

OPERATION INSTRUCTIONS

Application: Land Rover Defender and Discovery Series I with AVM Manual Free Wheel Hubs + Conversion Kits.

1-) With the transfer lever in "H" position [fig.1], turn the **CONTROL DIAL** of the Locking hubs to **FREE** position (4x2) [fig.2].
USE THIS OPTION WHEN YOU DO NOT NEED THE FULL TRACTION.

2-) In the other positions, turn the control dial of the Locking hubs to **LOCK** position (4x4).

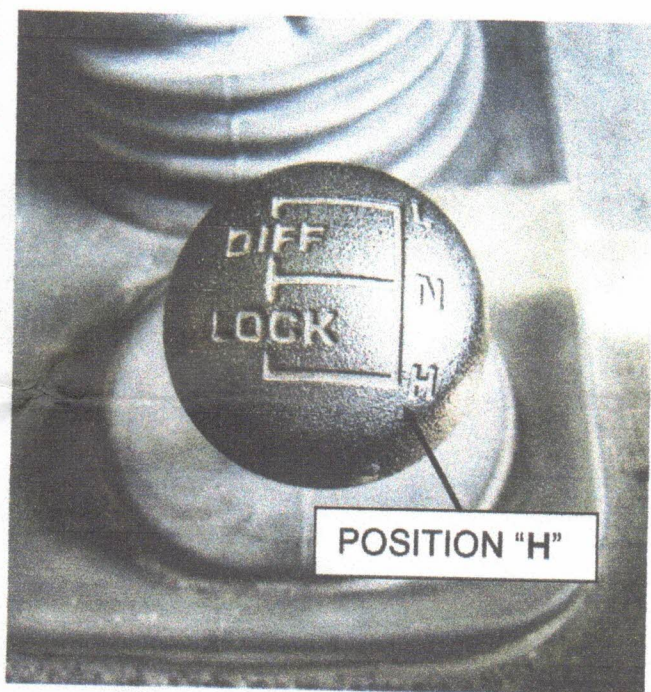


Fig.1

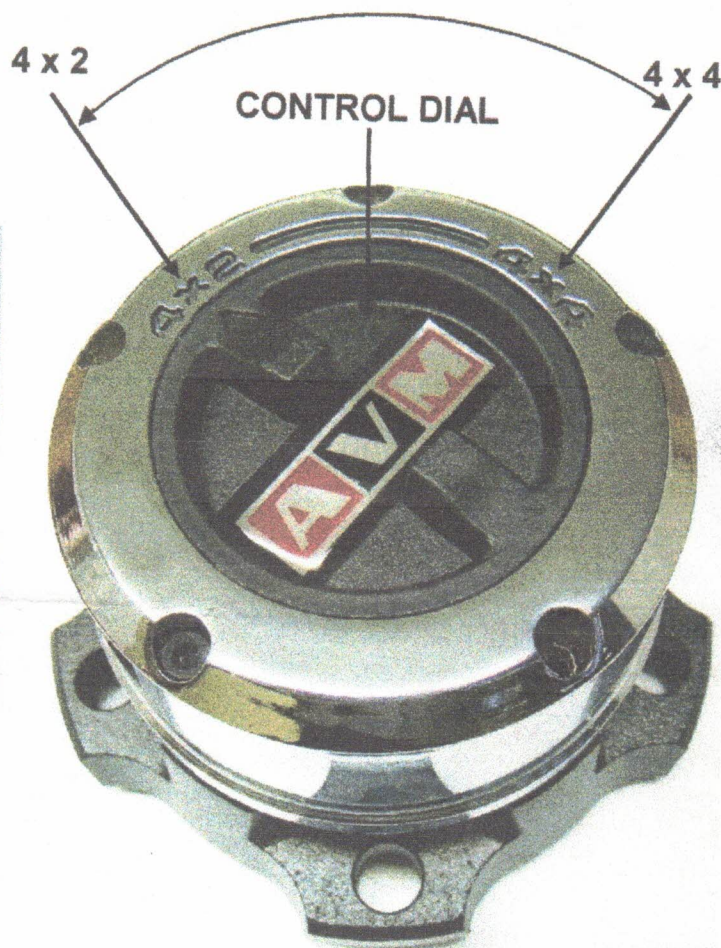


Fig.2

IMPORTANT NOTICE:

AVM 446 & 451 CONVERSION KITS with Locking hubs convert the full traction (permanent 4-wheel-drive) of the front wheels to a **selectable** 2 or 4-wheel-drive. When driver chooses the 4x2 traction, they immobilize a large number of power-train components, avoiding their unnecessary wear. This results in improved fuel mileage, less repairs, longer tire life and smooth drive, comparable to a **4x2** auto, but maintaining the vehicle's 4-wheel-drive traction capability.

Besides **AVM Conversion KITS** reduce drastically the cross axles wear, improving the transfer case durability substantially.



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TRANSFER-CASE CONVERSION KIT (446 and 451) DIFFERENTIAL DISASSEMBLY / ASSEMBLY INSTALLATION INSTRUCTIONS

Disassembly:

- 1) Remove the transfer case assembly front half-shaft (not shown).
- 2) Remove the transfer case differential assembly [Fig. 1] as per procedures in the "Land Rover" service manual.
- 3) Loose screws (1) and open differential front case (2) and rear case (3) [Fig. 1].

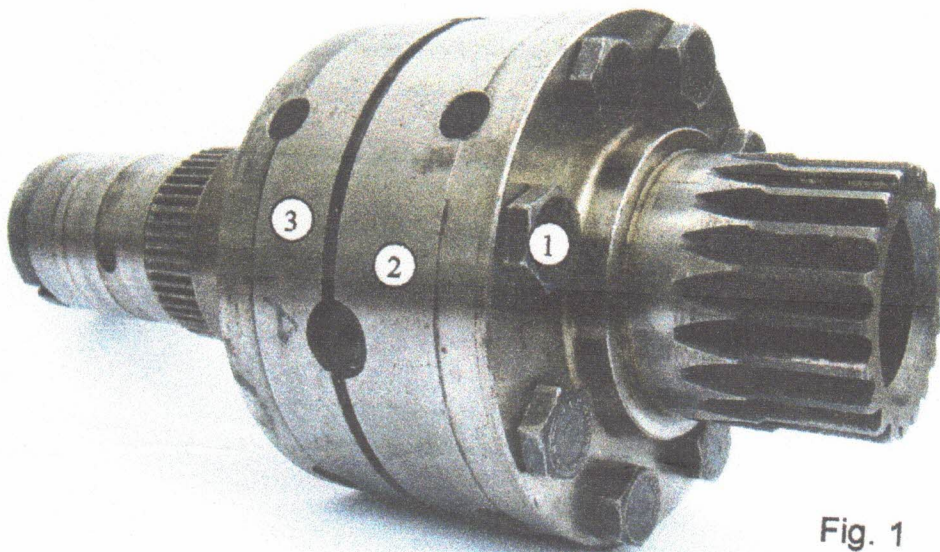


Fig. 1

- 4) Remove all inner parts [Fig. 2]. Crossbeams (4) and one bevel gear (5) shall be reused when installing the AVM Kit.

