



DMF Special Tool

Always check the DMF when replacing the clutch. A worn and defective DMF can damage the newly installed clutch!

Important note!

Many vehicle manufacturers choose to equip new models with a Dual Mass Flywheel – and the trend is growing. The reasons for this are the technical benefits provided by the DMF as well as the need for increasing noise comfort while reducing emissions of state-of-the-art engines.

The DMF characteristics are precisely attuned to each vehicle and its engine. The market offers alternative repair solutions to substitute the DMF. These kits typically include:

- ▣ a conventional, rigid flywheel,
- ▣ a clutch pressure plate,
- ▣ a clutch driven plate and
- ▣ a release bearing

Caution!

These alternative repair solutions do not comply with the vehicle manufacturer's specifications! The clutch driven plate used on these applications is not able to provide full damping of the torsional vibration generated by the engine due to its lower torsional angle in comparison with a DMF. As a result, noise emissions and vibration induced damage to the power train can occur.

Ask your customer:

In the event of a customer complaint, targeted questions can help to identify the fault:

- ▣ Which component is not working, what is the customer's complaint?
- ▣ When did this problem first occur?
- ▣ When does the problem manifest itself? From time to time, often, always?
- ▣ Under which operating conditions does the problem occur? e.g. while driving-off, accelerating, shifting up/down, when the vehicle is cold or at operating temperatures?
- ▣ Is the engine difficult to start?
- ▣ Total and annual mileage of the car?
- ▣ Extraordinary load conditions under which the vehicle operates? e.g. towing a trailer, overloading, Taxi, fleet vehicle, driving school, chip tuned?
- ▣ Driving habits? City traffic, short/long distance driving, Motorway driving?
- ▣ Have the clutch and transmission required an earlier repair? If yes, at what mileage and for which reason?

General vehicle inspection:

- ▣ Control unit fault codes (engine, transmission)
- ▣ Battery power
- ▣ Condition and function of the starter motor
- ▣ Tuned engine (chip tuning)?

Important!

- ▣ A DMF that has been dropped must not be installed. Damaged ball or plain bearing, distorted
- ▣ Remachining of the friction surface is not permissible! The weakening of the friction surface results in insufficient burst speed characteristics.
- ▣ Do not apply high axial load on the secondary flywheel of a DMF with plain bearing! This can damage the inner membrane of the DMF.

What should be considered when installing a DMF?

Observe the specifications of the vehicle manufacturer!

- ▣ Check the shaft sealing rings (engine and transmission side) for oil leaks and replace
- ▣ Check starter ring gear for damage and make sure it is secure.
- ▣ Use new fixing bolts if recommended by the vehicle manufacturer.
- ▣ Verify that the distance between the speed sensors and the DMF sensing pins/sensor
- ▣ Check the dowel pins are fitted correctly. Dowel pins must not be forced into or pushed out of the Dual Mass Flywheel. Dowel pins forced further into the DMF will score the primary mass (noise).
- ▣

Use a cloth dampened with solvent to clean the contact surface of the DMF. No solvent must penetrate the interior!

- Make sure you use bolts of the required length. Bolts which are too long score the primary flywheel (noise) and can even lock it. Bolts which are too long damage the ball

The following is not permissible

- Cleaning in a parts washing machine
- Cleaning with high pressure cleaners, steam

The following is permissible on some vehicle makes and models and has no effect on the operation of the clutch components:

- Small trails of grease on the DMF back side (engine side) leading from the bores towards the flywheel edge.
- The secondary flywheel can be rotated by several centimetres against the primary
- Depending on the design, axial play between the primary and secondary masses can be
- The secondary flywheel of each DMF has a tilting clearance. Up to 1.6mm for a ball bearing, and up to 2,9mm for a plain bearing. Primary and secondary flywheel must