

TECHNICAL SERVICE BULLETIN

Group:	47-BRAKES
Bulletin No:	SB-16-034
Issue Date:	11-17-2016
Reference:	HMM-161117-J1

COE HYDROBOOST RESERVOIR FLUID OVERFLOW OR AERATION

SUBJECT VEHICLES: Certain 15MY-17MY Cab Over Engine (COE) Trucks with a hydraulic assist brake system.

Note: This service bulletin is provided as technical information and is not authorization for a warrantable repair.

OVERVIEW:

A subject vehicle may exhibit one or more of the following conditions: foaming/aeration of the hydraulic fluid in the hydroboost reservoir tank accompanied by noisy brake pedal operation, illumination of the red "BRAKE" warning lamp, or hydraulic fluid overflowing out of the hydroboost reservoir tank. If the vehicle exhibits these symptoms, the hydroboost reservoir tank requires replacement and the system must be flushed of contamination. Perform the repair procedure below to correct the situation.

BEFORE YOU BEGIN:

- Read and understand all instructions and procedures before you begin the work.
- Read and follow all **WARNINGS** and **NOTICES** set forth in this publication. These alerts help to avoid damage to components, serious personal injury, or both.
- Park the vehicle on a level and solid surface and apply the parking brake.
- Place the gear shift lever in "Park" or "P".
- Confirm the engine is stopped, the ignition switch is in the off (LOCK) position, and the key is removed.
- Wear safety glasses to prevent eye injuries.
- Place wheel chocks in front of and behind all the wheels to prevent the vehicle from moving.

PARTS:

PART NUMBER	PART DESCRIPTION	QUANTITY
-	Dexron/Mercon Auto Trans Fluid	1 gallon
4436037261	Reservoir Tank	1



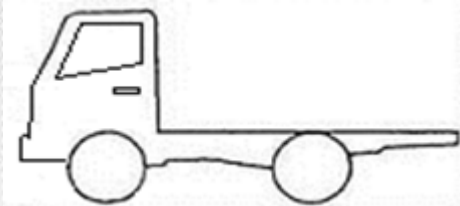
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1. Park the vehicle on a level and solid surface.



2. Confirm the engine is stopped, the ignition switch is in the off (LOCK) position, and the key is removed.



3. Apply the parking brake.



4. Chock all of the wheels.



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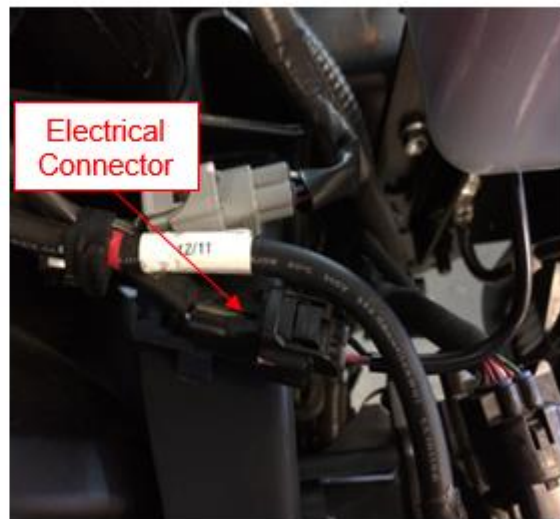
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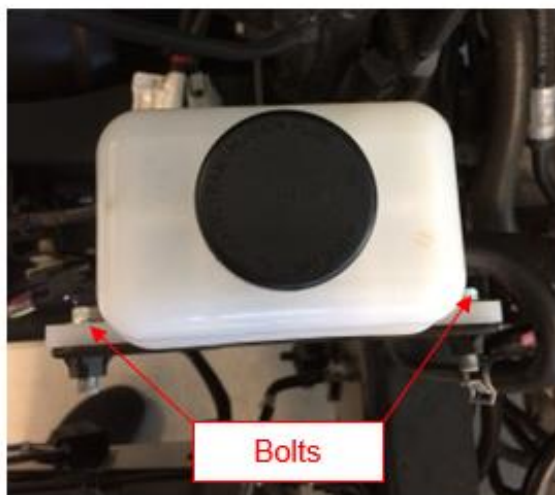
REPAIR PROCEDURE:

NOTICE: A single cab vehicle is pictured throughout this Technical Service Bulletin, but note that the repair procedure for the crew cab model is similar.

