

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.

WARNING

IMPORTANT SAFETY INFORMATION ENCLOSED - SAVE THESE INSTRUCTIONS

READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING THIS PRODUCT



**IT IS YOUR RESPONSIBILITY TO MAKE THIS SAFETY INFORMATION
AVAILABLE TO OTHERS THAT WILL OPERATE THIS PRODUCT**

**FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD
RESULT IN INJURY**

PLACING TOOL IN SERVICE

- Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
- Always use clean, dry air at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet. Higher pressure may result in hazardous situations including excessive speed, rupture, or incorrect output torque or force.
- Be sure all hoses and fittings are the correct size and are tightly secured. See Dwg. TPD905-2 for a typical piping arrangement.
- Ensure an accessible emergency shut off valve has been installed in the air supply line, and make others aware of its location.
- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Keep clear of whipping air hoses. Shut off the compressed air before approaching a whipping 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 lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel. Use only recommended lubricants.
- Keep work area clean, uncluttered, ventilated and illuminated.
- 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.
- Always use Personal Protective Equipment appropriate to the tool used and material worked. This may include dust mask or other breathing apparatus, safety glasses, ear plugs, gloves, apron, safety shoes, hard hat and other equipment.
- This tool is not designed for working in explosive environments, including those caused by fumes and dust, or near flammable materials.
- This tool is not insulated against electric shock.
- Be aware of buried, hidden or other hazards in your work environment. Do not contact or damage cords, conduits, pipes or hoses that may contain electrical wires, explosive gases or harmful liquids.
- Prevent exposure and breathing of harmful dust and particles created by power tool use. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - lead from lead based paints,
 - crystalline silica from bricks and cement and other masonry products, and
 - arsenic and chromium from chemically treated lumber.
 Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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

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BY INGERSOLL-RAND

Using the Tool (Continued)

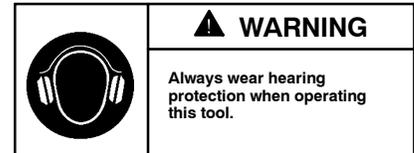
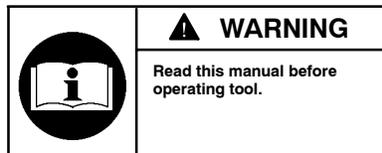
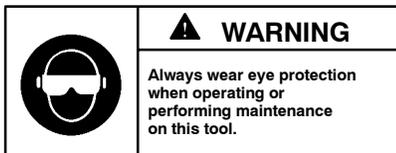
- Keep others a safe distance from your work area, or ensure they use appropriate Personal Protective Equipment.
- Keep hands, loose clothing, long hair and jewelry away from working end of tool.
- Power tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- Keep body stance balanced and firm. Do not overreach when operating this tool. Anticipate and be alert for sudden changes in motion, reaction torques, or forces during start up and operation.
- Tool and/or accessories may briefly continue their motion after throttle is released.
- To avoid accidental starting - ensure tool is in "off" position before applying air pressure, avoid throttle when carrying, and release throttle with loss of air.
- Ensure work pieces are secure. Use clamps or vises to hold work piece whenever possible.
- Do not carry or drag the tool by the hose.
- Do not use power tools when tired, or under the influence of medication, drugs, or alcohol.
- Never use a damaged or malfunctioning tool or accessory.
- Do not modify the tool, safety devices, or accessories.
- Do not use this tool for purposes other than those recommended.
- Use accessories recommended by Ingersoll-Rand.
- Note the position of the reversing mechanism before operating the tool so as to be aware of the direction of rotation when operating the throttle.
- 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.
- Periodically check the drive end of the tool to make certain that the socket retainer functions correctly, and that sockets and drive ends are not excessively worn which may allow the socket to come off when rotating.

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.

WARNING SYMBOL IDENTIFICATION

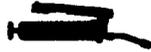


SERVICING THE TOOL

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-Regulator-Lubricator (FRL) Unit:

**For USA use Unit Number C28-04-FKG0-28
For International use Unit Number C28-C4-FKG0**

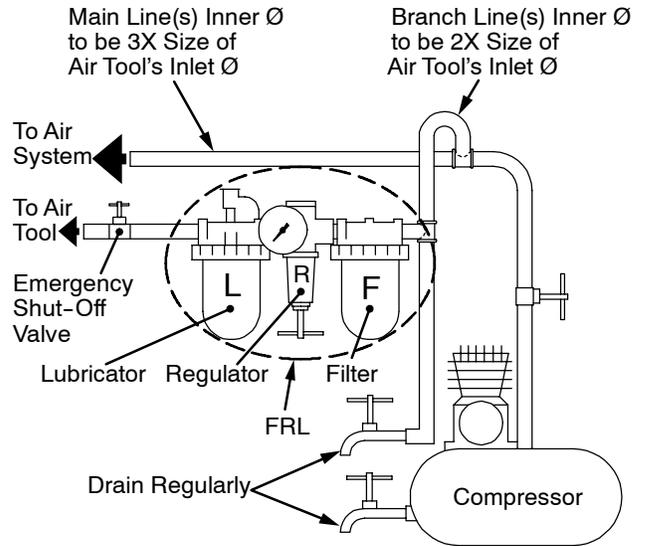
Before starting the tool and after each two or three hours of operation, unless the air line lubricator is used, pour approximately 1.5 cc of Ingersoll-Rand No. 10 Oil into (3).

