

OPERATOR'S MANUAL

WP0409C8XXXXXXXXXX

INCLUDING: OPERATION, INSTALLATION AND MAINTENANCE.

RELEASED: 2-15-10
(REV. 01)

ALSO INCLUDE MANUALS: AF0409CXX pump manual 97999-1494), 641523 Control Handle (97999-230), S-636 General Information Manual (PN 97999-636).

**4 1/4" AIR MOTOR
9:1 RATIO
4" STROKE**

**WP0409C8XXXXXXXXXX
Wash Pump Package**



**READ THIS MANUAL CAREFULLY BEFORE INSTALLING,
OPERATING OR SERVICING THIS EQUIPMENT.**

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

SERVICE KITS

- Use only genuine ARO® replacement parts to assure compatible pressure rating and longest service life.
- **637489** for repair of air motor section.
- **K1875CXXXXXX** for repair of lower pump end.
- **637033** for repair of Control Handle.

MODEL DESCRIPTION CHART

WP 04 09 C 8 XXXXX XX X	
Package WP- Wash Pump	
Air Motor Size 4 - 4 1/4"	
Pump Ratio 9 - 9:1	
Check Type / Wetted Materials C - Two Ball, 300 Series / CF8M Stainless Steel	
Container Suitability 8 - Remote mounting with Optional inlet	
Lower Pump End Options Refer to pump model operator's manual	
Follower Assembly 00- None	
Package Option 0 - None 1 - Integrated Ball Valve Regulator on Pump	

WP0409C8XXXXXXXXXX

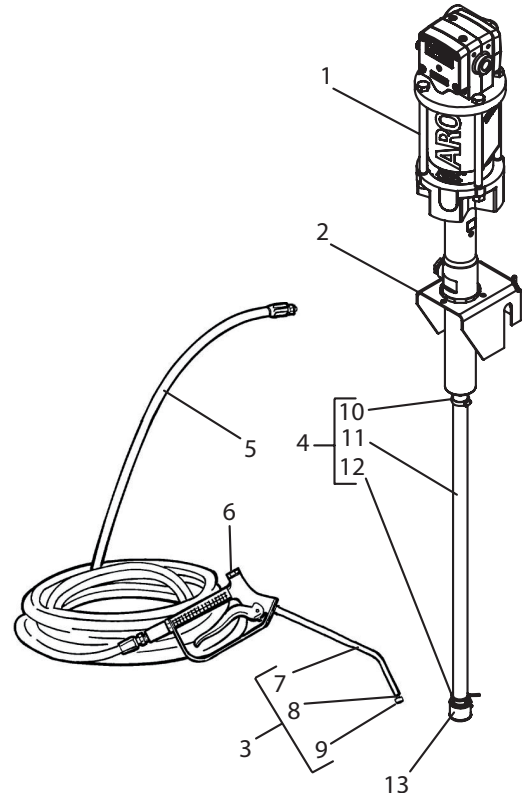


Figure 1

Item	Description	Part no
1	Basic Pump Assembly	AF0409C8XXXXXX
2	Pump Bracket Assembly (2" Bung)	61113
3	Bent Pipe Assembly (includes 7, 8 & 9)	61133
4	Suction Tube Assembly (includes 10, 11, 12 & 13)	61139-1
5	Hose Assembly (3/8 i.d 2 fabric)	622427-40
6	Control Handle Assembly	641523
7	Bent Pipe	76821
8	Nozzle Cover	76330
9	Spray Tip	TP6250-18
10	Hose Clamp	76315
11	Tube	92249-26
12	Hose Clamp	76315
13	Screen Assembly	61138

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GENERAL DESCRIPTION

The ARO model WP0409C8XXXXXXXXX wash pump has been designed for heavy duty cleaning with detergents, caustics, and dilute acid type deainers. The 9:1 ratio double acting pump section is separated from the air motor to prevent any cleaning solution from coming in contact with and damaging the air motor.

All metal parts in the pumping section are manufactured from 316 stainless steel or "K" monel, the packing and "O" rings are manufactured from Nitrile, and the packing back-ups and portions of the material piston are manufactured from acetal resins.

