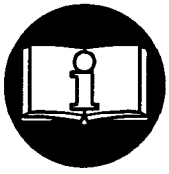
3/8" TWIN BLADE IMPULSE WRENCH

MODEL: PG537A-B1

NOTICE

Model PG537A-B1 3/8" Impulse Wrench is designed for use in assembly operations requiring consistent torque. They are ideally suited to appliance assembly and applications requiring low noise levels.

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 3/8" (10 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 psig (6.2 bar/620 kPa) 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.
- Note the position of the reversing lever before operating the tool so as to be aware of the direction of rotation when operating the throttle.
- 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 over-reach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
- Tool shaft 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.
- Use only impact sockets and accessories. Do not use hand (chrome) sockets or accessories.
- Impact wrenches are not torque wrenches. Connections requiring specific torque must be checked with a torque meter after fitting with an impact wrench.
- 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 Tool Products Authorized Servicenter.

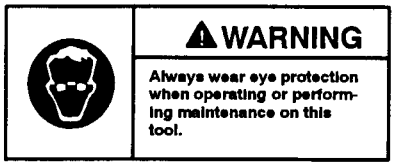
For parts and service information, contact your local ARO distributor, or the Customer Service Dept. of the Ingersoll-Rand Distribution Center, White House, TN at PH: (615) 672-0321, FAX: (615) 672-0601

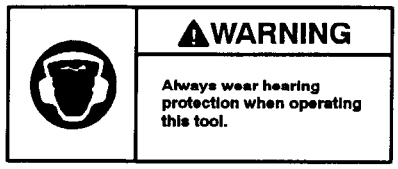
ARO Tool Products
Ingersoll-Rand Company
1725 U.S. No. 1 North, PO Box 8000, Southern Pines, NC 28388-8000

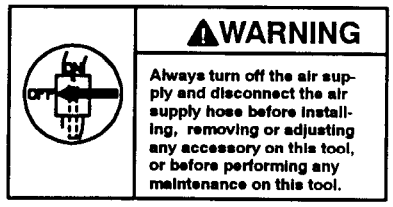
WARNING LABEL IDENTIFICATION

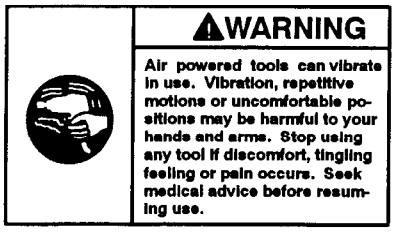
⚠ WARNING

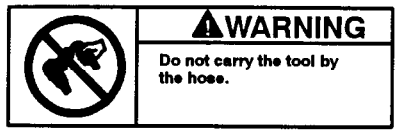
FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

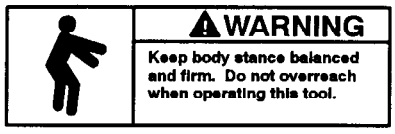


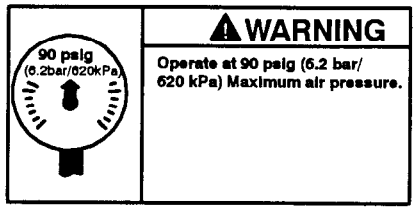












ADJUSTMENTS

TORQUE ADJUSTMENT

To adjust the torque on these Twin Blade Impulse Wrenches, proceed as follows:

1. Remove the Adjustment Hole Plug.
2. Rotate the Drive Shaft until the Torque Adjustment Screw is visible in the opening.
3. Using a 1.5 mm hex wrench, rotate the Adjustment Screw clockwise to increase the torque output and counterclockwise to decrease the torque output. Do not rotate the Oil Plug.

NOTICE

Make all final adjustments at the job.

4. Replace the Adjustment Hole Plug.

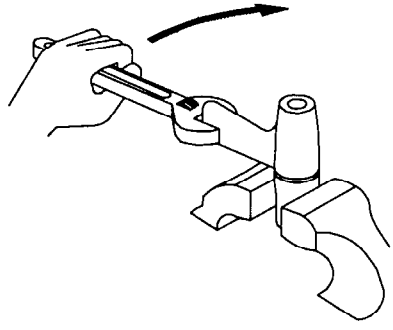
CHANGING THE MECHANISM FLUID

To change the Mechanism Fluid in the Impulse Mechanism, proceed as follows:

1. Using copper-covered vise jaws, carefully grasp the flats of the Mechanism Cover with the output end of the Drive Shaft downward.
2. Using an adjustable wrench, unscrew the the Motor Housing Assembly from the Mechanism Cover.

This is a **left-hand thread**, rotate the Motor Housing **clockwise** to remove it. (Refer to Dwg. TPD1264)

CLOCKWISE TO LOOSEN



(Dwg. TPD1264)

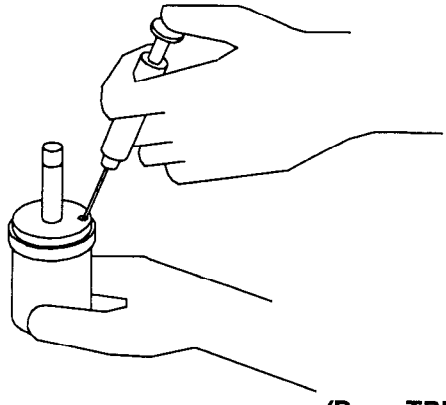
3. Lift the assembled motor off the Mechanism Cover and pull the mechanism assembly out of the Cover.
4. Using a 1.5 mm hex wrench, rotate the Torque Adjustment Screw clockwise until the Screw stops. Rotate the Screw counterclockwise until it stops or makes six complete revolutions.
5. Using the special Tee Wrench furnished in the Tool Kit (Part No. 70P3-199), remove the Oil Plug and Oil Plug Seal.

