



THE SMART CHOICE FOR TODAY'S TECHNICIAN!





Brake Disc

108569, 108622 To Fit: Mazda CX-7 2006 > 2014, CX-9 2007 > 2016, MX-5 2005 > 2014





For the vehicle production period after October 2012, Mazda modified the design of the wheel hubs and brake discs - removing the retaining screw fixing points (on both the hubs and discs) as an effect.

As a result, and when replacing the front brake discs on the models listed above, it can be found that the brake disc is not secured to the wheel hub with retaining screws upon removal of the road wheel.

However, replacement Blue Print brake discs ADM54398 and ADM543111 are manufactured with two retaining screw fixing holes - allowing Blue Print brake discs to be compatible with vehicles made before and after the production date change.

ADM54398 and ADM543111 can either be used with or without the retaining screws because the road wheel secures the brake disc to the hub once the wheel nuts are tightened to the correct torque.

Using a suitable torque wrench, the wheel nut should be tightened to:

CX-7: 103 ± 15 Nm CX-9: 128 ± 15 Nm MX-5: 103 ± 10 Nm

For more technical information please visit: **partsfinder.bilsteingroup.com**



Oil Filter with Seal Rings



ADB112106

To Fit: BMW - 1 series - E81, E82, E87, E88. 3 series - E90, E91, E92, E93. 5 series - E60, E61 Engine: N40 - B16A, N42 - B18A,B20A, N43 -B16A, B16AA, B20A, N45 - B16A, B16AC, B20A, N46 -B18A.

Problem

The engine is very noisy and 'rattling' on start-up, with the oil pressure warning light and engine warning lamp illuminated. The engine is in reduced power ('limp home') mode.

Possible fault code stored in the engine control unit: 30C1 static engine oil pressure control.

Cause

The oil filter may have become twisted or broken-up inside the oil filter housing; restricting oil flow.

Solution

Firstly, check if the engine oil is at the correct level and adjust if necessary. Subject to the oil level being correct, carry out a diagnostic test (using a suitable diagnostic tool) to check for fault codes and the pressure of the engine oil. The oil pressure can also be checked at the oil filter housing – using a suitable, external oil pressure gauge. The minimum oil pressure at idle is 1.5 bar (22 PSi) at normal operating temperature.

If the oil pressure is found to be below 1.5 bar (22 PSi), drain the engine oil and remove the oil filter. Inspect the oil filter element to check if it is twisted and broken-up inside the oil filter housing. If it is, you will need to replace the engine oil and filter, and re-test.

If the oil filter element is complete, replace with a new oil filter – refilling it with the correct grade and quantity of engine oil. Clear the fault codes and re-test. If the problem is still apparent, further investigation of the oil pressure control valve, oil pump and timing chain tensioner and guides will be required.

For more technical information please visit: **parts inder.bilsteingroup.com**



SUMMER HEAT DEMANDS SMARTER MOTOR OIL CHOICES

When temperatures rise, so does the stress on your engine and the motor oil protecting it. While winter conditions often take the spotlight when it comes to oil performance, summer brings its own set of challenges that technicians and garage owners can't afford to overlook. At AD Oil, we understand these seasonal demands, and our oils are engineered to meet them head-on.

Summer Stress: What's Really Happening Under the Bonnet?

During hot weather, engines run warmer and for longer periods, especially in traffic or under load. Add in towing caravans, long-distance travel, or holiday congestion, and you've got a perfect scenario for oil degradation. High temperatures can thin oil, reduce film strength, and accelerate oxidation, leading to sludge formation and increased wear particularly in turbocharged and high-performance engines.

Why Oil Quality Matters More in the Heat.

Not all oils are created equal. At AD Oil, we use high-quality base stocks and advanced additive packages that are tested to resist thermal breakdown and maintain viscosity under extreme conditions. This means consistent protection, improved engine cleanliness, and peace of mind for your customers during the hottest months of the year.

Common Summer Issues We Help Prevent.

We've seen certain vehicle types such as turbo diesel vans and high-mileage passenger cars struggle with increased oil consumption, loss of power, and even turbo failures during peak summer periods. Often, these are linked to inferior or incorrectly specified oils. Our range includes formulations designed to meet or exceed OEM requirements.

Prepare Now for the Summer Surge.

With temperatures on the rise, heat can push oil to its limits whether it's volatility, viscosity, or thermal stability. AD Oil is your partner in helping customers choose oils that stand up to the heat and keep engines protected when it matters most.

Support That Goes Beyond the Bottle.

Choosing the right oil isn't always straightforward, especially with modern engines and varied driving conditions. That's why we offer online support, product selection tools, and technical training for workshops.







We're here to help you make the right call—every time.







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

TRUST THE NOT WIPER

Valeo is the World's N°1 O.E. Wiper system specialist,

with over 100 years of wiping innovation!

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 travelling 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.

SILENCIOTM 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™

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.



UNBEATABLE PERFORMANCE IN EVERY BOX

When it comes to automotive safety and performance, brake calipers are key. With a range that delivers exceptional quality, reliability, and advanced technology, Modero is the top choice for both professional and personal vehicle care.

Unmatched Range and Coverage

Our extensive range of brake calipers ensures compatibility with an incredible variety of vehicle models. With over 1,400 references in our catalogue, we offer solutions for nearly every make and model on European roads. Our impressive 95% vehicle parc coverage means you're almost guaranteed to find the perfect match for your vehicle, whether for a personal car or an entire fleet.

100% New Parts for Maximum Reliability

At Modero, quality is non-negotiable. All our brake calipers are manufactured using 100% new parts - no remanufacturing involved. This ensures consistent product integrity, dependable performance, and peace of mind for our customers.

By avoiding remanufactured components, we eliminate the risks associated with refurbished materials and guarantee durability right out of the box.

"A braking solution for all vehicles"

Technology-Driven Innovation

Our brake calipers are engineered with the latest automotive technologies to meet the demands of modern vehicles.

From electronic parking brake compatibility to advanced performance features, we ensure our calipers stay ahead of the curve. With a robust technical advancement programme, we are committed to continuous innovation, so our products remain aligned with the evolving needs of the automotive industry.

Renewed Performance and Safety

Whether you're upgrading a vehicle or replacing worn components, our brake calipers deliver outstanding performance and safety. Built to the highest standards, our calipers offer drivers enhanced control and stopping power, ensuring confidence on every journey.

Modero brake calipers embody the perfect combination of quality, innovation, and convenience. With an extensive product range, zero remanufacturing, and cutting-edge technology, Modero sets the standard for automotive excellence.



Reliable Braking In a Box

People around the world trust Modero brake components to offer dependable stopping power at a competitive price - the ideal choice for all vehicles

MODEROPARTS.COM



SAVING A LITTLE MONEY ON A FILTER IS BAD ECONOMY: ONLY QUALITY FILTERS DELIVER OPTIMUM ENGINE PERFORMANCE AND LONGEVITY

In today's competitive and fast-paced market, workshops often focus on the price. But you shouldn't save money at the wrong end. Quality in filters is essential, not an option. That's why professionals who care about engine performance, customer satisfaction, and long-term reliability choose Knecht filters from MAHLE.

With over 100 years of experience, MAHLE is a trusted supplier to more than 140 global vehicle and engine manufacturers. As a system supplier to the OE, MAHLE's engineering expertise goes far beyond designing individual components. Its heritage in manufacturing pistons, piston rings, valve train components, liners, and engine bearings gives it a unique advantage—combining deep engine component knowledge with filtration expertise to develop filters tailored to each vehicle's specific requirements.

