

# GET A GRIP...

**Clutch and transmission systems are changing with the vehicle, and technicians need to get a handle on the way things are heading**

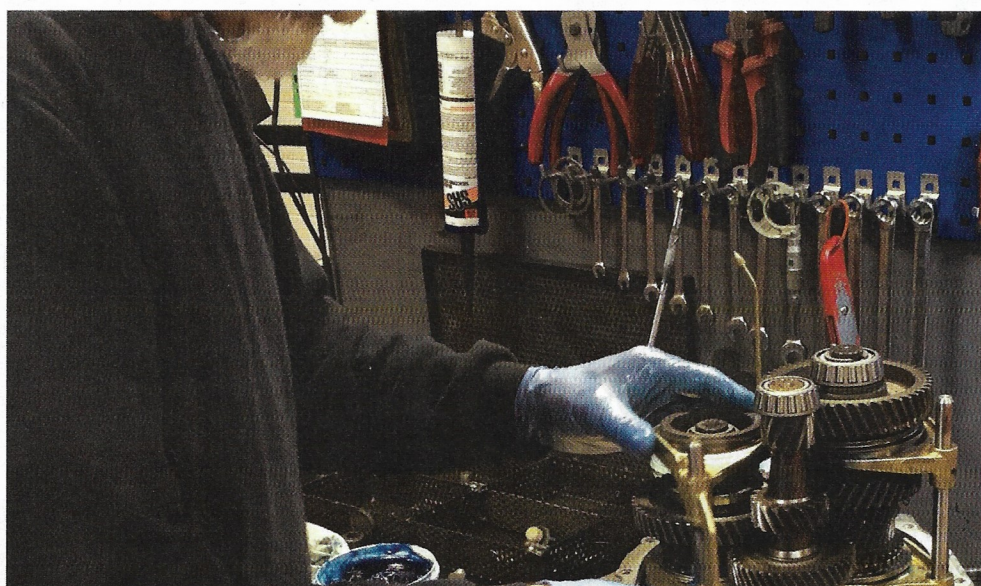
**W**hen working with clutch and transmission systems, you need to make sure you are up to date with what is being deployed.

A key issue with clutch systems is whether to keep the system as it was when the vehicle was built. The dual mass flywheel (DMF) has become increasingly common over the last few years. However, when the system needs to be replaced, a number of users will prefer another option.

Commenting on the issue, Helen Robinson, Marketing Director at Euro Car Parts says: "With conversion kits representing significant cost savings for repairers and fleet users, it's no surprise that the market sector has grown exponentially over the past decade. Indeed, many workshops are taking up this option over traditional DMF and clutch options.

"Traditionally, some repairers have been skeptical of conversion kits, feeling DMFs are the better option as they were originally fitted to the vehicle. In fact, rigorous research and development testing has found that, compared to the DMF and kit option, the conversion kit performs just as well as in terms of overall clutch operation, transmission projection, comfort; and can even improve heat dissipation and durability. What's more, fitting times for a conversion kit are comparable to a DMF product and kit offering."

Euro Car Parts has the conversion covered: "Recognising this trend," continues Helen, "Euro Car Parts has invested heavily in its conversion kit



**Above:** Get to grips with clutch and transmission systems

offering through its Transmech range. In fact, Transmech is now one of the UK's leading aftermarket clutch brands, having first been established more than 10 years ago.

"The Transmech range is manufactured to exceptional standards, which meet the highest performance requirements within ISO 9002, providing repairers with an affordable clutch solution on par with OE quality. Placing significant focus on durability and quality, all kits within the Transmech range come with a comprehensive two-year 20,000 mile no quibble warranty. Indeed, we've seen, first hand, that warranty levels on remanufactured clutches are on par with those of OE equivalents."

Helen adds: "We would expect this shift towards remanufactured clutches

to continue, as an increasing number of repairers recognise the benefits. New technology ensures that a remanufactured clutch can perform at the same standard as the OE equivalent, while offering repairers and customers a significant cost saving."