ADJUSTMENTS

6. With the oil plug opening downward over a container, rotate the Drive Shaft to purge the fluid from the mechanism.
7. Using the syringe and fluid from the Fluid Replacement Kit (Part No. EQ106S-K400), fill the mechanism with the fluid furnished in the Kit. (Refer to Dwg. TPD1265)

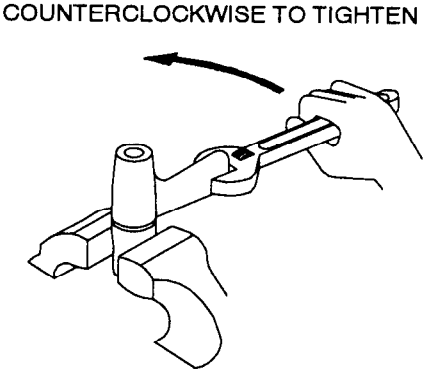
NOTICE

DO NOT SUBSTITUTE ANY OTHER FLUID. Failure to use the fluid provided could damage the tool, increase maintenance and decrease performance. Use only clean fluid in these tools.



(Dwg. TPD1265)

8. Submerge the fill opening in the remainder of the fluid, and using a wrench, rotate the Drive Shaft to purge any remaining air from the system.
9. Thread the Oil Plug with the Oil Plug Seal into the mechanism until it is snug.
10. Using a 1.5 mm hex wrench, turn the Torque Adjustment Screw clockwise until it stops. This is the maximum torque position.
11. Wipe the outside of the mechanism dry and clean and remove the Oil Chamber Plug. Using the syringe, withdraw .3 cc of fluid.
12. Install the Oil Chamber Plug and tighten it between 20 and 25 in-lb (2.3 and 2.8 Nm) torque.
13. Insert the mechanism assembly, output end leading, into the Mechanism Cover clamped in the vise jaws.
14. Insert the hex end of the rotor shaft into the hex recess at the rear of the Drive Shaft and thread the assembled Motor Housing onto the Mechanism Cover. This is a **left-hand thread**. Rotate the Housing **counter-clockwise** to tighten it. (Refer to Dwg. TPD1266)



(Dwg. TPD1266)

PLACING TOOL IN SERVICE

LUBRICATION

Ingersoll-Rand No. 50

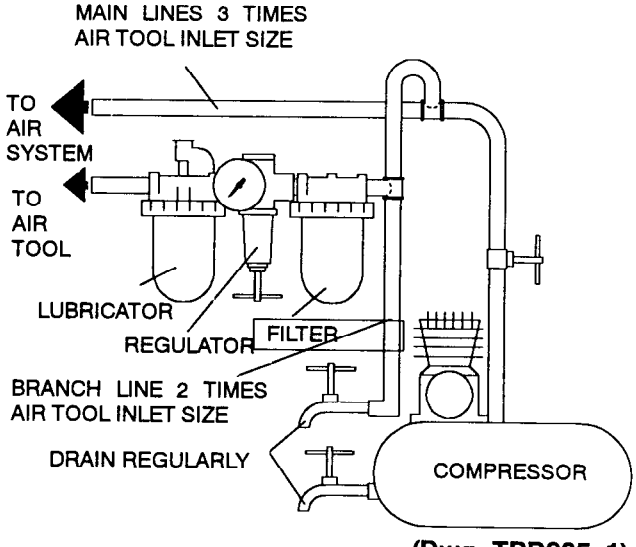
Ingersoll-Rand No. 67

Ingersoll-Rand Fluid Part No. EQ106S-400-1

Always use an air line lubricator with these tools. We recommend the following Filter-Lubricator-Regulator Unit:

For USA - No. C11-03-G00

After each 20 000 cycles, or as experience indicates, drain and refill the Impulse Unit Drive Assembly as instructed in this manual using the Fluid Replacement Kit (Part No. EQ106S-K400). Lubricate the hex drive and the output shaft before assembly.

