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# Safety glasses should be worn at all times while operating tool.

# **General Information**

The Marson ValueRivet™V-3 pneumatic/hydraulic riveting tool is designed to set rivets in all materials in sizes from 1/8" to 3/16" diameter. Model V-3 is supplied with 3/16" NOSEPIECE (17C) installed in the operating position. Standard nosepieces for 1/8" (17A) and 5/32" (17B) diameter rivets is included among the accessories supplied with the tool.

The Maximum Air Pressure is 95 PSI At Tool.

# **Specifications**

Rivet Setting Capacity	3/16" diamete
Traction power	1983 lbs
Operating air pressure	85-95 PSI
Air consumption	4CFM
Air Inlet	1/4" N.P.T.
Overall height	11"
Net weight	3.3 lbs.

#### Accessories

The V-3 is packaged in a compartment storage container. Wrenches needed to service the tool are included. Special SPANNER (40) has a cut-out gauge used in adjusting the tool as described below.

Also included: Safety Cap (49) to catch ejected mandrels when attached to the back of the tool.

# Maintenance

In order to achieve maximum efficiency and economy, the Marson V-3 pneumatic/hydraulic riveting tool should be serviced and maintained on a regular basis. No special skills or tools other than the ones provided are needed to properly service and maintain the device.

The operative parts of the tools requiring regular inspection and maintenance are as follows:

- The JAWS (2) should be periodically inspected, cleaned, and when necessary, replaced with new jaws (see Cleaning and Changing Jaws under Procedures below).
- The FRAME (14) of the tool should be checked periodically to ensure that the oil level is maintained and that there are no leaks or breakdowns in the seals. (See Repair sections under Malfunction for procedures).

## **Maintenance Procedures**

Cleaning and Changing Jaws

IMPORTANT- Disconnect the V-3 from the air pressure line before proceeding with inspection or repairs. Use SPANNER (48) to remove HEAD (16) and JAW HOUSING (1). At the same time, hold the JAW CASE COUPLER (4) with 14MM WRENCH (13). Clean jaws with solvent or a steel brush. Replace with new jaws if excess wear is apparent. Always coat outer or smooth surface of jaws with an oil film before assembling.

Reassemble by reversing order of above procedure. It is important that JAW PUSHER (3) engages the conical parts of the JAWS. **DO NOT CHANGE THE POSITION OF PARTS (4) and (6).** If these parts are inadvertently changed, see readjustment instructions under "Malfunction".

# 2. Changing Nosepiece

Connect V-3 to air pressure and press TRIGGER ARM (39) until nosepiece has been removed and new nosepiece fully tightened. When TRIGGER ARM (39) has been released and tool is at rest there should be a circular opening visible in the nosepiece.

#### Malfunction

 Mandrel gripped by JAWS (2) but rivet does not set and mandrel does not break;

CAUSE: Low air pressure or loss of oil.

**REPAIR**: Increase air pressure but do not exceed 95 PSI at tool. Make sure all fittings including FRAME CAP (10) and HEAD (16) are tight. If malfunction persists, add oil as follows:

Disassemble AIR CYLINDER (28), FRAME (14) and HEAD (16). Before adding oil, check to be sure OIL PISTON (7) is at the bottom of its stroke, by hand pulling JAW HOUSING (1) away from FRAME (14). OIL PISTON (18) should bottom its stroke automatically when removing FRAME HEAD (16). If JAW HOUSING (I) moves downward by hand power, then RETURN SPRING (11) must be replaced. Care must be exercised to avoid damage to O-RING (46). Pour MARSON OIL No. 39105 or equivalent into FRAME (14) while tool is upside down. Before assembling also check for oil appearing in AIR CYLINDER (28) or HEAD (16). If oil is found in any of these areas, replace O-RING (12, 46) as needed. Reassemble tool.

2. Mandrel does not enter nosepiece OR fails to eject. **CAUSE**: JAW HOUSING COUPLER (4) and NUT (6) have changed position.

**REPAIR**: Adjust so that the distance between the plane underside of the FRAME (14) and the front edge of the securely-assembled JAW HOUSING (1) is approximately 2-3/8". This can be measured with the cut-out gauge on SPANNER (48) before assembling HEAD (16).

3. Tool takes more than one stroke under ideal conditions to set rivet and break mandrel.

CAUSE: Insufficient oil.

**REPAIR**: See repair instructions under Malfunction, 1.

**CAUSE**: Not enough air pressure.

**REPAIR**: Increase air pressure but do not exceed 95 PSI at

CAUSE: Loose nosepiece.

**REPAIR**: Tighten nosepiece with SPANNER (48).

**CAUSE**: JAW HOUSING COUPLER (4) too far forward. **REPAIR**: See procedure under Section 2 above.



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