More than half of all filters produced by MAHLE go directly to the original equipment (OE) or original equipment service (OES) markets, with the remainder being supplied to the independent aftermarket at the same quality and specification, available under the Knecht brand. For garages, this means every filter delivers uncompromising OE quality—ensuring perfect fit, reliable function, and consistent performance.

Oil Filters: Protection Where It Counts

Oil is the lifeblood of any engine, and the oil filter is its first line of defence. Poor-quality filters allow harmful debris to circulate, increasing engine wear and risking premature failure. Knecht oil filters are built using its indepth engine knowledge, featuring robust housings, high dirt-holding capacity, and precisely engineered bypass valves to guarantee protection—even during cold starts. For technicians, that means peace of mind with every oil change.

Fuel Filters: Consistent Flow, Consistent Performance

Blocked or inferior fuel filters can lead to hesitation, rough idling,

and injector damage. Knecht fuel filters meet rigorous OE standards and are designed to handle today's low-sulphur fuels and biodiesel blends. Whether petrol or diesel, Knecht filters trap even the finest contaminants to ensure optimal combustion and reduced engine wear. The result? Fewer returns, better driveability, and happier customers.

Many original fuel filters include additional heaters—often overlooked during regular servicing. Knecht filters apply their OE expertise, maintaining the same filtration levels intended by the vehicle manufacturer.

Air Filters: Perfect Combustion, Better Drive

A clogged air filter can reduce performance, increase emissions, and hurt fuel economy. Knecht air filters deliver maximum filtration efficiency with minimal restriction, ensuring engines receive clean air for smooth, powerful operation. With precision fit and durable construction, workshops avoid misfits and callbacks—saving both time and reputation.

Cabin Filters: More Than Just Clean Air

Cabin filters may be easy to overlook, but drivers certainly notice them. From reducing odours to improving air quality, cabin filters have become a valuable service upsell. Knecht offers standard particle filters, activated carbon filters, and its premium CareMetix* filter, which not only traps fine dust and harmful gases but also includes an anti-allergic layer—providing relief for pollen-sensitive passengers.

As a leading OE supplier of cabin ventilation and air conditioning

systems, Knecht filters bring this technical expertise directly into every replacement filter.

Transmission Filters: Smooth Shifts, Longer Life

With modern automatic transmissions becoming increasingly complex, clean transmission fluid is more critical than ever. Contaminants can cause premature wear, overheating, and unpredictable shifting. Knecht transmission filters are engineered to withstand high pressure and provide precise filtration, helping to extend transmission life.

In vehicles with sealed or "lifetime" transmissions, fitting the correct filter from the start is vital. Combined with the MAHLE FluidPRO® machine, workshops can ensure a zero-contamination flush—removing old oil and residues to help prevent costly transmission damage.

Why Choose Knecht filters?

- Over 100 years of OE-quality manufacturing expertise
- Trusted by more than 140 vehicle and engine brands
- Excellent vehicle parc coverage across Europe
- Same quality and specification as supplied to the OE

When a workshop fits a Knecht filter, they're not just installing a part—they're choosing long-term reliability, fewer comebacks, and better customer satisfaction. Because saving a few pennies

today isn't worth tomorrow's breakdown, bad review, or lost trust.





SHAFTEC BRAKING RANGE, QUALITY YOU CAN TRUST.

Shaftec has been supplying remanufactured and new parts to the motor trade for 30 years and is firmly established as the leading transmission, steering and braking supplier to the UK aftermarket.

A full range includes Driveshafts, CV Joints and Boot Kits, Propshafts, Brake Calipers, Steering Racks and Gaiters, Steering Pumps, Steering Columns and Electric Steering. Shaftec offers its customers the largest range of premium products, backed by the highest levels of availability and exceptional customer service.

We've been remanufacturing Brake Calipers since 2007.

Remanufacturing is not just a poorer substitute for new. It's a process which results in components that are as good as new, tested as new and perform in that way for the lifetime of the part. Each Shaftec branded Brake Caliper is stripped right back to the original casting and inspected to ensure that there are no defects. All Brake Calipers are then remanufactured to the original state, reassembled by hand using brand new components and pressure tested beyond the capacity experienced on the vehicle. This means 100% new pistons, springs, actuation parts and seals. Nothing is left untouched and everything is completely renewed to the highest quality of ISO 9001:2015. The range is covered by a 24 Months / 24,000 Miles warranty.

Unrivalled availability across our extensive product range.

As a remanufacturer we can develop new parts quicker by procuring suitable core, enabling us to be 1st to market on many new parts. We have 96% vehicle coverage across Europe.

Our comprehensive Range of Calipers for vehicles with Electronic Parking Brake is over 500 part numbers.

Our thorough, efficient and safe 'Reman & Return' programme for: Brake Calipers, Driveshafts, Steering Pumps and Steering Racks means we can turn around a part that nobody in the UK will have. Put simply, if the used core returned to us meets its returns criteria, Shaftec will remanufacture and return that EXACT part – with the

same warranty as the off the shelf, aftermarket product. Turnaround usually takes 5-7 working days.

Over the last couple of years we have added in excess of 600 part numbers across the product portfolio. By continually developing our product range, we are ensuring our customers have access to the latest high-quality remanufactured and new components.

This is all supported with our comprehensive Website featuring our ECAT Online Catalogue, and an extensive range of technical support is available in our Knowledge Hub, including:

- Product Information
- Fitting Guides
- Returns Acceptance Criteria literature which can be found on our Website
 - O Driveshafts: shafts should not be bent or snapped.
 - Steering racks and pumps: There should be no damage to the casting. Plugs and sockets should not be broken or missing.
 - Brake calipers: The casting must not be cracked or broken. Must not be snapped off.

Technical support is available on our Helpline: 0844 257 1818 8:30am - 5:30pm

By concentrating on our core DRIVE. STEER. STOP. Product groups, we continue to be the specialists in these areas. If we put our name on the box, you can be certain that what's inside is of the highest quality.



CAR CHANGES ARE INCREASING DEMANDS ON

IGNITION COILS

The foundation of ignition coil technology remains windings around an iron core. Typically, the primary winding is connected to the battery, with the secondary winding connected to the spark plugs. Cycling on and off then sparks combustion.

Yet the rise of start-stop, hybrid and smaller engines by vehicle manufacturers chasing greater efficiency under stringent emissions regimes has hugely ramped up the demands now placed upon ignition coils.

In addition to having to generate up to 45,000 volts for efficient combustion the operating environment is now likely to see greater temperature fluctuations, more high load start cycles, improved performance expectations and weight reductions - all within an engine bay where space is at a premium.

Ignition coils today deliver the high electrical loads of starting cycles far more frequently due to start-stop and hybrid engines. Short urban journeys can extend gaps and increase starting cycles further. Ignition coils still need to reliably deliver a strong spark at the right time to the right cylinder thousands of times per minute.

Delphi's global OE expertise ensures every coil in the range is built to stringent specifications so garages trust performance. Construction uses high quality wiring, insulation and coatings along with efficient windings. Vacuum production ensures air bubbles are removed from materials to prevent arcing or shorting.

