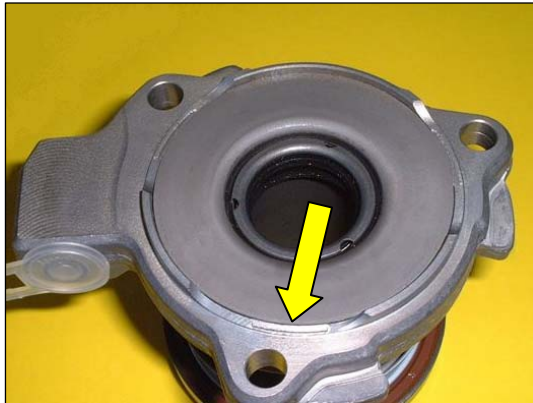


Potential problems with Concentric Slave Cylinders (CSC)

Most of the CSC failures that occur take place during or immediately after fitting or bleeding. Outlined below are the most common causes of failures found with CSC's returned to us recently. Leaking immediately after fitment can be caused by several reasons the most common being;



Compressing prior to fitment;

On most CSC's the back plate is held in place by the gearbox once fitted. If the CSC bearing is compressed prior to fitting to the vehicle this can dislodge the back plate causing it to leak. Operating the CSC without any fluid in it can also cause damage to the seals.

"O" ring missing;

Ford have deleted the O ring on many of its applications so some are now supplied without the "O" ring situated between the back of the CSC and the gearbox mounting face. A high quality sealant like RTV should be used in its place.

Incorrect or contaminated fluid;

On some vehicles the brake and clutch master cylinders are linked whilst on others they are separate systems. The correct hydraulic fluid must always be used on either type. If the incorrect fluid is used or contaminated containers used this will result in the seals swelling or disintegrating.

Driven plate fitted wrong way round;

On many applications the splined hub boss protrudes further on the flywheel side than the gearbox side. If the driven plate is fitted facing the wrong way the hub can contact the guide tube causing severe damage to the CSC. Driven plates manufactured by LuK Aftermarket will be marked up with either F/W (Flywheel side) or Getriebe seite (Gearbox side) as shown on the right.



Overstroking;

This occurs if the system is rapidly bled or the pedal stop is missing. This can cause the bearing to exceed its normal operating stroke and contact the retaining ring on the end of the guide tube. Pressure bleeding is not recommended as this can also cause this condition. Some applications also use a pressure regulating valve, if this valve has failed it can also cause the CSC to over stroke. This will damage both the retaining ring on the end of the guide tube and the internal seals.