



Tool Products

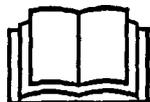
OPERATOR'S MANUAL

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

SECTION	M35
MANUAL	40
Released:	4-1-91
Revised:	7-7-95
Form:	3804-2

3/4" CAPACITY IMPACT WRENCH

Models: WG067A-F4-()



⚠ WARNING

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

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

Pneumatic tools should always be installed and used in accordance with A.N.S.I. B186.1 "Safety Code For Portable Air Tools."

⚠ WARNING

- Operate this tool at 90 p.s.i.g. (6.2 bar) maximum air pressure at the air inlet of the tool.
- Disconnect air supply from tool before removing/installing bit or socket or performing maintenance procedures.
- Keep hands, clothing and long hair away from rotating end of tool.
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
- Never exceed rated r.p.m. of tool.
- Wear suitable eye and hearing protection while operating tool.
- Tool shaft can continue to rotate briefly after throttle is released.
- Use only impact type sockets.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Do not remove any labels. Replace any damaged label.
- Use only accessories recommended by ARO.

⚠ WARNING

Repeated prolonged operator exposure to vibrations which may be generated in the use of certain hand-held tools may produce Raynaud's phenomenon, commonly referred to as Whitefinger disease. The phenomenon produces numbness and burning sensations in the hand and may cause circulation and nerve damage as well as tissue necrosis. Repetitive users of hand-held tools who experience vibrations should closely monitor duration of use and their physical condition.

NOTICE

- The use of other than genuine ARO replacement parts may result in safety hazards, decreased tool performance and increased maintenance and may invalidate all warranties.
- ARO is not responsible for customer modification of tools for applications on which ARO was not consulted.
- Tool maintenance and repair should be performed by authorized, trained, competent personnel. Consult your nearest ARO authorized servicer.
- It is the responsibility of the employer to place the information in this manual into the hands of the operator.

For parts and service information, contact your local ARO distributor, or the Customer Service Dept. of the Ingersoll-Rand Distribution Center, White House, TN at PH: (615) 672-0321, FAX: (615) 672-0801.

ARO Tool Products

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FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

⚠ WARNING



Wear eye protection when operating or performing maintenance on this tool.

⚠ WARNING



Wear hearing protection when operating this tool.

⚠ WARNING



Turn off air supply and disconnect air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.

⚠ WARNING



Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.

⚠ WARNING



Do not carry the tool by the hose.

⚠ WARNING



Do not use damaged, frayed or deteriorated air hoses and fittings.

⚠ WARNING



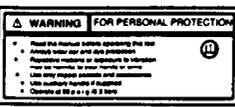
Do not overreach when operating this tool. Keep body stance balanced and firm.

⚠ WARNING



Operate at 90 p.s.i.g. (6.2 bar/620 kPa) maximum air pressure.

NOTICE



**PN 49769 LABEL
(NON-EU MODELS)**



**PN 49883 LABEL
(-EU MODELS)**

This label must appear on the tool at all times. If it is lost or damaged, a replacement label is available at no cost.

WARNING = Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

CAUTION = Hazards or unsafe practices which could result in minor personal injury or product or property damage.

NOTICE = Important installation, operation or maintenance information.

ROUTINE LUBRICATION REQUIREMENTS

Lack of or an excessive amount of lubrication will affect the performance and life of this tool. Use only recommended lubricants at below time intervals:

- Work approximately 6 to 8 cc of ARO 33153 grease into the impact mechanism, particularly around the hammer pins (31), hammer (30), hammer frame (29), anvil (32 or 35) and inside bushing (38).
- Lubricate motor bearings (18 and 24) with ARO 33153 grease.
- Lubricate rotor (21), rotor blades (20), reverse valve (12), end plates (19 and 23) and i.d. of cylinder (22) with ARO 29665 spindle oil.
- Inject approximately 1 or 2 cc of grease into grease fitting (15).
- Apply approximately 1 or 2 cc of ARO 29665 spindle oil into the air inlet of the tool before starting the tool.

