
TRANSFER CASE

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16.1 TRANSFER CASE

1 Warning and Precaution

1.1 Warning

- (1) It is not recommended to use non-original replacement parts, because they can be damage some units and affect vehicle safety.
- (2) Take extra care when operating locking plate and spring load retaining equipment. For personal safety, it is recommended to wear safety glasses that meet industrial strength in process of working in vehicle or part assembly area of vehicle.

1.2 Precautions

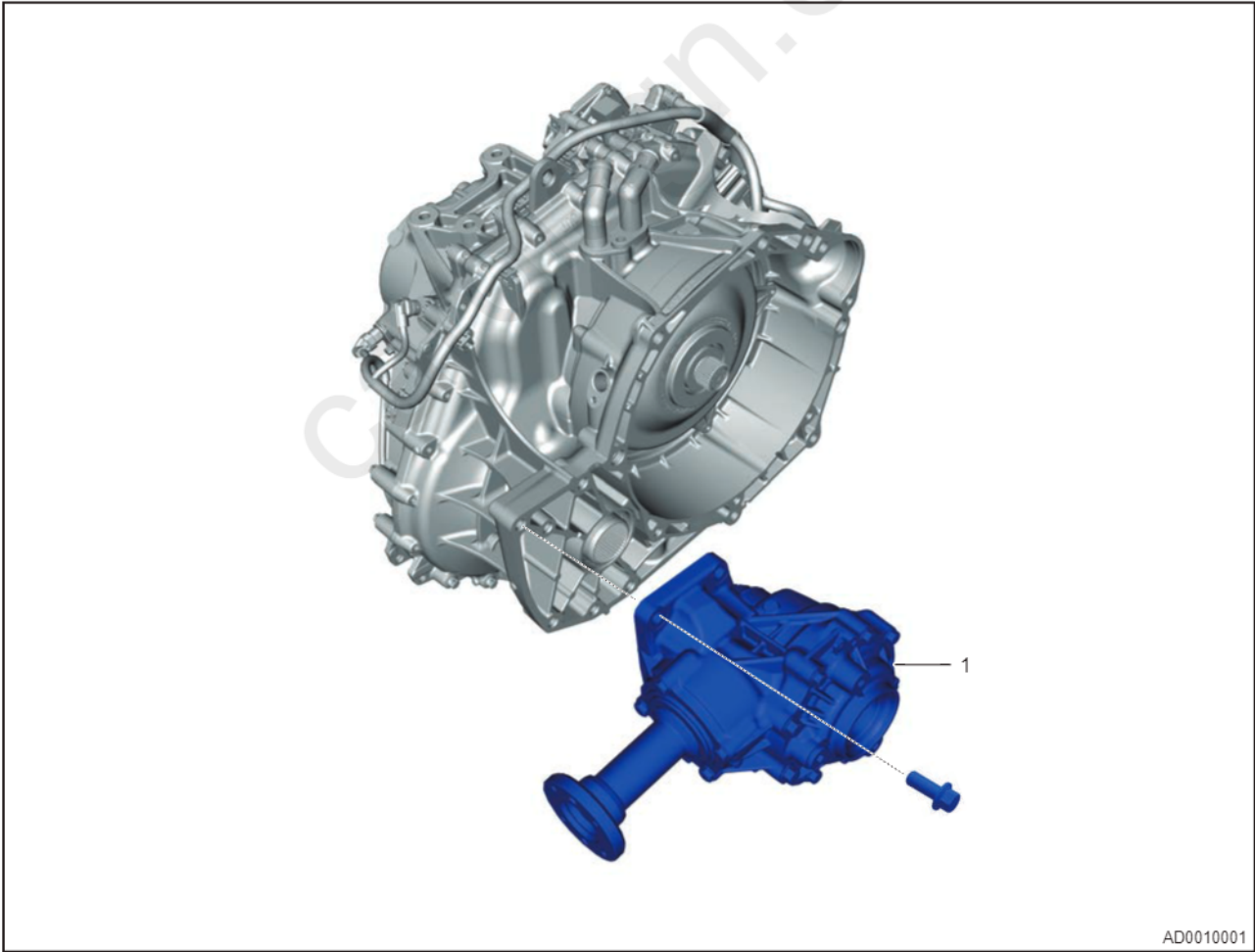
- (1) In order to ensure safe and reliable operation of vehicle and drive shaft, the correct repair and maintenance is very important. Some of these operations need to use some special designed tools, and these tools can only be used in the corresponding repair and maintenance operations.

2 Overview

2.1 Description

Transfer case function is to distribute power output from transmission to each drive axle and further increase torque.