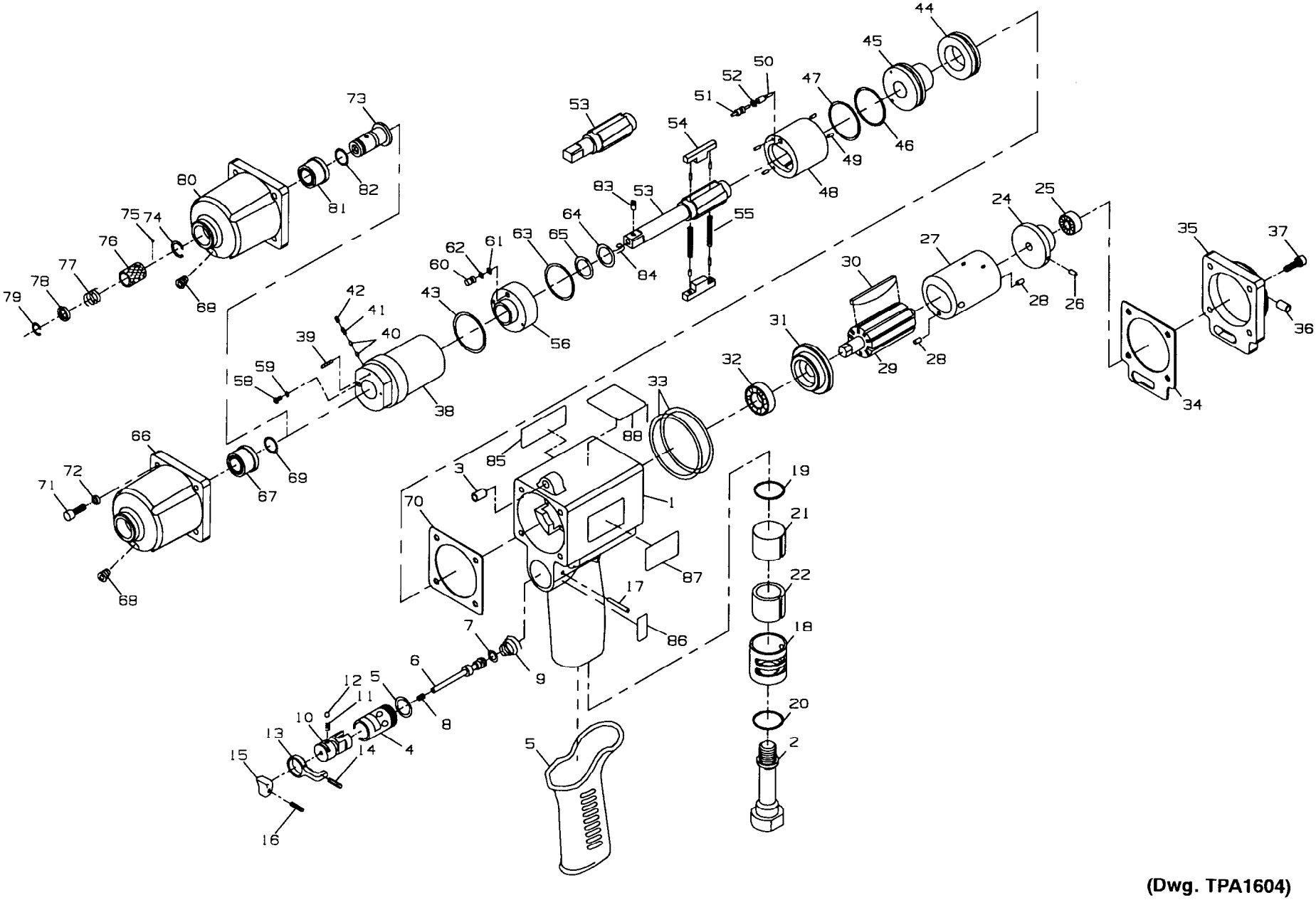


(Dwg. TPD905-1)

SPECIFICATIONS

Model	Type of Handle	Chuck/Drive	Free Speed	Recommended Torque Range	
		in.	rpm	Soft Draw ft-lb (Nm)	Hard Slam ft-lb (Nm)
PG537A-B1	pistol	3/8" square dr.	7 000	36–56 (50–76)	35–48 (48–65)

MODEL PG537A-B1



(Dwg. TPA1604)

		PART NUMBER FOR ORDERING
	Motor Housing Assembly	70P3-976
1	Motor Housing	70P3-40
2	Hose Joint	70P3-979
3	Roll Pin	70P3-232
4	Throttle Bushing Assembly	70P3-A503
5	O-ring	55P3-303
6	Throttle Rod Assembly	70P3-A302
7	Throttle Rod Seal	100PQ-288
8	Throttle Rod Spring	70P3-51
9	Throttle Spring	70P3-289
10	Reverse Valve	70P3-329
11	Reverse Valve Detent Spring	100PQ-568
12	Reverse Valve Detent Ball	EQ104S-929
13	Reverse Lever	100PQ-328
14	Reverse Lever Pin	180SQ-152
15	Trigger	70P3-328
16	Trigger Pin	EQ106P-265
17	Throttle Retaining Pin	100PQ-297
18	Exhaust Cover	70P3-978
19	O-ring	100PQ-236
20	O-ring	EQ106P-283
21	Exhaust Element	70P3-505
22	Exhaust Element	70P3-506
23	Rubber Grip	70P3-2
	Rear End Plate Assembly	70P3-A212
24	Rear End Plate	70P3-212
25	Rear Rotor Bearing	70P3-606
26	Pin	70P3-297
27	Cylinder Assembly	70P3-A3
28	Cylinder Pin (2)	380SQ-298
29	Rotor	70P3-53

