



# YMF Car Parts

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# SMART CHOICE

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THE SMART CHOICE FOR TODAY'S TECHNICIAN!

# YOUR SMART CHOICE, IT'S ALL INSIDE!



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HELLA, MAHLE, VALEO, FEBI, KYB, DELPHI  
AND MANY MORE...



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# OFF THE SHELF, OR OFF THE CAR, SHAFTEC HAVE GOT YOU COVERED!

**Remanufacturing as it should be.** At Shaftec, remanufacturing is not just an inferior substitute for 'new'; it's a process that results in components that are as good as new and perform that way, too.

Although Shaftec offers over 6,000 part numbers in their premium caliper range, there are occasions when a certain unit may not be available 'off the shelf'. This can be down to an unusual application on a specialist vehicle or older model, or sometimes a newer vehicle where the old core is not available yet in any large numbers. But worry not, Shaftec offers a fast and efficient 'Reman and Return' service, making the process of getting your unit remanufactured as easy as possible.

Contact your local branch, which will check that the necessary parts are in stock and determine the cost of carrying out the work. We will then collect the unit and ship it to Shaftec, where it will be fully remanufactured to the same exacting standard as an off-the-shelf unit.

Each caliper is stripped right back to the original casting, inspected to ensure that there are

no defects, refurbished to the original state and then reassembled by hand using all new components. That means 100% new pistons, springs, actuation and seals. Nothing is left untouched, and everything is completely renewed to the highest quality standard of ISO 9001:2015, ensuring the longevity of your caliper.

After assembly, each individual caliper is 100% pressure tested, which goes beyond the capacity experienced on the vehicle. This is why, with confidence, Shaftec provide a 24-month/24,000-mile warranty.

Call us for your next brake caliper replacement, old or new; we have the solution!



# Oil Filter

for BMW i3 with range extender



**Blue Print: ADBP210077**  
**febi: 175012**



According to the vehicle manufacturer's recommendations, it is necessary to disconnect the high voltage battery before replacing the engine oil and filter.

Following disconnection, the engine oil and filter can be replaced in the conventional manner. However, please note, when refilling the engine with oil, the service flap of the engine sound insulation (which covers the oil filler cap) may interfere with the oil filling process. Prior to removing the oil filler cap, it is recommended that the service flap is folded behind the edge of the engine compartment to give unobstructed access to the oil filler neck. This is to avoid any unnecessary spillages of engine oil.

After the oil and filter has been replaced and the high voltage system has been re-energised, the range extender needs to be tested before the oil level is re-checked.

This service function should be carried out using a suitable diagnostic tool. Alternatively, the manual starting procedure can be followed.

### Range extender operation test:

1. Open the boot.
2. Switch on the ignition (Drive Readiness) and select the 'Park' gear position.
3. Within 60 seconds, press and hold the accelerator pedal.
4. Within 20 seconds, press the brake pedal three times and hold down.
5. While continuing to depress the brake pedal, release the accelerator pedal and press the Start-Stop button.
6. Once completed, providing the battery has less than 75% state of charge, the engine should start.
7. Press the Start-Stop button to shut down the engine.
8. Re-check the oil level and reset the service indicator as necessary.

### Service interval indicator reset:

1. Before starting this procedure, ensure the vehicle time and date are set correctly.
2. Without pressing any pedals, press the Start-Stop button and switch on the ignition.
3. Press and hold the trip distance recorder reset button (in the bottom left corner of the display) for approximately 10 seconds - until the first service item is displayed.
4. Press the button in the bottom left corner of the display to select the service item to be reset.
5. Press and hold the button for 3 seconds until the message "Reset?" is displayed.
6. Press and hold the button for another 3 seconds until the message changes from "Reset in progress" to "Reset successful".
7. Press the Start-Stop button to switch off the ignition.

To see the full range of febi and Blue Print Oil Filters visit [partsfinder.bilsteingroup.com](http://partsfinder.bilsteingroup.com)



**SOLUTIONS**  
**DRIVEN BY YOU**

[www.febi.com](http://www.febi.com) & [www.blue-print.com](http://www.blue-print.com)



**Right First Time®**

**bilsteingroup®**

# Directional Vented Brake Discs



Brake disc design is more than skin deep and the internal layout and construction of vented brake discs is particularly important for temperature control.

There are many design variations of the vented section to maximise the cooling effect, which include, pillar, column and curved column cooling vanes.

Directional brake discs are designed with angled cooling vanes to maximise this cooling effect. They are more commonly fitted to high performance models and it is important to ensure the original braking specification is maintained by using the correct specification parts, fitted in the right way.

Each brake disc must be installed onto the correct side of each axle, with the vanes curved rearwards from the hub to enable air to be pulled into the centre of the hub, which enables this feature to function properly.

Each Blue Print brake disc with this ventilation feature has a different part number denoting the left hand or right hand brake disc and is individually packed.

However, to improve identification before fitting, the outer periphery of the disc and the box label are marked with a 'LH' or 'RH'. This indicates the left hand or right hand of the vehicle, when viewed from the driver's seat in order to assist with an error free fitment.

Some examples in the Blue Print range include ADJ134377 & ADJ134378 for the Jaguar XK, XKR & XKRS shown below:



From the febi range we have 108213 (L) and 108214 (R) for the Porsche Boxster and Cayman.



[www.febi.com](http://www.febi.com) & [www.blue-print.com](http://www.blue-print.com)



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# Keeping You Connected With Brake & Gear Cables



Brake & Gear Cables are woven steel wires that move freely within a reinforced PVC (Poly Vinyl Chloride) or Polyester Elastomer sheath, linking the gear lever with the transmission or the handbrake lever with other braking components. They work in both compression and tension - to push and pull - engaging and disengaging the connected components. In some applications cables can wear or bind which can lead to total failure.



Gear Cables



Brake Cables

## Articles of Interest



**106949**  
Brake Cable

**Applications**  
Toyota Land Cruiser



**179842**  
Gear Cable

**Applications**  
Renault Kangoo



**180494**  
Brake Cable

**Applications**  
Fiat Stilo



**180612**  
Gear Cable

**Applications**  
Citroen Nemo;  
Peugeot Bipper



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[www.febi.com](http://www.febi.com)



## ENSURE A HEALTHY HOLIDAY DRIVE: THE IMPORTANCE OF CABIN AIR FILTRATION WITH KNECHT FILTERS



It's that time of year again when drivers undertake holiday journeys, knowing they are likely to spend as much time sitting in traffic as they are driving in it. Ensuring their car is 'holiday ready' often becomes an overlooked and last-minute task, leading them to rely on their local workshop to get their vehicle 'Highway to Hell' ready.

When it comes to vehicle maintenance, KNECHT is highlighting the critical role of cabin filtration, especially in maintaining air quality and passenger health. A blocked cabin air filter not only hampers airflow, leading to unpleasant odours, increased humidity, and a buildup of pollutants, but it can also compromise the health of the passengers.

Typically, a cabin filter should be changed every 15,000 to 30,000 miles to maintain optimal airflow and prevent pollutants and unpleasant odours from entering the vehicle. Replacing your customer's cabin filter with a KNECHT unit ensures a like-for-like, OEM-quality replacement, accompanied by all the associated guarantees.

Moreover, neglecting the cabin filter can strain the heating, ventilation, and air conditioning system, potentially leading to reduced efficiency and increased maintenance costs. This is where KNECHT filters shine, advocating for proactive maintenance to ensure optimal HVAC system performance and longevity. By

installing KNECHT filters, you're not just ensuring a comfortable journey but could also save your customer on potential future repair costs.

Prioritising cabin filtration enhances the driving experience and contributes to passenger health and well-being. By choosing KNECHT, your customer can be guaranteed clean, fresh air inside their vehicles, even during the most arduous of 'stop, start' journeys.

