



## TECHNICAL SERVICE BULLETIN

### 3.5L PowerBoost/3.5L EcoBoost/2.7L EcoBoost - Illuminated MIL With DTC P04F0 And/Or P144C

**21-2280**24 August  
2021

This bulletin supersedes 19-2132. Reason for update: Concern Carryover to New Model

**Model:**

<b>Ford</b>
2018-2021 Expedition
2018-2021 F-150
<b>Lincoln</b>
2018-2021 Navigator

**Summary**

This article supersedes TSB 19-2132 to update the vehicle model years affected and engines affected.

**Issue:** Some 2018-2021 F-150 vehicles equipped with a 3.5L PowerBoost, 3.5L EcoBoost or 2.7L EcoBoost engine and some 2018-2021 Expedition and Navigator vehicles equipped with a 3.5L EcoBoost engine may exhibit an illuminated malfunction indicator lamp (MIL) with diagnostic trouble code (DTC) P04F0 and/or P144C stored in the powertrain control module (PCM). This may be due to loose or partially connected evaporative emissions (EVAP) vapor lines.

**Action:** Before completing the Powertrain Control/Emissions Diagnosis (PC/ED) Manual pinpoint test (PPT) HX, follow the Service Procedure steps on vehicles that meet all of the following criteria:

- 2018-2021 F-150/Expedition/Navigator
- 3.5L PowerBoost, 3.5L EcoBoost or 2.7L EcoBoost Engine
- DTC P04F0 and/or P144C stored in the PCM

**Warranty Status:** Information Only – Not Warrantable.

**Repair/Claim Coding**

Causal Part:	IN
Condition Code:	33

**Service Procedure**

**NOTE:** All illustrations are from 2019 model year engines, other model years are similar.

1. Visually inspect and push and pull on each of the following EVAP connections to verify a proper connection:

- Vapor line connections to the vacuum port side and pressure port side of the ejector. Refer to Figure 1 for 3.5L PowerBoost or 3.5L EcoBoost and Figure 2 for 2.7L EcoBoost.