### **Strong demand**

Remanufactured transmissions are proving to be a popular option for garages looking to make a saving for their customers while also providing a quality part. A spokesman for Ivor Searle Ltd tell us about the market for remanufactured transmissions: "We are seeing strong demand for our all-makes programme of remanufactured manual gearboxes which is primarily due to the high cost

of purchasing a brand new OEM unit. Our remanufactured gearboxes cost up to 40% less than their brand new equivalents, enabling independent garages to gain competitive advantage and please their customers without compromising on quality, service or warranty protection.

"It is also interesting to note that we have seen an uptick in demand for light commercial vehicle gearboxes, which reflects the growth in light vans to support the ever-expanding home delivery market. This is also mirrored in our top five fast-moving applications for gearboxes which encompass a number of LCVs. The top five are: Vauxhall's F Type, Volkswagen Group's six-speed unit, Ford's six-speed for the Transit, Peugeot/Citroën's five-speed 'box, and BMW/MINI's five-speed transmission."

On availability, he observed: "Product availability is key, especially when you consider that purchasing a replacement gearbox is typically a distress purchase for the customer. To help garages minimise vehicle downtime, we offer a wide 'off the shelf' range of exchange remanufactured gearboxes for free next-day delivery throughout the UK mainland, if ordered before 3.30pm. In addition, we provide a Customer's Own Unit (COU) remanufacturing programme for less common and recently introduced transmissions."

## Replacement

Clutch systems are complex, and when replacing the system, you have to do it right.

Commenting on the importance of replacing the Concentric Slave Cylinder when replacing the clutch, Alistair Mason, REPERT at Schaeffler says: "One of the main targets for the modern independent workshop is achieving a first time fix, as this leads to customer loyalty and an enhanced business reputation. Garages are working hard to do the job once and do the job right, and this has always been Schaeffler's philosophy too. When Schaeffler supplies a part, it comes with absolutely everything that is required for a professional repair in just one box – a truly complete repair solution. An example of this is the LuK RepSet Pro clutch kit, which not only contains the clutch assembly but also a perfectly-matched hydraulic Concentric Slave Cylinder (CSC)."

"A concentric slave cylinder is



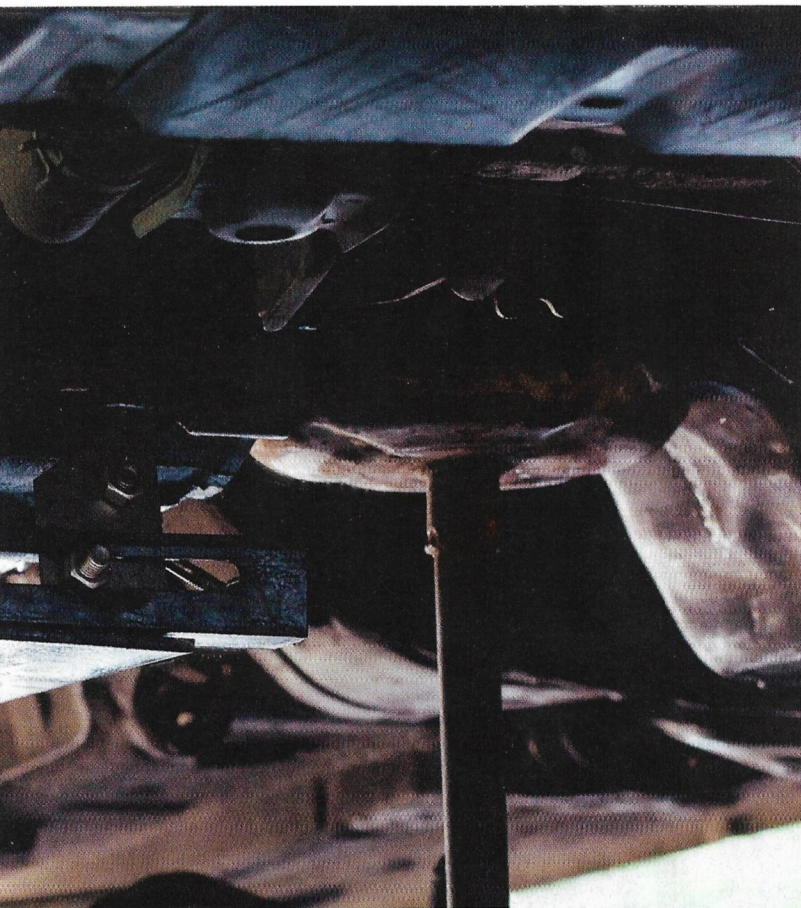
**Above:**  
You need to understand clutch and transmission systems

