



16605933
Edition 2
May 2014

Air Riveter

AVC Series

Maintenance Information



Save These Instructions

IR *Ingersoll Rand*

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).

Lubrication

Each time the Models AVC10, AVC12, AVC13, or AVC26 Riveters are disassembled for maintenance, repair or replacement of parts, lubricate the tool as follows:
Inject a few drops of **Ingersoll Rand** No. 50 Oil into the air inlet before attaching the air hose.

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 Riveting Hammer

1. Clamp the Handle (11, 27, 41) of the Riveting Hammer in leather-covered or copper-covered vise jaws with the accessory end upward.
2. Remove the Set Retainer (10) and any Accessory (10A) from the Barrel (7, 8).
3. Remove the Exhaust Deflector (5) from the Barrel.
4. Remove the Locking Key (3) or Locking Ring (4) that keeps the Barrel from unscrewing from the Handle Assembly (11, 27, 41).
5. Carefully unscrew the Barrel from the Handle Assembly.
6. Remove the Piston (6) and the Valve Box Assembly.

Disassembly of Throttle Mechanism

Clamp the handle of the Riveting Hammer in leather-covered or copper-covered vise jaws with the Air Inlet Bushing (26, 33, 45) upward.

For Offset Handle Models

1. Remove the Throttle Body Adjuster (18).
2. Unscrew the Throttle Adjuster Cap Screw (25) and remove the

- Throttle Adjuster Knob (22), Throttle Adjuster Stop Ball (21), Throttle Adjuster Stop Spring (20), and the Throttle Adjuster Sleeve (23).
3. Remove the Throttle Adjuster Screw (19), the Throttle Valve Spring (17), and the Throttle Valve Assembly (15) from the Handle.
4. Remove the Air Inlet Bushing.
5. Rotate the Handle in the vise to gain access to the Intermediate Lever Pin (14). Drive out the Pin.
6. Carefully remove the Trigger (12) and the Intermediate lever (13).
7. **For Pistol Handle Models**
8. Unscrew the Throttle Valve Cap (32) and remove the Throttle Valve Spring (31), and the Throttle Valve (29).
9. Rotate the Handle in the vise, inlet downward.
10. Drive out the Throttle Lever Pin (34) and remove the Throttle Lever (35).
11. Push the Throttle Valve Plunger (28) out through the Handle.
12. Drive the Adjusting Valve Stop Pin (37) out of the Power Adjusting Valve (36).
13. Remove the Power Adjusting Valve, Adjusting Valve Washer (38), and the Adjusting Valve Spring (39).

For the Button Throttle Model

1. Unscrew the Button Throttle Valve Cap (46).
2. Unscrew the Throttle Valve Button (42).
3. Remove the Button Throttle Valve Spring (47) and the Push Button Throttle Valve (43).

Disassembly of the Valve Box Assembly

1. Separate the two halves of the Valve Box Assembly. A small brass or plastic hammer may be needed to gently tap the Valve Box apart.
2. Carefully remove the Dowel Pin (1) and the Valve (2).

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

Assembly of the Valve Box Assembly

Lapping Oversize Valve into Valve Box

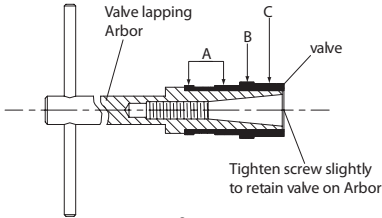


figure 1

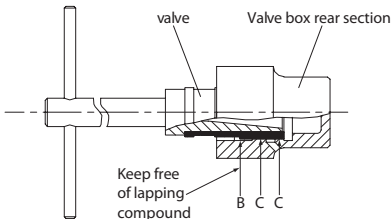


figure 2

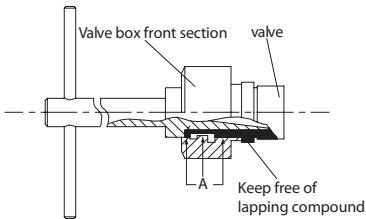


figure 3

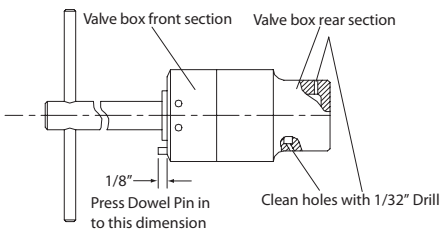


figure 4

(Dwg. TPB130)

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1. **An oversize Valve (2) must be lapped into the Valve Box.**
Use Grade 320 lapping compound and proceed as follows:
 - a. Install the Valve on the No. 29189 or No. 29407 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.
2. 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 suitable solution to remove all trace of the compound.
3. Apply 6 or 8 drops of light oil to the external surface of the Valve and assemble it with the Dowel Pin (1) in the Valve Box. Shake the assembly to see that the Valve moves freely in the Valve Box..

