## ULTRAN BAND
### Repair Instructions
#### Side 1

---

**Bimba Manufacturing Company**
Monee, IL 60449-0068  
TEL: 708/534-8544  •  FAX: 708/235-2014  
Support: 1-800-44-BIMBA  
Visit our website at: www.bimba.com  
Form UBRI-1006

---

**Table of Parts**

<table>
<thead>
<tr>
<th>Drawing Reference No.</th>
<th>Description</th>
<th>Drawing Reference No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>18</td>
<td>Plug</td>
</tr>
<tr>
<td>2</td>
<td>Primary End Cap</td>
<td>19</td>
<td>O Ring (Gallery)</td>
</tr>
<tr>
<td>3</td>
<td>Secondary End Cap</td>
<td>20</td>
<td>Piston Seal</td>
</tr>
<tr>
<td>4</td>
<td>Yoke Assembly (Magnetic)</td>
<td>21</td>
<td>Cushion Seal</td>
</tr>
<tr>
<td>5</td>
<td>Sealing Strip</td>
<td>22</td>
<td>Wear Strip</td>
</tr>
<tr>
<td>6</td>
<td>Cover Strip</td>
<td>23</td>
<td>Scraper Block</td>
</tr>
<tr>
<td>7</td>
<td>Endcap Fasteners</td>
<td>24</td>
<td>Cap Head Screw</td>
</tr>
<tr>
<td>8</td>
<td>Cushion Spear</td>
<td>25</td>
<td>Wire Strip</td>
</tr>
<tr>
<td>9</td>
<td>Cushion Screw</td>
<td>26</td>
<td>Guide Strip</td>
</tr>
<tr>
<td>10</td>
<td>O Ring (Cushion Screw)</td>
<td>27</td>
<td>Carriage/Slide Bearing</td>
</tr>
<tr>
<td>11</td>
<td>Retaining Ring</td>
<td>28</td>
<td>Clamp Wedge</td>
</tr>
<tr>
<td>12</td>
<td>Strip Retainer</td>
<td>29</td>
<td>Cone Nut</td>
</tr>
<tr>
<td>13</td>
<td>Square Nut</td>
<td>30</td>
<td>Cone Point Grub Screw</td>
</tr>
<tr>
<td>14</td>
<td>Flat Point Grub Screw</td>
<td>31</td>
<td>Dog Point Grub Screw</td>
</tr>
<tr>
<td>15</td>
<td>Dog Point Grub Screw</td>
<td>32</td>
<td>Carriage Bolt</td>
</tr>
<tr>
<td>16</td>
<td>Cap Head Screw</td>
<td>33</td>
<td>Wave Washer</td>
</tr>
<tr>
<td>17</td>
<td>O Ring (Endcap/Body)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

---
Dismantling and Reassembling

+ Undo and remove carriage bolt (32), washer (33), cone nut (29) and clamp wedge (28).
+ Undo and remove grub screws (30 and 31) only on one side of the carriage. This should allow the guide strip and wire strip (25) and (26) to slide out to one side. Carriage/slide bearing (27) can then be removed.
- Remove strip retainer (12) by unfastening the two screws (16) and grub screw (14).
- Remove end cap fasteners (7) on both sides of ends of the cylinder and remove end caps (2 and 3).
- Remove yoke (4), sealing strip (5) and cover strip (6) from cylinder body.
- Remove piston seals (20) and cushion seals (21) being careful not to damage any surfaces on the piston when removing seals.
- Inspect body (1), bore and slot, and replace if damaged - contact supplier.
- Clean piston assembly and re-lubricate using MS-2861.
- Lightly lubricate replacement piston seals (20) and cushion seal (21). Mount piston seals (20) onto yoke (4). Put cushion seals (21) into recess ensuring that the small diameter is facing outwards.
- Lubricate sealing strip (5) lightly. Bend the last 2cm of the strip and push through piston yoke (4).

\textit{IT IS VERY IMPORTANT THAT THE SEAL STRIP IS HANDLED WITH CARE. ALWAYS CHECK THAT THE EDGES ARE NOT DAMAGED BEFORE ASSEMBLING INTO CYLINDER.}

- Lubricate bore of cylinder. Insert longest end of sealing strip into body (1) followed by the yoke (4).
- Assemble strip retainer (12) to primary end cap (2) and insert end cap into the end of bore where the yoke (4) is situated.
- Secure endcap (2) with end cap fasteners (7).
- Slide yoke (4) to other end of body and repeat operation with secondary endcap (3).
- Cut and insert cover strip (6) and clamp it with grub screw (14). Feed through yoke (4) and secure on other side.
- Tighten grub screw (15) on one end of cylinder until flush with strip retainer (12). On the other end of the cylinder, pull the sealing strip (5) to remove slack and secure with grub screw (15). Cut off overlapping sealing strip (5).
- Insert wear strips (22) and screw on scraper block (23) with cap head screws (24). This will tighten cover strip (6).
- Assemble carriage/slide bearing (27) to body (1) and insert guide strip (26) and wire strip (25).
- Apply Loctite 222 to thread of grub screws (30 and 31) and tighten until they are touching the guide strip.
- Check for free movement in carriage (27). Carriage (27) should slide freely along cylinder body (1) but not have any sideways movement.
- Insert cone nut (29) and clamp wedge (28) in position on carriage (27). Secure carriage (27) to yoke (4) with screw (32) and washer (33), apply Loctite 222 to threads. Do not overtighten screws, check for free movement of yoke/carriage assembly.
+ Instructions for dismantling and reassembling slide bearing.

- Instructions for dismantling and reassembling cylinder.

Test of Cylinder only

- Connect cylinder to air supply.
- Pressurize both sides of the piston yoke and then exhaust both sides.
- Actuate the cylinder with exhaust air restricted, full stroke in both directions.
- Cycle cylinder 5 times, shut off valves and allow the pressure to stabilize for one minute.
- Measure leak rate and check < 100 ml/min.
- Check breakout pressure < 2.0 bar.
- Check end cushioning works.
- Check function of magnet.

Maintenance

- Maintenance work should be carried out with the compressed air system depressurized.
- To dismantle the cylinder, read instructions above.
- Tools required:
  - Allen keys
  - Pliers
  - Knife
  - Flat blade screwdriver
  - Loctite 222
- Prior to servicing cylinder, ensure that area to be used is clean and free from dirt and dust.
- Use soft rags with a mild detergent for cleaning.
- Sliding surfaces should be cleaned and greased lightly at regular intervals, depending on the degree of use and the working environment.