		PART NUMBER FOR ORDERING
30	Vane Packet (set of 9 Vanes)	70P3-42-9
	Front End Plate Assembly	70P3-A11
31	Front End Plate	70P3-11
32	Front Rotor Bearing	500P-22
33	Motor Housing Cover O-ring (2)	70P3-236
34	Motor Housing Cover Gasket	70P3-747
35	Motor Housing Cover Assembly	70P3-A202
36	Roll Pin	70P3-232
37	Motor Housing Cover Bolt (4)	90P4-58
	Mechanism Cover Assembly	70P3-A31
38	Mechanism Cover	70P3-31
39	Adjustment Screw	180PQ-230
40	Adjustment Screw Plug Lock (2)	60P3-283
41	Plug Lock Spring	70P3-219
42	Plug Lock Screw	70P3-230
43	Liner O-ring	EQ208S-237
44	Housing Cap	380PQ-207
	Rear Liner Cover Assembly	70P3-A212
45	Rear Liner	70P3-212
46	Liner Cover O-ring	380PQ-236
47	Rear Liner Seal	EQ106S-236
48	Liner Assembly	380PQ-A203A
49	Liner Pin (4)	70P3-298
50	Relief Valve	380PQ-222
51	Spring Guide Assembly	380PQ-A255
52	Spring Guide Seal	180PQ-272
53	Drive Shaft	70P3-626
54	Blade (2)	380PQ-A627
55	Blade Spring (2)	380PQ-568

		PART NUMBER FOR ORDERING
56	Front Liner Cover Assembly	70P3-A211
58	Oil Plug	180PQ-277
59	Oil Plug Seal	EQ110P-288
60	Oil Stop Cap Assembly	180PQ-A38
61	Stop Cap O-ring	EQ106P-288
62	Back-up Ring	380SQ-272
63	Front Liner Seal	380PQ-288
64	Rear Liner Seal	180PQ-271
65	Backup Ring	55P3-224
	Mechanism Cover Assembly	70P3-A727
66	Mechanism Cover	70P3-727
67	Cover Bushing	180PQ-641
68	Adjustment Hole Plug	500P-95
69	Bushing Spacer (3)	180PQ-229
70	Mechanism Cover Gasket	70P3-739
71	Mechanism Cover Bolt (4)	1410P-638
72	Spring Washer (4)	900P-58
73	Socket Retaining Pin	5020-716
74	Retaining Pin Spring	401-718
75	Information Label	55P3-99
76	Rotation Label	60P3-99
77	Nameplate	PG537A-B1-301
78	Warning Label	WARNING-22-99
79	Hexagon Wrench	55P3-900
80	Hexagon Wrench	70P3-900

MAINTENANCE SECTION

⚠ 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.

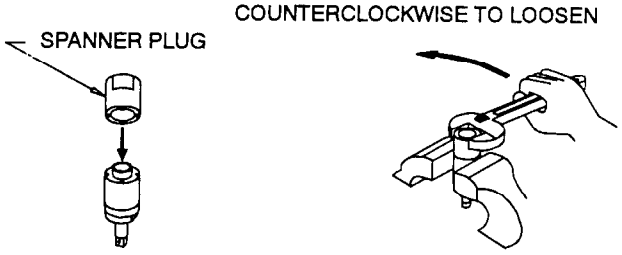
DISASSEMBLY

General Instructions

1. Do not disassemble the tool any further than necessary to replace or repair damaged parts.
2. When grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.
3. Do not remove any part which is a press fit in or on an assembly unless the removal of that part is necessary for repairs or replacement.
4. Do not disassemble the tool unless you have a complete set of new gaskets and O-rings for replacements.

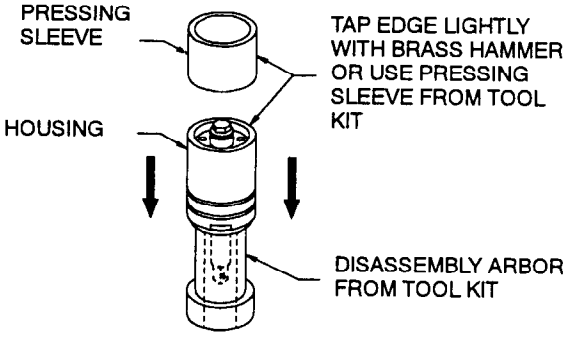
Disassembly of the Impulse Mechanism

1. Use a hooked wire to pull the Retaining Pin Spring (74) out of the end of the Drive Shaft (53) and remove the Socket Retaining Pin (73).
2. Using copper-covered vise jaws, carefully grasp the flats of the Mechanism Cover (66) with the output end of the Drive Shaft downward.
3. Using an adjustable wrench, unscrew the the Motor Housing Assembly (1) from the Mechanism Cover. This is a **left-hand thread**, rotate the Motor Housing **clockwise** to remove it. (Refer to Dwg. TPD1264).
4. Pull the mechanism assembly out of the Cover. Remove the Bushing Spacer (69).
5. Grasp the flats of the Housing Assembly (38) in vise jaws with the output end of the Drive Shaft downward.
6. Insert the pins of the spanner plug from the No. 70P3-199 Tool Kit into the two holes in the Housing Cap (44). Using a wrench on the plug, unscrew and remove the Housing Cap from the Housing Assembly. (Refer to Dwg. TPD1267)



(Dwg. TPD1267)

7. Stand the disassembly arbor from the Tool Kit, large end downward, on a workbench or the table of an arbor press. Insert the output end of the Drive Shaft into the central opening and either tap the Housing downward off the components or use the pressing sleeve in the Kit to press the Housing downward off the components. (Refer to Dwg. TPD1268)



(Dwg. TPD1268)

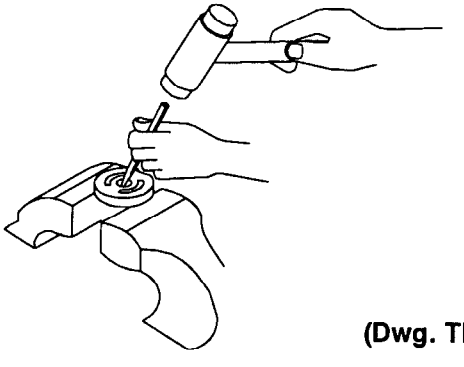
8. Disassemble the components of the mechanism in the sequence shown in Drawing TPA1604 on Page 5.