You can find out more about MAHLE's products by visiting <https://www.mahle-aftermarket.com/eu/en/>

# MODERO

## LOOKING FOR QUALITY BRAKING AT AN AFFORDABLE PRICE? READ ON TO FIND OUT WHY MODERO IS THE OBVIOUS CHOICE.

### Brake Pads

All Modero brake pads are manufactured in a state-of-the-art factory using an IAG production line, where the individual production steps are divided amongst various processes and machines that take place one after another. Processes include computer-controlled friction material mixing, hot pressing, and curing, all centrally controlled and monitored by QC staff.

Modero brake pads are ECE R90 approved, therefore they must perform to within +/- 15% of the OEM product. Final inspection includes an automatic weighing process to ensure strict adherence to specification. ECE R90 approval of Modero pads

is by VCA in the UK, or KBA in Germany. So, you can fit Modero to your customer's vehicles with absolute confidence that you are fitting a quality replacement.

### Brake Discs

All braking systems generate heat, especially in the summer when ambient temperatures are higher, so strict adherence to OE design is important. The venting designs of all Modero brake discs is the same as the OE disc, to ensure efficient heat management and dissipation.

Modero discs are manufactured using the highest quality materials and are guaranteed to match the original equipment quality. As with their brake pads, all Modero brake discs are ECE R90

approved, ensuring high quality and reliable brakes, but at an affordable price.

### Brake Calipers

Modero brake calipers are 100% brand new units, assuring workshops receive the latest automotive braking technology. Modero calipers are meticulously tested and manufactured to OE specifications and standards, with TS16949 certification. TS16949 sets the Quality Management System requirements for automotive suppliers, ensuring the highest standards of quality and consistency throughout the automotive industry.

Every Modero caliper is pressure tested before leaving the factory, ensuring hassle free fitment and increased customer safety.

Other tests include Extreme Temperature, Salt Spray Resistance, Vibration, and Material Composition.

Modero braking represents quality and performance, backed up by a 2 Year, No-Quibble Warranty on all braking products, setting the standard in the automotive aftermarket braking sector. With their continued commitment focusing on innovation, adherence to OE standards, and a commitment to rigorous quality testing, Modero is the braking brand you can trust!





# BUILT FOR THE CHALLENGE

## Vehicle Lightweighting

Automotive manufacturers are always looking for ways to reduce vehicle weight, for several reasons, improved fuel consumption, better handling, increased driving range (specifically for electric/hybrid vehicles) plus a host of other benefits such as a better capacity for recycling. The move from iron/steel suspension arms to aluminium, especially in multi-link suspension systems, has been evident for quite some time. Manufacturers are trending towards aluminium stabiliser link designs because, even with relatively small and lightweight components, saving just a few grams on each part can result in the vehicle weight being reduced by several kilograms overall.

Perhaps, one of the lesser-known design changes, adopted on more and more vehicle applications, is the 'hybrid' design stabiliser link. This new design incorporates a composite lightweight material, pa66 gf30 used for the ball/socket housings at either end of the link. The material is a composite of plastic reinforced with 30% glass fibre (hence the gf30) – not only is the new material lighter in weight than traditional steel, but also has high resistance to heat and oils, and has high structural strength. This material is now widely used on other components such as thermostat housings, and inlet manifolds to name but a few, and will be used increasingly on other automotive components.



FAI hybrid stabiliser links SS10835 & SS10836 fit the latest model BMW 2, 3 and 4 series and the full electric i4. In some instances, manufacturers will simply offer a standard steel stabiliser link as a replacement for the original design, so it is important to use a quality supplier such as FAI, that recognises and understands the latest trends and materials used in modern vehicles and always offers parts that match the original design and specification, to ensure the vehicle retains its original handling and weight characteristics.

## VEHICLE FOCUS: FORD PUMA

It's hard to believe that the Ford Puma is five years old already, having been launched in 2019. Ford had a lot riding on this SUV crossover, converting drivers of the outgoing Fiesta, whilst fending off stiff competition in the segment.

The formula has paid off, with the Puma taking pole position for the best selling car in the UK 2024, notching up over 23,000 registrations in the first half of the year.

FAI has recognised the need for a quality repair plan, implementing ten of the most common parts to require replacement, including the highly popular Link Stabiliser, SS7740.





# SUSPENSION MOUNTING KITS: AN OVERLOOKED PROFIT OPPORTUNITY?

**KYB**  
*Our Precision, Your Advantage*

Just like a shock absorber, a suspension mounting kit is pushed around a thousand times every kilometre. Over the course of 80,000 kilometres, this small but important component has moved up to 75 million times, deteriorating the rubber components in the mounting kit. **So why do so many workshops miss out on this potential extra revenue when already changing shocks or springs?**

## Time is Money

Most workshops will have been in this situation when dealing with a routine suspension job: after receiving parts from a distributor, the vehicle is on the ramp with the old shock and spring disassembled, only to find that the mounting kit bearing is also in need of replacement. The mechanic then has to contact the distributor to order the mounting kit, resulting in a wait for the next delivery - which therefore leaves the ramp occupied and revenue lost.

Replacing mounting kits alongside shock absorbers can save both time and labour costs. Given that the life expectancy of a mounting kit is similar to that of a shock absorber, it's incredibly likely that if the shock absorbers are worn, the mounting kits are too - or at very least, they're likely to be soon. Since the suspension system is already disassembled, it's more efficient and cost-effective for both your business and your customer to replace both components at the same time rather than

inevitably having to disassemble the system again at a later stage.

## Optimised Performance

As well as a potential extra profit earner, it must not be forgotten that mounting kits are also a safety critical component and it's worth explaining this to your customer. Mounting kits and shock absorbers work alongside one another to ensure a smooth and comfortable ride, so driving with a worn mounting kit will have an adverse effect on vehicle ride, control and therefore, safety. Even if new shock absorbers have been fitted, re-installing the old mounting kit can have adverse effects on the performance of the new shocks, ultimately reducing their effectiveness.



## KYB Mounting Kits

KYB have a market leading range of Mounting Kits and Protection Kits, so you can complete your suspension job with the World's Suspension Specialist. As workshops have come to expect, KYB use only the highest quality components and highest quality engineering across our product range so you can fit and forget.

**SCAN HERE TO  
FIND OUT MORE**





# MAF SENSORS BY DELPHI

DELPHI is proud to be the market leader within the UK and European position with an 85% car parc coverage in the MAF Airflow Sensor category.

With 200 MAF assembly parts and 131 probe-only solution parts, we offer a solution of over 300 parts in our range! The DELPHI difference is evident in the quality and experience of our heritage as we began producing OE MAF sensors since the 1970's. Today we hold more than 30 patents in MAF sensing technology and signal processing and have delivered more than 50 million OE MAF sensors for over 500 customer applications.

DELPHI builds our OE expertise into every MAF sensor we make!

Featuring a proprietary temperature compensation design, we offer outstanding performance over a wide range of ambient temperatures. And are fast to respond to changing engine conditions – typically less than 15 milliseconds to respond to 90 percent of a flow change. Innovative, dual-heated elements on specific references also help to ensure optimal performance, fuel efficiency, and reduced emissions. By testing and calibrating to OE specifications, our MAF sensors provide the same accurate readings and airflow output as the OE. Each sensor is tested on state-of-the-art sonic nozzle-testing equipment capturing over 6,000 data points per flow, for optimal calibration accuracy. They're also flow tested to match the OE for signal stability (noise), temperature compensation (the ability of the MAF sensor to measure airflow accurately from -30°C to 70°C) and electromagnetic compatibility.

In the case where electronics on the sensor probe fail, it is not necessary to replace the complete part, DELPHI has introduced a probe-only solution, in addition to the full range of complete units. By eliminating the plastic housing, this provides a greener, more cost-effective and faster repair option. Additionally, every sensor we make – whether with or without the housing—is built with all-new components.

