

Original Instructions



Instruction Manual 

Pass on to user to read and keep for reference

# G83A

Lockbolt® Power Tool



**CHERRY®**  
AEROSPACE

# THE G83A TOOL



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### WARRANTY

Seller warrants the goods conform to applicable specifications and drawings and will be manufactured and inspected according to generally accepted practices of companies manufacturing industrial or aerospace fasteners. In the event of any breach of the foregoing warranty, Buyer's sole remedy shall be to return defective goods (after receiving authorization from Seller) for replacement or refund of the purchase price, at the Seller's option. Seller agrees to any freight costs in connection with the return of any defective goods, but any costs relating to removal of the defective or nonconforming goods or installation of replacement goods shall be Buyer's responsibility. SELLER'S WARRANTY DOES NOT APPLY WHEN ANY PHYSICAL OR CHEMICAL CHANGE IN THE FORM OF THE PRODUCT IS MADE BY BUYER.

**THE FOREGOING EXPRESS WARRANTY AND REMEDY ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES; ANY IMPLIED WARRANTY AS TO QUALITY, FITNESS FOR PURPOSE, OR MERCHANTABILITY IS HEREBY SPECIFICALLY DISCLAIMED AND EXCLUDED BY SELLER. THIS WARRANTY IS VOID IF SELLER IS NOT NOTIFIED IN WRITING OF ANY REJECTION OF THE GOODS WITHIN ONE (1) YEAR AFTER INITIAL USE BY BUYER OF ANY POWER RIVETER OR NINETY (90) DAYS AFTER INITIAL USE OF ANY OTHER PRODUCT.**

Seller shall not be liable under any circumstances for incidental, special or consequential damages arising in whole or in part from any breach by Seller, AND SUCH INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES ARE HEREBY EXPRESSLY EXCLUDED.

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**Western Division** .....1219 W. Mahalo Place, Rancho Dominguez, CA 90220-5446 tel: (310) 632-5400 fax: (310) 632-3900

## DESCRIPTION

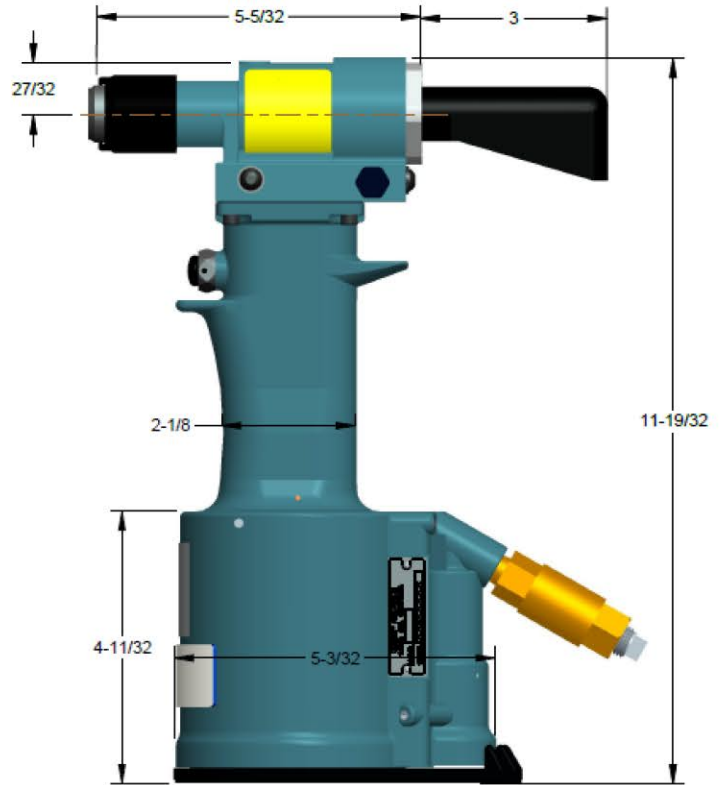
The Cherry® G83A Lockbolt® riveter is a compact but powerful production tool designed for high productivity, reliable installation of the most popular sizes of aircraft lockbolts and blind bolts.

This powerful tool has many ergonomic features: light weight, low recoil and noise, comfortable fit in the operator's hand.

## SPECIFICATIONS FOR G83A

Cherry® Aerospace (CHERRY®) policy is one of continuous development. Specifications shown in this document may be subject to change which may be introduced after publication. For the latest information check our website at <http://cherryaerospace.com>, under "Technical / Tooling Manuals"

|                 |  |
|-----------------|--|
| AIR PRESSURE    | 90 to 110 PSI (6.2 to 7.6 bar).                      |
| STROKE          | 7/16 inch (11.1 mm)                                  |
| PULLING FORCE   | 3,750 lbs. min @ 90 PSI<br>(16.7 kN min. @ 6.2 bar), |
| RETURN FORCE    | 800 lbs. min @ 90 PSI<br>(3.56 KN min. @ 6.2 bar).   |
| CYCLE TIME      | Approximately one second                             |
| WEIGHT          | 4.95 lbs. (2.25 kg)                                  |
| NOISE LEVEL     | 78.4 dB (A)  |
| VIBRATION       | less than 2.5 m/s <sup>2</sup>                       |
| AIR CONSUMPTION | 3.9 CFM (110.5 liters/M) at 20<br>Cycles/Minute      |



## PUTTING THE TOOL IN SERVICE

The tool must be used with an air pressure regulator. Even if your shop air pressure is below the maximum recommended range, pressure spikes in your airlines could cause serious damage to the tool or cause safety concerns.

