

- 1. Hydraulic Module
- 4. Electronic Module
- 7. Output Speed Sensor
- 9. Temperature Sensor
- 2. Position Switch
- 5. Turbine Speed Sensor
- 8. Solenoid Valve
- 10.Discharge Port
- 3. Adaptor
- 6. Suction Port

# **Specifications**

## Gearbox

#### **Type**

6 speed ZF 6HP26 automatic transmission and torque converter

#### Weight

Complete with transmission oil - 89 kg (196.25 lbs) approx.

#### **Control System**

Electrohydraulic (Mechatronik) Controlled on-load shifts

Various shift programs available

#### **Torque Converter**

Controlled-slip lock-up clutch in gears 1 - 6 and reverse.

#### **Transmission oil**

Shell ATF

**Transmission Qty.** 10 Ltr (17.06 pt. / 10.57 US qts.) **Coolant system Qty.** 1.6 Ltr (2.8 pt. / 1.7 US qts.)

#### **Transmission oil**

The ZF 6HP26 automatic transmission is 'filled for life' at manufacturer and will not normally need to be serviced.

#### **Gear Ratios**

1st	2nd	3rd	4th	5th	6th
4.17:1	2.34:1	1.52:1	1.14:1	0.87:1	0.69:1

Reverse

3.40:1

#### **Maximum Towing Distance**

150 km (93 miles) at a maximum speed of 70 km/h (43 mph)

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Torque Figures						
Description	Nm.	lb. / ft.				
Transaxle to Mounting Brackets	20-30	15-22.5				
Mechatronics Unit	8	6				
Sump	7-9	5.5-7				
Gearbox to Differential Adaptor Plate	52-75	38.5-55.5				
Subframe cross-member	85	63				



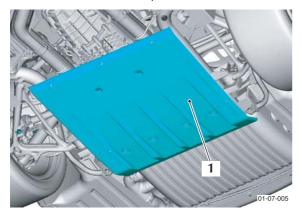


#### **Mechatronik Unit**

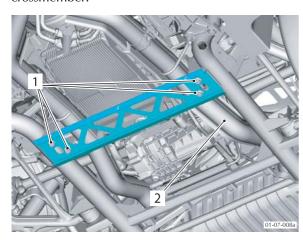
Repair Operation Time (ROT)	
Item	Code
Mechatronik Unit Renew	07.00.AD

#### Remove

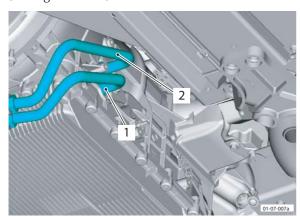
1. Remove the rear undertray.



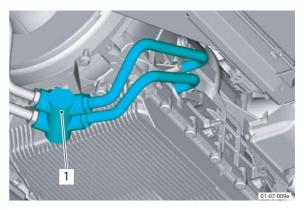
2. Remove the four bolts (1) to release the subframe crossmember.



- 3. Drain the gearbox oil.
- 4. Remove left rear exhaust pipe (2).
- 5. Disconnect the coolant pipes (1 and 2) from the gearbox (see Figure below).



6. Remove the oil thermostat with the gearbox side coolant pipes (Refer to 'Thermostat (Automatic Gearbox)', page 7-2-2).



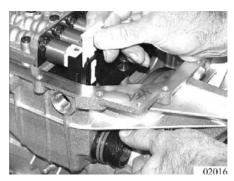
7. Remove the gearbox Capacitor.

The images that follow are taken from the ZF repair manual.

8. Remove the 21 screws that attach the sump. Remove the sump. Discard the O-ring seal and the gasket.



9. Remove the electrical connector.



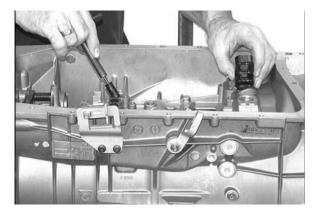
10. Remove the 10 screws (large head, M6) and lift the Mechatronik unit off.