AIR SUPPLY REQUIREMENTS

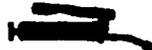
For maximum operating efficiency, the following air supply specifications should be maintained to this air tool:

- AIR PRESSURE – 90 p.s.i.g. (6.2 bar)
- AIR FILTRATION – 50 micron
- LUBRICATED AIR SUPPLY
- HOSE SIZE – 3/4" (19 mm) I.D.

An ARO® model C28231-810 air line FILTER/REGULATOR/LUBRICATOR (F.R.L.) is recommended to maintain the above air supply specifications.

RECOMMENDED LUBRICANTS

After disassembly is complete, all parts, except sealed or shielded bearings, should be washed with solvent. To relubricate parts, or for routine lubrication, use the following recommended lubricants:



Where Used	ARO Part #	Description
Air Motor	29665	1 qt. Spindle Oil
"O" Rings & Lip Seals	36460	4 oz. Stringy Lubricant
Gears and Bearings	33153	5 lb. "EP" – NLGI #1 Grease

INSPECTION, MAINTENANCE AND INSTALLATION

Disconnect air supply from the tool or shut off air supply and exhaust (drain) line of compressed air before performing maintenance or service to the tool.

It is important that the tools be serviced and inspected at regular intervals for maintaining safe, trouble-free operation of the tool.

Be sure the tool is receiving adequate lubrication, as failure to lubricate can create hazardous operating conditions resulting from excessive wear.

Be sure that the air supply lines and connectors are of proper size to provide a sufficient quantity of air to the tool.

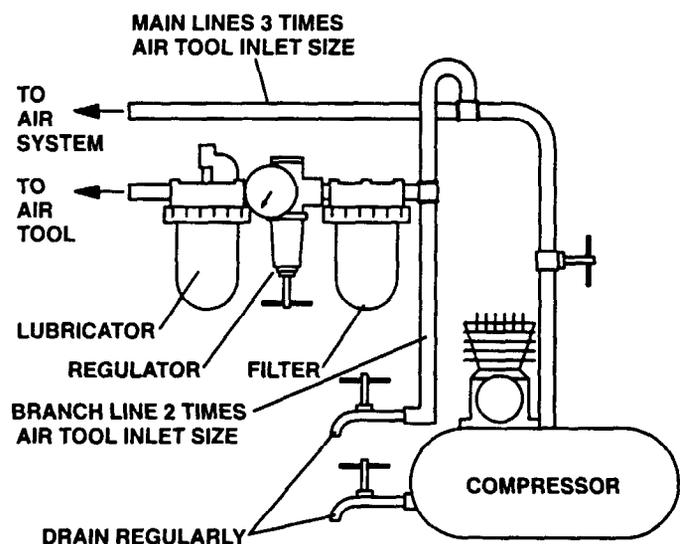
Tool maintenance and repair shall be performed by authorized, trained, competent personnel. Tools, hose and fittings shall be replaced if unsuitable for safe operation and responsibility should be assigned to be sure that all tools requiring guards or other safety devices shall be kept in legible condition. Maintenance and repair records should be maintained on all tools. Frequency of repair and the nature of the repairs can reveal unsafe application. Scheduled maintenance by competent authorized personnel should detect any mistreatment or abuse of the tool and worn parts. Corrective action should be taken before returning the tool for use.

