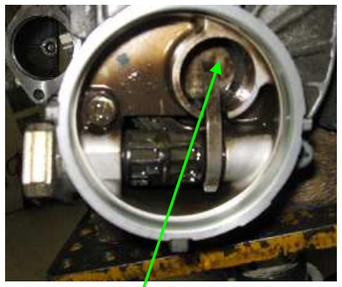
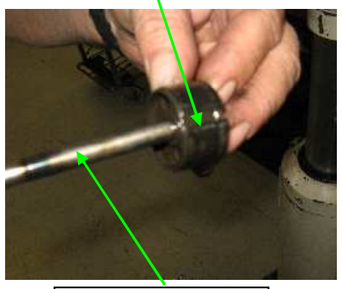
CLUTCH FITTING TECHNICAL NOTE

Valeo Service



Radial release bearing



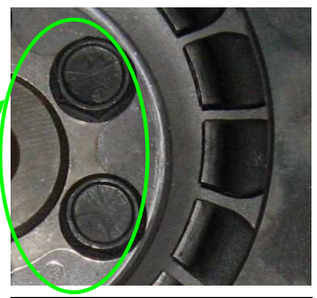
Connecting rod

1

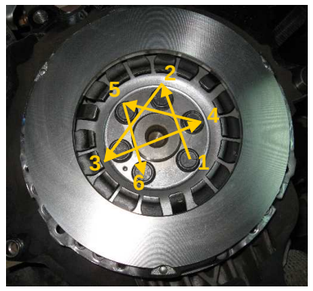
After disassembling the gearbox from the engine :

1- Check engine crank shaft seal: Verify there is not oil contaminating the clutch . In case of oil leack presence, change the crankshaft seal
2- Check gearbox input shaft splines checking that there is not damaged or show excessive wear along the spline length.
3- Check Flywheel Fixing Bolts.
4- Check Flywheel Friction surface .If there are cracks and/or excessive wear of the friction surface, or blue color due to heating, change the flywheel.
5- Check the gear box input shaft seal : Verify that there is not oil comming from the gear box.In case of presence of oil repair the gear box changing the input shaft seal.
6- Check the clutch disengage system
   a. Check the connecting rod works succesfully. It must travel axially by hand in a smoothly manner.
   b. Check radial release bearing and connecting rod are in correct conditions, The connecting rod does not have any material presence or wear signs. In case of damage change the rod and the release bearing.
   c. Check visually the rest of the components of the disegange clutch system and the slave cilynder

Multiple holes washer



Multiple holes washer assembled detail

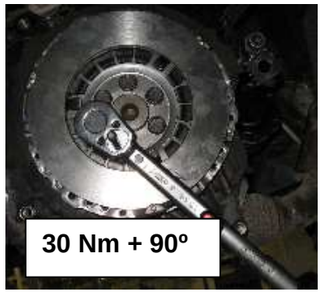


Tightening torque sequence

2

Fasten the DPT cover plate :

1- Fasten the cover assy. Put the multiple holes washer over the cover assy for protecting any damage caused by the bolts in thigtening operation.
2- Hand thightening 3 screws at 120º. After this operation, positon 3 remaining screws and hand thigtehning them.
3- Tighten each screw following a star-like sequence for the thightening of the cover plate. Repeat the complete sequence approximately 3 times. Use screws **M10x1x19.5**.
4- Complete the fastening applying a torque of **30Nm + 90º** thanks to a torque wrench respecting the star-like sequence.
5- Assembly the disengage clutch ring, centering and fitting it correctly.



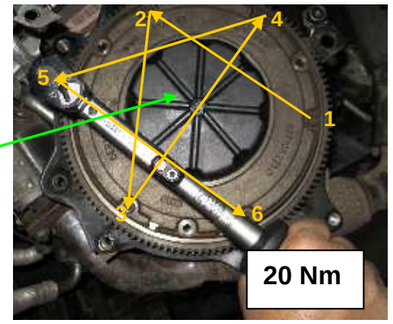
Apply a small quantity of grease

3

Fasten the driven plate and flywheel for assembly:

1- Apply a small quantity of grease in the hub splines at approximatly 5 mm of the hub extremity
2- Put the centering tool in the flywheel
3- Put the driven plate inside the flywheel using the centering tool positioned before.
4- Fasten the flywheel centering it with the centering pin and hand thightening 3 screws at 120º and checking that the driven plate remains stable and well centered with the centering tool.
5- Complete the fastening applying a torque of **20Nm** thanks to a torque wrench respecting the star-like sequence.
6- Use original bolts (**M7x1**)
7- Take out the centering tool.

Centering tool



4

Re-assembly the gearbox:

1. Check that the dowell pins are existing and that they are not damaged.
2. Position the gearbox coaxially with the engine crankshaft, supporting the gearbox weight with the appropriate tools.
3. Introduce the gearbox input shaft into the driven plate hub spline.
4. Take care that the input shaft be introduced without shock. If it is necessary rotate the crankshaft to make easier the input shaft fitting.

Avoid that the weight of the gearbox be supported by the driven plate of the clutch during the assembly.

5. Check that the gearbox is in full contact with the engine block and that the centering pins are well fitted
6. Fixe the gearbox to the engine block tightening the all the bolts with the appropriate torque

5

After the assembly

Check that the clutch is well working:

1. Check that the clutch is well disengaging and reengaging allowing a smooth shifting of each gear box ratio (including reverse)
2. Check that there is not abnormal noise when engaging and disengaging operation
3. Check that that there's not abnormal vibration or noises when increase engine speed in neutral up to **5000 rpm**.
4. Check that there is not abnormal clutch sliding in driving conditions.

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