





FITTING INSTRUCTIONS

Technical Bulletin

Transmissions systems

Model for

Opel (gearboxes M32 & M20)

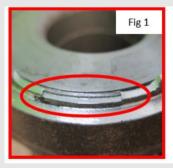
Part numbers

804578 810016 810017 810034 810039 810068 810226

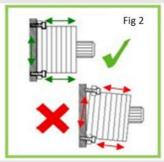
Fitting warnings

To avoid any leaking issues with CSC related in this TSB, Valeo recommends completing the following steps:

- 1. Before fitting the unit, ensure the gearbox mating face is clean and clear from debris. If it is not this can cause the unit to sit unevenly on the gearbox (Fig 2) giving the potential for the back plate to be forced out by the hydraulic pressure (Fig 1).
- 2. When fitting the unit to the gearbox, be sure to **tighten the bolts evenly and to the correct torque in order** to guarantee that the unit sits square on the gearbox mating face. This will ensure the back plate is fully supported.
- 3. Check the hydraulic line for any defects or blockages. If the clutch pedal goes hard or does not return to its resting position after each depression during the bleeding process, do not continue to try and bleed the hydraulic system. Continuing to do so will result in too much fluid entering the fluid chamber within the CSC and will cause the piston retaining ring to move past its stopping point. In Fig 3 you can see deformation/rippling. This shows that the cylinder has been over stroked.



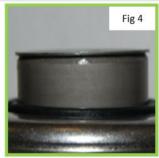
Unit returned has the back plate forced out; this is caused by the back plate not being supported by the gearbox mating face.



Ensure the gearbox mating face is clear from debris and the unit is sitting flush before tightening the bolts.



The piston retaining ring has deformation or rippling. This shows that the cylinder has been overstroked.



The piston retaining ring has no deformation or rippling. This shows that the cylinder has not been overstroked.







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Prevent issues

- 1. Issue of being over stroked after replacement of the clutch
- 2. The clutch pedal was becoming hard after the second or third depression of the pedal and the CSC leaks when the pedal is depressed further.

This issue is caused by a top hat seal located on the inlet/actuator pipe remaining in the female connector when the old unit is removed and/or the technician fit the new seal in the new CSC keeping old seal and new seal, this creates:

- A **one way valve situation** allowing fluid into the internal CSC chamber but not allowing it to return.
- Over pressure creating liquid leak and CSC breakdowns
 - The **fluid does not return**, too much fluid in the CSC will cause the bearing to over travel and force it past its end position and beyond the CSC retaining ring.





Attention

Subsequent depressions of the clutch pedal will fill the CSC until its full travel and a stiff pedal will occur. If this stiff pedal is overcome the CSC will over stroke and burst, necessitating a replacement.

If the clutch pedal becomes hard, DO NOT depress the pedal further!

Ensure you removed the old seal from the pipe!