OPERATOR'S MANUAL

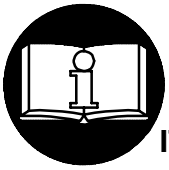
INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

Released: 06-30-95
Revised: 09-01-00

MODEL 7798
20,000 RPM GRINDER

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 Servicenter.

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
1725 U.S. No. 1 North ● P.O. Box 8000 ● Southern Pines, NC 28388–8000

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

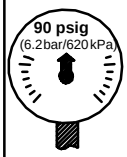
Do not carry the tool by the hose.

⚠ 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.

⚠ WARNING

⚠ WARNING

Read the manual before operating this tool.
Operate at 90 psig/6.2 bar max.

PN 48176–1 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.

GRINDER SPECIFIC WARNINGS

- **These Grinders 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 Grinder 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.**
- **Whenever the Angle Head is installed or repositioned, the Throttle Lever must be positioned so that reaction torque will not tend to retain the throttle in the "ON" position.**
- **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.**
- **Before mounting a wheel, after any tool repair or whenever a Grinder is issued for use, check free speed of Grinder with a tachometer to make certain its actual speed at 90 psig (6.2 bar/620 kPa) does not exceed rpm stamped or printed on the nameplate. Grinders in use on the job must be similarly checked at least once each shift.**
- **Do not use any grinding wheel, burr or other accessory having a maximum operating speed less than the free speed of the Grinder in which it is being used. Always conform to maximum rpm on grinding wheel blotters.**
- **Inspect all grinding wheels for chips or cracks prior to mounting. Do not use a wheel that is chipped or cracked or otherwise damaged. Do not use a wheel that has been soaked in water or any other liquid.**
- **Make certain grinding wheel properly fits the arbor. Do not use reducing bushings to adapt a wheel to any arbor unless such bushings are supplied by and recommended by the wheel manufacturer.**
- **After mounting a new wheel, hold the Grinder under a steel workbench or inside a casting and run it for at least 60 seconds. Make certain no one is within the operating plane of the grinding wheel. If a wheel is defective, improperly mounted or the wrong size and speed, this is the time it will usually fail.**
- **When starting with a cold wheel, apply it to the work slowly until the wheel gradually warms up. Make smooth contact with the work and avoid any bumping action or excessive pressure.**
- **Always replace a damaged, bent or severely worn wheel guard. Do not use a wheel guard that has been subjected to a wheel failure.**
- **Make certain wheel flanges are at least 1/3 the diameter of grinding wheel, free of nicks, burrs and sharp edges. Always use wheel flanges furnished by the manufacturer; never use a makeshift flange or a plain washer. Tighten Flange Nut securely.**
- **Guard opening must face away from operator. Bottom of wheel must not project beyond guard.**

LUBRICATION

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

Always use an air line lubricator with these tools.

We recommend the following Filter–Lubricator–Regulator Unit:

ARO Model C28231–810

Every 8 hours of tool operation – Fill lubricator reservoir of recommended F.R.L. with spindle oil (29665). If an in line or air line lubricator is not used, apply several drops of spindle oil (29665) in air inlet.

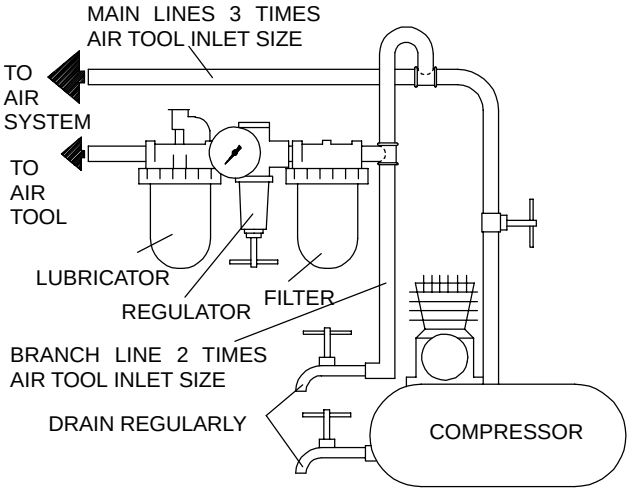
After each 40 hours of tool operation, Flush tool with a solution of three (3) parts cleaning solvent to one (1) part spindle oil.

CAPACITIES (MAXIMUM)