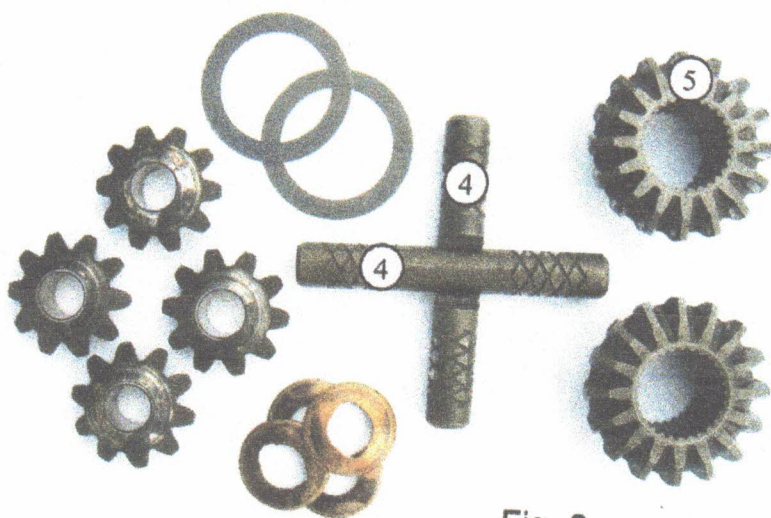
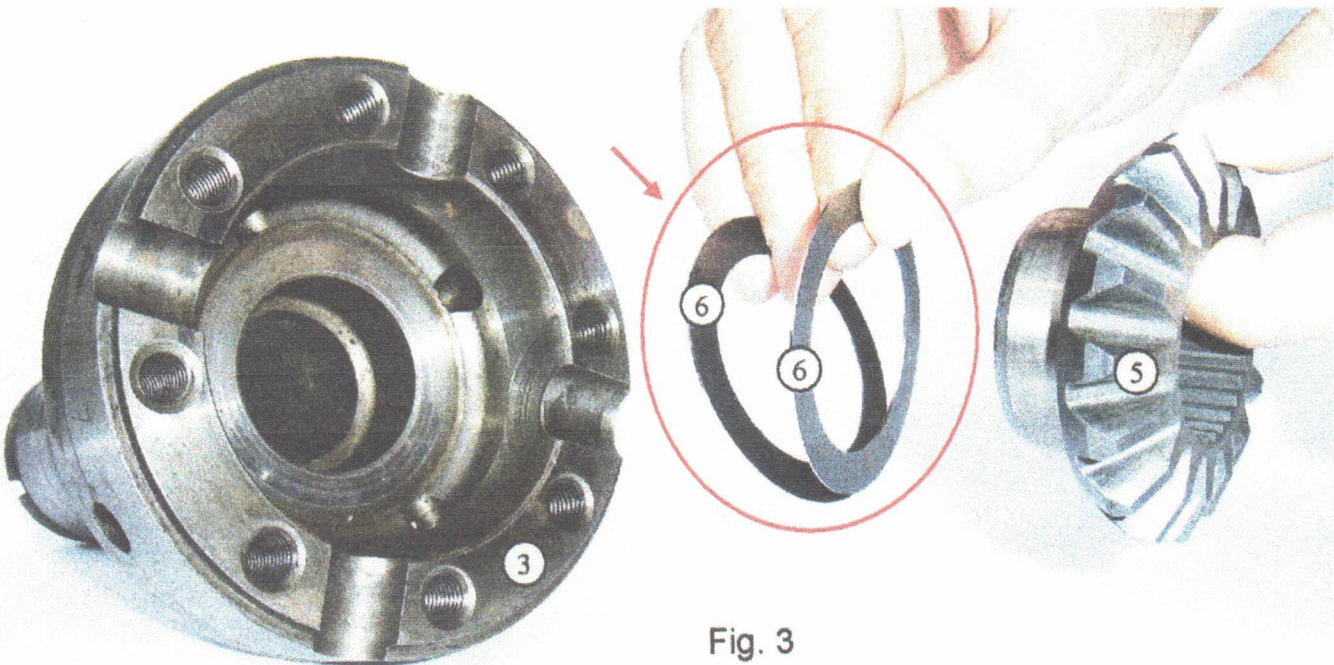


