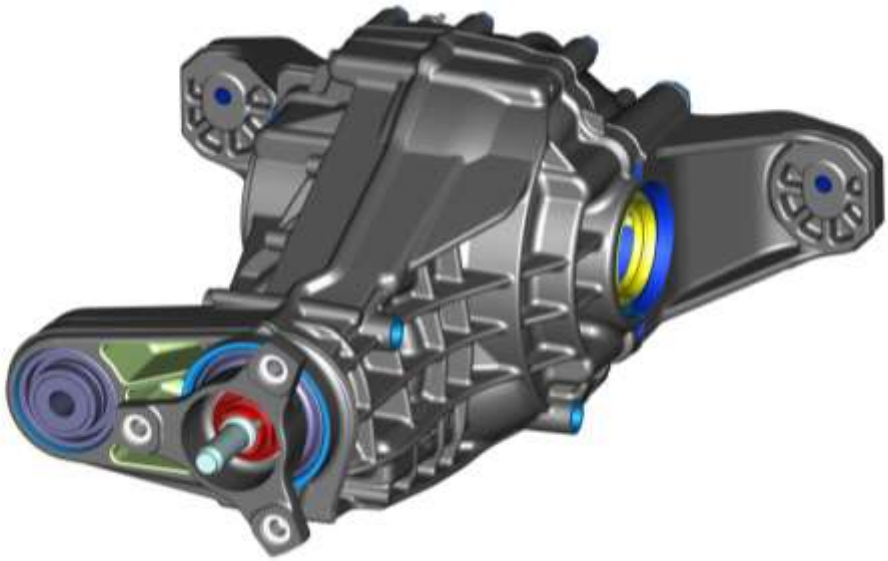
ZF REAR DIFFERENTIAL, OPEN MODEL



Standard on the 2.2 V6 JTDM version, an open type differential manufactured by ZF is installed.
The characteristics of this differential are:

- The outer casing of the differential is made of two aluminium half-shells
- The outside diameter of the crown is 195mm
- The total weight is of about 23Kg.
- The transmission ratio is 3.27
- It uses 0.9 litres of 75w85 oil for lubricating the bearings and mechanical parts of the differential.

ZF rear differential self-locking model

On the 2.2 JTDM 180Hp version, it is possible to install a self-locking mechanical differential, code opt. 939, called the Limited Slip Differential.
The characteristics of this differential are:

- The outer casing of the differential is made of two aluminium half-shells
- The outside diameter of the crown is 230mm
- The total weight is of about 36Kg.
- The transmission ratio is 3.27
- It uses four planet gears
- It uses 1.1 litres of 75w85 oil specifically for the LSD differentials.

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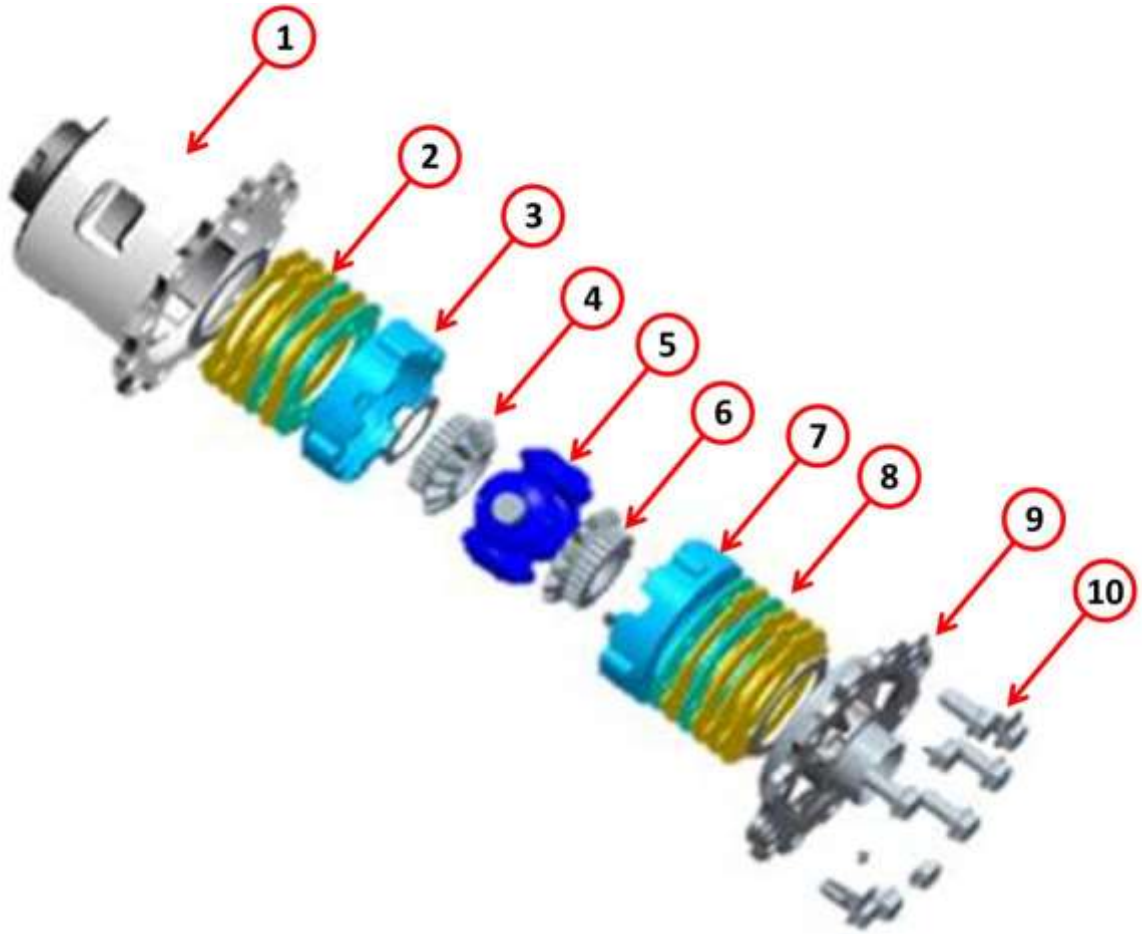
This type of differential can lock the wheel that slides, evening out the speed of the planet gears to the speed of the differential casing. The system uses the pressure created by the satellite unit on the hubs inserted inside the casing. The two hubs are made so as to create a specific profile where the planet gear shaft is inserted. The pressure of the shaft on the profile of the hubs generates an axial pressure that affects the clutches placed behind the planet gears.



1. Differential casing
2. Clutch discs
3. Right hub
4. Right planet gear
5. Satellite unit
6. Left planet gear
7. Left hub
8. Clutch discs
9. Differential casing cover
10. Fixing screws

The clutch discs are inserted partly on the planet gear and partly on the differential casing. When the clutch discs are pressed, they can bring the planet gears up to the speed of the differential casing thus creating differential lock.
A different calibration of the ratio of torque transfer between one wheel and another (TBR) makes it possible to have a different response of the differential lock in situations of acceleration and deceleration.

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