**Tools with an integral Air Pressure Regulator (P1505), may be attached to any shop airline.**

**Tools without an integral Air Pressure Regulator (P1505), MUST be connected to a dedicated, regulated airline.**

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# GENERAL SAFETY WARNINGS

## General Safety Rules

- Read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on or working near this equipment. Failure to do so can result in serious bodily injury.
- Only qualified and trained operators should install, adjust or use this tool and its accessories.
- Do not modify this tool; modifications can reduce the effectiveness and compromise safety, increasing the risk to the operator.
- Only use genuine Cherry components; use of unauthorized substitutions compromises the tool safety and void warranty. The consequences shall be at the customer's entire responsibility.
- Do not discard the safety instructions; distribute them to the operators using this equipment.
- Inspect the tool periodically to verify that it is in good working condition and all the information is legibly marked. Contact Cherry Aerospace to obtain replacement new markings if necessary.
- Do not use this equipment if it has been damaged.

## Projectile hazards

- Unless otherwise specified, disconnect the equipment from the power source when servicing or changing accessories.
- Be aware that failure of the work-piece or of this equipment can generate high velocity projectiles. Always wear impact resistant eye protection when operating the tool. The grade of protection required should be assessed for each use.
  - The risks to others should also be considered; never pull rivet in the air or directed at any person.
- Ensure that the work-piece into which the fasteners are installed is securely fixed and properly aligned and prepared.
- Check that the means of protection from ejection of spent stems is in place and it is in good operating condition.
- Warn against the possible forcible front ejection when pulling fasteners in the air or when using front ejecting attachments.

## Operating Hazards

- Use of tools can expose the operator's hands to hazards including crushing, impacts, cuts abrasion and chemical exposure from the internal hydraulic fluid. Use caution when operating this equipment and wear suitable gloves.
- Make sure that the operators and maintenance personnel are physically able to handle the bulk, weight and operating forces of this equipment. Instruct the operator on how the tool is correctly held and operated; be read to counteract the normal or sudden movements of this equipment and have both hands available.
- Maintain a balanced body position and secure footing.
- Release the trigger button in case of interruption of the energy supply.
- Use only the transmission fluid and lubricants recommended by Cherry.
- Avoid uncomfortable postures as these positions will not allow properly counteracting the operating forces of this tool.
- If this tool is operated in a fixed position, make sure that the fixation device is properly secured.
- Beware of the risk of pinching or crushing if pulling head or adaptors are not mounted on this equipment.

## Repetitive Motions Hazards

- When using this tool, the operator may experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- While using this equipment the operator should adopt a comfortable posture whilst maintaining a secure footing and avoiding awkward or off-balance postures. Change posture frequently during extended tasks to help avoid discomfort and fatigue.
- If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling or numbness, these symptoms should not be ignored. Make sure the proper safety measures are taken and the operator comfort is properly assessed during the operation of this equipment.

## Accessory Hazards

- Unless otherwise specified, disconnect from the air source before changing accessories or otherwise servicing this equipment.
- Use only the sizes and types of tools and accessories recommended by Cherry to work with this equipment.

## Workplace Hazards

- Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces around the area this equipment is in operation, fallen spent stems, and trip hazards created by the connecting air supply hose.
- Proceed with caution when in unfamiliar surroundings; there can be hidden hazards such as electricity and other utility lines.
- This equipment has not been tested for use in potentially flammable or explosive environments; use caution when contact with electric power is possible as this tool has a metallic construction that has not fully insulated and tested against electric contact.
- Ensure that there are not electric cables, gas pipes, etc. which can cause a hazard if damaged by the use of this equipment.

## Noise Hazards

- This tool meets the regulatory requirements for noise hazards; however, long exposure to noise can cause permanent, disabling hearing loss or tinnitus (ringing, buzzing in the ears). Use proper ear protection to minimize exposure to noise.
- Appropriate controls should be taken when fixturing the work-piece to reduce noise amplification by "ringing" or impact shock; such controls may involve vibration dampening materials and methods.
- Make sure that the equipment is in proper working condition to avoid unnecessary increase in noise.

## Vibration Hazards

- This tool meets the regulatory requirements for vibration; however, long exposure to the tool operating forces and especially if used in an uncomfortable posture can cause permanent, disabling damage to nerves and blood supply to hands and arms.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- If you experience numbness, tingling, pain or whitening of the skin on your fingers or hands tell your employer and consult a physician.

## Additional safety instructions:

- Pressurized air can cause severe injury:
  - Always shut-off or disconnect from the air supply when tool not in used or when servicing the equipment.
  - Never direct air exhaust or direct air jet to yourself or anyone else.
- Whipping hoses can cause severe injury; always check for damaged or loose hoses, valves and fittings.
- Cold pressurized air shall be directed away from anyone's hands or body.
- Do not exceed the maximum operating air pressure stated in this manual; if a regulated airline is not available, use the pre-set air pressure regulator P/N P1505 to protect against pressure spikes.
- Never hold or carry this equipment by the hose.
- Avoid dropping this tool on hard surfaces; do not pound on the rear of the tool head to force rivets into holes.