1. Find the hydroboost reservoir located behind the cab. Remove the plastic cover from the top of the reservoir. Unplug the electrical connector below the reservoir, shown below.



2. Remove the 2 bolts securing the reservoir and retain for reinstallation.



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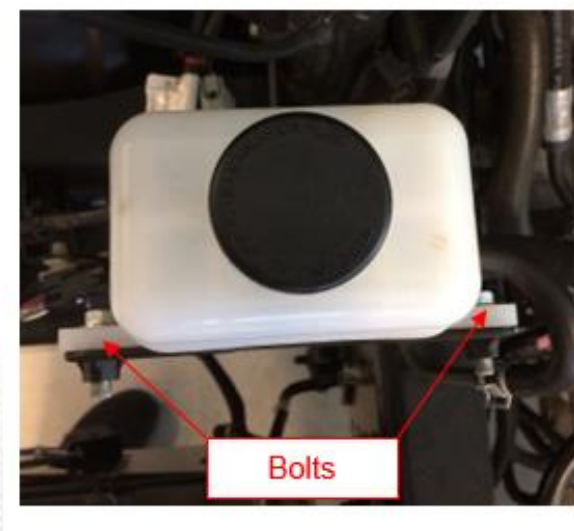
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3. Position the reservoir over a drain pan. Note the orientation of the hose clamps of each of the two supply hoses, the lower hose and the upper hose. Remove the 2 hoses from the reservoir and drain the fluid into a drain pan. Discard the reservoir.



4. Install a new reservoir using the 2 bolts previously removed. Tighten the bolts to the specified torque.

Specified Torque: 3.7 Lb-ft (5 Nm)

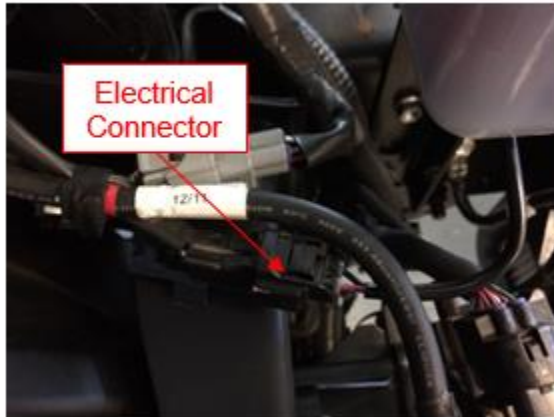


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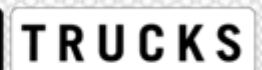
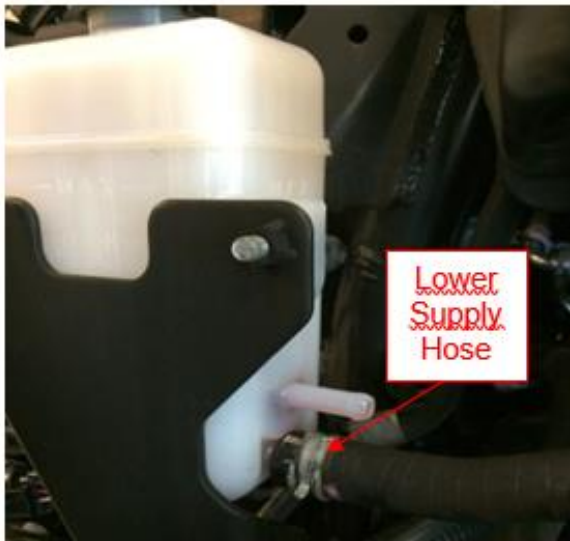
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5. Reconnect the electrical connector below the reservoir.



