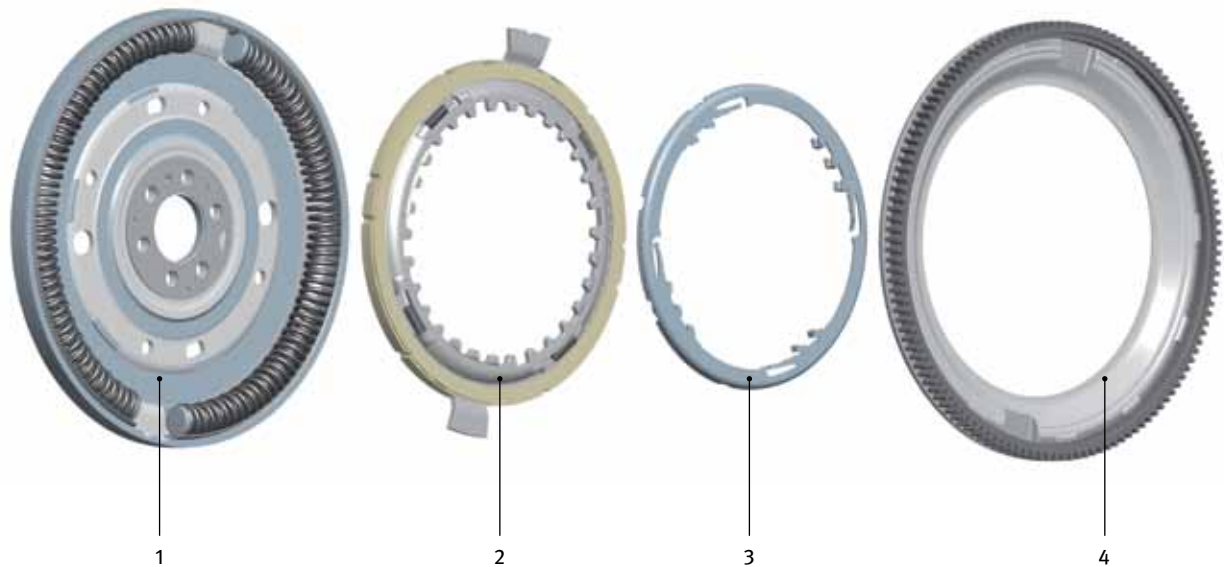


2.2 Dual mass flywheel



- 1 Primary mass with arc springs
- 2 Flange with internal toothing to engage with DC drive ring gear
- 3 Clamp ring
- 4 Primary mass closing plate with starter ring gear

The flywheel used on the DCT is a special version of the LuK dual mass flywheel. Similarly to the DMF used in conventional manual transmissions its mass is split into a primary and secondary mass. Contrary to a conventional DMF, however, the secondary mass of the special version is not designed as an integral flywheel mass but as a flange. Its only purpose is to connect the primary mass to the double clutch. The function normally performed by the secondary mass is taken on by the double clutch mounted on the hollow shaft. This eliminates the need for direct support of both masses, which is usually realised by means of ball bearings or plain bearings on conventional DMF designs.

Unlike a conventional DMF the secondary mass of the special version lacks a friction surface which is also integrated in the double clutch. The central plate provides the friction surfaces for both clutches. The DMF friction surface was substituted with a flange with inner teeth which engages with the drive ring gear of the double clutch. To prevent noise from tooth backlash between the toothed rings a clamp ring is used which generates sufficient preload of the toothed rings to prevent flank clearance.

Functioning principle of the DMF

Engine torque is applied to the DMF's primary mass. The internal damping system absorbs rotational irregularities and torque is passed onto the clutch via the secondary mass.

Note:

More detailed information on the DMF and its operating principle can be found in the LuK "Dual Mass Flywheel" brochure.