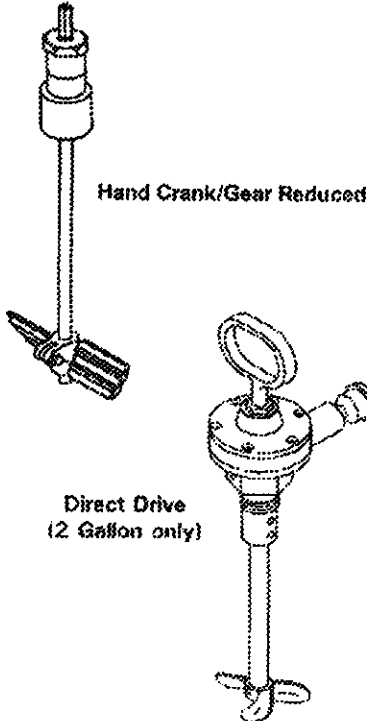


AGITATOR ASSEMBLY KITS

IMPORTANT: Read and follow all instructions and Safety Precautions before using this equipment. Retain for future reference.



DESCRIPTION

The agitator assembly kits are to be used with air motor drives on QMS and QMG paint tanks. Each kit comes complete with all hardware needed to provide agitation of materials in the tanks except the drive, which must be selected separately. Stainless steel and galvanized agitator assemblies are interchangeable to satisfy any particular customer tank configuration.



Halogenated hydrocarbon solvents - for example: 1, 1, 1-Trichloroethane and methylene chloride - can chemically react with aluminum parts and components and cause an explosion hazard. These solvents will also corrode the galvanized tank coating. Read the label or data sheet for the material. Do not use materials containing these solvents with galvanized pressure tanks and agitators. Stainless steel tanks and agitators may be used with halogenated solvents.

The following table lists the agitator assembly kit model numbers for QMS stainless steel and QMG galvanized tanks. All agitator assembly models are compatible with any Devilbiss air motor designed for the system, except the QMS-430 and QMS-416. The QMS-430 and QMS-416 agitator assemblies are used with the QMS-428 and QMG-428 direct drive motors exclusively, which can only be used on 2 gallon tanks.

Stainless Steel Agitators

2 Gallon QMS431	5 Gallon QMS432	10 Gallon QMS433	15 Gallon QMS434
QMS430*			
Steel-Plated Agitators			
2 Gallon QMG417	5 Gallon QMG418	12 Gallon QMG419	18 Gallon QMG430
QMG416*			

*Direct Drive

INSTALLATION



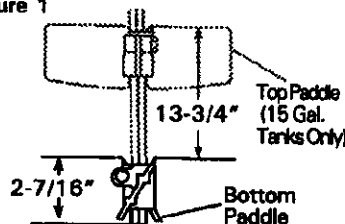
Pressure Relief Procedure

High pressure can cause serious injury. Pressure is maintained in a pressure tank after the system has been shut down. Before attempting removal of fill plug or cover, pressure must be relieved using the following steps:

1. Turn off the main air supply to the tank.
2. Close air inlet valve located on tank air manifold.
3. Bleed off air in the tank by turning the air relief valve thumb screw counterclockwise. Wait until all the air has escaped through the valve before removing the pressure tank cover or fill plug.
4. Leave the air relief valve open until you have reinstalled the cover or fill plug.

Installation - Gear Reduced (Refer to Figures 1 and 2):

Figure 1



1. Follow the PRESSURE RELIEF PROCEDURE before removing parts from the cover itself.
2. Unscrew the center plug from the cover.
3. Apply a light film of SSL-10 gun lube or water to the O-ring on the shaft seal (8) to aid in installation.
4. Orient the shaft seal (8) in the bearing assembly (6) as shown on Page 3 (open side faces down). Push shaft seal completely into bearing assembly against the upper surface.

Note

Make sure O-ring (7) is properly seated in bearing assembly groove prior to tightening with pipe wrench.

5. Screw bearing assembly (6), with O-ring (7) in place, into center hole of cover. Tighten with pipe wrench.

Note

(For Hand Crank/Gear Reduced)
The standard installation position for the paddle(s) is with the flat side up. When a stainless steel insert container is used, it is necessary to turn the bottom paddle upside down so that the flat side is down. The correct adjustment on the paddle position, when a tank insert is used, is with the end of the paddle hub flush with the end of the shaft. This mounting should give 1/2" clearance between the edge of the paddle and the insert container.

