

# CTI <sup>Service</sup> Bulletin #1

July 1997

## STEER AXLE MODIFICATIONS

This is the first in a series of CTI Service and Operation Bulletins prepared by SDTDC, in cooperation with Eaton Corporation, to provide assistance in maintenance, repair and operation of the Eaton Tire Pressure Control System (TPCS).

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All versions of Eaton's steer axle CTI hardware have experienced some problems due to runout between the rotary joint and hub cap. Runout and interference can impart side loads to the rotary joint which greatly reduce its service life.

Use the modification procedure described below to eliminate the steer axle problem and extend the life of the rotary joints. Figure 1 shows the location of the rotary joint driver tab.

### HUB CAP REMOVAL PROCEDURE

1. Drain the oil from the hub.
2. Remove the outer window.
3. Loosen the hose connection on the rotary joint.
4. Remove the 6 bolts attaching the cap to the hub.
5. Remove the cap and disconnect the hose from the rotary joint. Use care not to lose the two copper washers that seal the banjo fitting.
6. Remove the wheel valve mounting bolt and remove the wheel valve from the hub.

### MODIFICATION PROCEDURE

The rotary joint drive tab (figure 1) can be removed by milling or, as shown in figure 2, by using a hacksaw to remove the bulk of the tab and finishing with a half-round file. It is not important to remove the small section of the tab which extends outboard of the wheel valve cavity.

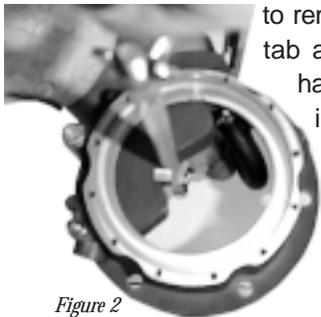


Figure 2

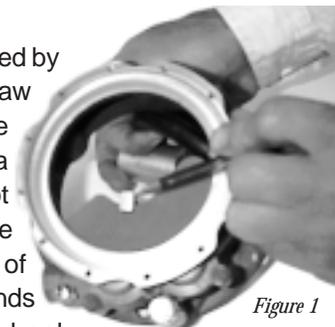


Figure 1

### INSPECTION PROCEDURE

Inspect the rotary joint for bearing play and signs of damage from drive tab interference. In most cases it is advisable, just as a precaution, to replace the rotary joint before replacing the cap. Use an 11/16" wrench no thicker than 3/16" when removing or installing the rotary joint and be sure to use Loctite™ removable thread sealer on the threads if they did not come with thread lock compound from Eaton.

**Notice: Be sure to clean all filings and chips out of the cap and any air passages before replacing the cap.**

### HUB CAP REINSTALLATION

Hub cap reinstallation is accomplished by following removal steps 1-6 in reverse order. Before replacing the outer window, rotate the wheel and check to see that the hub cap is running fairly concentric with the rotary joint and does not come into contact with it at any point.

Make sure the hose is oriented properly with no kinks and that it does not come into contact with the hub cap housing where it could wear through. Position the banjo fitting at 30 degrees toward the inboard side of the spindle when tightening as shown on page 37 of Eaton's May 1995 CTI Service Manual. Refill the hub with bearing lube in accordance with Eaton's recommended service procedure.

The changes proposed in this Bulletin are applicable to all versions of the Eaton TPCS and can be performed by any service shop. Eaton Corporation intends on publishing their own Service Bulletin within the next year.

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