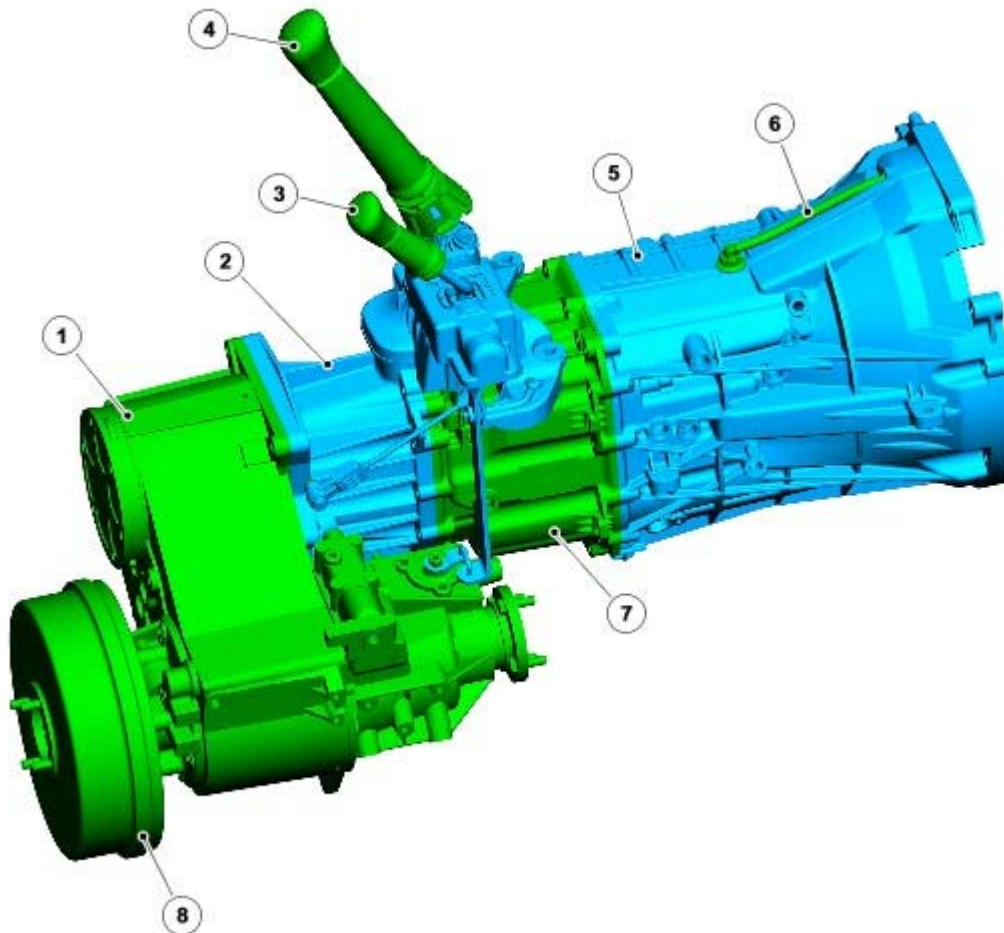


Specifications

Torque Specifications

| Description | Nm | lb-ft |
|--------------------------------|----|-------|
| Differential lock pivot nut | 25 | 18 |
| Gearshift lever bolts | 25 | 18 |
| High/Low selector lever screws | 7 | 5 |

COMPONENT LOCATION



E87083

| Item | Part Number | Description |
|------|-------------|-----------------------------|
| 1 | | Transfer box assembly |
| 2 | | Transmission extension case |
| 3 | | Transfer box selector lever |
| 4 | | Gear selector lever |
| 5 | | Transmission front casing |
| 6 | | Breather pipe |
| 7 | | Transmission housing |
| 8 | | Transmission park brake |

