




G 784

HYDRO-SHIFT CHERRYLOCK® RIVETER

Part No. 195A137

NSN 5130-00-935-4681



Instruction Manual 

Pass on to user to read and keep for reference

MANUAL



TEXTRON Aerospace Fasteners

THE G784 HYDRO-SHIFT RIVETER

TABLE OF CONTENTS

Description	1
Specifications for G784	1
Safety Warnings	2
How to Use the G784	3
Maintenance and Repair	3
Fill and Bleed Instructions	4
Trouble Shooting	4
Overhaul	5
Air Valve	5
Head Sub-Assembly	6-7
Handle Sub-Assembly	8
Adjustment Instructions	9
Shift Point Setting	9
Shift Piston Check	9
Pulling Heads	10
Tool Capacity Charts	10
Installing H681 Series Pulling Heads on Riveter	10
Cross Section Drawing of G784	11
Parts List for G784 Riveter	12
Exploded View of G784	13
Declaration of Conformity	Back Cover

THE G784 HYDRO-SHIFT RIVETER

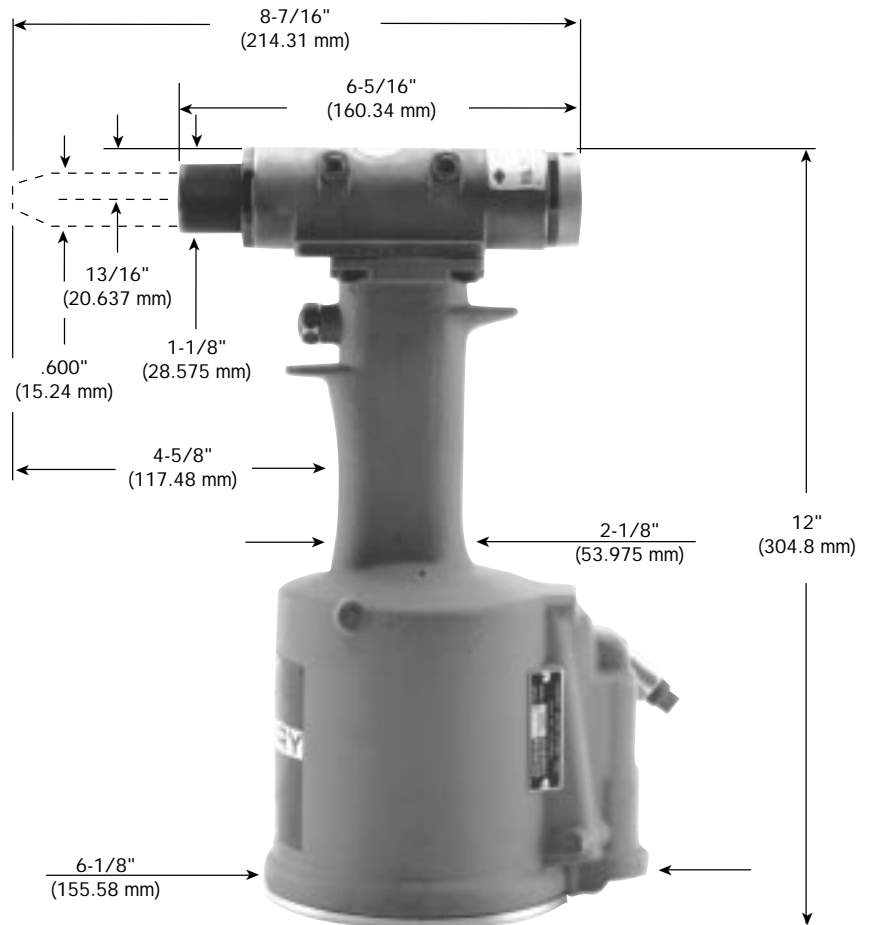
DESCRIPTION

The Cherry G784 Hydro-Shift Riveter is a pneumatic-hydraulic tool designed specifically for the most efficient installation of CherryLOCK® Rivets.

Its durable, all metal housing makes this tool extremely robust for use in shop environment. It will install nearly all diameters of CherryLOCK® Rivets up to a half-inch grip, "A" group only.

This powerful tool has been designed with many ergonomic features: lower weight, less recoil, low noise and a comfortable fit in the operator's hand. It can be operated in any position with one hand.

With proper adapters and pulling heads this tool can be used to install other types of rivets. See the section on "Pulling Heads" for correct pulling head and adapter part numbers.



SPECIFICATIONS FOR G784

Textron Aerospace Fasteners' (TAF) 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 always consult TAF.

AIR PRESSURE	90 PSI (6.2 bar) Min. / 110 PSI (7.6 bar) Max.
STROKE	7/8 inch (22.2 mm)
PULLING FORCE	2,600 lbs. (11.57 kN) @ 90 PSI (6.2 bar),
WEIGHT	8 lbs. (3.63 kg)
NOISE LEVEL	69.7 dB (A)
VIBRATION	less than 2.5 m/s ²
AIR CONSUMPTION	.27 SCF/cycle (7.65 L/cycle)

SAFETY WARNINGS

- Approved eye protection should be worn when operating, repairing, or overhauling this tool.
- Do not use beyond the design intent.
- Do not use substitute components for repair.
- Any modification to the tool, pulling heads, accessories or any component supplied by TAF/Cherry, or their representatives, shall be the customer's entire responsibility. **TAF/Cherry will be pleased to advise on any proposed modification.**
- The tool must be maintained in a safe working condition at all times and examined at regular intervals for damage.
- Before disassembling the tool for repair, refer to the maintenance instructions. All repairs shall be undertaken only by personnel trained in TAF/Cherry installation tools. **Contact TAF/Cherry with your training requirement.**
- Always disconnect the air line from the tool inlet before attempting to service, adjust, fit or remove any accessory.
- Do not operate the tool when it is directed at any person.
- Ensure that the vent holes do not become blocked or covered and that air line hoses are always in good condition.
- Excessive contact with the hydraulic oil should be avoided to minimize the possibility of rashes. Care should be taken to wash thoroughly.
- Operating air pressure should not exceed 110 psi (7.6 bar).
- Do not operate the tool without the pulling head in place.
- Do not operate the tool unless the handle base (56) is fully secured by the retaining ring (57).
- All retaining rings, screwed end caps, air fittings, trigger valves and pulling heads should be attached securely and examined at the end of each working shift.
- Do not pull rivet in the air.
- The precautions to be used when using this tool must be explained by the customer to all operators. **Any question regarding the correct operation of the tool and operator safety should be directed to TAF/Cherry.**
- Do not pound on the rear of the tool head to force rivets into holes as this will damage the tool.
- Do not depress the trigger while disconnecting the air bleeder and replacing the cap screws (40) when bleeding the tool.
- Do not release the trigger after installing a CherryLOCK® rivet until the tool is positioned away from the structure or personnel. Upon release of the trigger the stem will eject from the front of the pulling head with moderate force.

