Finding Top Center Position for No. 1 Piston

SMCS - 1105-531

Table 1

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>136-4632</td>
<td>Timing Pin</td>
<td>1</td>
</tr>
<tr>
<td>139-7064</td>
<td>Timing Pin Adapter</td>
<td>1</td>
</tr>
<tr>
<td>9S-9082</td>
<td>Engine Turning Tool</td>
<td>1</td>
</tr>
</tbody>
</table>

Illustration 1

Timing Hole Location (Typical Example)
Note: The hole for the timing pin can be in one of two positions:

- The right front face of the flywheel housing (Illustration 50)
- The left front face of the flywheel housing (Illustration 51)

1. Remove plug (1) from flywheel housing (2). Install timing pin through timing hole in the flywheel housing.

2. Remove plug (3). Use the engine turning tool in order to turn the engine. Do not use the eight small bolts on the front of the crankshaft pulley.

   Turn the flywheel in the direction of normal engine rotation. Turn the flywheel until the timing pin engages with the hole in the flywheel.

   Note: If the flywheel is turned beyond the point of engagement, the flywheel must be turned in the direction that is opposite of normal engine rotation. Turn the flywheel by approximately 30 degrees. Then turn the flywheel in the direction of normal engine rotation until the timing pin engages with the threaded hole. When the No. 1 piston is at the top center position, this procedure will remove the backlash from the gears.

3. Remove the valve cover.

   The inlet valves and the exhaust valves for the No. 1 cylinder are fully closed under two conditions:
   
   - No. 1 piston is on the compression stroke.
   - The rocker arms can be moved by hand.

   If the rocker arms cannot be moved and the valves are slightly open, the No. 1 piston is on the
exhaust stroke.

Note: Refer to Testing And Adjusting, "Crankshaft Positions for Valve Lash Setting".

4. After the timing bolt has been installed in the flywheel, complete these procedures, as required:
   a. Find the cylinders that need to be checked for the stroke position of the crankshaft.
   b. Find the cylinders that need to be adjusted for the stroke position of the crankshaft.

5. When the actual stroke position is identified and the other stroke position is needed, remove the timing bolt from the flywheel.

6. Turn the flywheel by 360 degrees in the direction of normal engine rotation.

Note: The timing hole is used during the procedure to set the valve lash.