essentially four clutch components in one: a slave cylinder, pivot/actuation lever, release bearing and guide tube – in a compact, lightweight unit that is more efficient to produce and install. This cost and weight saving is the main reason vehicle manufacturers VMs favour incorporating a CSC into the transmission design, instead of an external slave cylinder mechanism.

"As the specialists, engineers from both the VMs and Schaeffler know what is 'best practice' and would always replace the CSC when replacing the clutch for the following reasons."

## Reasons to replace the CSC:

- The guide tube for the seal and bearing can become contaminated, worn or even corroded in extreme conditions, which will damage the rubber seal when the gearbox is removed, with the seal/bearing assembly travelling over this area to reach the relaxed position.
- It is commonly accepted that the release bearing assembly should always be replaced when replacing the clutch, and as this is an integral part of a CSC, the CSC must be replaced.



- The rubber seal could become contaminated with old hydraulic brake/clutch fluid, so the system always needs to be flushed and replenished with new fluid to the correct VM specifications and instructions.
- There are some intricately-designed elements which can be built into a CSC, such as self-centring bearings, peak torque limiters and anti-vibration units – which all enhance clutch operation and need to be in good order to function correctly.
- CSCs are regularly modified to improve their performance, so by renewing the unit the vehicle owner can be sure they have the latest and best performing design installed.

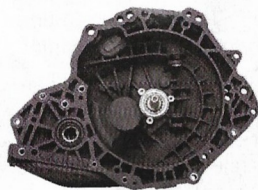
### Zero defects

Alistair continues: "If failure of the CSC occurred after a recent repair, not only would clutch operation fail, but the leaking fluid would contaminate the newly-fitted clutch and lead to an expensive rectification bill for the garage. This would involve having to remove the gearbox again to replace it, probably at the garage's expense and probably resulting in a very disgruntled customer.

He adds: "A growing problem in the aftermarket is the influx of many cheap, copied parts, usually manufactured from inferior quality materials and not in any way tested to conform to the same VM quality standards as a genuine LuK product. To ensure that technicians don't get stung by sub-standard parts, Schaeffler supplies exactly the same components to the aftermarket as it does to the world's leading VMs – many of whom operate a 'zero defects' policy."

### Remanufactured Gearboxes from Ivor Searle

Ivor Searle's comprehensive programme of OEM standard remanufactured gearboxes covers virtually all five and six speed manual transmissions for front-, rear- and four-wheel drive cars and light commercial vehicles. All Ivor Searle gearboxes are covered by 12-months unlimited mileage parts and labour warranty and are supplied with pre-installation guidelines, as well as model-specific instructions if required. Ivor Searle holds comprehensive stocks of gearboxes to ensure first class customer service and minimum vehicle downtime. The company also offers free next day delivery throughout the UK mainland on stock items, if ordered before 3.30pm. [www.ivorsearle.co.uk](http://www.ivorsearle.co.uk)



### Transmech Green

The remanufactured segment of Euro Car Parts' aftermarket clutch package is Transmech Green. The range covers all popular makes and models, including Self-Adjusting Clutch (SAC) components and hard-to-find transmission products, such as vintage and veteran marques. Aside from the obvious environmental benefits that come from the remanufacturing process, Transmech Green can offer savings of up to 50% compared to OE parts. All Transmech products, including Transmech Green, come with a two-year/20,000 miles warranty as standard. Euro Car Parts also offers a supplementary lifetime warranty on parts or parts and labour for all clutch products. <https://omnipart.eurocarparts.com>