With DELPHI you get access to the complete package: the range, advanced DS diagnostics including the ability to look at live data, both at idle and max RPM, to determine if the MAF sensor is reporting the correct data, expert training and support and vehicle technical information including wiring diagrams, component locations and guided diagnostic procedures.

DELPHI also provides a complete range of conventional and online training through its fast growing Delphi Academy platform. Garages can find out more now by visiting <https://mom.delphiautoparts.com/en>.

**Partner with Delphi**

# Delphi

[delphiaftermarket.com](https://delphiaftermarket.com)



PHINIA





**HELLA**  
VEHICLE EMISSIONS

## HELLA NOx sensors playing “crucial role”

Vehicle emissions regulations continue to tighten, and the move towards cleaner air has been constantly supported by HELLA, with its range of NOx sensors playing a crucial role in the de-pollution system of many modern vehicles.

Reducing the output of harmful gases from vehicles can have a significant environmental impact. “The NOx sensor performs an important job in the post-treatment system.” Said Matthew Smart, Head of Electronics, UK. The sensor is used in diesel vehicles with urea-based selective catalytic reduction (SCR) systems. It enables compliance with the emissions regulations from Euro 5 upwards. “The NOx sensor guarantees an optimal dosage of AdBlue by the engine system,” said Matthew, “thus bringing about an effective reduction of nitrogen oxides. If the SCR system has an upstream and a downstream NOx sensor, the downstream one has the task of monitoring the effect of the SCR catalytic converter.”

HELLA offers a range of 12V NOx sensors for passenger cars, which undergo a rigorous quality assessment process within HELLA’s Quality Laboratory in Germany.

HELLA’s NOx sensors undertake their task in harsh conditions, so they need to be tough. “Taking into account that the NOx sensors are fitted directly into the exhaust system,” Matthew continued, “both the reading head and the control unit have to be very robust. For that, we conduct functional tests in extreme conditions, as well as tests to check the behaviour of the product across the entire lifecycle.”

Meanwhile, garages are being urged to watch out for a common NOx sensor fault. “The NOx sensor is a complex control unit” explained Matthew, “and technicians have told us

that aligning it within the electronic backbone architecture of some Mercedes-Benz vehicles can be quite challenging. The job requires an in-depth understanding of both the sensor and the system.”

Making sure the replacement sensor chosen is the right one is a crucial first step. “There can be three or even four OE references listed for any vehicle” advised Matthew, “making it all-too easy for the technician or workshop parts advisor to choose the wrong NOx sensor by mistake. Technicians must not fit an older version of the part either. They should inspect the existing part fitted on the vehicle and fit the direct HELLA replacement for that specific OE part.”

This is not necessarily the end of the story though. “Once the replacement NOx sensor is fitted, coding or re-flashing of the ECU may be required.”

Diagnostic equipment completes the package of support. “Our colleagues from Hella Gutmann offer a wide range of services and provide workshops with different solutions for diagnosing NOx-related problems,” said Matthew, “and provide the much-needed link to manufacturer-specific procedures like SCN coding or ECU re-flashing.”

For more information on HELLA’s range of NOx sensors, please scan the QR code below.

**SCAN ME!**





**Das Original**

## TOP TECHNICAL TIP FROM ELRING! PREVENTING OIL LEAKS AFTER CYLINDER HEAD REPAIR

Oil leaks can sometimes appear around the pressure oil channel after a cylinder head repair, often after only a short period of use. These leaks are all too frequently, but incorrectly, blamed on the cylinder head gasket.

### Elring, With Specialised Sealing Elements

Elring cylinder head gaskets are designed with specific sealing elements to ensure correct sealing around the pressure oil channel. These include:

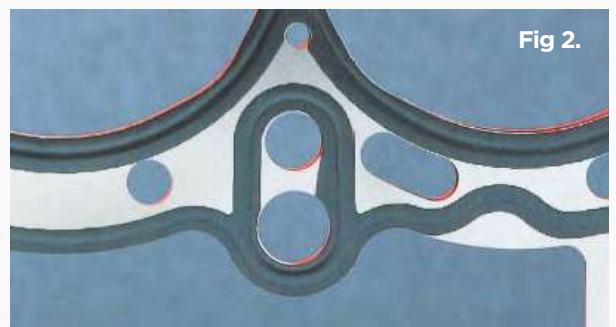
- Linear elastomer coatings (Figure 1)
- Special beading (Figure 2)
- Elastomer sealing elements (Figure 3)

### Example of Incorrect Use

In this case (Figure 3), a cylinder head gasket leaked in the pressure oil area shortly after installation. The issue arose because a chemical sealant was improperly used in addition to the elastomer sealing element. This sealant introduced impurities to the sealing surface, quickly causing the gasket to fail. The damage, visible as indentations or scoring on the gasket, resulted from this improper assembly. This serves as a cautionary tale, highlighting the severe consequences of incorrect use of chemical sealants.

### Proper Assembly Instructions

Proper assembly instructions are a formality and a crucial step in preventing oil leaks. Generally, sealing compounds should not be used when assembling a cylinder head gasket unless explicitly specified by the engine manufacturer for a specific area. Careful inspection of the quality and flatness of the sealing surfaces is crucial. A professional engine repair shop should resurface the cylinder head using high-precision machines if necessary.



For more  
information,  
check us out on  
YouTube



## DAYCO HIGHLIGHTS ISSUES WITH FORD TRANSIT 2.0-LITRE DIESEL ECOBLUE TIMING BELT REPLACEMENT

Dayco is a leading supplier of original equipment (OE) components to vehicle manufacturers across Europe and a major player in the aftermarket, with power transmission components forming a large part of its growing range of products.

As the OE supplier of the timing and auxiliary drive systems used for the 2.0-litre EcoBlue engine used in the popular Ford Transit from 2016, not only is Dayco able to provide a genuine like-for-like replacement for the independent aftermarket, it's also the source of helpful technical advice and direction, which is available in print and online.

In its latest bulletin, Dayco is urging workshops to be aware that oil contamination from the diesel fuel is not uncommon with this engine and that can have a particularly adverse impact on the belt, which in this application, is a 'wet' or belt in oil (BIO) system. In fact, in extreme cases, this can cause material to dislodge from the belt surface, further affecting the oil and potentially causing problems such as blocking the oil pump strainer. It is therefore imperative that technicians check the condition of both the oil and the belt, every time one of these vehicles enters the workshop.

In the case of the oil, this is easier than it might first appear, as the presence of diesel in the oil is generally noticeable by its smell. So, rather than undoing the drainplug and walking away, whenever carrying out a scheduled oil and filter change, technicians should smell it for diesel fumes and check the strainer that the oil will have passed through because it's possible that fragments of the belt or deposits of material that have been dislodged, will be left behind. When it comes to the belt however, things are a little trickier, but although awkward, it is possible to assess the condition of the back of the belt by viewing it through the oil filler, a check that Ford also state should be regularly made.

Following these checks, if any evidence of diesel or debris is found in the oil, and if there is any visible damage whatsoever to the back of the belt, then belt replacement is necessary because the failure of the belt will have catastrophic consequences to the engine. No matter what the condition however, Ford's scheduled belt replacement interval must be taken as an absolute maximum, and that the oil pump belt is always also changed along with the timing belt.

Although BIO systems are becoming the favoured primary drive solutions with several manufacturers, and so belt replacement increasingly common, there are some aspects of the EcoBlue application that are also worth pointing out to workshops undertaking the work.

The first, a best practice principle, is to smear oil on the back of the belt once it is fitted, which will lubricate the contact point between the belt and the tensioner when the engine is being turned over by hand to check the timing is correct, as well as on its initial start-up, once the replacement is complete.

