Service kit (P/N: E23535159) contains an improved design for the exhaust manifold, thermostat housing spacer, and all related parts to address possible coolant flow issues at ports #1, #2, #3 and the exhaust turbocharger flange of the former exhaust manifold. See Figure 1. The improved exhaust manifold design now uses two outlet tubes that connect to the thermostat housing: the existing tube located between exhaust ports #3 and #4 has been reduced in diameter corresponding to 1/3 of the current flow and a second tube with a diameter corresponding to 2/3 of the current flow has been added between ports #1 and #2. The new thermostat housing spacer design also has the two hose fittings. A boss at the turbo flange has been added to the new exhaust manifold for the attachment of a vent line that routes to the thermostat housing.

**KIT CONTENTS**

The new service kit contains the following parts listed in Table 1.

<table>
<thead>
<tr>
<th>Level</th>
<th>Part Number</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23537770</td>
<td>1</td>
<td>Marine Exhaust Manifold</td>
</tr>
<tr>
<td>1</td>
<td>23507438</td>
<td>4</td>
<td>Stud, M10 x 1.5</td>
</tr>
<tr>
<td>1</td>
<td>08924140</td>
<td>1</td>
<td>Cock, Drain ¼ NPTF</td>
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<tr>
<td>1</td>
<td>23525090</td>
<td>3</td>
<td>Gasket, Exhaust Manifold</td>
</tr>
<tr>
<td>1</td>
<td>11506101</td>
<td>4</td>
<td>Nut, M10 x 1.5</td>
</tr>
<tr>
<td>1</td>
<td>08929169</td>
<td>4</td>
<td>Washer</td>
</tr>
<tr>
<td>1</td>
<td>08929529</td>
<td>1</td>
<td>Gasket, Turbocharger</td>
</tr>
<tr>
<td>1</td>
<td>08929764</td>
<td>1</td>
<td>Hose, 0.75 x 3.50</td>
</tr>
<tr>
<td>1</td>
<td>05186840</td>
<td>2</td>
<td>Clamp, Hose 1.0&quot; – 1.50&quot; ID</td>
</tr>
<tr>
<td>1</td>
<td>23535170</td>
<td>1</td>
<td>Hose, 1/18&quot; x 3.25</td>
</tr>
<tr>
<td>1</td>
<td>08929756</td>
<td>2</td>
<td>Clamp, Hose 15/16&quot; – 1-1/4&quot; ID</td>
</tr>
<tr>
<td>1</td>
<td>23525151</td>
<td>2</td>
<td>Gasket, Thermostat Housing</td>
</tr>
<tr>
<td>1</td>
<td>23535127</td>
<td>1</td>
<td>Thermostat Housing Spacer Assembly</td>
</tr>
<tr>
<td>1</td>
<td>08924517</td>
<td>1</td>
<td>Plug Pipe, 3/8 – 18-7/8 Taper Sq</td>
</tr>
<tr>
<td>1</td>
<td>23537804</td>
<td>1</td>
<td>Hose, #4 X 38.00</td>
</tr>
</tbody>
</table>
Table 1  S60 Marine Exhaust Manifold Service Kit Contents (P/N: E23535159)

![Diagram of S60 Marine Exhaust Manifold]

1. Vent Boss
2. Outlet Tubes

Figure 1  Improved S60 Marine Exhaust Manifold (P/N: 23537770)

INSTALLATION PROCEDURE

Install the improved exhaust manifold and thermostat housing spacer as follows (see Figures 2, 3 and 4):

1. Install the new exhaust manifold gaskets (P/N: 23525090) and the improved exhaust manifold (P/N: 23537770).

2. Install the new hoses (P/N: 23535170, P/N: 08929764) and clamps (P/N: 08929756, P/N: 05186840) to the corresponding exhaust manifold outlet tubes.

NOTE:
Use soapy water to install the hoses on the hose fittings.

NOTE:
If P/N: 23535170 Hose (1-1/8 x 3-1/4), is supplied as a 4.0 length; cut hose as necessary to fit between the spacer and exhaust manifold.

3. Install the plug (P/N: 08924517) onto the thermostat housing spacer.

4. Install the thermostat housing spacer assembly (P/N: 23535127) with two new gaskets (P/N: 23525151). Connect the upper ends of the hoses (P/N: 23535170, P/N: 08929764) and clamps (P/N: 08929756, P/N: 05186840) to the corresponding thermostat housing spacer hose fittings.

5. Install the straight fitting (P/N: 08924147) into the exhaust manifold turbocharger flange boss. Replace the elbow fitting in the top of the thermostat housing with the T-fitting (P/N: 23537818). Connect the vent hose (P/N: 23537804) to the two fittings. Route vent line using hose clip (P/N: 02488022) with bolt (P/N: 11504986) installed at the top right-rear corner of the engine head.

6. Install new M10 x 1.5 studs (P/N: 23507438) and turbocharger gasket (P/N: 08929529).

7. Use the new washers (P/N: 08929169) and M10 x 1.5 nuts (P/N: 11506101) to install the turbocharger.

NOTE:
To install the remaining components and to complete the installation of this service kit, refer to the Series 60 Service Manual (6SE483).

Figure 2 Former and Current S60 Marine Thermostat Housing Spacer
1. Exhaust Manifold (P/N: 23537770)  6. Existing Thermostat Housing Assembly
2. Hose, ¾” x 3-1/2” (P/N: 08929764)  7. Plug, 3/8 – 18-7/8 Taper (P/N: 08924517)
3. Clamp, Hose, 15/16” to 1-1/4” ID (P/N: 08929756)  8. Clamp, Hose, 1.0” to 1.50” ID (P/N: 05186840)
4. Gasket (P/N: 23525151)  9. Hose, 1-1/8” x 3-1/4” (P/N: 23535170)
5. Thermostat Housing Spacer Assy. (P/N: 23535127)

NOTE: Not all kit parts are shown in Figures 3 & 4.

Figure 3    S60 Marine Exhaust Manifold Service Kit (P/N: E23535159)
1. Clip, Hose 0.562 DIA 3/8 Bolt (P/N: 02488022)
2. Bolt, M8 1.25 x 14.0 (P/N: 11504986)
3. Hose, #4 x 38.00 (P/N: 23537804)
4. Fitting, T Male (P/N: 23537818)
5. Gasket, Exhaust Manifold (P/N: 23525090)
6. Exhaust Manifold (P/N: 23537770)
7. Fitting, Straight (P/N: 08924147)

NOTE: Not all kit parts are shown in Figures 3 & 4.

Figure 4  S60 Marine Exhaust Manifold Service Kit (P/N: E23535159)