# HOW TO USE THE G83A



## PREPARING THE TOOL FOR OPERATION

- After selecting the proper pulling head, attach it securely to the riveter and connect the air-line to the tool.
- Cycle the tool about 10-15 times before starting to make sure all the internal components are all lubricated.

**INSTALLING LOCKBOLTS:** Place the lockbolt pin into the work-piece and place the collar over the pintail. While holding the back end of the lockbolt in place, push the pulling head onto the serrated area of the stem.

- **Caution:** When using a non-self-releasing pulling head once the tool is placed onto the serrated end, it cannot be removed unless going through the installation cycle which breaks the serrated end of the bolt. The broken part (pintail) will eject through the rear of the riveter when using a straight pulling head and through the rear of the active area of the tool for when using offset pulling heads.

If the tool does not release the swaged collar after installation, it can be adjusted by adding shims behind the pulling head collet. Otherwise, the tool may need to be serviced.

## INSTALLING BLIND BOLTS AND RIVETS

- Insert the blind fastener into the prepared hole and place the tool onto the serrated stem.
- Pull the trigger to activate the tool. Upon release of the trigger, the stem will eject to the rear of the riveter when using straight pulling heads, and from the rear of the active area of the tool when using offset pulling head. Right angle pulling heads eject the stems through the front.

## PULLING HEADS AND ADAPTERS AVAILABLE

Pulling heads are not furnished with the riveter and must be ordered separately. All Huck nose assemblies suitable for the 352 and 230 style tools will fit directly on this tool.

| ACCESS TYPE | LOCKBOLT DIA. | LOCKBOLT TOOL SELECTION CHART |             |                            |                                     | Ref. Expected Tool Length (inches) |     |
|-------------|---------------|-------------------------------|-------------|----------------------------|-------------------------------------|------------------------------------|-----|
|             |               | BASIC                         | SWIVEL TYPE | SELF-RELEASING SWIVEL TYPE | SELF-RELEASING, CHISEL SHAPE SWIVEL |                                    |     |
| STRAIGHT    | -4            | H513-04-20                    | -           | -                          | -                                   | 2.0                                |     |
|             |               | H513-04-35                    |             |                            |                                     | 3.5                                |     |
|             |               | -                             |             |                            |                                     | 6.0                                |     |
|             | -5            | -                             | H513S-05-20 | H513SR-05-20               | H513SRC-05-20                       | 2.0                                |     |
|             |               | H513-05-35                    | H513S-05-35 | H513SR-05-35               | H513SRC-05-35                       | 3.5                                |     |
|             |               | H513-05-60                    | -           | -                          | -                                   | 6.0                                |     |
|             |               | -6                            | H513-06-20  | H513S-06-20                | H513SR-06-20                        | H513SRC-06-20                      | 2.0 |
|             |               |                               | -           | H513S-06-24                | H513SR-06-24                        | -                                  | 2.4 |
|             |               |                               | -           | H513S-06-35                | H513SR-06-35                        | H513SRC-06-35                      | 3.5 |
|             | -8            | -                             | H513S-06-48 | H513SR-06-48               | -                                   | 4.8                                |     |
|             |               | H513-06-60                    | -           | -                          | -                                   | 6.0                                |     |
|             |               | H513-08-24                    | H513S-08-24 | H513SR-08-24               | -                                   | 2.4                                |     |
| OFFSET      | -5            | H513-08-35                    | H513S-08-35 | -                          | 3.5                                 |                                    |     |
|             |               | H513-08-48                    | H513S-08-48 | H513SR-08-48               | H513SRC-08-48                       | 3.5                                |     |
|             | -6            | H563-5B                       |             |                            |                                     |                                    |     |
|             |               | H563SP-5B                     |             |                            |                                     |                                    |     |
|             |               | H562-6B                       |             |                            |                                     |                                    |     |
|             |               | H563-6B                       |             |                            |                                     |                                    |     |
| -8          | H563SP-6B     |                               |             |                            |                                     |                                    |     |
|             | H562-8B       |                               |             |                            |                                     |                                    |     |

**Greyed out part numbers will need adaptor 744-100 to work with this riveter; they are designed to work with G87D and G85D-S;**

S = Swivel Type; SR = Self Releasing (only grabs the fastener when trigger is activated); SRC = Self-Release, Chisel Type (for access in tighter structures; SP = for installing Short Pintail (stem) fasteners

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**MAXIBOLT® PULLING HEADS & ADAPTORS**

| STRAIGHT PULLING HEADS | MAXIBOLT DIA. | MAXIBOLT TYPE          | PART NO.  | ADAPTER | Ref. Pulling Head Length |
|------------------------|---------------|------------------------|-----------|---------|--------------------------|
| STRAIGHT               | -5            | "S" type (with washer) | H83B-5MB  | NONE    | 2                        |
|                        |               | "S" type (with washer) | H744-5MB  | NONE    | 2                        |
|                        |               | "U" Type (No Washer)   | H83B-5MBU | NONE    | 2                        |
|                        | -6            | "S" type (with washer) | H83B-6MB  | NONE    | 2                        |
|                        |               | "S" type (with washer) | H744-6MB  | NONE    | 2                        |
|                        |               | "U" Type (No Washer)   | H83B-6MBU | NONE    | 2                        |
| -5, -6                 | Maxibolt Plus | H84B-568               | NONE      | 2.7     |                          |
| OFFSET                 | -6            | Washer Type            | H856-6MB  | 744-200 |                          |
| RIGHT ANGLE            | -5            | Washer Type            | H828-5MB  | 744-200 |                          |
|                        | -6            | Washer Type            | H828-6MB  | 744-200 |                          |

Greyed out part numbers need an adaptor to work with this tool.