The second point concerns the tensioner, which, in contrast to most belt tensioners, is a slipper, rather than a wheel, but it too must be replaced along with the belt. However, it must be positioned correctly, with its location tab in the corresponding recess, before the bolt is tightened and the pin retaining the spring, removed.

The final point is the timing belt cover, which is a relatively thin metal sheet, that is not reusable, so a replacement, along with the appropriate sealant, must be sourced from Ford before the work is started.

Reaching the cover is most easily accessed through where the front righthand headlight is mounted, so its removal, along with the air filter assembly, starter motor, auxiliary belt and water pump belt, which, in this instance, must be cut, and the disconnection of several of the cooling hoses, are all necessary steps in the process.

However, Dayco naturally recommends technicians refer to a reputable source of service and repair data, such as that supplied by Autodata or HaynesPro, for the full repair instructions, as well as for specified tightening sequences and torque values.

Naturally, Dayco carries the timing belt kit (KBIO17), oil pump belt (941121) and auxiliary belt (6PK1410S), in its comprehensive aftermarket range.

For more information regarding the OEM quality power transmission products in the Dayco range, please email: [info.uk@dayco.com](mailto:info.uk@dayco.com) or visit: [www.daycoaftermarket.com](http://www.daycoaftermarket.com)





# IMPORTANCE OF ABDS KITS REPLACEMENT



At first glance, today's accessory belt drive systems (ABDS) may seem very similar to the first systems used decades ago. However, technological progress and adaptation to increasingly stringent anti-pollution regulations mean that the latest systems are subject to increased wear and tear. In addition to the belts, it's good workshop practice to ensure that all components in the system are included in scheduled vehicle maintenance programs.

As the engine accumulates hours of operation, the individual ABDS components begin to exhibit wear and consequently, the efficiency of the drive system is reduced. The performance of some parts may deteriorate more quickly than others. This deterioration, in turn, adversely affects the entire ABDS, which is now working much harder, but less efficiently.

The components of the ABDS kit:

### Micro-V Belts

The main component of the system, the Micro-V belt, receives power from the crankshaft and uses it to drive systems such as power steering and air conditioning, as well as water pumps. A noisy belt or a lack of traction is usually an early indication that some other element of the system is not operating correctly.

### Tensioner

Its vital functions: Keeping the correct tension in the ABDS. The tensioner must be able to adjust the tension in the drive based on several factors, including engine temperature, dynamic system load (engine performance), and the load from the A/C compressor or alternator, which are the main dynamic forces acting on the system. It also needs to account for tolerances and wear, as well as vibration damping.

### Idler Pulley

Perhaps the simplest ABDS component of all, its function is

to redirect the belt to the next accessory or simply to avoid vibration in long paths. It is not exempt from wear, which can cause the belt to lose alignment. This creates noise, overheating and additional wear on the belt.

### Water Pumps

Replacement at the time of a belt change provides an opportunity to clean the coolant circuit, prevent subsequent failure and avoid expensive remedial repairs when the vehicle is returned to the workshop.

### Alternator Decoupler Pulley

Although now back to being a solid pulley on vehicles using a reversible alternator, the alternator pulley is a pulley with a mechanism that allows the alternator shaft to be decoupled from the ABDS. This occurs when the rotational speed of the system is less than that of the alternator. This action also allows the engine to run smoother at idle speed. With a constant workload, the mechanism can become 'blocked', causing the pulley to behave like a solid pulley. This creates even more work for the rest of the components. A consequence is a deterioration in performance and premature wear of the belt.

### Crankshaft Pulley or Torsional Vibration Damper (TVD)

The crankshaft shaft transmits the power, which drives the rest of the accessories in the ABDS. As a consequence of the power

of transmission, the vibrations that the engine produces are also transmitted. TVD pulleys incorporate a band of rubber that dampens these vibrations. Over time, the rubber deteriorates, causing a greater amount of vibration, a large misalignment - or both

### Added Value for you from Gates Micro-V® Kit

- One OE solution
- ABDS KIT is based on a vehicle-specific analysis of the cause-and-effect relationships and typical failure symptoms
- Gates provides a clear repair recommendation to the garage
- The replacement of all loose parts of the system reliably protects against possible consequential damage and enables a long service life and satisfied customers

**Replacement Interval:** *Gates recommends checking the system every 60,000 km and, when in doubt, replacing it every 100,000 km with a Gates Micro-V Kit.*

Visit <https://visit.gates.com/gb-en-KitConversion.html> and discover why the Gates Micro-V® Kit is the only choice for an efficient and safe overhaul of the Accessory Belt Drive System.



#BESTUNDERPRESSURE

ENGINEERED  
IN GREAT BRITAIN



## CHAIN SHIELD TECHNOLOGY

BGA's **Chain Shield unique** formula guarantees the pre-lubrication to synchronise with your choice of engine lubrication, with no adverse effects to the engines lubrication system.

### WHY IS THIS IMPORTANT?

- ✓ Protects the chain against external elements up to and during the installation.
- ✓ Aids in the lubrication of the chain on initial start-up after installation, prior to the full engine oil supply reaching your newly fitted components.
- ✓ Reduces the risk of premature wear occurring by running a non lubricated chain.



### THE COMPLETE SOLUTION:

BGA's best practice offer to the market is a comprehensive Full Kit solution. We have moved away from offering a basic kit as a new chain should never be fitted on to worn sprockets. BGA only offer the Full Kit (FK) and the Full Kit with VVT Sprockets (VFK) on applicable applications.

**A true one box solution ensuring a complete repair and prolonged engine lifespan.**

#### FULL KIT



TC4215FK

#### FULL KIT + VVT



TC4215VFK

### BGA's TC4215FK/TC4215VFK Fits:

#### JAGUAR

E-PACE (X540) | 2.0 Diesel | 17 >  
 F-PACE (X761) | 2.0 Diesel | 20 >  
 XE (X760) | 2.0 Diesel | 2015 >  
 XF II (X260) | 2.0 Diesel | 2016 >

#### LAND ROVER

Defender (L663) | 2.0 Diesel | 2019>  
 Discovery Sport (L550) | 2.0 Diesel | 2014>  
 Range Rover Evoque (L538) | 2.0 Diesel | 15-19  
 Range Rover Sport II (L494) | 2.0 Diesel | 16>  
 Range Rover Velar (L560) | 2.0 Diesel | 2017 >

# STEERING THE WAY WITH SMART INVESTMENT

Drive. Steer. Stop. Expert, Shaftec, is reaping the rewards of the smart investment it's made over the past few years.

Electric Power Steering (EPS) systems offer many benefits over conventional hydraulic systems and have become a standard feature for many vehicle manufacturers. These systems are lighter in weight, require less maintenance, offer better response at different speeds, provide higher durability, and reduce fuel consumption due to less load on the engine.

In response to the growing popularity of EPS systems, Shaftec has invested heavily in the equipment and technology required to meet increased demand for replacement units in the aftermarket.

## In-House EPS Laboratory and Test Rig

All vehicle steering systems are safety-critical; however, due to the electronics involved in an EPS system, more in-depth testing and diagnosis are required than for a mechanical/hydraulic system.

The EPS rig can test EPS steering pumps, EPS racks, and EPS steering column drives. Tests include power assistance, speed, and angle sensors during a 'real-world' simulation, with visual readouts on the screen. Torque sensors and steering angles can also be checked. Fault codes stored in the Engine Control Unit (ECU) can be cleared, and the rig can also assess the assistance the rack is giving at different speeds (as they are speed variables), providing a much clearer picture of the component's ability to react to real-life situations.

