



Fig. 1: Single disk diaphragm spring clutch

Fig. 2: Double-disk diaphragm spring clutch

- |                      |                  |
|----------------------|------------------|
| 1 Intermediate ring  | 4 Clutch release |
| 2 Intermediate plate | 5 Clutch disk    |
| 3 Pressure plate     |                  |

Each time that the clutch is engaged, the difference between engine speed and transmission speed is equalized by the friction of the clutch plate (5). Every time that the car starts moving and at every gear change, heat and mechanical abrasion is generated between the pressure plate (2, 3) and the clutch disk (5). This leads to wear.

#### Under normal conditions, wear occurs

- on the friction linings of the clutch disk (5)
- on the friction surfaces
- in the clutch release system

#### The following are crucial for the service life of a clutch:

- the use of the vehicle: short trips, long trips or construction traffic
- the mode of driving: starting gear, starting rpm

#### Increased wear occurs

- when the clutch release system is not functioning properly
- during frequent gear changes and stop-and-go traffic
- when the clutch is allowed to slip for a long time, e.g., when starting on a hill or in high gear

**NOTE**

For extreme conditions (e.g., chip tuning), install a heavy duty or a double-disk clutch.

**Notes for a long clutch service life:**

- Follow the instructions from the vehicle manufacturer for proper driving start-up, especially for commercial vehicles.
- The clutch release system must operate smoothly and must be free of wear. It must not only operate partially.
- The clutch disk must be able to easily move on the hub spline of the transmission input shaft.

**NOTE**

- Before installing the clutch, check the lateral run-out of the clutch disk (max. 0.5 mm).
- When installing the clutch, apply SACHS high-performance grease in the proper amounts and at the right locations → Service information:
  - Clutch Installation in Passenger Cars and Commercial Vehicles  
Greasing / not greasing the guide tube (11545 EN)
  - Clutch Installation in Passenger Cars and Commercial Vehicles - Greasing the hub spline (11560 EN)