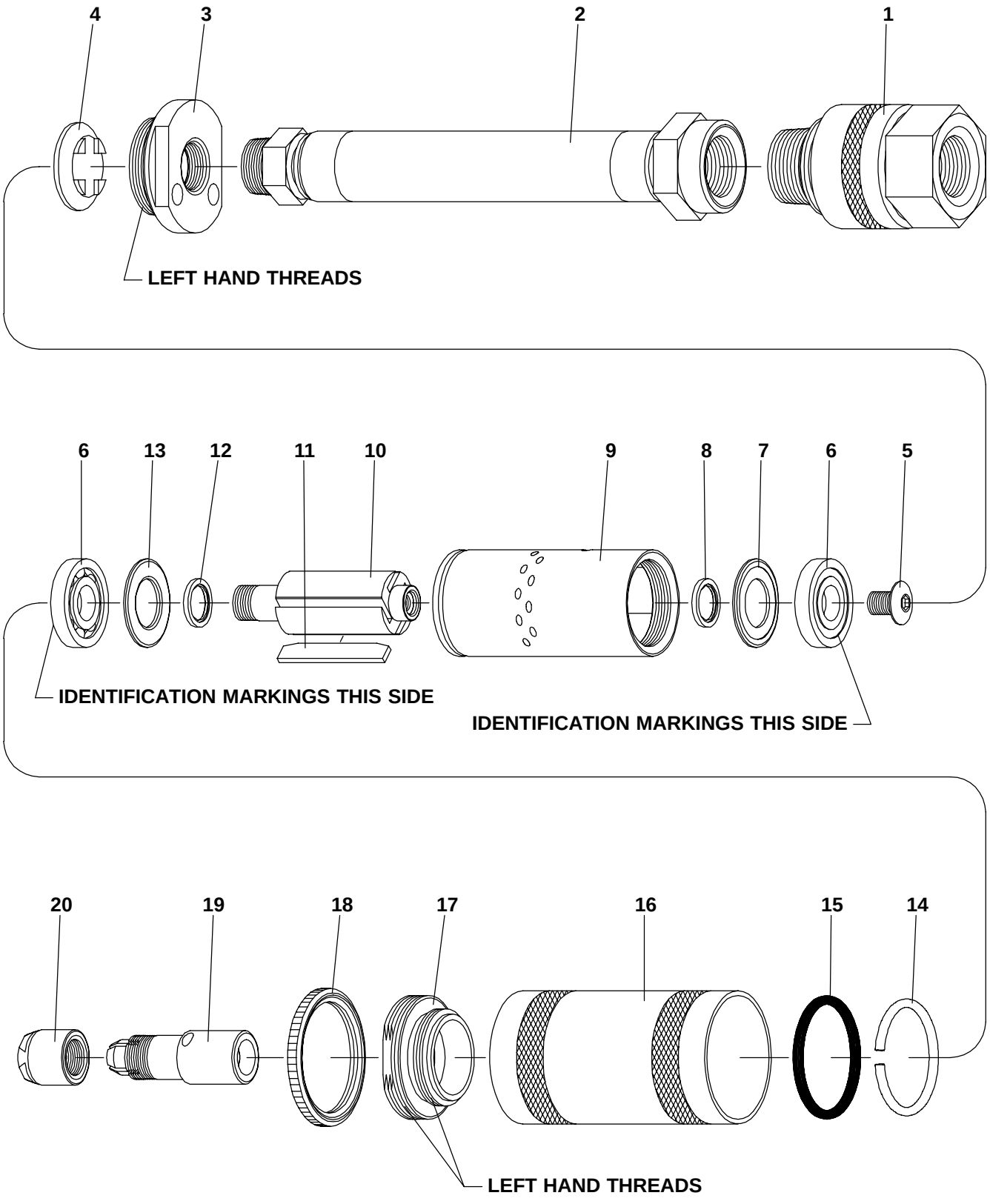
Carbide Bur – 1/4"
Mounted Stone – 1/2"

CAUTION

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



(Dwg. TPD905–1)



NOT SHOWN
30131 WRENCH
31254 WRENCH
48176–1 WARNING LABEL

(ATP–43)

		PART NUMBER FOR ORDERING			PART NUMBER FOR ORDERING
1	Valve Assembly	600–2	12	Spacer	31406
2	Hose Assembly	49964	13	End Plate	31116
3	Head	49864	14	Snap Ring	Y111–8–C
4	Baffle Plate	33209	15	O Ring	Y325–18
5	Screw	Y211–82	16	Muffler	35686
6	Paired Bearing	33213	17	Nut	33013
7	End Plate	31116	18	Thread Guard	49865
8	Spacer	31406	19	Collet Body	46128
9	Housing	35683	20	Collet Nut	46127
10	Rotor	37034		Collet Assembly (includes items 19 and 20)	46129
11	Blade (4 req'd)	37035			

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.

DISASSEMBLY

- Using wrenches on flats of head (3) and hose assembly (2), unthread and remove hose assembly.
- Place head of tool in a smooth face vise, clamping on flats of head (3).
- Remove collet nut (20).
- Remove thread guard (18) – LEFT HAND THREAD.
- Remove collet body (19).
- Using a wrench on flats of nut (17), unthread and remove – LEFT HAND THREADS.
- Remove muffler (16) and "O" ring (15).
- Using a strap type wrench, unthread and remove housing (9) from head – LEFT HAND THREADS.
- Remove baffle plate (4) and screw (5).
- Remove rotor (10) and components out front end of housing (9), pressing on rotor.
- Remove bearing (6), end plate (13) and spacer (12) from rotor

ASSEMBLY

- Pack bearings (6) with ARO 33153 grease.
- Assemble spacer (12) and end plate (13) to rotor. NOTE: Assemble end plate with counterbore away from rotor.
- Assemble bearing (6) to rotor, pressing on inner race of bearing. NOTE: Assemble bearing with shielded side out.
- Coat rotor blades (11) with ARO 29665 spindle oil and assemble to rotor slots – straight side out.
- Coat i.d. of housing (9) with ARO 29665 spindle oil and assemble over rotor.
- Assemble spacer (8) and end plate (7) to rotor. NOTE: Assemble end plate with counterbore away from rotor.
- Assemble bearing (6) to rotor, pressing on inner race of bearing. NOTE: Assemble bearing with shielded side out.
- Assemble screw (5) to rotor, securing bearing.
- Assemble baffle plate (4) into housing (9) and assemble housing to head (3) – LEFT HAND THREADS.
- Assemble snap ring (14) to groove in housing (9).
- Lubricate "O" ring (15) and assemble to housing (9).
- Assemble muffler (16) over housing, to head (3).
- Assemble nut (17) to housing (9) – LEFT HAND THREADS.
- Assemble thread guard (18) to nut (17) – LEFT HAND THREADS.
- Assemble collet body (19) to rotor.
- Assemble collet nut (20) to collet body (19).
- Assemble hose assembly (2) and valve assembly (1) to tool.

NOTES

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