



PARTS LIST AND INSTRUCTION MANUAL MODEL 7657-D "O" SERIES DRILL

AIR AND LUBE REQUIREMENTS

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 (F-R-L) assembly 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. The Filter-Regulator-Lubricator must be installed on the stationary air line, in that order, with the Lubricator nearest to the tool. NEVER mount the unit on the detachable flexible hose to the tool.

IF LINE OILER is not used and tool does not have a built-in oiler, apply a small amount of Spindle Oil in air inlet of tool and run free for one minute to insure proper lubrication; after each 8 hours of operation.

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

CAUTION: An excessive amount of lubricant in a tool will affect the speed and power.

GEARING should be grease lubricated approximately every 160 hours of operation. Inject 2 or 3 strokes of grease (33153), or equivalent, thru grease fitting in housing. Gearing assembly should contain approximately 1/8 oz. (3.5 g) grease.

RIGHT-ANGLE ASSEMBLY should be grease lubricated approximately every 160 hours. Inject 2 to 3 strokes of grease (33153), or equivalent, thru fitting (or pipe plug) in right-angle housing. Right-Angle assembly should contain approximately 1/8 oz. (3.5 g) grease.

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 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 and exhaust (drain) line of compressed air BEFORE performing maintenance or service 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 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" 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.

DISASSEMBLY AND REASSEMBLY OF TOOLS

Before starting to disassemble or reassemble this tool (any part or completely) be sure to read Maintenance Section. To minimize the possibility of parts damage and for convenience, the steps for disassembly or reassembly listed on the following pages are recommended.

The basic sections and instructions for removing them from tool are as follows:

With tool disconnected from air service —

RIGHT-ANGLE SECTION

Using wrenches on flats of Gearing and Adapter (37103) loosen Adapter completely and pull right-angle section from gearing.

GEARING SECTION

Hold motor housing with a strap wrench and remove gearing using a wrench on flats of gearing.

MOTOR SECTION

Place head of tool in a suitable holding device and using a strap wrench on motor housing, unscrew and remove.

HEAD SECTION

Follow disassembly procedures as outlined in the preceding sections.

