

MEGANE

2 Transmission

20A CLUTCH

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V1

Edition Anglaise

"The repair procedures given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The procedures may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed."

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CLUTCH

Clutch - Operation

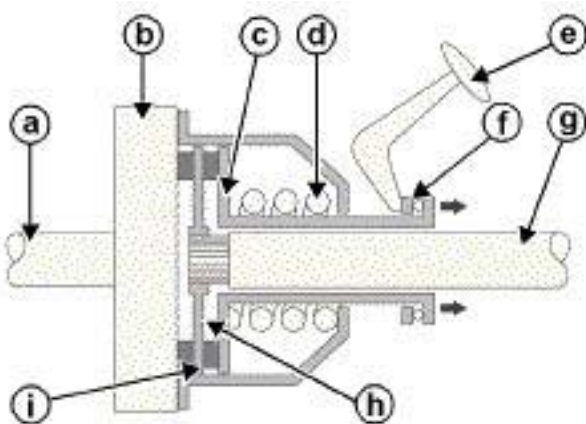
20A

The clutch is a system which enables mechanical action to be either linked or not to an end component. It is made up of an assembly of parts located between the engine and the transmission components. It ensures the following functions:

- When engaged: transmits the power provided.
- When disengaged: this transmission is interrupted.
- Between the two positions: the transmission of power is gradually restarted.

There are different types of clutch:

- Depending on number of discs:
 - dry single disc clutch,
 - dry double disc clutch with single control,
 - double disc clutch with separate control (double),
 - wet or dry multidisc clutch.
- Depending on type of control:
 - manual control,
 - hydraulic control,
 - electric control with electronic servo.



- a : crankshaft
- b : flywheel
- c : pressure plate
- d : spring
- e : clutch pedal
- f : clutch thrust bearing
- g : gear input shaft
- h : clutch plate
- i : clutch plate pad

The system is made up of the flywheel (b) (attached to the engine) (the bolts in the centre are screwed into the crankshaft (a)).

The clutch plate is attached to the gearbox.

The outermost part is called the friction or pad. The pressure plate ensures that the clutch plate is held against the flywheel when the clutch is engaged, as this is what ensures that they turn at exactly the same speed, one driving the other.

The pressure plate springs are pushed in by the clutch thrust bearing.

When the clutch control (hydraulic, or cable operated) is activated, the clutch plates move apart and less and less movement is transmitted, leaving the gearbox free of the engine. This, for example, allows the vehicle remain stationary without stalling the engine, or a gear to be changed.

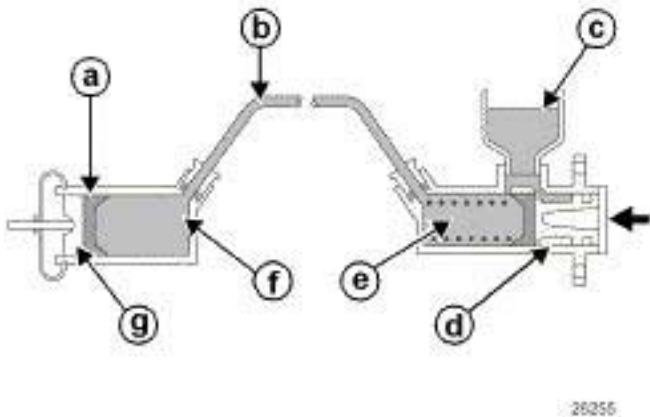
The opposite action involves gradually releasing the clutch control, so that the engine and gearbox are reconnected. This manoeuvre is called "slipping the clutch".

CLUTCH

Hydraulic clutch - Operating diagram

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Cross section of the hydraulic system:



- a : seal

b : pipe

c : reservoir

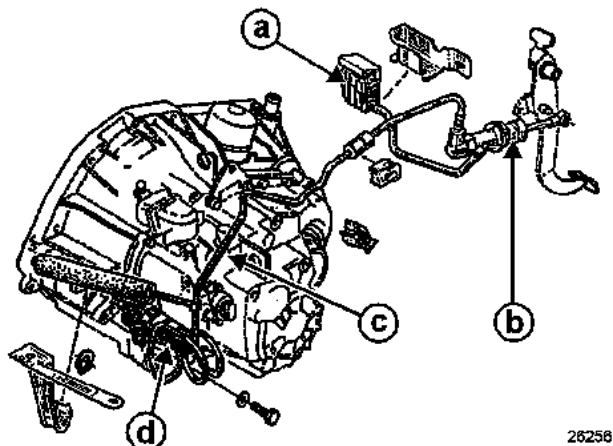
d : piston

e : master cylinder

f : slave cylinder

g : piston

Overall diagram of the hydraulic system:



- a : hydraulic fluid reservoir

b : master cylinder

c : duct + filter

d : slave cylinder

CLUTCH

Hydraulic clutch - Tooling and equipment

20A

Standard tooling is used

CLUTCH

Hydraulic clutch - Customer complaints

20A

Customer complaint: the clutch pedal remains depressed after use.

Use the fault finding chart (see next page) in the following cases:

- **The pedal remains depressed, without the vehicle moving, with the engine running or stationary:**
 - either after making several successive manoeuvres,
 - or after leaving the foot down on the pedal using moderate force for a reasonably prolonged period.The function temporarily returns to normal after releasing the pedal manually.
- **The pedal remains depressed only after reasonably prolonged use of the vehicle, particularly in heavy traffic.**
The function temporarily returns to normal after releasing the pedal manually.
- **The pedal remains depressed immediately after each manoeuvre. There is little or no force felt from the pedal and returning the pedal manually does not stop the fault from recurring.**
- **After a prolonged stop in the disengaged position, first gear engaged (stop at traffic lights, for example), the vehicle has a tendency to creep forward after a certain amount of time. If the pedal is released, it does not return.**

NOTES

- Check that the customer has not topped up the brake fluid level.
- Check the condition of the brake pads before topping up the brake fluid.

Check the area surrounding the pedals, on the passenger compartment side.

Is the floor carpet or another foreign body blocking the travel of the clutch pedal?

NO

Check the return spring and the pushrod for the pedals.

Are there any anomalies?

NO

Check the level of hydraulic fluid

Is the level below the take-off point supplying the master cylinder?

YES

Check the sealing of the hydraulic circuit pipes

Are there any leaks around the unions or pipes?

YES

Carry out the necessary repairs

YES

Disengage the pedal and check that the customer complaint is no longer present.

YES

Repair the anomaly and check that the customer complaint is no longer present.

NO

NO

NO

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NOTES

- Check that the customer has not topped up the brake fluid level.
- Check the condition of the brake pads before topping up the brake fluid.