We spoke to Shaftec, and they said, "Given that many components are individually embedded with the vehicle chassis number and a unique identity, our equipment allows the unit to be 'virginised'. This unique feature enables a remanufactured component to connect seamlessly to a new vehicle and obtain

new details from the main vehicle ECU. This adaptability reassures our customers that our remanufactured components are compatible with a wide range of vehicles, enhancing the value of our products. Workshop customers can be confident that all old core units undergo a rigorous check to ensure they meet our stringent remanufacturing criteria. Only units that meet these high standards are selected for remanufacturing, ensuring the quality and reliability of our products. This commitment to quality is a testament to our dedication to providing the best for our customers."

It looks like Shaftec has you covered!





# DMF. The reason why 125 million European cars drive smoothly...



The Dual Mass Flywheel is the vehicle manufacturer's choice for effective and efficient vibration damping in the drive train.

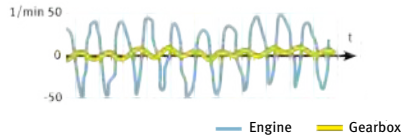
Originally fitted by:

Audi	Jeep	Mitsubishi	Ssangyong
Bertone	Kia	Nissan	Suzuki
BMW	Lancia	Opel	Toyota
Chevrolet	Land Rover/ Range Rover	Peugeot	Vauxhall
Citroen	LDV	Porsche	Volkswagen
Fiat	Mazda	Puch	Volvo...
Ford	Mercedes-Benz	Renault	
Honda	MG	Rover	
Hyundai	Mini	Saab	
Jaguar		Seat	

## 1. FUNCTIONAL PERFECTION

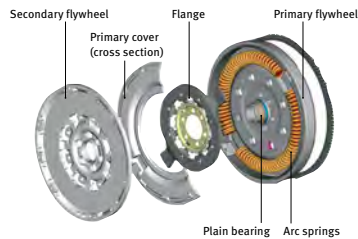
Designed as supplementary clutch component, the DMF reduces unwanted and potentially damaging engine vibration and helps the world's leading vehicle manufacturers meet the ever increasing demands for driving comfort. The DMF, like the clutch itself, is subject to normal operational wear and tear and may require replacement.

Torsional vibration with DMF



## 2. PIONEERING TECHNOLOGY

A conventional flywheel consists of a single solid mass. A Dual Mass Flywheel, in contrast, consists of two masses designed to rotate against each other. A high-tech arc spring damping system is also integrated into every DMF. This allows the DMF to absorb and effectively neutralize the rotational vibration of the engine.



## 3. THE BEST COVERAGE

Every second new passenger car or light commercial vehicle built today is fitted with a DMF – and this number continues to grow. More than 125 million European cars have been originally fitted with a DMF. With over 400 different DMF references, all supplied in genuine OE quality, LuK has the most complete range available to the aftermarket.



## Right choice



The LuK DMF has been originally fitted to over 100 million vehicles as the preferred solution for damping drivetrain vibration in today's smaller, lighter yet more powerful engines.

As well as helping vehicle manufacturers meet increasingly stringent emissions and fuel consumption targets, the advanced and superior technology found inside every DMF also helps deliver the performance, economy and comfort benefits the driver expects.

[aftermarket.schaeffler.co.uk](http://aftermarket.schaeffler.co.uk)

[www.repxpert.co.uk](http://www.repxpert.co.uk)

**SCHAEFFLER**



## TRUPART WHEEL BEARINGS – EVERYTHING YOU NEED IN ONE BOX FOR A SEAMLESS REPAIR

With a comprehensive selection of over 300 bearing kits, Trupart covers a wide range of popular UK vehicle applications, including wheel bearings and hub bearings. We understand the value of your time, which is why we ensure that every essential component for a quality and efficient repair is included in our kits.



For example, our hub bearing kits feature high-temperature grease that meets OEM specifications, along with all necessary fitment accessories such as screws, bolts, split pins, seals, clips, caps, and ABS rings where applicable.

Garages often experience downtime searching for these critical yet small components. This can lead to delays and additional costs that cannot be passed on to customers. Trupart's comprehensive kits eliminate these disruptions, allowing mechanics to focus on completing jobs promptly. By having all parts readily available in one package, mechanics spend less time searching for missing components, ensuring faster turnarounds for customers.

Trupart guarantees quality with every product. Our wheel bearings adhere to ISO/TS 16949:2009 standards, using premium materials and manufacturing processes that meet industry norms. Each bearing undergoes laser etching for full production traceability, providing peace of mind regarding the parts you install.

### **TYPES:**

**GEN 1** – Double-row bearings with a one-piece outer ring and two-piece inner ring, factory-sealed and lubricated. Many models include magnetic wheel speed/ABS sensors.

**GEN 2** – Combines a double-row bearing with a drive flange, often featuring mechanical or magnetic wheel speed/ABS sensors.

**GEN 3** – Incorporates two separate flanges and a double-row bearing, simplifying installation. Many models include electronic wheel speed/ABS sensor electronics.

All Trupart wheel bearing kits come with a 12-month/12,000-mile warranty, ensuring reliability and longevity.

Trupart – Helping garages save time, reduce labour costs, and uphold high-quality standards.

## FUELLING CUSTOMER LOYALTY WITH QUALITY EXHAUSTS

Loyal customers are the lifeblood of any garage, and offering a helping hand when motorists need it most goes a long way. A surefire method to achieve this is installing quality parts during repairs, especially for performance critical components like the exhaust system. By fitting a type-approved Klarius exhaust, garages can boost customer satisfaction with a solution that safeguards reliability, secures efficiency and shortens fitting times.



### RELIABLY FIXING EXHAUSTS

Exposed to the road under the vehicle, even the most robust exhaust will eventually fail. The first reaction of some car owners is to ask for the cheapest replacement, but any garage technician knows this is a false economy. Cheap, poorly designed exhausts harm vehicle reliability – exponentially increasing the likelihood of another repair.

Inferior exhausts are invariably made from low grade materials, which faced with the challenging conditions on British roads, quickly deteriorate. Following premature failure, the dissatisfied customer will return to the garage for a second replacement. In this scenario, the inconvenienced vehicle owner faces increased costs, while the garage risks harming its reputation. To avoid this situation and protect customers, it's best to select a robust replacement exhaust with a manufacturer warranty.

### CHOOSING QUALITY MEANS EFFICIENCY

With fluctuating fuel prices and worldwide initiatives to reduce emissions, having an efficient vehicle is important for motorists.

Fitting a quality aftermarket exhaust safeguards this, helping customers save money and the planet.

On the other hand, installing a system that is not designed for the specific make, model and production year of the vehicle harms engine performance. This will result in reduced fuel economy, costing motorists more at the pump.

It increases emissions too. In some cases, an inferior replacement will feature inadequate provision of emissions controlling technologies or poor design of fittings. The result is always the same: a failed MOT and another expensive exhaust replacement.

To preserve vehicle efficiency, type-approved exhausts are best. Type-approval provides confirmation that a replacement exhaust will conform to specified performance standards, meeting or exceeding those of the original part. Consequently, fitting the right type-approved component for a vehicle will protect the engine, fuel economy and emissions compliance.

### A FITTING SOLUTION

A proven way to ensure customer loyalty is to provide quality repairs on

a fast turnaround. A good exhaust can help here too.

Often, inferior exhausts won't fit the intended vehicle due to incorrect design. Struggling to fit the system increases repair times and at best, delivers an unsatisfactory result. For garages to meet high demand and reduce customer wait times, a straightforward installation is much preferable.

A type-approved exhaust will fit first time without any modifications, delivering a quality repair quickly. As well as helping garages complete jobs faster, this means customers aren't waiting around. Instead, cars can be back on the road quickly, pleasing both parties.

### BRAND LOYALTY PRESERVES CUSTOMER LOYALTY

Vehicle owners need garages they can trust, and likewise, garage technicians need parts suppliers that they can rely on. Klarius Products is the UK's largest provider of aftermarket exhausts, offering a range of over 11,000 products proven to be reliable, efficient and easy to fit. All Klarius exhausts are manufactured from aluminised steel in a highly automated process, ensuring excellent quality and long-lasting durability. Consequently, a 2-year warranty is standard across the range.

