

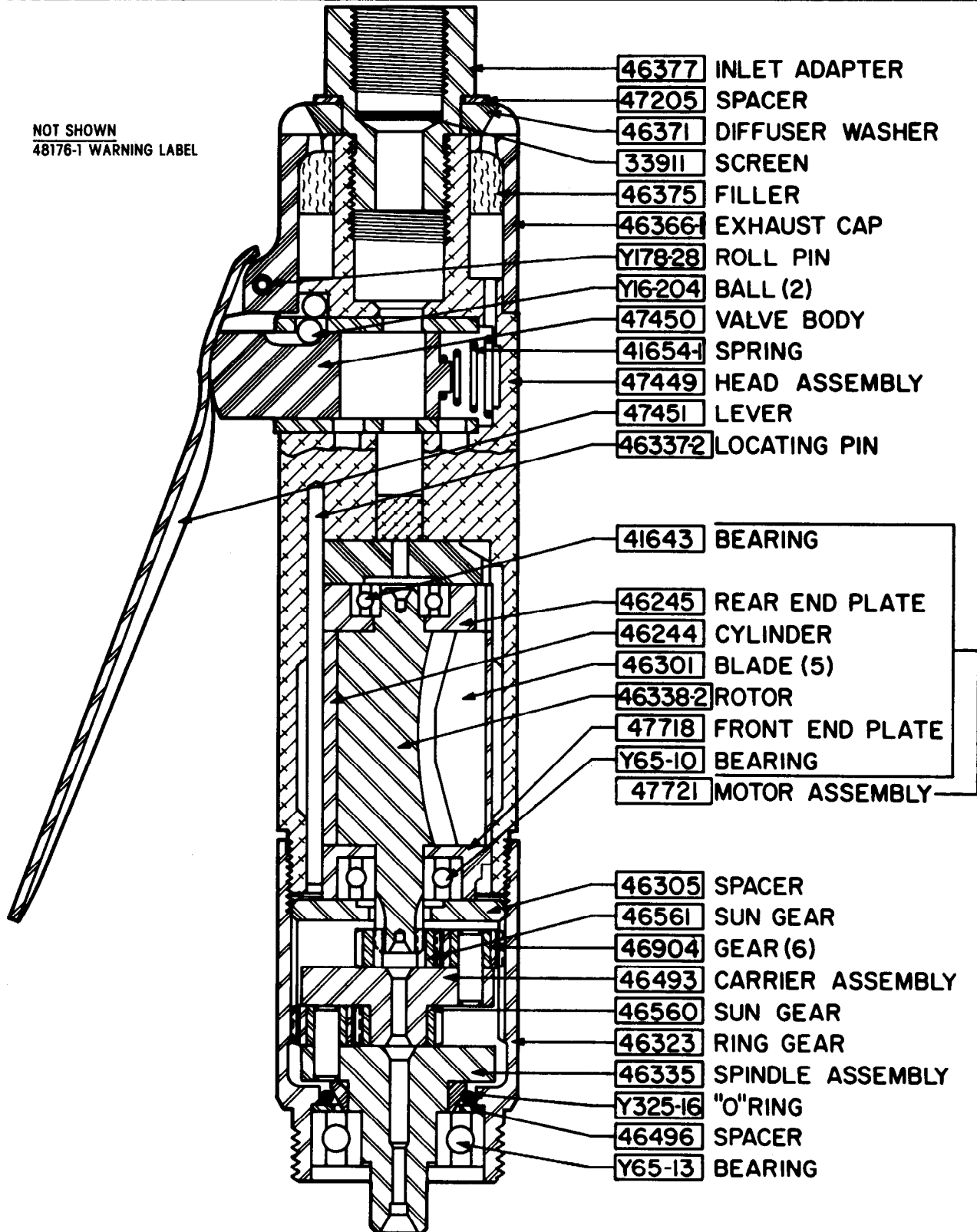
# PARTS LIST

MODEL 8676  
20-SERIES POWER MOTOR  
11.76:1 TOTAL REDUCTION 1500 R.P.M.

FORM 2681-2

5-4-92

NOT SHOWN  
48176-1 WARNING LABEL



46377 INLET ADAPTER

47205 SPACER

46371 DIFFUSER WASHER

33911 SCREEN

46375 FILLER

46366 EXHAUST CAP

Y178-28 ROLL PIN

Y16-204 BALL (2)

47450 VALVE BODY

41654-1 SPRING

47449 HEAD ASSEMBLY

47451 LEVER

463372 LOCATING PIN

41643 BEARING

46245 REAR END PLATE

46244 CYLINDER

46301 BLADE (5)

46338-2 ROTOR

47718 FRONT END PLATE

Y65-10 BEARING

47721 MOTOR ASSEMBLY

46305 SPACER

46561 SUN GEAR

46904 GEAR (6)

46493 CARRIER ASSEMBLY

46560 SUN GEAR

46323 RING GEAR

46335 SPINDLE ASSEMBLY

Y325-16 "O"RING

46496 SPACER

Y65-13 BEARING

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) 672-0601

ARO Tool & Hoist Products

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**INGERSOLL-RAND®**  
**PROFESSIONAL TOOLS**

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## AIR AND LUBE REQUIREMENTS

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AIR PRESSURE of 90 p.s.i.g (6 bar) at the air inlet of the tool is required for maximum motor efficiency. If necessary, an air regulator should be installed to maintain this pressure when tool is in operation.