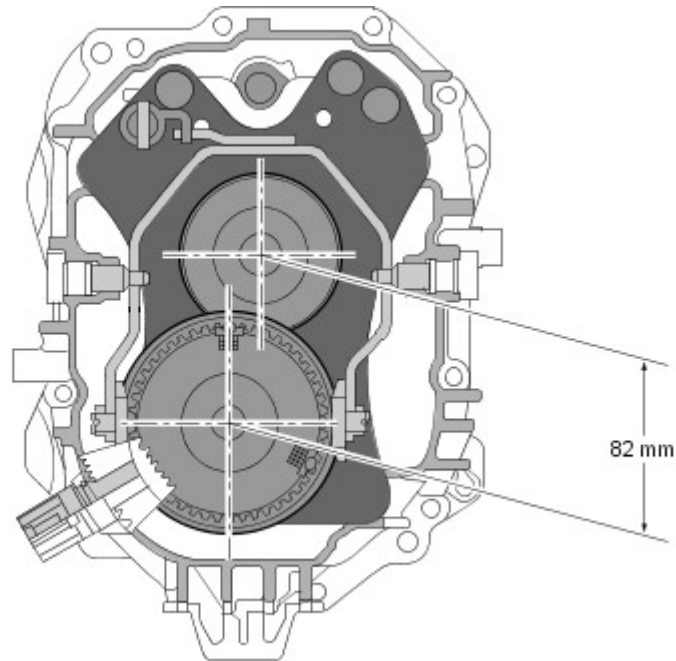
OVERVIEW

The MT82 manual transmission has 6 forward gears and a reverse. It is mounted longitudinally and has a maximum torque capacity of 360Nm. The aluminium die-cast transmission housing is bolted to the transfer box via an aluminium die-cast extension case.

The 6th gear ratio has been selected as an overdrive for economy and comfort at higher vehicle speeds. Optimum gear steps ensure highly fuel-efficient utilisation of the engine torque. This 6-speed transmission provides a wide ratio spread supporting both economy and drivability (e.g. low speed maneuvering/trailer towing).

The name MT82 is derived from the distance between the 2 shafts in the transmission:

- **M** stands for manual
- **T** stands for transmission
- **82** is the distance between the 2 shafts in millimeters (mm)



E47709

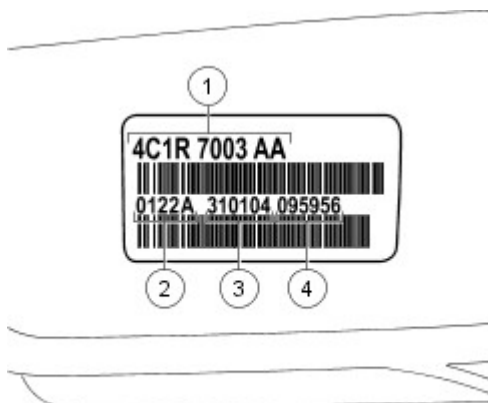
The transmission is a fill for life unit and no level check is required at service unless a leak is present.

Technical Data

| Input Torque | Ratios | | Dry Weight | | Oil fill | | Oil Specification | | | | |
|--------------|--------|-------|------------|-------|----------|-------|-------------------|---------|------|--------------|--|
| 1st | 2nd | 3rd | 4th | 5th | 6th | Rev | | | | | |
| 360Nm | 5.441 | 2.840 | 1.721 | 1.223 | 1.00 | 0.742 | 4.935 | 50.8 kg | 2.4L | WSD-M2C200-C | |

The input and output shafts are directly connected in 5th gear. This produces a gear ratio of 1:1.