6. See Figure 1. Assemble paddle (11) with hexagon socket cap screws (12) so that the top edge of the paddle is 2-7/16 inches from the bottom of the agitator shaft. A second paddle is provided with 15 gallon tanks. It should be installed perpendicular to the bottom paddle with the flat side up. The top edge of the upper paddle should be 13-3/4" from the top edge of the lower paddle.



Use care when inserting shaft through shaft seal (8) not to nick or damage it.

7. Carefully insert the assembled shaft end through shaft seal (8) and bearing assembly (6) until the groove in the shaft can be seen and is approximately 1/2" from the top of the bearing assembly.

SAFETY PRECAUTIONS

This manual contains important information that all users should know and understand before using the equipment. This information relates to **USER SAFETY AND PREVENTING EQUIPMENT PROBLEMS**. To help you recognize this information, we use the following terms to draw your attention to certain equipment labels and portions of this Service Bulletin. Please pay special attention to any label or information that is highlighted by one of these terms:



Important information that tells how to prevent damage to equipment, or how to avoid a situation that might cause minor injury.






Important information to alert you to a situation that might cause serious injury if instructions are not followed.

Note

Information that you should pay special attention to:



The following hazards may occur during the normal use of this equipment. Please read the following chart.

HAZARD	CAUSE	SAFEGUARDS
<p>Fire</p> 	<p>Solvents and coatings can be highly flammable or combustible, especially when sprayed.</p>	<ol style="list-style-type: none"> 1. Adequate exhaust must be provided to keep the air free of accumulations of flammable vapors. 2. Smoking must never be allowed in the spray area. 3. Fire extinguishing equipment must be present in the spray area.
<p>Pressure Tank - Rupture or Explosion</p> 	<p>Making changes to pressure tank will weaken it.</p>	<ol style="list-style-type: none"> 1. Never drill into, weld, or modify tank in any way. Carefully follow all instructions for motor drive installation. 2. Do not adjust, remove, or tamper with the safety valve. If replacement is necessary, use the same type and rating of valve.
<p>Explosion Hazard - Incompatible Materials</p> 	<p>Halogenated hydrocarbon solvents - for example: methylene chloride and 1, 1, 1, Trichloroethane are not chemically compatible with the aluminum that might be used in many system components. The chemical reaction caused by these solvents reacting with aluminum can become violent and lead to an equipment explosion.</p>	<p>Aluminum is widely used in spray application equipment - such as material pumps, cups, regulators, valves, etc. Check all equipment items before use and make sure they can be used safely with these solvents. Read the label or data sheet for the material you intend to spray. If in doubt as to whether or not a coating or cleaning material is compatible, contact your material supplier.</p>

Installation Gear Reduced (continued)

8. While holding the shaft assembly in the above position, slip thrust bearing (5) and thrust collar (3) over shaft end. Position thrust collar over groove in shaft and tighten set screw (4).
9. Slide retainer nut (1) over shaft and tighten onto bearing assembly (6).
10. Refer to SB-19-087 or SB-19-222 for installing the agitator assembly to the motor to be used.

Installation - Direct Drive Models (Refer to Figure 3)

1. Follow the **PRESSURE RELIEF PROCEDURE** before removing parts from the cover or the cover itself.

2. Unscrew the center plug from the cover.
3. Apply a light film of SSL-10 gun lube or water to the O-ring on the shaft seal (19) to aid in installation.
4. Orient the shaft seal (19) in the adapter (16) as shown in the detail on Page 3 (open side faces down). Push shaft seal completely into adapter against the upper surface.

Note

Make sure O-ring (18) is properly seated in adapter groove prior to tightening with pipe wrench.

5. Screw adapter (16) with O-ring (18) in place, into center hole in cover. Tighten with pipe wrench.

6. Insert air motor (14) in adapter (16) so that hub end of air motor seats in socket of adapter. Rotate air motor so that air inlet and exhaust are directed to rear of tank.
7. Tighten two setscrews (17). Use Loctite 242 (blue) sealant on the threads of the setscrews.
8. Place shaft coupling (21) onto air motor shaft. Tighten top setscrew (22). Use Loctite 242 (blue) on the threads of the setscrew.
9. Assemble paddle (26) onto agitator shaft (23) with setscrew (25). The propeller end of the shaft has machining starting 1/2" from the end.

