Before performing any service always follow applicable safety precautions. Consult company safety manual or supervisor for questions concerning safety.

118MAX and 122MAX Improved Rear Cushion Installation / Retrofit

Affected Products: 118MAX and 122MAX Air Hammers
Affected Date Range: Before Serial Number BA15B0401
Related Issue #: ?

Issue Description:
The cylinder of the 118MAX and 122MAX air hammers can rotate during use. This does not affect performance or durability, but the user can find it disconcerting. The user may try to tighten the cylinder or front cap to prevent rotation of the cylinder. When the cylinder or front cap is over-tightened, the rear cushion can be damaged and/or broken.

Actions Required:
A modified “Rear Cushion” and a new part, the “Rear Cushion Seat”, can be installed with the “Rear Cushion Seat Fixture” to eliminate cylinder rotation. These parts can be purchased together in the “Rear Cushion Kit”, along with the “O-Ring” that sits around the Rear Cushion.

A service center only needs to purchase the full Rear Cushion Kit once. The Rear Cushion Seat Fixture can be reused on future retrofits; in this case, the service center would need to purchase the Rear Cushion, Rear Cushion Seat, and O-Ring individually.

Rear Cushion Kit Part Information:

<table>
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<tr>
<th>Tool Model</th>
<th>Rear Cushion Kit</th>
<th>Rear Cushion</th>
<th>Rear Cushion Seat</th>
<th>Rear Cushion Seat Fixture</th>
<th>O-Ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>118MAX, 122MAX</td>
<td>122MAX-K304</td>
<td>122MAX-304</td>
<td>122MAX-305</td>
<td>122MAX-525</td>
<td>122MAX-282</td>
</tr>
</tbody>
</table>
Assembly Fixture Information:

The Rear Cushion Kit can be installed using the Rear Cushion Seat Fixture. To use the Rear Cushion Seat Fixture, you need an extension bar with a 3/8” square drive (not included).

![Rear Cushion Seat Fixture](image1.png)

**Figure 1: Rear Cushion Seat Fixture**

![Extension Bar](image2.png)

**Figure 2: Extension Bar (not included)**

- Insert male square drive of the extension bar into the female square drive of the Rear Cushion Seat Fixture.

![Rear Cushion Seat Fixture with extension](image3.png)

**Figure 3: Rear Cushion Seat Fixture w/ extension**
Installation Process:

Step 1: Install Rear Cushion Seat
- Clean the threads of the Rear Cushion Seat and the Housing inside bore of accumulated oil and dirt using a suitable non-flammable solvent (Simple Green or equivalent). Completely dry the parts.
- Apply LOCTITE #680 or equivalent to the outer threads of the Rear Cushion Seat

![Figure 4: Rear Cushion Seat](image)

- Insert Rear Cushion Seat Fixture into Rear Cushion Seat

![Figure 5: Rear Cushion Seat w/ fixture](image)

- Set Rear Cushion Seat into the base of the housing, threading it into the Housing inside diameter.
Figure 6: Setting Rear Cushion Seat

-Tighten the Rear Cushion Seat to a torque spec of 11 ft-lb (15 Nm)

Figure 7: Tightening Rear Cushion Seat
Alternative Method:

If you do not have the Rear Cushion Seat Fixture, you can use the hex on the Rear Cushion to install the Rear Cushion Seat.

- Insert Rear Cushion onto the barrel.

![Figure 8: Rear Cushion on Barrel](image)

- Insert the Rear Cushion Seat on the hex at the base of the Rear Cushion.

![Figure 9: Rear Cushion Seat on Rear Cushion](image)
- Insert Rear Cushion Seat into the housing. Once the treads are aligned properly, hand tighten the Rear Cushion. Next, torque the Rear Cushion to 11 ft.lbf.

![Figure 10: Tighten Rear Cushion Seat](image)

**Step 2: Install Rear Cushion**

- Slide the O-Ring down the base of the Rear Cushion until it seats in its groove (see figure 8).

![Figure 11: Install O-Ring](image)
-Insert the Rear Cushion into the housing, being sure that it is fully seated in the hexagonal section of the Rear Cushion Seat.

Figure 12: Insert Rear Cushion
Figure 13: Service Instruction Sheet
Additional Comments:
Tools manufactured with serial numbers from BA15B0401-BA15C0241 come preassembled with the new cushion and cushion seat.

Tools manufactured after serial number BA15C0241 have a redesigned housing and the new cushion.

Warranty Strategy
This repair is warrantable on tools manufactured before serial number BA15B0401 that have experienced a Rear Cushion failure. The tool must still have warranty coverage in effect (12 months or less time in service).

Recommended 2nd Level Distribution:
Please distribute to all regional customer support and service personnel.

For Additional Information:
Ingersoll Rand Technical Support
United States: 800-483-4981
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