**CHERRYMAX®/CHERRYLOCK® PULLING HEADS & ADAPTORS**

| PRODUCT TYPE   | PULLING HEAD | FASTENER DIAMETER | PART NO.  | ADAPTER |
|----------------|--------------|-------------------|-----------|---------|
| CHERRYMAX®     | STRAIGHT     | -4, -5, -6        | H701B-456 | 744-300 |
|                |              | -8                | H84A-8    | NONE    |
| CHERRYLOCK®, A |              | -8                | H84-8CLA  | NONE    |
| CHERRYMAX®     | OFFSET       | -4, -5, -6        | H781A-456 | 744-300 |
|                |              | -4, -5, -6        | H782      | 744-300 |
|                |              | -8                | H827-8    | 744-200 |
| CHERRYMAX®     | RIGHT ANGLE  | -4, -5, -6        | H753-456  | 744-300 |
|                |              | -8                | H828-8    | 744-200 |

Greyed out part numbers need adaptors to work with this tool

**ADAPTER MOUNTING INSTRUCTIONS**

If an adapter is necessary, follow the instructions given below:

**STEP 1**



**STEP 2**



**STEP 3**



**STEP 4**



**STEP 1**

Remove Bayonet mount with square shank screwdriver. Use even force to turn the bayonet mount free from the thread locking compound. Do not hammer on the screw driver or bayonet mount. We recommend placing the tool carefully in a vise equipped with soft jaws.

**STEP 2**

Keep Bayonet mount for future use.

**STEP 3**

Attach draw-bolt adapter to head piston and tighten securely with wrenches.

**STEP 4**

Attach sleeve adapter to tool housing and tighten with wrenches

The pulling head may now be installed on the adapted tool.

## TOOL SERVICE

Tool must be serviced in case of malfunction, massive fluid loss or as part of your routine maintenance program.

REPLACEMENT PARTS: **G83AKS** – service kit (it contains Springs, Seals, O-Rings, Back-up Rings)

TOOLS NEEDED: **G701/G704KT** – tool kit (see pictures below), **Needle Nose Pliers**



**836B700**

**Valve Spring Installation Tool**



**837B700**

**Valve Sleeve Removal Tool**



**P1178**

**Valve Plug Extractor**



**700A60**

**Seal Guide**



**700B65**

**Packing Plug Wrench**



**700A61**

**Piston Rod Wrench**



**700A77**

**Air Bleeder**



**700A62**

**Power Cylinder Tool**



## SERVICE PROCEDURE

- Maintenance and repair to be conducted only by trained personnel.
- Prior to attempting any repair or maintenance work, make sure the air is disconnected.
- Use special care handling sealing surfaces to avoid damage.
- Replace all seals; before re-assembly, apply an O-ring lubricant (Parker® silicone lube or equivalent) on all O-rings
- Apply a small amount of Loctite® 242 on the threaded components; curing time about 30 to 60 minutes.
- After service, the riveter must be primed with hydraulic fluid

## AIR VALVE SUB-ASSEMBLY

### Disassembly Instructions:

- Remove retaining ring (44) and muffler (43) then pull out the valve plug (42) and spool subassembly (37) with the help of tool P1178;
- If necessary, pull the valve sleeve (34) with I tool 837B700 after dislodging the spring (35) with a needle-nose pliers and pulling it out.

### Assembly Instructions:

- Reverse the above procedures. Make sure to use Install tool 836B700 to snap the spring (35) into its groove.

## HEAD SUB-ASSEMBLY

### Disassembly:

- Remove end cap (10); push the head piston (6) out carefully.
- O-rings and back-up ring can be removed using a bent hook. Replace all seals.

### Re-assembly:

- Reverse the above directions, being very careful not to damage the seals during re-assembly; before re-attaching, fill the handle with fluid to the top (see priming instructions).