FILTERED AND OILED AIR will allow the tool to operate more efficiently and yield a longer life to operating parts and mechanisms. A line filter capable of filtering particles larger than 50 microns should be used with a line oiler.

FILTER-REGULATOR-LUBRICATOR combination (F-R-L) Model 128231-800 is recommended for use with this Air Tool. The capacity of the individual Filter-Lubricator is adequate to provide clean (40

micron) oiled and regulated air for the tool.

FLUSH TOOL with a solution of three parts cleaning solvent and one part light oil after each 40 hours of operation. After flushing, apply a small amount of Spindle Oil in air inlet and run free for one minute to insure proper lubrication.

RECOMMENDED HOSE SIZE-5/16" (8 mm) nominal inside diameter.

RECOMMENDED LUBRICANTS: Spindle Oil 29665 1 qt. (.9 liter) container for oiler and air inlet; Grease 33153, 5 lb. (2.3 kg) can for gears and bearings, "O" Ring Lubricant 36460, 4 oz. (113 g) tube for lubrication and installation of "O" Rings.

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## MAINTENANCE

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AIR TOOLS are made of precision parts and should be handled with reasonable care when servicing. Excessive pressure exerted by a holding device may cause distortion of a part. Apply pressure evenly when disassembling (or assembling) parts which have a press fit. When removing or installing bearings, apply pressure to the bearing race that will be the press fit to the mating part; if this is not practiced, Brinelling of the bearing races may occur making replacement necessary. It is important that the correct tools and fixtures are used when servicing this Air Tool.

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. When REPLACEMENT PARTS are necessary, consult drawing containing the part for identification.

BEFORE 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 when assembling.

WHEN ORDERING PARTS, be sure to list PART NUMBER, PART NAME, MODEL NUMBER AND SERIAL NUMBER OF TOOL. USE ONLY GENUINE ARO® REPLACEMENT PARTS.

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## DISASSEMBLY AND REASSEMBLY OF TOOLS

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### DISASSEMBLY

GEARING—Remove ring gear (46323) from tool. Remove spacer (46305), carrier (46493), gears and spindle (46335). DO NOT remove bearing (Y65-13) or spacer (46496) unless damage is evident. To remove bearing and spacer, press on spacer from splined end of ring gear.

MOTOR — Remove gearing from tool. Tap front edge of housing to remove motor assembly. Locating pin (46337-2) should also come out. Tap splined end of rotor with a soft face hammer; motor will come apart. NOTE: Bearings are light press fit in end plates and on rotor. Remove end plate (46245) and bearing (41643) from rotor.

HOUSING — To remove valve body (47450) and spring (41654-1), remove inlet adapter (46377), spacer (47205), diffuser washer (46371), exhaust cap (46366-1) and filler (46375). Remove two balls (Y16-204), releasing valve body and spring.

### ASSEMBLY

HOUSING — Insert spring (41654-1) and valve body (47450) into housing. Assemble two balls (Y16-204) into slot in housing to retain valve body. Install filler (46375) into exhaust cap (46366-1) and install exhaust cap to housing, aligning lever with valve body. Assemble diffuser washer (46371) and spacer (47205) to tool, securing with inlet adapter

(46377). Clean and replace screen (33911) in inlet adapter.

MOTOR — Lubricate bearing (41643) with ARO 33153 grease. Assemble bearing to end plate (46245). NOTE: Press on outer race of bearing. Assemble end plate to rotor. NOTE: Press on inner race of bearing. Coat five rotor blades (46301) with ARO 29665 spindle oil and assemble to rotor slots - straight side out. Coat i.d. of cylinder (46244) with ARO 29665 spindle oil and assemble over rotor. NOTE: Air inlet slots in end of cylinder must be aligned with two air inlet holes in end plate (46245). Assemble bearing (Y65-10) to end plate (47718). NOTE: Press on outer race of bearing. Assemble end plate to rotor. NOTE: Press on inner race of bearing. Be sure rotor turns without binding. Insert locating pin (46337-2) into .081 diameter blind hole at bottom of motor cavity in housing. Align notches of end plates and cylinder and install motor into housing aligning notches with locating pin. Assemble spacer (46305) to motor with counterbore facing motor.

GEARING—Assemble spacer (46496) and bearing (Y65-13) to ring gear. NOTE: Press on outer race of bearing. Grease and assemble o-ring (Y325-16) to spindle. Coat shafts of spindle (46335) and carrier (46493) with ARO 33153 grease. Lubricate gears liberally with ARO 33153 grease (approx. 1/16 oz.) and assemble to spindle and carrier. Assemble carrier assembly to spindle assembly and assemble into ring gear. Thread ring gear (46323) to tool and tighten with a strap wrench.