Model Plate Label



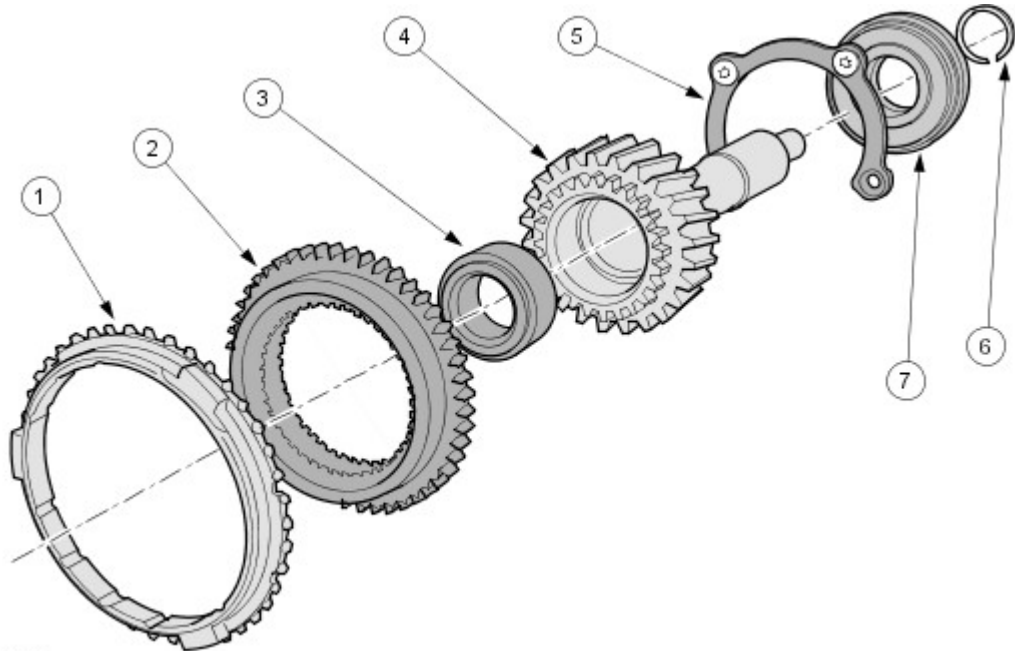
E48449

| Item | Part Number | Description |
|------|-------------|---------------------------------|
| 1 | | Replacement part number |
| 2 | | Place of manufacture (Halewood) |
| 3 | | Vehicle build date |

The model plate is located on the Right Hand (RH) side of the transmission, near the driveshaft drive flange.

It is only used to identify the transmission. All spare parts orders are still made using the Vehicle Identification number (VIN).

INPUT SHAFT



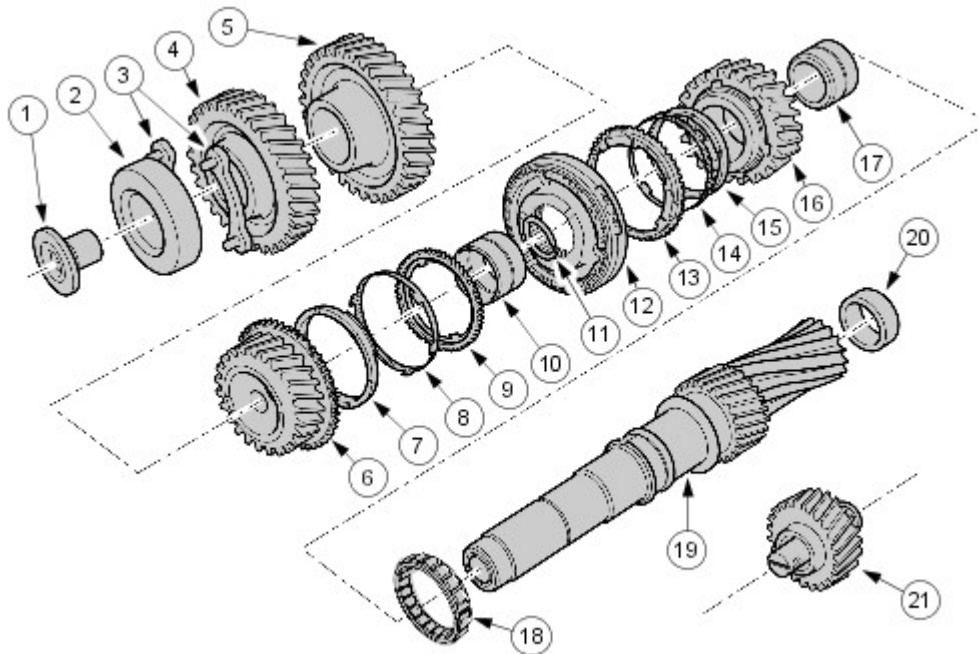
E47199

| Item | Part Number | Description |
|------|-------------|--------------------------------|
| 1 | | 5th gear synchroniser ring |
| 2 | | Splined synchroniser, 5th gear |
| 3 | | Output shaft pilot bearing |
| 4 | | Input shaft |
| 5 | | Bearing retaining plate |
| 6 | | Ball bearing circlip |
| 7 | | Input shaft ball bearing |

The input shaft is rotationally mounted in the output shaft on the pilot bearing (3). In order to absorb the axial forces, the input shaft ball bearing (7) is additionally secured.