6. Install the lower supply hose onto the reservoir ensuring that the hose clamp is positioned with the same orientation it had prior to removal. The clamp should be in the same relative position as the original indentations in the hose.

Do not install the upper return hose at this time.



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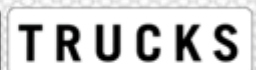
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7. Cap the upper return hose port on the reservoir. Use a section of generic hose to extend the upper return hose and route it into a bucket.



8. Remove the inlet filler screen from the reservoir, shown below. Using a funnel, as shown below, fill the reservoir to the top with new, clean ATF (automatic transmission fluid). Have an assistant start and idle the engine while you maintain a constant level of ATF in the reservoir. **The reservoir will empty very quickly (approximately 3 seconds).** Ask the assistant to shut the engine off **before** the reservoir becomes empty. With the engine off, refill the reservoir to the top with ATF, and again restart the engine. Repeat the process again until approximately 3 quarts of ATF have been flushed through the system (including the initial fill).

NOTICE: Never operate the engine with an empty reservoir. This will result in aerated fluid and add to the difficulty of bleeding the system of air. It may also damage the pump.



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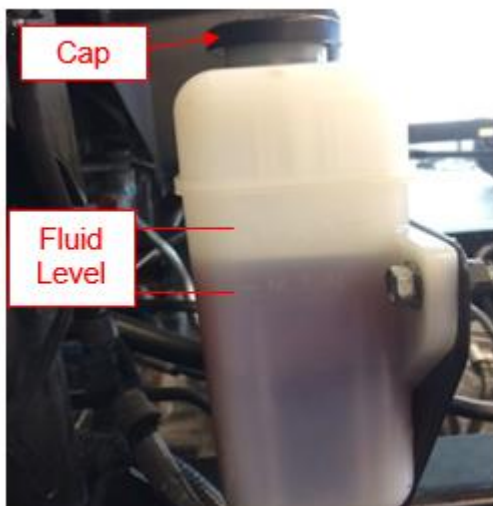
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9. Remove the upper return hose extension and remove the cap from the upper return port of the reservoir.

Install the upper return hose onto the reservoir ensuring that the hose clamp is positioned with the same orientation it had prior to removal. The clamp should be in the same relative position as the original indentations in the hose.



10. With the engine off, fill the reservoir with ATF so the fluid level is between the MIN and MAX line. Start and idle the engine. The fluid level will drop slightly while the engine is running. Bleed the system of air following the **“AIR BLEEDING OF HYDRO BOOSTER FLUID”** procedure on page 21 in section 9 of the Chassis Workshop Manual (9-21). Reinstall the inlet filler screen. Install the filler cap on the reservoir. Install the cover on the reservoir. Proceed to the Final Inspection Procedure, below.



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FINAL INSPECTION PROCEDURE

1. To complete this Technical Service Bulletin, review the bulletin and confirm the following:

- The brake system operates properly without abnormal noise.
- With the engine off, the hydroboost reservoir fluid level is between MIN and MAX.
- Both hose clamps are in the correct position, and the 2 bolts have been tightened to their specified torque.
- The electrical connector is securely connected.
- The inlet filler screen is installed and the reservoir is capped. The reservoir cover is installed.
- Any residual fluid is cleaned off of the vehicle.

NOTE: This procedure is provided as technical information and is not an authorization for a warranty repair.

CLAIM APPLICATION:

** Reimbursable in accordance within the terms and policies of the Hino Truck limited warranties.*

Reservoir Replacement and Flushing:

- a) Labor Charge: 0.5 hours
- b) Warranty Code: 31919
- c) Trouble Code: 10
- d) Operation Code: 31950AOT
- e) Part Number: 4436037261



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