

OPERATION AND MAINTENANCE MANUAL FOR MODEL 132 SUPER DUTY AIR HAMMER

NOTICE

Model 132 Super Duty Air Hammer is designed for front end work, heavy exhaust work, riveting, king pin removal, bushing driving and bolt shearing. 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 5/16" (8 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 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 impacting end of tool.
- 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 impact 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.
- Never operate a Percussion Tool unless an accessory is properly installed and the tool is held firmly against the work.
- Always use a retainer in addition to proper barriers to protect persons in surrounding or lower areas from possible ejected accessories.
- 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.

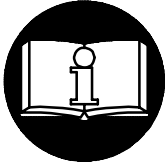
Repairs should be made only by authorized trained personnel. Consult your nearest Ingersoll-Rand Authorized Servicenter.

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

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INGERSOLL-RAND®
PROFESSIONAL TOOLS





WARNING LABEL IDENTIFICATION

! WARNING


FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.


	! WARNING
	Always wear eye protection when operating or performing maintenance on this tool.


	! WARNING
	Always wear hearing protection when operating this tool.

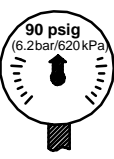
	! WARNING
	Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.

	! WARNING
	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.

	! WARNING
	Do not carry the tool by the hose.

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

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

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

PERCUSSIVE TOOL SPECIFIC WARNINGS

- When wearing gloves and operating models with inside trigger, always be sure that the gloves will not prevent the trigger from being released.
- Wear safety shoes, hard hat, safety goggles, gloves, dustmask and any other appropriate protective clothing while operating the tool.
- Do not indulge in horseplay. Distraction can cause accidents.
- Keep hands and fingers away from the throttle lever until it is time to operate the tool.
- Never rest the tool or chisel on your foot.
- Never point the tool at anyone.
- Compressed air is dangerous. Never point an air hose at yourself or co-workers.
- Never blow clothes free of dust with compressed air.
- Be sure all hose connections are tight. A loose hose not only leaks but can come completely off the tool and while whipping under pressure, can injure the operator and others in the area. Attach safety cables to all hoses to prevent injury in case a hose is accidentally broken.
- Never disconnect a pressurized air hose. Always turn off the air supply and bleed the tool before disconnecting a hose.
- The operator must keep limbs and body clear of the chisel. If a chisel breaks, the tool with the broken chisel projecting from the tool will suddenly surge forward.
- Do not ride the tool with one leg over the handle. Injury can result if the chisel breaks while riding the tool.
- Know what is underneath the material being worked. Be alert for hidden water, gas, sewer, telephone or electric lines.
- Use only proper cleaning solvents to clean parts. Use only cleaning solvents which meet current safety and health standards. Use cleaning solvents in a well ventilated area.
- Do not flush the tool or clean any parts with diesel fuel. Diesel fuel residue will ignite in the tool when the tool is operated, causing damage to internal parts. When using models with outside triggers or throttle levers, take care when setting the tool down to prevent accidental operation.
- Do not operate the tool with broken or damaged parts.
- Never start the tool when it is lying on the ground.

PLACING TOOL IN SERVICE

LUBRICATION



Ingersoll-Rand No. 10

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

For USA – No. C08-02-FKG0-28

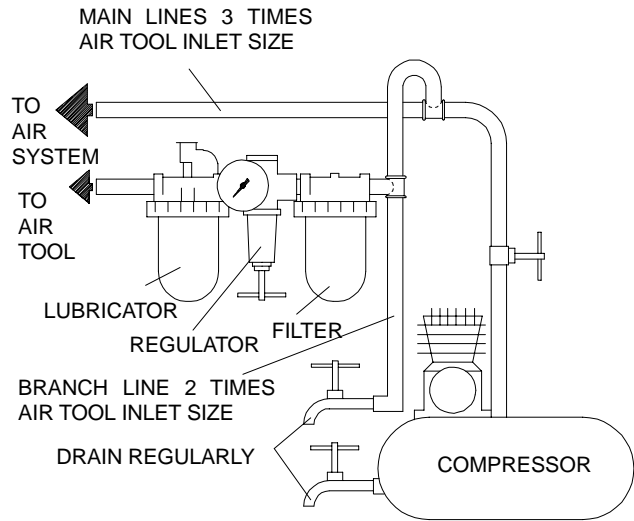
Before operating the tool and after each two to three hours of operation, unless an air line lubricator is used, detach the air hose and inject several drops of Ingersoll-Rand No. 10 Oil into the air inlet.