All Delphi ignition coils will also have been subjected to thousands of hours of testing before being released for sale to ensure they are durable enough to withstand vibration, high temperature and moisture over many years. Delphi has recently developed multi spark ignition coils. These are being introduced to the aftermarket too. They fire multiple sparks rather than a single spark on each cycle to burn fuel more efficiently.

Delphi's UK and European range occupies a marketleading position, with 89% car parc coverage - and particular strength on hybrids. There are over 430 coils in range, comprising oil filled, cassette, pencil, coil on plug, distributor coil and distributorless coil types.

Delphi says garages should be aware that all genuine Delphi ignition coils will be logo etched and boxes are sealed with a hologram label to help prevent forged products entering the market.

Today, Delphi is focused not just on the reliable supply of high quality parts to motor factors, but also upon providing complete workshop solutions to independent garages. The Masters of Motion hub (launched in January '23) includes a video on 'How to Replace an Ignition Coil'. New video content is being added weekly, with 'How to Test Ignition Coils' going live as recently as mid-June.

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

> Scan here for more information Visit the Masters of Motion hub













HELLA WHEEL SPEED SENSORS

ABS Sensor Reliability Starts With OE Expertise

When it comes to safety-critical vehicle components, few are as essential or as underestimated, as anti-lock braking system (ABS) sensors.

Compact yet highly sophisticated, these components sit at the heart of braking and advanced driver assistance systems (ADAS), playing a crucial role in keeping vehicles safe, stable, and responsive on the road

As demand rises for high-quality replacement parts in the independent aftermarket, HELLA is responding with a comprehensive ABS sensor range that combines deep original equipment (OE) expertise with a steadfast commitment to quality, offering a product workshops can fit with confidence.

"We're continuously expanding our ABS sensor range in line with market developments, covering everything from passenger cars to commercial vehicles," said Matthew Smart, Head of Electronics at HELLA. "It's about giving our customers the coverage and confidence they need to stay ahead."

Also referred to as wheel speed sensors, ABS sensors are fundamental to the performance of any modern braking system. Their core function is to monitor the rotational speed of each wheel and relay this data in real time to the vehicle's Electronic Control Unit (ECU).

"They generally fall into two categories: passive and active ABS sensors," said Matthew. "Passive sensors generate an AC voltage signal as the wheel rotates, relying on a toothed tone ring passing by a magnetic coil.

"Active sensors, on the other hand, use an electronic circuit to provide a digital signal with a wider speed range and greater accuracy, making them ideal for modern vehicles with advanced safety systems."

The data from ABS sensors enables crucial safety systems, including ABS, Electronic Stability Programme (ESP), and Traction Control, to detect and correct wheel slip by adjusting brake pressure or engine torque, helping the driver maintain control in challenging conditions.

ABS sensor data is also increasingly used to support advanced driver aids such as hill-start assist, adaptive cruise control, and autonomous driving technologies in many of today's vehicles.

"Without accurate, real-time feedback from ABS sensors, these safety systems simply can't operate effectively," explains Matthew. "Fault codes, warning lights, and compromised performance are the inevitable result. That's why correct diagnosis, fitment and calibration are becoming increasingly important, particularly as electronics account for a growing share of vehicle architecture."

With decades of OE experience supplying leading global vehicle manufacturers, HELLA brings the same engineering rigour and attention to detail to its aftermarket offering. The result is a range of ABS sensors that match the precision, durability and performance of the original parts, offering seamless fitment with OE-matched connectors and mounting points.

"They're engineered for quick, accurate installation and thoroughly tested to ensure consistent performance, even under tough operating conditions," said Matthew. "That reliability is crucial for garages looking to protect their reputation and avoid costly comebacks."

HELLA supplies ABS sensors for a wide range of passenger cars and light commercial vehicles, covering all major European and Asian brands, with applications for internal combustion, hybrid, and electric models

Scan the QR code for further information about HELLA ABS sensors.





AMPRO - EXPERTS IN NOx SENSORS: WHY REPLACEMENT IN PAIRS MATTERS

AMPRO's commitment to quality and performance is well recognised, especially in critical components like NOx sensors. As emission standards continue to tighten, workshops need dependable parts that go beyond just a one-for-one replacement; they need an OE-quality solution.



AMPRO NOx sensors are designed to deliver superior durability and precision. But even the best sensors can only perform as well as the system around them. That is why many vehicle manufacturers now recommend replacing both sensors simultaneously, particularly when one has already failed. Why replace both? The second sensor is often not far behind in terms of failure. Replacing both avoids a second costly visit and potential warranty issues.

AMPRO NOX SENSORS - KEY ADVANTAGES:

- Direct OE replacement fully compatible and easy to install
- Up to 15 % longer lifespan than OE sensors thanks to enhanced environmental protection
- Individually calibrated for precision and reliability
- Advanced software with no updates needed and ready for immediate use
- Euro 7 ready supporting sustainable emissions control now and into the future

Manufactured to exacting standards and designed for lasting performance, AMPRO sensors offer the reliability that today's technicians demand.





When it comes to vehicle diagnostics, workshops often feel pressure to deliver a first time fix. But is that always the best approach, or even realistic? Modern diagnostics - particularly when sensors are involved - call for a more thorough and systematic strategy.

Beyond the Quick Fix

A successful repair isn't about rushing to replace a part. It's about getting it right. Conducting a step-by-step evaluation to isolate the root of the problem ensures you're addressing the underlying cause, not just the symptom. That creates the opportunity to solve it once and for all.

This approach relies on:

- Transparent communication: Keeping the customer informed throughout the process.
- Professional investigation: Using systematic diagnostics to precisely identify the fault.
- Quality replacement parts: Insisting on high-quality components for reliable results.

The NTK Difference

A recognised leader in vehicle electronics, NTK's extensive range of high-performance sensors ensures that when the need to replace a part has been established, you've got the best component for the job.

The full NTK line-up includes: manifold absolute pressure sensors, mass airflow sensors, exhaust gas temperature sensors, lambda sensors, exhaust pressure sensors and camshaft and crankshaft sensors alongside the exhaust gas recirculation valve range. This portfolio, backed by Niterra's extensive expertise, enables workshops to install original equipment-quality parts with confidence across the engine and emissions systems of millions of vehicles in the UK.

The Right Result

A measured approach can still deliver timely results. By combining transparent customer collaboration, precision diagnostics and the best replacement parts from NTK you can achieve a lasting repair, earn trust and build your reputation.

To discover more about NTK products and services please visit www.ngkntk.com/uk

















SUSPENSION MOUNTING KITS:



A SMALL INVESTMENT IN A BIG RESPONSIBILITY

When customers think of vehicle safety, they usually mention seatbelts, airbags, or brakes, rarely suspension. But as a garage, you know worn suspension affects braking, handling, and tyre wear. The challenge is, most drivers don't realise this until it's too late - that's where your expertise makes the difference.

Educating customers about suspension safety doesn't have to be complicated. By incorporating simple, clear communication and practical demonstrations into your routine service, your garage can help customers understand why timely suspension maintenance matters - and encourage them to act before problems worsen. Here's how you can make that happen:

Perform a Visual Inspection with Every Service

This simple step can make a big difference. Whilst completing a service and checking tyres for wear, take a moment to inspect the suspension components as well. A quick visual check during routine services is an easy way to spot potential issues early and keep your customers informed.

