Agitator Air Motor Rebuild Kits

For rebuilding rotary piston agitator air motor 25C765. For professional use only.

Important Safety Instructions
Read all warnings and instructions in this manual and in your agitator manual before using the equipment. Save these instructions.


See page 4 for descriptions of each kit.
Related Manuals

<table>
<thead>
<tr>
<th>Manual No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A4792</td>
<td>Air-Driven Agitators</td>
</tr>
<tr>
<td>3A4797</td>
<td>Stainless Steel, Air-Driven Agitators with Pressure Tank</td>
</tr>
<tr>
<td>3A4800</td>
<td>Twistork® Helix Agitator</td>
</tr>
</tbody>
</table>

Rebuild Procedure

**WARNING**

PRESSURIZED FLUID HAZARD

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from splashing fluid and moving parts, follow the Pressure Relief Procedure before disassembling the equipment.

ENTANGLEMENT HAZARD

Moving parts, such as an impeller blade, can cut or amputate fingers. To reduce the risk of serious injury, always shut off the agitator and disconnect the air line before checking or repairing the agitator.

PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns.

Disassembling the Air Motor

1. Follow the Pressure Relief Procedure.
2. Remove the air motor from the agitator assembly. Follow the removal instructions contained in your agitator manual.
3. Put the air motor in a vice and clamp on the output shaft.
4. Unscrew the air motor top cap (TC*) to remove it. (See Parts, page 4.)
5. Remove the needle bearing shaft assembly (10) using a 20mm socket.
6. Remove spacers (8), washers (9), and the needle bearing (17).
7. Remove the three cylinder end caps (2) by removing the twelve socket head cap screws (26) with a 4mm hex key.
8. Remove cylinders (6), piston assemblies (4, 5, 7, 13), and sleeves (14).
9. Verify that the shaft assembly turns freely. If the shaft assembly is damaged or does not turn freely, check for debris wedged between the counterweight and the air motor body. If the shaft does not turn freely, replace the entire air motor.

* Not included in kits.

Pressure Relief Procedure

1. Close the bleed-type air shutoff valve to relieve pressure to the air regulator.
2. Disconnect the air line.
Reassembling the Air Motor

1. With the air motor shaft in the vice, place the lower washer (9) and spacer (8) in the counterweight pocket.

2. Assemble the piston assembly (4, 5, 7, 13, 14). Lightly lubricate the pistons with grease before inserting the piston assemblies in the cylinder (6). Place the o-ring (23) around the cylinder and install the piston and cylinder assembly in the air motor body (AMB*) as shown. Rotate the piston arm to locate the piston arm inside the lower spacer (8). Install the remaining two piston and cylinder assemblies in a similar manner.

3. If it is not already installed, install the o-ring (24) in the cylinder end cap (2). Install the cylinder end caps (2) with screws (26). Tighten the screws to 60-70 in-lbs (7-8 N•m).

4. Make sure that the threads on top of the crankshaft (CS*) are clean. Install the needle bearing (17) by positioning it inside the sleeves between each piston arm assembly.

5. Install the upper spacer (8) and washer (9). Install and thread the needle bearing shaft assembly (10) through the washers and needle bearing into the crankshaft (CS*). Tighten the shaft assembly (10) using the 20mm socket to 15 ft-lbs (20 N•m).

6. Grease the needle bearing in the grease fitting (20) with non-silicone grease such as MOBILGREASE XHP 222 SPECIAL or equivalent with a minimum flash point temperature of 399.2°F (204°C). Add grease until you see it extruding from the lower washer (9).

7. Install the top cap (TC*).

8. Install mufflers (27) as needed.

9. Remove the air motor from the vice. Install a temporary air line to verify that the air motor starts and runs at low air pressures (<5 psi, 0.3 bar) before reinstalling the air motor on the agitator.

* Not included in kits.
### Parts

#### Kit Contents

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<thead>
<tr>
<th>Ref. No.</th>
<th>Description</th>
<th>Qty</th>
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▲ Replacement Safety labels, tags, and cards are available at no cost.
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