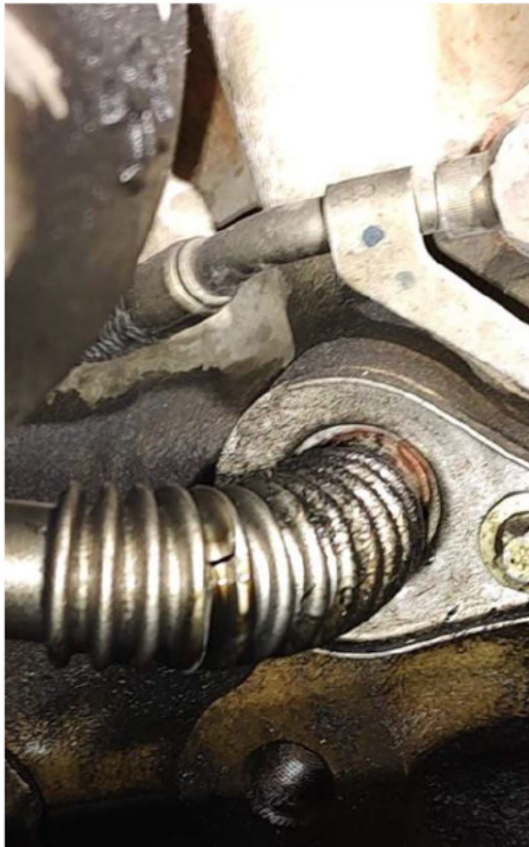


# Gen 5 DD13 Turbo Oil Drain Tubes Cracking



## Description

- Gen 5 DD13 turbo oil drain tubes are cracking and causing oil leaks. Based on returned material, missing turbo support bracket bolts appear to be a large contributing factor.

## Factory Resolution

- **ICAs**
  - Workshop manual improvements – **First round published 07/30/24**. More improvements in process.
  - 24CSA-17 letter advising dealers to replace the turbo support brackets and hardware along with the broken tube. **Published 09/23/24**. Working to convert to a TS letter to incorporate into TechLane.
- **PCAs**
  - Assembly line installation sequence change to reduce stress on the tube. **Implemented 10/23/24**
  - Optimizing turbo bracket bolt tightening program to eliminate “re-hitting” an already tight bolt. **Implemented 12/04/2024**.
  - Proposed 100% quality check of turbo bearing housing angle. **Evaluation ongoing**.
  - Proposed increased torque to turbo support bracket bolts. Current assembly line torque 25NM. Current service procedure is 30NM. **Implemented 1/24/25**.
  - Proposed increased length to turbo support bracket bolts. **Change in review**.
  - Eliminate supplier quality defects on turbo support brackets as seen in field returns. **Discussion ongoing with supplier**.

## Field Resolution

- Replace the turbo oil drain tube. Check the turbo mounting brackets for cracks or loose/missing bolts. Follow 24CSA-17.