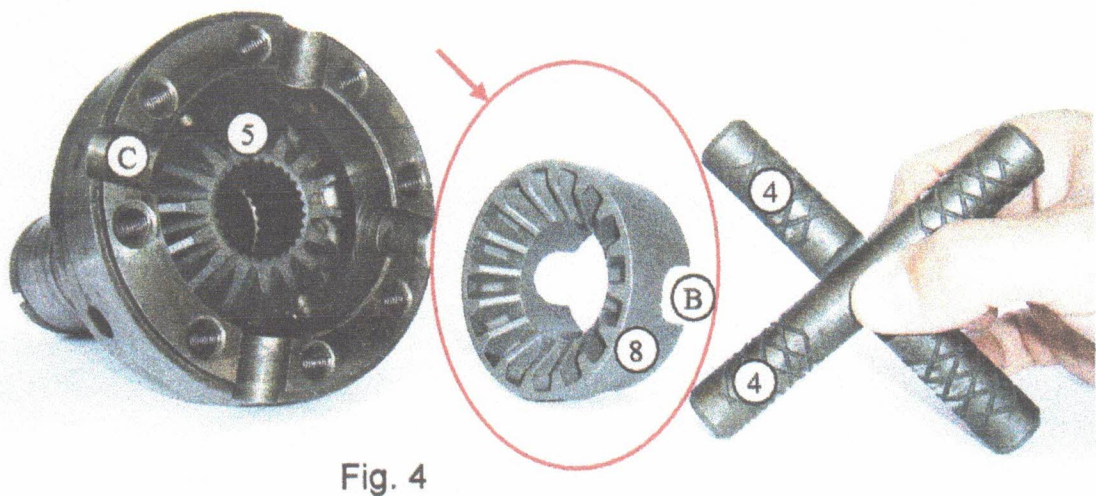
Fig. 2

Installation:

- 5) Install two thickest thrust discs of 0,5mm [0,020"] (6) provided in specific bag and the original bevel gear (5) in the differential rear case (3) [Fig. 3].



- 6) Mount AVM spider gear (8) on the original bevel gear (5). Turn it to align AVM spider gear (8) "B" grooves and rear case (3) "C" grooves.
7) Replace original cross axles (4) [Fig. 4].



- 8) Adjust spider gear end play (8) using one or more shims (9) of 0,2mm (0,008") and 0,3mm (0,012") provided in specific bags by removing cross axle (4) and spider gear (8) [Fig. 5]. Insert shims (9) as required between the rear case "A" face (3) and thrust disc (6) [Fig. 6] until gear play is fully eliminated.



Fig. 5

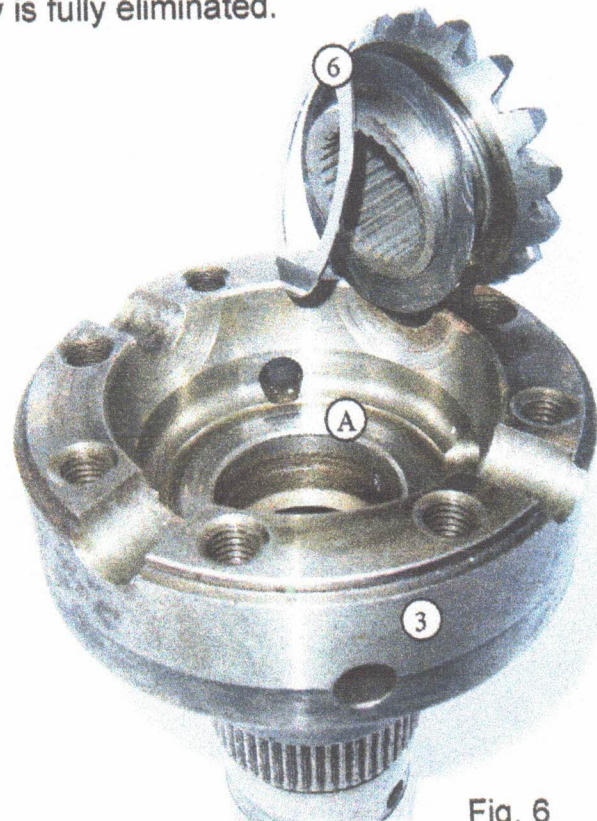


Fig. 6

- 9) Press the AVM bearing (10) against the "X" side of the differential front case (2) [Fig. 7].
Note: When assembling use a clamp or another proper tool.

