

## OPERATING PRECAUTIONS

**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.

## AIR AND LUBE REQUIREMENTS

Air pressure of 90 p.s.i.g. (6.2 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 air pressure when the 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 (F-R-L) assembly model C28231-810 is recommended for use with this air tool. The capacity of this F-R-L 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.

## MAINTENANCE

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

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 press fit to the mating part; if this is not practiced, Brinelling of the bearing races will 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 relubricating 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, 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 ordering parts, be sure to list **part number, part name, model number and serial number** of tool. Use only genuine ARO® replacement parts

Safe and efficient operation of ARO sanders can best be attained by observing proper maintenance procedures (see "Maintenance Section" and good operator practices. When using any of these tools, the operator should wear safety goggles or other face protective gear as well as other devices or clothing deemed necessary for his protection and well being.

ARO models 7096-D-( ) and 7098-D have been designed specifically for sanding applications — DO NOT USE THESE TOOLS AS GRINDERS. Grinding wheels require special guards and mounting equipment not available with these sanders. ALWAYS disconnect air supply to tool before changing discs, pads or otherwise performing service or maintenance to tool.

## DISASSEMBLY AND ASSEMBLY OF TOOLS

### DISASSEMBLY

**RIGHT-ANGLE** — Remove nut (30214), pad ("G") and washer (33003). Remove screw (Y99-54) and pull right-angle assembly from gearing. Loosen nut (32795) completely and remove shaft (33057) and components from housing. Remove nut (32798) to remove gear and other components from shaft. Remove sleeve (32789) and screw (32788). Pull shaft (37487) and components from housing. Remove nut (32798) to remove gear and bearing from shaft.

**GEARING**—Using a strap wrench on motor housing and a wrench on flats of ring gear (31591), unscrew and remove ring gear from housing. Tap drive end of spindle with a soft face hammer; spindle and components will loosen from ring gear. Remove bearing (31308) and pins (31596) from spindle to remove gears (31889).

**MOTOR** — Remove gearing, spacer (31597) and motor from housing. Grasp cylinder in one hand and tap splined end of rotor with a soft face hammer; motor will come apart. Place head of tool

in a suitable holding device and, using a strap wrench, unscrew and remove motor housing from head. Remove "O" ring (Y325-222) and exhaust sleeve (43833-1) to remove screen (44933) for cleaning.

**VALVE** — Remove valve plug (30600). Valve components may now be removed from head.

### ASSEMBLY

**VALVE** — Assemble "O" ring (Y325-7) to valve stem (46135). Assemble valve stem into head. Assemble spring (30609) and regulator (30603) into head, aligning hole in regulator with air inlet of head. Assemble seal (30602) to head and secure valve components with "O" ring (Y325-13) and plug (30600).

**MOTOR** — Assemble bearings into end plates and assemble end plate (30129) to rotor. Assemble cylinder (35679) over rotor to end plate (30129), aligning roll pin in cylinder with hole in end plate. Assemble blades to rotor and assemble end plate (31592), with

bearing, to rotor and cylinder, aligning hole in end plate with roll pin in cylinder. Assemble washer (30744) and other bearing (Y65-8) to rotor. Be sure motor does not bind. Assemble "O" rings (Y325-30), screen (44933) and exhaust sleeve (43833-1) to motor housing and secure with "O" ring (Y325-222). Assemble motor housing to head. Assemble motor, with spacer (31597), to housing. Assemble gearing to housing and motor.

**GEARING** — Assemble gears (31889) to spindle and secure with pins (31596), aligning notch in pins with spindle as shown. Assemble bearing (31308) to spindle and assemble spindle to ring gear. Lubricate gearing using approximately 1/4 oz. grease when assembling.

**RIGHT-ANGLE** — Assemble bearing (41093) to shaft (37487) with sealed side of bearing going on shaft first. Assemble gear to shaft and secure with nut (32798). Assemble shaft and components to housing and secure with screw (32788). Assemble nut (32795), spacer (32797), seal (32796), bearing (41093) and gear to shaft (33057) and secure with nut (32798). Position seal (32796) and sealed side of bearing (41093) on shaft as shown. Assemble shaft and components to housing and secure with nut (32795). Assemble sleeve (32789) and right-angle assembly to gearing and secure with screw (Y99-54). Right-angle assembly should be lubricated using approximately 1/8 oz. grease when assembling.