Packings, "O" rings, and material pistons of virgin PTFE and packing back-ups of glass filled teflon are available on special request. The 4-1/4 inch air motor is of the double acting reciprocating type. The valving in the air motor uses "D" type valves and is mechanical with a pneumatic assist. The WP0409C8XXXXXXXXX wash pump may be directly mounted in the two inch bung of a standard 55 gal. drum or, when using the 61113 mounting bracket, the pump can be mounted on the wall or in a 55 gal. open head drum.

OPERATING INSTRUCTIONS

1. Oil the lower pump assembly section by squirting SAE 90 Gear Oil into the two holes marked "Oil Daily".
2. Fill the cleaning solution container with clear water.
3. Connect the air supply line to the air line lubricator.
4. Open the (6) control handle assembly by squeezing the trigger until water sprays out the spray tip.
5. Adjust air line oiler to approximately 1 drop every 2 minutes by turning adjusting screw clockwise for less flow.
6. Close control handle.
7. Add the proper amount of cleaning solution to cleaning solution container. Insert the (3) bent pipe assembly into the cleaning solution and open the control handle assembly. Continue holding the control handle open until spray from the (3) bent pipe assembly has thoroughly mixed the cleaning solution.

NOTE:

- Most cleaning solutions will perform more efficiently in warm water.
 - Powdered detergents will be easier to mix if they are dissolved in a container of hot water first.
 - Consult chemical manufacturer's recommendations for proper mixing and concentration
8. The air supply line should be disconnected when the wash pump assembly is not in operation.

CAUTION: Do not allow the air motor to run after the solution container is emptied.

CLEANING INSTRUCTIONS

Use the cleaning instructions supplied by the cleaning chemical supplier. General cleaning instructions for detergents and caustics: (In the event cleaning instructions are not supplied by chemical supplier).

1. Lightly and rapidly cleaning solution to object being cleaned.
2. Let cleaning solution stand on the object for two or three minutes.
3. Starting from the bottom up, clean the object with cleaning solution holding the spray tip 6 to 8 inches away from object and at approximately 45°. The 45° angle will produce a chiseling effect for better cleaning.
4. Rinse the object thoroughly with clean water from the top down.

General cleaning instructions for aluminum brightening: (If not supplied by chemical supplier).

1. Apply aluminum brightener to an area of approximately 100 square feet (approximately 3 semi-trailer panels) from the bottom up.
2. Let the brightening solution soak until light foaming occurs on the aluminum.
3. Rinse thoroughly with clear clean water from the top down.

CAUTION: Brightening solution will etch glass and will burn aluminum if permitted to soak after the light foaming occurs.

MAINTENANCE

The basic pump consists of two major components: 1. Air Motor, 2. Lower Pump End. The air motor is connected to the lower pump end by a spacer tube - this allows access for lubricating the upper packing gland in the lower pump end, and to prevent air motor contamination because of normal wear and eventual leakage through material packing gland. The air motor is removable and is to be serviced separately. Refer to air motor manual for service and parts.

- Periodically flush entire pump system with a solvent that is compatible with the material being pump.
- Periodically inspect and replace if necessary the (13) screen assembly on the bottom of the (4) suction tube assembly.
- Disassembly should be done on a clean work bench with clean cloths to keep parts clean.
- If replacement parts are necessary, consult drawing containing parts for identification.
- Before assembling, lubricate parts where required. When assembling "O" rings or parts adjacent to "O" rings, care must be exercised to prevent damage to "O" rings and "O" ring groove surfaces.

For more information on PUMP DISASSEMBLY , REASSEMBLY, PUMP SPECIFICATIONS, refer to AF0409CXXXXXX-XX-X Operator's manual (pn 97999-1494).

For more information on LOWER PUMP END refer to 1875CXXXXXXXXX Operator's manual (pn 97999-1583).

TROUBLE SHOOTING

No material (stalled pump).

- Obstructed (9) spray tip. Remove spray tip and clean.
- Obstructed (5) hose assembly. Remove control handle and operate pump until line is clear.
- Obstructed (6) control handle assembly. Disassemble and clean.

No material (Pump continually cycles).

- Empty material supply. Disconnect the air. Replenish material supply. Connect the air. Open (6) control handle assembly until pump is primed.
- Damaged (4) lower suction tube. Replace suction tube. Loose (10) hose clamp assembly on (11) tube. Tighten clamp.

Material leakage around the Control Handle.

- Loose 76947 gland. Tighten packing screw. (See Control Handle Instructions).
- Worn 77516 packings. Replace packings. (See Control Handle Instructions).