Use Mileage Benchmarks

Advise customers to have their suspension inspected around the 12,000-mile mark and replaced after 50,000 miles, as most OE components begin to degrade around this time - even if there's no visible damage yet. By this stage, suspension mounting kits have endured up

to **75 million movements,** causing internal parts like ball bearings to wear down significantly.

Explain the Effects, Not Just the Parts

It's easy enough to tell a customer
"your suspension is worn",
but it's much better
when you explain what
that means and the
impact it will have upon
them: longer stopping
distances, less
control - particularly
in emergency
situations, uneven

Use KYB's Education Tools

You can easily explain
the above using KYB's
support tools - KYB
offers a range of pointof-sale materials, digital
content and videos that
help to explain suspension
performance and safety.
For example, showing your

tvre wear and

comfort issues.

customer KYB's Safety Video will help

to demonstrate the impact of worn suspension on stopping distances





Klarius

EVERYTHING YOU NEED FOR THE PERFECT EXHAUST FIT

Every technician knows the frustration. You've got the replacement exhaust in hand, ready to fit, only to find the old clamp has rusted through or the rubber hanger has perished. Suddenly, what should have been a straightforward fit becomes a scramble for parts, a delayed handover, or worse, a dissatisfied customer returning with a rattle or a leak just days later.



These small parts can cause big headaches, leading to repeat work, frustrated technicians, and even MOT failures. In a busy workshop where efficiency is paramount, these are the time-consuming, profit-eroding problems you can do without.

Why the right kit matters

When you're running a business on tight margins, it can be tempting to just grab the fittings you have to hand. However, this is a risk that simply isn't worth taking - in fact, it's a perfect example of being "penny wise, pound foolish".

Exhaust mountings, constantly subjected to vibration and extreme heat cycles, degrade and lose their integrity over time. Clamps and gaskets corrode, compromising the seal and stability of the entire system. It doesn't take much for one of these to deliver sub-standard performance, or even to fail outright.

When this happens, you aren't just risking the time and expense it takes to make things good, but also the chance of your (justifiably) angry customer grumbling to their friends, family, and online.

As such, opting for a complete fitment solution is not just best practice; it's a direct investment in your workshop's efficiency and reputation.

It ensures total system integrity, preventing dangerous gas leaks, annoying rattles, and the possibility of joint separation. This meticulous approach reduces the risk of comebacks, enhances customer trust, and helps secure a clean MOT pass by addressing common failure points like exhaust leaks and insecure mountings.

By having everything to hand from the start, you eliminate wasted time sourcing forgotten parts and can complete the job efficiently and profitably.

Fit first time, every time

Luckily, emissions control component manufacturers like Klarius, understand that a quality exhaust replacement is about more than just the pipe or the backbox. It's about the entire system, working together so your customers' vehicles are efficient, safe, and quiet.

That's why it's vital that garages work with a supplier that can provide them with the full system – including the often overlooked yet critical mounting components, gaskets, and clamps. Importantly, these systems need to be founded on the most accurate and extensive industry data, ensuring that when you order parts,

you can be confident you're getting all the correct components for the vehicle on your ramp, right down to the last bolt.

A trusted choice for professional garages

Good news for garages, every part in the Klarius catalogue, from a single rubber hanger to a full exhaust system, is designed and manufactured in-house to match or exceed original equipment standards. They are rigorously tested to withstand the specific challenges of UK road conditions. Our confidence in our components allows you to be confident in your work.

This is why every Klarius component is backed by a minimum two-year warranty and our famous 'Fit First Time' guarantee. This assurance gives professional garages and technicians the peace of mind that they are fitting parts that are built to last, safeguarding their reputation and ensuring customer satisfaction.

In the end, the small parts matter just as much as the big ones. With Klarius, you get everything you need for a job done right the first time, every time. From brackets to backboxes, we've got you covered, so you can focus on keeping your customers safe and satisfied.

To ensure you're getting the complete kit, speak to your local branch or contact Klarius directly.





ENSURE A COMPLETE REPLACEMENT WITH BM CATALYSTS' PRESSURE PIPE RANGE

BM Catalysts, Europe's leading manufacturer of hot-end emissions products, continues to set new standards through innovation, delivering solutions that redefine industry benchmarks.



Committed to exceeding customer expectations, BM Catalysts recognises that there are sometimes instances where pressure pipes need to be replaced without requiring a new unit. This is why it offers a robust range of high-quality pressure pipes for over 1,300 different vehicle fitments, available alongside its Diesel Particulate Filters (DPFs).

Pressure pipes play a pivotal role in modern vehicle emission systems. These metal tubes connect the exhaust system to the vehicle's differential pressure sensor, which measures the pressure difference, along with a temperature reading, taken from the exhaust. These readings are used to determine when the powertrain control module (PCM) should initiate the regeneration process to clear the DPF of soot. Differential pressure readings are taken before and after the vehicle's diesel particulate filter (DPF). In most cases, the ports for the pressure pipes are located on the DPF itself. However, this is not always the case; in some instances, the pipes are located on components positioned immediately upstream or downstream of the DPF.

BM Catalysts' range of pressure pipes are manufactured from high-quality 304-grade stainless steel to ensure optimal durability. When supplying a product that contains a DPF, BM Catalysts recommends offering pressure pipes as supplementary items in case the originals are damaged.

Some pressure pipes are welded to the DPF and supplied as part of the unit, whereas others are detachable, screw-in parts that are sold separately. These separately sold pipes do not compromise reliability, as they are specifically designed to be fully compatible with the relevant BM-manufactured units. To ensure compatibility, BM Catalysts pressure pipes are marked with the prefix 'PP', followed by a five-digit reference number identical to the unit they are designed to fit.

BM Catalysts encourages the installation of new pressure pipes whenever a DPF is replaced. Damaged or blocked pipes can cause the differential pressure sensor to produce incorrect readings, potentially leading to undetected and unresolved DPF issues. A faulty pipe could be misdiagnosed as a faulty emissions control unit, resulting in the unnecessary replacement of a DPF, which wastes both time and money if the same errors persist after installation.

Pressure pipes are typically around 8mm in diameter and are fitted to the underside of the vehicle. As such, they are exposed to the elements and are more vulnerable to damage than internal components. Due to their slim

design, even minor damage, especially from mishandling during removal, can lead to further issues.

"At BM Catalysts, we understand that the smallest components can have the most significant impact on vehicle performance and emissions control," says Mark Blinston, Commercial Director at BM Catalysts. "Our pressure pipe range reflects our commitment to precision engineering and delivering solutions that meet the demands of the modern automotive industry.

We want to remind technicians that it's best practice to install new pressure pipes when fitting a replacement DPF. If a pressure pipe is blocked, it can be mistakenly diagnosed as a faulty DPF. If the DPF is replaced but the same incorrect pressure readings continue, it can be a huge waste of time and resources for the garage."

BM Catalysts remains committed to offering a wide range of high-quality aftermarket products. Alongside regular range expansions to increase European vehicle parc coverage, it maintains an uncompromising approach to research and development, identifying additional fitments and offering even greater choice to the automotive aftermarket.

To learn more about BM Catalysts' product range, please visit our website, at **bmcats.com**



SHAFTEC STEERING RANGE – QUALITY YOU CAN TRUST.

Shaftec has been supplying remanufactured and new parts to the motor trade for 30 years and is firmly established as the leading transmission, steering and braking supplier to the UK aftermarket.