HOW TO USE THE G784

Select the proper pulling head and attach it securely to the G784. For proper installation of the pulling head, see the pulling head tool sheet. Connect the air line to the tool.

Insert the rivet into the application. Place the pulling head over the rivet stem, pushing the tool until the pulling head is in contact with the rivet head. This will ensure full engagement between the jaws and the rivet stem. When pushing down on the rivet stem, make certain the tool is perpendicular to the application.

After activating the trigger, the tool will cycle, installing the rivet. After the stem breaks, point the tool toward an appropriate receptacle and release the trigger. The stem will eject from the front of the tool with a moderate force.

MAINTENANCE AND REPAIR

The G784 has been manufactured to give maximum service with minimum care. In order that this may be accomplished, the following recommendations should be followed:

1. The hydraulic system should be full of oil and free from air at all times.
2. Keep excessive moisture and dirt out of air supply to prevent wear of air valve, air cylinder and air piston.
3. Tool should be routinely inspected for oil leaks. Oil leaking around screws (40) indicates that a screw is loose or a Stat-O-Seal (39) needs replacing.

Use automatic transmission fluid Type "A" (no substitutes). Textron Aerospace Fasteners recommends using ATF, Dexron III oil.

DEXRON III OIL SAFETY DATA

FIRST AID

Skin: Wash thoroughly with soap and water as soon as possible. Casual contact requires no immediate attention. If irritation develops, consult a physician.

Ingestion: Seek medical attention immediately. DO NOT INDUCE VOMITING.

Eyes: Flush with copious amounts of water. If irritation develops, consult a physician.

Inhalation: No significant adverse health effects are expected to occur on short term exposure. Remove from contaminated area. Apply artificial respiration if needed. If unconscious, consult physician.

FIRE

Suitable extinguishing media: CO₂, dry powder, foam or water fog. DO NOT use water jets.

ENVIRONMENT

Waste Disposal: In accordance with local, state and federal regulations.

Spillage: Prevent entry into drains, sewers and water courses. Soak up with diatomaceous earth or other inert material. Store in appropriate container for disposal.

HANDLING

Eye protection required. Protective gloves recommended. Chemically resistant boots and apron recommended. Use in well ventilated area.

COMBUSTIBILITY

Slightly combustible when heated above flash point. Will release flammable vapor which can burn in open or be explosive in confined spaces if exposed to source of ignition.

STORAGE

Avoid storage near open flame or other sources of ignition.

PROPERTIES

Specific gravity 0.863

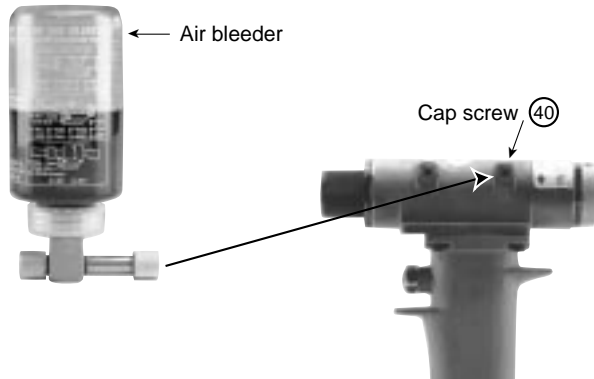
Weight per gallon 7.18 lbs.

Open flash point >200°C (392°F)

FILL AND BLEED INSTRUCTIONS

To replace a small amount of oil in the tool, remove the rear cap screw (40) located on the side of the head being sure NOT to cycle the tool. Attach the Cherry air bleeder (700A77), connect the tool to the air line and cycle several times. This will ensure the removal of any air from the hydraulic system and its replacement with fluid.

Should it become necessary to completely refill the tool (such as would be required after the tool has been dismantled and reassembled), take the following steps:



1. After removing the head assembly, fill handle assembly (46) with the recommended oil to within 1/8" (3.175 mm) of the top of the handle casting.
2. Replace head assembly, being sure the gasket (42) and O-ring (41) are properly in place. Tighten cap screws (45) uniformly to prevent leakage around gasket.
3. Connect tool to air line and remove both cap screws (40) from the side of the head assembly.
4. Using a pressure oil can filled with Dexron III (or equivalent), force the fluid into the front hole until it flows freely from the rear hole. Reverse the procedure until air bubbles cease appearing at either hole.
5. Replace both cap screws, cycle the trigger several times and then repeat steps 3 and 4 above.
6. To ensure the positive removal of all air from the hydraulic system, we recommend the use of Cherry air bleeder (700A77). See instructions for the air bleeder.

