

MODELS 8421-A4-W ROTARY SANDERS

NOTICE

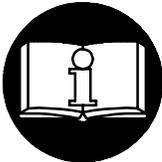
ARO is not responsible for customer modification of tools for applications on which ARO was not consulted.

⚠ WARNING

**IMPORTANT SAFETY INFORMATION ENCLOSED.
READ THIS MANUAL BEFORE OPERATING TOOL.**

**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION
IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.**

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.



PLACING TOOL IN SERVICE

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1).
- For safety, top performance, and maximum durability of parts, operate this tool at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet with 5/16" (8 mm) inside diameter air supply hose.
- Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Be sure all hoses and fittings are the correct size and are tightly secured. See Dwg. TPD905-1 for a typical piping arrangement.
- Always use clean, dry air at 90 (6.2 bar/620 kPa) psig maximum air pressure. Dust, corrosive fumes and/or excessive moisture can ruin the motor of an air tool.
- 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.

USING THE TOOL

- Always wear eye protection when operating or performing maintenance on this tool.
- Always wear hearing protection when operating this tool.
- Keep hands, loose 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.
- Keep body stance balanced and firm. Do not overreach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
- Tool accessories may continue to rotate briefly after throttle is released.
- 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.
- Use accessories recommended by ARO.
- This tool is not designed for working in explosive atmospheres.
- This tool is not insulated against electric shock.

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.

Repairs should be made only by authorized trained personnel. Consult your nearest ARO Authorized Servicer.

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

Ingersoll-Rand Company

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WARNING LABEL IDENTIFICATION

⚠ WARNING

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

	⚠ WARNING
	Always wear eye protection when operating or performing maintenance on this tool.

	⚠ WARNING
	Always wear hearing protection when operating this tool.

	⚠ WARNING
	Always turn off the air supply and disconnect the 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
	Keep body stance balanced and firm. Do not overreach when operating this tool.

	⚠ WARNING
	Operate at 90 psig (6.2 bar/620 kPa) Maximum air pressure.

SANDER SPECIFIC WARNINGS

- Use only a sanding pad, buffing wheel or polishing bonnet with these tools. Do not use any grinding wheel, bur or metal removing accessory other than a sanding pad with these tools. Never use an accessory having a maximum operating speed less than the free speed of the Sander in which it is being used.
- These Sanders will operate at the free speed specified on the nameplate if the air supply line furnishes 90 psig (6.2 bar/620 kPa) air pressure at the tool. Operation at higher air pressure will result in excessive speed.
- Do not operate this Sander away from the work surface.
- Check for excessive speed and vibration before operating.
- Do not use this tool if actual free speed exceeds the nameplate rpm.
- Never exceed the rated rpm of tool.
- 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 tool who experience vibrations should closely monitor duration of use and their physical condition.
- When using a pad having a shank, insert the shank to full depth in the collet. When using a pad on a threaded arbor, make certain the flange nut is tightened securely. Check the tightness of the collet nut or flange nut before operating a Sander to make certain it will not loosen during operation.
- Do not operate a Belt Sander with the Cover removed.

LUBRICATION



<u>Where Used</u>	<u>ARO Part #</u>	<u>Description</u>
"O" Rings & Lip Seals	36460	4 oz. Stringy Lubricant
Gears and Bearings	33153	5 lb. "EP" – NLGI #1 Grease

Always use an air line lubricator with these tools.

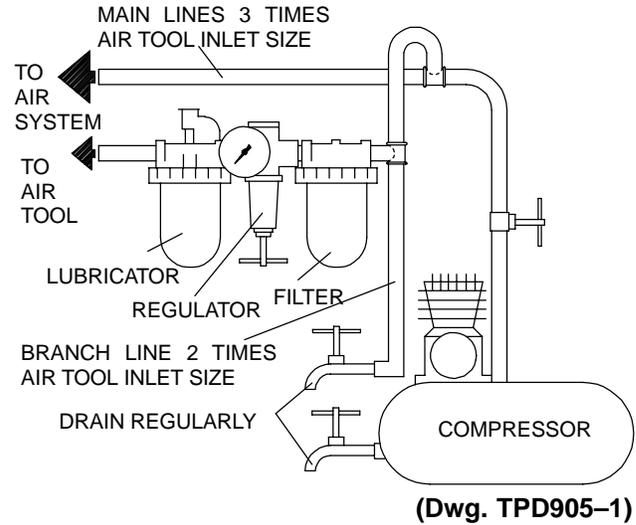
We recommend the following Filter–Lubricator–Regulator Unit:

ARO Model P29231–110

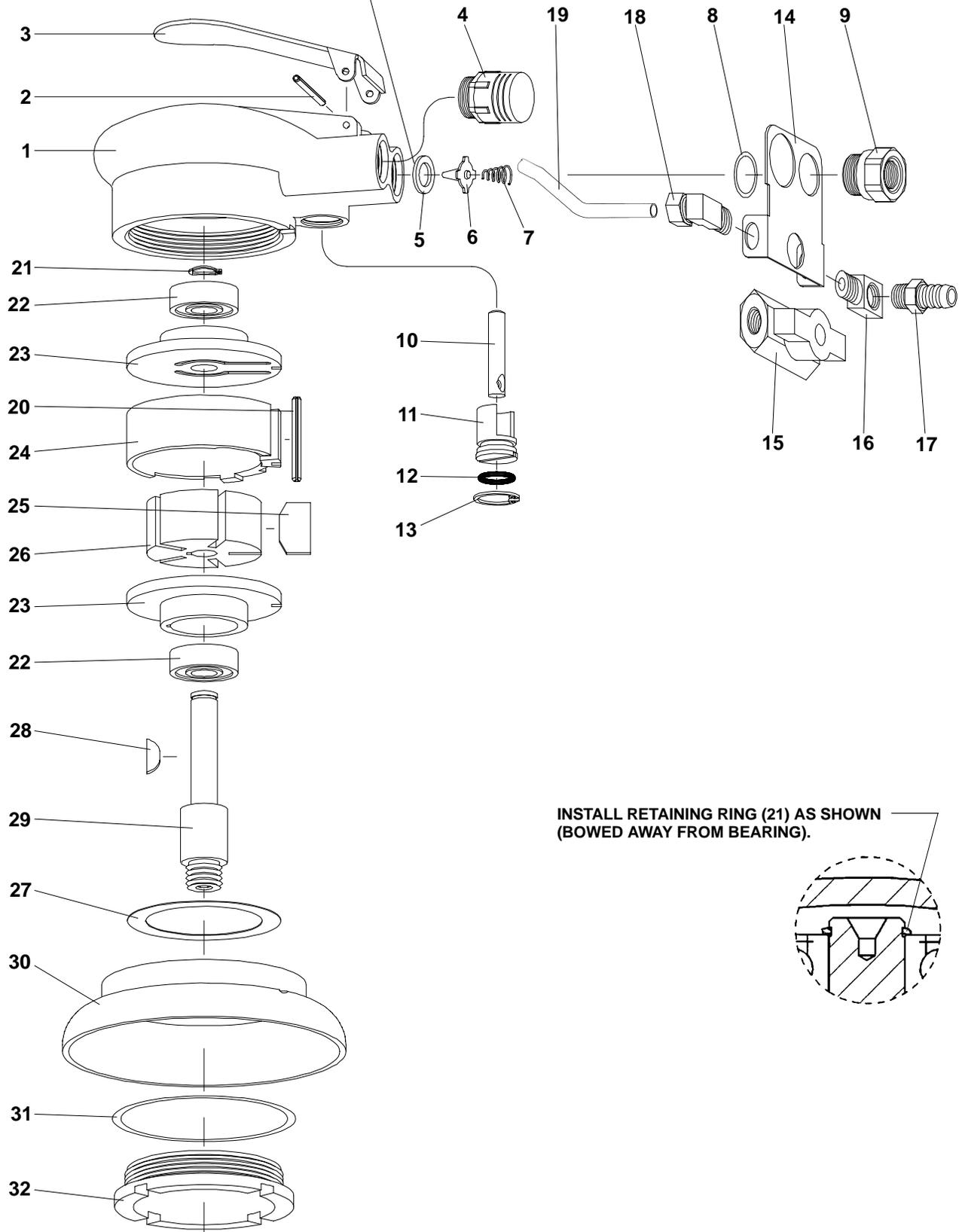
EVERY 160 HOURS OF TOOL OPERATION – Flush tool with a solution of equal parts cleaning solvent and spindle oil.

CAUTION

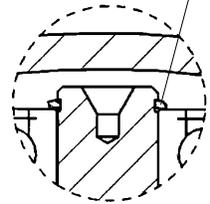
Do not mark any nonmetallic surface on this tool with customer identification codes. Such actions could affect tool performance.



FACE WITH ROUNDED O.D. ON THIS SIDE



INSTALL RETAINING RING (21) AS SHOWN
(BOWED AWAY FROM BEARING).



