

CLUTCH

2

IDENTIFICATION AND CHARACTERISTICS

Diaphragm clutch
Hydraulic control

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REMOVAL - REFITTING

Tools to be used
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CLUTCH CONTROL

Tools to be used
Clutch thrust bearing
Clutch fork
Hydraulic control

04 01
04 02
04 03 (1)
04 04 (1)



20 013

MEMORANDUM FOR THE DIRECTOR

DATE: 10/15/03

SUBJECT: [Illegible]

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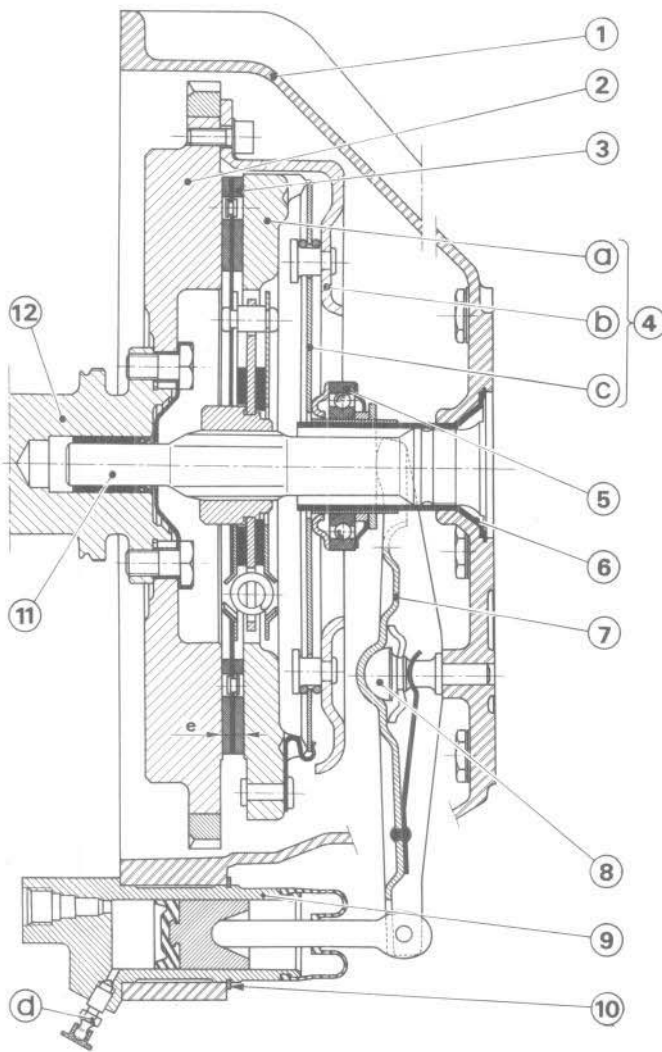
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CLUTCH
IDENTIFICATION - CHARACTERISTICS

2 01 01⁽¹⁾



DIAPHRAGM CLUTCH

Mechanism :

Make Ferodo
Type 215 DB
Calibration 420 kg or 410 da.N

Clutch disc :

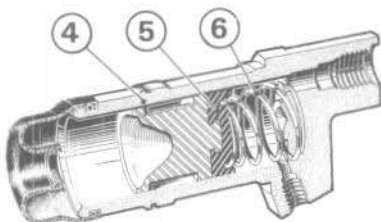
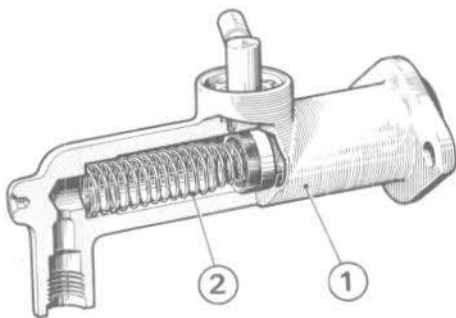
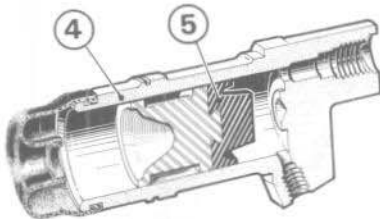
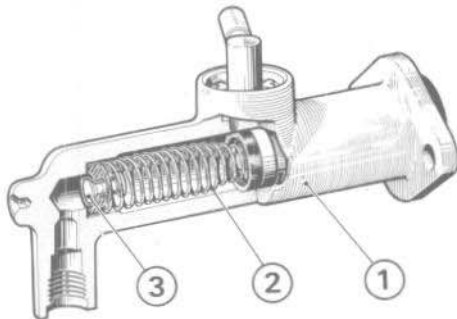
with disc-Dentel thickness 1.3 mm dimensions :
215 × 145 mm