All the components on the input shaft can be serviced separately.

LAYSHAFT



E47153

| Item | Part Number | Description |
|------|-------------|------------------------------------|
| 1 | | Retaining bolt |
| 2 | | Ball bearing, layshaft |
| 3 | | Retaining plate - bearing |
| 4 | | Input pinion, layshaft |
| 5 | | Gear - 6th gear |
| 6 | | Gear wheel - 3rd gear |
| 7 | | 3rd gear synchroniser cone |
| 8 | | Inner synchroniser ring |
| 9 | | Outer synchroniser ring - 3rd gear |
| 10 | | Needle bearing |
| 11 | | Snap ring |
| 12 | | 3rd/4th gear synchroniser assembly |
| 13 | | Outer synchroniser ring - 4th gear |
| 14 | | Inner synchroniser ring |
| 15 | | 4th gear synchroniser cone |
| 16 | | Gear wheel - 4th gear |
| 17 | | Needle bearing |
| 18 | | Centre bearing, layshaft |
| 19 | | Layshaft |
| 20 | | Roller bearing, layshaft |
| 21 | | Reverse gear idler |

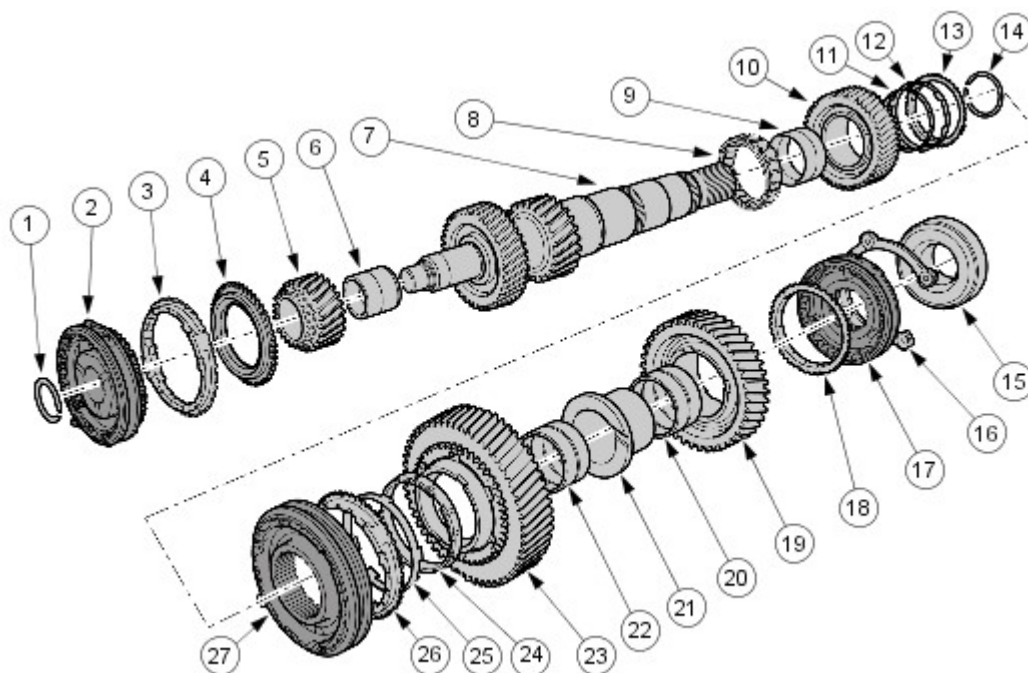
The layshaft transfers the torque from the input shaft onto the output shaft. Gear wheels and gears and the 3rd/4th gear synchroniser assembly are located on the shaft. First, 2nd and reverse gears are an integral part of the shaft.

The layshaft gearwheels and gears can be replaced individually. Because of improved manufacturing tolerances, it is no longer necessary to change the gears and gear wheels in pairs.

The layshaft is a solid shaft. In order to prevent the shaft from moving axially, it is additionally secured with a retaining bolt (1) and a bearing retaining plate (3).

The rotational direction of the output shaft is reversed by the use of the reverse gear idler (21).