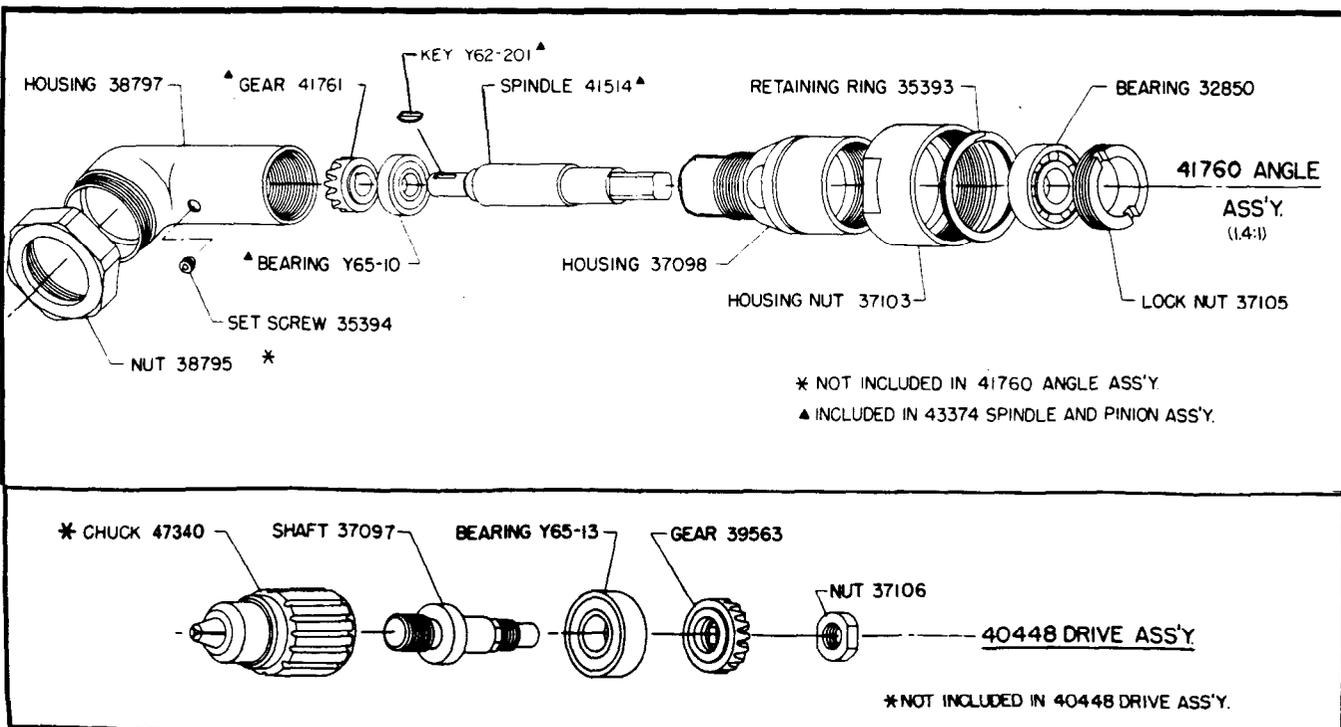
RIGHT-ANGLE SECTION

DISASSEMBLY

- a. Remove Nut (38795) and pull Drive Assembly from Right-Angle Housing. NOTE: on models with Drive Assembly (40455), remove Nose Housing (38794).
- b. To remove Gear (39563) and Bearing (Y65-13) from Shaft or Bit Holder, remove Nut (37106).
- c. Loosen Set Screw (35394) and remove Housing (37098) from Housing (38797) —L.H. threads.
- d. Remove Spindle and Pinion Assembly from housing. NOTE: Gear (41761) and Bearing (Y65-10) are press-fit on Spindle (41514) and should not be removed unless necessary to replace a part. If Gear or Bearing are removed the Bearing should be replaced.
- e. To remove Bearing (32850) from housing, remove Lock Nut (37105).

REASSEMBLY

- a. Assemble Bearing (Y65-10), Key (Y62-201) and Gear (41761) to Spindle (41514) and assemble to Housing (37098).
- b. Assemble Bearing (32850) to Spindle (41514) and Housing (37098) and secure with Lock Nut (37105).
- c. Assemble Housing (37098), with Retaining Ring (35393) and Housing Nut (37103) attached, to Housing (38797) —L.H. threads. Secure with Set Screw (35394). NOTE: Use adhesive on threads of Set Screw to prevent screw from loosening when tool is in operation.
- d. Assemble Bearing (Y65-13) and Gear (39563) to drive Shaft or Bit Holder and secure with Nut (37106). NOTE: Use adhesive on threads of Nut (37106) to insure nut does not work loose when tool is operated.
- e. Assemble other components to drive Shaft or Bit Holder and assemble to right-angle housing. Secure with Nut (38795) or Housing (38794).
NOTE: Right-Angle Assembly should contain approx. 1/8 oz. grease.