Thickness e of the new clutch disc :

- free thickness : 8.4 ± 0.1 mm
- free thickness after it has been compressed by the mechanism : 8 ± 0.1 mm
- compressed under a load of 450 kg :
 $7.7 + 0.15$ mm
 $- 0.30$ mm

- 1 - Clutch housing
- 2 - Flywheel
- 3 - Clutch disc
- 4 - Mechanism
 - a - clutch pressure plate
 - b - cover
 - c - diaphragm
- 5 - Guided thrust bearing
- 6 - Thrust bearing guiding bush
- 7 - Clutch fork
- 8 - Fork thrust ball
- 9 - Clutch release cylinder with bleed screw d
- 10 - Clutch release cylinder retaining ring in housing
- 11 - Drive shaft
- 12 - Crankshaft

CLUTCH IDENTIFICATION AND CHARACTERISTICS



HYDRAULIC CONTROL

1st Fitting

Up to serial numbers :

504 A01 - 1 014 917

504 A02 - 1 012 919

Master cylinder 1 with a special spring 2 and a residual pressure valve 3 ensuring the constant contact of the thrust bearing on the clutch mechanism.

Residual pressure value : 0.8 kg/cm²

Clutch slave cylinder 4 with special cup 5.

2nd Fitting

As from serial numbers :

504 A01 - 1 014 918

504 A02 - 1 012 920

504 B02 } beginning of series
504 C02 }

Master cylinder 1 without residual pressure valve and special spring 2.

Clutch slave cylinder 4 with special cup 5 and internal spring 6 ensuring the constant contact of the thrust bearing on the clutch mechanism.

INTERCHANGEABILITY

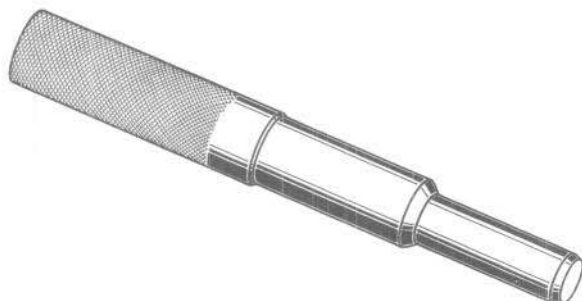
The master cylinder, without residual pressure valve, of the 2nd fitting must be fitted together with the new slave cylinder with internal spring.

The slave cylinder of the 2nd fitting can be fitted in replacement of the cylinder of the 1st fitting but the opposite must never be effected.