OUTPUT SHAFT



E47148

| Item | Part Number | Description |
|------|-------------|------------------------------------|
| 1 | | Snap ring |
| 2 | | 5th/6th gear synchroniser assembly |
| 3 | | 6th gear synchroniser ring |
| 4 | | Splined synchroniser, 6th gear |
| 5 | | Gear wheel - 6th gear |
| 6 | | Needle bearing |
| 7 | | Output shaft |
| 8 | | Centre bearing - output shaft |
| 9 | | Needle bearing |
| 10 | | Gear wheel - 2nd gear |
| 11 | | 2nd gear synchroniser cone |
| 12 | | Inner synchroniser ring |
| 13 | | Outer synchroniser ring - 2nd gear |
| 14 | | Snap ring |
| 15 | | Ball bearing, output shaft |
| 16 | | Retaining plate - bearing |
| 17 | | Reverse gear synchroniser assembly |
| 18 | | Reverse gear synchroniser ring |
| 19 | | Gear wheel - reverse gear |
| 20 | | Needle bearing |
| 21 | | Inner race - needle bearing |
| 22 | | Needle bearing |
| 23 | | Gear wheel - 1st gear |
| 24 | | 1st gear synchroniser cone |
| 25 | | Inner synchroniser ring - 1st gear |
| 26 | | Outer synchroniser ring - 1st gear |
| 27 | | 1st/2nd gear synchroniser assembly |

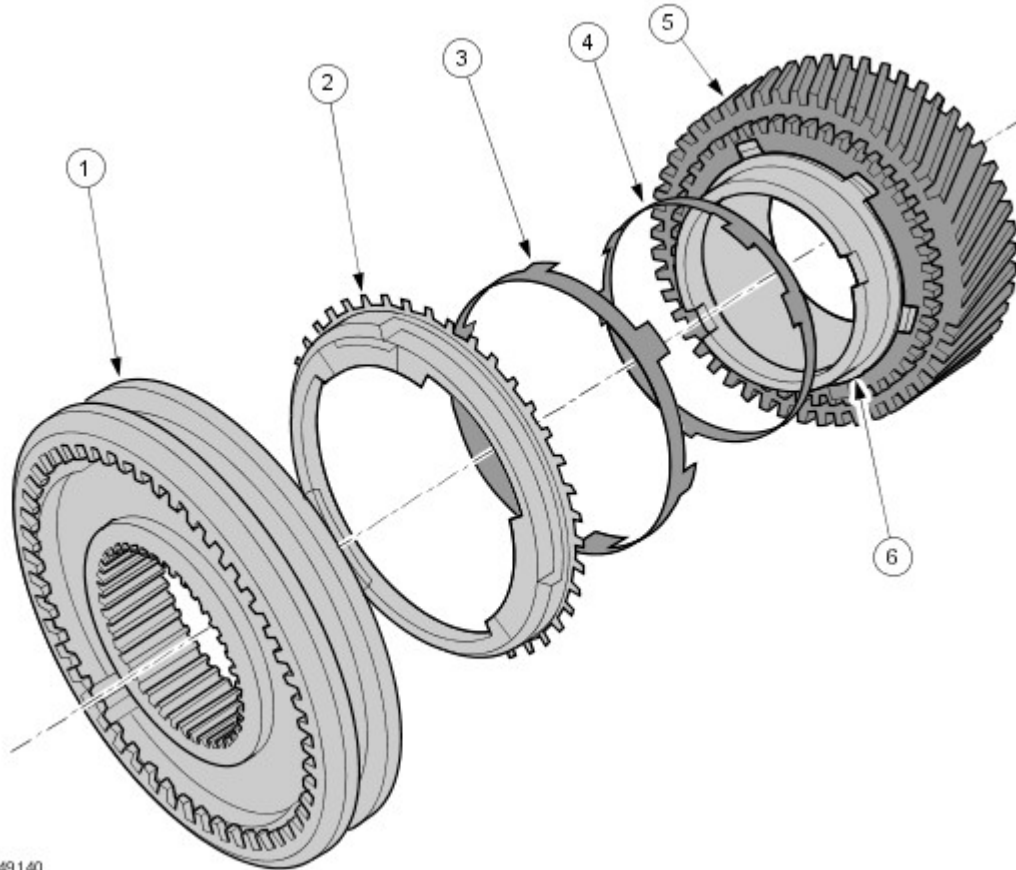
The output shaft transfers torque through the output flange, to an extension shaft connected to the transfer box. 1st,

2nd, 6th and reverse gear wheels are located on the output shaft. 3rd and 4th gears are an integral part of the output shaft.