A full range includes Driveshafts, CV Joints and Boot Kits, Propshafts, Brake Calipers, Steering Racks and Gaiters, Steering Pumps, Steering Columns and Electric Steering. Shaftec offers its customers the largest range of premium products, backed by the highest levels of availability and exceptional customer service

At Shaftec we've been remanufacturing steering racks since 2010. Together, the new and remanufactured programme of Shaftec branded Steering Racks total more than 1300 references. We remanufacture the entire programme, in-house at our industry leading facility in Birmingham, UK. Each individual steering rack is stripped right back to the original casting and inspected to ensure that there are no defects. All Shaftec branded steering racks are then remanufactured to the original state and reassembled by hand using brand new components, and of course, every unit is 100% factory tested beyond the capacity experienced on the vehicle. The range is complemented by a 12 months / 12,000 miles warranty.

Unrivalled availability across our extensive product range. As a remanufacturer we can develop new parts quicker by procuring suitable core, enabling us to be first to market on many new parts. We have 90% vehicle coverage across Europe.

Supporting the Steering Racks, our Steering Groups also include Steering Rack Gaiter Kits, Steering Pumps and Steering Columns.

Electric Power Steering (EPS) systems are fast replacing conventional hydraulic steering systems because they are lighter in weight, require less maintenance, offer a better response at different speeds, provide higher durability, and use less fuel. In line with this, being well ahead of the game, Shaftec has invested heavily in this area to be able to best serve the aftermarket as these parts come through.

Our Electric Steering is catalogued for models that are right up to date for example:

- AUDI Q3 (F3B) e-Drive 03/2024 Plug-In Hybrid
- BMWi4 (G26) 45 TFSI e03/2024 Electric Motor

Our thorough, efficient and safe 'Reman & Return' programme for: Brake Calipers, Driveshafts, Steering Pumps and Steering Racks means we can turn around a part that nobody in the UK will have. Put simply, if the used core returned to us meets its returns criteria, Shaftec will remanufacture and return that EXACT part – with the same warranty as the



off the shelf, aftermarket product. Turnaround usually takes 5-7 working days.

Over the last couple of years we have added in excess of 600 part numbers across the product portfolio. By continually developing our product range, we are ensuring our customers have access to the latest high-quality remanufactured and new components.

This is all supported with our comprehensive website featuring our ECAT Online Catalogue, and an extensive range of technical support is also available in our Knowledge Hub, including:

- Product Information
- Fitting Guides
- Returns Acceptance Criteria literature which can be found on our Website
 - Driveshafts: shafts should not be bent or snapped.
 - Steering racks and pumps:
 There should be no damage to the casting. Plugs and sockets should not be broken or missing.
 - Brake calipers: The casting must not be cracked or broken.
 Must not be snapped off.

Technical support is available on our Helpline: 0844 257 1818 8:30am - 5:30pm

By concentrating on our core DRIVE. STEER. STOP. Product groups, we continue to be the specialists in these areas. If we put our name on the box, you can be certain that what's inside is of the highest quality. Shaftec are fully ISO Accredited – ISO 9001:2015.



BUILT FOR THE CHALLENGE

ROAD TRIP READY?...

...FAI CAN HELP GET YOUR CUSTOMERS ON THEIR WAY!

The Travel Season is upon us, as millions of families opt for holidaying in the UK. In fact, a massive 77% of Brits planned at least one domestic break in 2024, with 2025 predicted to see a 6% increase in the total number of holidays taken.

At FAI, we often see a significant rise in Steering & Suspension component sales during summer months. So much so, we ensure our stock levels are at a peak, ensuring we meet customer needs. FAI maintain a 98% pick rate, so for those families still running that 1995 VW Sharan, we cover 14 components.

Clearly, we all love a good 'staycation', something that fuels our great country but also provides an opportunity for good Aftermarket business outside of the winter period (even if the roads aren't any less potholed!)

VEHICLE FOCUS - SKODA KODIAQ

The Skoda Kodiaq launched in 2016, filling a need for a large family-oriented vehicle in the VW Group-owned brand. Seven seats are available if required, but most holidaymakers will take advantage of the 630 ltr boot with the third row folded down.

FAI stock over 20 components for the Kodiaq, including Control Arms, Stabiliser Links, Ball Joints, Tie Rods and Rear Lateral Arms.

Although a great vehicle in its own right, just as with most VAG products, the Kodiaq shares many components with SEAT and VW models, all starting life on a variant of the world-famous MQB platform.

faiauto.com





RETHINKING AIR SUSPENSION - WHAT'S NEW FROM DUNLOP?

Air suspension technology has advanced significantly since Dunlop pioneered Electronic Controlled Air Suspension (ECAS) for the Range Rover Classic in the 1970s.



These days, air springs are not just for luxury vehicles. They are increasingly appearing in everyday cars. With demand on the rise, garages are seeing an increase in air suspension-related jobs coming through their doors. So, what has changed since we last looked?

In short, quite a lot. Dunlop Suspensions, based in Coventry, continues to grow its aftermarket product offering while maintaining its original equipment standards. Their latest air suspension range, now covers even more vehicle applications, giving garages access to reliable, vehicle-specific replacements. These parts are engineered with the same attention to detail as their OE components and undergo strict pressure, durability and ageing tests in line with IATF 16949 quality standards

Air suspension in the real world

As modern vehicle design continues to focus on comfort, adjustability and load efficiency, particularly in electric and commercial fleets, air suspension is becoming more widespread. For workshops, that means they see more vehicles with air springs, compressors, air lines and fittings.

Some best practices to keep in mind when working on these systems include -

- Fully read fitting instructions enclosed with every new part
- Always use genuine VOSS couplings
- Keep the white plastic retaining pin in place on the new VOSS fitting until firmly screwed in to the new part
- Using correct torque settings: 1.5 to 2.0 Nm for plastic components and 3.0 to 3.5 Nm for metal parts

Diagnosing common faults

Helpful guidelines covering detection of leakage from air springs and struts are available should you need them.

If a vehicle presents with one corner sitting low, delayed levelling or an overly firm ride, it may be due to ageing rubber, worn dampers or airline abrasion. This is especially likely where airlines are routed through tight spaces or near sharp chassis edges. Dunlop advises carrying out a thorough visual check for cracking, leaks, or signs of overextension, and replacing worn parts with OE-quality equivalents.

Compressor failure is also becoming increasingly common, often due to problems that have been left unaddressed for too long before being repaired. Dunlop has responded by expanding its compressor range to complement

the DAS offering, making it easier for workshops to access all the necessary components from our branches.

Support from a familiar name

With decades of OE expertise behind them, Dunlop's move into the independent aftermarket is not a compromise in quality. It is a logical progression that provides workshops with access to the same standards that manufacturers rely on. All parts are assembled in the UK, with technical support available if required.

Whether you are replacing a worn air spring or compressor, the demand for air suspension solutions is only heading in one direction. With Dunlop's proven reputation and growing product range, now is the time to take a closer look.

Speak to us today about Dunlop air suspension parts.



POTHOLE PERILS AND THE FUTURE OF WHEEL BEARING **REPAIRS**

You don't need us to tell you how bad the condition of UK roads is at the moment, with the number of potholes reaching almost biblical proportions.

This is echoed in the recent RAC MOT report that cites chassis related issues, including wheel bearing wear and failure, as accounting for around 20% of overall MOT failures.

