



## 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: 2287cm<sup>3</sup>, 2999 cm<sup>3</sup>

Art.-Nr.:  
626 3033 09  
626 3033 33  
600 0342 00  
600 0366 00

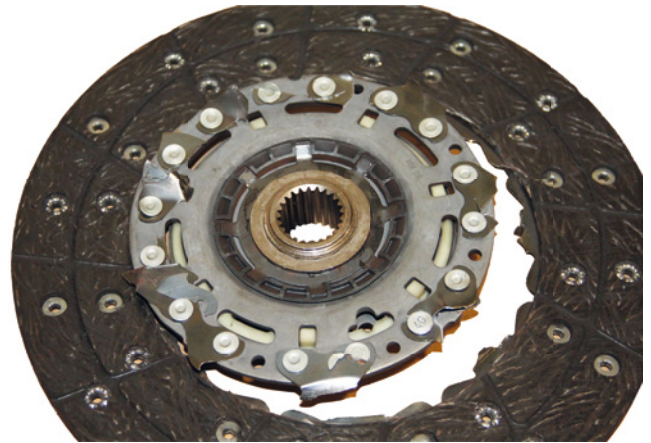


Image 2: Broken clutch disc hub

See parts catalog for current assignment

Errors during car repairs can lead not only to decreased driver comfort and shortened service life parts, but in some cases to significant damage of components. One of the common malfunctions of listed above LuK RepSet, which are installed on Citroën, Fiat and Peugeot 2.3 and 3.0 diesel engines, is a broken clutch disc hub (Image 1). The driver has gear shifting problems. These symptoms usually appear during the mileage 2000 - 20.000km after clutch replacement. In these engines the alignment dowels on the cylinder block, which determine the gearbox bell housing relative to the engine block, are located relatively close together (Image 2).



Image 1: The alignment dowels on the cylinder block

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

The alignment pin grooves should be vertical at the bottom to prevent moisture accumulation. Only installation carried out in this way guarantees parallel and angular alignment of the units, as well as long-term operation of the replaced parts.

Also, 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 broken ring-shaped leaf spring (clutch disc axial damper) (Image 4);
- damage of the plastic disc torsional damper guides (Image 5).



Image 3: Gearbox input shaft with increased spline wear

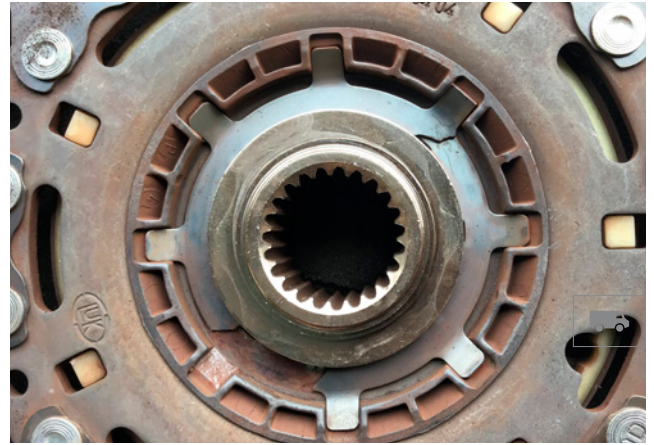


Image 4: Wear of the clutch disc splines and broken ring shaped leaf spring

**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 get damaged if the axial play of 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 of the grease by sliding the clutch disc on the input shaft 5 - 6 times then wipe off of 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

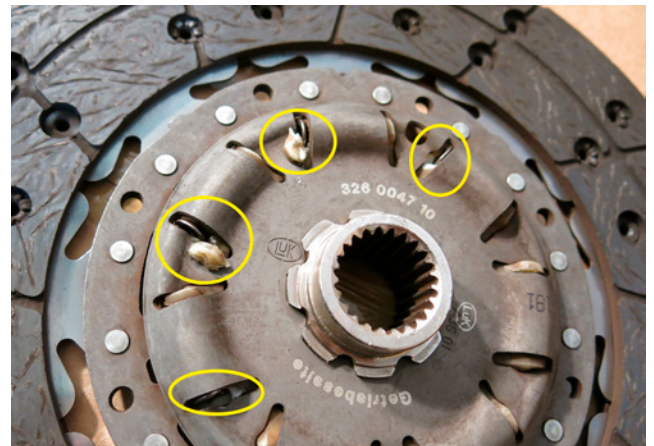


Image 5: Damage of the plastic disc torsional damper guides

Please observe the vehicle manufacturer specifications!

**You want more? We can help!**

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