In a similar way to the input shaft, there is a splined synchroniser (4) pushed on the 6th gear gear wheel. This makes it possible to transfer the torque in 6th gear.

The output shaft gearwheels and gears can be replaced individually.

TRIPLE SYNCHRONISER ASSEMBLY



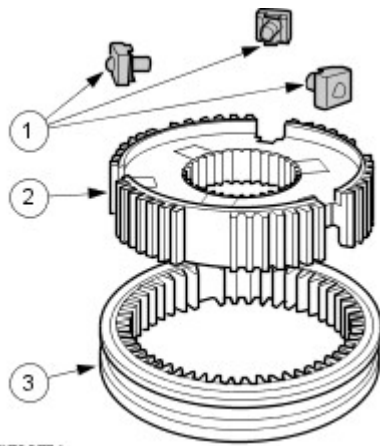
E49140

| Item | Part Number | Description |
|------|-------------|------------------------------------|
| 1 | | 1st/2nd gear synchroniser assembly |
| 2 | | Outer synchroniser ring |
| 3 | | Inner synchroniser ring |
| 4 | | Synchroniser cone |
| 5 | | Gear wheel |
| 6 | | Conical surface |

The Synchronisation assembly consists of 3 friction surfaces. The total friction surface of triple synchronisation is considerably increased by the additional conical surface (6). This leads to a reduction in the force needed to change into 1st or 2nd gear.

As the conical surface is part of the gear wheel, there is no need for an additional synchroniser ring.

SYNCHRONISER ASSEMBLY

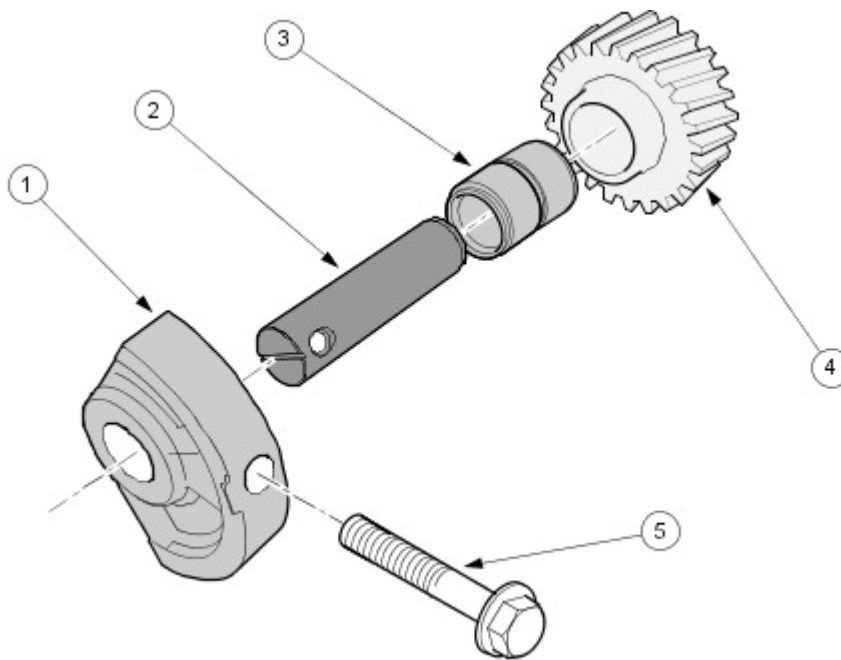


TIE38774

| Item | Part Number | Description |
|------|-------------|------------------------|
| 1 | | Sliding block assembly |
| 2 | | Synchroniser hub |
| 3 | | Sliding collar |

The pressure springs and detent balls of the sliding blocks are combined in one unit.

REVERSE GEAR IDLER



E47180

| Item | Part Number | Description |
|------|-------------|--|
| 1 | | Mounting |
| 2 | | Reverse gear idler shaft |
| 3 | | Needle bearing |
| 4 | | Reverse gear idler |
| 5 | | Retaining bolt - reverse gear mounting |

The reverse gear idler allows the direction of rotation of the output shaft to be reversed. The reverse gear idler turns on a needle bearing, which runs on the reverse gear idler shaft. The shaft is retained by the mounting (1) and a locating bore in the transmission housing.