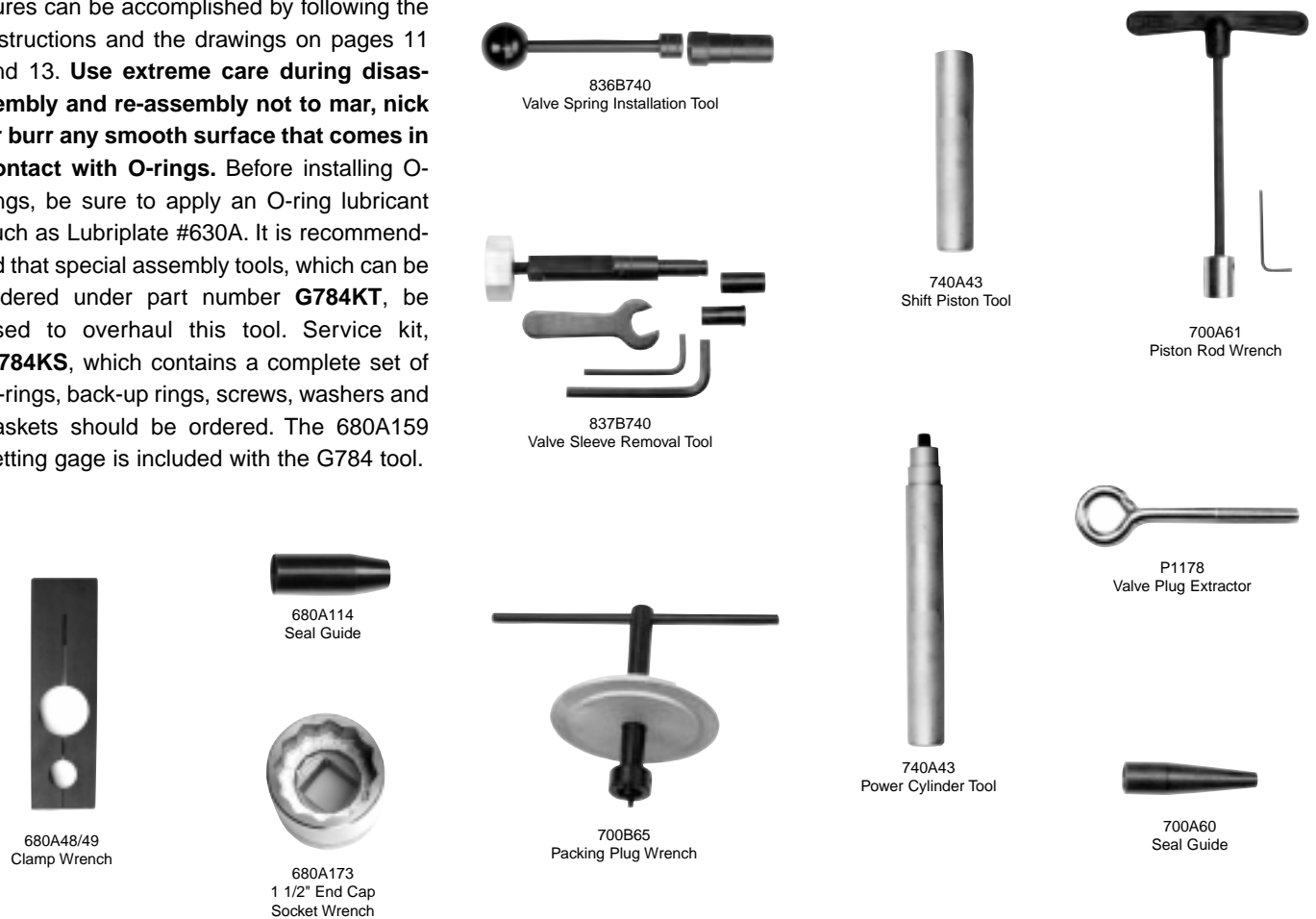
TROUBLESHOOTING

1. Check the air line for correct pressure at the tool. It must be 90 to 110 PSI (6.2 to 7.6 bar).
2. Check for oil leakage:
 - Oil leaking around the cap screws (40) in the head indicates that a screw is loose or a Stat-O-Seal (39) needs replacing.
 - If oil should leak through the by-pass hole at the base of the handle (46) the O-ring (63) is worn or damaged.
 - Oil leaking from the front of the head (13) indicates that O-rings (5 and 11) are worn or damaged; replace.
3. Check for excessive air leakage from the air valve:
 - If spring (71) is broken or dislodged, air will bleed directly through the bottom of the air valve and the head piston retreats to its full stroke without returning. See air valve instructions on Page 5.
 - If O-ring (76) on valve plug (77) is worn or damaged, replace.
 - If O-rings (72) on valve spool sub-assembly (85) are worn or damaged, replace.
4. Check movement of the head piston (14). If it does not move freely or is slow in operation:
 - Valve stem (18) may be held off its seat (21) by contaminants, allowing oil to by-pass. Drain gun, flush thoroughly and refill with fresh oil.
 - O-rings (65) and (15) may be damaged and require replacement.
 - Head piston (14) may be mechanically locked due to damaged parts.
 - Muffler (78) or air filter (74) inside valve spool sub-assembly (85) may be plugged with dirt. Clean them thoroughly with normal solvent and back-blow with compressed air.
 - Hole in metering screw (75) in valve spool sub-assembly (85) may be blocked or damaged. Hole diameter should be .028" (.7112 mm). Clear and size or replace valve spool sub-assembly (85). Metering screw (75), filter (74) and valve spool (73) are not sold separately.
5. Check movement of shift piston (24). If it does not move freely:
 - Small holes in screen in release piston sub-assembly (28) may be plugged preventing oil flow. Drain gun, flush thoroughly and refill with fresh oil. See Fill and Bleed Instructions.
 - Hole through shift valve (18) may be plugged by contaminants. Drain gun, flush thoroughly and refill with fresh oil.
 - Pulling head components need maintenance. Disassemble the pulling head, clean and replace worn parts. Reassemble following pulling head instructions on page 10.

OVERHAUL

The disassembly and re-assembly procedures can be accomplished by following the instructions and the drawings on pages 11 and 13. **Use extreme care during disassembly and re-assembly not to mar, nick or burr any smooth surface that comes in contact with O-rings.** Before installing O-rings, be sure to apply an O-ring lubricant such as Lubriplate #630A. It is recommended that special assembly tools, which can be ordered under part number **G784KT**, be used to overhaul this tool. Service kit, **G784KS**, which contains a complete set of O-rings, back-up rings, screws, washers and gaskets should be ordered. The 680A159 setting gage is included with the G784 tool.

THE G784KT TOOL KIT



AIR VALVE

- To disassemble, first disconnect tool from its air source.
 - Remove retaining ring (79) and muffler (78). Insert a valve plug extractor (P1178) or 5/16-18 threaded rod or bolt into end of valve plug (77) and pull it out. Using the same procedures, pull out valve spool sub-assembly (85).
 - Muffler (76) inside valve spool sub-assembly (85) may be plugged with dirt. Clean it thoroughly with normal solvent and back-blow with compressed air.
- NOTE:** It should never be necessary to remove valve sleeve (70) unless the ports in the sleeve have become plugged from contaminated air. The O-rings on this sleeve are static and hence do not wear.
- If it is suspected that the ports are plugged, use needle nose pliers to grasp end of spring (71), turn clockwise and pull to dislodge from groove in handle.
 - With spring removed, valve sleeve (70) can be pulled out using the valve sleeve removal tool (837B740).

To re-assemble, reverse the above procedures being certain that all O-rings are properly lubricated. To avoid damaging the O-rings (72), carefully install sleeve (70) with your fingers. Gently push and wiggle sleeve to allow O-rings to slip past inner ports. Spring (71) is best installed using a valve spring installation tool (836B740) to push the large diameter coil into the groove. This requires care as the tool will not operate if this spring is not anchored firmly.