Disassembly of the Motor

1. Grasp the Motor Housing (1) in vise jaws with the Motor Housing Cover (35) up.
2. Remove the Motor Housing Cover Bolts (37). Remove the Motor Housing Cover (35) and Motor Housing Cover Gasket (34) from the Motor Housing.
3. Secure the Motor Housing in vise jaws with the motor bore in a horizontal position and handle pointing down. Using a plastic hammer, lightly tap the Housing surrounding the motor bore to loosen the motor. From the front of the Housing, push on the Rotor (29) until the assembled motor begins to slide out of the rear of the Motor Housing. Grasp the Rear End Plate (24) and pull the assembled motor from the Motor Housing.
4. Remove the Front End Plate (31), Front End Plate Bearing (32), Cylinder Assembly (27) and Vanes (30) from the Rotor.
5. On the table of an arbor press, support the Rear End Plate (24) with blocks as close to the Rotor as possible and press the Rotor out of the Rear End Plate and Rear Rotor Bearing (25).
6. To remove the Rear Rotor Bearing from the Rear End Plate, use a small drift or pin punch through the central opening of the Rear End Plate to tap the Bearing out of the End Plate. (Refer to Dwg. TPD1271)

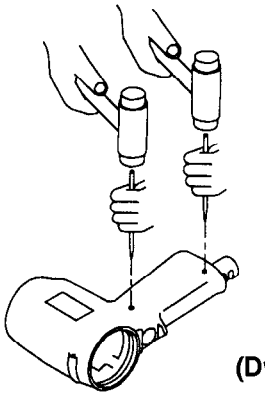
NOTICE

Do not enlarge or damage the shaft hole in the End Plate.



(Dwg. TPD1271)

7. Using a pin punch, tap the Throttle Retaining Pin (17) out of the Handle. The Throttle Retaining Pin is protected by an embossed circular pad of metal. Insert the pin punch into the middle of the pad to locate the Pin. (Refer to Dwg. TPD1272)



(Dwg. TPD1272)

8. Grasp the Trigger (15) and pull the assembled throttle out of the Motor Housing.
9. Using a pin punch and without damaging the Trigger, remove the Trigger Pin (16). Slide the Trigger off of the shaft of the Throttle Rod (6).
10. Grasp the Reverse Lever (13) and pull the Reverse Valve (10) from the front of the Throttle Bushing Assembly. The Reverse Lever Detent Ball (12) and Reverse Lever Detent Spring (11) will fall out of the Reverse Valve. Take care not to lose them.
11. Remove the Throttle Rod Assembly (6) from the rear of the Throttle Bushing.
12. Remove the Throttle Spring (9) and Throttle Rod Seal (7) from the Throttle Rod.
13. If it is necessary to replace the Reverse Lever or Reverse Valve, use a pin punch to tap out the Reverse Lever Pin (14) out of the Reverse Lever. Separate the Reverse Lever from the Reverse Valve.
14. Unscrew and remove the Hose Joint (2).
15. This will allow the Exhaust Cover (18) and Exhaust Elements (21 and 22) to be removed from the Hose Joint.
16. Remove the O-ring (19) from the Motor Housing.

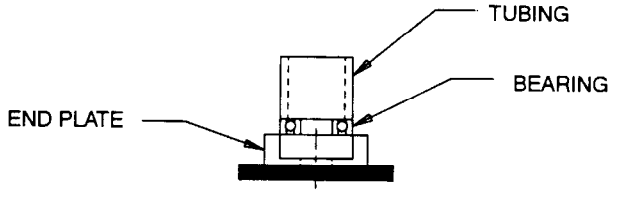
ASSEMBLY

General Instructions

1. When grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.
2. Always press on the inner ring of a ball-type bearing when installing the bearing on a shaft.
3. Always press on the outer ring of a ball-type bearing when pressing the bearing into a bearing recess.
4. Except for bearings and mechanism parts, always clean every part and wipe every part with a thin film of oil before installation.
5. Wipe a thin film of mechanism fluid on all internal mechanism components before installing them in the mechanism.
6. Apply a film of o-ring lubricant to every o-ring before installation.

