Form P7450 Edition 1 March, 2000

INSTRUCTIONS FOR MODEL IR-C103 STUBBY STANDARD DUTY RATCHET WRENCH

NOTICE

The IR-C103 Stubby Standard Duty Ratchet Wrench is designed for body shop repair work in tight places, including under the dash work, replacement of water pumps, radiators and air conditioning units and general automotive repair.

Ingersoll–Rand is not responsible for customer modification of tools for applications on which Ingersoll–Rand 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 1/4" (6 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 overreach 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 Ingersoll-Rand.
- Use only impact sockets and accessories. Do not use hand (chrome) sockets or accessories.
- Ratchet wrenches are not torque wrenches.
 Connections requiring specific torque must be checked with a torque meter after fitting with a ratchet wrench.
- Whenever the Ratchet 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.
- 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 Ingersoll-Rand 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 Ingersoll-Rand Authorized Servicenter.

Refer All Communications to the Nearest Ingersoll–Rand Office or Distributor.

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WARNING LABEL IDENTIFICATION

M WARNING

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.



A 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.



AWARNING

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.



AWARNING

Do not carry the tool by the hose.



WARNING

Do not use damaged, frayed or deteriorated air hoses and fittings.



AWARNING

Keep body stance balanced and firm. Do not overreach when operating this tool.



AWARNING

Operate at 90 psig (6.2 bar/ 620 kPa) Maximum air pressure.

PLACING TOOL IN SERVICE

LUBRICATION





Ingersoll-Rand No. 10

Ingersoll-Rand No. 28 Ingersoll-Rand No. 66

Always use an air line lubricator with this tool. We recommend the following Filter–Lubricator–Regulator Unit:

For USA - No. C28-04-FKG0-28

Before starting the tool and after each two or three hours of operation, unless the air line lubricator is used, pour approximately 1.5 cc of Ingersoll–Rand No. 10 Oil into (3).

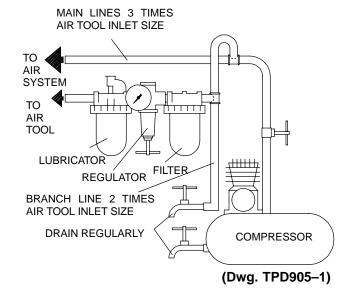
After each 40 hours of operation, lubricate the Gearing. Remove (25) by rotating it **counter– clockwise** to remove (26) and to expose the gearing. Coat (23) with a thin film of Ingersoll–Rand No. 28 Grease.

Periodically, inject several drops of Ingersoll–Rand No. 10 Oil between (26) and (31) to lubricate the (30).

NOTICE

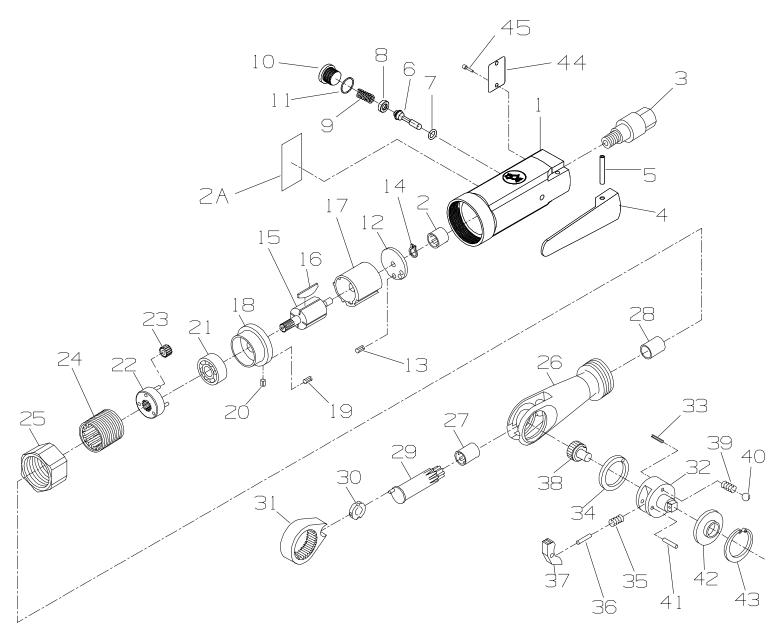
To help promote durability and performance of the Ratchet Head, periodically disassemble, degrease and

re-lubricate the internal parts of the Ratchet Head with Ingersoll-Rand No. 66 Grease. If the Ratchet Head "hangs up," it is usually due to lack of lubrication.



SPECIFICATIONS -

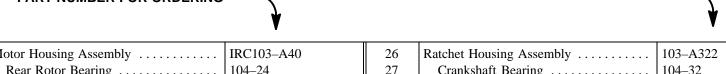
of Lon Torritories							
Model	Free Speed, rpm	Drive	Recommended Torque Range				
			in	mm			
IR-C103	200	1/4"	5 to 20	7 to 27			



(Dwg. TPB1035)

PART NUMBER FOR ORDERING —

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1	Motor Housing Assembly	IRC103-A40	26	Ratchet Housing Assembly	103-A322
2	Rear Rotor Bearing	104–24	27	Crankshaft Bearing	104–32
2A	Warning Label	WARNING-27-99	28	Crankshaft Bushing	103–33
3	Inlet Bushing	103–465	29	Crankshaft	103–35
4	Throttle Lever	103–273	30	Drive Bushing	104–36
5	Throttle Lever Pin	107–120	31	Ratchet Yoke	104–37
6	Throttle Valve Assembly	103-A302	32	Ratchet Anvil Assembly	104-A44
7	Throttle Valve O-ring	107–314	33	Reverse Button Stop Pin	104–39
8	Valve Spring Seat	107–710	34	Wear Washer	104–52
9	Throttle Spring	107–51	35	Ratchet Spring	104–41
10	Housing Plug	103–266	36	Ratchet Lock Pin	104–49
11	Housing Plug Seal	308–251	37	Ratchet Pawl	104–43
12	Rear End Plate Assembly	104-A12	38	Reverse Button	104–38
13	End Plate Dowel	308–98	39	Detent Spring (2)	104–45
14	Rear End Plate Retainer	104–118	40	Detent Ball (2)	104–696
15	Rotor	104–53	41	Pawl Retaining Pin	104–34
16	Vane Packet (set of 4 Vanes)	104-42-4	42	Thrust Washer	104–46
17	Cylinder	103–3	43	Anvil Retaining Ring	104–426
18	Front End Plate Assembly	104–A11	44	Nameplate	IRC103-301
19	End Plate Dowel	308–98	45	Nameplate Drive Screw (2)	107–303
20	Motor Alignment Pin	104–99	*	Ratchet Head Repair Kit	
21	Front Rotor Bearing	107–97		(includes illustrated items 32, 35,	
22	Gear Head	104–216		36, 37, 38, 39 [2], 40 [2],	
23	Planet Gear (3)	104–9		41 and 43)	104-TK1
24	Ring Gear	104–406			
25	Coupling Nut	103–27			

^{*} Not illustrated.