RENAULT SPORT

FORMULA RENAULT 2.0

Technical Bulletin N°21

REFERENCE	BT_2010_FR20_21_UK
DATE	14th September 2010
SUBJECT	Clutch bleeding & new clutch releaser, central wooden floor thickness control, pad retaining bolt regulation
PART	Clutch circuit, central wooden floor, brake calliper

1. Clutch bleeding procedure

Step one => Filling of the releaser

It is strongly recommended to prefill the releaser before mounting into the car.

- Filling procedure should be carried as follows:

  - Compress the releaser.
  - While you are decompressing the releaser slowly fill it with hydraulic fluid using an applicable filling tool (like bleed injection tool).
  - Or you can hold the filling bore of the compressed releaser in a bowl filled with hydraulic fluid, and decompress the releaser slowly. While the releaser is decompressing it will take in the fluid and gets filled.

- After the releaser is filled with the fluid, it can be mounted into the car. Make sure the releaser doesn't get compressed again until installation to the car is completed.
- After line is attached, releaser and the line can be bled.

Frequency: the filling of the releaser must be done every 1,500km approximately.

Step two => Filling and bleeding of the line

- The reservoir of the clutch fluid needs to be filled while the bleeding screw is open until the reservoir is full, and no fluid runs into the line on its own anymore. => static filling
- After this step, clutch pedal needs to be pushed slowly while the bleeding screw is open.
- Close the bleeding screw then release the clutch pedal and pull it back slowly to normal position.
- You need to repeat this procedure several times till the lines are filled and bled.

Step three => Bleeding of the releaser

- Clutch needs to be disengaged over the clutch pedal while the bleeding screw is closed.
- Press down the clutch pedal, and while the clutch pedal stays pushed the bleeding screw needs to be opened.
- Releaser piston will move back by the force of the diaphragm spring to engaged position and thereby the air in the releaser gets pushed out.
- After no fluid is moving out of the bleeding screw anymore the screw can to be closed.
- Not till then the clutch pedal can be released. Release the clutch pedal and pull it back slowly to normal position.
- This procedure need to be repeated several times till the system is fully bled.

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2. Clutch fluid

Renault Sport reminds you that even if the brake fluid is ruled and that only one type is allowed, the clutch fluid is free of choice.

It appears that in some cases air bubbles are created in the clutch releaser, avoiding any clutch disengagement after a long run or a race. This problem seems to be due to the incompatibility of some fluid with the clutch releaser (Caparo Brake Fluid included). The releaser contains a poor quantity of Magnesium which may react with the fluid under high temperature exposure.

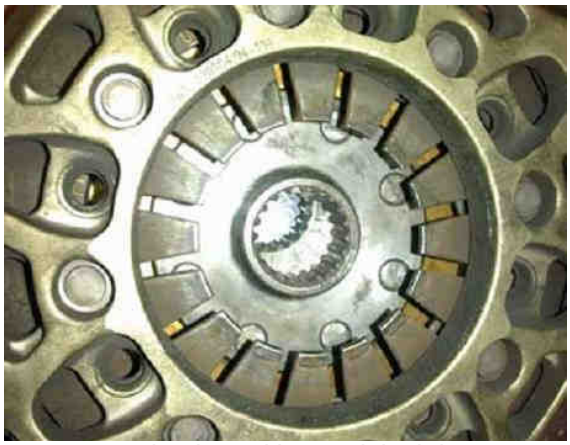
This problem can be solved using another type of high quality brake fluid compatible with Magnesium like **Castrol SRF**. Castrol SRF (bottle of 1L) is available from your Renault Sport Spare parts dealer under the reference 77 11 162 609.

3. Clutch releaser improvement

The clutch releaser has been improved and is now available from your Renault Sport spare parts dealer.

To use this new releaser, it is necessary to remove the central ring (1) from the clutch diaphragm. Without this ring, the mechanism is now more reliable. This ring is replaced by the one which is directly bonded on the clutch releaser.