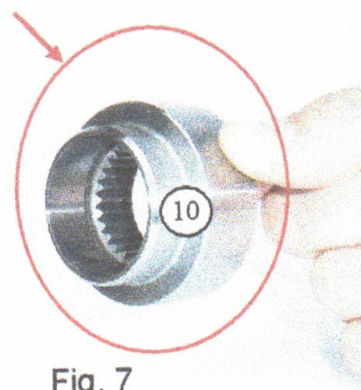
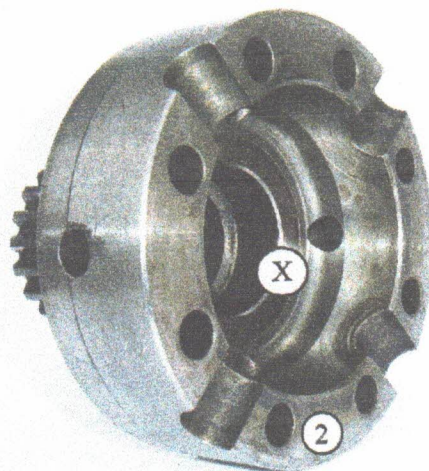


Fig. 7

- 10) Reassemble front case (2) into the differential rear case (3) [Fig. 8] as per procedures in the "Land Rover" service manual.
- 11) Replace the original screws (1) and tighten according manufacturer recommended torque [Fig. 9].

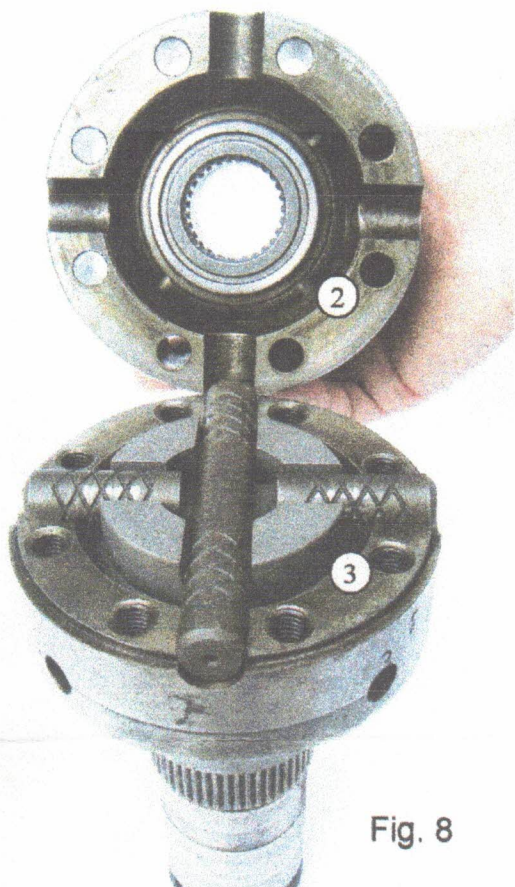


Fig. 8

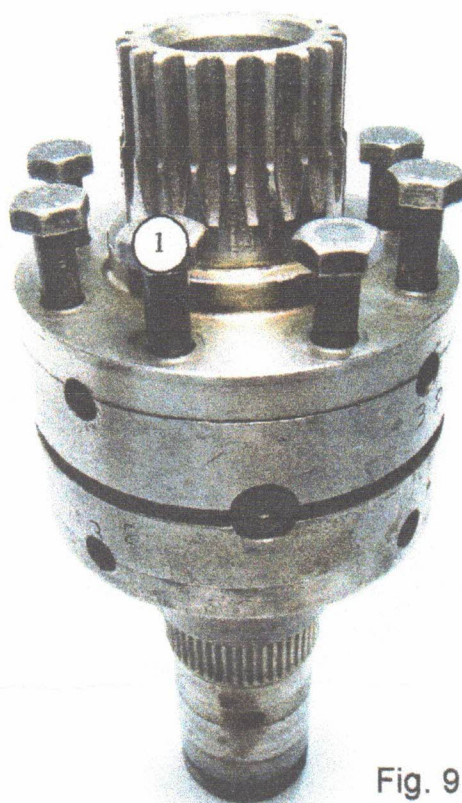


Fig. 9

- 12) Reassemble central differential assembly into the transfer case, as per procedures in "Land Rover" service manual.
- 13) Mount the manual free wheels according to Installation instructions supplied within the product package.



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