## HANDLE SUB-ASSEMBLY

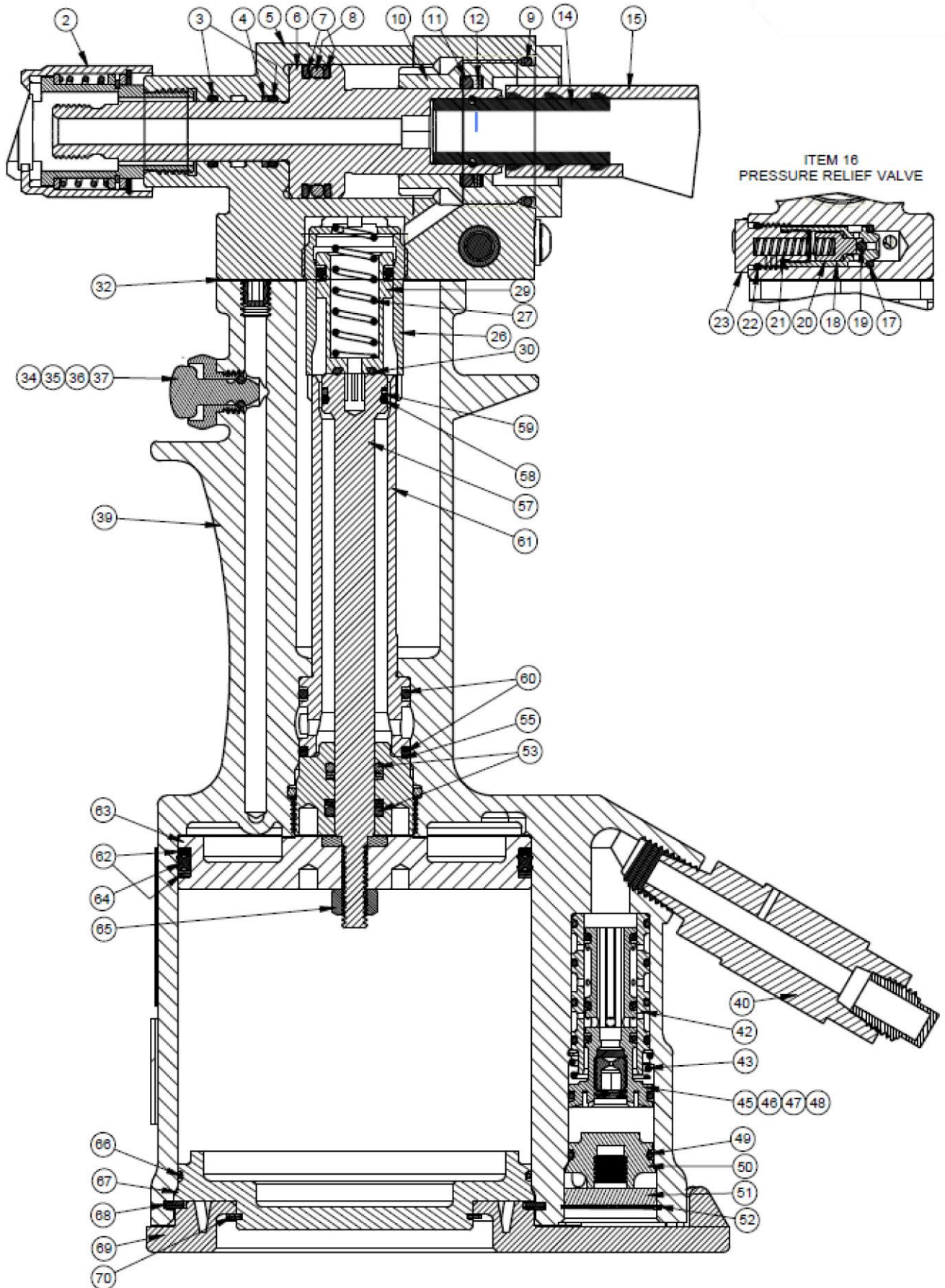
### Disassembly:

- Remove the Head Cylinder (1) drain of fluid then remove the bottom covers (58 through 62); push the power piston down.
- Unthread the locknut (57) with a 1/2" socket wrench and then remove the air piston (55) by using wrench 700B65; hold the top of the piston with tool 700A61 to prevent from turning. Push piston out when completely unthreaded
- Push the power piston (49) all the way up and remove packing plug (47) with the help of wrench 700B65.
- Tap the power cylinder (53) from the top (use tool 700A62); when loosened, it will fall through the bottom.
- Remove all the seals using a bent hook tool and inspect all components for wear. Replace all sealants and worn components

### Assembly:

- The re-assembly sequence is the opposite of disassembly; to prevent damage to piston threads, the tightening torque for the locknut (57) must be between 50 and 59 in.-lb. (5.65 and 6.67 N-m).