CLUTCH
REMOVAL - REFITTING

2

02 01⁽¹⁾



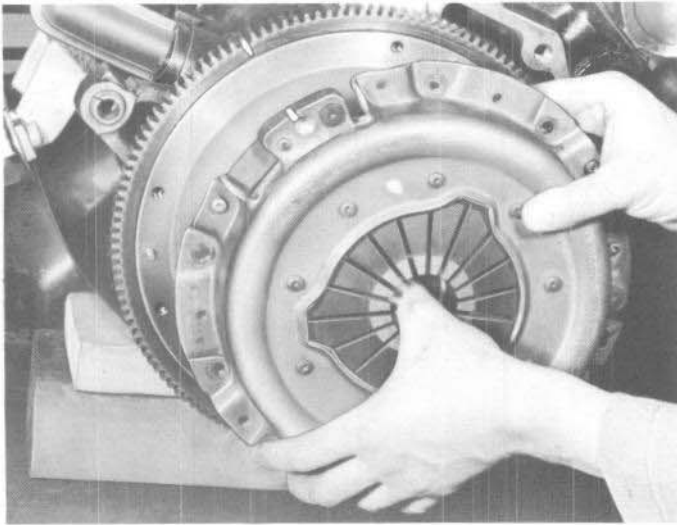
TOOL TO BE USED

8.0207

- Clutch disc centering tool

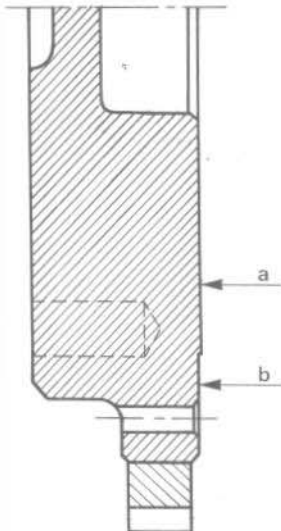
CLUTCH

REMOVAL - REFITTING



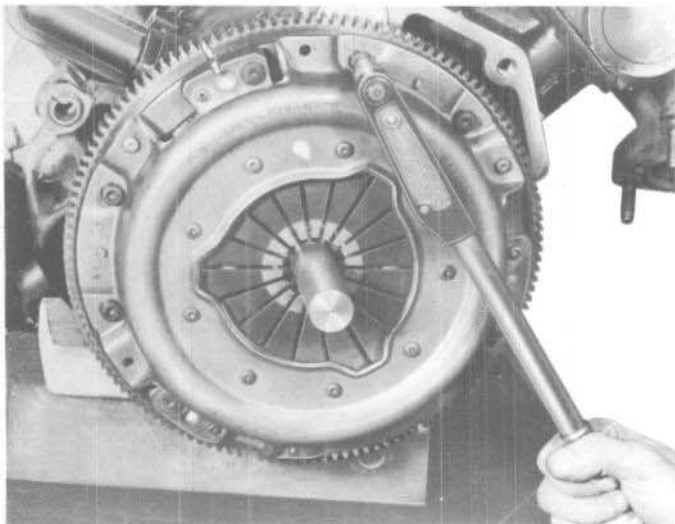
REMOVAL

- Remove the engine as per procedure indicated in class 3, page 02 03, by moving the differential backwards.
- Mark the mechanism in relation with the flywheel.
- Unscrew the six screws using an Allen key of 6 mm across flat.
- Remove the mechanism and the clutch disc.
- Clean, check and replace used parts.



RE-INSTALLATION

- Check the bearing surface of the disc on the flywheel ; if necessary remove and true up the bearing surface a on a lathe. It is also necessary that the same metal thickness be removed on part b of the flywheel receiving the mechanism in order not to alter the diaphragm tension.

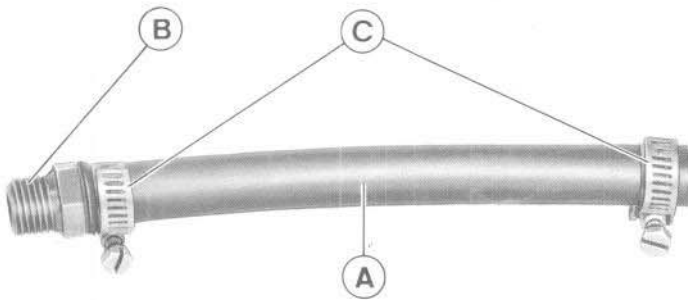


- Position the disc correctly (flexible hub towards the gearbox) and centre it using tool 8.0207.
- Fit the mechanism according to the marks made at the time of removal
- Having replaced the Onduflex washers tighten the screws to 11 ft.lbs (1.5 m.kg).
- Check thrust ball bearing for condition and replace it if necessary (refer to class 2 page 04 01).
- Pack the splines and front part of the drive shaft with Molykote as well as the thrust ball bearing guide sleeve.
- Refit engine as per procedure indicated in class 3, page 02 11.

CLUTCH
CONTROLS

2

0401



TOOLS TO BE USED

This union must be made in the workshop

0.0204

- Rubber union for bleeding the clutch hydraulic system. This rubber comprises :