Every applicable product is type-approved, certified by the Vehicle Certification Agency (VCA) in the UK, or the TÜV in Europe. Therefore, customers are assured a system will protect engine efficiency and not increase emissions.

Finally, a Fit First Time guarantee helps garages and motorists to get cars off the ramp faster. We keep a large range of exhausts, however if we are out of stock, order before 5:30pm for next day delivery.



## THE DUAL DRY CLUTCH

Outstanding responsiveness and comfort

### Best Valeo Quality

100% O.E Technology

### Workshop Efficiency

All in one box and simple calibration

### CO2 Emissions Reduction

Lower vibration and resistance  
Smoother gear shifts

### OE Tooling

855513 - The only tool kit for OES and IAM to fit the Valeo Dual Dry Clutch. Do the job correctly first time!



Our world leading Complete Technical Support package equips you to become a Valeo DDC expert. You will benefit from:

### Face to Face training Complete Repair Process

#### 4 Fitting videos

#### 4 Webinars

- DDC Replacement
- Actuator Replacement
- Actuator Calibration
- DDC Tips & Tricks

### Technical Documentation

- Fitting instructions
- Actuator Calibration



Follow the QR code to watch on demand

**TECH @SSIST**  
Access a free complete technical support program online.



**SILENCIO™**  
THE ORIGINAL



# TRUST THE N°1 WIPER

Valeo is the World

**N°1 O.E. Wiper system specialist,**  
with over 100 years of wiping innovation!



Front wipers are replaced on average every 3 years - **the recommendation is every year!**

## Wiping as a safety factor

It is a major safety factor to have a reliable functioning wiper system to ensure maximum driver visibility when cleaning the windscreen and traveling at speed.

**Wiper systems are used for 7% of the total driving time, so it's a must to have them regularly checked and replaced as necessary.**

## Ensure wipers are MOT Ready!

Windscreen wipers not clearing the windscreen effectively are a common cause of MOT failure. If the blades don't clear the water effectively from the screen and leave areas untouched or smears across the driver's view, then this may result in a failure. It is recommended that wiper blades are replaced annually due to the damage caused by road and driving conditions.

## SILENCIO™, the Original

To supply customers with the exact same blade as the original conventional, hybrid, flat and rear wiper blades.

**SILENCIO™ Conventional range** covers all O.E specifications available on the market: standard, metal, curved, spoiler and washer ramp.

**Silencio™ Flat Blades** ensure perfect initial wiping quality and improved wiping efficiency over time thanks to the brand new VisioRubber™.

**SILENCIO™ Rear Blades** provide the driver with perfect visibility at the rear of their vehicle. Improve safety by also replacing the rear blade!

**SILENCIO™ Hybrid** is a mix of conventional and flat blade technology developed for Asian car manufacturers.

**SILENCIO™ Aquablade™** delivers wiper fluid directly onto the windshield via the wiper blades, rather than via nozzles mounted on the hood.

The windshield is wiped instantly and uniformly, regardless of vehicle speed, allowing for constant and perfect visibility. Front-facing cameras, which are now more and more common on car windshields, also benefit from an improved field of vision.

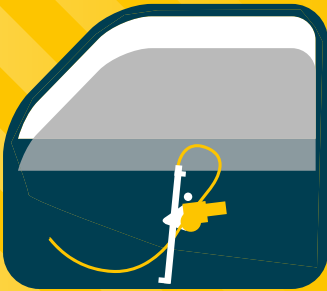


# VXPRO

## WINDOW LIFT REGULATORS

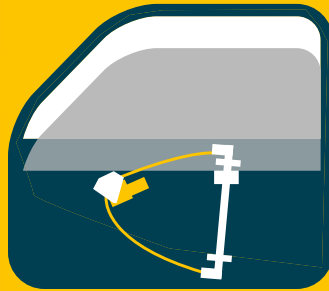
### Understanding Window Regulator Types

Window regulators have become a frequent repair task for garages and body shops in the aftermarket. ELTA, a supplier of VXPRO, one of the UK's most established and comprehensive ranges, helps us understand this sometimes challenging product group better. Electric window lift regulators come in four distinct types of mechanisms. While all serve to raise and lower the window glass, they each accomplish this task differently, with their own advantages and disadvantages.



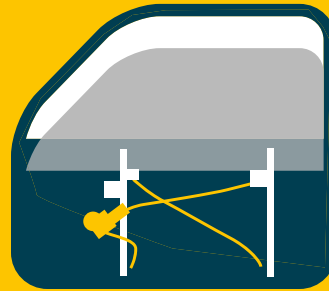
#### The Cable System

As one of the original technologies, the cable system has been superseded by more refined systems. It is however still common on older vehicles and HGVs. Unlike newer systems, the cable is attached to just one side of the sliding mechanism. This made it more efficient in one direction than the other and both the motor and cable were placed under high strain at times. It did however deliver a compact light weight system and became the foundation for modern systems.



#### The Bowden System

This system improved upon the traditional cable system by attaching the cable to both ends of the slider. This simple but effective development improves the efficiency of the mechanism and delivers a smooth up and down motion whilst remaining compact in form. As a result the Bowden system is the most common technology in use today and is suited particularly well to compact 4 and 5 door passenger vehicles.



#### The Double Bowden

The Double Bowden system is the latest advancement and builds upon the standard Bowden system by including two sliders, one each side of the window. This makes raising and lowering windows smoother and more even. The system is ideal for larger windows but requires more space within the door making it the preferred option for 3 door vehicles which tend to have heavier glass to move and longer doors to accommodate.



#### The Scissor System

As its name suggests this system uses a scissor mechanism to raise and lower the glass. It uses a simpler gear system in place of cables which in theory should be more robust than cable technologies. Whilst the scissor system does produce good results it is larger and heavier than its cable based counterparts. As such it is less common overall but still popular in Japanese applications as well as some Vauxhall vehicles.



VXPRO delivers one of the deepest window lift regulator ranges in the aftermarket with over **2050** part numbers. **PLUS...** Our top selling parts have been re-engineered to provide a closer visual match to the original design and ensure fitment to original mounting points in the door using the existing fasteners.



Vehicle Performance  
Guarantee



OE Matching Quality  
+ Added Value



FREE Telephone and Email Support from our  
Dedicated Team of Experts



No Quibble Returns

AN **ELTA** AUTOMOTIVE BRAND

# BESTPLATE: THE TRUSTED CHOICE FOR QUALITY NUMBER PLATES & ACCESSORIES

In an increasingly competitive market, where quality and compliance are paramount, Bestplate emerges as the undisputed leader in the UK's number plate industry.

With a rich history of serving top automotive manufacturers and offering a comprehensive range of products, Bestplate has earned its reputation as the go-to supplier for number plates and related accessories. As the September registration period approaches, it is crucial for customers to have access to the right information and products to meet their requirements.



## UNRIVALLED SUPPLIER RELATIONSHIPS

Bestplate proudly holds the status of the sole approved supplier for number plates and fixings to some of the most renowned automotive brands in the world. The company's impeccable credentials are evident through its partnerships with VW, Audi, Seat, Skoda, Peugeot, Citroen, Vauxhall, Fiat, Alfa Romeo, Jeep, Nissan, Hyundai, and more. This exclusive arrangement speaks volumes about Bestplate's commitment to delivering exceptional products that meet the high standards set by these esteemed manufacturers.



## YOUR PERFECT PLATE AWAITS... WITH MORE OPTIONS THAN EVER

Bestplate offers a diverse range of number plates to cater to various needs. Their collection includes classic plates, reflecting a timeless aesthetic for cars. Motorcycle plates specifically cater to two-wheeled vehicles, ensuring a perfect fit. For larger vehicles like trucks and buses, square plates are available, designed to meet size requirements.