### Cross Section Model No: G83A





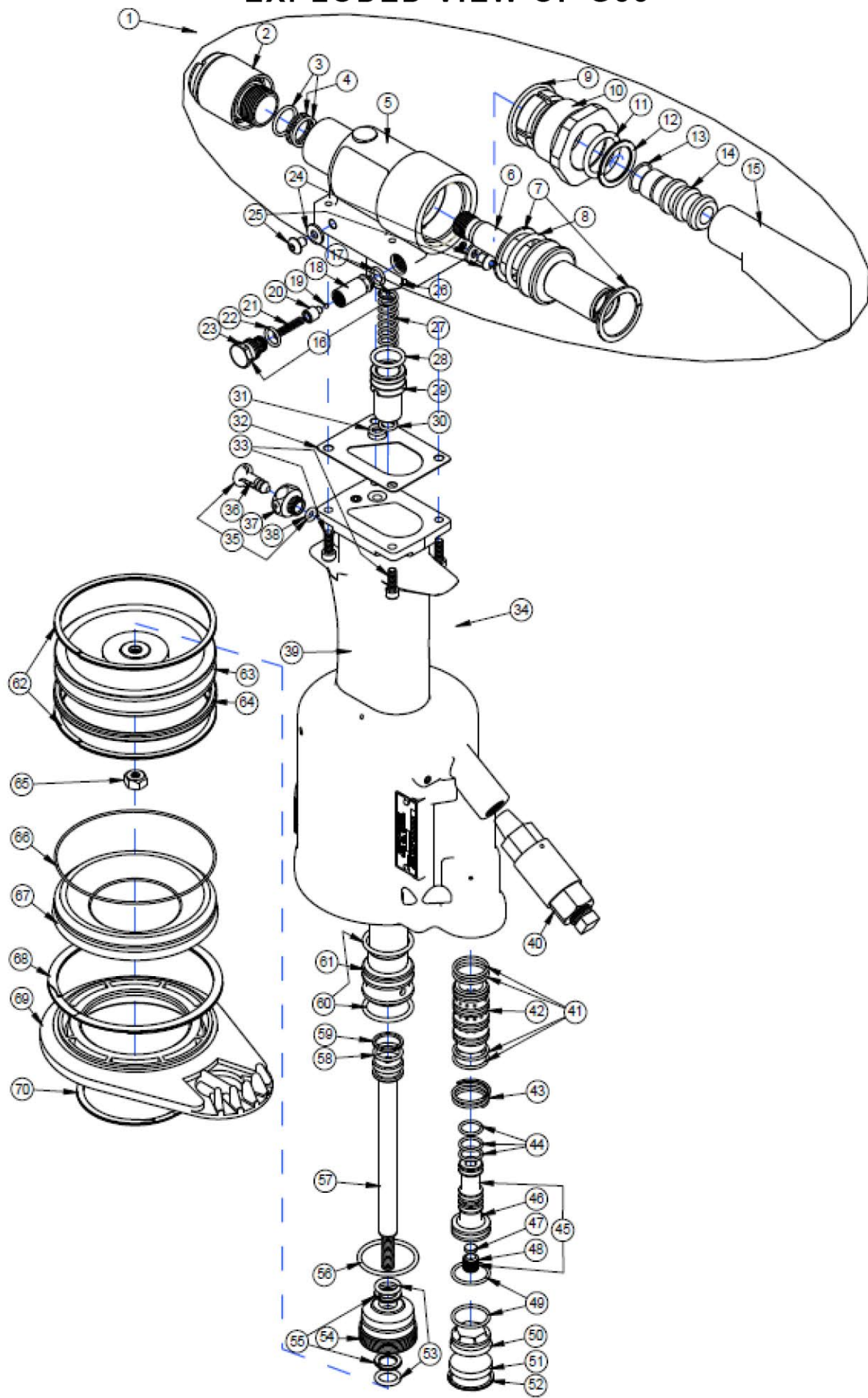
## PART LIST

Model No: G83A

| Item     | P/N            | Description                       | Qty      |
|----------|----------------|-----------------------------------|----------|
| <b>1</b> | <b>700-264</b> | <b>Head Cylinder Sub-Assembly</b> |          |
| 2        | 700-211        | Bayonette Adaptor Assy            | 1        |
| 3        | P828           | O-Ring                            | 2        |
| 4        | P883           | Back-up Ring                      | 1        |
| 5        | 700-266        | Head Cylinder                     | 1        |
| 6        | 700-265        | Head Piston                       | 1        |
| 7        | P932           | Back-up Ring                      | 2        |
| 8        | P113           | O-Ring                            | 1        |
| 9        | P1373          | O-Ring                            | 1        |
| 10       | 700-212        | End Cap                           | 1        |
| 11       | P107           | O-Ring                            | 1        |
| 12       | P108           | Back-up Ring                      | 1        |
| 13       | P880           | Circular Spring                   | 1        |
| 14       | 703A13         | Deflector Fitting                 | 1        |
| 15       | 530A16         | Pintail Deflector                 | 1        |
| 16       | <b>700-214</b> | <b>Relief Valve Assy</b>          | <b>1</b> |
| 17       | P111           | O-Ring                            | 1        |
| 18       | 700-217        | Piston                            | 1        |
| 19       | P688           | 3/32 Steel Ball                   | 1        |
| 20       | 700-215        | Ball Seat                         | 1        |
| 21       | P383           | O-Ring                            | 1        |
| 22       | P1366          | Compression Spring                | 1        |
| 23       | 700-218        | Spring Seat                       | 1        |
| 24       | P572           | Stat-O-Seal                       | 2        |
| 25       | P573           | Button Head Screw                 | 2        |
| 26       | 700-204        | Return Cylinder                   | 1        |
| 27       | P1367          | Compression Spring                | 1        |
| 28       | P508           | O-Ring                            | 1        |
| 29       | <b>700-267</b> | <b>Return Piston Assy</b>         | <b>1</b> |
| 30       |                | O-Ring                            | 1        |
| 31       | P832           | High Pressure O-Ring              | 1        |
| 32       | 700-230        | Gasket                            | 1        |
| 33       | P27            | Cap Screw                         | 4        |

