

## evolution : filling and topping up the automatic gearbox oil (type 4HP20 ) HP20 (AG)

### 1 Vehicle concerned

Vehicle with automatic gearbox (type 4HP20 ).

Applicable from gearbox number 20H2YY (from RPO No. 8201 ).

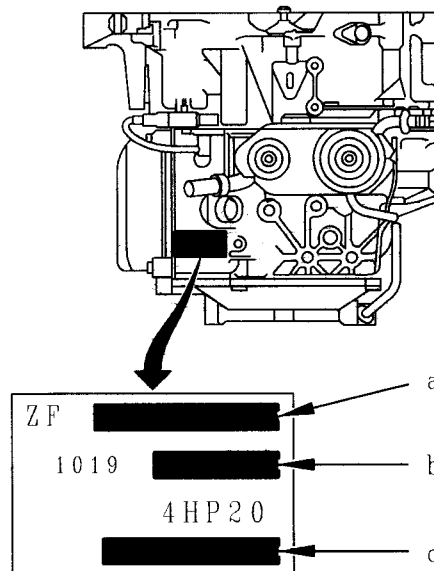
#### 1.1 Evolution

Discontinuation of the manual dipstick on the automatic gearbox.

The check is performed when the oil has reached a temperature of 60 °C (instead of 80 °C).

Gearbox filled with oil through the air vent.

#### 1.2 Identification



- Fig. : 1 -

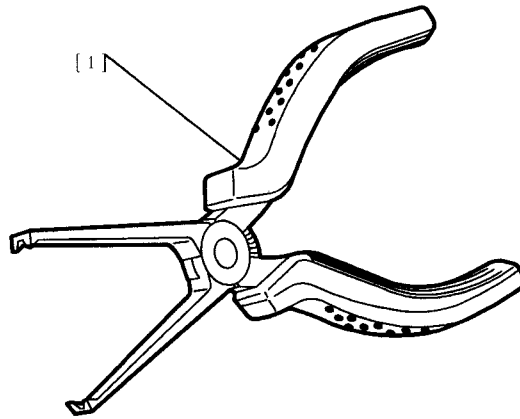
" a " the serial number.

" b " ZF identification number.

" c " component number.

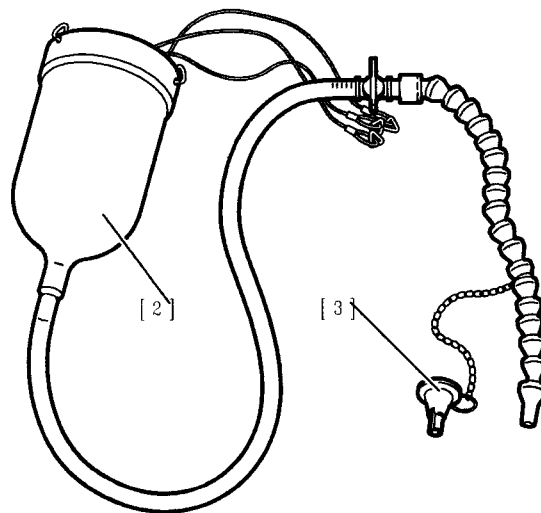
## 2 Refilling - top-up

### 2.1 Recommended tools



- Fig. : 2 -

[ 1 ] hose clip pliers 4517-T (tool box 4507-T).



- Fig. : 3 -

[ 2 ] topping up cylinder (-).0341.

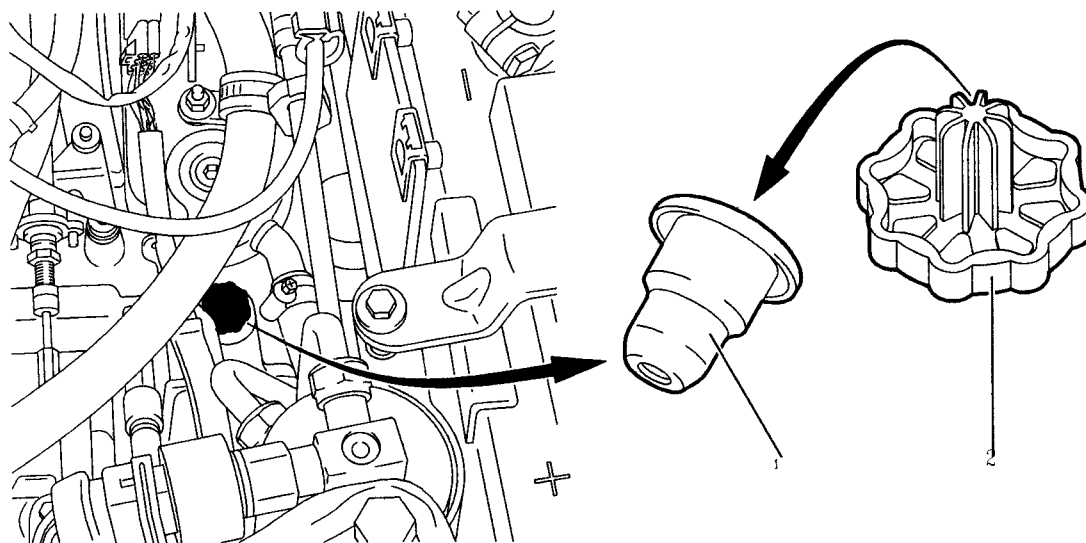
[ 3 ] specific end piece (-).0341.B.

