i Tech Tips

LuK Clutch Academy C3 1.4P

Introduced in 2002, the Citroen C3 made quite an impact during its 7 year production span, then continuing with the second generation in 2009. Schaeffler's Malcolm Short gives step-by-step directions to make replacing the C3 clutch go as easily as is possible.

A clutch replacement on the Citroen can be a little tricky, but with the guidance of LuK LuK Clutch Academy the whole process will become much easier. Nothing out of the ordinary is needed to complete the job, the only special tools required are a transmission jack, an engine support cradle and a long axle stand. A two post ramp was used in this example however a four post ramp may not provide enough clearance.

For safety reasons it's considered best practice to disconnect the battery earth lead before commencing work. If the vehicle has alloy wheels it may be fitted with anti theft wheel bolts, so make sure you have the key before you start.

Open the bonnet, remove the two piece battery cover and disconnect the battery. Lift out the battery by



pulling the release tab (fig-1) and pull out the ECU and stow it to one side. Release and remove the plastic divider separating the other ECU from the battery tray. Disconnect the electrical connections to this ECU and stow the wires to one side. Remove the



air filter housing by turning the plastic clip (fig-2) near the rocker cover, disconnecting the attached hoses and slackening the jubilee clip on the throttle body. Unbolt and slide out the battery tray and remove the attached harnesses.

Remove the end of the gear linkages by pushing together the white clips while lifting them clear of the gearbox selector arm. Disconnect the reverse light switch (fig-3) and the crankshaft sensor and stow them to one side. Undo the earth point on top of the



gearbox and remove the upper bell-housing bolts. Clamp the flexible part of the slave cylinder and



disconnect the hydraulic connection to it (fig-4). Release both gear selector cables from the supporting



bracket, to do this just pull the pin (fig-5) on the red side of the plastic housing and lift the cable clear. Finally while supporting the engine with the cradle, remove the complete gearbox mounting (fig-6).



Raise the vehicle and remove both front wheels. Remove both hub nuts and release both lower arms. Drain the gearbox oil and remove both driveshafts from the gearbox and hubs. Undo the cross member support bar and undo the rear gearbox support bracket. Remove the starter motor bolts and stow the unit to one side. Undo the bolt securing the exhaust downpipe to the gearbox, it can be guite rusty and it's difficult to get to, so you'll need to take care.

While supporting the gearbox from below, using a transmission jack, remove the remaining lower bell housing bolts and slide the gearbox back slightly and rotate it away from the sub-frame exercising care. The gearbox can now be lowered to the floor.

With the clutch removed, check the flywheel for signs of heat stress. Clean the first motion shaft splines and any debris from the bell housing (especially important when a release bearing has failed). When comparing the new and old release bearings on this model you may find that they are slightly different (fig-7). This is normal and the new bearing will work perfectly, so don't worry about fitting it.

Put a small dab of high melting point grease (but not a copper based product) on the first motion shaft



splines and make sure the new driven plate slides freely back and forth. This not only spreads the grease evenly, but also makes sure you have the correct kit. Wipe any excess grease off the shaft and driven plate hub. Using a universal alignment tool and checking the driven plate is the correct way round (note "Getriebe Seite" is German for "Gearbox Side") the clutch can be bolted to the flywheel evenly and sequentially.

Before fitting the gearbox make sure the locating dowels are in place and not damaged. Refit any that have become dislodged and refit the gearbox. Make sure the gearbox bell housing bolts are secured before lowering the jack. Refitting is the reverse of the removal

For technical support and repair installation tips, go to www.RepXpert.com or you can call the LuK technical hotline on 0044-143-226-4264.