2.2 System Component Diagram



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1	Transfer Case Assembly		
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Transfer case is a device that distributes engine power, which can output power to rear axle.

2.3 Specifications

Torque Specifications

Description	Torque (N·m)
5 Fixing Bolts Between Transfer Case and Transmission	120 ± 10
1 Fixing Bolt Between Transfer Case and Transmission	70 ± 10
Baffle Plate Fixing Bolt	3.7 - 5

2.4 Transfer Maintenance

Transfer oil is recommended to be replaced every 50,000 km after warranty period. Oil standard:

Oil Type	Total Capacity (After-sales Maintenance Oil Capacity)
Sinopec GL5 80W-90 Gear Oil	0.31 ± 0.03 L

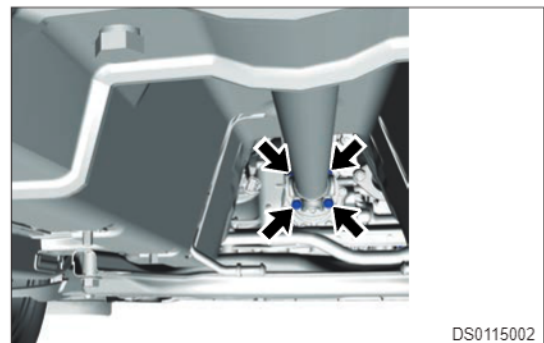
3 On-vehicle Service

3.1 Transfer Assembly

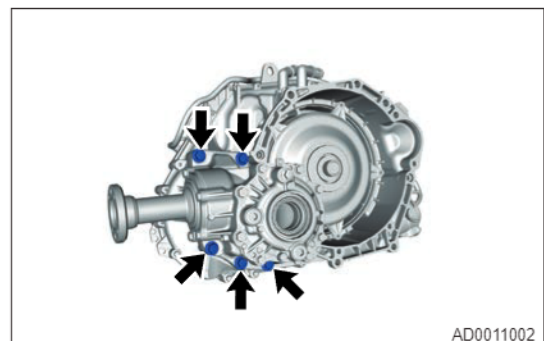
■ Removal

- (1) Remove the front right wheel.
- (2) Remove the front right drive shaft assembly (4WD).
- (3)
- (4) Remove the precatalytic converter assembly.
- (5) Remove the transfer case assembly.

- 1) Remove 4 fixing bolts (arrow) between propeller shaft and PTU output flange.



- 2) Remove 5 fixing bolts (arrow) between transfer and transmission.



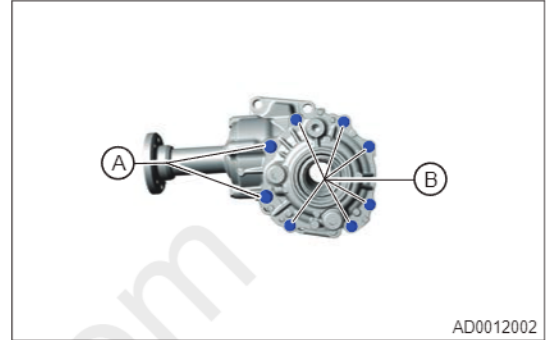
- 3) Remove the transfer assembly.

⚠ Warning

- When handling the transfer, please pay attention to the flange connected with intermediate shaft and spline connected with transmission differential. Please pay attention to whether O-ring is intact and whether the oil seal is intact to avoid touching the lip of oil seal. Please handle the transfer case with care during whole operation, and do not move the transfer case upside down.

■ Disassembly

- (1) Remove the output shaft oil seal
 - 1) Remove 8 fixing bolts (A and B) from transfer cover.



- 2) Slightly tap the edge of cover with a rubber hammer, and remove cover.
- 3) Remove O-ring from cover.

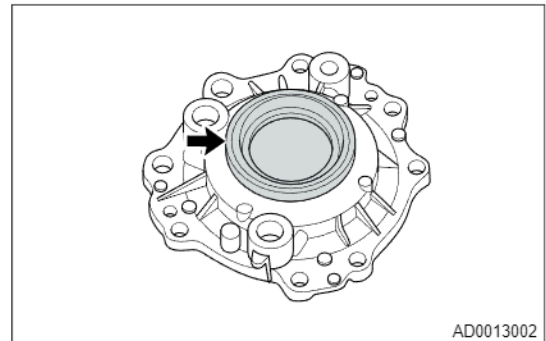
⚠ Warning

- Do not use tools or damage cover.