Figure 1 - 3.5L PowerBoost or 3.5L EcoBoost

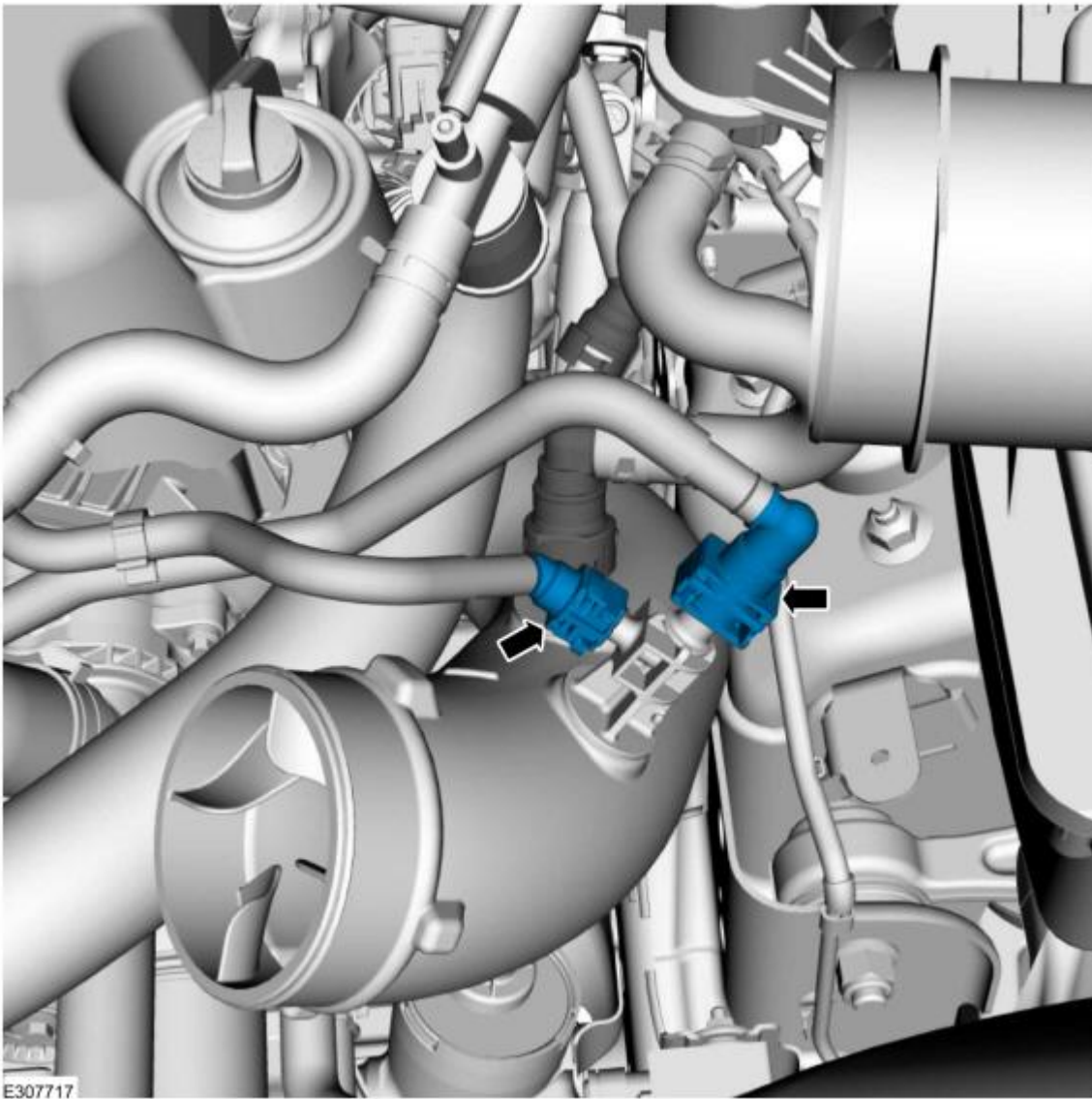
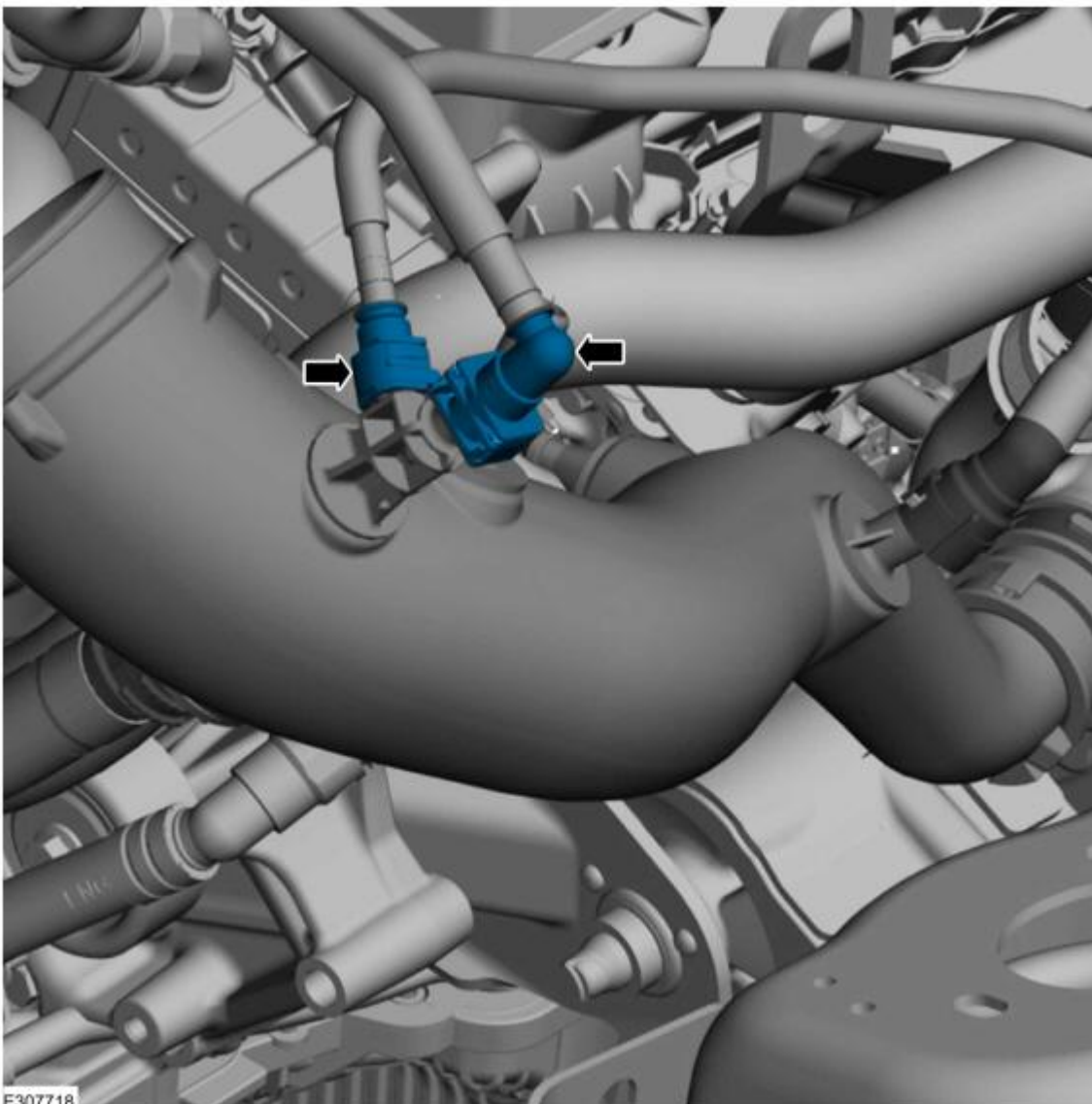


