regarded Launch diagnostic technology, offering worldwide vehicle coverage, powerful diagnostics and numerous special functions.

New for the Euro Tab III is the Smartlink® C VCI. This advanced module allows for communication

- Supports Topology, DOIP and Pass
- Through Technology
 Remote diagnostic, using the Launch SRD platform

X-431 PRO 5 PLUS

- OS: Android 9.0CPU: 1.8 GHz 8 Cores

- QUI T.8 GHZ2 GO

 GAMPA

 Internal 64GB

 microSD card 32GB

 10.1" touch screen

 Battery: 7000mAh

 Wiffi: 2.4GHZ and 5GHZ

 Camera: Front 5MP, Rear 8MP

X-431 PRO Turbo

- Internal memory: 3GB
 Storage: Internal 32GB
 Screen: 8" 1280x800 IPS
 Battery: 5000mAh
 Wifi: 2.4GHz and 5GHz





CRP 129 EVO

- Full OBD II functions
 Data record and replay
 DTC read and clear,
 Livedata of 4 systems
 (Engine, AT, ABS,SRS)

ONLY **£329**





X431 EURO TAB 2

1 1 13

12

X431 Euro Tab II is a high end diagnostic tool with docking station. Developed around Android version 7.1 with new features such as DOIP, J2534 pass-through online programming, DCT-based database, intelligent diagnosis, etc. It inherits all the excellent functions of the previous generation tool. It supports dual 5GHz WiFi communication.

ANDROID







X431 EURO TAB 2 ONLY

5 Year Lease £17.25 pw

Automatic Transmission Cleaner & Fluid Exchanger

- Detergent based cleaning cycle
 Standard adapter set PLUS optional set cover
 most vehicles
 Connects to most transmission units, including
 double clutch & CVT types
 One year FREE access to Launch UK database:
 transmission type
 oil quantity
 oil level check pc
 correct adapters
 correct procedur
 - - fitting location photographs oil level check points correct procedures

ONLY

5 Year Lease £15.90 pw

'Sealed for life' transmissions are a thing of the past

Smoother gearshifts

New synthetic fluid restores lubricating & friction coefficients to original specifications

A lucrative opportunity for new work!

Automatic transmissions are no longer 'sealed for life'. Vehicle manufacturers have started to add a complete fluid exchange in the service schedule at around 75.000km (46.000 miles).

Just draining removes only 45% - 60% of the transmission fluid, as the fluid does not drain out of the torque converter, cooler lines, valve body, etc. The CAT5015 consistently and reliably provides a 99.9% fluid exchange thanks to the load cell weighing technology and advanced software.



TS Gun (TPMS Wand)



SMOKE 2 DIAGNOSTIC LEAK DETECTOR. SMOKE MACHINE

The Launch Smoke 2 v2.0 diagnostic leak detector is a specially engineered device for EU vehicles, operating at a higher pressure than EVAP models. Perfect for finding leaks in petrol and diesel turbo systems, as well as inter-coolers, exhaust systems e



To find out more, please visit www.launchtech.co.uk or ask your local branch.



PROFESSIONAL TYRE FITTING EQUIPMENT

GARAGE EQUIPMENT since 1922



10" - 24"

3"-11'

Manual

Feature / Model

Technoroller assist arm

Turntable speed

Clamping range

Rim width

Leverless Ergo Control bead bre Operating head

PROFESSIONAL TYRE CHANGERS

10" - 28

3" - 12.5"

Manual

TTC/9620/T TTC/9624S/T TTC/9628S/LL/T

12" - 32'

3" - 15"

Pneumatic

'G' Frame Concept

The 'G' frame concept is unique to the Tecalemit range and ensures structural rigidity of the chassis. This maintains the accuracy and stability of the mounting head position to protect expensive tyres and

Ergo-Control

Ergo-Control moves the control of the bead breaker mechanism from a foot pedal to a hand control making it easier to handle wide wheels. It also provides wheels. It also provides the operator with the ability to control the breaker force and prevent the blade crashing into expensive alloy wheels Chassis 65kg 65kg 70kg 70kg 80kg 80kg Video LCD Display Video Video Digital Digital Touchscreen External data Optional Optional entry device Sonar Optional Optional Pneumatic Optional Optional

Buy a Tyre Changer and Wheel Balancer together and save up to £749

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£10.82

PROFESSIONAL WHEEL BALANCERS



Quick Selection Program (QSP)

Choose fast internal rim data entry with the QSP internal data arm!" and the QSP external data arm for steel wheels^s, to get the ultimate in easy setup.

Chassis Selection

Choose from a 65kg space saving chassis up to a 80kg chassis for heavier wheel and tyre combinations

Options available

Internal rim illumination, laser weight positioning, Sonar spoke detection and weight optimisation available on selected models

TECALEMIT TECALEMIT



2 speed Variable Variable Variable

12" - 32'

3"-15"

Pneumatic

Saving based on TTC/9628S/LL/T & TBM/W5/TCHAWLP as package at £11,879.00 compared to £12,628.00 as separate items. Finance options are available. See page 2 for Tern



PRUDENCE, PERFORMANCE AND PROFITABILITY

LUCAS OIL'S DAN MORGAN HIGHLIGHTS SOME PRACTICAL ADVANTAGES FOR FUEL AND OIL ADDITIVE USERS.





Soaring oil prices, driven by the prevailing geopolitical conditions in Eastern Europe, make improvements in engine performance, fuel economy and MPG some of the key issues on the minds of many garage customers at this time.

Members can turn to suppliers such as Lucas Oil, one of the world's leading oil, lubricants and additives manufacturers for technical information and marketing support to help promote some of the alternative solutions that are already available.

UPPER CYLINDER LUBRICANT

A clean engine retains its power, is more responsive to the accelerator and more fuel efficient. Once added to diesel or petrol tanks, Upper Cylinder Fuel Lubricant is the fuel additive that restores lost power, delivers better ignition and improves MPG.

It helps to flush away the tars and lacquers that build up inside the engine, removes the deposits that will otherwise lead to clogged-up injectors. Results are achieved quickly. That's why millions of garages around the world use it so successfully in petrol engines and diesel

driven engines when vehicles need extra help to get through increasingly stringent MOT emission tests.

DIESEL DEEP CLEAN

This is a product with a reputation for cleaning injectors, restoring power and increasing MPG but its prowess as a cleaner of DPFs is often underestimated.

When added to the fuel tank, Diesel Deep Clean removes and dissolves harmful exhaust products that could plug the DPF. That makes it a preventive maintenance tool that mechanics can use, whole promoting the preventive maintenance benefits to the car owners themselves. Regular use of Diesel Deep Clean increases intervals in DPF regenerations, which reduces the risk of engine damage from forced regens, that can sometimes be required if carbon build up is left unchecked.

When garage customers are looking for an additive that can help achieve the aim of saving their customers money over the long-term, while adding to the revenue streams in the garages right now, this has to be a leading contender.

SAFEGUARD ETHANOL FUEL CONDITIONER

The introduction of E10 petrol fuels in September 2021 forced many motorists to check the compatibility of their cars with these fuels. As many as 600,000 vehicles currently on our roads aren't compatible with E10.

The prevailing myth is that damage will only affect the classic car market and older family runabouts. The reality is very different. Other vehicles, such as boats, aircraft, ATVs and different kinds of leisure craft are unlikely to be compatible. Then there is a wide range of petrol-driven garden machinery to think about.

Without protection, the gradual deterioration of certain rubber compounds used in existing fuel systems will lead to internal rupturing of rubber pipework. Meanwhile, as ethanol continues to absorb water from the air, rising levels of water in fuels is accelerating rust corrosion inside engines and exhaust systems.

The team of engineers at the Motor Museum, Beaulieu, has been protecting its valuable collection with Lucas Oil's ethanol buster for several years. Ethanol corrodes from the inside, adversely affecting rubber pipework and seals. It can also remove tin content from lead solder, so that joints in older fuel systems can become porous.