It isn't just road conditions that can affect this safety critical component. It wasn't that many years ago that 17-inch wheels were considered large, but today many cars are sporting a set of huge 20 to 22 inch rims, with 23 inches also now available.

















These larger diameters have the effect of amplifying the vibration and lateral forces that wheels are subjected to during normal operation, putting additional stress on the hub bearings and other related chassis components.

This is why the current trend for vehicle producers is to specify the latest complete hub unit designs, which are much stiffer and therefore better able to absorb road shocks and steering forces.



As a result of Schaeffler's commitment to advancing sustainable motion technology, FAG wheel bearings are selected time and time again as the original equipment choice of many of the world's leading vehicle manufacturers. The same parts installed in the factory are then made available to independent workshops via our aftermarket distribution partners, and our 'complete repair solution' philosophy means that every single component you need to carry out a professional wheel bearing replacement will be in the box right down to the last nut, bolt and washer.





Looking ahead to the future, more and more electric cars are entering the market, which can be up to 30% heavier than their internal combustion engined (ICE) counterparts.

This extra weight puts higher demands on the chassis, which means that latest and future generations of wheel bearings will need to be even stronger, using increasingly sophisticated designs and hightech materials, maybe even ceramics, as well as being insulated from electrical currents. It's a whole new ball game - as Schaeffler's new Trifinity bearing design demonstrates.

Trifinity is a state-of-the-art, fully optimised three-row angular contact ball bearing that offers significantly higher stiffness and longer service life when compared to conventional double-row ball bearings. Its ingenious design makes it possible to accommodate higher axle loads while reducing bearing friction by up to 53%, all in a smaller, lighter package.

ADVANTAGES



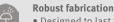
Increased driving performance

• 33% improved stiffness



Modular design

- 24% greater load capacity vs. standard design
- Downsizing solution offers further friction reduction vs. standard design



- · Designed to last for the lifetime of the vehicle
- Optimised sealing performance



Lighter weight

- Helps maximise electric vehicle range
- Helps minimise CO2 emissions in ICE vehicles



53% less friction

- Balances load distribution
- Optimised raceway design
- Friction-optimised grease

Information on Schaeffler products and systems, fitting instructions, labour times and much more can be found on the REPXPERT app, downloadable for free for all iOS and Android devices, or at www.repxpert.co.uk. Alternatively, for live help from one of our technical team, call the REPXPERT hotline on 0872 737 0037*









VALEO FRICTION MATERIAL BEST IN THE MARKET!

For 95 years, Valeo has been a byword for premium clutch products and their range still continues to grow.

As one of the world's recognised experts in clutch and transmission systems, Valeo are known for delivering high quality, reliable clutches.

One of the main reasons for many vehicle manufacturers choosing Valeo clutches as their preferred choice, is thanks to the performance of Valeo friction material. With vehicle manufacturers producing more and more vehicles with higher torque and higher horsepower outputs, it's imperative that the horsepower and torque ratings complement each other and provide a well-balanced driving experience. When each of these factors are increased, it's important that the engine and transmission have the capabilities to deal with the additional load.

More powerful engines, longer ratios and new lifetime specifications have led to the development and introduction of more complex friction designs as well as an increase in clutch designs such as the Valeo SAT (Self Adjusting Technology). The SAT is a Valeo revolutionary technology that uses a self-adjusting facing wear compensation device on the pressure plate, thereby enhancing the clutch life and improving the pedal comfort.

Valeo's HEC (High Efficiency Clutch) is designed to replace older self adjusting systems, offering superior quality, durability and reliability. Its advanced G5 facings deliver high resistance and clean technology, among the best on the market.

With various production and research and development sites located around the world, Valeo employ over 1000 people to bring to the UK a range of clutches that cover over 90% of the total car range, including French, German, Korean, Spanish, Japanese and Italian manufacturers.

In total, Valeo produce approximately 75 million friction facings each year. Surprisingly, not all of these friction facings are used in Valeo clutch kits. Due to the friction material being best in class, vehicle manufacturers request that other clutch manufacturers use Valeo friction material facings in conjunction with their own clutches. In total, around 30% of friction facings produced by Valeo are supplied to and used by other clutch manufacturers.









TRUPART WHEEL BEARINGS: A SAFETY CRITICAL COMPONENT THAT'S MORE THAN JUST A BEARING

You may think a bearing is just a bearing, but to the team at Trupart, it is a safety-critical component that plays a vital role in vehicle performance and driver safety.

To many of us, a wheel bearing is simply a part of the vehicle's mechanical system. However, Trupart believes that the humble bearing is often understated and plays a crucial role in ensuring proper handling and stability. Wheel bearings are constantly under pressure, dealing with rough road surfaces, tight corners, kerb strikes and, in some cases, potholes mid-turn. These external forces are made worse by the weight of the vehicle itself.

Modern manufacturers are working to reduce weight using new materials, but they still need to meet safety and comfort expectations. That means the load on components like wheel bearings remains high.

At the same time, rising engine performance puts even more stress on the bearing. Higher speeds and more challenging conditions are now part of daily driving. The position of the bearing – whether it is on the front or rear, and whether it is on a driven or non-driven axle – also affects how it performs.

Trupart understands that a bearing is not just a fundamental part. It is a precision-made unit that must be strong, reliable and long-lasting. That is why technicians across the UK choose Trupart. From material selection to final testing, every bearing is built to deliver high standards of safety, performance and durability.

So when you are replacing a bearing, remember - it is not just a bearing. It is a vital part of the car's safety. Think quality. Think Trupart.

Everything You Need in One Box

Trupart bearing kits are made with the technician in mind. Every kit includes the bearing along with all the necessary components for a smooth, trouble-free repair.

That means high-temperature grease that meets OE specifications, plus screws, bolts, split pins, seals, clips, caps, and ABS rings where needed.

Jobs often get held up because small parts are missing or hard to find. That causes delays, extra costs and unhappy customers. Trupart kits avoid all that by putting everything in one box, ready to fit. It means fewer interruptions and faster turnaround times.

Built to Perform

Trupart wheel bearings are made to ISO TS 16949:2009 standards using quality materials and trusted production methods. Each unit is laser-etched for full traceability, so

you know what you're fitting and where it came from.

Types include:

- 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 doublerow 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





REP**XPERT**



CONCENTRIC SLAVE CYLINDERS: THE DIRTY SECRET

For Schaeffler Technical Manager and Senior REPXPERT Alistair Mason, an everyday occurrence is to overhear technical phone calls or see inspections being carried out on returned LuK Concentric Slave Cylinders (CSC).

This has allowed him to identify one particular issue that is rarely discussed, but which affects <u>every</u> type of CSC for <u>every</u> vehicle application. The dirty secret is: **Contamination**. Schaeffler now has more CSCs returned with contamination related failure than are returned with signs of being over-pressurised during installation, the previous number one cause of premature failure.

So, what is causing this? It could be low cost or even missed servicing, ignoring recommended fluid changes and, of course, lower mileages because more people are now working from home more - so vehicles are being used less frequently.

Contamination, put simply, means that the clutch fluid has become old, polluted, and discoloured. It attracts moisture, guide tube debris, and who knows what else could be in there!

When fitting a new CSC some installers will happily pump this contaminated fluid into the new cylinder, therefore contaminating and shocking the new seal. As a result the seal starts to swell (see picture lower right), leading to inevitable failure, usually 1000+ miles after the CSC was replaced, although failure can occur earlier in extreme cases.

