



**16605958**  
Edition 2  
May 2014

# **Air Percussive Rivet Buster**

**Models 9001 and 11001**

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## **Maintenance Information**



**Save These Instructions**

**IR** *Ingersoll Rand*<sup>®</sup>

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## Product Safety Information

### WARNING

- Failure to observe the following warnings, and to avoid these potentially hazardous situations, could result in death or serious injury.
- Read and understand this and all other supplied manuals before installing, operating, repairing, maintaining, changing accessories on, or working near this product.
- Always wear eye protection when operating or performing maintenance on this tool. The grade of protection required should be assessed for each use and may include impact-resistant glasses with side shields, goggles, or a full face shield over those glasses.
- Always turn off the air supply, bleed the air pressure and disconnect the air supply hose when not in use, before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool or any accessory.

**Note:** When reading the instructions, refer to exploded diagrams in parts Information Manuals when applicable (see under Related Documentation for form numbers).

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## Lubrication

Each time the Model 9001 and 11001 Air Percussive Rivet Buster is disassembled for maintenance, repair or replacement of parts, lubricate the tool as follows:

Place approximately 3 cc of **Ingersoll Rand** No. 10 Oil into the air inlet and operate the Tool briefly to coat the internal parts with the oil.

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## Disassembly

### General Instructions

1. Do not disassemble the tool any further than necessary to replace or repair damaged parts.
2. Whenever 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 a subassembly 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 replacement.

### Disassembly of the Throttle Assembly

1. Clamp the Barrel (20) in leather-covered or copper-covered vise jaws with the handle end up.
2. Using a pin punch, carefully drive the Throttle Lever Pin (3) from the Handle Assembly (1). Remove the Throttle Lever (2).
3. Unscrew the Throttle Valve Cap (10). Remove the Throttle Valve Spring (9).
4. Pull the Throttle Valve Assembly (4) from the Handle.
5. Unscrew the Throttle Face Cap Nut (7). Remove the Throttle Valve Face Cap (6), Lock Washer (8) and Throttle Valve Face (5).

### Disassembly of the Locking Mechanism

1. Remove the Exhaust Deflector (19) from the Barrel (20).
2. Slide the Locking Spring Cover (16) toward the accessory end of the Barrel.
3. Slide the Locking Ring (17) toward the accessory end of the Barrel.
4. Remove the Locking Ring Pin (18).
5. Slide the Locking Spring (15) toward the accessory end of the Barrel.
6. The Locking Cover (16), Locking Ring (17), and the Locking Spring (15) can be removed from the Barrel after the accessory retaining mechanisms are removed.

### Disassembly of the Valve Box Assembly

1. Clamp the Barrel (20) in leather-covered or copper-covered vise jaws with the Handle Assembly (1) up. Unscrew the Handle with a wrench at least 30" (760 mm) long.
2. Remove the Valve Box Assembly.

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## Assembly

### General Instructions

1. Whenever grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws. Take extra care with threaded parts and housings.
2. Always clean every part and wipe every part with a thin film of oil

### CAUTION

**Do not attempt to pry apart the two sections of the Valve Box (12). Grasp the front section in one hand and with the other hand insert a rod that will pass through the Valve (14) and contact the rear section. Lightly strike the rod until the two sections are separated. Keep the front and rear sections of a Valve Box as a unit; they are factory matched and must not be mismatched.**

3. Remove the Dowel Pin (13) from the Valve Box.
4. Remove the Barrel from the vise. Turn the Barrel over and the Piston (21) will slide out.

### Disassembly of the Accessory End

#### For Threaded Retainer No. 9001-200

1. Clamp the Barrel (20) in leather-covered or copper-covered vise jaws with the Accessory end up.
2. Remove the Lock Pin (29) and Lock Key (27), if installed.
3. Using a large heavy-duty screwdriver, pry the Lock Spring (28) off the Barrel.
4. Unscrew and remove the Retainer Nut (22). Remove the Rubber Bumper (25) from the inside of the Retainer Nut.
5. Slide the Lower Sleeve (24) off the Accessory and remove the Accessory from the Barrel.
6. With the Retainer Nut and locking mechanism removed, the handle Locking Cover (16), Locking Ring (17), and the Locking Spring (15) can be removed from the Barrel.

#### For Plain-Type Retainer No. 11001-18

1. To remove the accessory, clamp the Barrel (20) in leather-covered or copper-covered vise jaws with the accessory end up.
2. Remove the Lock Spring (31).
3. Slide the Retainer (30) off the Barrel and remove the Rubber Bumper (25) from the inside of the Retainer.
4. Slide the Lower Sleeve (24) off the accessory and remove the accessory from the Barrel.

before installation.

3. Apply a film of O-ring lubricant to all O-rings before final assembly.

## Assembly of the Throttle Handle

1. Secure the Throttle Valve Face (5), Lock Washer (8), and Throttle Valve Face Cap (6) to the Throttle Valve Assembly (4) using the Throttle Valve Cap Nut (7).
2. Insert the Throttle Valve Assembly (4) into the Handle, stem end first.
3. Insert the Throttle Valve Spring (9) and secure with the Throttle Valve Cap (10).
4. Screw in the Inlet Bushing (11) and tighten with a wrench.
5. Slip the Throttle Lever (2) into the slot of the Handle and align the holes.
6. Insert the Throttle Lever Pin (3) into the pin hole and, using a Pin Punch, drive the Pin until it is flush with the hole in the Handle.