HEAVY DUTY OIL STABILIZER

Finally, it's important not to overlook the influence that engine lubricants will exert on engine efficiency, fuel economy and emissions output.

Engine sludge builds up as poor-quality oils begin to fail and when good quality oils are infrequently changed. As well as adversely affecting power output and consequently MPG, engine sludge can cause problems relating to oil pressure and engine overheating.

Heavy Duty Oil Stabilizer is an additive that fortifies existing engine oils. It acts to prevent the build-up of engine sludge but also enhances engine wear and protection against dry starts – the most common cause of engine damage. It proved an ideal engine oil additive during lockdown, because when so many vehicles were left standing for long periods and engines oils drained down into the sump, Heavy Duty Engine Stabilizer leaves behind a film of protection that coats every moving part.

If fuel price rises continue and more consumers begin to leave cars on the driveway in a bid to conserve fuel, more and more engines will require the extra protection that it can deliver.

CONTACT YOUR LOCAL BRANCH TO FIND OUT MORE



"Frequent washing of hands with soap is an effective method to help prevent the spread of viruses"

Recommended by WHO (World Health Organization)



selection of hard-to-find niche parts that are readily available!





Expansion Tank (Cool)





Transmission Filter housing Cover with heat shield - OEM

• To fit: VAG Group VAG A3, Q2,Q3,R8,TT. Arteon, Golf MK7, T-Roc, Transporter



Renault Captur, Clio iV, Megane MK3

Fuel Filter INC Housing - OEM

• To fit: Ford / Vauxhall Ford, Bmax, Eo Sprot, Fiesta MK7, Fiestal MK8, Focus MK3, Mondeo MK, Transit Connect. Vauxhall Crossland, Grandland, Zafira



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Axle Shaft Bearing

To fit: Ford / Landrover / Volvo





Oil Filter Housing, with Oil Filter and Oil Cooler

• To fit: **PSA/Jaguar/Ford/Fiat** C-Crosser 07 > C5 MK2, C5 MK3, C6, C8. Ford Mondeo MK4, Galaxy MK2, S Max , Jaguar XF, LandRover discover sport, Freelander MK2, Ranger Rover Evoque, Peugeot 407, 508, 807, 4007



722-0001

Timing Belt Cover

• To fit: **Renault/ Nissan / Vauxhall** Espace,Laguna MK2, Traffic MK3, Master MK2, Primstar, Movan, Movano



PSA Front Wiper Motor

• To fit: PSA Group PSA - Berlingo / Partner



To fit: Ford Mondeo MK3 2.0 2.2 Tdci



Wiper Motor Relay • To fit: BMW Mini BMW Mini



Call for our best prices!

Top Strut Mounting Front

• To fit: **Jaquar** F Type 2014 >

THE COMPACT HELLA SOS 360° LED WARNING LIGHT PROVIDES A RETAIL OPPORTUNITY FOR WORKSHOPS

Naturally, independent workshops are uniquely qualified to assist motorists concerning the service and repair requirements of their vehicles, but they are also ideally positioned to advise them when it comes to retail products that could be a wise investment for them, particularly if it is safety related.

One of those investments is the compact SOS 360° LED warning lamp from lighting specialist, HELLA, which is an easy to use, instant safety device that can be immediately activated should they be involved in a breakdown or roadside incident.

To ensure the wellbeing of those in the vicinity, whenever there is a breakdown or an accident, it is essential to secure the location in question, which is why in many countries it is a legal requirement for drivers to carry a warning triangle. However, until they have been retrieved from the boot, where they could be buried under luggage or other items, and set up, the vehicle remains unsecure and the occupants at risk, and that's a danger that should not be underestimated, especially in the dark or on a busy road.

With HELLA's new SOS 360° LED warning lamp however, drivers have an immediate safety solution that fits into the glove compartment and, by using its magnetic mounting to attach it safely on the vehicle's roof, can instantly secure the scene of the incident.

Although the SOS 360° can naturally be switched on manually, its intelligent design also means that as soon as it makes contact with the vehicle's metal roof, the magnet activates

the flashing amber warning light. Its high-performance LEDs enable it to generate an all-round warning signal that can be seen more than half a mile away, so other road users can be warned in good time.

Furthermore, car drivers can use it as a torch or a work light because it also has a bright, continuous white light function. Due to its magnetic attachment feature, this is particularly practical if work has to be carried out in the engine compartment, as the lamp can be secured to the underside of the opened bonnet.



SO5 360°







VISIBLE FOR 1000 METRES



MAGNET MOUNTING



INCLUDING TORCH

£15.95

FOR MORE INFORMATION CONCERNING THE SOS 360° CONTACT YOUR LOCAL BRANCH TODAY!

SIMPLY SAFE. SIMPLY PRACTICAL.

The ultra-compact HELLA SOS 360° warning light offers lightning-fast safety in the event of a breakdown. Its Amber LED warning light is visible for up to 1000 metres! Includes built in LED torch.

Technology with Vision





SMART CHOICE TALKS TO FERODO'S MARKETING MANAGER JONATHAN ALLEN ABOUT THE COMPANY'S LATEST TECHNOLOGICAL DEVELOPMENT – FUSE+.

1. Ferodo claims that Fuse+ technology combines "comfort" and "performance" characteristics. What does that actually mean?

Brake pads must fulfil a multitude of requirements. When we talk about comfort factors, we address characteristics such as wheel dust, brake noise and pad and disc life. When we refer to performance, we mean things like stopping power and brake fade.

There has always been a compromise to be made when developing friction materials and brake pads have tended to deliver stronger or weaker performance in one camp or the other i.e., be comfort driven or performance driven. In simple terms this is because a friction material cannot achieve all these things really well, until now that is.

FERODO Fuse+ Technology has removed the compromises and successfully bridges the gap between performance, environmental needs, and quieter, longer lasting brakes.

2. Why is there a discrepancy between the US and Europe in driver preference? Are UK drivers even aware that their brakes could be smoother/quieter?

Vehicle manufacturers, vehicle types, road conditions and cultural driving behaviour all influence and contribute to driver preference. It's not the case that European drivers do not value the comfort factors, simply that stopping performance has always been a higher priority.

3. What are some of the technical obstacles in the way of making more effective, quiet brakes? How has Ferodo overcome those obstacles?

As we have already outlined, there has always been a compromise to be made when developing friction materials. It is possible to create a virtually silent brake pad but in doing so another performance characteristic becomes less effective. The skill is in the science of creating the friction formulation which optimises as many of the requirements of a good brake pad - such as noise reduction - as possible. Fuse+ Technology has taken this optimisation to another level.

4. How did Ferodo develop its Fuse+ technology?

It's taken three years of engineering, extensive laboratory and real-world testing of 75 different materials, and the careful selection and combination of 20 of those materials, to produce this latest innovative and unique pad from FERODO.

5. For those fitting and replacing brakes, is there anything about Fuse+ that poses a problem or a new challenge?

This is a short answer, no! There is absolutely no change to the fit and form of a Fuse+ Technology brake pad when compared to any other. The benefits are delivered through the friction material formulation.

6. Sustainability is a big issue these days and one that even affects brake pads, how does Fuse+ ensure cars are fitted with the most environmentally sustainable option?

By including FERODO's exclusive zero-copper Eco-Friction Technology, which cuts pad emissions by 60%, Fuse+ Technology helps to protect the environment and workshops can be assured they are providing motorists with a sustainable solution.

7. Many in the aftermarket will look for OE quality and a wide range of vehicle models to be covered. Is this something Ferodo can satisfy?

OE quality is in our DNA. FERODO parts are chosen as original equipment for nearly 25 million vehicles each year? We have 100 years of OE expertise. The parts we supply to our aftermarket customers are tested and produced to the same standards as OE pads and far beyond the requirements of R90.

Fuse+ technology will be deployed for high-end vehicle applications, typically 0 to 3 years. In 2021 we launched with 11 new Fuse+ Technology pads covering 120+ applications for vehicles from Audi, BMW, Mercedes-Benz and Volkswagen. This will ramp-up in 2022 with a further 80 pads covering hundreds more applications.