HEAD SUB-ASSEMBLY

- Always remove the complete pulling head from the tool before attempting disassembly of the head assembly. Disconnect tool from air source.
- Remove the four socket head cap screws (45). Lift head sub-assembly from the handle (46). Remove O-ring (41) and gasket (42). Empty the oil into a container by pouring from the handle.
- Remove cap screws (40) and Stat-O-Seals (39), and drain the hydraulic system. Dispose of the oil according to environmental regulations.
- Select a work table with a good vise. Place the head cylinder (13) in the vise with the front end cap of the head cylinder (13) up. Tighten the vise securely.
- Use the end cap socket wrench (680A173) and improvise a handle extension to 26"-28". The end caps on the head cylinder have thin hex flats and a standard socket will slip over the hex corners. The end caps on the head cylinder (13) are factory tightened with a torque wrench from 150 to 180 ft.-lbs. (203 to 244 N-m). The break away torque will be high - approximately 180 ft.-lbs. (244 N-m) or slightly higher.
- Remove the front end cap (3) from the head cylinder (13). Then remove the four piston stops (7).
- Place the head cylinder (13) in the vise so that the rear end cap (30) can be removed from the head cylinder (13).
- Remove the plastic adjuster knob (37) by first removing the socket head cap screw (34) with a 3/32 hex key.
- Remove the adjuster ring (36) by removing the other socket head cap screw (34).
- Remove the rear end cap (30) from the head cylinder (13). The following parts will come out with it: socket head cap screw (35), index washer (33), release piston sub-assembly (28), shift screw (26), shift stop (22), and retaining ring (25). The screen on the release piston sub-assembly (28) may need cleaning.
- Push on the head piston (14). This will allow the shift piston sub-assembly to be removed from the rear of the head cylinder (13). The shift piston sub-assembly includes the following parts: piston cap (8), O-ring (9), back-up ring (10), O-ring (11), head piston (14), O-ring (15), back-up ring (16), valve spring (17), valve stem (18), O-rings (19 and 20), valve seat (21), shift stop (22), piston spring (23), and shift piston (24).

NOTE: Valve parts (18), (21) and (22) are matched parts and must be kept together or replaced as a complete unit by purchasing valve sub-assembly (680A40).

To disassemble the Shift Piston Sub-Assembly:

- Insert the shift piston sub-assembly into the large hole of clamp wrench (680A48/49), locating on a polished surface. Tighten the wrench's cap screws securely so that the shift piston sub-assembly cannot turn in the clamp.
- Place the clamp wrench (680A48/49) in a vise with the shift piston sub-assembly upward.
- Use the second clamp wrench (680A48/49) on the piston cap (8). Place the small hole of the clamp wrench over the piston cap (8) and tighten the cap screws on the wrench to prevent slipping.
- Place shift piston tool (700A63) over the threads and against the shoulder of the head piston (14).
- When removing the piston cap (8), push firmly on the shift piston tool (700A63) to depress the head piston (14) and overcome the tension created by the piston spring (23). **Caution should be used as spring will pop out if precautionary measure are not taken.**
- Remove the valve seat (21) with an 11/16" wrench. Remove the valve stem (18) by pushing from front of the valve seat (21). Remove the valve spring (17).

To disassemble the End Cap Sub-Assembly

- Using a 5/32 hex key, turn the button head cap screw (35) counterclockwise until it stops.
- Remove retaining ring (25) inside of release piston sub-assembly (28) with a sharp or pointed instrument.
- After retaining ring (25) is removed, use a 5/32 hex key in the same button head cap screw (35). Turn clockwise until the shift stop (22) can be removed from the release piston sub-assembly (28).
- Place a 3/16 hex key in the end of the shift screw (26) and a 5/32 hex key in the button head cap screw (35). Apply a force on both hex keys until you loosen the button head cap screw (35) which is threaded into the end of the shift screw (26).
- Remove the button head cap screw (35) and the index washer (33).
- Push the shift screw (26) out of the release piston sub-assembly (28). It may be held slightly by O-ring (27).
- Remove the release piston sub-assembly (28) from the rear cap (30) and check the filter in the release piston sub-assembly for debris. If the filter is clogged, back-blow with compressed air.

Upon re-assembly, reverse the above procedures. Be sure to install O-rings and back-up rings using seal guides, where appropriate, to avoid cutting them. Always lubricate all O-rings. Just before placing the head sub-assembly onto the handle, see Fill and Bleed Instructions. Also make sure the O-rings (41) and the gasket (42) on the top of the handle are properly oriented.

- Insert release piston sub-assembly (28) into rear cap (30), making sure index pin in release piston sub-assembly (28) drops into recess in rear cap (30).
- Insert shift screw (26) into the release piston sub-assembly (28). Slip index washer (33) onto adjusting screw (35). Engage threads of button head cap screw (35) with shift screw (26) and firmly tighten. Then turn button head cap screw (35) counter clockwise to retract shift stop (22) fully into release piston (28). Ensure that the hex of the shift stop (22) is aligned with the hex of the release piston sub-assembly (28).
- Install piston cap (8) onto head piston (14), threading seal guide tool (680A114) on head piston (14) to avoid damaging the O-rings as piston cap (8) is threaded into place.
- Hold shift piston (24) using the large hole in clamp wrench (680A48/49), being careful not to mar the smoothly ground surfaces of the piston. Insert piston spring (23), and while compressing it, turn piston cap sub-assembly (8 and 14) into place with clamp wrench (680A48/49) and firmly tighten.
- Insert shift piston sub-assembly (24) into front of head cylinder (13) and thread on rear cap (30). Insert the four piston stops (7), choosing every other hole. Thread on front end cap (3). Place head assembly in smooth jawed vise, clamping on hex of rear cap (30), with front end cap (3) upward. Using the end cap socket wrench (680A173) and a handle extension, tighten front end cap (3) to 150-180 ft.-lbs. (203 to 244 N-m) torque.
- Replace adjuster ring (36), socket head cap screw (34), adjuster knob (37), and then the other socket head cap screw (34) onto the back of the rear cap (30).
- Just before placing the head sub-assembly onto the handle, see Fill and Bleed Instructions. Also make sure to place O-rings (41) and gasket (42) on the top of the handle, and that they are properly oriented.
- Tighten the four socket head cap screws (45) and one socket head cap screw (90) uniformly to prevent leakage around the gasket.
- Purge system of air using Cherry air bleeder (700A77) according to Fill and Bleed instructions.

HANDLE SUB-ASSEMBLY

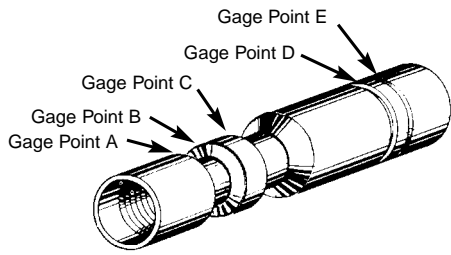
For complete disassembly, disconnect tool from air line and use the following procedures.