Green plates are offered, often associated with eco-friendly or electric vehicles, showcasing environmental consciousness.

EU plates are designed in accordance with European Union standards, featuring specific country codes and design elements.

4D plates provide a unique touch with their raised lettering and numbers, adding a three-dimensional effect. Bestplate ensures a comprehensive selection to meet individual preferences and legal requirements.



When it comes to number plates, Bestplate leaves no room for compromise. All of their assembled number plates conform to BSAU145e, the British standard for number plate quality and performance. With Bestplate, customers can rest assured that their number plates meet the necessary legal requirements, ensuring compliance and peace of mind. The company's commitment to quality is further reinforced by their unwavering guarantee, providing customers with the utmost confidence in their purchase.

## NOW AVAILABLE

Bestplate now offer even more! The MetaTek number plate is the world's first digitally printed flat aluminium plate, developed and manufactured in the UK. With industry leading environmental credentials and quality, MetaTek is stronger, lighter and more durable than any other type of number plate.





# A brand that works with you



## One brand, all solutions

We're not just motor oils. With a diverse portfolio in additives, vehicle care, workshop sprays, adhesives and sealants, we offer a full range for mechanical and visual preservation of any vehicle.



## Best brand

Excellent engine oil made in Germany for decades! Full power on the road to success! LIQUI MOLY has engine hearts beating faster and calms the pulse of car fans. That's probably why readers of AUTO ZEITUNG voted us their lubricant brand no. 1 for the 13th time in a row.



## Find the right oil

We have over 300 OEM approvals across our range of oils. With complex, modern engines and manufacturer specific grades, we provide a handy oil guide to help you find the correct oil!



Scan the QR code now for our recommended oils.



## Storage solutions

Our range also includes storage solutions from oil cabinets, chemical cabinets and drum racks, ensuring your lubrication products are stored in a clean and safe environment.



## Branding

LIQUI MOLY is outstanding quality, the highest level of dynamics and pure emotion. Our brand's recognition and people's fascination with it are based on its great radiance and its affect on people. We make sure that our blue-red-white logo is continuously showcased around the world. For our fans. For our partners. For you.



## Support

You're not just a customer. We want to work with you to develop your business. With exciting workshop concepts, such as our bespoke signage scheme, and oil packages to maximise coverage of the vehicle-parc. Our team are always on hand to provide technical or sales support.

Reach out to us or contact your local branch for more details  
Phone: +44 (0)121 796 5365  
Email: sales.uk@liqui-moly.com





# Polyflex<sup>®</sup> Eco Air

## Ultra Lightweight PU Coated Glove



### PER

Our first glove in the Polyflex<sup>®</sup> Eco family to be made from recycled nylon. 89% of the liner is made from recycled nylon, which equates to 70% of the total glove weight.

- ✓ Ultra lightweight general handling glove, ideal for intricate tasks
- ✓ 18-gauge yarn with a soft yet hard-wearing PU palm coating
- ✓ Achieves level 3 abrasion score plus can be used with touchscreen devices



Sizes  
6-11

# Finite<sup>®</sup> Black Nitrile

## Powder Free Disposable Glove



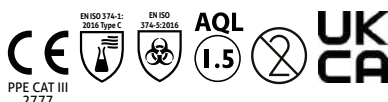
### GL100

Heavy duty disposable glove provides superb protection against water, oils, and chemicals

- ✓ Diamond pattern across the entire hand provides an enhanced grip
- ✓ Effective glove for handling tools in diverse applications, from laboratory work to engineering to automotive



Sizes  
S-XL



# Finite<sup>®</sup> Orange Grip

## Nitrile Powder Free Disposable Glove



### GL201

Premium heavy duty disposable glove, suited for a wide array of applications

- ✓ Diamond pattern across the entire hand provides an enhanced grip
- ✓ Achieves type B chemical resistance according to EN ISO 374-1
- ✓ Free of latex proteins making the glove ideal for latex allergy sufferers



Sizes  
S-XL



## FROM OE TO AFTERMARKET: WITH DUNLOP AIR SPRINGS.

When it comes to replacing air springs or related components, we're proud to sell you Dunlop.

Air springs have quickly become a common feature in modern vehicles thanks to their ability to provide a smoother ride and better load handling. But they've been around for a lot longer than you may think. It was actually Dunlop who pioneered the Electronic Controlled Air Suspension (ECAS) system, first appearing on the Range Rover Classic back in the 1970's.

It was then Tesla that significantly expanded the use of air suspension in 2013, and today, the technology is commonly fitted as standard across numerous brands, including Audi, Bentley, BMW, Citroën, Ford, Hyundai, Jaguar, Land Rover, Lamborghini, Mercedes-Benz, Porsche, Subaru, Volkswagen, and Volvo.

**So, we asked our expert from Dunlop what the common reasons for air spring failures are.**

- 1. Ageing and Moisture:** Over time, rubber components can dry out, and moisture within the air system can cause internal damage, leading to rust and deterioration.
- 2. Road Debris and Punctures:** Sharp objects on the road can puncture the airbags, compromising the suspension system.
- 3. Improper Installation:** Custom installations can cause airbags to rub against the vehicle's frame or other components, causing wear and tear. Ensuring correct installation is critical to avoid these issues.
- 4. Over-Extension:** Air springs can over-extend and tear without proper constraints from other suspension components like shock absorbers.

Failure of air springs can bring a vehicle to a halt by causing it to sit



mistaken for a dust cap) see details below.

too low or too high to operate safely. Luckily, most modern systems have built-in protections against these problems.

Airline failure is another common issue and can be caused by -

- 1. Chassis Abrasion:** Air lines routed through the chassis can rub against sharp edges, leading to wear and eventual holes. This type of failure usually develops over time as the material is worn down.
- 2. Road Debris:** While rare during normal road use, debris can puncture airlines, especially in off-road conditions. Ensuring proper installation minimises this risk.

### What about issues with air fittings?

Failures in air fittings usually happen during installation or when low-quality components are used. To prevent these issues, it is crucial to use reliable, high-quality fittings and ensure they are installed correctly. Particular attention should be given when replacing a VOSS coupling; old fittings should not be reused and additionally workshops should be cautious not to discard the white cap which retains the collet (often

### NEW AIR FITTING

Screw new air fitting into replacement air strut / spring BEFORE removing the white plastic cap that retains the collet...



Collet

Torque Settings...  
...Plastic Part: 1.5 - 2.0 Nm  
...Metal Part: 3.0 - 3.5 Nm

Dunlop says that any replacement should be of the same quality as OE products like theirs and that careful installation is key to preventing failures and ensuring smooth operation for vehicles equipped with air springs.

If it concerns air springs, ring us today and ask for Dunlop.





## AMPRO TECHNOLOGIE: PIONEERING AFTERMARKET NOX SENSORS FOR MERCEDES AND BEYOND

Every so often, a company emerges in our industry that we initially know little about, but will undoubtedly hear more from in the future. One such company is AMPRO Technologie. Established in 2007 by Dr. Wolfgang Twardziok, AMPRO has rapidly grown.



As a family-run company, they state that they are committed to environmental sustainability and automotive excellence and that their mission is to provide top-quality products and services while striving for a greener future.

One of the products we're particularly excited about is AMPRO's reliable aftermarket NOx sensors specifically designed for Mercedes models. While their range of sensors covers many vehicle types, including Renault, VW, and Nissan, we were particularly interested in their development around Mercedes vehicles. Known for common and troublesome faults, we looked to AMPRO for an aftermarket solution that can be better than the OEM. In this case, it most certainly is. Their sensors address common error messages and offer an excellent alternative to purchasing from the main dealer.