Workshops will enjoy the technology and its benefits as we introduce it to more applications. There is no change to part numbers or requirement for distributors to stock a second range. The Fuse+ Technology logo will be prominently displayed on our box so the technology is immediately visible.

8. Looking forward to the future, how will Fuse+ technology interact with EVs?

Electric and Hybrid Vehicles are served by FERODO with our standard Eco-Friction and Fuse+ Technology brake pads, as they meet the optimum requirements for these cars. The advantage for the distributor, wholesaler and installer is that they do not have to carry a separate range in stock.

9. What are some of Ferodo's other plans for the future?

As the first supplier of OE friction linings to mass production vehicles, the inventors of the disc brake pad and now the first to combine braking performance and comfort, FERODO always looks to innovate and advance friction material technology. What's next? Watch this space.



www.ferodo.co.uk

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Redashe

Oil & Grease Management

PUMP AWAY WASTE OIL DRAINER

90L Capacity waste oil drainer for gravity collection of motor and gear oil. Equipped with a pneumatic pump, which is used for evacuating the units tanke of waste oil through a dry break coupling.

- Supplied complete with a 'Y' strainer and filter regulator lubricator to increase the working life of the pump.
- Adjustable collecting bowl height to work with jack or lift.
- Equipped with a valve for collecting bowl to inspect drained oil before it enters the reservoir.

Part Number JT563190 **ONLY £549.00**



2 IN 1 WASTE OIL DRAINER

Combination suction and gravity waste oil drainer unit

- Extracts used oil from any vehicle using the venturi / vacuum extraction system, suitable for draining oil by gravity from engines, gearboxes, and differentials on all vehicles
- Includes six suction probes (metal and flexible) equipped with quick couplers for fluid extraction.
- Adjustable collection bowl height
- The emptying of the drained oil inside the reservoir is air operated.



Part Number **JAODE090 ONLY £325.00**

PNEUMATIC OIL PUMP KIT

Kit Includes:

- 1:1 Air Operated Oil Pump Suitable
- For 205ltr Drums
- Filter, Regulator Lubricator
- 4m R1 Oil Dispensing Hose
- **Digital Oil Control Gun**

All parts can be purchased Individually

Part Number J100TDGD ONLY £399.00



TROLLEY BASED OIL DISPENSING KIT

Kit Includes:

- 3:1 Air Operated Oil Pump Suitable
- For 205ltr Drums
- **Heavy Duty Trolley Suitable for 205ltr Drums**
- 2m Pump to Reel Connecting Hose
- 15m x 1/2" Spring Rewind Hose Reel
- Digital Oil Control Gun

All parts can be purchased Individually

Part Number JOS200 ONLY £899.00



AIR OPERATED GREASE PUMP KITS

Suitable for grease upto NLGI 2 Kit Includes:

- 50:1 Air Operated Grease Pump
- Lid
- Follower Plate
- **4m Grease Dispensing Hose**
- **Booster Gun**

Z Swivel Part Number **J1700512 (12.5kg KIT) ONLY £299.00** Part Number **J1700524 (50kg KIT) ONLY £399.00** Part Number J1708001 (Optional Trolley) **ONLY £89.00**

RECHARGEABLE DEF / ADBLUE PUMP

Rechargeable battery operated pump complete with control nozzle, telescopic suction tube & 1.5m flexible hose.

- Flow Rate: Up to 11.5 LPM.
- Duty Cycle: Maximum 15 mins on & 30 mins off
- Fully charged battery can discharge up to 300ltrs (Tested using Water)
- Recommended use: Gasoline, Diesel, Kerosene, Light Oils, AdBlue, DEF, Water, Antifreeze, Windshield Fluid, Mild Detergents & Agricultural chemicals.

Part Number **ZBOP60**

ONLY £99.00



FOR MORE INFORMATION CONTACT US IN BRANCH TODAY!

Wiper Blade Update



Bosch Aerotwin

Bosch wiper blades for electric and hybrid vehicles:

a clear view with Aerotwin sets and rear wipers

Outstanding wiping performance and quiet wiping even under extreme weather conditions – that's what Bosch

formula, it provides safety, ensures a clear view and increases driver satisfaction. In a European market, where sales of electric and hybrid vehicles has seen a significant growth during the last decade, the request for wear & tear spare parts from both car drivers and workshops has increased as well. With an overall market coverage of 98%, Bosch is providing front and rear wiper blades for most electric and hybrid vehicles on the European market.



Power Protection Plus

3 plus points with a single wipe

- ▶ Outstanding wiping performance
- ► Longer service life
 - ▶ Quiet wiping

NEW! Long-life wiper rubber formula

- ► Innovative wiper rubber admixture
- ► Improved resistance to environmental influences and debris on the windshield
 - ► Less abrasion and wear

Evodium spring strips

- ► Two customized high-tech spring steps
- ► High and uniform contact pressure
- ► Full-surface, streak-free cleaning of the windshield

Selection of top EV/HEV applications

Brand	Model	Fitment Period	Arm Type Front	Aerotwin Set Short Code	Aerotwin Set PN	Rear Short Code	Rear PN
AUDI	e-tron	09.18->	3	A 622 S*	3397014622	A 332 H	3397008635
BMW	3 Series	02.19->	6	A 606 S	3397014775		
FIAT	500X / 500e	11.14->	3	A 354 S	3397014354	H 840	3397004802
HYUNDAI	Kona	06.17->	1	AR 141 S	3397014141	H 281	3397011428
JAGUAR	I-Pace	03.18->	3	A 622 S	3397014622		
KIA	Niro / e-Niro	10.16->	1	AR 141 S	3397014141	A 300 H	3397016271
MERCEDES-BENZ	EQC-Class	05.19->	9	A 844 S	3397009844	A 282 H	3397008634
NISSAN	Leaf	01.18->	1	AR 141 S	3397014141	H 354	3397011433
RENAULT	Zoe	01.13->	3	A 300 S	3397007300	H 840	3397004802
TESLA	Model 3	06.16->	3	A 871 S	3397014871		
TOYOTA	C-HR	09.16->	10	A 157 S	3397014157	H 352	3397011430
TOYOTA	Prius	12.15->	10	A 159 S	3397014246		
VOLVO	XC90 II	06.15->	3	A 298 S	3397007298	A 351 H	3397008192
VW (VOLKSWAGEN)	ID.3	12.19->	3	A 988 S	339701400V		

^{*} Only for vehicles with no spray jet at wiper blade









Effective control of NOx emissions is more important than ever - all the more reason to trust the world's No.1

FROM THE WORLD'S NO.1

LAMBDA : NOx : EGR : EGT : MAF/MAP : CAMSHAFT & CRANKSHAFT SENSORS & VALVES





Help stop this

Turning this

Into this

Climate change is all around us – its evidence is incontrovertible, and we are now more than ever aware of our contribution to our planet's rising temperature. But the past year spent in lockdown has allowed us to rediscover the beauty of our natural environment, to hear and see what before we hadn't noticed.

We can be forgiven for not knowing some of the detrimental effects the products we use to make our lives easier are having on our planet – such as keeping cool in your car on a hot summer's day.

Scientific discovery permitted the introduction of the Solstice® 1234yf refrigerant in all new cars in Europe manufactured in the last 5 years, totalling over 65 million cars to date in Europe and over 120 million Worldwide, totally eradicating the previous fluid R-134a from first fill. R1234yf has a global warming potential of less than 4, that is over 350 times lower than its R134a predecessor.

Whilst existing vehicles are serviced with the old refrigerant, there are some new lower GWP alternatives which we expect to be available towards the end of 2021 which will further help lower our industries contribution.

Don't let your cars climate control affect our planets climate control!

There's only one choice The right choice



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ENGINEERED TO PERFORM

Beckermann Lambda Sensors are engineered to original equipment standards and built to withstand extreme heat and conditions for long lasting, reliable performance.

The Beckermann range includes:

- Zirconia Sensors
- Titanium Sensors
- Planar Sensors
- Narrowband Sensors
- Wideband Sensors
- 5 Wire Sensors



Scan for our visual guide to diagnosing Lambda Sensor faults







THE MIRRORS TO BE SEEN WITH!