| Item      | P/N            | Description                 | Qty      |
|-----------|----------------|-----------------------------|----------|
| <b>34</b> | <b>700-268</b> | <b>Handle Sub-Assembly</b>  | <b>1</b> |
| <b>35</b> | <b>703A33</b>  | <b>Trigger Sub-Assy</b>     | <b>1</b> |
| 36        | 530A38         | Trigger                     | 1        |
| 37        | 703A32         | Trigger Sleeve              | 1        |
| 38        | P223           | O-ring                      | 1        |
| 39        | 703A11         | Handle                      | 1        |
| 40        | P1505          | Air Pressure Regulator      | 1        |
| 41        | P653           | O-Ring                      | 4        |
| 42        | 700B73         | Valve Sleeve                | 1        |
| 43        | 700A67         | Spring                      | 1        |
| 44        | P829           | O-Ring                      | 3        |
| <b>45</b> | <b>700A15</b>  | <b>Valve Spool Sub-Assy</b> | <b>1</b> |
| 46        | 700D15-2       | Spool                       | 1        |
| 47        | 700A18         | Mufler/Filter               | 1        |
| 48        | 700A69         | Metering Screw              | 1        |
| 49        | P834           | O-Ring                      | 2        |
| 50        | 700A16         | Valve Plug                  | 1        |
| 51        | 700A17         | Mufler                      | 1        |
| 52        | P279           | Retaining Ring              | 1        |
| 53        | P838           | High Pressure O-Ring        | 2        |
| 54        | P115           | Back-up Ring                | 2        |
| 55        | 700B93         | Packing Plug                | 1        |
| 56        | P727           | O-Ring                      | 1        |
| 57        | 700-248        | Power Piston                | 1        |
| 58        | P830           | High Pressure O-Ring        | 1        |
| 59        | P739           | Back-up Ring                | 1        |
| 60        | P833           | High Pressure O-Ring        | 2        |
| 61        | 700-247        | Power Cylinder              | 1        |
| 62        | P731           | Back-up Ring                | 2        |
| 63        | 700B6          | Air Piston                  | 1        |
| 64        | P730           | Quad Ring                   | 1        |
| 65        | P737           | Lock Nut                    | 1        |
| 66        | P725           | O-Ring                      | 1        |
| 67        | 700B4          | Handle Base                 | 1        |
| 68        | P735           | Retaining Ring              | 1        |
| 69        | 700D107        | Base Cover                  | 1        |
| 70        | P736           | Retaining Ring              | 1        |
| 71        | 435-092        | CE CERTIFICATION LABEL      | 1        |
| 72        | 435A60         | WARNING LABEL               | 1        |

# EXPLODED VIEW OF G83



## PRIMING THE HYDRAULIC SYSTEM

### RECOMMENDED HYDRAULIC FLUID

The riveter is supplied with **Dexron® III ATF type "A"**.

|                           |                |
|---------------------------|----------------|
| <i>Specific gravity:</i>  | 0.863          |
| <i>Weight per gallon:</i> | 7.18 lbs.      |
| <i>Open flash point:</i>  | >200°C (392°F) |














### COMPATIBLE ALTERNATE FLUIDS

- **Automatic Transmission Fluids:** DEXRON IV, MERCON, Allison C4 or equivalent.
- **Hydraulic Fluids:** Hyspin® VG32 , Aeroshell fluid 4

**⚠ CAUTION ⚠**

- **DO NOT MIX DIFFERENT TYPES OF HYDRAULIC OILS AND TRANSMISSION; HYDRAULIC AND TRANSMISSION FLUIDS ARE NOT COMPATIBLE DIFFERENT TYPES OF FLUIDS MAY NOT BE COMPATIBLE WITH EACH OTHER.**
- **PHYSICAL PROPERTIES AND MATERIAL SAFETY DATA SHEETS FOR DIFFERENT FLUIDS MAY DIFFER FROM THE ONE GIVEN BELOW, BUT THE SAFETY INFORMATION STILL APPLIES; CHECK WITH THE FLUID MANUFACTURER FOR ADDITIONAL MSDS AND SPECIFIC PROPERTIES.**

### FLUID HANDLING SAFETY

|  |   |  |
|--|---|--|
| <br><b>ENVIRONMENTAL</b>    |    | <ul style="list-style-type: none"> <li>• Waste Disposal in accordance with the applicable regulations</li> </ul>   |
|  |    | <ul style="list-style-type: none"> <li>• Soak up spills with diatomaceous earth or other inert materials.</li> <li>• Keep from drains, sewers and water courses.</li> <li>• Filter and recycle used fluid; otherwise store and dispose of according to the applicable regulations.</li> </ul>                                |
| <br><b>HANDLING</b>        | <br>Approved Personal Protective Equipment must be worn | <ul style="list-style-type: none"> <li>• Eye protection is required.</li> <li>• Protective gloves, chemically resistant boots and apron are recommended.</li> </ul>  |
| <br><b>FIRST AID</b>      |    | <ul style="list-style-type: none"> <li>• Flush eyes thoroughly with water.</li> <li>• If irritation develops, consult a physician.</li> </ul>  |
|  |    | <ul style="list-style-type: none"> <li>• To prevent inhalation, use in well-ventilated area.</li> <li>• Short term exposure should pose no adverse health effects.</li> <li>• If inhalation occurs, remove the affected person from the contaminated area and apply artificial respiration if needed.</li> </ul>             |
|  |    | <ul style="list-style-type: none"> <li>• <b>DO NOT INDUCE VOMITING.</b></li> <li>• Seek medical attention immediately.</li> </ul>  |
|  |    | In case of skin contamination: <ul style="list-style-type: none"> <li>• Wash thoroughly with soap and water as soon as possible.</li> <li>• Brief skin contact requires no immediate attention.</li> <li>• If irritation develops, consult a physician.</li> </ul>   |
| <br><b>COMBUSTIBILITY</b> |    | <ul style="list-style-type: none"> <li>• It is slightly combustible when heated above flash point.</li> <li>• It will release flammable vapors which can burn in open or be explosive in confined spaces if exposed to source of ignition.</li> <li>• Do not store near open flames or other sources of ignition.</li> </ul> |
|  |    | <ul style="list-style-type: none"> <li>• In case of fire, use only suitable extinguishing media: CO2, dry powder, foam or water fog.</li> <li>• <b>CAUTION: DO NOT USE WATER JETS.</b></li> </ul>  |