When the tool is to be idle for a period exceeding 24 hours, lubricate it in the regular manner and operate it for 5 seconds. This will coat the internal parts with oil and prevent rusting while the tool is idle.

Never use a heavy oil or oil that forms a gum.

If the action of the tool becomes sluggish, in a well ventilated area, remove the air hose, pour about one teaspoonful of a clean, suitable cleaning solution into the air inlet and operate the tool for not more than thirty

seconds. Immediately, follow this treatment with an injection of Ingersoll-Rand No. 10 Oil.

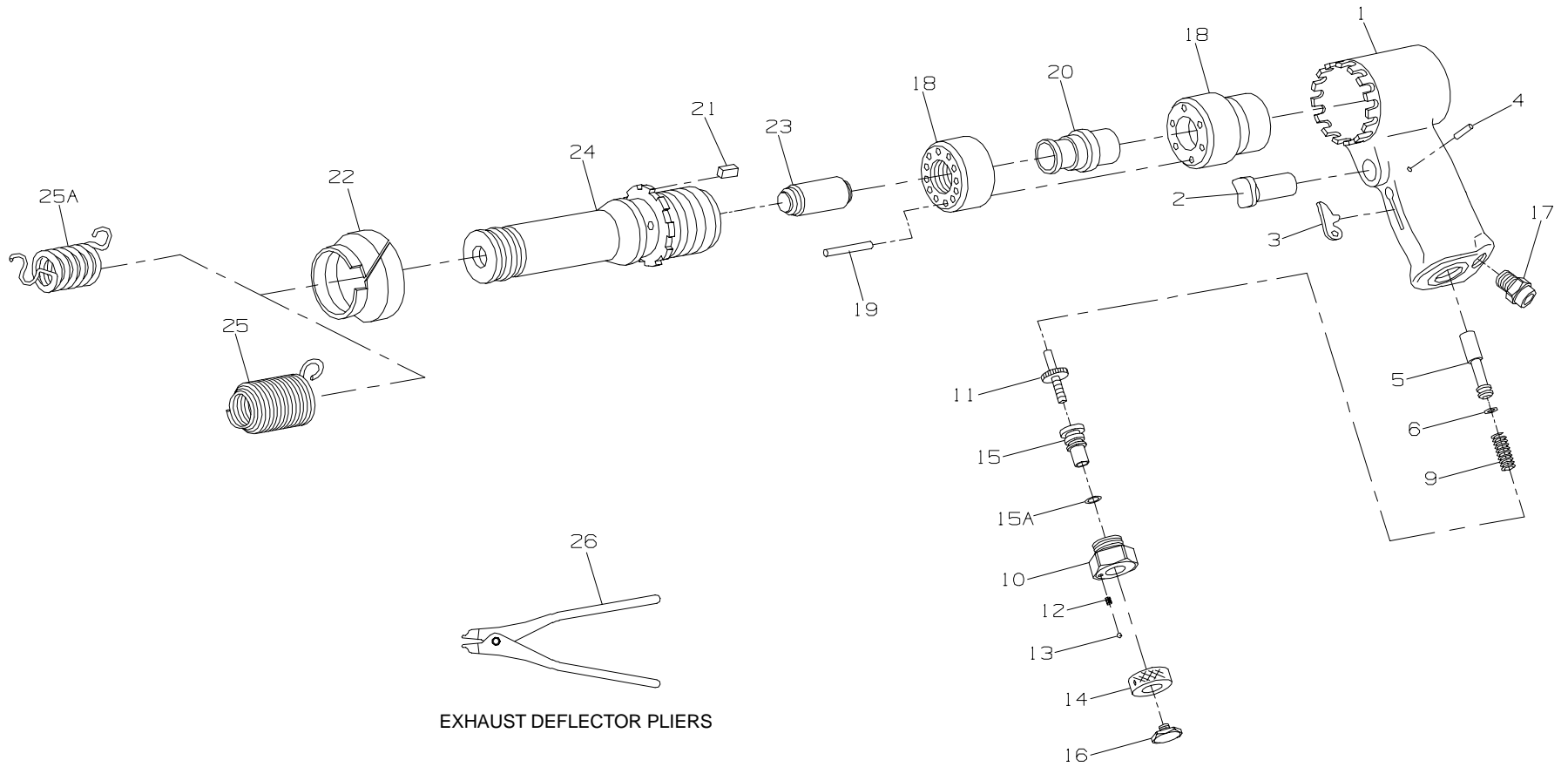


(Dwg. TPD905-1)