- Holding tool upright, remove four socket head cap screws (45). Lift head sub-assembly from handle (46) and set aside O-ring (41) and gasket (42). Empty all oil into a container by pouring from handle. Dispose of oil according to environmental regulations.
- Turn tool upside down and remove parts (55) through (59) from bottom of handle (46).
- Holding tool upright again, remove retaining ring (60) from top of power cylinder (61). Place piston rod wrench (700A61) into the top of the power piston and rod sub-assembly (84) and push it down.
- Leave the piston rod wrench (700A61) in the power piston and rod sub-assembly (84) to prevent rotation, and turn the tool upside down. Remove the locknut (54) using the 7/16" socket in packing plug wrench (700B65).
- While still holding the piston rod wrench (700A61), unscrew the air piston (53) using the packing plug wrench (700B65) by turning counterclockwise. When air piston (53) is completely free from the power piston rod (69), tap the piston rod wrench (700A61) to eject the air piston (53) from bottom of handle (46).
- Thread seal guide (700A60) onto the end of the power piston and rod sub-assembly (84) and push the assembly upward to remove. Using the packing plug wrench (700B65), remove the packing plug (50) by turning counterclockwise. It may be necessary to hold the handle upside down in a vise while removing the packing plug. Now, remove O-ring (49).
- Holding tool upright, insert the power cylinder tool (740A43) into the top of the power cylinder (61) and tap to remove power cylinder (61) and O-rings (62 and 63).
- The O-rings (47) and back-up rings (48) are best removed and replaced in the packing plug (50) using a thin, bent hook.

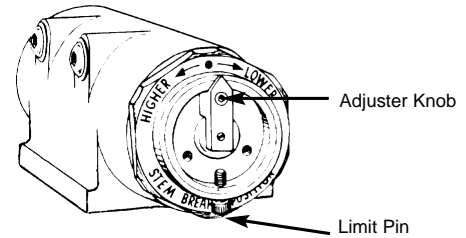
To re-assemble the handle, reverse the above procedure, being certain that all the O-rings are properly lubricated before installation.

- Insert power cylinder (61) with O-rings (62 and 63) into the bottom of handle (46) and seat using power cylinder tool (740A43). Replace O-ring (49).
- Replace O-rings (47) and back-up rings (48) in packing plug (50). Thread packing plug (50) into position against the power cylinder (61) and tighten using the packing plug wrench (700B65).
- Thread the seal guide (700A60) onto the end of power piston and rod sub-assembly (84) and lower into the top of the power cylinder (61). Using the power cylinder tool (740A43), push the power piston and rod sub-assembly (84) through the packing plug (50) and remove the seal guide (700A60).
- Clamp piston rod wrench (700A61) in a vise with the hex shaft pointed up. Turn the handle upside down and place the hex end of the power piston and rod sub-assembly (84) onto the wrench (700A61). Push handle (46) down until it stops.
- Assemble quad ring (52) and back-up rings (51) to air piston (53). Place the air piston (53) into the handle bore. **IMPORTANT:** Be sure that the smooth side of the air piston is facing toward you.
- Thread the air piston (53) onto the power piston rod (69) and tighten using the packing plug wrench (700B65). Thread the locknut (54) onto the power piston rod (69) and tighten between 50-59 in.-lbs. (5.65-6.67 N-m) of torque.
- Replace parts (55) through (59) on the handle sub-assembly and turn the tool upright. Replace the retaining ring (60) in the top of the power cylinder (61).
- See Fill and bleed Instructions before replacing the head sub-assembly.

ADJUSTMENT INSTRUCTIONS



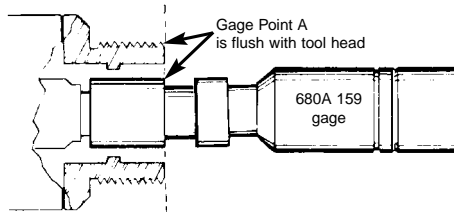
680A159 Setting Gage



784C3 Head Assembly

SHIFT POINT SETTING

This adjustment determines the flushness of break of the rivet stem. The setting controls the point at which the reaction load is transferred from the rivet head to the lock ring of the rivet. After the lock ring is inserted the rivet stem will break flush. The setting gage (680A159) is included with the tool. To adjust setting:



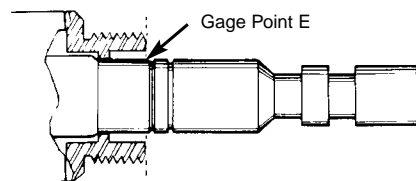
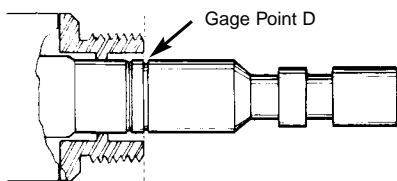
1. Connect tool to air hose with a minimum of 90 psi (6.2 bar) and remove pulling head and sleeve cap (1).
2. Screw small end of 680A159 gage onto head piston (14) until hand-tight.
3. Cycle tool and hold trigger so that the gage is pulled into the tool head. Gage Point A should be flush with the front of the tool head as shown in the sketch.

Release the trigger and turn the adjuster knob (37) clockwise to increase gage protrusion or counterclockwise to decrease gage protrusion. Cycle the tool after each adjustment and check the gage point until it lines up flush with the tool head. A limit pin (34) restricts adjustment to one-half turn of the knob in either direction from the factory setting.

CAUTION: Always release the tool trigger before turning the knob.

SHIFT PISTON CHECK

The shift piston check is made to ascertain that the movement of the piston is not restricted in any manner. It must be free to move the amount indicated below in order to obtain proper installation.



1. Connect the tool to an air hose with a minimum of 90 psi (6.2 bar) and remove the pulling head and sleeve cap (1).
2. Insert the large (unthreaded) end of 680A159 gage over the head piston (14) until it seats in the tool head. With trigger released, the front of the tool head must be within the gage groove recess, Gage Point D, as shown in the sketch.
3. Cycle the tool and hold the trigger. The gage should move forward at the completion of the cycle and in this position the single gage line, Gage Point E, must be visible or forward of the front of the tool head as shown in the sketch. The tool may be cycled while holding the gage in position.
4. If there are any deviations from the above gage positions, there is a possibility of insufficient fluid. Bleeding the tool may correct this. If bleeding does not correct the problem the tool should be sent to the TAF Service Department for correction.

PULLING HEADS

Pulling heads are not furnished with this tool and must be ordered separately. Make certain the pulling head is kept clean, especially around the riveting end, as adhesives, chips, sealants, etc., will clog up the serration of the jaws and may cause slippage of the stem. Please refer to the pulling head charts below for the proper selection. Be sure to specify the shank diameter of the rivets to be installed. See charts for use of adapters and other styles of pulling heads.

TOOL CAPACITY CHART

The numbers shown in the rivet columns below are the maximum grip length that can be installed with this tool. Dashes indicate those rivet sizes which cannot be installed in any grip length.