The question to ask yourself is "do you know the history of the clutch fluid you are draining?" It is also worth bearing in mind that the usual vehicle manufacturer's recommendation, and also that of component manufacturers, is to change the hydraulic fluid every two years.

The way to avoid a contamination related failure is clear: Drain, flush and refill the clutch fluid every time you install a new CSC. Doing this five-minute job correctly could prevent a disgruntled customer returning for yet another CSC.

Please don't get caught out!



Alistair Mason



Seal measurement





Examination of the assembly reveals the seal to have been contaminated causing it to swell to 46.9mm (left). The nominal size for this CSC is 43mm (right).





Getting it Right: Window Lift Calibration After Regulator Replacement Why a perfect mechanical repair can still result in unhappy customers

In the world of vehicle electrics, it's not uncommon for a job to go technically well but still leave a customer dissatisfied. Replacing a faulty window regulator is usually straightforward, until the customer returns complaining that their auto-up function no longer works, or worse, the window bounces back down every time they try to close it. These issues often aren't due to faulty parts or incorrect fitment, but simply a missed final step: recalibration.

Why Recalibration is Necessary

Modern vehicles increasingly rely on comfort and safety features like one-touch operation and antipinch protection. These systems use sensors or motor feedback to monitor window position and resistance. When a regulator or motor is replaced, the system often needs to "relearn" the travel limits to function properly. If skipped, you might encounter:

- Loss of auto-up/auto-down functions
- Windows that reverse unexpectedly during closing
- DTCs stored in the BCM (Body Control Module)

When to Calibrate

Not all vehicles require recalibration after regulator replacement, but many do — particularly models from:

- BMW and MINI
- Mercedes-Benz
- Volkswagen Group (VW, Audi, Seat, Skoda)
- Ford (especially later Fiesta and Focus models)
- Some Japanese brands, including Toyota and Nissan If in doubt, assume calibration is required.

Common Calibration Methods

Manual Relearn (Most Common):

- 1. Turn ignition on (engine off).
- 2. Fully lower the window using the switch.
- **3.** Hold the switch down for 2-5 seconds after the window reaches the bottom.
- 4. Raise the window fully.
- 5. Hold the switch up for another 2-5 seconds.
- **6.** Test the auto-up/down function.

Scan Tool Reset:

Some models, particularly premium brands, may require a diagnostic tool to reset or recalibrate the motor through the BCM or door module.

Battery Reset Quirk:

In rare cases, disconnecting the battery after installation can trigger a relearn on start-up. This is not a recommended approach but worth knowing if a vehicle self-corrects unexpectedly.

Best Practice Tips

Always check manufacturer-specific instructions for calibration steps. Advise the customer that window functions may need recalibrating post-repair, it sets expectations and adds perceived value. Invest in a mid-range scan tool that can access body modules if you work on a broad range of vehicles.

VX**PRO** 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.











More Service. More Expertise. Elring – Das Original:



Our Feature Products

The Elring competence guarantees excellent results when repairing all engine types, this includes our standard program along with performance and classic car engines.

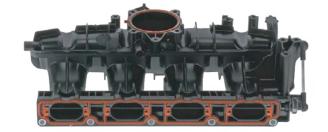
These products include cylinder-head and sealing systems, oil seals and valve stem seals, sealing compounds, and threadlockers as well as cylinder-head bolt and complete gasket sets





What's New?





We have available, cylinder-head covers, intake manifold modules, oil pans, oil filter housings and oil separators in proven Elring quality!









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Technical videos on our YouTube channel



B Bodyguards

Black Nitrile Powder Free Disposable Glove

GL896

Our heavier-weight disposable gloves provide durability and reliable protection, outstanding dexterity, and tactile touch, making them highly versatile.

Superior strength nitrile glove, good resistance to tears and punctures



Achieves type B chemical resistance against at least 3 different chemicals



Textured fingertips provide an improved grip







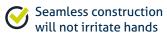
Matrix P Grip Black **PU Palm Coated Glove**

40-MAT

Manufactured from materials that are hardwearing and long lasting. Matrix P Grip scores very well under EN388 with a level 3 for abrasion











Polyflex Plus Nylon Glove with Foamed Nitrile Palm Coating

800

Polyflex Plus is a premium general handling glove. Its nylon liner is soft & comfortable while the nitrile coating is grippy & flexible, whilst offering great resistance to abrasion.

Achieves a maximum score of Level 4 for abrasion resistance as defined by European Standard EN388

Achieves Level 1 for Contact Heat according to EN407. Can withstand temperatures of 100°C

Elasticated knitted wrist provides a secure fit











Clutch Cable



ADBP380001 To Fit: RHD Hyundai i10 2007 > 2013



Problem

The vehicle has difficulty engaging first or reverse gear, and has an inconsistent 'biting point' when depressing the clutch pedal.

These issues can result in noise coming from the gearbox area, giving the impression of a possible clutch fault.

Cause

The clutch cable is routed around the back of the engine for right-hand drive vehicle applications. Over time, water and road debris can ingress into the cable and flush away any lubricant, which can cause rust to form on the cable. This is most notable at the end of the cable, where it connects to the clutch pedal.

Solution

Before replacing the clutch cable, check the condition of the pedal box - paying attention to the area where the pedal box is attached to the body and where the clutch cable passes through it, because it is an area known to fracture. This is due to excess stress caused by the faulty cable. The pedal box must be repaired or replaced before continuing.

Once satisfied that the pedal box is in good condition, disconnect the clutch cable and replace it with a new Blue Print clutch cable - ADBP380001.

Adjust the cable, as required, to the desired clutch pedal height of 178mm. This should be measured from the floor to the centre of the clutch pedal.

Check the 'free play' of the clutch pedal; this should measure 10-15mm before resistance is felt as the clutch pedal is depressed.

Where the clutch cable attaches to the clutchactuating arm, this should have 2-3mm of 'free play' and can be adjusted using the barrel connector.

Check that the gearbox oil is at the correct level and top-up as necessary, then carry out a road test to check the operation of the clutch.

For more technical information please visit: partsfinder.bilsteingroup.com







All BGA Timing Chains come supplied to you pre-lubricated with our specially formulated chain lubricant.

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.



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 numberplates 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 ecofriendly 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



GEAR TRONIC III - Professional automatic transmission service by LIQUI MOLY

Modern automatic transmissions and automated manual transmissions always keep the engine in the optimum efficiency range. As the complexity of the transmissions increases, along with more and more gears and up to 10 speeds as well as additional modes (comfort/sport/winter), the demands placed on the transmission also rise. The gear oil is subjected to enormous thermal and mechanical loads.

If the transmission oil is not changed in time, the dirt and metal abrasion it contains can cause costly mechanical damage to the shifting mechanism. This is why the manufacturers and an increasing number of automotive engineers are issuing recommendations for changing the transmission oil depending on mileage and driving style. This also applies to so-called "lifetime fillings".

However, it wasn't previously possible to completely change the lubricant which meant it was inevitable that the new oil was contaminated with the residual oil when the transmission oil was changed – a problem that is now a thing of the past, thanks to Gear Tronic III. This is because the automatic transmission oil service unit enables an almost 100 percent fluid replacement without mixing new and used oil. Only in this way can the new oil develop its full potential.