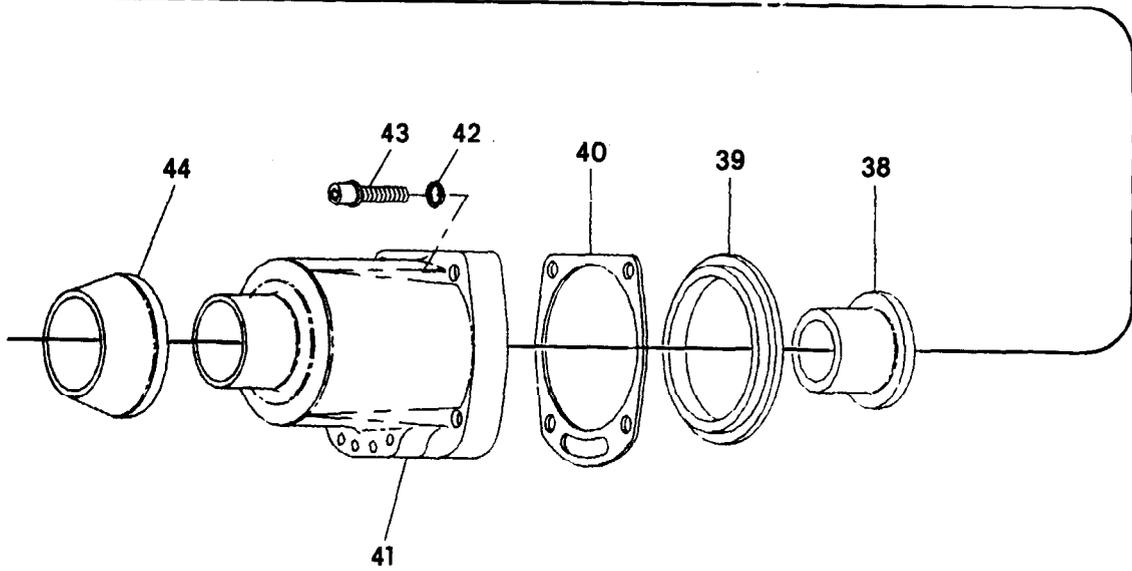
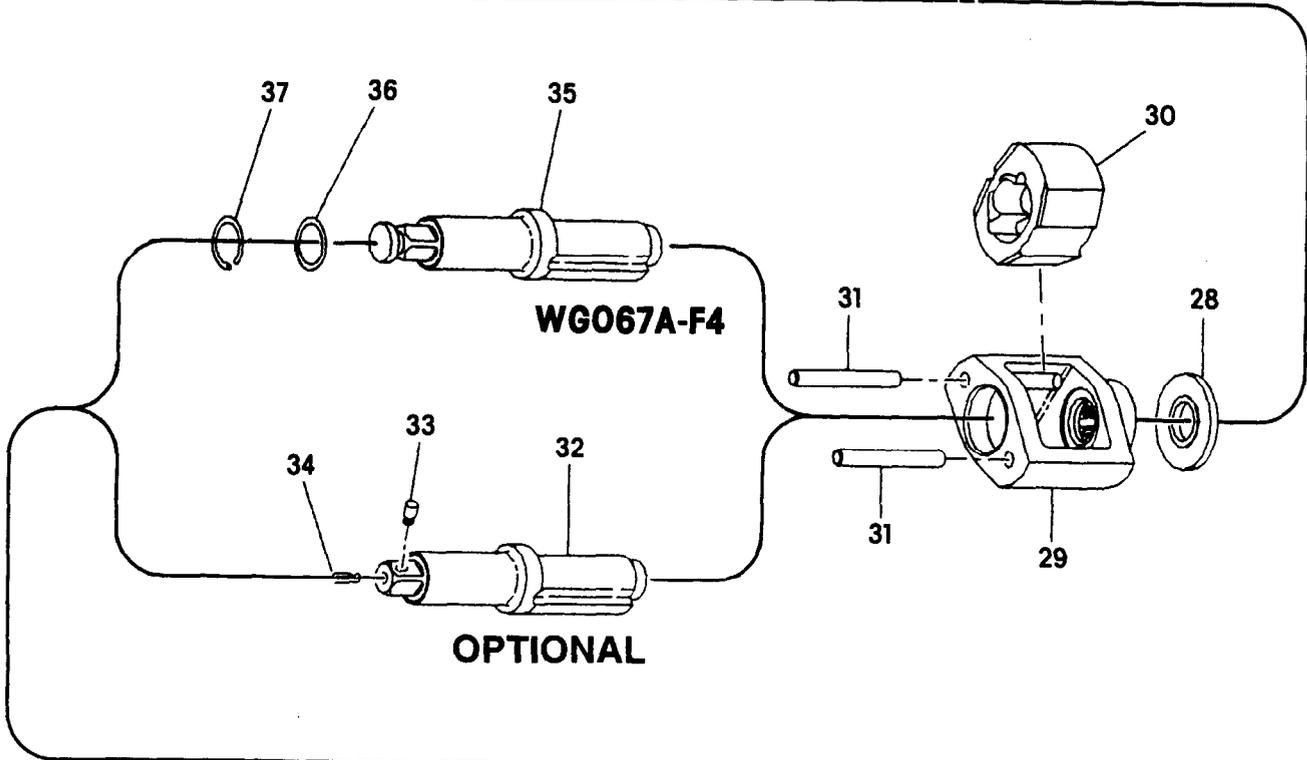
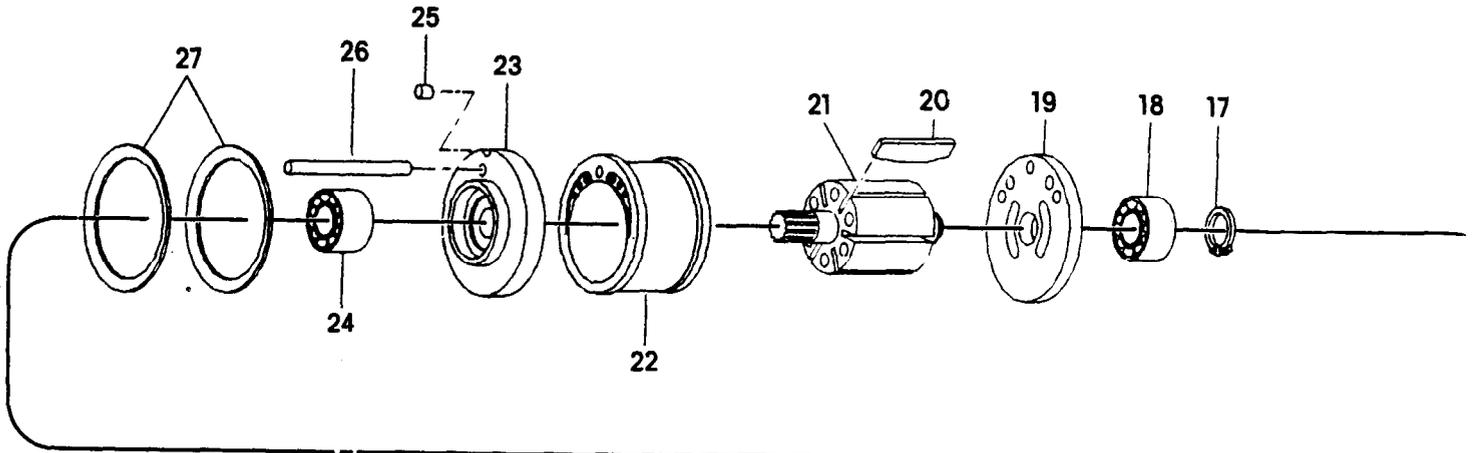
Disassembly should be done on a clean work bench with a clean cloth spread to prevent the loss of small parts. After disassembly is completed, all parts should be thoroughly washed in a clean solvent, blown dry with air and inspected for wear levels, abuse and contamination. Double sealed or shielded bearings should never be placed in solvent unless a good method of re-lubricating the bearing is available. Open bearings may be washed but should not be allowed to spin while being blown dry.