KUGA 12/19> PRIMED MIRROR COVER

KUGA 12/19> **ELEC HEAT P/FOLD MIRROR W/IND P/LAMP PRM**



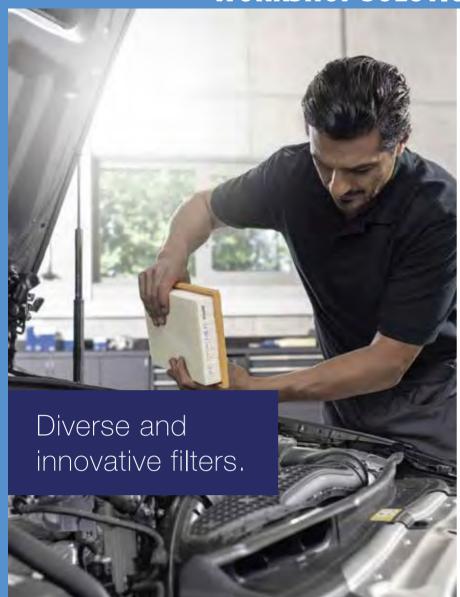






KUGA 12/19> MIRROR INDICATOR (LED)





The largest filter range for maximum workshop performance.

Our filters protect not only the engines, but also the people in the vehicle. With our comprehensive filter range in uncompromising quality and with maximum market coverage, we ensure that the right product is available for every requirement to keep dirt, abrasion and the finest particles away from the powertrain and the occupants. With MAHLE, your workshop delivers 100% performance, today and tomorrow.

mahle-aftermarket.com





RIGHT ON TIME VVTS SOLUTIONS FROM GATES

You can now source OE quality Variable Valve Timing Solenoids from Gates distributors. Our initial range provides efficient management control of functions such as emissions, fuel economy, idling and acceleration in a broad range of cars from different manufacturers.

These include, VW, Audi, BMW, Honda, Hyundai, Mercedes and Nissan.

Most units are a straightforward fit, require little or no technical support and are already in demand.



GATES. YOUR RELIABLE SOURCE FOR BELT DRIVE SOLUTIONS AND NOW VVTS UNITS, TOO!

TO FIND OUT MORE CONTACT YOUR LOCAL BRANCH TODAY

MAHLE AFTERMARKET EXPANDS THERMAL MANAGEMENT PORTFOLIO



That is why MAHLE Aftermarket is offering not only a growing range of components but also accompanying service equipment, training, and digital information solutions. The company is thus preparing workshops for the future and helping them with the switch to alternative drive systems.

"MAHLE is a strong partner for workshops for all aspects of thermal management. We recommend that our customers build up their skills in this area and support them accordingly," said Olaf Henning, Corporate Executive Vice President and General Manager MAHLE Aftermarket.

In an electric vehicle, the air conditioning system takes care of the cabin, and also cools the battery, electric motor, and power electronics. Accordingly, the system must be designed to meet high performance requirements and needs several circuits at different temperature levels. In the future, the maintenance and repair of such systems will constitute a major part of everyday business for workshops.

Indirect condensers, which cool down and thereby liquefy the refrigerant that has become heated during compression in the compressor, are already used in many modern vehicles with combustion engines and also represent the best technical option for hybrid and electric vehicles. They are more efficient, powerful, and compact than directly cooled condensers and can also be placed anywhere in the vehicle. Directly cooled models, on the other hand, must be installed at the front of the vehicle in order to make use of the ambient air.

MAHLE Aftermarket provides information on the design, function, repair, and maintenance of thermal management systems in TechTool, an online database. Aimed at both beginners and professionals, MAHLE's TechTool offers information at OEM level in 14 languages and gives detailed insights into automotive air conditioning and engine cooling in passenger cars and commercial vehicles. For workshops requiring specific training for their employees, MAHLE also offers in-depth courses that provide comprehensive expert knowledge on repair and maintenance.

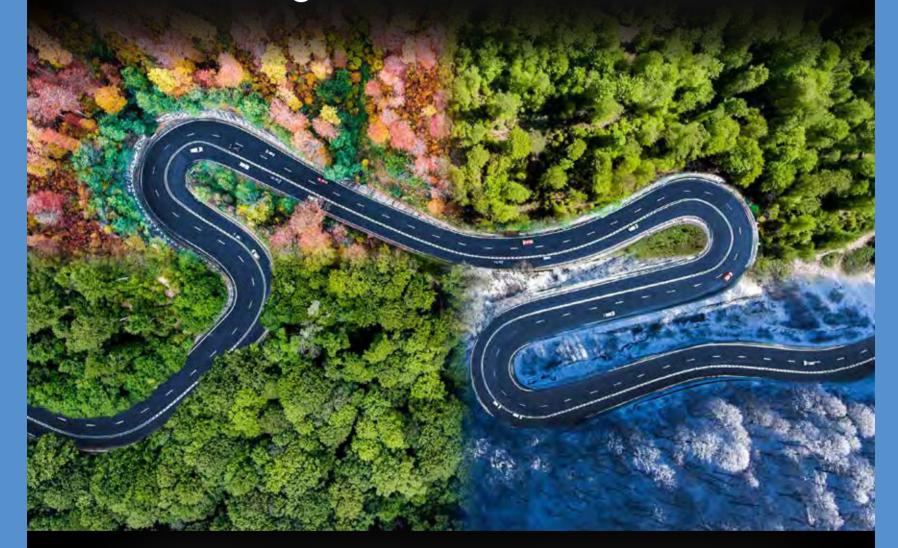
One good way to enter the A/C service market is to purchase an air conditioning service unit from MAHLE. Workshops have the option of upgrading the air conditioning service units with the MAHLE vehicle diagnostics tool-the MAHLE TechPRO® or BRAIN BEE® Connex. The diagnostic system can detect and eliminate defects in the electronics or air conditioning system and check the status of the system and individual components. To better diagnose complex defects, the system can also activate compressors, valves, and fans.



FOR MORE INFORMATION CONTACT YOUR LOCAL BRANCH

Steering & Suspension

The Driving Force Of Your Business



...Wherever You Are On The Road

- Over 20 Years of Experience -
- Choose From 6500 Quality Parts -
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WHY IS IT IMPORTANT TO CHANGE THE **CABIN AIR FILTER REGULARLY?**

The direct consequences of poor air quality on both drivers and passengers include allergies, sore throats, sneezing, reduced concentration while driving and even poor visibility due to condensation on the windscreen and windows. UFI Filters recommends changing your car's cabin air filter once a year, or every 15,000 km with a premium product such as UFI Filters ARGENTIUM. UFI Filters ARGENTIUM, thanks to its antimicrobial properties, maintains its efficiency over time, improving the quality of the air inside the vehicle in even the most intense traffic situations. UFI Filters ARGENTIUM range of cabin air filters includes 154 codes in the catalogue and is easily recognisable by its characteristic blue colouring, distinguishing it from other products in the catalogue with the initial code 34.





ONE YEAR'S PROTECTION

It retains its characteristics over time, i.e. up to twelve months.



DECREASE IN NO_x - SO₂The specific combination of activated carbon blocks harmful odours and gases such as sulphur dioxide and nitrogen oxide



ANTIMICROBIAL FUNCTION

Inhibits up to 99% of microbial growth thanks to Biomaster silver biocide (ISO 22196: 2011



BLOCK PM₁₀ - PM_{2.5}Filter efficiency that is >98.5% for particles with a diameter of 2.5µm according to ISO 11155-1, and >99.9% for particles with a diameter of 10µm.

