SECTION 205-02 Rear Drive Axle/Differential

CONTENTS

IN-VEHICLE REPAIR
   Differential Electronic Module (DEM) .......................................................... 205-02-2
IN-VEHICLE REPAIR
Differential Electronic Module (DEM)

Special Tool(s)

<table>
<thead>
<tr>
<th>Tool/Part</th>
<th>Manufacturer/Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Suction Gun</td>
<td>303-D104 (D94T-9000-A)</td>
</tr>
</tbody>
</table>

Material

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volvo Transmission Oil</td>
<td>116-1641</td>
</tr>
</tbody>
</table>

Removal

NOTE:
If installing new components, there is no reason to remove the seals from the old components.

NOTE:
The differential electronic module (DEM) and solenoid valve are calibrated together and must be installed as a set. If installing a new DEM or solenoid valve, install them as a set only.

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02.
2. Disconnect the DEM by pushing the connector tab through the slot while pulling the connector out.
3. Remove the 2 DEM bolts, then remove the DEM, including the solenoid valve and the oil pressure/temperature sensor.
4. Using channel locks, carefully remove the solenoid valve.
5. Remove the oil pressure/temperature sensor from the active on-demand coupling if it did not come out when the DEM was removed.
Installation

1. **NOTE:**
   If installing a new DEM, install a new solenoid valve.

   **NOTE:**
   Coat the new oil pressure/temperature sensor seal with Volvo transmission oil.

   **NOTE:**
   Install the concave side of the washer facing downward.

   Assemble the DEM as shown.

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>—</td>
<td>Spacer plate</td>
</tr>
<tr>
<td>2</td>
<td>—</td>
<td>Solenoid valve</td>
</tr>
<tr>
<td>3</td>
<td>—</td>
<td>Concave washer (faces down)</td>
</tr>
<tr>
<td>4</td>
<td>4B487</td>
<td>Oil pressure/temperature sensor</td>
</tr>
</tbody>
</table>

2. Install the DEM upper bolt and the DEM in the active on-demand coupling cover. Then install the DEM lower bolt.
   - Tighten to 6 Nm (53 lb-in).
3. Connect the DEM electrical connectors.
4. Remove the active on-demand coupling fill plug.
   • To install, tighten to 35 Nm (26 lb-ft).
5. Using the special tool, fill the active on-demand coupling. Use Volvo Transmission Oil 116-1641 and fill to the bottom of the fill hole.