# FILL AND BLEED INSTRUCTIONS



**Priming the tool** – After service, the riveter needs to be primed with fluid.

**What is needed:** a 1/8" Allen Wrench; the 700A77 Bleed Bottle

- Make sure that the power piston is lowered before priming (watch for fluid squirting from the pressurized port).
- Fill the handle subassembly with fluid almost to the gasket (about 1/8" below is also acceptable).
- Place the Return Spring, Piston and Head Cylinder on the gasket and tighten the four cap screws uniformly.
- Bleed the air; make sure to do this operation until the tool has full stroke and no more air bubbles are released into the bottle; you may need to help move the piston back in forth a few times before the tool is fully primed.

**Air Bleeding** (air removal and fluid refill)

**What is needed:**, a 1/8" Allen Wrench; the 700A77 Bleed Bottle

- Remove screw 19 and attach the bleed bottle bottom up (see picture).
- Cycle several times, changing the position of the tool every few cycles; make sure the empty part of the bleed bottle is always the highest part of the tool.
- Stop the process if the tool has full piston stroke and there are no more air bubbles released in any tool position



## TROUBLESHOOTING GUIDE

| Issue  | Possible cause   | How to fix it  |
|--|--|--|
| Piston (6) does not move after depressing Trigger                            | No air supply is connected                                 | Make sure the riveter is connected to an air source  |
|  | Faulty trigger (35)  | Remove and replace trigger assembly.   |
|  | Faulty power piston( 57-59)                                | Service the Handle Subassembly (34).   |
|  | Valve Spring (34) not correctly installed                  | Service the Air Valve; make sure the Sprint is snapped in properly   |
| Short piston stroke or low pulling force                                     | Low hydraulic level or air in the hydraulic system         | Bleed the hydraulic system as shown above  |
| Head piston (6) is slow or it seizes   | Damage inside the Head Cylinder (1)                        | Service the Head Cylinder.   |
|  | Clogged air muffler (51)                                   | Remove, clean thoroughly with solvent and back-blow with compressed air  |
| Fluid leakage at the Head Cylinder (1)                                       | Leaks around the gasket (32)                               | Tighten screws (33) until no more leaks are observed; if it still leaks, the gasket and pressure O-Ring (31, 32) must be replaced. |
|  | Leaks at the front or back of head cylinder (1)            | Service the Head Cylinder (1).   |
| Fluid Leakage at the side hole of the handle                                 | Packing Plug and Seal (53 through 56) damage               | Overhaul the tool.   |
| Air leakage at the Air Valve (items 41 through 48)                           | Broken or dislodged valve spring (43)                      | Service Air Valve; items (47,48) from the inside of the spool and the Air Muffler(51) may need to be cleaned or replaced           |
|  | Worn or damaged valve spool seals                          |  |
| Slow / Sluggish cycle  | Muffler(51) or Spool (45) are clogged up                   |  |
| Head Piston (6) does not return, or it only returns partially (short stroke) | Compression Spring (19) is damaged or broken               | Remove head assembly (1), replace the spring (27).   |
|  | Return Piston (20, 21) or its seals are damaged or broken: | Remove the Head Assembly (1), replace the damaged components.  |
|  | Relief Valve Assy (16) malfunction                         | Repair or replace the relief valve   |

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## Declaration of Conformity

We, **Cherry Aerospace**

Located at **1224 East Warner Avenue, Santa Ana, CA 92705-0157, USA,**

In accordance with the provisions of

### **Machine Directive 2006/42/EC**

Hereby declare under our sole responsibility that:

Equipment: Pneumatic Hydraulic Hand Riveter

**Model Number: G83A**

Serial Number: \_\_\_\_\_

Date of Issue: \_\_\_\_\_

Is in conformity with the applicable requirements of the following standards:

|                       |   |
|-----------------------|---|
| EN ISO 12100:2010     | Safety of Machinery; General Principles; Risk Assessment and Reduction    |
| ISO/TR 14121-1&2:2012 | Safety of Machinery, Risk assessment                                      |
| ISO11148-1:2011       | Hand Held Non-electric Power Tools- Safety Requirements                   |
| ISO 8662-11:1999      | Hand-held portable power tools -- Measurement of vibrations at the handle |
| ISO 3744:2010         | Acoustics – Determination of sound power levels of noise sources          |
| ISO 4413:2010         | Hydraulic fluid power - General Rules of safety                           |
| ISO 4414:2010         | Pneumatic fluid power - General Rules of safety                           |

Signed by: 

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