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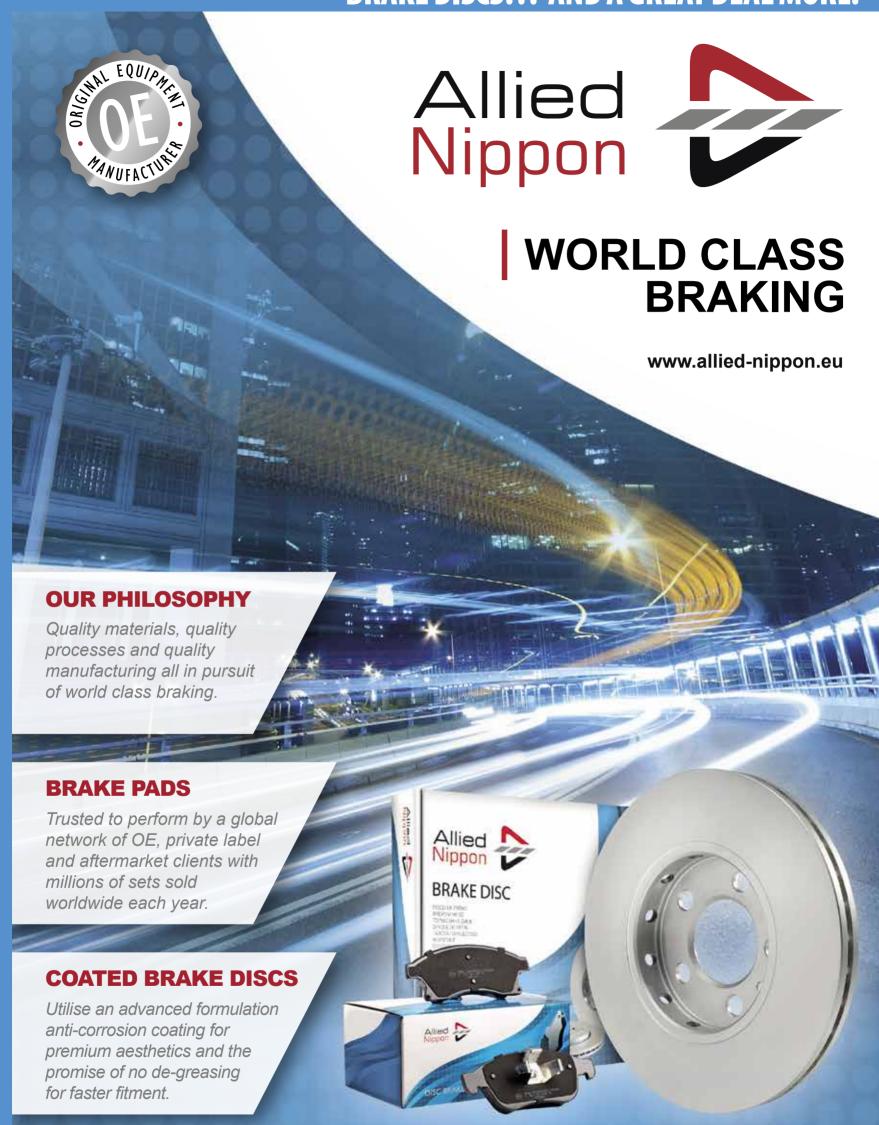


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ALLIED NIPPON TECHNICAL:

DRIVING YOUR BRAKES CRAZY!

Allied Nippon has a well-established track record for supplying high-quality brake discs for the European aftermarket. This affords us a wealth of knowledge about this product category and, in this technical article, we want to share our experiences of brake disc "crazing".

WHAT IS "CRAZING"?

Brake disc "crazing", sometimes known as "orange peeling" or "crazy paving" effect is when a cluster, or multiple clusters, of small, hairline cracks appear on the braking surface of the disc. These clusters can vary in size and should be relatively easy to spot, particularly if the vehicle features an open style alloy wheel.

Such cracks are typically caused when the disc is exposed to high-temperatures and would potentially indicate that the motorist is working the brakes quite hard – quite literally driving their brakes "crazy".



Close up of "crazing" on disc surface

It is important to note that crazing is not necessarily symptomatic of a quality problem with the chosen brand of disc. It is something that all traditional cast metal brake discs are susceptible to under high temperatures. It is also not a problem that should cause undue concern - such cracks are typically superficial and should not cause any issues beyond their unsightly appearance. That said, Allied Nippon would always recommend consulting a professional mechanic for their expert diagnosis as other types of cracks can occur within a brake disc that are potentially more serious.



Such crazing can often present itself alongside the 'blueing' of the disc, whereby patches of the disc surface take on a blue tint – also a reaction to high braking temperatures. It is also possible to see disc blueing without crazing. Again, a professional mechanic is best placed to advise on this issue during inspection of the brake discs.



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Includes:

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The all new MaxiSYS MS906S EU is super powerful tablet offering a 20 second boot up. Built on the multi-tasking Android 4.4 operating system and with 64GB of internal memory, it has the power to scan vehicle systems quickly and efficiently.

Faster, lighter, better value and much more powerful than its competitors, the new all PCB in the MS906S includes great features, such as support for over 70+ manufacturers, actuation testing, special functions, live data and some programming functions.

The MS906S EU has a large 8" high resolution screen, Wi-fi, 8 Mega-pixel camera, 2GB

RAM and a 'best in class' 64GB Internal Hard Drive.

With its built in camera, you can take pictures of faulty parts for customers and email instantly. Self—powered and connecting to the car via a bluetooth VCI, it's the perfect tool for the busy garage or workshop, who need the latest technology at unbeatable value.

The MS906S EU is supplied with free 2 years software updates, UK based telephone support and enhanced European software. It's time for the competition to catch up again!

Specifications

- Android 4.4 OS
- Fast Samsung 1.7G + 16Hz Hex Core processor
- 64GB internal memory / 2 RAM
- 3x Ultra fast Wi-Fi connectivity
- 8" 1024 x 768 high-resolution touchscreen
- 8 MP rear camera
- 10,000mAh Lithium-Polymer Battery
- MaxiVCI Mini wireless Bluetooth vehicle communication interface

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NEW replaces the MS908S

Includes:

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- Extended 2 years software free updates
- MaxiCVI V200 Bluetooth VCI

MaxiSYS MS906Pro is an advanced diagnostic tablet compatible with U.S., Asian and European vehicles, 1996 and newer. This 8-inch wireless Android-based touchscreen tablet performs extensive vehicle diagnostics including an all systems scan with ADAS identification, the ability to read/erase codes, view freeze frame and live data, bi-directional control including active testing, coding and adaptations. Includes customizable Pre/Post

scans, extensive service menu with 25 of the most of common maintenance tasks. FCA Access via AutoAuth account, starting and charging system analysis with MaxiBAS BT506 Bluetooth tester and terminal cables purchase, ADAS Calibrations capable (frame system and software upgrade required).

Specifications

- Android 10 0S
- Fast Qualcomm Octa-Core 2.3G + 4*A53 1.7G processor
- Huge 128GB internal memory
- 3 x Ultra fast Wi-Fi connectivity
- 8" 1920 x 1200 high-resolution touchscreen
- 5 MP front camera and 16 MP rear camera
- 11,600mAh Lithium-Polymer Battery
- MaxiVCI V200 wireless Bluetooth vehicle communication interface
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Software Updates + Bolt-ons





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What's Important is What's Inside the Box





FIAT 500 1.4 2012-2015 TIMING BELT KIT INSTALLATION

Dayco Kit KTBWP2853

The 1.4-litre MPi petrol engine used in the popular Fiat 500, features a timing belt driven water pump. As replacing the belt also requires the auxiliary drive system to be removed, Dayco recommend that all the systems' components - primary drive and auxiliary drive - be replaced at the same time.

This step-by-step technical guide will help technicians through the process, to avoid complications and ensure a first-rate job.

As with all primary drive system jobs, the work should be undertaken when the engine is cold, so ideally the vehicle will not have been run for at least four hours.

After disconnecting the battery earth cable, draining the coolant and detaching the reinforcement brace, remove the cowling/side protection from the driver's side front wheel arch to expose the auxiliary belt system. Slacken the auxiliary belt tensioner with a spanner and take off the belt, then remove the crankshaft pulley.