Assembly of the Throttle Mechanism

Clamp the handle of the Riveting Hammer in leather-covered or copper-covered vise jaws with the Air Inlet Bushing (26, 33, 45) upward.

For Offset Handle Models

1. With a new Throttle Valve Seal (16) on the Throttle Valve Assembly (15), place the Valve Assembly into the Handle, Seal upward.
2. With the stem of the Throttle Adjusting Screw (19) going through the Throttle Valve Spring (17), install the Spring/Screw into the Handle.
3. With a new Throttle Adjust Sleeve Seal (24) on the Throttle Adjuster Sleeve (23), place the Sleeve into the Throttle Adjuster Body (18).
4. Carefully place the Throttle Adjuster Stop Spring (20) and the Throttle Adjuster Stop Ball (21) in the Throttle Adjuster Body.
5. Secure the Spring/Ball with the Throttle Adjuster Knob (22) and the Throttle Adjuster Cap Screw (25).
6. Secure the Throttle Adjuster Screw with the Throttle Adjuster Body.
7. Reinstall the Air Inlet Bushing (26).

For Pistol Grip Handle Models

1. With a new Throttle Valve Face (30) installed on the Throttle Valve (29), insert the Valve into the Handle (27), slotted end down.
2. Place the Throttle Valve Spring (31) into the Handle and secure with the Throttle Valve Cap (32).
3. Reinstall the Air Inlet Bushing (33).
4. Rotate the Handle in the vise to allow reinstallation of the Throttle Lever (35).
5. Place the Throttle Valve Plunger (28) into the plunger bore in the Handle.
6. Place the Throttle Lever into the Handle and secure with the Throttle Lever Pin (34).
7. Put the Power Adjusting Valve (36) through the Adjusting Valve Washer (38), raised detents of the Washer toward the head of the Adjusting Valve, and the Adjusting Valve Spring (39).
8. Screw the Adjusting Valve into the Handle.
9. Carefully drive the Adjusting Valve Stop Pin (37) into the Power Adjusting Valve.

For the Button Throttle Model

1. Place the Push Button Throttle Valve (43) into the Head Block (41).
2. Install the Button Throttle Valve Spring (47) and secure it with the Button throttle Valve Cap (46).
3. Reinstall the Throttle Valve Button (42).

Assembly of the Riveting Hammer

1. Clamp the Handle of the Riveting Hammer in leather-covered or copper-covered vise jaws with the barrel bore upward.
2. Place the Valve Box Assembly into the Handle, larger half of the Valve Box in first.
3. With the Piston (6) in the bore of the Barrel (7, 8), screw the Barrel into the Handle.

For Offset Handle Models

1. Place the Locking Key (3) into one of the slots in the Barrel/Handle Assembly.
2. Secure the Locking Key with the Exhaust Deflector (5).

For Pistol Grip Handle Models

1. Slide the Locking Ring (4) down the Barrel and interlocking the splines on the Barrel/Locking Ring with the dogs on the Locking Ring/Handle.
2. Secure the Locking Ring with the Exhaust Deflector (5).

Nozzle Replacement for AVC26

1. Do not remove the Nozzle (9), which is used only on Model AVC26, unless the Nozzle must be replaced.
Do not attempt to drive the old Nozzle out of the Barrel; press it out.

NOTICE

One end of the nozzle bore is tapered and the other is plain.

2. Start the new Nozzle, plain end first, into the Barrel (8) with a soft hammer, then solidly support the handle end of the Barrel and press in the Nozzle until the plain end seats on the shoulder in the Barrel bore.

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 03528742.
Parts Information Manual 16605925.

Manuals can be downloaded from ingersollrandproducts.com

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