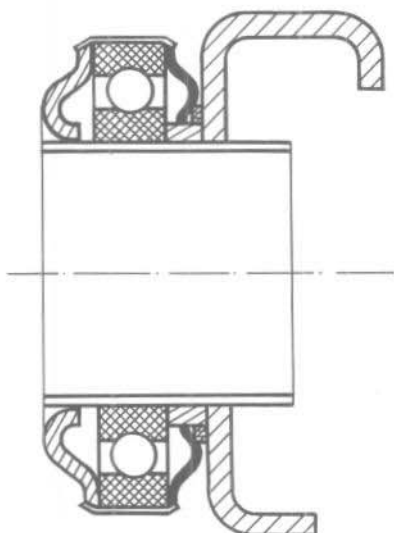
- A - One hose of 7 × 14 × 170 mm P.N. 1192.02
- B - One threaded union of the reservoir plug ARC 50.
- C - Two clamps P.N. 1565.17

TOOLS RECOMMENDED

Description	Manufacturer
Tester ARC 50	Salzer and Co

PEUGEOT

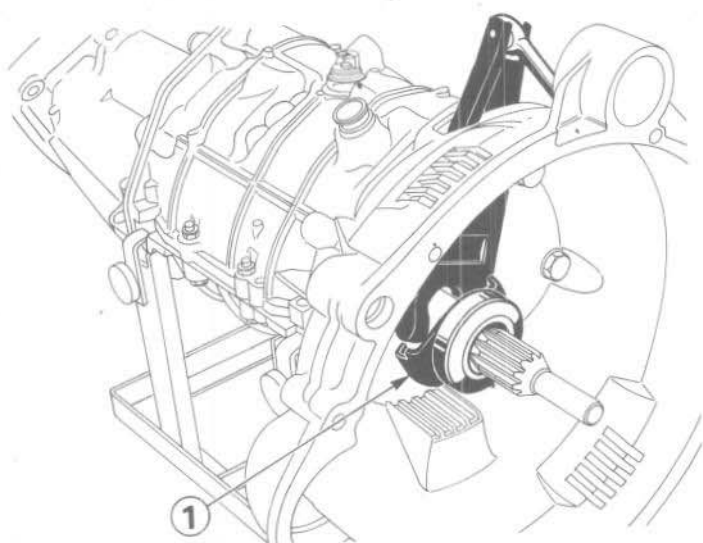
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**I - CLUTCH THRUST BEARING**

Bush mounted bearing secured by a retaining clip onto the clutch housing.

This thrust ball bearing cannot be dismantled and does not require any particular maintenance.

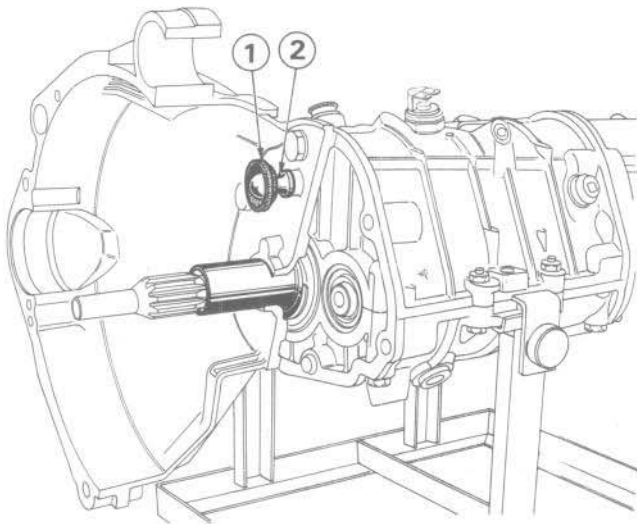
The thrust bearing guide sleeve can be replaced as per procedure indicated in class 3, page 03 11.

**Removal**

- Remove the thrust bearing by rotating it anti-clockwise.

Re-installation

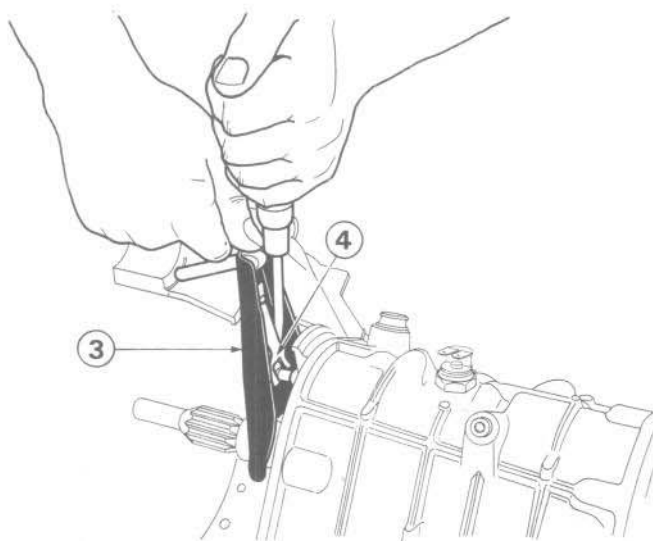
- Smear the guide sleeve with Molykote then engage the thrust bearing by positioning the retaining jaw 1 towards the starter motor housing.
- Engage thrust bearing with clutch release fork by rotating the bearing clockwise.