## 2.2 Refilling

The oil capacities are still the same

:

- oil capacity of a new gearbox :  
7,7 litres (minimum) ,  
8,3 litres (max.)
- oil remaining after draining :  
4,7 litres (minimum) ,  
5,3 litres (max.)
- quantity of oil to be added after draining : about 3 litres

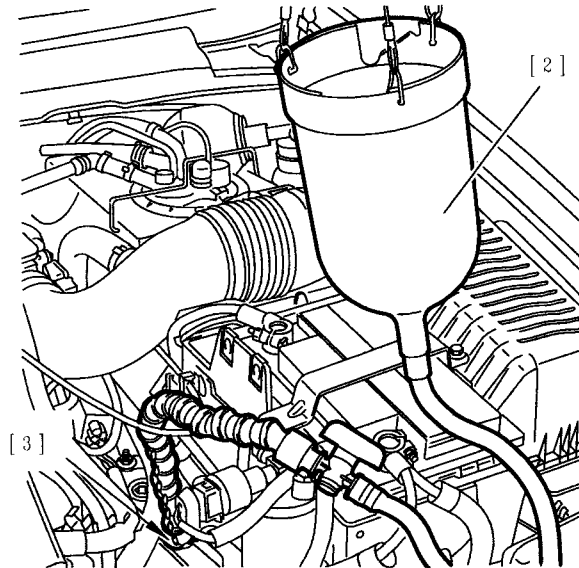


- Fig. : 4 -

Remove

:

- the air filter housing
- the air vent assembly ( 1 ) and ( 2 ) of the gearbox using tool [ 1 ]



- Fig. : 5 -

The gearbox is filled with oil using tools [ 2 ] and [ 3 ].

Refit the metal part ( 1 ) of the air vent using a  $\varnothing$  18 mm drift and a hammer.

Clip the plastic part ( 2 ) onto the air vent.

## 2.3 Oil level check

### 2.3.1 Prior conditions

The vehicle is on a flat surface ,  
handbrake off.

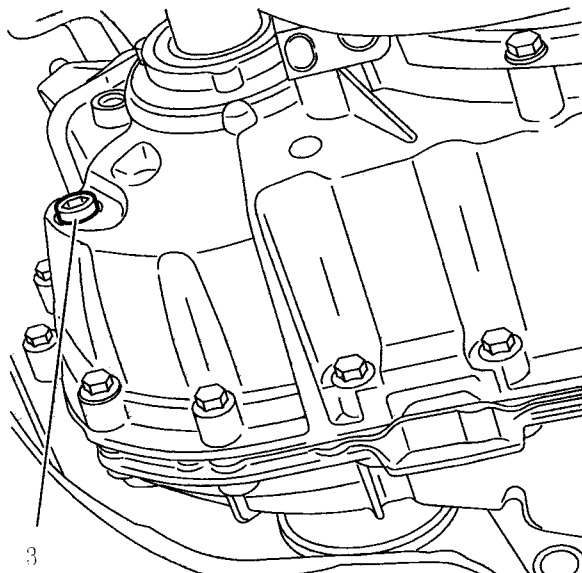
Engine idling, without consumers (air conditioning, heating, etc).

Check that the gearbox is not in a back-up mode using a diagnostic tool.

Apply the brakes firmly and move the lever through the various selector positions.

Lever in position P.

The check is performed when the oil has reached a temperature of  $55^{\circ}\text{C} \pm 1^{\circ}\text{C}$  using a diagnostic tool.



- Fig. : 6 -

Remove the oil level plug ( 3 ).

### **2.3.2 Oil flowing out through the oil level orifice**

When the oil temperature reaches  $60^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , replace the filler plug ( 3 ).

Tighten the cap ( 3 ) to 2,5 m.daN.

### **2.3.3 Oil not flowing out through the oil level orifice**

Refit the oil level plug ( 3 ).

Stop the engine.

Remove the air vent assembly ( 1 ) and ( 2 ) from the gearbox using tool [ 1 ].

Add 0,5 litre of oil to the gearbox using tool [ 2 ].

Repeat the topping up procedure.

Remove tools [ 2 ] and [ 3 ].

Refit the metal part ( 1 ) of the air vent using a  $\varnothing 18$  mm drift and a hammer.

Clip the plastic part ( 2 ) onto the air vent.

Refit the air filter housing.