LuK Service Info

Features of gearbox installation

Clutch disc failure

Manufacturer:	Citroën, Fiat, Peugeot
Models:	Jumper II, Ducato, Boxer
Years:	since 2006
Fuel type:	Diesel
Engine displacement:	2287cm³, 2999 cm³
Art.-Nr.:	626 3033 09 626 3033 33 600 0342 00 600 0366 00

See parts catalog for current assignment

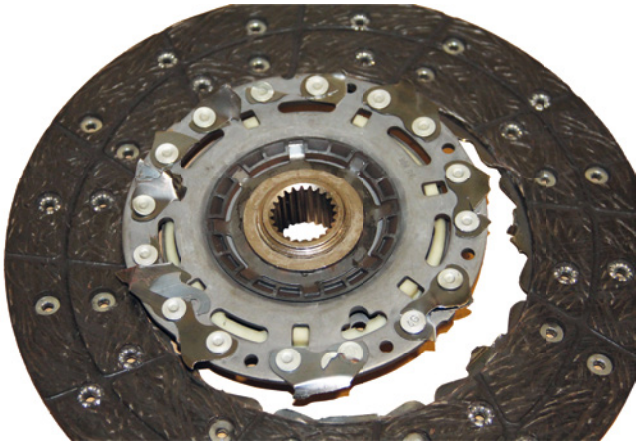

Image 2: Broken clutch disc hub

Errors during car repairs can lead not only to decreased driver comfort and a shortened service life of parts, but in some cases to significant damage to components. One of the common malfunctions of the aforementioned LuK RepSet, which are installed on Citroën, Fiat, and Peugeot 2.3 and 3.0 diesel engines, is a broken clutch disc hub (Image 2). The driver experiences gear shifting problems. These symptoms usually appear after a mileage of 2,000 to 20,000 km following a clutch replacement. In these engines, the alignment dowels on the cylinder block, which determine the relative position of the gearbox bell housing to the engine block, are located relatively close together (Image 1).

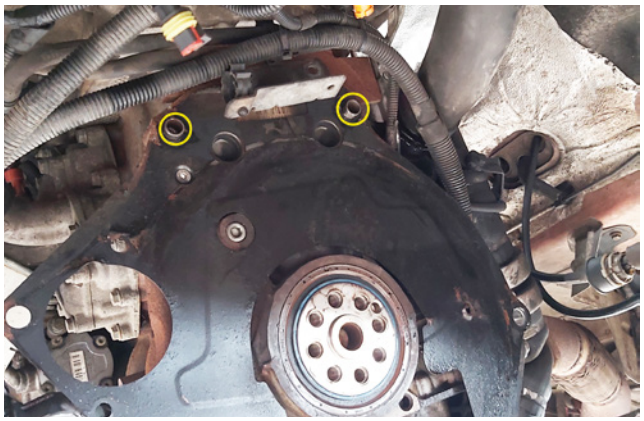

Image 1: The alignment dowels on the cylinder block

To prevent the disc hub from being turned off or the ring-shaped leaf spring from being damaged or displaced after replacing a clutch, it is important to follow the special procedure for installing the gearbox onto the engine. Once the gearbox has been fitted and the central actuator has been bled, the next steps involve loosening and retightening the gearbox bell bolts while depressing the clutch pedal. This process is described in more detail in the manufacturer's instructions. In addition, new centering pins must be used and must not be allowed to become deformed or compressed.

The alignment pin grooves should be vertical at the bottom to prevent moisture accumulation. Only installations carried out in this way guarantee parallel and angular alignment of the units, as well as the long-term operation of the replaced parts. Additionally, before replacing the clutch, it is important to pay special attention to the condition of the gearbox input shaft splines.
Their increased wear (Image 3) can lead to:

- significant wear and subsequent failure of the clutch disc splines, as well as a broken ring-shaped leaf spring (clutch disc axial damper) (Image 4);
- damage to the plastic disc torsional damper guides (Image 5).

Issued 08.2024 **LuK 0107** Technical content subject to change

SCHAEFFLER REPXPERT

Image 3: Gearbox input shaft with increased spline wear

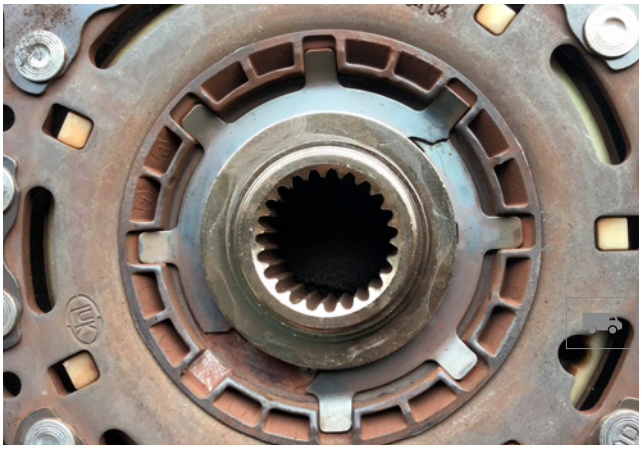

Image 4: Wear of the clutch disc splines and a broken ring-shaped leaf spring

Additional important procedures and parameters:

- Check the wear of other components adjacent to the clutch (flywheel, seals, release system, etc.).
- The ring-shaped leaf spring can also be damaged if the axial play of the crankshaft main bearings is out of tolerance (e.g., axial play › 0.25 mm).
- Use new clutch mechanism fixing bolts.
- Follow the correct tightening order and tightening torque of the clutch bolts to the flywheel.
- Lubricate the gearbox input shaft splines with a small amount of suitable lubricant.
- Distribute the grease by sliding the clutch disc on the input shaft 5–6 times, then wipe off the excess grease using a clean cloth.
- Carefully remove the clutch diaphragm spring retainer after installing the clutch to the flywheel.
- No resetting of the clutch wear adjustment is permitted.
- Use LuK special tool Art.-No. 400 0237 10 when removing in case of reuse of the clutch.
- If the clutch does not need to be reused, there is no need to use LuK special tool Art.-No. 400 0237 10 for removal.

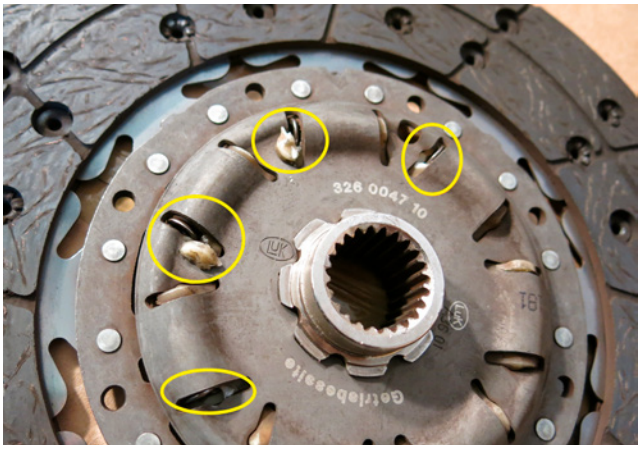

Image 5: Damage to the plastic disc torsional damper guides

Please observe the vehicle manufacturer specifications!

You want more? We can help!
Phone: +44 (0) 1432 264 264
Fax: +44 (0) 1432 375 760
aftermarket.uk@schaeffler.com
www.repxpert.co.uk

SCHAEFFLER
REPXPERT