Malcolm Short, Schaeffler

LuK Clutch Academy

C180 Kompressor

The Mercedes C Class has been on our roads since 1993. In 2003, Mercedes introduced the C180 Sports Coupe range which has become a popular and desirable car. LuK offers advice on tackling this clutch replacement.

The car featured is a 1.8 Supercharged 2003 model, which had covered more than 140,000 miles and the customer had noticed a little clutch slip. When carrying out a visual inspection, it was apparent that this is a straight forward job that most independent workshops can carry out.

For this repair, the workshop equipment we advise is a two post ramp and a transmission jack and with the vehicle placed on the ramp, it is advised to disconnect the negative battery lead for safety.

There is no work to be carried out from the top side of the vehicle, so raise the ramp and remove the engine and gearbox under shields. Disconnect the PAS pipe from the gearbox bell housing by removing the two TRX bolts (figure1). Disconnect the gearbox speed sensor multiplug located on the underside of the gearbox, disconnect the reverse light switch multiplug at the rear of the gearbox, also remove the gearbox earth strap and now disconnect and completely remove the exhaust oxygen sensor.

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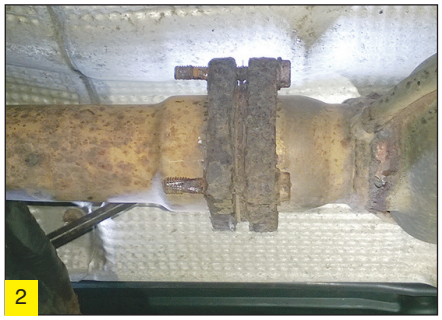
Disconnect the exhaust centre joint by removing the three bolts, these may be corroded (figure2) and then remove the exhaust front pipe support bracket. Remove the rear gearbox mounting, then disconnect the prop shaft from the gearbox, and then remove the rubber cushion drive unit noting the position and colour of the bolts and washers as they have different locations (figure3).



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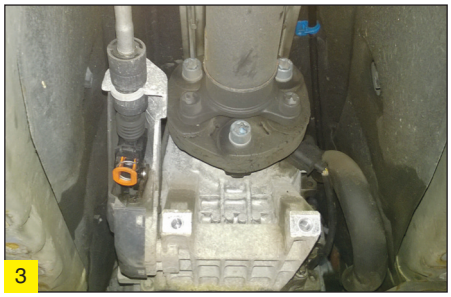
Disconnect the hydraulic clutch pipe, the easiest point for this is where the hydraulic pipe comes through the transmission tunnel on the O/S. Once disconnected, the pipe connection needs to be blanked to prevent fluid leaking out. Remove both parts of the gear linkage, part one, by removing the plastic cover from the linkage housing and then removing the cable by releasing the ball joint (figure4), part two, by removing the retaining pin from the selector rod above the output flange and disconnecting it.

At this point, block/support the prop shaft and linkages using the cross member to give clearance around the rear of the gearbox. Support the gearbox with a transmission jack



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and remove the ten bell housing TRX bolts, all bell housing bolts can be accessed from the underside, with the use of a long extension bar. Ease the gearbox back until it is clear of the clutch and then lower and remove, the gearbox may be tight on the dowels, ensure the dowels remain in the engine and not with the bell housing.

With the gearbox removed, inspect the three adjustor ring springs. Fully extended springs inicate a worn clutch that needs to be replaced. Remove the clutch assembly and test the dual mass flywheel for play and rock, information is available through Schaeffler's REPXPERT, Schaeffler's on-line catalogue and Schaeffler's DMF Checkpoint app.

Remove the concentric slave cylinder (CSC) from the bell housing, clean the bell housing and fit the new CSC. Clean the flywheel face with emery cloth to remove any "glaze". Try the new clutch plate on the gearbox input shaft to ensure the splines are correct and to lubricate the clutch splines with a small amount of high melting point grease, so we have an even smear and any excess is wiped off. Fit the new clutch assembly using the correct clutch alignment tool and checking that the clutch plate is the correct way round showing Getriebe Seite (Gearbox Side) on the outer face. LuK advise installing the clutch assembly with a self adjusting clutch fitting tool.

Ensure the gearbox bell housing dowels and the separator plate are still located properly. Refit all parts in reverse order and torque to manufactures specification. When bleeding the clutch hydraulic system, connect a bleed bottle to the bleed nipple with a hose and open the bleed nipple. This system is gravity bled, ensure the clutch master cylinder does not run dry.

Reconnect the battery lead and ensure all electrical systems work correctly, radio, central locking etc. Once the car has been road tested and checked, the job is complete.

Check out the latest in online support at www.RepXpert.co.uk or contact the LuK technical hotline at +44 (0)1432 264 264.

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