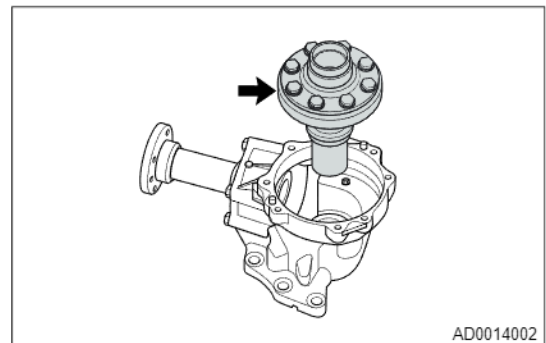
- 4) Slightly tap the metal part of oil seal from inside to remove oil seal.

⚠ Warning

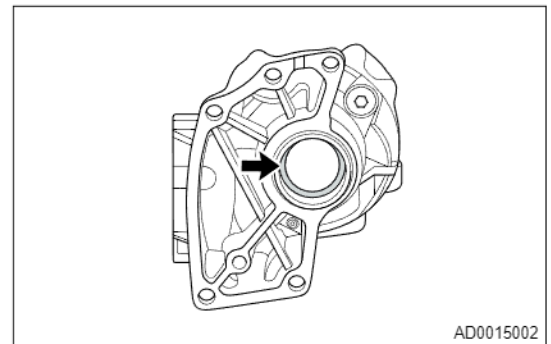
- Do not take it out with a tool during removal.



- 5) Remove the main shaft.



6) Slightly tap the oil seal, and then remove it.

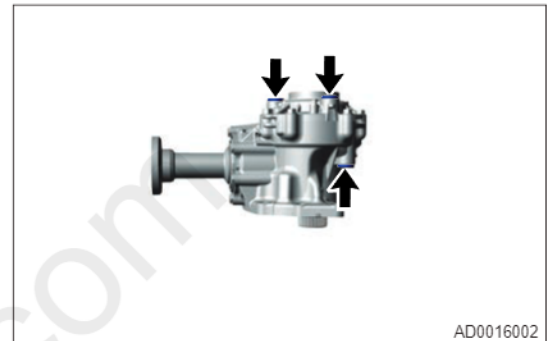


(2) Remove the oil plugs.

1) Remove the oil plugs (arrow).

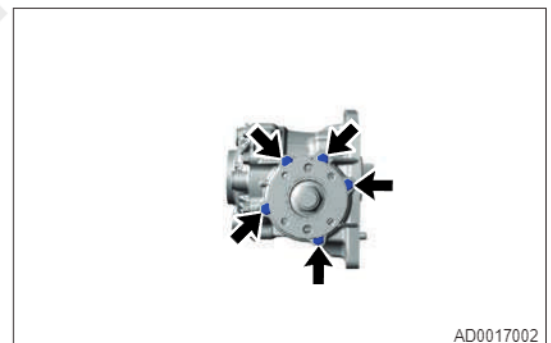
Warning

- The used gasket cannot be reused.

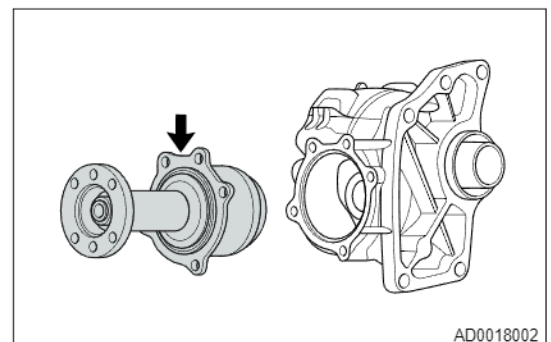


(3) Remove the O-ring.

1) Remove 5 fixing bolts (arrow) from main gear assembly.



2) Remove the main gear assembly (arrow).

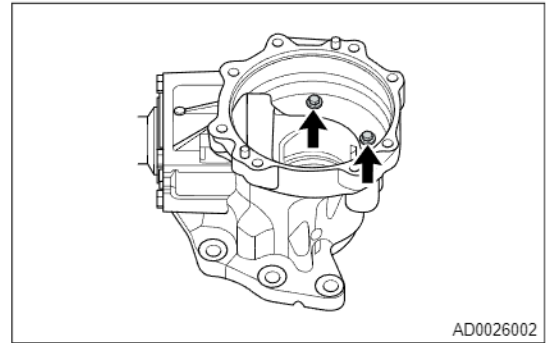


3) Remove the O-ring.

(4) Remove the baffle plate.

1) Remove the main shaft assembly.

- 2) Remove 2 fixing bolts (arrow) from baffle plate.



- 3) Remove the baffle plate.