Another advantage: Thanks to its automated processes, Gear Tronic III avoids costly errors and possible over- or underfilling. The unit is the perfect all-round solution with which purging, transmission oil change and the addition of additives can be carried out easily, quickly and safely.

Advantages of our Gear Tronic III

- ✓ Possible to purge the transmission and change the oil via the measuring stick guide tube, transmission oil connections directly to the transmission or transmission oil cooler
- ✓ High precision in fluid exchange thanks to two independent and highly precise scales in the device
- ✓ After the oil change, there is less than 100 ml remaining in the unit
- ✓ Very simple menu navigation in various languages and fully automated system purge operation
- ✓ Universal and vehicle-specific adapters for simple connection to the vehicle transmission oil system
- ✓ Patented bypass circuit protects the vehicle in the event of a power interruption
- ✓ Free and automatic device updates via Wi-Fi
- ✓ Wireless transmission of service data via e-mail or to the printer
- ✓ Integrated instructions for connection adapters to radiator and transmission
- ✓ All connections equipped with check valves
- ✓ High pumping capacity of up to 10 l/min



Speak to your LIQUI MOLY sales representative for more details



MOVE FORWARD. ALWAYS.™

BELT IN OIL TECHNOLOGY - A CRAZY IDEA, BUT AN INSPIRED ONE

Although some might question the belt-in-oil (BIO) concept and favour a traditional chain drive, several major vehicle manufacturers, including Ford, PSA, and VAG, have adopted the technology. But why?



Dayco, the company that pioneered BIO on behalf of multiple vehicle manufacturers, shares the story behind the development of the oil pump belt in the 1.6 litre TDI engine used in millions of VAG vehicles.

With emissions reduction and weight saving as key goals, the oil pump, historically chain-driven, became their focus. The aim was to retain the same layout with fixed centre distances and deliver the same function, but without using a tensioner.

The new solution had to meet several key requirements:

- No redesign of the drive
- · No change to the assembly line
- Maintain or improve performance
- Meet lifetime targets
- Offer a cost advantage

Using the original chain layout and surrounding geometry, the belt system was developed to match. The driver pulley was a sintered part, press-fitted onto the crankshaft without flanges. The driven pulley, also sintered, was fitted to the pump shaft with two flanges. The system worked without a tensioner, reducing complexity and potential points of failure.

Before the design could be approved, Dayco carried out feasibility studies on both the layout and the belt.

Lavout

The oil pump is secured to the lower engine block by screws and located with reference bushings. Axial tolerances on both the camshaft and oil pump were analysed. A belt width of 9.4 mm was chosen, and parts were manufactured to test extreme tolerances through fitting

and validation. Radial tolerances were then assessed, and a nominal belt length was defined.

The belt

Conventional timing belts are designed to operate in dry conditions. For BIO, the belt had to function in a chemically aggressive environment throughout the engine's entire service life and across various global climates. This demanded a new material strategy.

Experience from sealing components cannot be transferred, as belts are exposed to dynamic mechanical stress. The development phase involved extensive variables, including more than 100 different engine oils diluted with fuel, water, acids, and cleaning fluids, at varying temperatures and levels of ageing.

Accurately defining real-world conditions was essential. With the support of oil manufacturers and vehicle makers, Dayco created a test matrix that included even extreme cases, such as acidified oil capable of corroding the sump.

To validate performance, Dayco developed a focused testing procedure to simulate contamination and evaluate key belt parameters. Samples were soaked in oil and fuel to track degradation. Time and temperature of exposure produced a damage factor for each tested parameter.

Controlled measurements included:

- Elongation, tensile strength and modulus
- Dimensional variation/delta weight
- · Adhesion, cord pull out and hardness
- Tooth stiffness under static and dynamic loads

Using these metrics, engineers could calculate the number of hours equivalent to full-service life. To accelerate testing, oil temperatures were raised. For example, 800 hours at 140°C was found to represent a worst-case ageing cycle.

The test programme

In addition to passing the standard vehicle manufacturer validation process, Dayco created bespoke tests to assess chemical and mechanical wear. These included:

- Running engines to generate anticipated fuel contamination
- Engine cycles to reach peak oil temperatures
- Rig testing with artificially acidified aged oils up to 150°C
- Simulations of coolant or cleaning fluid ingress

Chain versus belt

Switching from a chain to a belt reduced the power required to drive the oil pump, particularly at lower oil temperatures. Testing and modelling confirmed this was mainly due to reduced internal friction and the removal of sliding tensioning components, providing improved engine performance and reduced emissions.

Conclusion

This early development of BIO technology enabled Dayco to expand the solution to other engine platforms and demonstrate it as a cost-effective alternative to chain drives.

Working closely with vehicle manufacturers and oil suppliers helped define realistic operating conditions, where chemical exposure was added to existing thermal and mechanical stresses. The result was a system that offered lower friction, improved acoustics and reduced weight.

Workshops repairing BIO equipped vehicles must ensure technicians are aware of the potential challenges, know what to look for, and are trained in the correct replacement procedures. That investment in training can generate a reliable revenue stream and ensure long-term customer confidence.

For more information and training support, go to www.dayco.com,

IN PARTNERSHIP WITH OUR KEY SUPPLIERS











































































































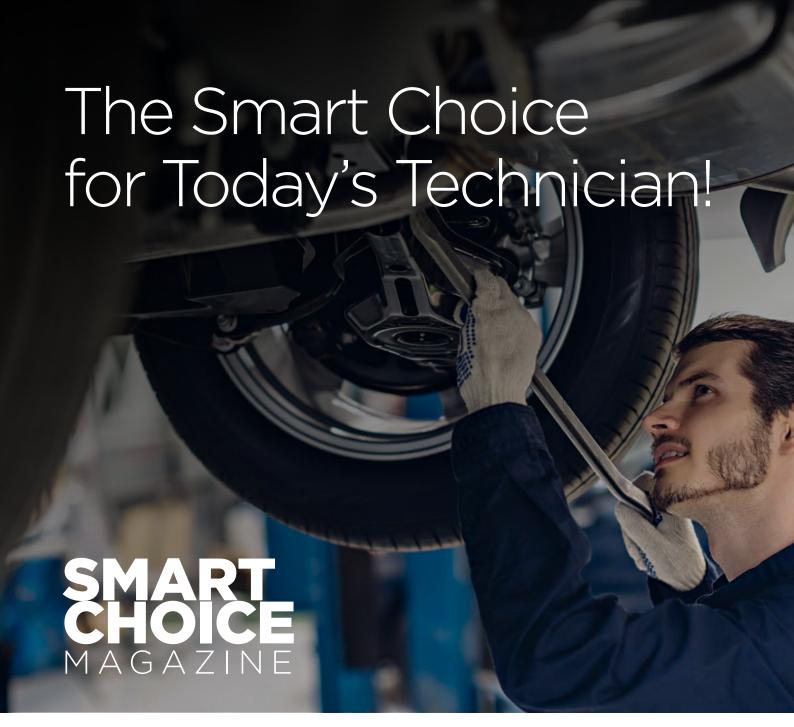












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APD Bath	69-71 Lower Bristol Road, Bath, Avon, BA2 3BE	01225 424 221
APD Bracknell	Unit 21 Lovelace Road, Bracknell, RG12 8YT	01344 929 192
APD Glastonbury	Butt Close, Glastonbury, Avon, BA6 9HY	01458 832 915
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