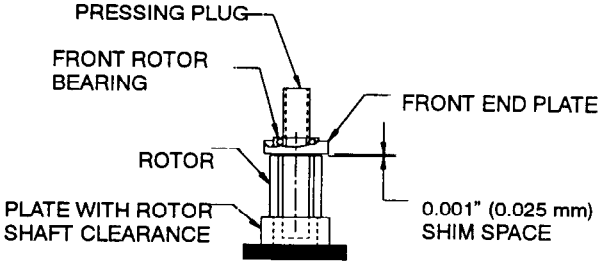
Assembly of the Motor

1. Install the O-ring (20) on the Hose Joint (2).
2. Install the Exhaust Element (21) over the Exhaust Element (22) and insert both inside the Exhaust Cover (18). Install the Exhaust Cover containing both Elements on the Hose Joint until it seats.
3. Install the O-ring (19) in the Motor Housing (1).
4. Thread the Hose Joint with the Exhaust components into the Motor Housing and tighten to 30-35 ft-lb (40-47 Nm) torque.
5. Install the Throttle Rod Seal (13) in the groove on the large hub of the Throttle Rod (6) and install the Throttle Spring (8) on the shaft of the Throttle Rod.
6. Put the Reverse Lever (13) on the Reverse Valve (10) and secure it with the Reverse Lever Pin (16).
7. Start the Reverse Valve into the Throttle Bushing (4). Install the Reverse Lever Detent Spring (11) in the hole in the Bushing. Set the Reverse Lever Detent Ball (12) on the Spring and while holding it in place, align the Ball with the detent hole in the Bushing. Push the Valve into the Bushing until the Reverse Lever Detent Ball seats in the detent hole.
8. Insert the Throttle Rod, shaft end first, through the rear of the Throttle bushing and through the Reverse Valve so that the hub of the Throttle Rod seats against the end of the Throttle Bushing.
9. Install the Trigger (15) on the Throttle Rod and secure it with the Trigger Pin (16).
10. Install the Throttle Spring (9) with the small end over the hub of the Throttle Valve and slide the assembled unit into the Motor Housing.
11. Install the Throttle Retaining Pin (17) in the Housing, making sure that it captures the Throttle Bushing Assembly.
12. Using an arbor press and a piece of tubing that contacts the outer ring of the bearings, press the Front End Plate Bearing (32) into the Front End Plate (31) and the Rear End Plate Bearing (25) into the Rear End Plate (24). (Refer to Dwg. TPD1274)



(Dwg. TPD1274)

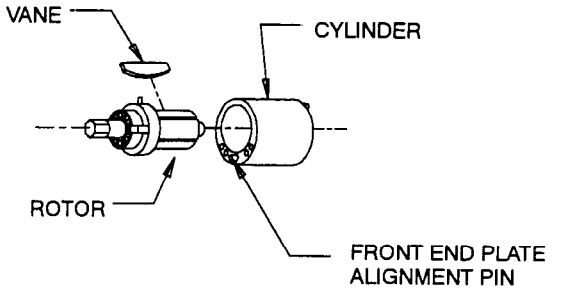
13. Stand the Rotor (29) on the table of an arbor press. It should be upright on a flat metal plate having a clearance hole for the shaft. The shaft with the hex must be upward.
14. Place a 0.001" (0.025 mm) shim on the upward surface of the large portion of the rotor body. Using a piece of tubing that contacts the inner ring of the bearing, press the Front Rotor Bearing and Front End Plate, End Plate leading, onto the shaft of the Rotor until the End Plate contacts the shim. Remove the shim. (Refer to Dwg. TPD1275)



(Dwg. TPD1275)

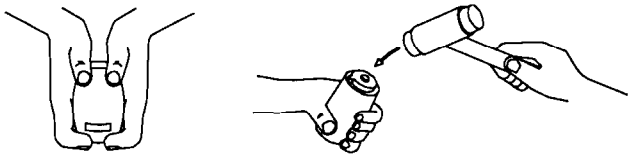
15. Coat each Vane (30) with a thin film of oil and insert a Vane into each of the rotor vane slots with the straight edge of the Vane outward.

16. Install the Cylinder (27) over the Vanes and Rotor with the end of the Cylinder having the Front End Plate Alignment Pin (28) in the middle of the four holes positioned toward the Front End Plate. Make certain the Pin enters the hole in the face of the Front End Plate. (Refer to Dwg. TPD1276).



(Dwg. TPD1276)

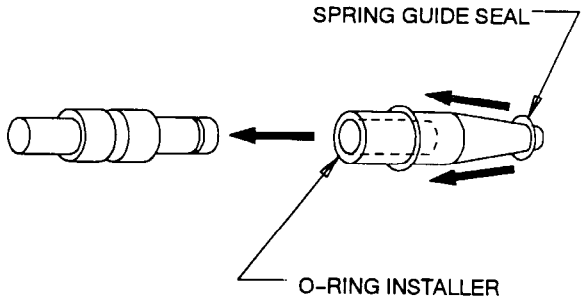
17. Place the Rear End Plate and Bearing against the face of the Cylinder, Bearing end trailing.
18. Install the Motor Housing Cover O-rings (33) in the grooves in the rear of the Motor Housing.
19. Install the Motor Housing Cover Gasket (34) and Motor Housing Cover (35) on the rear of the Motor Housing. Secure it with the motor Housing Cover Bolts (37). Tighten to 45-50 in-lbs (5.1-5.6 Nm) torque.
20. Insert the assembly into the rear of the Motor Housing. It may be necessary to tap the assembly into position with a brass or plastic hammer. (Refer to Dwg. TPD1279)



(Dwg. TPD1279)