10. Place agitator shaft (23) with paddle (26) into bottom of shaft coupling (21) and tighten bottom setscrew (22). Use Loctite 242 (blue) on threads of setscrew.

OPERATION

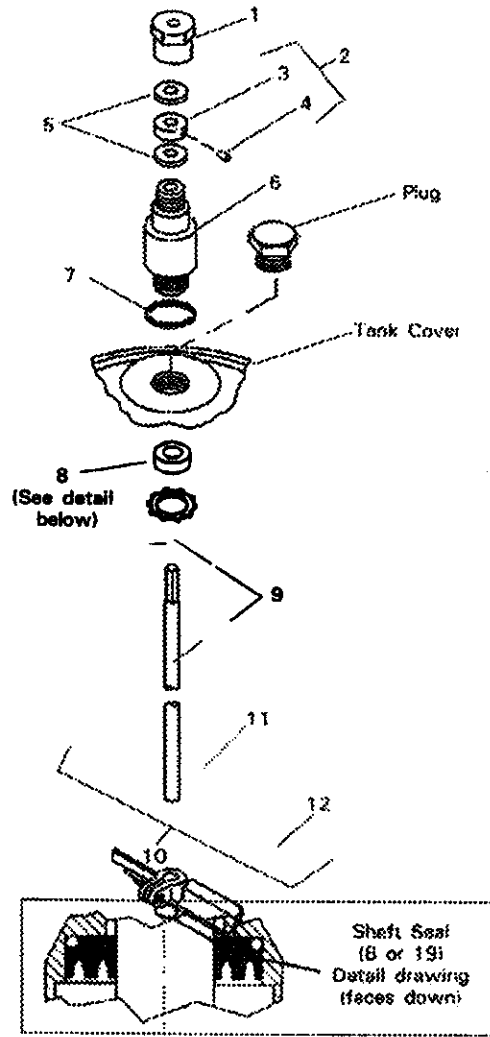
Once the agitator assembly is installed with an air motor, its operation is controlled by the motor. Refer to the specific service instruction for the type of motor installed.

Refer to SB-19-087 for installation of the motor to be used.

Parts List for Gear Driven Agitator Assemblies

Ref. No.	Replacement Part No.	Description	Individual Parts Req.
1	QMS-46	Retaining Nut	1
2	QMS-447	Thrust Collar Kit (Includes 3 & 4)	1
3	QM-1770	Thrust Collar	1
4	---	Set Screw (5/16-18 x 3/8)	1
5	KK-5049	Thrust Washer Kit	2
6	QMS-407	Bearing Assy. - S.S.	1
	QMG-409	Bearing Assy. - Galv.	1
7	SSG-8184-K2	O-ring (Kit of 2)	1
8	KK-5042	Shaft Seal Kit	1
9	QMS-5	Agitator Shaft for 2 Gallon. S.S.	1
	QMS-6	Agitator Shaft for 5 Gal. S.S.	1
	QMS-7	Agitator Shaft for 10 Gallon. S.S.	1
	QMS-8	Agitator Shaft for 15 Ga. S.S.	1
	QMG-15	Agitator Shaft for 2 Gallon Galvanized	1
	QMG-28	Agitator Shaft for 5 Gal. Galvanized	1
	QMG-29	Agitator Shaft for 10 Gal. Galvanized	1
	QMS-30	Agitator Shaft for 15 Gal. Galvanized	1
10	QMS-449	Agitator Paddle Kit 2 Gallon (Includes 11 & 12)	1
11	QMS-444	Agitator Paddle Kit 5, 10, 15 Gallon Galv. (Includes 11 & 12)	1 or 2
12	---	Hex Socket Head Cap Screw (5/16-18 x 1-1/4) S.S., Purchase locally	1

Figure 2 - Gear Driven Agitator Assemblies



SERVICE BULLETIN REVISIONS

Refer to the following chart for Part No./Literature Changes.