II - CLUTCH RELEASE FORK

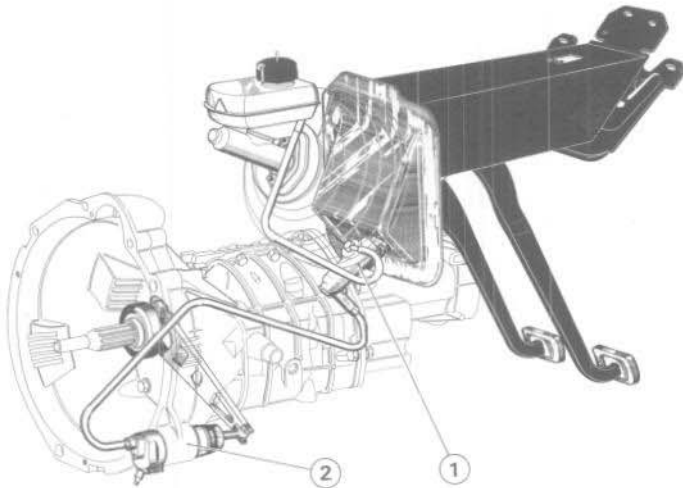
Removal

- Working from inside the clutch housing remove the thrust bearing and the clutch release fork.
- Remove the rubber cup 1 and the ball head thrust 2. Replace the rubber cup if necessary.



Refitting

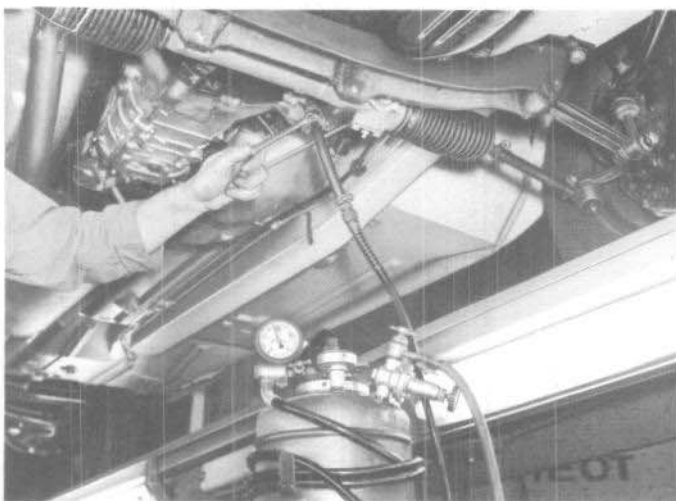
- Pack the rubber cup 1 with grease.
- Slide clutch release fork 3 from the inside towards the outside of the housing.
- Use a screw driver to raise clutch release fork backing spring 4.
- Engage the fork on the ball head the spring being backed against the rubber cup.
- Then fit thrust ball bearing.

CLUTCH
CONTROLS

III - HYDRAULIC CONTROL

Removal and refitting

- Apart from cleanliness, the removal, refitting and reconditioning of the clutch master cylinder 1 and slave cylinder 2 do not require any particular precautions.
- In the event of replacing these parts check their condition of interchangeability (see class 2, page 01 02).



Bleeding

Bleeding of the clutch hydraulic system can be carried out very quickly using ARC 50 and by proceeding as follows :

- Connect the rubber union 0.0204 to the bleed screw and the ARC 50 supply pipe to union 0.0204.
- Adjust the pressure of the fluid to 1.8 kg/cm² approximately.
- Open the bleed screw by a turn.
- Check the rise of the fluid in the reservoir.
- Stop bleeding when the fluid level is found to be correct in the reservoir.
- Check the hydraulic control for operation.
- Use Lockheed 55.
- Drain the system every 12,000 miles (20,000km) or every year.