GEARING SECTION

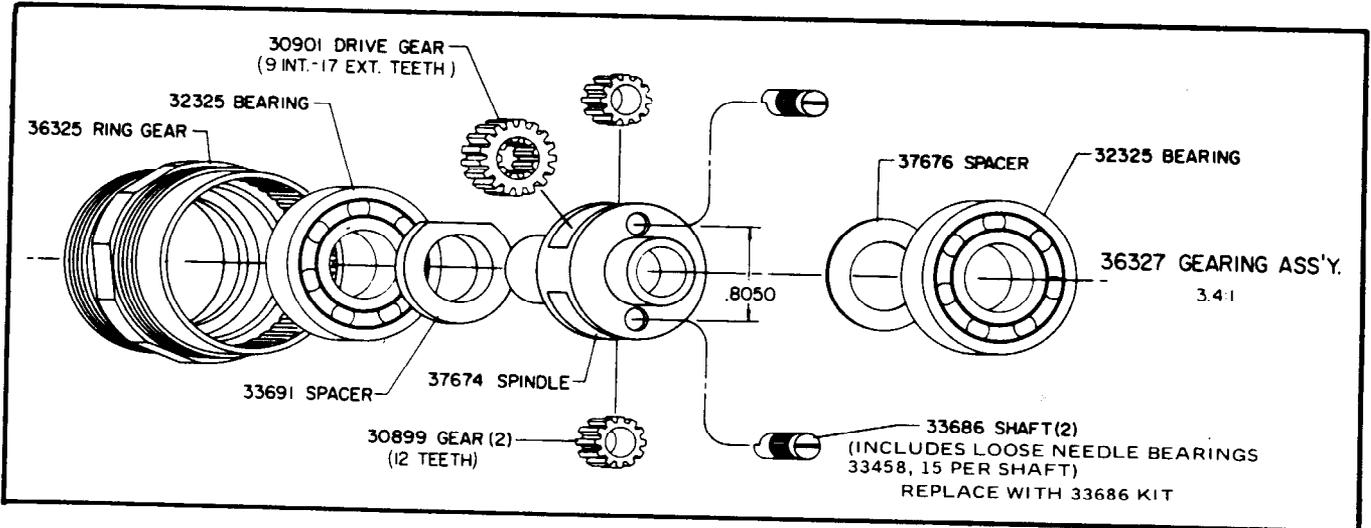
DISASSEMBLY

- a. Remove Spindle and components from Ring Gear.
- b. To remove Gears from Spindle; remove Bearing, Spacer and Shafts.

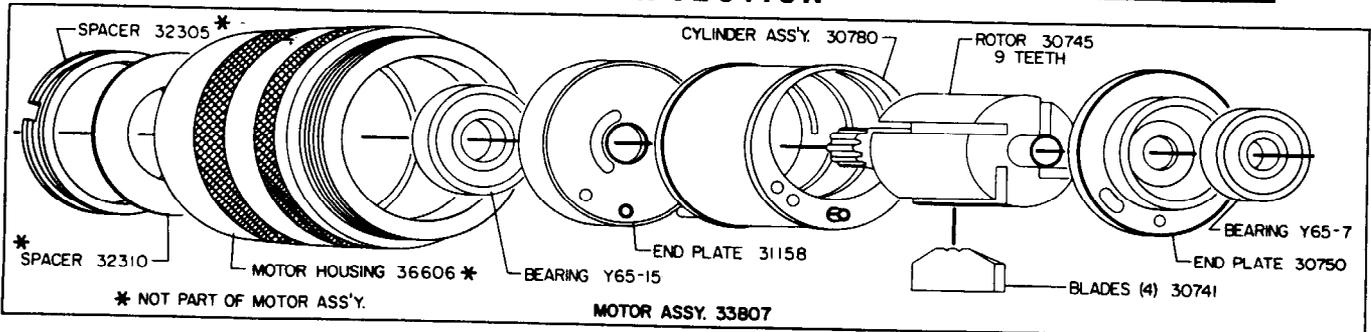
REASSEMBLY

NOTE: Pack bearings and lubricate gears liberally with 33153 grease or equivalent upon assembly. Gearing assembly should contain approx. 1/8 oz. grease.

- a. Assemble Spacer (33691) or (33693) and Gears to Spindle and secure with Shafts, aligning notch in Shafts with Spacer. NOTE: Shafts (33686) contain fifteen (15) loose Needle Bearings (33458) per shaft.
- b. Assemble Spacer (37676), where applicable, and Bearings to Spindle and assemble to Ring Gear.



MOTOR SECTION



DISASSEMBLY

- a. Remove Motor assembly from housing.
- b. Grasp Cylinder in one hand and tap drive end of Rotor with a non-metallic hammer, motor will come apart.