Disconnect the coolant hoses to the reservoir and remove it and after suitably supporting the engine from underneath, remove the upper engine mount and bracket to reveal the cover of the timing drive system, which



can then be removed starting with the upper half. After checking the timing marks, loosen the tensioner bolt and then remove the tensioner and belt, followed by the water pump.

Fit the camshaft locking tool (186085000) then turn the crankshaft clockwise and align the crankshaft timing marks and install the crankshaft timing tool (2000004500) ensuring that the pin in the pulley is located correctly (figure 1).



Ensuring that the cooling system has been flushed through and no debris is present, install the new water pump from Dayco kit KTBWP2853, complete with its seal.

Hold the camshaft pulley with the special tool (2000015800) and loosen, but not remove, its bolt, so the pulley

can rotate on the shaft, then remove the tool. Replace the tensioner and the belt with the new ones from the kit and using tool (1860987000), rotate the tensioner anti-clockwise to the end of its stroke (figure 2) and tighten the nut to between 22-27Nm. Making sure the camshaft pulley doesn't move by holding it with the special tool (2000015800), tighten the bolt to 132Nm.



Remove the camshaft and crankshaft timing tools and by using the crankshaft pinion, rotate the engine several times and reinstall the tools. Then, while holding the tensioner with the tool, loosen the fastener and rotate the tensioner until its index is centred in the reference window (figure 3), then retighten the fastening to between 22-27Nm

Remove the timing tools and refit all the components in their reverse order, but check, and if necessary, replace the crankshaft pulley with Dayco DPV1021

(the fasteners for which should be tightened to 28Nm) and the auxiliary belt tensioner with Dayco APV3711. However, Dayco recommend the auxiliary belt 5PK1145 is always replaced. For non-aircon vehicles Dayco offers the crankshaft pulley DPV1028 and auxiliary belt 4PK668.

Finally, refill the cooling system, start the engine and carefully check for leaks and ensure the radiator fan operates at the correct temperature, replace the thermostat Dayco DT1078F if necessary. Then, once the engine is cold, check the level of the fluid again.

To view similar installations, visit the official Dayco Youtube Channel.

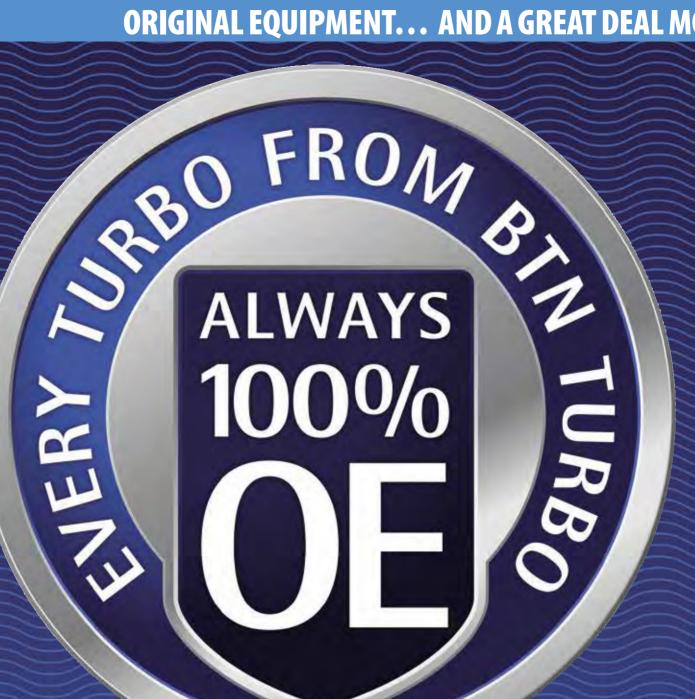


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team are experts in air suspension products, from simple component to bespoke

Dunlop Suspension Systems specialise in the design, development, manufacture and supply management of ECAS systems (Electronically Controlled Air Suspension for OEM platforms and to support this, an extensive range of car, commercial vehicle and industrial application airsprings for aftermarket.

To compliment the aspiring range, Dunlop manufacture and supply high-quality air compressors, servicing both original equipment manufacturers and the aftermarket.

Our DAS aftermarket range of products expands and complements our existing product range to provide you with quality products over a much wider range of vehicles. Our range of air struts is regularly growing, adding to our extensive product range which includes:

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- Air Compressors

The Dunlop team are experts in air suspension products, from simple component to bespoke electronic control systems. We're a component manufacturer and supplier ready to deliver the right solution to meet your needs.

Specialists in bespoke design that meets your industry requirement, we deliver innovative designs, reliable finished products and quality solutions that meet your needs. Throughout our history, we've established a firm understanding of the importance of

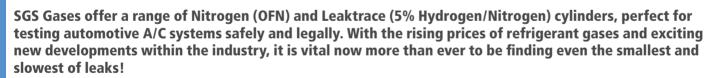
quality design and our team have proven experience for problem solving and providing solutions to customers across the globe.



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*R1234yf adapters sold separately



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TROUBLESHOOTING: GRABBING CLUTCH

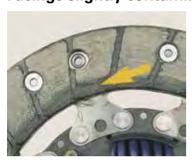
Clutch grabbing - what is it?

When alternating torques occur in the slip phase (e.g., due to friction value fluctuations) and causes vibration of the driveline, this is called clutch grab. Instead of slipping evenly, the clutch grips suddenly, then loses contact. The driver experiences these oscillations as vibrations, rolling or bucking. A grabbing or juddering clutch produces a severe vibration motion and can have various causes.

Check:

- · Correct parts for the vehicle?
- Associated system components / check all parts for wear and correct settings
- Clutch release system?
- · Driveline bearing?
- Engine management?
- Deficiencies in the driveline?

Facings slightly contaminated with oil or grease



Cause:

- Damaged transmission or engine sealing
- Excessive grease on the transmission input shaft or pilot bearing
- Leakage in hydraulic actuation system
- Contamination of the friction surfaces due to incorrect handling

Consequence:

 Even minor traces of oil or grease have a significant adverse effect on friction values, and thus start-up performance when the clutch is engaged.

Hub spline damaged



Cause:

- Transmission shaft and clutch hub forced together during installation
- Excessive angular movement during transmission installation

Consequence:

 Clutch disk does not move or moves jerkily on the transmission input shaft.

Comment:

• Also often causes drag.

Why does a clutch grab?

In order to know how to stop the clutch grabbing, it is necessary to find out what causes the juddering problem. Apart from the clutch itself, poor engine setting or worn engine or transmission mounts can prevent smooth clutch engagement. Other possible causes for grabbing clutches are installation of the wrong clutch disk or incorrect installation.

General note

Our useful tips provide only an overview. The installation instructions and operating instructions provided by the vehicle manufacturer and the warning and safety instructions contained therein must be observed! All work must be performed by a trained professional. The pictures used and the procedure described in our tips are examples and may vary depending on the vehicle manufacturer and axle design.

Tangential leaf springs deformed



Important:

Secure the flywheel against turning with a suitable tool provided by the vehicle manufacturer for this purpose.

Cause:

- Incorrect counter-holding technique, e.g., with a screwdriver, when bolting down clutch pressure plate (MX pressure plate)
- Damage during transport, storage or handling

Consequence:

· Lop-sided pressure plate lift.

Comment:

• May also cause drag.

Housing deformed



Cause

- Attachment screws not professionally tightened during installation. Not tightened in a crosswise, over-center sequence.
- Clutch pressure plate not correctly centered in the flywheel.

Consequence:

Lop-sided pressure plate lift.

Comment

• Drag may occur if the problem is severe.

Worn engine / transmission mounts



Cause

• Worn parts

Consequence:

 Leads to pseudo grab (bonanza effect) in driveline during setting off and gear changing or load changing.

Comment:

 Always check these components for signs of wear (e.g., cracks in the rubber-metal joints or damaged joints).

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RELATED SACHS TOOLS

SACHS Clutch Tool Kit for Passenger Cars and Light Commercial Vehicles

The clutch tool kit is ideal for disassembling and installing XTend and conventional clutches as well as for centering clutch disks.



