

DTNA Solutions > Service Solutions > Freightliner  
> SS 3163 FTL Power Steering Reservoir Fill Cap Vent...

# SS 3163 FTL Power Steering Reservoir Fill Cap Venting

## Applicable Vehicles

Freightliner vehicles equipped with 2 and 4 quart capacity polymer power steering reservoirs.

## Symptoms

The fill cap of the reservoir is designed with an integrated pressure and vacuum vent feature. This feature compensates for the pressure or vacuum that builds during power steering fluid thermal cycling.

- Normal venting operation can lead to a film of misted/vented power steering fluid on the exterior surface of the reservoir body.
- Depending on application, environmental conditions and maintenance practices, the amount of vented fluid film can vary.
- There are instances where fluid film buildup can pool along the reservoir body seam line.
- Certain applications/operating environments can lead to an excessive amount of debris accumulating on the vented fluid film.

The below figures show examples of normal fill cap venting.



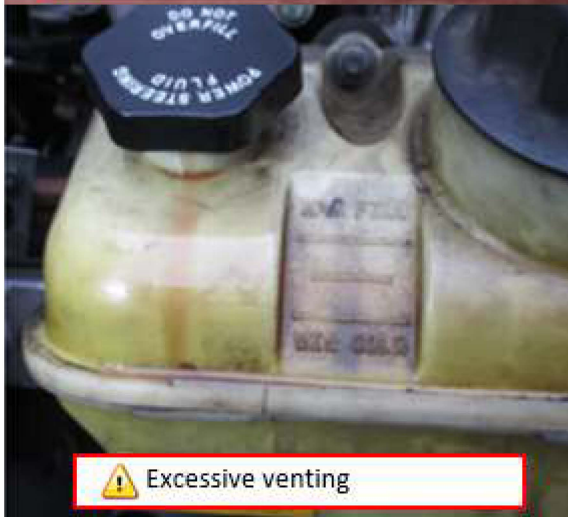


There are instances where the fill cap is damaged and the venting feature is not functioning as designed. Symptoms associated with damaged fill caps are:

- The outer cap is missing and the inner seal cap remains in the fill neck.
- The outer cap unsnaps from the inner seal cap when being removed from the fill neck.
- There is evidence of a steady stream of fluid flowing down from the fill cap

The images below show examples of damaged fill caps.





## Issue

The symptoms detailed above for normal fill cap venting can lead to an incorrect diagnosis of a failed reservoir fill cap or failed reservoir body. This can lead to unnecessary replacement of the fill cap or reservoir assembly.

If a fill cap is damaged and not venting correctly, this can lead to a drop in power steering fluid level. Depending on operating conditions and maintenance schedules, there can also be an excessive amount of debris build up on the reservoir body.

## Solution

The recommended service solution for a damaged fill cap is:

- Thoroughly wash and wipe clean the reservoir body.
- Ensure power steering fluid level is within limits
- Replace the fill cap with a new part.

If damaged fill cap symptoms are not observed, the following procedure is recommended:

- Thoroughly wash and wipe clean the reservoir body.
- Ensure power steering fluid level is within limits.
- Maintaining reservoir fluid at "mid-level" can potentially reduce misted/vented fluid film buildup.
- If the vented fluid film path is shown to come from the lower surface of the fill neck, the fill cap can be rotated 180° and reinstalled. This will orient the cap vent path to pointing up.

Labels :



Add tags



Comment