HOW TO ORDER AN AIR HAMMER

PISTOL GRIP WITH TRIGGER THROTTLE

Model	Impacts/min.	Piston Stroke	
		in	mm
132	1 725	4	101



EXHAUST DEFLECTOR PLIERS

MAINTENANCE SECTION



PART NUMBER FOR ORDERING



PART NUMBER FOR ORDERING



1	Offset Handle with Built-in Power Regulator	MC132-A59A	18	Valve Box Assembly	AV11-A4
*	Warning Label	WARNING-6-99	19	Dowel Pin	AV11-32
2	Trigger	AV1-93A	20	Valve	AV11-2
3	Intermediate Lever	AV1-56		.002" Oversize	AV11-2-20
4	Intermediate Lever Pin	LG2-191	21	Locking Key	AV11-34
5	Throttle Valve Assembly	AVC10-A302	22	Exhaust Deflector	AV11-85
6	Throttle Valve Seal	401-159	23	Piston	AV12-5
9	Throttle Valve Spring	H80-11	24	Barrel	MC132-6
	Throttle Adjuster Assembly	AV1-A250		Tool Retainer	
10	Throttle Adjuster Body	AV1-250	25	Safety type	AVC1-83
11	Throttle Adjuster Screw	AV1-252	25A	Quick-Change type	AVC10-183A
12	Throttle Adjuster Stop Spring	AV1-256	26	Exhaust Deflector Pliers	34SR-54
13	Throttle Adjuster Stop Ball (1/8" diameter Steel Ball)	AV1-255	*	Hose Whip (8 ft. of 5/16" [8 mm] hose)	R0-130
14	Throttle Adjuster Knob	AV1-251	*	Male Hose Nipple (5/16" hose to 1/4" male pipe)	AV1-46
15	Throttle Adjuster Sleeve	AV1-253	*	Female Hose Nipple (5/16" hose to 3/8" female pipe)	R1-47
15A	Throttle Adjuster Sleeve Seal	R0BR1C-283	*	Independent Power Regulator Assembly	AV11-A915
16	Throttle Adjuster Cap Screw	AV1-254			
17	Air Inlet Bushing	N00-82			

* Not illustrated.

MAINTENANCE SECTION

WARNING

Always wear eye protection when operating or performing maintenance on this tool.

Always turn off air supply and disconnect air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool. Failure to do so could result in injury.

LUBRICATION

Each time a Model 132 Air Hammer is disassembled for maintenance, repair or replacement of parts, lubricate the tool as follows:

Inject several drops of Ingersoll–Rand No. 10 Oil into the air inlet and operate the tool for 5 seconds to coat the internal parts with oil.

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 Tool

1. Clamp the Handle (1) in leather–covered or copper–covered vise jaws with the accessory end upward.
2. Remove the Tool Retainer (25 or 25A) and any accessory from the Barrel (24).

3. Remove the Exhaust Deflector (22) from the Barrel.
4. Remove the Locking Key (21) that keeps the Barrel from unscrewing from the Handle Assembly.
5. Carefully unscrew the Barrel from the Handle Assembly.
6. Remove the Piston (23) and the Valve Box Assembly.

Disassembly of the Throttle Mechanism

1. Clamp the Handle in leather–covered or copper–covered vise jaws with the Air Inlet Bushing (17) upward.
2. Remove the Throttle Adjuster Body (10).
3. Unscrew the Throttle Adjuster Cap Screw (16) and remove the Throttle Adjuster Knob (14), Throttle Adjuster Stop Ball (13), Throttle Adjuster Stop Spring (12), and the Throttle Adjuster Sleeve (15).
4. Remove the Throttle Adjuster Screw (11), the Throttle Valve Spring (9), and the Throttle Valve Assembly (5) from the Handle.
5. Remove the Air Inlet Bushing.
6. Rotate the Handle in the vise to gain access to the Intermediate Lever Pin (4). Drive out the Pin.
7. Carefully remove the Trigger (2) and the Intermediate Lever (3).