Figure 2 - 2.7L



- Vapor line connection at the port on the air intake system duct at the throttle body inlet. Refer to Figure 3 for 3.5L PowerBoost or 3.5L EcoBoost and Figure 4 for 2.7L EcoBoost.

Figure 3 - 3.5L PowerBoost or 3.5L EcoBoost

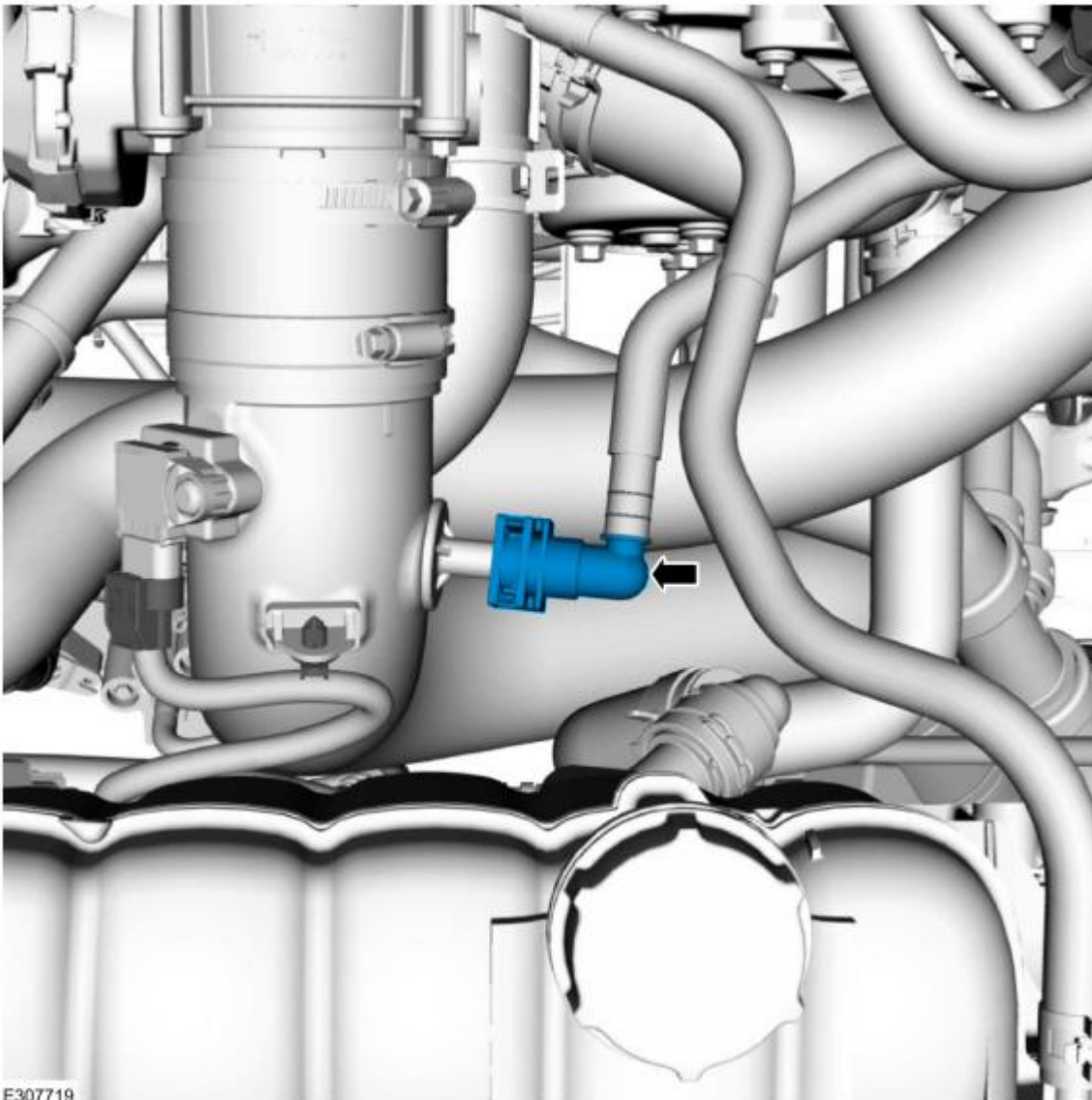
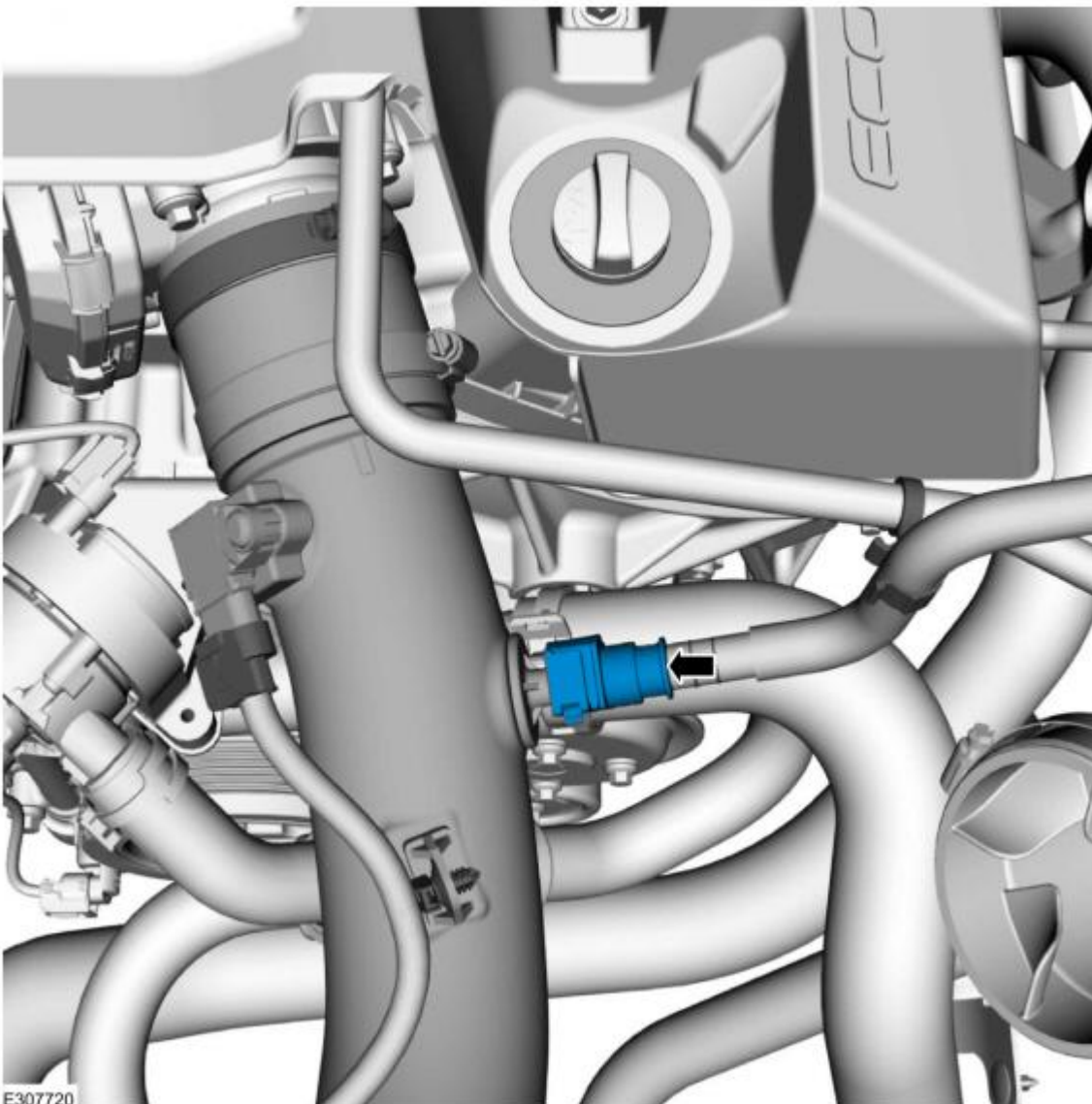
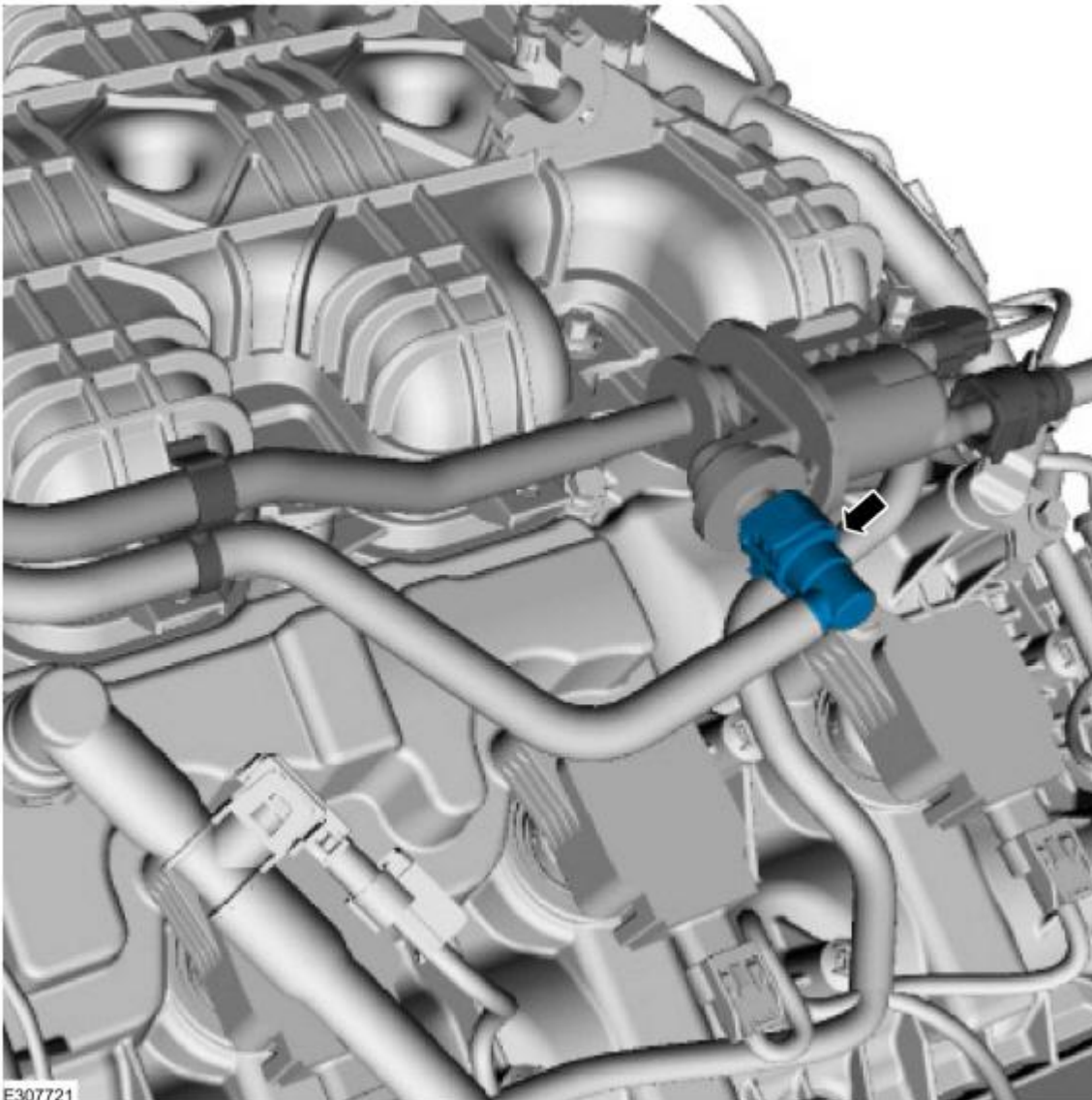