■ Reassembly

- (1) Install the baffle plate.

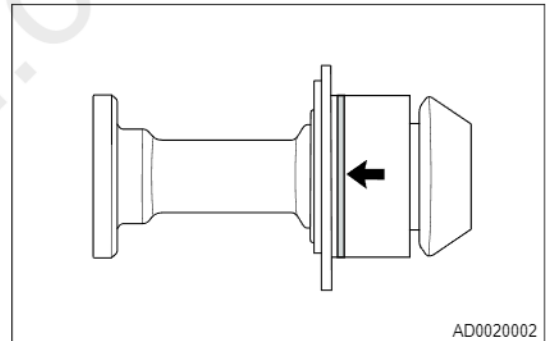
- 1) Install 2 fixing bolts to baffle plate.

Tightening torque: 3.7 - 5 N·m

- 2) Install the main shaft assembly.

- (2) Install the O-ring.

- 1) Replace O-ring, and apply vaseline oil to O-ring and outer diameter of bearing.



- 2) Install main gear and tighten 5 fixing bolts with specified torque.

Tightening torque: 45 - 50 N·m

- (3) Install the oil plug.

Tightening torque: 30 - 39 N·m

- 1) Loosen 2 to 3 teeth of pre-locking oil hole, tighten oil plug to torque range of 30 - 39 nm with a torque wrench and paint the oil plug, indicating that torque is within specified range.

- (4) Install the output shaft oil seal.

- 1) Put main shaft into case, turn the flange slightly, confirm that main shaft assembly is placed in place, replace O-ring with a new one and install O-ring.

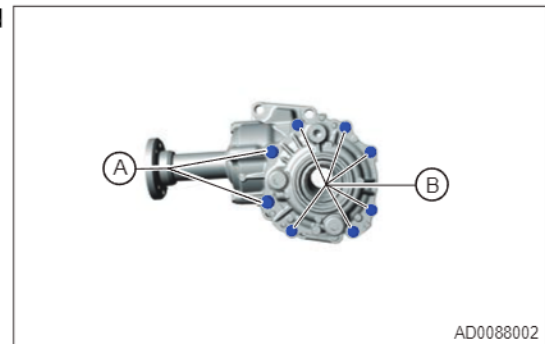
⚠ Warning

- After installing O-ring, apply vaseline oil.

- 2) Install transfer cover and tighten 8 fixing bolts (A and B) with specified torque.

Tightening torque A: 45.5 - 50.5 N·m

Tightening torque B: 28 - 31.5 N·m

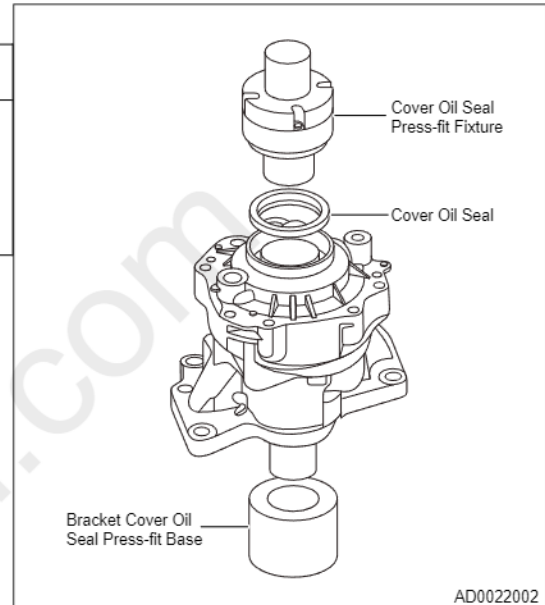


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- 3) Install oil seal with oil seal press-fit fixture.

Warning

- **Apply vaseline oil to cover before assembly, 100% visually check if oil seal lip is turned over after tapping. Otherwise, the oil seal must be removed and installed again.**



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■ Installation

Warning

- **Install transfer spline to differential by turning it left and right, and align the transfer case dowel pin with positioning hole of differential case simultaneously.**
- **When installing 5 tightening bolts between transfer and transmission, follow the order of up, down, left and right and tighten diagonally.**

- (1) Install the transfer assembly.
- (2) Install 5 fixing bolts between transfer and transmission.

Tightening torque: 120 ± 10 N·m

- (3) Install 4 fixing bolts between propeller shaft and PTU output flange.

Tightening torque: 33 ± 3 N·m

- (4) Install the precatalytic converter assembly.
- (5) Install the front right drive shaft assembly (4WD).
- (6) Fill the transfer oil.
- (7) Install the front right wheel.