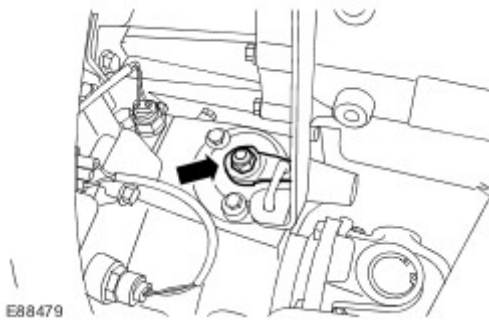
In order to absorb the radial forces, the reverse gear idler runs on an additional mounting.

If the reverse gear idler can be replaced as an individual unit.

Gearshift Lever (37.16.04)

Removal

- 1 . Remove the transfer case high/low range linkage.
For additional information, refer to [Transfer Case High/Low Range Linkage](#)
- 2 . Remove and discard the differential lock pivot nut.



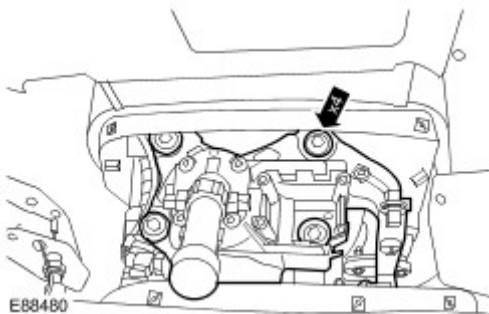
- 3 . **NOTE:**
Do not remove the 4 gearshift lever ball joint securing screws.

NOTE:

Make sure the rubber seal is not damaged on removal.

Remove the gearshift lever.

- ▶ Remove the 4 bolts.



Installation

- 1 . **NOTE:**
Make sure the gearshift selector lever ball joint bush and the selector yoke are centralised before installing the special tool.

NOTE:

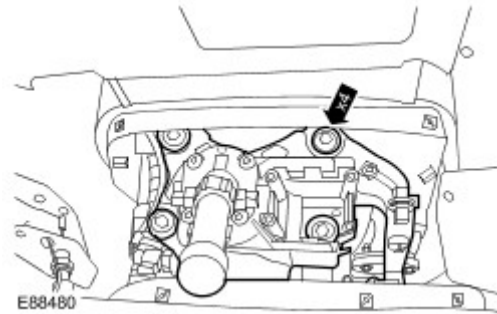
Make sure the rubber gasket is fitted to the gearshift lever housing before installation.

Install the gearshift lever.

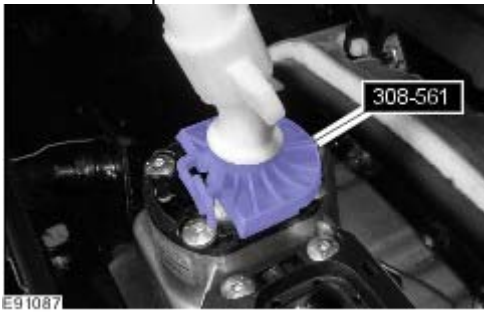
- ▶ Make sure 3rd gear is engaged on the transmission.
- ▶ Install the gearshift lever.
- ▶ Install the special tool onto the gearshift lever.



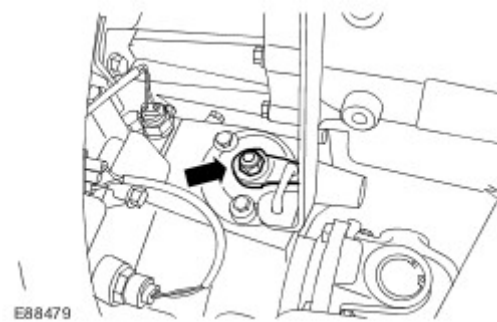
- 2 . Tighten the bolts to 25 Nm (18 lb.ft).



- 3 . Remove the special tool.



- 4 . Install a new differential lock pivot nut.
▶ Tighten the nut to 25 Nm (18 lb.ft).



- 5 . Install the transfer case high/low range linkage.
For additional information, refer to [Transfer Case High/Low Range Linkage](#).