



SERVICE BULLETIN

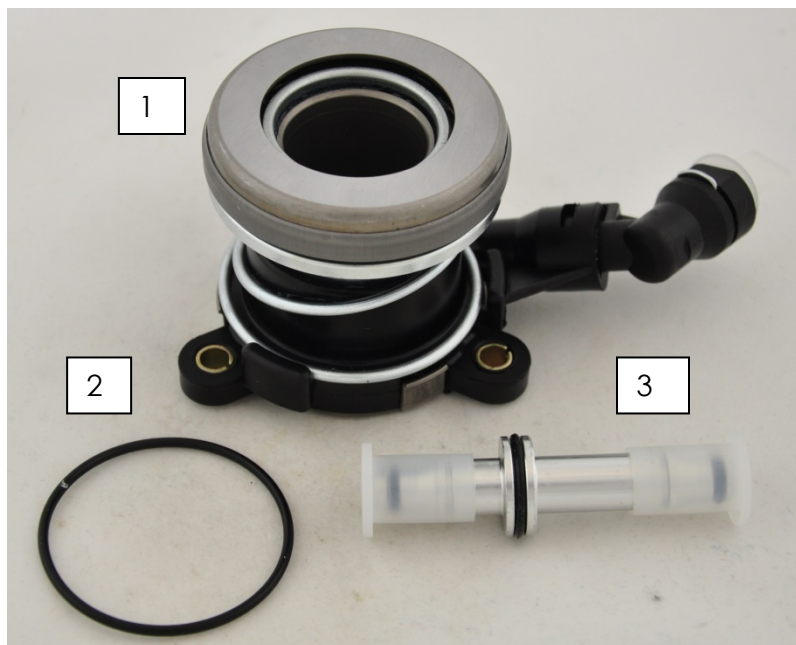
Subject: Installation of Concentric Slave Cylinder (CSC)

Issue Date: NOVEMBER 2016

Specific Vehicle: Alfa Romeo, Fiat, Opel, Saab, Vauxhall

Specific Model: Alfa Romeo: 159
Fiat: Croma (194)
Opel: Astra G, Astra H, Combo, Corsa C, Corsa D, Meriva, Signum, Tigra, Vectra B, Vectra C, Zafira
Saab: 9-3
Vauxhall: Astra Mk IV, Astra Mk V, Combo, Corsa Mk II, Meriva, Tigra, Vectra, Vectra Mk II, Zafira, Zafira Mk II

CPD Part No: OPE204C



1. Installation Procedure

- Replace the gasket (2) and the CSC (1), tighten **by hand** to begin with.
- Make sure the bolts are tightened evenly to prevent the cylinder from tilting.
- Next insert the adaptor (3) into the CSC via the opening in the transmission housing. There will be an audible click when the adaptor is correctly engaged.
- Tighten the **three fixing bolts with spring washers** on the CSC to 10 (+1) Nm.



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- e) Installation Procedure
- f) Complete the installation by connecting the above on the open end of the tube on the CSC.
- g) A click sound should be heard for a complete attachment.



Prior assembling the CSC, confirm the used gaskets are removed.



Take note of specification from manufacturer.

- h) **MANDATORY** Bleeding Procedure

A brake bleeding device should not be connected and switched on during manual bleeding. If the clutch pedal is actuated with a brake bleeding device connected, the concentric slave cylinder can be "over-pressurized". An "over-pressurized" concentric slave cylinder is no longer able to function and must be replaced!



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Manual bleeding should be carried out using the following process:

- a) Depress clutch pedal;
- b) Open bleed valve;
- c) Keep clutch pedal depressed until fluid appears – Do not release!
- d) Close bleed valve;
- e) Release clutch pedal slowly;



Do not depress the clutch pedal in several times in successions during bleeding; depress once.

The clutch bleeding cycle must be repeated **20 to 25 times (recommended) to guarantee complete bleeding**. Top up the level of the fluid in the reservoir between the cycles. The level of the fluid must not drop below the minimum mark on the reservoir during bleeding!

Problems with bleeding mainly occur in concentric slave cylinders with bleed valves in the hydraulic line. **It is recommended only bleeding these systems manually.**



- ✓ Always use DOT3 OR DOT4 brake fluid. Do not use mineral oil
- ✓ Perform manual bleeding for CSC
- ✓ Discard used oil in accordance to country regulation.



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i) Brake Fluid / Clutch System/ CSC cleanliness

Contamination may cause sporadic leaks when dirt articles accumulate under the sealing lip and may also cause permanent leaks when the lip seal swells



- ✓ Exclusively use brake fluid with at least DOT 3. When open, do not store the fluid longer than one year.
- ✓ Change the fluid at planned interval (Refer to car owners' manual)
- ✓ Drain the old fluid and rinse the line system with sufficiently new fluid.
- ✓ Remove the compensating reservoir and clean it carefully.
- ✓ The entire CSC system must be free from oil and grease. Otherwise the lip seals swell.
- ✓ Avoid grease on hands and oil on cleaning rags.
- ✓ Avoid using silicone in assembly
- ✓ Make sure to remedy any leaks on engine and gearbox. Make sure that the gear bell housing is sufficiently sealed.
- ✓ In order to avoid contamination during repair work, always close hydraulic and pipe connectors properly,

- For further enquires, contact 041 4871471

Note 1: Whilst every precaution has been taken to ensure the accuracy of the information given on these tables, CAPE PARTS DISTRIBUTORS CC disclaim all liability for the consequences for any information which may be shown incorrect.