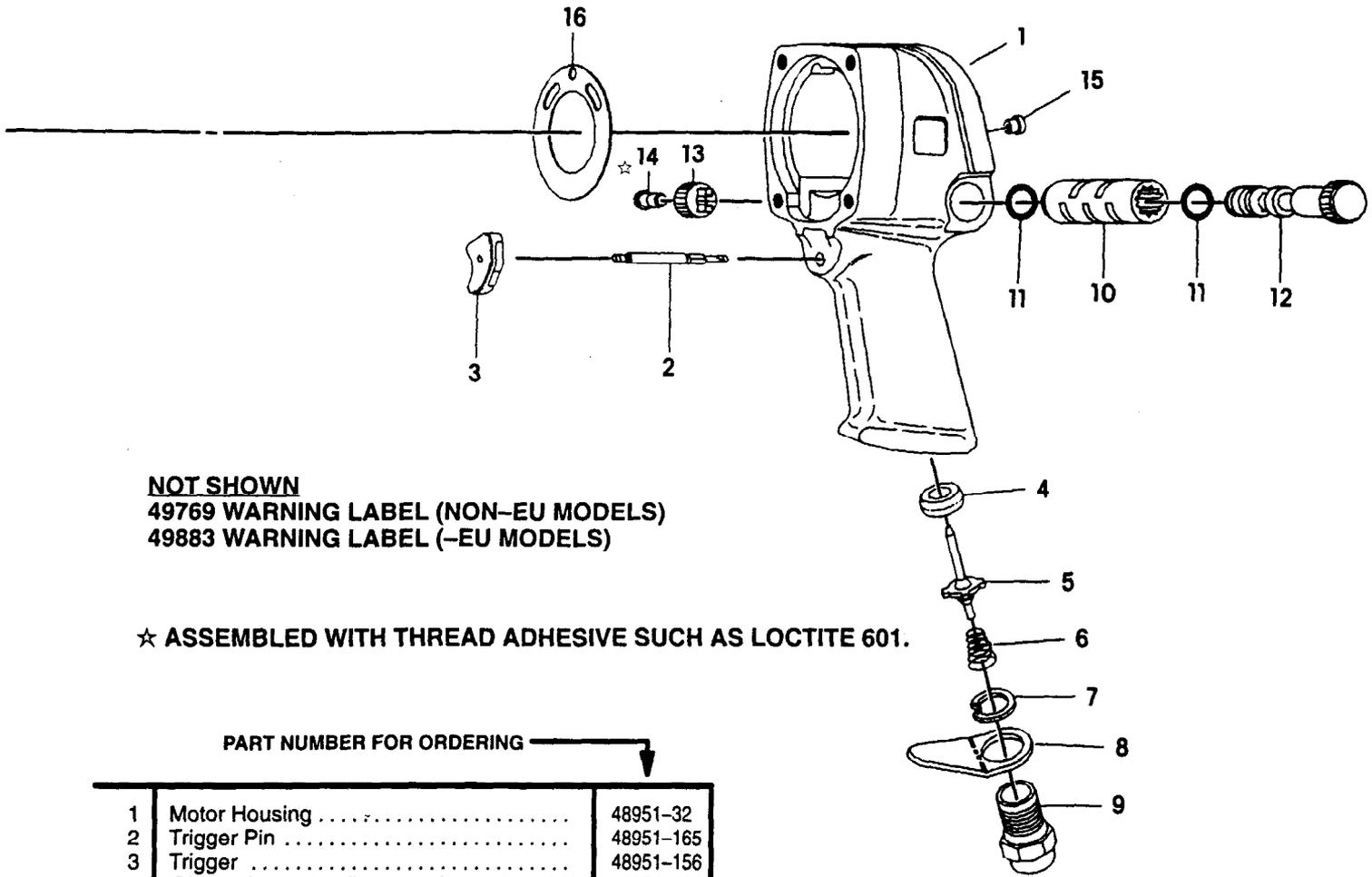
Upon reassembling, lubricate parts where required. Use 33153 grease, or equivalent, in bearings. Use 36460 lubricant for "O" ring assembly. When assembling "O" rings or parts adjacent "O" rings, care must be exercised to prevent damage to the rubber sealing surfaces. A small amount of grease will usually hold steel balls and other small parts in place while assembling.

