



Agitator Air Motor Rebuild Kits

3A5050C
EN

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.





*Kits: 25M535, 25P860, 25P720,
25P721, 19Y509*

See page 4 for descriptions of each kit.

Related Manuals

Manual No.	Description
3A4792	Air-Driven Agitators
3A4797	Stainless Steel, Air-Driven Agitators with Pressure Tank
3A4800	Twistork® Helix Agitator

Rebuild Procedure

 WARNING				
				
<p>PRESSURIZED FLUID HAZARD</p> <p>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.</p> <p>ENTANGLEMENT HAZARD</p> <p>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.</p> <p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>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.</p>				

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).

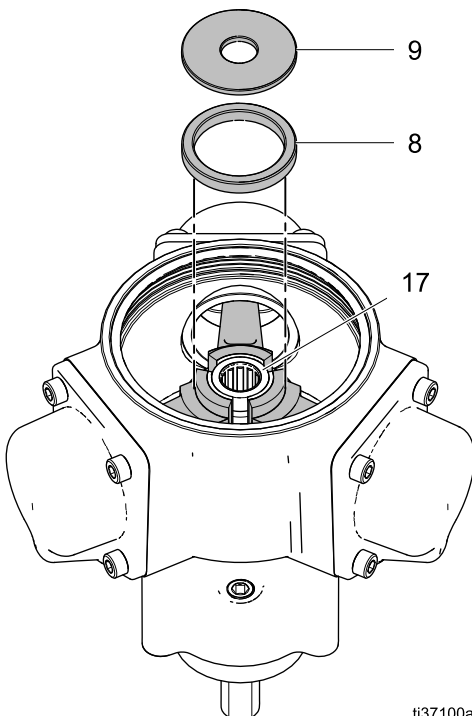
NOTICE

To prevent stripping the threads in the air motor body, do not overtighten the screws.

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.

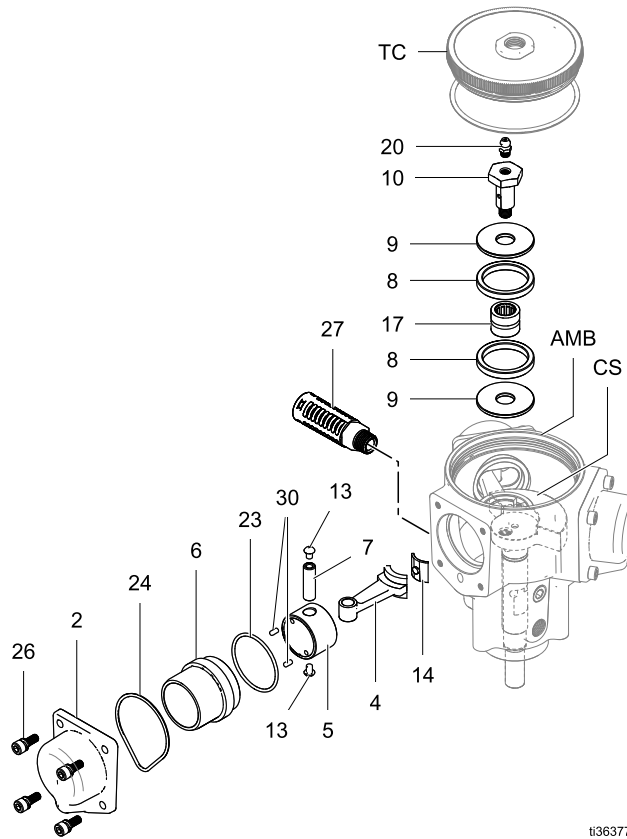
5. Install the upper spacer (8) and washer (9). Install and thread the needle bearing shaft assembly (10) through the washers and needle bearing into the crankshaft (CS*). Tighten the shaft assembly (10) using the 20mm socket to 15 ft-lbs (20 N•m).
6. Grease the needle bearing in the grease fitting (20)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



ti37100a

Parts



ti36377a

Kit Contents		25M535: Full air motor rebuild kit		25P860: End cap kit		25P720: Needle bearing rebuild kit		25P721: Single piston assembly rebuild kit		19Y509: Muffler kit	
Ref. No.	Description		Qty		Qty		Qty		Qty		Qty
2	CAP, cylinder	—	—	✓	1	—	—	—	—	—	—
4	ROD, piston	✓	3	—	—	—	—	✓	1	—	—
5	PISTON	✓	3	—	—	—	—	✓	1	—	—
6	CYLINDER	✓	3	—	—	—	—	✓	1	—	—
7	PIN, piston rod	✓	3	—	—	—	—	✓	1	—	—
8	SPACER	✓	2	—	—	✓	2	—	—	—	—
9	WASHER	✓	2	—	—	✓	2	—	—	—	—
10	SHAFT, needle bearing	✓	1	—	—	✓	1	—	—	—	—
13	CAP, piston pin	✓	6	—	—	—	—	✓	2	—	—
14	SLEEVE	✓	3	—	—	—	—	✓	1	—	—
17	BEARING, needle	✓	1	—	—	✓	1	—	—	—	—
20	FITTING (preinstalled in item 10)	✓	1	—	—	✓	1	—	—	—	—
23	O-RING, cylinder	✓	3	—	—	—	—	✓	1	—	—
24	O-RING, end cap	✓	3	✓	1	—	—	✓	1	—	—
26	SCREW, cap, socket head	—	—	—	—	—	—	—	—	—	—
27	MUFFLER	✓	3	—	—	✓	3	✓	3	✓	3
30	MAGNET, Preinstalled in piston	✓	6	—	—	—	—	✓	2	—	—
31▲	TAG, Safety (not shown)	✓	1	✓	1	✓	1	✓	1	—	—

▲ Replacement Safety labels, tags, and cards are available at no cost.

Notes

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. However, any deficiency in the barrel, handle, trigger, hook, internal power supply, and alternator (excluding turbine bearings) will be repaired or replaced for thirty-six months from the date of sale. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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To place an order, contact your Graco Distributor or call to identify the nearest distributor.

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Original Instructions. This manual contains English, MM 3A6829

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Revision C, December 2019