Figure 4 - 2.7L



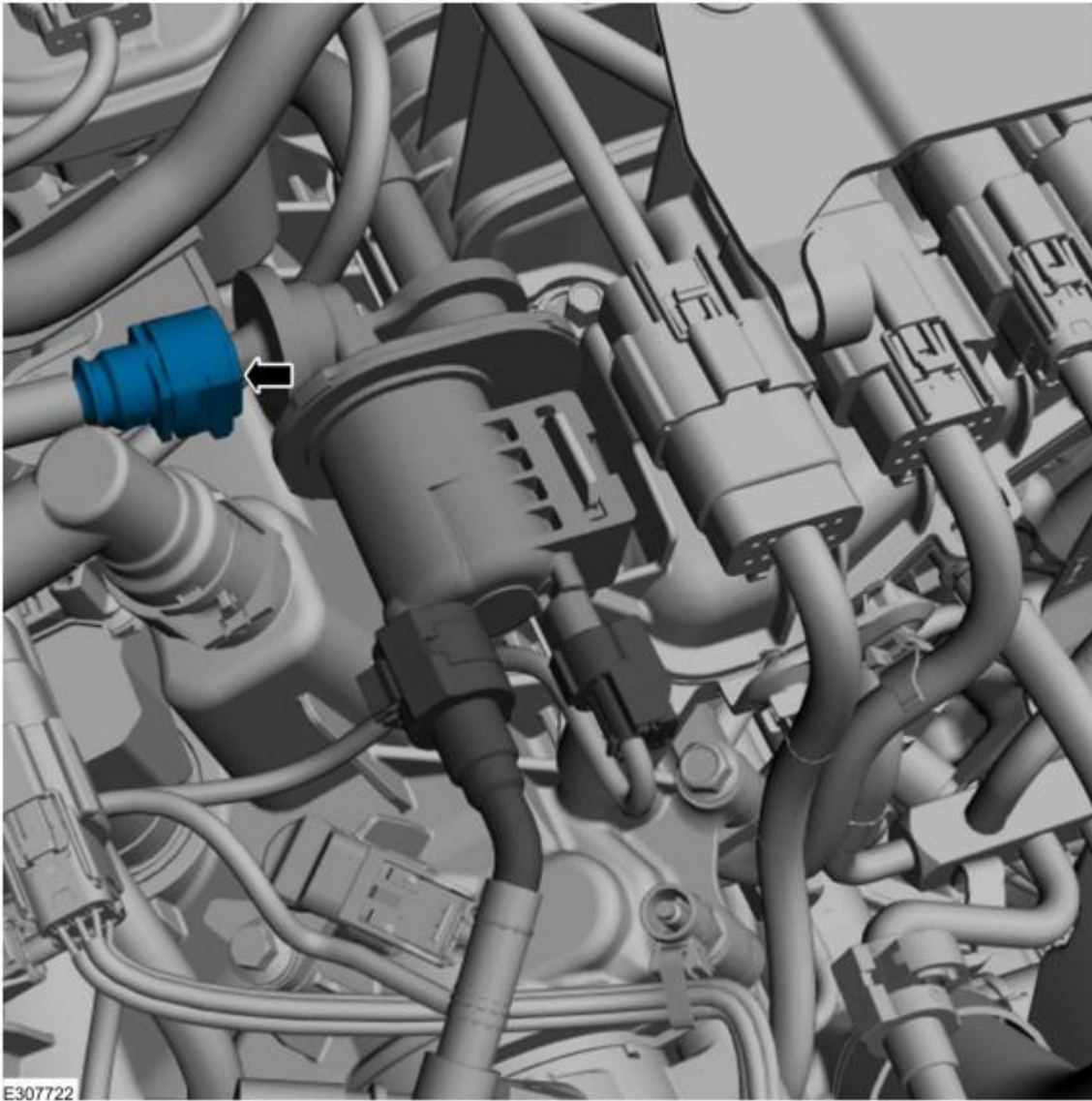
- Vapor line connection at the vacuum side of the purge valve (side port on the purge valve). Refer to Figure 5 for 3.5L PowerBoost or 3.5L EcoBoost and Figure 6 for 2.7L EcoBoost.

Figure 5 - 3.5L PowerBoost or 3.5L EcoBoost



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Figure 6 - 2.7L



2. If no loose or partial connections are found, refer to the PC/ED for normal diagnostics.

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