Thread Lead:
 Thread lead is the distance between threads, measured on a plane that
 is parallel to the centerline of the threaded part.

Purpose:
 The LG-5000 Series of gages inspects both internal and external
 thread lead using two contact points that seat in the threads of
 a part. One fixed contact point at the rear of the gage and one
 moveable contact point at the front of the gage provide complete
 stability when taking thread lead measurements.

Thread Lead Inspection with LG-5000 Series

Setup
1. Determine the size of the contact points to be used, by the pitch
 of the thread being inspected. Refer to the table below for selecting
 the proper model contact point for API threads.

<table>
<thead>
<tr>
<th>API Threads</th>
<th>Contact Point Diameter</th>
<th>Thread Pitch</th>
<th>Contact Point</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes Slim Line H-90</td>
<td>0.235&quot;</td>
<td>3</td>
<td>T235</td>
<td></td>
</tr>
<tr>
<td>All Hughes H-90</td>
<td>0.200&quot;</td>
<td>3 ½</td>
<td>T200</td>
<td></td>
</tr>
<tr>
<td>API Rotary Shouldered Connections</td>
<td>0.144&quot;</td>
<td>4</td>
<td>T144</td>
<td></td>
</tr>
<tr>
<td>API Rotary Shouldered Connections</td>
<td>0.128&quot;</td>
<td>4 ½</td>
<td>T128</td>
<td></td>
</tr>
<tr>
<td>API Rotary Shouldered Connections</td>
<td>0.115&quot;</td>
<td>5</td>
<td>T115</td>
<td></td>
</tr>
<tr>
<td>API Rotary Shouldered Connections</td>
<td>0.105&quot;</td>
<td>5 ½</td>
<td>T105</td>
<td></td>
</tr>
<tr>
<td>API Rotary Shouldered Connections</td>
<td>0.096&quot;</td>
<td>6</td>
<td>T096</td>
<td></td>
</tr>
<tr>
<td>Truncated for Extreme Line</td>
<td>0.072&quot;</td>
<td>8</td>
<td>T072</td>
<td></td>
</tr>
<tr>
<td>Buttress Casing - Lead</td>
<td>0.062&quot;</td>
<td>5</td>
<td>T062</td>
<td></td>
</tr>
<tr>
<td>API Tubing and Line Pipe</td>
<td>0.057&quot;</td>
<td>10</td>
<td>T057</td>
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</tr>
<tr>
<td>API Line Pipe</td>
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<td>11 ½</td>
<td>T050</td>
<td></td>
</tr>
<tr>
<td>API Line Pipe</td>
<td>0.041&quot;</td>
<td>14</td>
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<tr>
<td>API Line Pipe</td>
<td>0.032&quot;</td>
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<td>T032</td>
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</tr>
<tr>
<td>API Line Pipe</td>
<td>0.021&quot;</td>
<td>27</td>
<td>T021</td>
<td></td>
</tr>
</tbody>
</table>

2. Using calipers, verify the size of
 the contact point.

3. Install one contact point into the
 moveable point holder at the front
 of the gage.

4. Determine the location for the other contact point based on the
 interval of lead required for the inspection. The increments in
 the lead gage are set at ¼" intervals from 1" – 4".

5. Install the remaining contact
 point into the proper hole.

6. Once installed, insert a paper
 clip into the hole in each contact
 point and tighten.

Gage Operation
1. After zeroing the lead gage
 on the standard, seat the rear
 contact point into the first full
 thread.

2. Tilt the gage forward to seat
 the moveable contact point into
 the thread.

3. Apply pressure to the nose of
 the gage with the index finger.
 Do not apply excessive force to
 the gage, just enough to keep
 the moveable point in contact
 with the thread flanks. Then,
 using the rear contact point as
 the pivot point, sweep the gage
 to locate the shortest distance.

4. Record any deviations on an inspection or calibration report.

5. Use the first part you inspected as a control piece to verify
 repeatability. Mark the part at the location where it was inspected and
 record the deviation from zero.

6. During the inspection process, periodically place the lead gage on
 the standard to verify the gage’s repeatability.