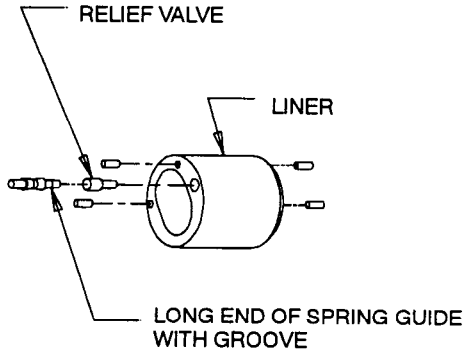
Assembly of the Impulse Mechanism

1. Insert the long shaft with the annular groove of the Spring Guide (51) into the central opening of the O-ring installer furnished with the Tool Kit (Part No. 70P3-199). Place the Spring Guide Seal (52) on the tapered end of the installer and roll the Seal up the taper and into the groove on the large body of the Spring Guide. (Refer to Dwg. TPD1281)



(Dwg. TPD1281)

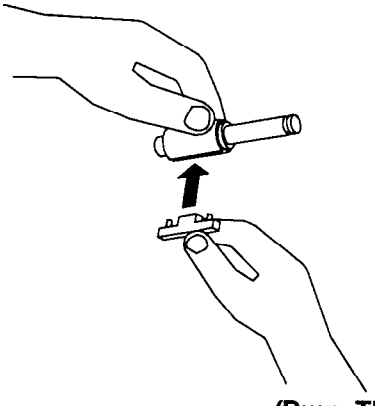
2. Insert the Relief Valve (50), large end trailing, into the Liner (48). Insert the assembled Spring Guide, long hub with annular groove leading, into the Liner against the Relief Valve. (Refer to Dwg. TPD1282)



(Dwg. TPD1282)

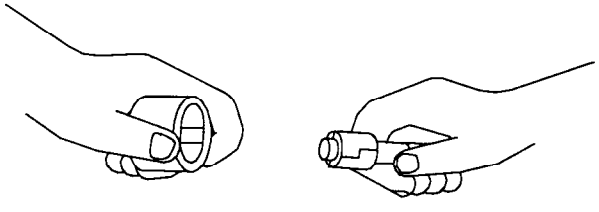
3. Place a Blade (54) into one of the slots of the Drive Shaft (53) with the assembly pins inward.
4. From the opposite side of the Shaft, encircle each pin with a Blade Spring (55).

5. Install the assembly pins of the remaining Blade in the open ends of the Springs. (Refer to Dwg. TPD1283)



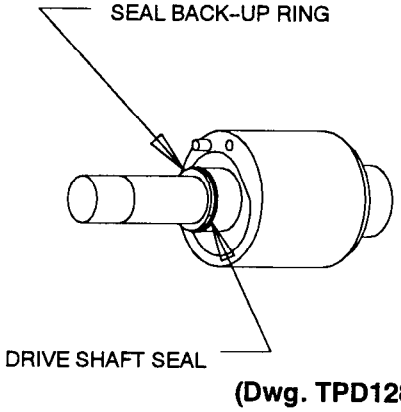
(Dwg. TPD1283)

6. Compress the Springs with the Blades until both Blades are flush with the Drive Shaft and install the assembly in the Liner with the output end of the Drive Shaft protruding out the end of the Liner containing the Spring Guide. Make certain the ends of the Blades are flush with the ends of the Liner. (Refer to Dwg. TPD1284).



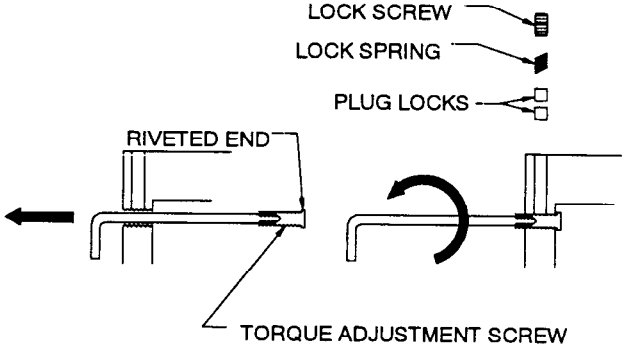
(Dwg. TPD1284)

7. Install the Rear Liner Seal (64) followed by the Seal Back-up Ring (65) on the Drive Shaft against the hub. (Refer to Dwg. TPD1285)



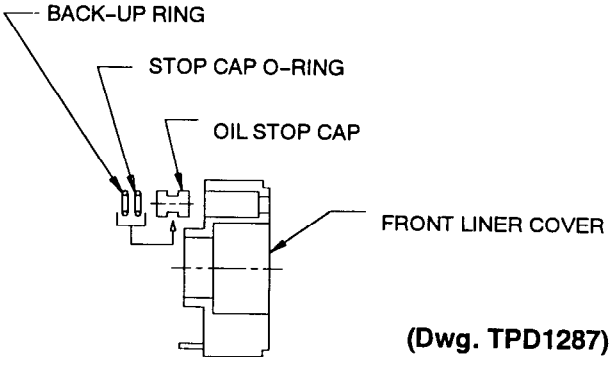
(Dwg. TPD1285)