Part Number Changes			Literature Changes
Old Part Number	New Part Number	Interchangeability	
QMG-128 Air Motor	QMS-428 Air Motor	Directly	

Parts List for QMG-416 Agitator Assembly
Direct Drive

Ref. No.	Replacement Part No.	Description	Individual Parts Req.
	QMG-416	Agitator Assembly Direct Drive (Includes 13-26)	1
13	QN-97	Carrying Handle	1
14	QMG-429	Air Motor (Refer to SB-19-087 for service parts)	1
15	KK-4990	Adapter Kit (Includes 16, 17, 21 & 22)	1
16#	-	Adapter	1
17	—	Set screw (1/4-20 x 1/4)	2
18	SSG-8184-K2	O-ring (Kit of 2)	2
19	KK-5041	Shaft Seal Kit	1
20	KK-4990	Seal Retainer kit (Includes 21, 22, 16 & 17)	1
21#	-	Shaft Coupling	1
22	—	Set screw (1/4-20 x 1/4)	2
23	QMG-56	Agitator Shaft	1
24	QMS-448	Agitator Propeller Kit (Includes 25, 26)	1
25	—	Setscrew (1/4-20 x 3/8, S.S.) Purchase locally	1
26	—	Agitator Propeller	1

Parts List for QMS-430 Agitator Assembly
Direct Drive

Ref. No.	Replacement Part No.	Description	Individual Parts Req.
	QMS-430		1
13	QN-97		1
14	QMS-428		1
15	KK-4991		1
			1
			2
			1
			1
21#	—		1
22	—		2
23	QMS-73		1
24	QMS-448		1
25			1
26			1

#When replacing either Ref. Nos. 16 or 21, you must order KK-4990 (QMG) or KK-4991 (QMS) which includes both parts.

WARRANTY

This product is covered by ITW DeVilbiss' 1 Year Limited Warranty. See SB-1-000 which is available upon request.

Worldwide Sales and Service - DeVilbiss Industrial Spray Equipment - www.devilbiss.com

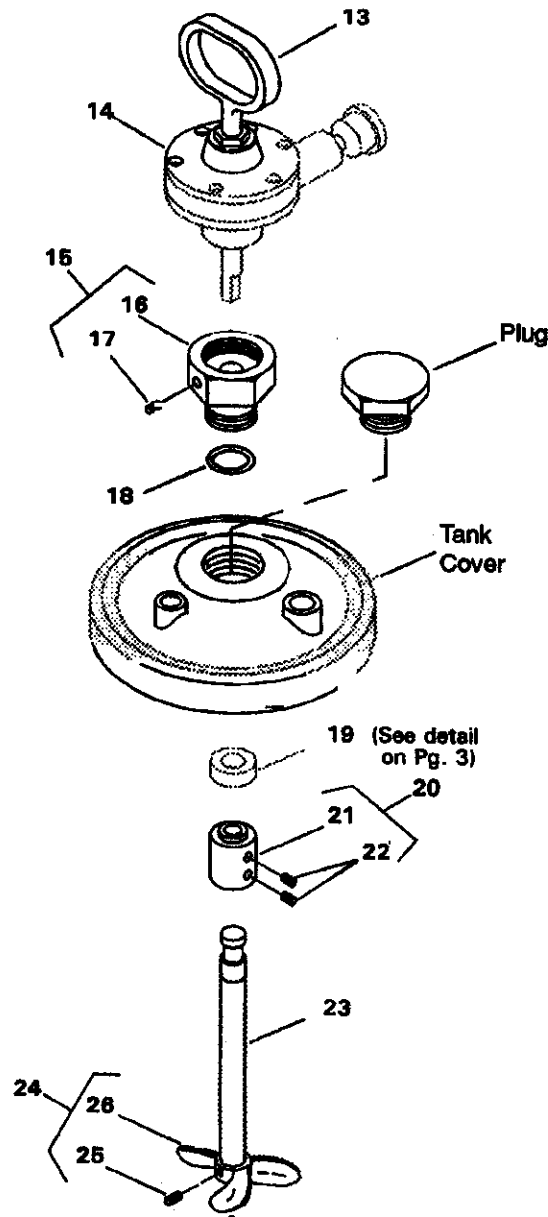
DeVilbiss has authorized distributors throughout the world. If further assistance is required, write or call one of the following DeVilbiss Distribution Centers or Sales Offices nearest you. **FOR TECHNICAL ASSISTANCE OR THE DISTRIBUTOR NEAREST YOU, CALL TOLL FREE 1-800-338-4448 (U.S. AND CANADA ONLY).** For local calls, see listing below.

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Figure 3 - Direct Drive Agitator Assemblies



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