REPACKING INSTRUCTIONS FOR INTEGRAL BONNET NEEDLE VALVES “O”, “1”, “18”, “20”, & “26” Series

MS-INS-IB-LL
CP Revision E
November, 2000

Kit Contents:
Stem Packings Lubricant
Instruction Sheet Springs
Material Safety Data Sheet

DISASSEMBLY (Refer to drawing)
1. Lock out the valve by isolating from system and depressurize.
2. Unscrew the packing nut from the valve body.
3. With the handle, retract the stem from the body.
4. Loosen the set screw and remove the handle. Set aside for later use.
5. Remove the packing nut and set aside for later use.
6. Remove the springs, glands, and packings from the stem. Discard the old packings and springs. New springs and packings are provided in the kit.
7. Clean remaining parts thoroughly.

REASSEMBLY (Refer to drawing)
8. Lubricate the stem threads and stem shank with the lubricant provided. For valves with PEEK packing – also lubricate the packings. Lubricate all metal stem tips (Refer to drawing). Soft stem tips do not require lubrication.
9. Screw the stem back into the valve body.
10. Slide the lower gland and new packings on the stem, the lower gland should fit snugly on the stem. Refer to drawing for proper packing orientation.
11. Slide the packing gland onto the stem and push down until the packing is snug in the valve body.
12. Slide the springs on the stem. Refer to drawing for proper orientation per valve series.

For the “O”, “1” (5/8” packing nut hex size) and “20” Series valves: slide the gland onto the stem. The gland should have a very loose fit around the stem. “1” (7/8” packing nut hex size), “18” and “26” Series valves do not utilize a gland above the springs.
13. Lubricate the top two (2) or three (3) exterior body threads with the lubricant provided.
14. Screw the packing nut onto the valve body until finger tight.
15. Place the handle on the stem. Align the set screw with the groove on the side of the stem. Tighten the set screw.
16. Fully close the valve and retract the stem two (2) or three (3) turns before torquing the packing nut.
17. Fully close the valve and retract the stem two (2) or three (3) turns before torquing the packing nut.
18. Refer to the appropriate chart and torque the packing nut to the torque value listed.

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**O, 1, 18 Series Torque Values**

<table>
<thead>
<tr>
<th>Valve Material</th>
<th>Packing Nut Hex Size</th>
<th>Torque Value in• lb. (N•m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel</td>
<td>9/16</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>7/8</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>1-1/8</td>
<td>15</td>
</tr>
<tr>
<td>Brass &amp; Carbon Steel</td>
<td>9/16</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>7/8</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>1-1/8</td>
<td>15.9</td>
</tr>
<tr>
<td>Alloy 400</td>
<td>9/16</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>7/8</td>
<td>22</td>
</tr>
</tbody>
</table>

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**20 & 26 Series Torque Values**

<table>
<thead>
<tr>
<th>Valve Series</th>
<th>Torque Value in• lb. (N•m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>30 (3.4)</td>
</tr>
<tr>
<td>26</td>
<td>125 (14.1)</td>
</tr>
</tbody>
</table>