SACHS Lateral Run-Out Testers for Passenger Cars and Trucks

SACHS offers lateral run-out testers for clutch discs with diameters of up to and starting from 240 mm, depending on whether passenger car or truck clutches need to be tested.



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GYSFLASH 4.12 SMART CHARGER

- The GYSFLASH 4.12 is designed to charge vehicles with 12V batteries • Designed for 12v batteries 1.2 $-\,70\text{Ah}$
- Ideal for cars, motorbikes
- 7-Step Charging Curve ensures maximum battery performance & longevity Optimised Maintenance Charge – Can remain plugged in indefinitely during Winter
- Recovers deeply discharged batteries
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- Ultra-compact design
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SMART CHARGER & 30AMP BATTERY SUPPORT UNIT

GYSFLASH 30.12 PL is a multifunctional charger designed to charge 12v lead acid and lithium irron phosphate batteries (LiFePO4).

- 2 Distinct Intelligent Charging Programs Guarantees performance of each battery technology

- Dual Technology Lead Acid & Lithium
 Battery Support Unit
 Showroom Mode Safely Support & Maintain Showroom Vehicle Batteries
 Supply Mode Provides a stabilised power supply so the GYSFLASH can be used as a BSU
- 100% Automatic Charge Extend performance & lifetime of batteries Wall mounted or optional magnetic system





- diagnostic work Advance battery charger: ensures an ideal charging cycle for battery maintenance for the most modern vehicles
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- Slim size Can be placed under vehicle
- Fan Less No external ventilation, No dust ingress



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IT COMES TO STEERING THE FUTURE IS ELECTRIC

Given the world in which we live, it makes total sense. Lighter, more durable fuel-efficient components that give a better response at different speeds. And now, with almost every vehicle rolling off the production line fitted with EPS, the aftermarket needs to ensure it is ready to deal with them.

At Shaftec, we pride ourselves on our ability to partner our customers in such a way that as the part travels down the supply chain, everyone involved has access to the information they need to make their lives as easy as possible.

We hold £5 million worth of stock at any one time to ensure a full range is always available. We also supply our distributors with technical information and fitting instructions which they can then pass on to their customers, the garages.

And we are always way ahead of the game in terms of efficiency. With more than forty years of experience, we remanufacture the highest quality EPS steering parts, which are tested in the same way and perform to the same OE quality standard as new parts — but are a more affordable, and therefore more efficient option. In addition to utilising less energy and raw materials in the production process, our parts are a better option for the environment as we give a second life to core which would otherwise end up in landfill.

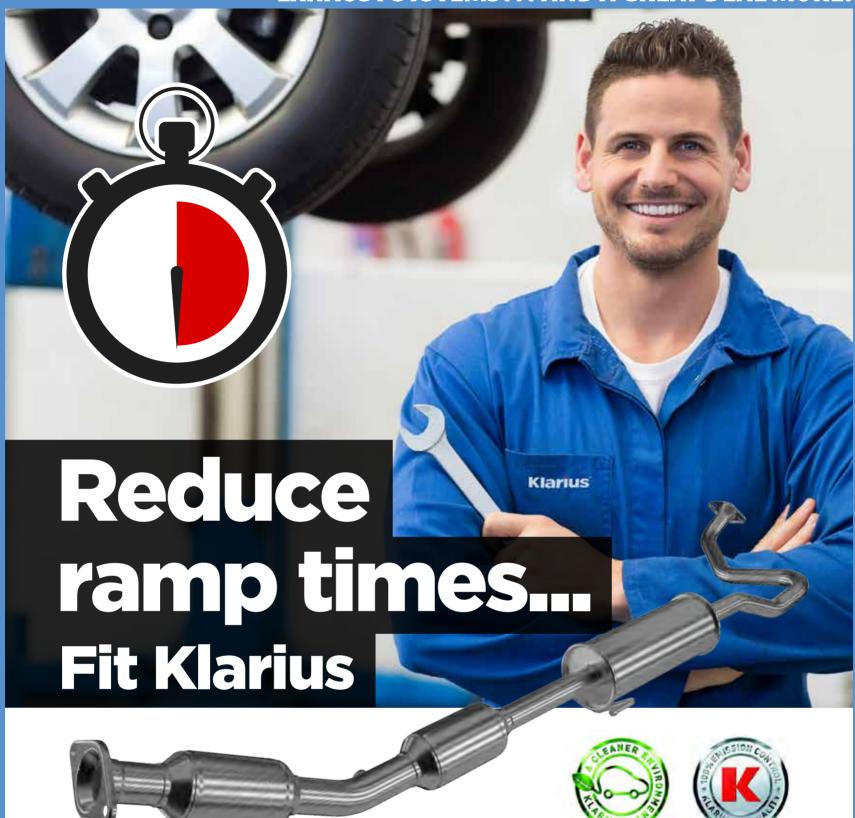
Our EPS parts are all remanufactured using core which is carefully checked to ensure it meets our stringent returns criteria, and then fitted as standard with new motors and ancillary parts. Add to all of this, we have a stringent process of formatting the software on the EPS units so that when they are removed from the box they are 'oven ready' to 'work' in another vehicle. And we make this crystal clear by adding a 'Tamper' label to the box to prove this has been done.

So, there you have it. A full range of top quality fully tested affordable and efficient remanufactured EPS parts exactly when you need it — not just from under one roof, but from one brand: Shaftec.

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- Fit First Time guarantee for all parts in range to ensure ease of fitment.
- **Guaranteed quality,** independently tested, type approved and made in the UK to OE standards.
- Parts for popular models and niche vehicles available same day from distributors.



How Klarius' UK manufacturing ensures replacement exhausts are available for the latest models.

With new models and variations on current models of new passenger cars and LCVs being launched all the time, aftermarket parts producers need to develop new products just as quickly. This means designing, developing and testing as many exhausts as all the mainstream manufacturers put together. Quite some task...! But one that our largest UK manufacturer does every year to make sure the distribution network has the latest products to meet demand.

"When the call comes in for a replacement part, price and quality are often a given... so it's availability that really counts."

Doug Bentley, Head of Research & Development at Klarius explains, "This is especially true for newer models, when a customer car is on the ramp garage technicians need to be confident that they can get the right part. Which is why Klarius provides distributors with exhausts for the latest best-selling vehicles via its market leading inhouse 'new to range' programme."

Experts at the Klarius Research and Development Centre in Staffordshire work with customers to identify the latest sales market trends and develop quality exhaust replacements to ensure availability when they are required.

"Klarius has the largest UK car parc coverage of any aftermarket exhaust manufacturer and we're proud of that, the company has worked hard to achieve it" adds Mark Brickhill, CEO at Klarius.

Having introduced new parts consistently for many years Klarius now has products available ready to fit over 24 million vehicles, covering over 11,000 applications. Constantly building on its market-leading range, Klarius releases new, quality, type-approved exhausts to market on a weekly

(sometimes daily) basis, providing products to fit the most recent, best-selling cars and vans.

Production versus the pandemic...

"Despite the challenges of the pandemic and lockdowns, last year, we remained open throughout and introduced a large number of new exhausts, while over the last two years, we managed to deliver several hundred new exhausts to market. Making sure that we are developing new products to meet the needs of the market is especially important as the UK car parc is ever growing and changing. Our streamlined research and development processes driven by market data ensure we are usually first to deliver quality exhausts for the latest models" Doug adds.

"Between now and 2030, Klarius will develop well over 2,000 new exhaust parts to keep up with both the increasing size of the UK car parc and the variety of vehicles."

This is complemented by an in-house next morning UK delivery service to stockists and distributors ensures first-rate availability across its entire range.





The latest best sellers are...

Throughout their history, Fords have been incredibly popular in the UK. Consequently, Klarius offers a complete range of exhausts to fit the latest models of the often sales chart-topping Fiesta. Support ranges from 1.0 EcoBoost models right up to the hair-raising ST. Recent additions to the range also include new diesel particulate filters for the 1.4 model.