## Assembly of the Valve Box

1. Clamp the Barrel in leather-covered or copper-covered vise jaws with the handle end up.
2. Clean and check the Piston (21). Replace it if it is badly worn. Apply a few drops of **Ingersoll Rand** No. 10 Oil on the Piston before inserting it into the Barrel, tapered end first.
3. Place the Valve (14) in the Valve Box (12), large end first. If an oversize Valve is required, it must be lapped into the Valve Box.
4. Using Grade 320 lapping compound:
  - a. Install the Valve (14) on the No. 29870 Valve Lapping Arbor as shown in Figure 1.
  - b. Apply lapping compound to diameter "C" only; keep diameter "B" free of compound at all times. Insert the compound-coated end of the Valve into the rear section of the Valve Box as shown in Figure 2 and lap until a free fit is obtained.
  - c. Wipe all compound from the Valve and from internal diameter "B" in the Valve Box. Allow the compound to remain on internal diameter "C".
  - d. Install the front section of the Valve Box and Valve on the Arbor as shown in Figure 3.
  - e. Apply compound to Valve diameter "A" and lap the small end of the Valve to a free fit in the front section.
  - f. Slide the rear section of the Valve Box over the Valve and assemble it on the front section as shown in Figure 4. Lap the Valve until it fits freely in the assembled Valve Box.

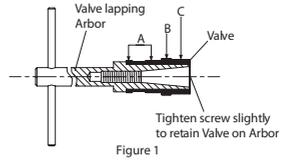


Figure 1

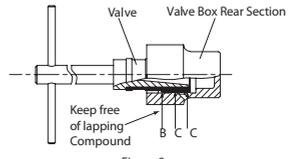


Figure 2

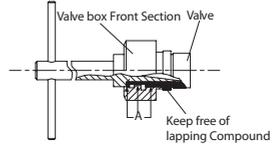


Figure 3

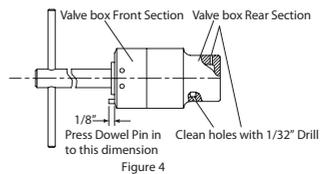


Figure 4

(Dwg. TPB130)

- g. Disassemble the Valve Box, clean the air ports with a 1/32" drill and wash the Valve and both sections of the Valve Box in a suitable solvent to remove all trace of the compound.
  - h. Apply 6 or 8 drops of **Ingersoll Rand** No. 10 Oil to the external surface of the Valve and assemble it in the Valve Box. Shake the assembly to see that the Valve moves freely in the Valve Box.
5. Slide the front section of the Valve Box (12) onto the rear section. Be sure the dowel hole lines up with both sections.
  6. Press the Dowel Pin (13) into the Valve Box so it protrudes 1/8" beyond the front face of the valve box cover.

## Assembly of the Handle Locking Mechanism

1. Clamp the Barrel (20) of the Air Hammer in leather-covered or copper-covered vise jaws with the Handle Assembly end of the Barrel facing up.
2. Insert the Valve Box Assembly into the Barrel, aligning the Dowel Pin (13) with the dowel hole in the Barrel.
3. Screw the Handle onto the Barrel and tighten it to 300 ft-lb (407 Nm) torque.
4. Slide the Locking Spring (15) onto the Barrel.
5. Rotate the Locking Spring until one of the tangs butts against the tang on the Handle.
6. Slide the Locking Ring (17) onto the Barrel. Rotate the Locking Ring until the tang of the Locking Ring butts against the other tang of the Locking Spring.
7. Rotate the Locking Ring until one of the alignment notches in the Ring aligns with one of the notches in the Barrel.
8. Insert the Locking Pin (18).
9. Slide the Locking Spring Cover (16) over the Barrel and Locking Ring.

- Snap the Exhaust Deflector (19) onto the Barrel so the large end butts against the Locking Ring.

### Assembly of the Accessory Retaining Mechanism

#### For Threaded Retainer No. 9001-200

- Clamp the Barrel (20) in leather-covered or copper-covered vise jaws with the accessory end upward.
- Insert the Upper Sleeve (23) into the Barrel.
- Insert the base of the Accessory (26) through the Upper Sleeve and into the Barrel.
- Install the Lower Sleeve (24) over the Accessory, flanged end first.
- Install the Rubber Bumper (25) through the rear of the Retainer Nut (22).
- Screw the Retainer Nut onto the Barrel hand tight until the slot in the Retainer Nut lines up with the slot in the Barrel.
- Snap the Lock Spring (28) into the groove of the Retainer Nut and Barrel.
- Install the Lock Key (27) and insert the Lock Pin (29) through the

hole in the Lock Key.

- Remove the tool from the vise.

#### For Plain-Type Retainer No. 11001-18

- Slide the Lower Sleeve (24) into the accessory and insert the accessory in the Barrel (20).
- Insert the Rubber Bumper (25) inside the Retainer (30) and install the Retainer in the Barrel.
- Attach the Retainer to the Barrel by aligning the slot in the Retainer with the groove in the Barrel.
- Insert the Lock Spring (31) through the slot in the Retainer body and push the Lock Spring around the Barrel and Retainer until the Retainer is secured to the Barrel.

### Troubleshooting Guide

Trouble	Probable Cause	Solution
Sluggish operation	Dirt or oil gum accumulation on internal parts	Pour about 3 cc of a clean, suitable, cleaning solution into the air inlet and operate for 30 seconds. After flushing, pour about 3 cc of oil into the air inlet and operate the tool for 5 seconds to coat the internal parts with oil.
Loss of power	Worn Valve	Replace the Valve.
Loss of efficiency	Worn Piston and/or accessory	Replace Piston and or accessory.

### Related Documentation

For additional information refer to:

Product Safety Information Manual 04581450.

Product Information Manual 03530094.

Parts Information Manual 16605941.

Manuals can be downloaded from [ingersollrandproducts.com](http://ingersollrandproducts.com)

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