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

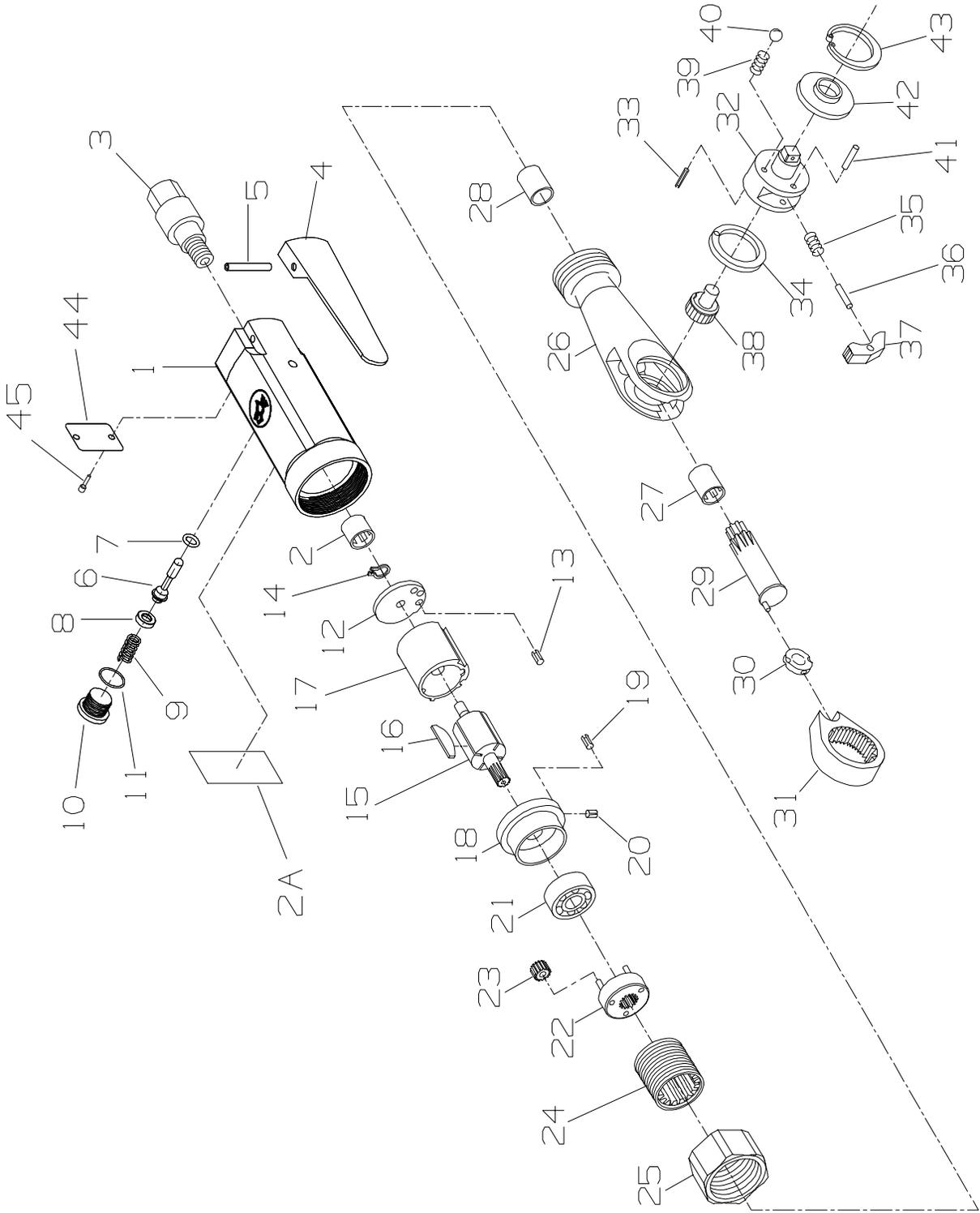
To help promote durability and performance of the Ratchet Head, periodically disassemble, degrease and re-lubricate the internal parts of the Ratchet Head with Ingersoll-Rand No. 66 Grease. If the Ratchet Head “hangs up,” it is usually due to lack of lubrication.



(Dwg. TPD905-2)

SPECIFICATIONS

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 (includes illustrated items 32, 35, 36, 37, 38, 39 [2], 40 [2], 41 and 43)	104-TK1
21	Front Rotor Bearing	107-97			
22	Gear Head	104-216			
23	Planet Gear (3)	104-9			
24	Ring Gear	104-406			
25	Coupling Nut	103-27			

* Not illustrated.