As a consequence, to use this new releaser you must remove the central ring from your original clutch mechanism. To remove it, you simply have to break the elastic washer (1) which is behind the diaphragm:



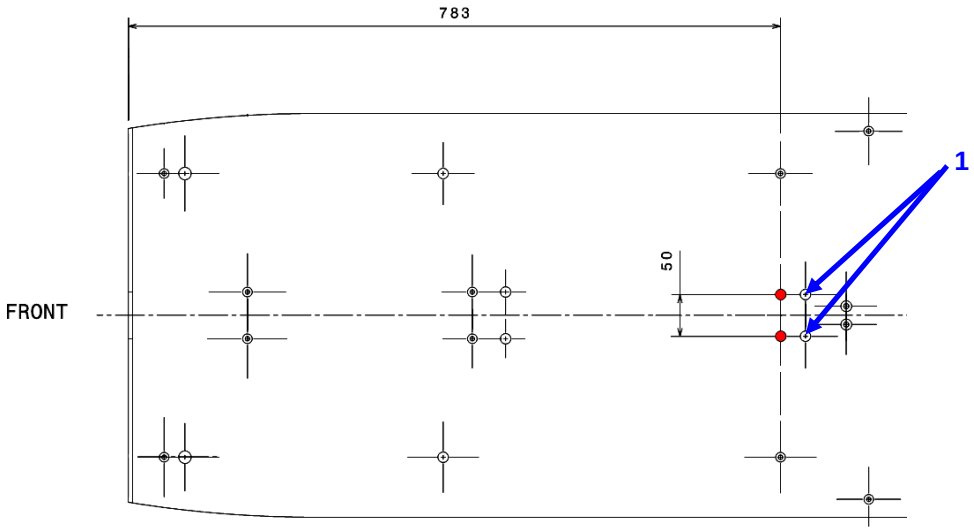
Mechanism without original ring

The reference of the upgraded clutch releaser (with the bonded ring) is 77 11 166 678.
The reference of the upgraded clutch mechanism (without the ring) is 77 11 166 679.

Both old and new types are now allowed.

4. Thickness control of the central wooden floor

2 new holes must be drilled in the central wooden floor in order to check its thickness. The holes (1) previously used to check the plank thickness won't be used anymore.
These holes must be drilled between ø10 and ø15 mm and you must respect the following quotations:



The new holes are in red

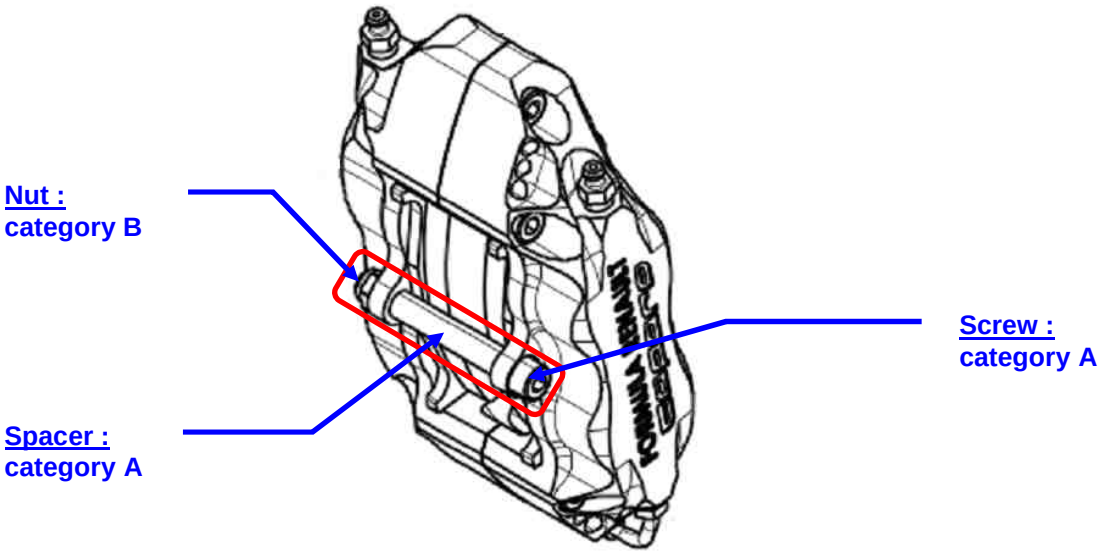
This modification is mandatory from 21st of September, 2010.

The Renault Sport stock will be updated as soon as possible and the first updated planks will be available from Friday 17th during the Silverstone meeting.

5. Pad retaining bolt regulation

The nut of the pad retaining bolt is now considered as a B category part with the following specific regulation:

“It is allowed to replace the original nut by a M8 Knut”.



Pad retaining bolt is circled in red

Renault Sport reminds you that the correct torque to tighten this nut is between 7 and 8.5 N.m.

M8 Knuts are available from your Renault Sport spare part department under the reference 77 11 159 367.