8. The Torque Adjustment Screw (39) can only be installed from the liner end of the Mechanism Cover (38). If the Torque Adjustment Screw was removed, proceed as follows:
   a. Insert a 1.5 mm hex wrench into the threaded hole for the Torque Adjustment Screw from the oil plug end of the Cover.
   b. From the opposite end of the Cover, install the hex of the Torque Adjustment Screw onto the hex wrench.
   c. Push the Screw and wrench toward the threaded hole until it contacts the face of the Cover.
   d. While applying finger pressure to the rivet end of the Screw, rotate the wrench counterclockwise to thread the Screw into the Cover. Continue rotating the Screw until the rivet end stops against the face of the Cover.
   e. Insert the two Adjustment Screw Plug Locks (40) and the Plug Lock Spring (41) into the crosshole leading to the Adjustment Screw. Thread the Plug Lock Screw (42) into the same hole to capture the components. (Refer to Dwg. TPD1286)



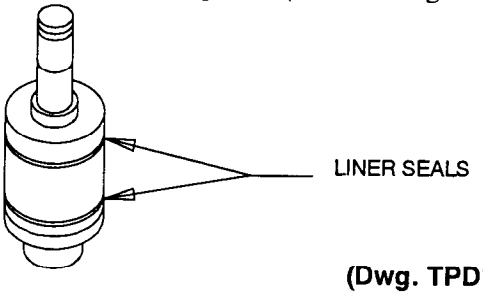
(Dwg. TPD1286)

9. If the Oil Stop Cap Assembly (60) was removed from the Front Liner Cover (56), install the Stop Cap O-ring (61) and Back-up Ring (62) in the groove of the Cap and insert the assembly into the Cover. (Refer to Dwg. TPD1287)



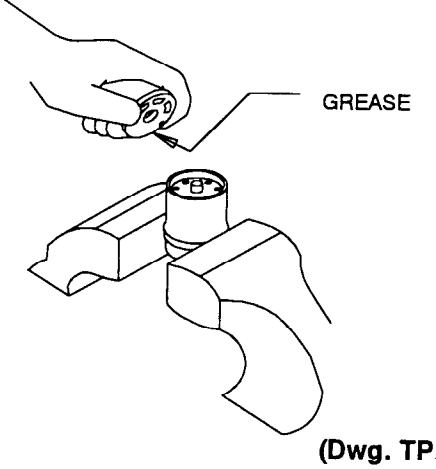
(Dwg. TPD1287)

10. Align the pin holes in the face of the Rear Liner Cover (45) with the two Liner Pins (49) at the rear of the Liner and place the Cover against the Liner. A groove will be formed between the Liner and Cover for the Rear Liner Seal (47). Do not attempt to put the Seal in the groove at this time.
11. Align the pin holes in the Front Liner Cover (56) with the Pins in the front face of the Liner and place the Cover against the face of the Liner. Another groove will be formed between the Liner and Cover for the Front Liner Seal (63). Install both the Front and Rear Liner Seal in the grooves at this time and stand the assembly on the workbench with the output end of the Drive Shaft upward. (Refer to Dwg. TPD1288)



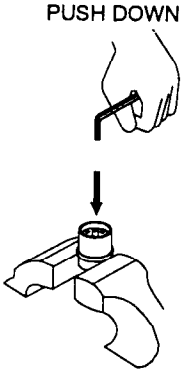
(Dwg. TPD1288)

12. Apply a thin film of grease to the Liner O-ring (43) and install it in the forward bore of the Housing.
13. Lubricate the Liner Cover O-ring (46) and install it in the groove on the Rear Liner (45).
14. Lubricate the Front and Rear Liner Seals and after orienting the Housing to the proper position, install the Housing over the Liner.
15. Grasp the flats of the Housing in vise jaws with the output spindle downward. Remove the Rear Liner Cover Assembly and put grease in the central opening of the Cover. (Refer to Dwg. TPD1289)



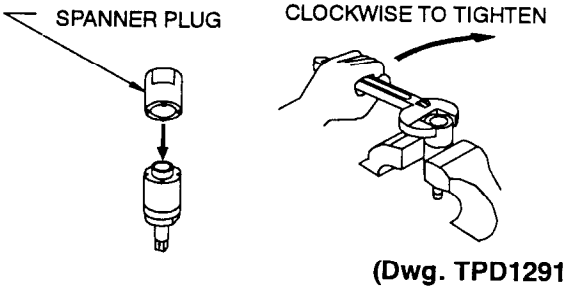
(Dwg. TPD1289)

16. Reinstall the Cover Assembly and use a hex wrench to push it below the threads at the rear of the Housing. (Refer to Dwg. TPD1290)



(Dwg. TPD1290)

17. Install the Housing Cap (44) and using the spanner plug furnished in the Tool Kit, tighten the Cap between 5 and 6 ft-lb (8 and 9 Nm) torque. (Refer to Dwg. TPD1291)



(Dwg. TPD1291)

18. Make certain the Drive Shaft rotates freely and then fill the mechanism with fluid and reassemble the tool as instructed in the section, **CHANGING THE MECHANISM FLUID**.
19. Install the Main Shaft Bushing (67) in the Mechanism Cover (66).
20. Install the Mechanism Cover Gasket (70) on the front of the Motor Housing Assembly.
21. Install the Mechanism Cover on the Gasket and Motor Housing and secure it with the Mechanism Cover Washers (72) and Mechanism Cover Bolts (68). Tighten to 35-52 ft-lb (44-72 Nm) torque.