When replacement parts are necessary, consult drawing containing the part for identification.

Always use clean, dry air. Dust, corrosive fumes and/or excessive moisture can damage the motor of an air tool. An air line filter can greatly increase the life of an air tool. The filter removes rust, scale, moisture and other debris from the air lines. Low air pressure (less than 90 p.s.i.g.) reduces the speed of the air tool. High air pressure (more than 90 p.s.i.g.) raises performance beyond the rated capacity of the tool and could cause injury. Shown below is a typical piping arrangement.







NOT SHOWN
49769 WARNING LABEL (NON-EU MODELS)
49883 WARNING LABEL (-EU MODELS)

☆ ASSEMBLED WITH THREAD ADHESIVE SUCH AS LOCTITE 601.

PART NUMBER FOR ORDERING →

1	Motor Housing	48951-32
2	Trigger Pin	48951-165
3	Trigger	48951-156
	Trigger Assembly (includes items 2 and 3)	48951-164
4	Valve Seat	48951-104
5	Throttle Valve	48951-103
6	Spring	48951-30
7	Retaining Ring	48951-105
8	Handle Plate	48951-27
9	Air Strainer	48951-167
10	Reverse Valve Bushing (includes item 11)	48951-113
11	"O" Ring (2 req'd)	48951-175
12	Reverse Valve	48951-28
13	Reverse Valve Knob	48951-81
14	Screw	48951-80
15	Grease Fitting	48951-1
16	Gasket	48951-102
17	Retainer Ring	48951-201
18	Bearing	48951-199
19	Rear End Plate	48951-100
20	Rotor Blade (6 included)	48951-106
21	Rotor	48951-107
22	Cylinder	48951-171
23	Front End Plate	48951-99
24	Bearing	48951-200
25	Dowel	48951-71
26	Cylinder Dowel	48951-137
27	Washer (2 req'd)	48951-101
28	Washer	48951-110
29	Hammer Frame (includes item 31)	48951-33
30	Hammer	48951-31
31	Hammer Pin (2 req'd)	48951-109
32	3/4" Square Drive Anvil (pin type retainer)	
	optional	48951-35
	optional, 6" extended	48951-36

PART NUMBER FOR ORDERING →

33	Retaining Pin	48951-111
34	Spring	48951-158
35	3/4" Square Drive Anvil (ring type retainer)	
	standard	48951-92
	optional, 6" extended	48951-93
36	"O" Ring	48951-174
37	Retainer Ring	48951-172
38	Bushing	48951-108
39	Pilot	48951-112
40	Gasket	48951-29
41	Hammer Case	48951-34
42	Lock Washer (4 req'd)	48951-169
43	Cap Screw (4 req'd)	48951-152
44	Shield	48951-26
	PARTS NOT SHOWN	
	Quick Change Chuck Assembly Tool	48951-121
	Quick Change Chuck Assembly Tool (5/8" hex) ..	48951-154
	Nameplate	
	for non "-EU" models	48956
	for "-EU" models	49965
	Side Label	48951-4
	Grease Gun (available at extra cost)	7464-1

DISASSEMBLY/ASSEMBLY INSTRUCTIONS

- Never apply excessive pressure by a holding device which may cause distortion of a part.
- Apply pressure evenly to parts which have a press fit.
- Apply even pressure to the bearing race that will be press fitted to the mating part.
- Use correct tools and fixtures when servicing this tool.
- Don't damage "O" rings when servicing this tool.
- Use only genuine ARO replacement parts for this tool. When ordering, specify part number, description, tool model number and serial number.