STANDARD CHERRYLOCKS (NAS 1398 & 1399)

PULLING HEAD	RIVET DIA.	ALUMINUM		MONEL		ST. STEEL	
		CR2163 CR2263	CR2162 CR2164 CR2262	CR2563	CR2562 CR2564	CR2643 CR2653 CR2663	CR2642 CR2652 CR2662 CR2664
		UNIV. HEAD	CTSK. HEAD	UNIV. HEAD	CTSK. HEAD	UNIV. HEAD	CTSK. HEAD
H681-3C	-3	-	-	-	-	ALL	ALL
H681-4C	-4	ALL	ALL	ALL	ALL	ALL	ALL
H681-5C	-5	8	9	8	9	8	9
H681-6C	-6	8	9	8	9	8	9
H681-8C	-8	8	9	8	9	-	-

PULLING HEAD	TYPE	ADAPTER	RIVET	RIVET DIA.	MAXIMUM GRIP
H9055-3	Straight	680B46	CherryLOCK "A"	3/32	ALL
H9055-4				1/8	8,9*
H9055-5				5/32	8,9*
H9055-6				3/16	8,9*
H9015-3C	Straight	680B46	MS	3/32	ALL
H9015-4C				1/8	ALL
H9015-5C				5/32	ALL
H9015-6C				3/16	ALL
H9040-4C	Straight	680B57	MS	1/8	ALL
H9040-5C				5/32	ALL
H9040-6C				3/16	ALL
H9040-8C				1/4	ALL
H642-4C40	Offset	680B57	CherryLOCK	1/8	8,9*
H642-5C40				5/32	8,9*
H642-6C40				3/16	8,9*
H642-8C40				1/4	8,9*
H680-B200A	Straight		CherryMAX	1/8,5/32,3/16	ALL
H781-456	Offset	680B205	CherryMAX	1/8,5/32,3/16	ALL
H753A-456	Right Angle	680B205	CherryMAX	1/8,5/32,3/16	ALL

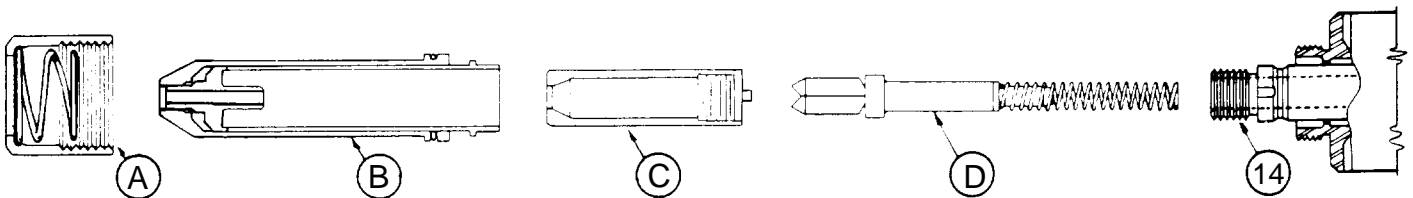
*8 grip for protruding head, 9 grip for countersunk head.

BULBED CHERRYLOCKS (NAS 1738 & 1739)

PULLING HEAD	RIVET DIA.	ALUMINUM		MONEL		INCONEL	
		CR2235 CR2239 CR2245 CR2249	CR2238 CR2248	CR2539 CR2545	CR2538 CR2540	CR2839 CR2845	CR2838 CR2840
		UNIV. HEAD	CTSK. HEAD	UNIV. HEAD	CTSK. HEAD	UNIV. HEAD	CTSK. HEAD
H681-4C	-4	ALL	ALL	ALL	ALL	ALL	ALL
H681-5C	-5	ALL	ALL	ALL	ALL	ALL	ALL
H681-6C	-6	ALL	ALL	ALL	ALL	ALL*	ALL*

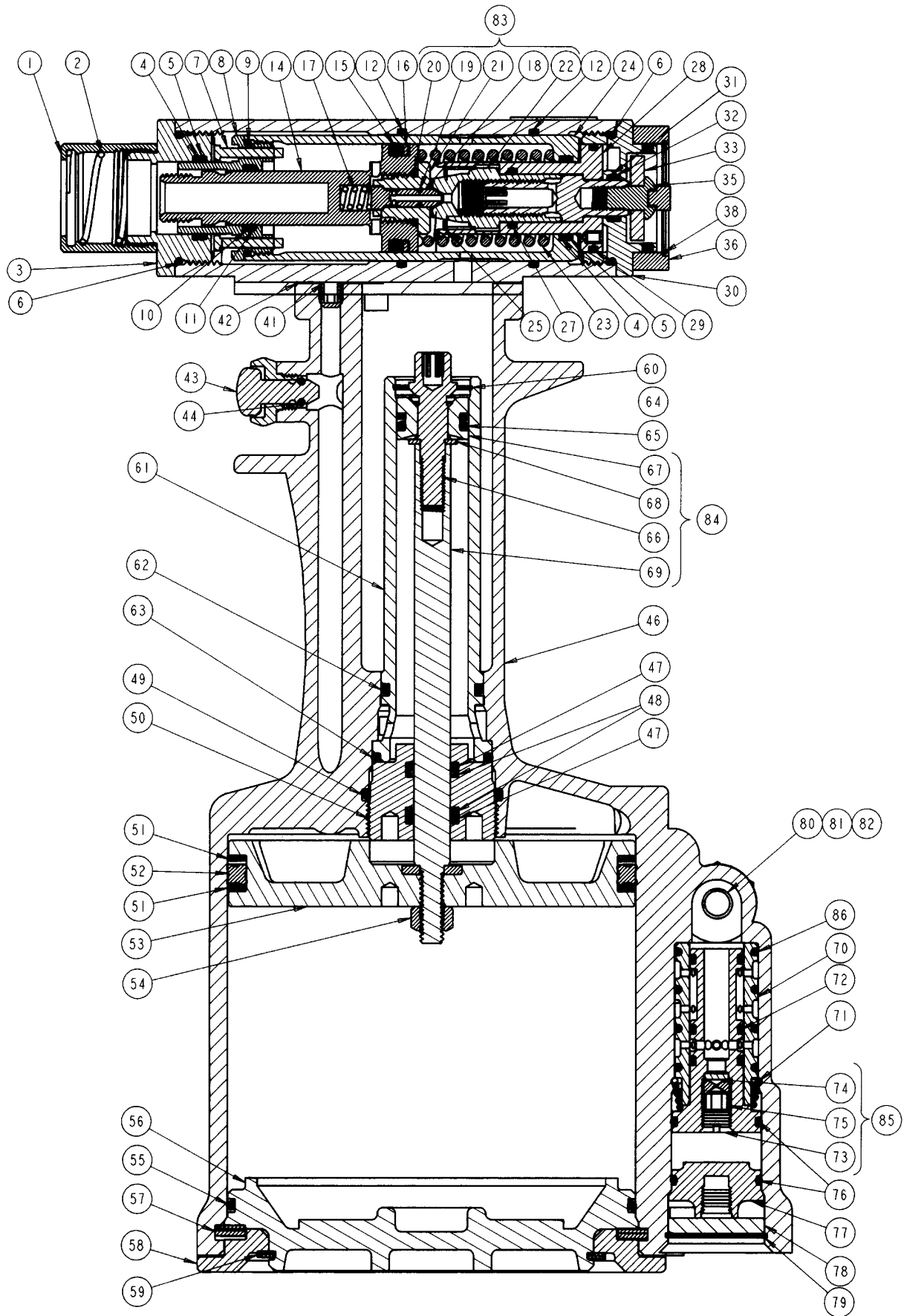
*May require 95 psi (6.6 bar) air pressure at tool.