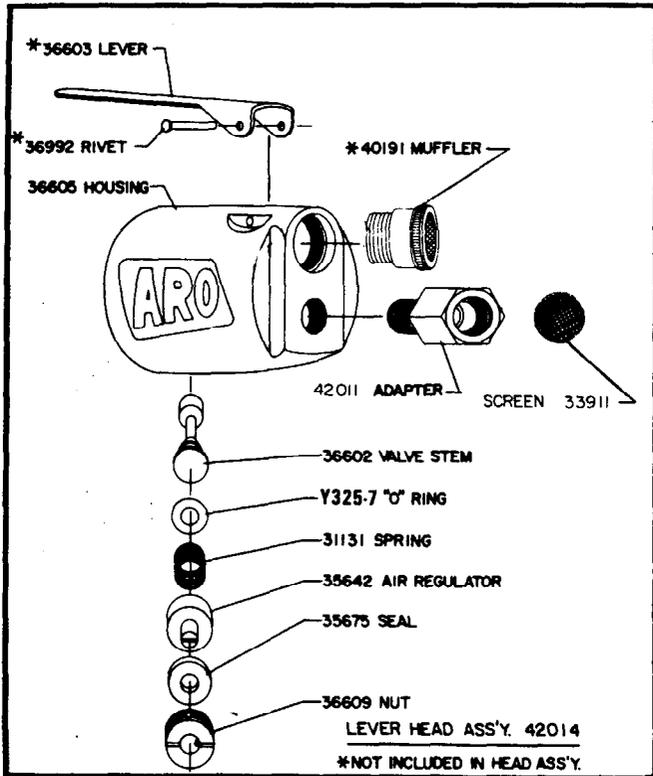
REASSEMBLY

- a. Assemble Bearings to End Plates and assemble rear End Plate (30750) to Rotor.
- b. Assemble Cylinder and Pin assembly over Rotor to rear End Plate and assemble Blades to Rotor.

- c. Assemble front End Plate to Rotor and Cylinder. Being certain Motor does not bind assemble into Housing with Spacers (32310) and (32305).

When assembling Motor Section to Head Section, place Head in a suitable holding device with opening for Motor in an upward position. Assemble Motor Assembly in Head with Roll Pin protruding from rear End Plate of Motor aligned with hole in Head. Slip Motor Housing over Motor Assembly and screw to Head Section. Assemble Spacer (32310), Spacer (32305) and Gearing.

HEAD SECTION

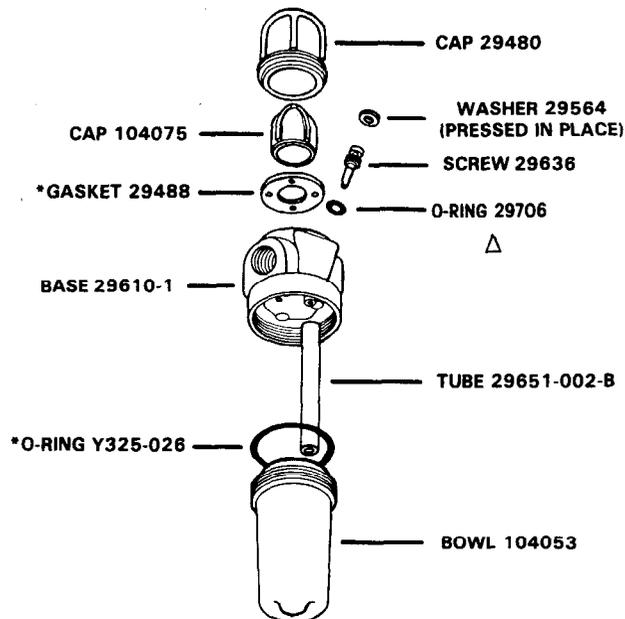


DISASSEMBLY

- a. Remove Nut (36609) and Valve parts may easily be removed.

REASSEMBLY

- a. Assemble "O" Ring (Y325-7) to Valve Stem (36602).
- b. Assemble Valve Stem, Spring (31131) and Regulator (35642) into Housing and secure with Seal (35675) and Screw (36609).



*INCLUDED IN REPAIR KIT, PART NO. 104028

126121-000 LUBRICATOR ASS'Y.
(1/4" PORTS)