Hatchbacks dominate new UK car registrations. A rival of the Fiesta, the Vauxhall Corsa, has plenty of range support from Klarius, including full exhausts and catalytic converters for the latest 1.2 and 1.4 models. The Mini Cooper is another ever present UK sales success, with Klarius offering full exhaust systems for the newest iterations of the 1.5, 1.5TD and S 2.0. Volkswagen's Golf and Polo are well represented in range too, with exhausts ready to fit models of all ages. A best-selling newcomer, the Mercedes A-Class is also supported by the Klarius range, with exhausts available to fit A160 and A180 models.

In recent years, crossovers have gained great sales traction in the UK. The Nissan Qashqai is a flagship for this success. Klarius offers a wide range of exhausts for this model. Furthermore, Klarius offers multiple systems for the ever-popular Ford Kuga and Kia Sportage.

Fast Facts

- Over 99% of cars on the UK's roads today have combustion engines, which require exhausts.
- Klarius is the only UK aftermarket exhaust manufacturer to offer next morning delivery to stockists and distributors.
- Over 97% of deliveries are made using their own van fleet unlike our competitors who use couriers taking 2+ days.
- Exhausts from Klarius match or exceed the performance of the OEM item.
- Garage customers can be certain that over 90% of their requirements are available same day from stockists and distributors with the remainder available next morning.
- Bespoke mountings are available for every Klarius exhaust.
- Every Klarius part comes with a Fit First Time guarantee and is available with a 2-year warranty.
- Klarius has a web catalogue to help with specification, visit http://webcat.klarius.eu/





l is Oil Right...?



One of the key ingredients to a well functioning AC system is having the right lubricant in place.

Oil is as important as refrigerant in an AC system. The refrigerant is subjected to extreme pressure changes which generates heat. The oil absorbs the heat and keeps the ac components lubricated.

With a number of companies marketing "universal" oils you could be forgiven in thinking you can use just the one oil in every vehicle, this is NOT the case.

Is there a one type of engine oil that is safe to use in every car engine? no there is not, using the wrong type and viscosity of oil in a car engine will only end badly. The same rule applies to the AC system.

In this write up we will go though the different types of oil available and the failures you can expect to see if the wrong type of oil is used.



PAG (Polyelkylene Glycol) oil
PAG oil is a synthetic oil that is available in several different viscosities. PAG 46 which is the most common, PAG 68, PAG 100, PAG125 & PAG 150, The PAG oil viscosity used in each vehicle is determined by the manufacturer.

POE/ESTER oil

Ester oil is also a synthetic oil. it is typically used in systems that have been retro fitted to R134a or as a "drop in" oil. Ester oil provides excellent performance in both high & low temperature environments. It reduces friction, prevents wear and acts as a seal between the low & high pressure sides. Safe to use in hybrid vehicles.

MRL85 (POE based)

MRL85 was once marketed as the "one for all" AC oil, this is not true or so it seems with new information being presented by manufactures. This oil is safe to use in HYBRID & EV when the manufacture has specified the use of a POE lubricant in the AC system. It can be used in both R134a & R1234yf, however it is better suited for the R1234yf systems.

HFO-PAG46e & HFO-PAG100eThese types of oil have recently become available on the market. Like the MRL85, this type of oil can be used in HYBRIDS & PLUG-IN-EVs when the vehicle manufacture specifies the use of a PAG based lubricant. These have been manufactured with low hygroscopic properties to minimise moisture ingress and retention. It can be used in both R134a & R1234yf.

If a PAG and POE oil has been mixed it will separate when the system is not in use, because of this once the system is switched on the separated oil will not properly lubricate the internal pistons/scroll of the compressor causing abnormal wear and eventually seizure of the unit which on some vehicles will halt the use of the vehicle until the unit has been replaced.

All OE compressor manufacturers highlight the use of the correct oil, if a mix of oils has been found in any warranty inspection regarding a compressor most will automatically reject the claim due to incorrect fitting of the unit.

To safeguard against any possible future issues, you must identify which oil is recommended by the vehicles manufacturer and ensure only that oil is used.

To find out more contact your local branch today.



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The **Climfill Easy** refill station automatically manages all operations on the A/C system including recovery, recycling, oil injection and weighing of the refrigerant. Light and compact it can be easily moved around the working area.

Recommended for:

■ A/C business new comers

Climfill Easy HFO

The **Climfill Easy HFO** features the Climfill Lock coupler that quards against refrigerant gases being released upon decoupling, making the station an eco responsible money saver. Recommended for:

■ A/C HFO business new comers









ADVANCED

Climfill[®] Pro

The **Climfill Pro** offers outstanding and long-lasting charging performance and also benefits from the ecopatented couplers that prevent loss of refrigerant and air from entering the vessel tank. Can be converted to HFO 1234yf using the conversion **kit** (710217)

Recommended for:

Climfill® Pro HFO

The **Climfill Pro HFO** offers the same features as the regular Climfill Pro but is only used for the new refrigerant HFO 1234vf.

Recommended for:

■ A/C specialists looking to develop their HFO 1234yf related business





710203

12.5_{kg}









■ A/C specialists

LARGE SYSTEMS

Climfill[®] Maxi

The **Climfill** Maxi is an adapted solution to effectively operate on the larger A/C systems in trucks and buses, offering the operating tank capacity found on these systems. It also features the eco-patented couples and an LCD touch screen.

Recommended for:

■ A/C Truck and Bus specialists

Charging Modes

The Climfill stations perform in any situation by adopting the appropriate strategy to successfully transfer the refrigerant to the car.

Valeo's entire range now offers 3 types of charging mode enabling optimum performance in different conditions.

22.4_{kg}

Q-MODE (

conditions.



The Q-Mode (Quick Mode) is the

most common charge mode and

is quicker but less accurate than

(Automatic hose compensation)

temperature, this is the default

can be affected by ambient

mode for normal operating

the S-Mode. The pre-charge phase

S-MODE



The S-Mode (Suction Mode) function is used to charge in severe conditions (low refrigerant level in the tank for instance or at a low temperature).

It benefits from the A/C loop compressor activation which drains the refrigerant remaining in the hoses. The station extracts the amount needed to refill the A/C system.

SUPERCHARGE-MODE (**



This function was initially used only on Climfill Maxi for the very large A/C loops typically found on buses and coaches. Now this function is also offered to all Valeo Climfill stations.

Since January 2013, following the European Union Mobile Air Conditioning (MAC) Directive, all type approvals for vehicles sold in the E.U. must include an A/C system running on a refrigerant with GWP (Global Warning Potential) lower than 150 such as HFO 1234yf. It will help reduce the climate impact of automotive air conditioning.





With its reputation for putting the needs of aftermarket professionals first, Schaeffler continues to do what it does best, completely redesigning its popular REPXPERT portal to provide an even greater resource to technicians, workshop owners and parts distributors.

"After five years of making minor improvements, we recently took the opportunity to completely overhaul the REPXPERT online portal and relaunch it with a number of major changes, all of which bring considerable additional benefits to the many users in the UK and Ireland," said Sales Manager, Andy Walters. "The new portal, codenamed REPXPERT 3.0, brings together all the information a mechanic needs to carry out their daily work – a comprehensive TecDoc based parts catalogue, repair data, product updates and a wealth of technical insight which, thanks to a further improved user interface and global search, are all quick and easy to access." Schaeffler REPXPERT brand ambassador,

'The Garage Inspector' Andy Savva, agrees: "Giving garages the tools they need to work professionally, efficiently and economically has always been Schaeffler's goal, which they

REP**XPERT**

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constantly deliver on and surpass in most of their customers' expectations. With the new version of the online portal taking things to the next level, there really is no reason not to sign up for access to one of the best free resources available to the aftermarket."

WORK

- > Barcode scanner for easy product search *
- > Product range information
- > REPXPERT TecDoc powered catalogue
- > Detailed repair instructions
- > Improved bonus shop
- Product label / bonus coupon scanner
- > Failure diagnosis guides
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- > Product knowledge
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INFORM

- > Schaeffler news and events
- The latest product updates and service information













WORK. LEARN. INFORM.



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^{*} app version only





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