INSTALLING H681 SERIES PULLING HEADS ON RIVETER



1. Remove knurled cap (A) from front of riveter head.
2. Place jaw assembly (D) inside collet (C).
3. Insert spring end of jaw assembly into hole in head piston (14). Apply enough pressure to engage collet threads. Turn until collet bottoms on shoulder of piston and collet lock snaps into slot in piston. Hand tighten. NOTE: To remove collet, push collet lock back into collet using a blunt tool while turning collet counterclockwise.
4. Place sleeve assembly (B) over collet and head piston. Slip knurled cap (A) over the sleeve assembly and hand tighten onto end of riveter head. Extensions for the H681 pulling heads can be ordered in lengths of 2", 6", 12" and 24".

CROSS SECTION DRAWING OF G784



PART LIST FOR THE G784 (195A137) HYDRO-SHIFT RIVETER

ITEM NO.	DESCRIPTION		QTY.
784C3 SUB-ASSEMBLY, HEAD			
1	680A103	CAP, SLEEVE	1
2	680A105	SPRING	1
3	680B98	CAP, FRONT	1
4	P-652	RING, BACK-UP (.874, .768, .053)	2
5	P-826	O-RING (.879, .739, .070)	2
6	P-691	O-RING (1.254, 1.114, .070)	2
7	680A21	STOP, PISTON	4
8	680B99	CAP, PISTON	1
9	P-266	O-RING (1.191, 1.051, .070)	1
10	P-651	RING, BACK-UP (.686, .580, .053)	1
11	P-828**	O-RING, DISOGRIN (.694, .551, .070)	1
12	P-904**	O-RING, DISOGRIN (1.441, 1.301, .070)	2
13	784C2	BODY, HEAD	1
14	680B151	PISTON, HEAD	1
15	P-483	O-RING (1.137, .859, .139)	1
16	P-657	RING, BACK-UP (1.127, .891, .118)	1
17	680A11	SPRING, VALVE	1
83	680A40	SUB-ASSEMBLY, VALVE 1	
	18	680A20*	STEM, VALVE 1
	19	P-706	O-RING (.192, .116, .038) 1
	20	P-298	O-RING (.566, .426, .070) 1
	21	680A18*	SEAT, VALVE 1
	22	680A19*	STOP, SHIFT 1
23	680A10	SPRING, PISTON	1
24	680C3	PISTON, SHIFT	1
25	P-768	RING, RETAINING (INT. Ø.625)	1
26	680A95	SCREW, SHIFT	1
27	P-830**	O-RING, DISOGRIN (.629, .489, .070)	1
28	680A308	SUB-ASSEMBLY, RELEASE PISTON	1
29	P-690	O-RING (1.129, .989, .070)	1
30	680B93	CAP, REAR	1
31	P-112	O-RING (.504, .364, .070)	1
32	P-650	RING BACK-UP (.496, .390, .053)	1
33	680A92	WASHER, INDEX	1
34	P-356	SCREW, SOC. HD. CAP, 4-40X1/4	2
35	P-554	SCREW, BUTTON HD. CAP, 1/4-28X3/8	1
36	680A112	RING, ADJUSTER (INCLUDES 680A112-2)	1
37	680A113	KNOB, ADJUSTER	1
38	680A112-2	SPRING, FRICTION	1
39	P-572	STAT-O-SEAL (.430, .180, .125)	2
40	P-573	SCREW, BUTTON HD. CAP 10-32X1/4	2
784C5 ASSEMBLY, HANDLE			
43	703A33	ASSEMBLY, TRIGGER (INCLUDES P-223) 1	
	44	P-223	O-RING (.285, .145, .070) 1