DISASSEMBLY

- Clamp the handle of the tool in a smooth face vise, with the drive end upward.
- Remove cap screws (43) and lock washers (42).
- While lightly tapping on the drive end of the anvil (32 or 35) with a soft face hammer, remove the hammer case (41). Remove the gasket (40).
- Grasp the anvil and lift it from the tool.
- Remove the hammer (30) from the hammer frame (29).
- Lift off the hammer frame (29) and two hammer pins (31).
- Remove washer (28).
- Remove two washers (27).
- Grasp the splined end of the rotor (21) and pull the motor from the housing.
- Remove the front end plate (23) and bearing (24) from the rotor.
- Remove the cylinder (22) and rotor blades (20).
- Remove retaining ring (17), releasing rear end plate (19) and bearing (18).
- Remove gasket (16).
- Secure housing (1) in a vise, clamping on grip area.
- Remove air strainer (9), handle plate (8), retaining ring (7), spring (6), throttle valve (5) and valve seat (4).
- Remove the trigger assembly, and remove the trigger (3) from the trigger pin (2).
- Remove screw (14), releasing reverse valve knob (13).
- While slowly rotating reverse valve (12), remove it from the housing.

ASSEMBLY

- Grease and assemble two "O" rings (11) to grooves in reverse valve bushing (10).
- Coat reverse valve (12) with ARO 29665 spindle oil and assemble into bushing (10), rotating valve slowly while assembling.
- Assemble reverse valve knob (13) to reverse valve (12).
- Apply Loctite 601 to threads of screw (14) and assemble to reverse valve (12), securing knob. NOTE: Tighten screw to 60 – 70 in. lbs.

- Assemble valve seat (4) into housing.
- Assemble trigger (3) to trigger pin (2) and insert assembly into housing.
- Assemble throttle valve (5) into housing (1), being certain valve stem engages the hole in trigger pin (2).
- Assemble spring (6) into housing (small end first) and install retaining ring (7).
- Assemble handle plate (8) to housing, securing with air strainer (9). NOTE: Tighten to 79 – 99 ft lbs.
- Lubricate bearing (24) with ARO 33153 grease and assemble into end plate (23), pressing on outer race of bearing.
- Assemble end plate (23) to rotor, pressing on inner race of bearing.
- Coat rotor blades (20) with ARO 29665 spindle oil and assemble to rotor slots.
- Coat i.d. of cylinder (22) with ARO 29665 spindle oil and assemble over rotor.
- Lubricate bearing (18) with ARO 33153 grease and assemble into end plate (19), pressing on outer race of bearing.
- Assemble end plate (19) to rotor, pressing on inner race of bearing.
- Assemble retaining ring (17) to rotor.
- Align the dowel holes in both end plates and the cylinder and insert a guide rod (3/16" diameter x 6" long).
- Apply a thin film of ARO 33153 grease to gasket (16) and press gasket firmly against rear end plate (19).
- Insert motor assembly into housing (1), sliding guide rod into dowel hole in housing.
- Remove guide rod and replace it with cylinder dowel (26).
- Install dowel (25) in the notches in front end plate and motor housing.
- Clamp housing (1) in a vise with the motor end in an upright position.
- Assemble two washers (27) into housing, with small diameter of washers towards the motor.
- Assemble washers (28) to rotor.
- Coat the spline and the pin holes of hammer frame (29) with ARO 33153 grease.
- Assemble the hammer frame (29) to the rotor.
- Coat the hammer (30) with ARO 33153 grease and slide inside the hammer frame.
- Coat hammer pins (31) with ARO 33153 grease and assemble into holes in hammer frame, engaging notches in hammer.
- Coat anvil (32 or 35) with ARO 33153 grease and assemble into hammer frame and hammer until it seats.
- Coat i.d. of bushing (38) with ARO 33153 grease and assemble hammer case (41) to housing.
- Secure hammer case with cap screws (43) and lock washers (42). NOTE: Tighten screws to 14 – 17 ft lbs.



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