(ATP-562)

PART NUMBER FOR ORDERING

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1	Housing	48064	18	Elbow	Y229-3
2	Roll Pin	Y178-33	19	Tube	48830-1
3	Lever	48067	20	Roll Pin	Y178-47
4	Muffler	48171-1	21	Retaining Ring	44533
5	Seat	48071	22	Bearing (2 req'd)	48169-1
6	Tip Valve	48070	23	End Plate (2 req'd)	44529
7	Spring	32858	24	Cylinder	44531
8	"O" Ring	Y325-14	25	Blade (5 req'd)	44538
9	Inlet Adapter	48829-1	26	Rotor	44532-2
10	Valve Stem	48065	27	Spacer	44878
11	Regulator	48068	28	Key	39442
12	"O" Ring	Y325-13	29	Spindle	48828-1
13	Retaining Ring	Y147-62	30	Guard	48831-1
14	Bracket	48832-1	31	"O" Ring	Y325-36
15	Ball Valve	104077-1	32	Lock Ring	44536
16	Adapter	6045	33	Sleeve (not shown)	48073
17	Barbed Insert	30764			

DISASSEMBLY/ASSEMBLY INSTRUCTIONS

⚠ WARNING

Always wear eye protection when operating or performing maintenance on this tool.

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

NOTICE

- 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.

MOTOR DISASSEMBLY

- Remove sanding pad.
- Remove inlet adapter (9), releasing bracket (14) and components from tool.
- Remove lock ring (32) – LEFT HAND THREADS – "O" ring (31) and guard (30).
- Remove motor assembly and pin (20). NOTE: It may be necessary to tap housing with a soft face hammer to loosen motor from housing.
- Remove retaining ring (21).
- Using special brass blocks to fit around o.d. of cylinder, clamp around cylinder and press shaft of spindle (29) thru bearing (22) and end plate (23).
- Remove blades (25), rotor (26) and key (28).
- Remove other bearing (22) and end plate (23).

MOTOR ASSEMBLY

- Assemble bearings (22) into end plates (23), pressing on outer race of bearings.
- Press one end plate (23), with bearing (22), on shaft of spindle (29).
- Install key (28) in key slot.
- Assemble rotor (26) to spindle, aligning keyway with key (28).
- Assemble five rotor blades (25) to rotor slots – straight side out.
- Assemble cylinder (24) over rotor.
- Assemble other end plate (23), with bearing (22), to shaft of spindle, pressing on inner race of bearing.
- Install retaining ring (21) to groove in spindle, with bow of ring positioned as shown on parts illustration page.
- Align notches in end plates and cylinder and install roll pin (20) to notches.
- Assemble motor to housing, aligning pin (20) with groove in housing.
- Assemble spacer (27) to housing.
- Grease and assemble "O" ring (31) to lock ring (32).
- Assemble guard (30) over lock ring (32) and thread lock ring into housing – LEFT HAND THREADS. Tighten securely.
- Assemble bracket (14) and components to tool, inserting tube (19) thru hole in guard (30).
- Secure bracket with inlet adapter (9).

THROTTLE DISASSEMBLY

- Remove muffler (4).
- Remove inlet adapter (9), releasing bracket (14), "O" ring (8), spring (7) and valve (6). NOTE: Do not remove seat (5) unless damage is evident.
- Remove lock ring (32) – LEFT HAND THREADS – "O" ring (31) and guard (30).
- Remove retaining ring (13), releasing regulator (11) with "O" ring (12) and valve stem (10).
- To remove lever (3), remove roll pin (2).
- Do not disassemble components from bracket (14) unless damage is evident. To remove ball valve (15), unthread adapter (16) and elbow (18) from ball valve (15). Remove screw and plastic knob from ball valve to release valve.
- Loosen nut on elbow (18) to remove tube (19).

THROTTLE ASSEMBLY

- Assemble ball valve to bracket (14) and assemble plastic knob to ball valve, securing with screw.
- Assemble adapter (16) thru side of bracket and thread into ball valve (15).
- Assemble insert (17) to adapter (16).
- Assemble elbow (18) thru side of bracket and thread into ball valve (15).
- Assemble tube (19) into elbow and tighten nut on elbow to secure.
- Assemble inlet adapter (9) to bracket and assemble “O” ring (8) to inlet adapter.
- Grease and assemble “O” ring (12) to regulator (11).
- Assemble valve stem (10) to housing, with hole in valve stem in line with housing to accept valve (6).
- Assemble seat (5) to housing with rounded corners into housing first.
- Coat valve (6) with ARO 29665 spindle oil and assemble to housing, securing valve stem (10).
- Assemble regulator (11) to housing, securing with retaining ring (13).
- Assemble guard (30) and lock ring (32) to tool – LEFT HAND THREADS.
- Assemble spring (7) to housing.
- Assemble bracket (14) to housing, inserting tube (19) thru hole in guard (30) and thread inlet adapter (9) to housing, securing bracket (14).
- Assemble muffler (4) to housing.