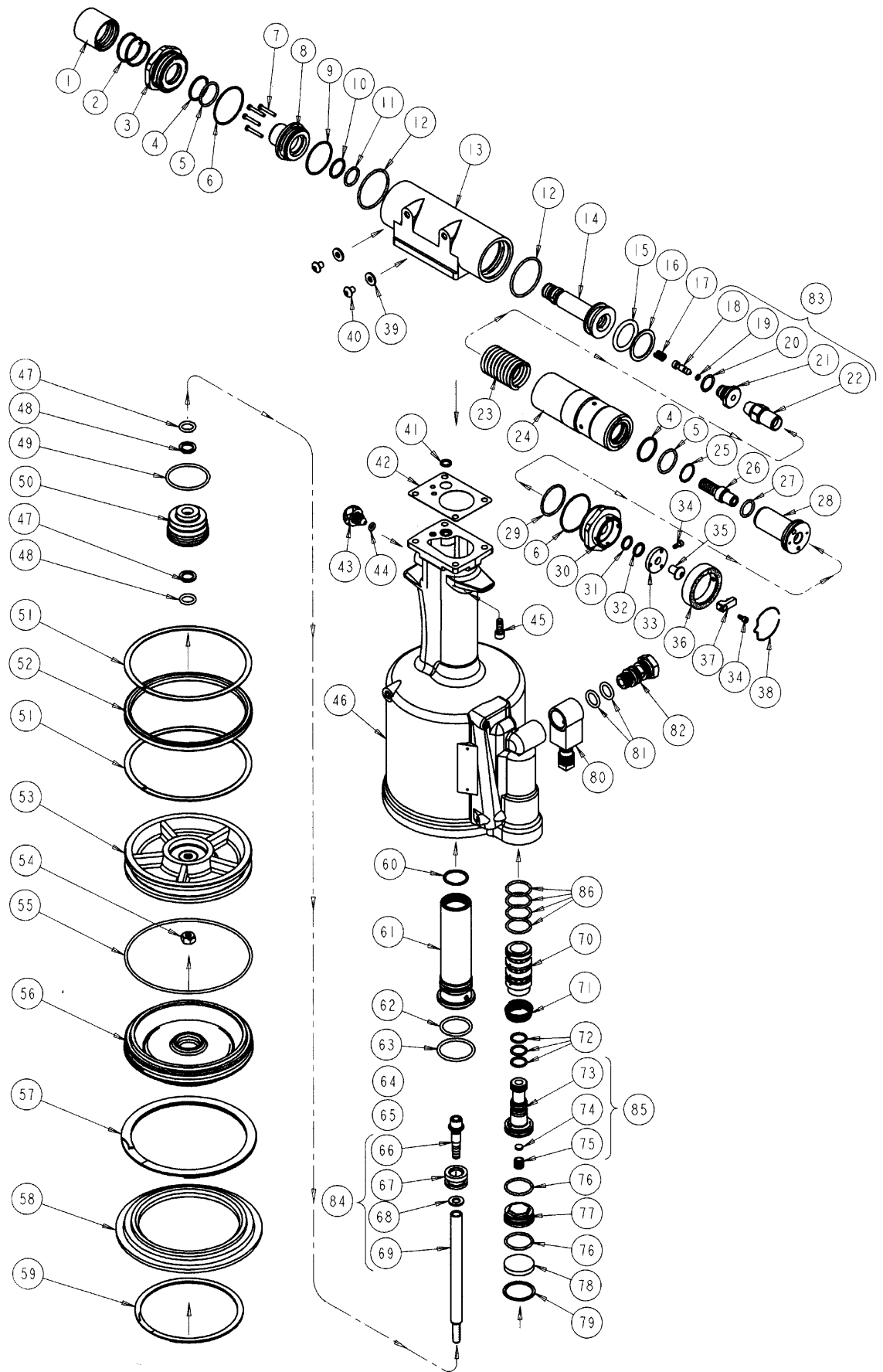
ITEM NO.	DESCRIPTION		QTY.
46	740R3	HANDLE	1
47	P-838**	O-RING, DISOGRIN (.568, .362, .103)	2
48	P-115	RING, BACK-UP (.551, .375, .088)	2
49	P-889	O-RING (1.505, 1.299, .103)	1
50	740B13	PLUG, PACKING	1
51	P-909	RING, BACK-UP (4.245, 3.875, .185)	2
52	P-887	RING, QUAD (4.270, 3.850, .210)	1
53	740B6	PISTON, AIR	1
54	P-737	NUT, CONELOCK, 1/4-20	1
55	P-890	O-RING (4.193, 3.987, .103)	1
56	740C4	BASE, HANDLE	1
57	P-886	RING, RETAINING (INT. Ø 4.250)	1
58	740B5	COVER, BASE	1
59	P-884	RING, RETAINING (EXT. Ø 3.375)	1
60	P-885	RING, RETAINING (INT. Ø .781)	1
61	740C7	CYLINDER, POWER	1
62	P-833**	O-RING, DISOGRIN (1.068, .862, .103)	1
63	P-892**	O-RING, DISOGRIN (1.255, 1.049, .103)	1
64	P-908	RING, BACK-UP (.738, .562, .088)	1
65	P-508	O-RING, (.755, .549, .103)	1
84	740A8	SUB-ASSEMBLY, POWER PISTON & ROD	
	66	740A11*	CAP, PISTON ROD 1
	67	740A9*	PISTON, POWER 1
	68	740A12*	STOP, PISTON 1
	69	740A10*	ROD, POWER PISTON 1
70	740B14	SLEEVE, VALVE	1
71	740A18	SPRING	1
72	P-891**	O-RING, DISOGRIN (.566, .426, .070)	3
85	740A15	SUB-ASSEMBLY, VALVE SPOOL 1	
	73	740B15-1*	SPOOL VALVE 1
	74	700A18*	FILTER 1
	75	700A69*	SCREW METERING 1
76	P-848	O-RING (.941, .801, .070)	2
77	740B16	PLUG, VALVE	1
78	740A17	MUFFLER	1
79	P-321	RING, RETAINING (INT. Ø 1.000)	1
80	530A34	SWIVEL	1
81	P-195	O-RING (.630, .424, .103)	2
82	530A35	BOLT, SWIVEL	1
86	P-268	O-RING, (.816, .676, .070)	4
41	P-832**	O-RING DISOGRIN (.379, .239, .070)	1
42	700A22	GASKET	1
45	P-71	SCREW, SOC. HD. CAP. 10-32X1/2	4

*These parts cannot be purchased separately, but must be ordered as a sub-assembly.

** No Substitutions.

All dimensions are in inches.

EXPLODED VIEW OF G784



TEXTRON

Aerospace Fasteners



Declaration of Conformity

We, *Textron Aerospace Fasteners, 1224 East Warner Ave., Santa Ana, CA 92707*

declare under our sole responsibility that the product

type **G784**

Serial No.

to which this declaration relates is in conformity with the following standards

EN292 part 1 and part 2
ISO 8662 part 1
ISO 3744

following the provisions of the Machine Directive 89/392/EEC
(as amended by Directive 91/368/EEC) and 93/68/EEC

Santa Ana, CA - date of issue

Ahmed Eldessouky, Chief Engineer, Installation Tools

WARRANTY

Textron Aerospace Fasteners, a Division of Textron Inc. (hereinafter "TAF"), hereby warrants to the initial retail customer ("Warrantee") only that its products will be free from defects in material and workmanship, provided that the products are used in accordance with TAF's instruction as to maintenance, operation and use. The duration of the foregoing warranty is limited to 90 days from the date of first use by the Warrantee.

The warrantee's only remedy and TAF's only obligation in the event of a defect or failure in the products, is that TAF will, at its sole option, repair, replace or rework the products, but in no case shall the cost of the foregoing exceed the invoice price of the products.

This Warranty shall be void if any person seeking to make a claim for defective or failed products fails to notify TAF within thirty (30) days of receipt of evidence that the product is defective or has failed, or if said person fails to provide TAF with such

evidence as is reasonably requested concerning the defect or failure, including without limitation, evidence of the date of purchase and date of installation.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TAF EXPRESSLY DISCLAIMS LIABILITY FOR ALL INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES ARISING FROM ANY DEFECT OR FAILURE IN ITS PRODUCTS. TAF FURTHER DISCLAIMS ALL LIABILITY RESULTING IN USER'S CHOICE OF ITS PRODUCTS FOR ANY APPLICATION.

The properties, strengths, dimensions, installed characteristics and all other information in this catalog is for guidance only to aid in the correct selection of the products described herein and is not intended or implied as part of the above warranty. All applications should be evaluated for functional suitability.



TEXTRON

Aerospace Fasteners

1224 East Warner Ave., Box 2157

Santa Ana, CA 92707-0157

(714) 545-5511 FAX (714) 850-6095

For more information about the Cherry G784 CherryLOCK® Power Tool: Please contact our Technical Services Department.