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**Title: Prostar and Lonestar Clutch Service Information**

**Applies To: International Prostars and Lonestars Built with Hydraulic Clutch Systems**

## CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

12/09/2014 - Added link to IK1100031...since IK1100021 was retired and referred you to IK1100031.  
 12/08/2014 - Author updated for feedback purposes

## DESCRIPTION

This iKNOW document is designed to outline the specific clutch service procedures unique to Prostar and Lonestar trucks equipped with Hydraulic clutch release systems.

## MASTER AND SLAVE CYLINDERS

Prostars and Lonestars equipped with hydraulic clutch release systems utilize Meritor built master and slave cylinders. They are fully supported by Meritor Wabco, so any failures that are found need to have an Ontrac case file started for warranty coverage. The common failure modes are a vehicle creeping from a stationary position with the pedal fully depressed, or a pedal with light or no resistance to it.

[Master Cylinder Replacement Procedure](#)

[Slave Cylinder Replacement Procedure](#)

### **NOTE:**

Meritor WABCO requires pre-authorization for all repairs over \$150. For any repairs above that amount, you must contact Ontrac at 1-800-535-5560 prior to making the repair. For further information look at warranty policy letter [05-003G](#) and [04-004G](#)

## CLUTCH FLUID AND RESERVOIR

All Prostars and Lonestars equipped with Hydraulic clutches use DOT 3 or DOT 4 fluid. The system holds 16.6 ounces of fluid. During inspection of a unit in for service, the clutch reservoir needs to be inspected for mounting and condition of the fluid. The reservoir caps should be removed and the rubber grommets need to be checked for swelling or damage. Swelling could be a sign of fluid contamination. Also, the reservoir should be level, full and securely mounted. The reservoir is located near the cowl on the left side of the truck.

## CLUTCH BLEEDING PROCEDURE

There are two different clutch bleeding procedures. The reverse bleeding procedure is preferred in which you use a pressure bleeder to remove the air from the bottom up. Here is a link to the procedure.

[Reverse Pressure Bleeding Procedure](#)

If the reverse bleeding procedure cannot be performed, the vehicle can be pressure bled from the top down. This process may take longer, as you must stop and refill the reservoir to maintain the brake fluid above the min level. Here is a link to the procedure.

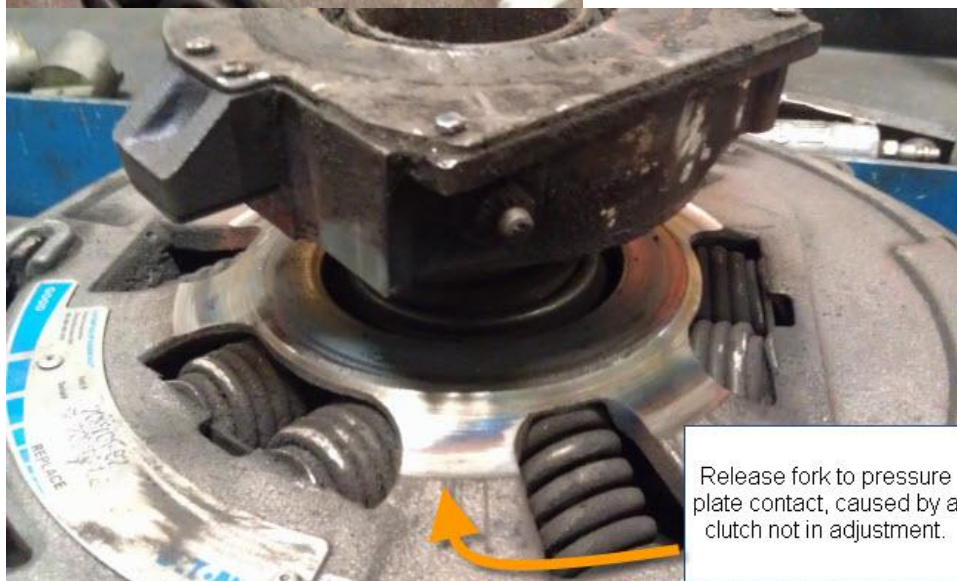
[Pressure Bleeding Procedure](#)

## CLUTCH DISK NORMAL WEAR

The photo below shows NORMAL wear on an Eaton clutch disk. Eaton clutch disks are beveled. The high side of the bevel is on the opposite side of the notch in the friction material. The bevels are opposite on each side of the clutch disk.



**EXAMPLES OF NON-WARRANTABLE FAILURE**



## CLUTCH ADJUSTMENT

Before condemning the clutch, the clutch must be adjusted properly. The distance between the release bearing and the clutch brake must be 0.490" to 0.560". If a clutch is replaced and found to be adjustable, and not within this specification, the clutch replacement may be deemed not warrantable.

There are 3 different clutches that are commonly factory installed on these vehicles. The Eaton Solo clutch is a

self adjusting clutch that maintains constant release bearing position. For initial set up, please see the attached manual starting at page 8. For resetting the wear indicator or release bearing position with the clutch in the chassis, please see page 14. If you cannot get the cam to move, it may be necessary to loosen the transmission and install 1/2 inch spacers between the bellhousing and the engine to get enough pull on the bearing to reset the clutch.

#### [Solo manual](#)

The Eaton Easy Pedal clutches are manual adjusting clutches that are installed in Prostars and Lonestars. For adjustment procedures for these clutches, see the attached manual starting at page 18.

#### [Easy pedal manual](#)

#### [Easy Pedal Adjustment Interval With Hydraulic Clutch Linkage](#)

For the ZF Sachs clutches, please click the iKNow link attached below.

#### [IK1100020 ZF Sachs Twin XTend clutch](#)

## LINKAGE ADJUSTMENT

#### [IK1100031 - Hard to Crank Condition on ProStar, LoneStar, and TranStar Vehicles](#)

## ADDITIONAL RESOURCES

#### [IK1100005 Eaton Roller Fork Identification](#)

#### [IK1100004 Clutch Linkage Rattle in Transtar, Prostar, and Lonestar Truck \(2007-2009 Mechanical Linkage\)](#)

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