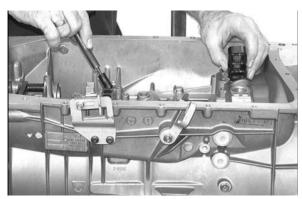


11. Remove and discard the seals for the the Mechatronik unit.

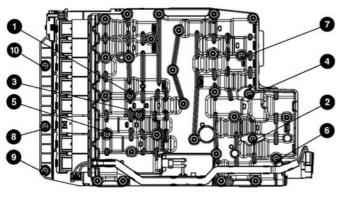


#### Install

1. Install new seals for the Mechatronik unit.



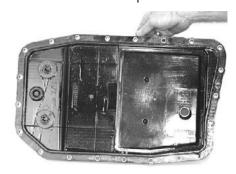
- 2. Push the Mechatronik unit into position with your hand.
- 3. Install the 10 screws and torque them, in the sequence shown below, to **8 Nm.**



4. Push in the new electrical connector socket into position with the Mechatronik unit screw plug attached. Attach it with the retaining clip.



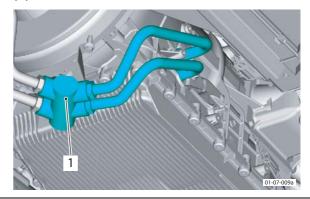
- 5. Install a new O-ring seal onto the stub-pipe of the transmission oil filter.
- 6. Push a new seal into the sump.



- 7. Install the gearbox capacitor.
- 8. Install the sump and attach it with the 21 screws. Torque the screws to **7-9 Nm**.



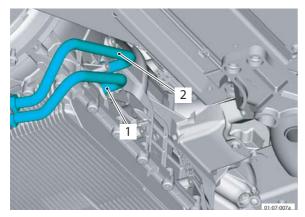
- 9. Install a new drain plug and torque plug to 9 Nm.
- 10. Install the oil thermostat with gearbox side coolant pipes.



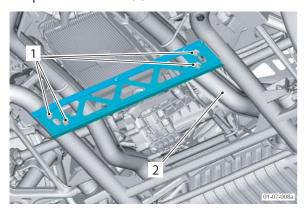




11. Connect the coolant pipes (1 and 2) to the gearbox. Torque the bolt to **20-25 Nm** (see Figure below).



- 12. Install the left rear exhaust pipe (2).
- 13. Put the subframe crossmember in position and attach it with the four bolts (1).
- 14. Torque the four bolts (1) to **85 Nm**.



- 15. Fill the gearbox oil (Refer to 'Transmission Oil Check/ Fill', page 7-1-4).
- 16. Start the engine and put the gear selector lever in each position for at least 10 seconds.
- 17. Stop the engine.
- 18. If necessary, fill the gearbox oil.
- 19. Install the rear undertray.

### **Differential Output Seal (Left)**

Repair Operation Time (ROT)	
Item	Code
Differential Output Seal (Left) Renew	07.00.AC

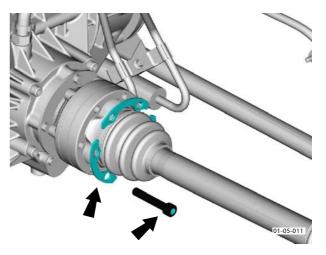
If you need to replace both left and right seals, change the left seal first.

When you replace the right seal, the left output shaft will hold the differential unit in position.

#### Remove

- 1. Disconnect the vehicle battery.
- 2. Raise the vehicle and make it safe.
- Remove the left road wheel and the road wheel-arch liner.
- 4. Remove the rear undertray.

- 5. Remove the service brake and the handbrake calipers (Refer to 'Brake Caliper (Front and Rear)', page 6-3-2).
- 6. Remove the vertical link (Refer to 'Rear Suspension (04.02)', page 4-2-1).
- 7. Drain the differential oil.
- 8. Remove the six bolts and the three washer tabs to release the half-shaft.



9. Remove the four bolts that attach the output shaft cover.



10. Attach a slide hammer and remove the output shaft cover complete with the output shaft and the bearing. Discard the O-ring.

The oil pump impeller ring can come out with the output shaft. Make sure that the oil pump impeller ring is in the correct position at installation.

11. Remove the circlip and remove the bearing.