A spokesperson from AMPRO stated, "Traditionally, sourcing reliable aftermarket NOx sensors for Mercedes vehicles has been a significant challenge. However,

we have collaborated closely with Germany's leading emission experts to develop the world's first reliable and independent aftermarket solution tailored specifically for Mercedes models." The spokesperson further emphasised, "It's crucial to replace both NOx sensors simultaneously to maintain consistent and accurate readings, optimise emission control, and prevent future issues." We believe this is worth noting.

If you're in search of a reliable aftermarket NOx sensor solution for a Mercedes, or indeed any other vehicle, then look no further. We now have AMPRO products available off the shelf.

Contact us today to ensure your NOx sensors meet AMPRO's standards for reliability and performance. We're here to help you find the best solution for your NOx sensor replacement.

Choose AMPRO - You know it makes sensors!





# AUTOMOTIVE LUBRICANTS

Quality and traceability are at the heart of AD Automotive Lubricant production to ensure the correct viscosity and product specification are used when servicing a vehicle.

In the early 1990s, just three oils covered the majority of vehicle requirements at the time, 10W-30, 10W-40 and 20W-50 were the oils of choice. With modern engines now having a smaller cubic capacity and larger turbo's, lubrication has become more important than ever before, these smaller engines require ultra-low viscosity oils to meet the ever more stringent emission legislation and to assist manufacturers in achieving higher power outputs and torque figures from these engine types. These include 0W-20, 0W-30 and 5W-20 not to mention manufacturer specification requirements required to service modern vehicles.

This places an increased demand on lubricating oils to provide optimal performance, as the oil must retain a thin yet robust film strength for effective lubrication. AD Automotive Lubricants are formulated using the very latest in additive technology together with selected quality base oil stocks to ensure that these engine oils stay in grade whilst protecting engine components.

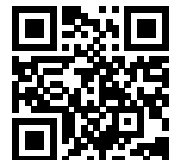
AD lubricants are produced in a plant that has an ISO-accredited quality management system. Traceability is not only maintained at the batch level but is taken down to minute details. Each AD Lubricant product carries a batch number, batch date and even the precise time the bottle was filled, or the box was completed. This commitment to traceability instils absolute confidence that the oils meet the manufacturer's recommendations, ensuring precision and quality throughout the whole process.

In an automotive environment where mistakes can prove extremely costly, AD Lubricant Products is there to protect your customer's cars and your business's reputation.



Can your business afford not to use AD Automotive Lubricants?

Scan to find your oil




[www.adoil.co.uk](http://www.adoil.co.uk)

## The evolution of perfection

Generation 1

- 1 Standard tapered roller bearing**  
Unmounted tapered roller bearing
- 2 Generation 1**  
Double-row angular ball bearing with/without multipole encoder
- 3 Generation 1T**  
Double-row angular tapered roller bearing with/without multipole encoder
- 4 Generation 1**  
Double-row angular ball bearing with snap ring, with/without multipole encoder



In 1883, **Friedrich Fischer** invented the first machine capable of mass producing perfectly round steel balls in high volumes. The company he created to sell them was FAG.

Now part of the Schaeffler Group, FAG is still a leading innovator, and is also a technical partner to many leading vehicle manufacturers, supplying advanced wheel bearings and hub units for original fitment in factories around the world.

Generation 2

- 5 Generation 2**  
Double-row, sealed angular ball bearing with conventional encoder
- 6 Generation 2**  
Double-row, sealed angular ball bearing with multipole encoder
- 7 Generation 2D**  
Double-row, sealed tapered roller bearing
- 8 Generation 2.1**  
Double-row, sealed angular ball bearing with orbitally formed shoulder, multipole encoder and snap ring
- 9 Generation 2.1**  
Double-row, sealed angular ball bearing with orbitally formed shoulder, multipole encoder and snap ring



**Important:** Gen. 2 bearings must be installed with a specialised tool to eliminate fitting errors and avoid premature failure.

Generation 3

- 10 Generation 3**  
Double-row, sealed angular ball bearing with orbitally formed shoulder
- 11 Generation 3**  
Double-row, sealed angular ball bearing with orbitally formed shoulder, multipole encoder and sensor
- 12 Generation 3.2**  
Double-row, sealed angular ball bearing with orbitally formed shoulder, multipole encoder
- 13 Generation 3.2**  
Double-row, sealed angular ball bearing with orbitally formed shoulder, multipole encoder, face spline and LFT



## Generation 2 Bearings - Best Practice Advice



Wheel bearing types can be identified by their design generation; Gen.1, 2 or 3 - some of which require special care to ensure a professional and safe installation.

Gen.2.1 bearings require a specific and precise installation procedure where the bearing must be pressed into the hub using a special tool which applies force to the outer race only. Any force applied to the inner race during this process can cause damage leading to bearing failure. The special tool clamps also correctly align and fix the bearing snap-ring into the hub, which is essential in ensuring an accurate installation.

If the snap ring doesn't 'click' into place in the hub recess the bearing will slowly work its way out, eventually fouling against the CV joint. It's also important that technicians take extra care when installing bearings with 'active sensor' rings; which must be protected from damage as the sensitive magnetic 'teeth' are responsible for providing the data for many safety critical systems. Avoid placing the bearing on a workbench with the encoder face down, which could contaminate or damage it.



Contact your local branch for an FAG Gen.2 installation poster for your workshop!



## BM CATALYSTS LAUNCHES BM GARAGE PRO AND BM REWARDS PRO: INNOVATIVE TRAINING AND LOYALTY PROGRAMS FOR UK GARAGES

We take a look at the BM Catalysts garage training and reward scheme initiatives, recently unveiled at the UK Garage and Bodyshop Event.



Occasionally, an exclusive initiative worth shouting about comes along in our industry. One such initiative (or two in this case) was recently launched by BM Catalysts, Europe's leading manufacturer of aftermarket hot-end emissions products. The scheme is called BM Garage Pro, an online learning tool, and BM Rewards Pro, a new loyalty rewards scheme for garages.

Both schemes were unveiled at the UK Garage and Bodyshop Event on June 5th-6th, and they received an overwhelmingly positive response from garages and other industry leaders, instilling confidence in the value of these initiatives.

We took the opportunity to ask BM Catalysts about these two new initiatives that are clearly creating such a buzz in the aftermarket. "We're excited to introduce BM Garage Pro and BM Rewards Pro, which reflect our commitment to supporting UK garage professionals and motor factors. These initiatives

result from extensive research and development to meet the needs of installers, and we're confident they will help enhance business operations throughout the aftermarket."

**BM Garage Pro** is an e-learning platform designed to help technicians enhance their product knowledge. It's evident right from the start that a great deal of thought has gone into the program. Simply complete a straightforward registration form to gain access. The learning videos are well-crafted, providing excellent tuition for trainee technicians while being advanced enough to engage veterans. Completing the courses involves taking tests, and successful participants and their businesses are rewarded with certificates suitable for display in reception areas. This shows customers that your business is staying ahead in our fast-moving industry.

If the entire initiative aims to provide garage professionals access to invaluable technical content and news

updates while fostering a community dedicated to long-term professional development, then BM Catalysts has clearly succeeded.

In our opinion, well-thought-out quality initiatives like this can only help future-proof the aftermarket, enabling technicians to stay ahead of evolving emissions control technologies and regulations.

One last thing to mention is the benefits of BM Rewards Pro. It's a fantastic rewards program where points can be earned every time a qualifying BM Catalysts product is purchased and installed. Points can be redeemed against high-quality branded merchandise or alternatively, you can opt to claim an extended manufacturer's warranty by registering your products on the site. It's a win-win!

We recommend visiting [www.bmcatalysts.co.uk/garagepro/](http://www.bmcatalysts.co.uk/garagepro/) and registering today. After all, it's completely free!

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