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 (18) apart.
2. Carefully remove the Dowel Pin (19) and the Valve (20).

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.

MAINTENANCE SECTION

Assembly of the Valve Box Assembly and Lapping Oversize Valve into Valve Box

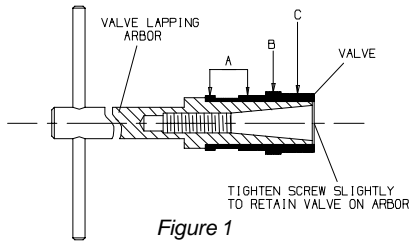


Figure 1

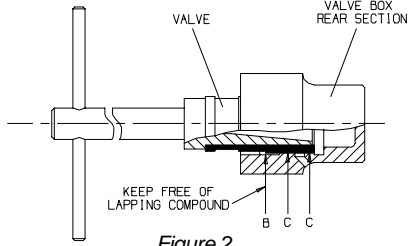


Figure 2

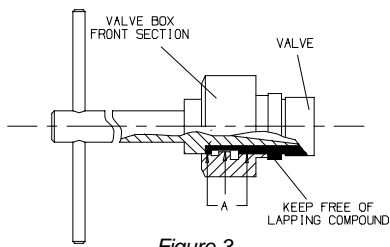


Figure 3

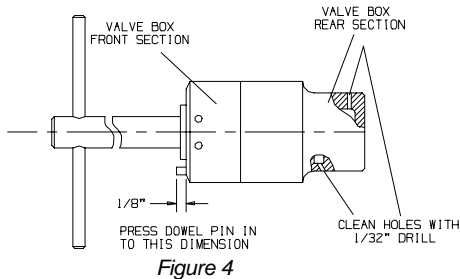


Figure 4

(Dwg. TPB130)

1. An oversize Valve (20) must be lapped into the Valve Box (18). 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 the internal diameter “B” in the Valve Box. Allow the compound to remain on the internal diameter “C”.

- d. Install the front section of the Valve Box 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 a clean, 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 (19) in the Valve Box. Shake the assembly to see that the Valve moves freely in the Valve Box.

Assembly of the Throttle Mechanism

1. Clamp the Handle of the tool in leather-covered or copper-covered vise jaws with the Air Inlet Bushing (17) upward.
2. With a new Throttle Valve Seal (6) on the Throttle Valve Assembly (5), place the Valve Assembly into the Handle, Seal upward.
3. With the stem of the Throttle Adjusting Screw (11) going through the Throttle Valve Spring (9), install the Spring/Screw into the Handle.
4. With a new Throttle Adjuster Sleeve Seal (15A) on the Throttle Adjuster Sleeve (15), place the Sleeve into the Throttle Adjuster Body (10).
5. Carefully place the Throttle Adjuster Stop Spring (12) and the Throttle Adjuster Stop Ball (13) in the Throttle Adjuster Body.
6. Secure the Spring/Ball with the Throttle Adjuster Knob (14) and the Throttle Adjuster Cap Screw (16).
7. Secure the Throttle Adjuster Screw with the Throttle Adjuster Body.
8. Reinstall the Air Inlet Bushing (17).

Assembly of the Tool

1. Clamp the Handle of the tool 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 (23) in the bore of the Barrel (24), screw the Barrel into the Handle.
4. Place the Locking Key (21) into one of the slots in the Barrel/Handle Assembly.
5. Secure the Locking Key with the Exhaust Deflector (22).

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE

Trouble	Probable Cause	Solution
Sluggish operation	Dirt or oil gum accumulation on internal parts	In a well ventilated area, pour 3 cc of a clean, suitable, cleaning solution into the air inlet and operate for 30 seconds. After flushing, lubricate with the recommended oil.
Loss of power	Worn Valve	Replace the Valve.
Loss of efficiency	Worn Piston and/or accessory	Replace worn parts.

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.