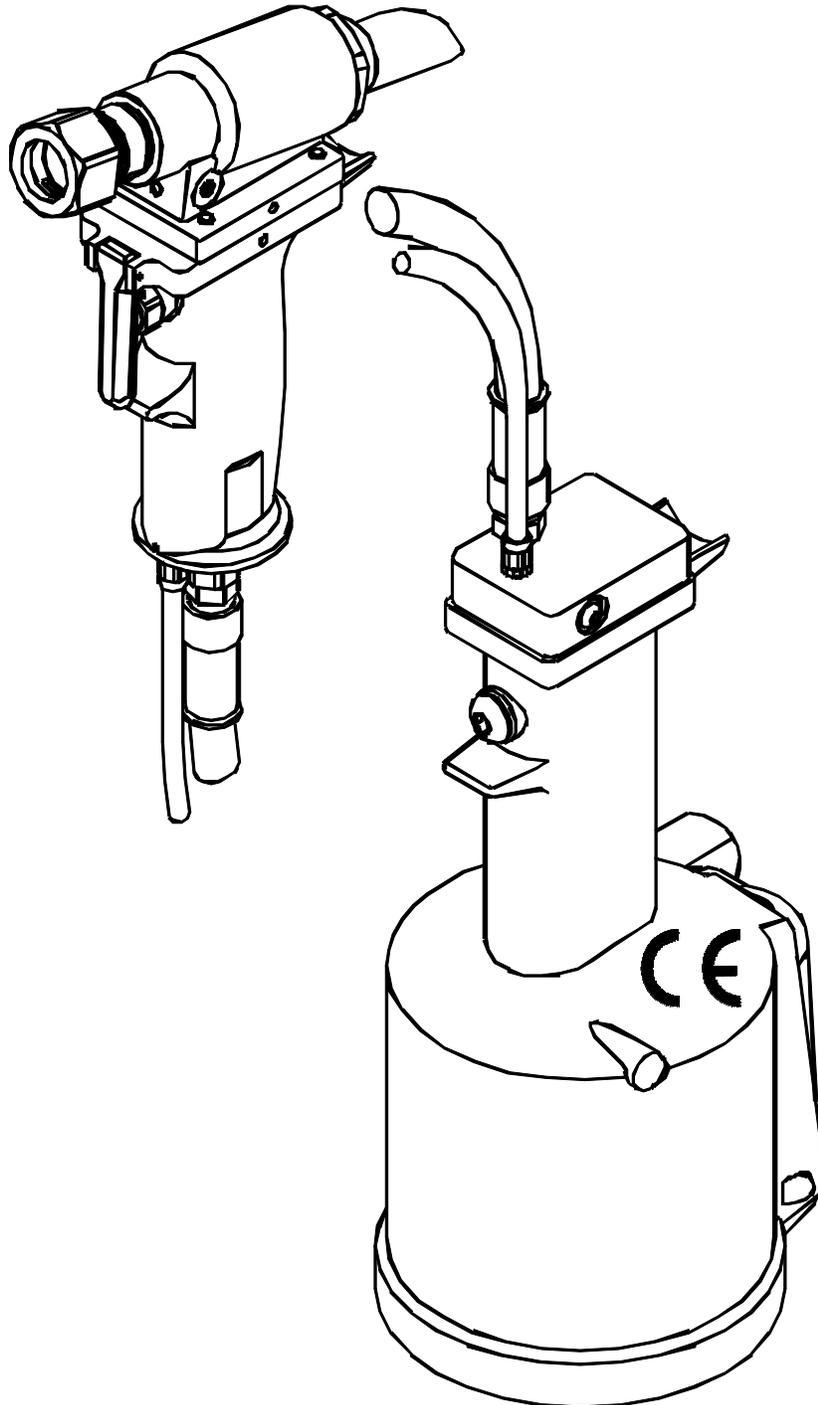


GB751SH

INSTALLATION TOOL



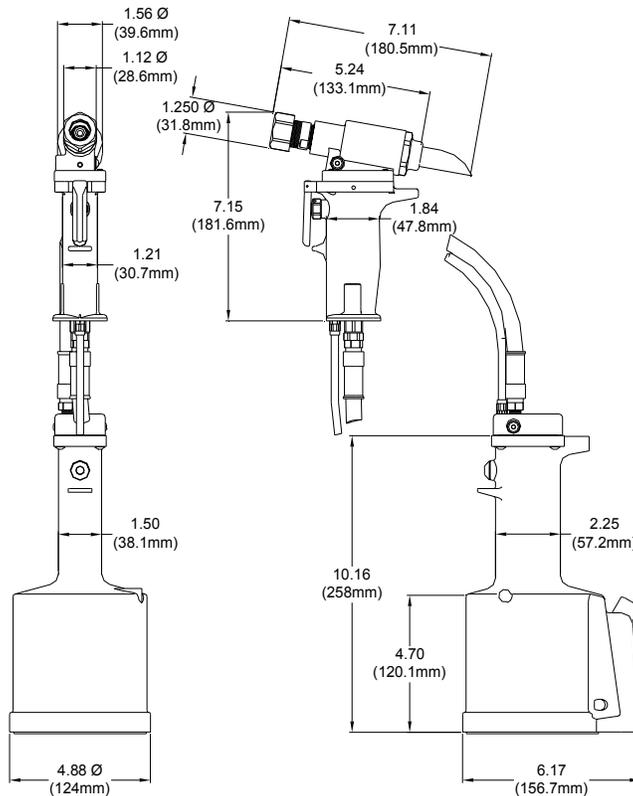
GAGE BILT TOOLS ARE AVAILABLE WORLDWIDE
E-MAIL US FOR A DISTRIBUTOR NEAR YOU.

GAGE BILT
MADE IN U.S.A.

GAGE BILT Inc.
44766 Centre Court (586) 226-1500
Clinton Twp. MI 48038 (586) 226-1505 Fax
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SPECIFICATIONS

Hand Held Weight	- 2.50 lbs.
Air pressure req'd	- 90-100 p.s.i.
Air consumption	- .29 SCF/cycle (8.21 L/cycle)
Hydraulic fluid	- Automatic Transmission Fluid, Dexron® III, or equivalent.
Setting stroke	- .780"
Noise level	- Less than 81.5 dB (A)
Rated pull load	- 2,200 lbs.
Vibration	- less than 2.5 M/S²

SAFETY WARNINGS



NOTE:
PLEASE READ THIS MANUAL BEFORE SERVICING OR USING THIS TOOL.
REVIEW ALL WARNINGS AND CAUTIONS TO PREVENT
SEVERE PERSONAL INJURY OR DAMAGE THE TOOL.



CAUTION:

GAGE BILT TOOLS ARE ONLY APPROVED AND RECOMMENDED TO INSTALL HUCK®, AVDEL®, CHERRY®, POP® AND OTHER FASTENERS WHEN USED BY PERSONS WITH SPECIFIC TRAINING OF BLIND RIVET AND LOCKBOLT INSTALLATION EQUIPMENT. THIS TOOL IS NOT RECOMMENDED FOR ANY OTHER INTENT. GAGE BILT WILL BE PLEASED TO ADVISE ON ANY PROPOSED MODIFICATION.

WARNING

Do not pull fastener unless it is placed in an assembly, pin will eject forcibly when pintail breaks off. Severe personal injury may result.

WARNING

Do not operate without Stat-O-Seal (S572) and cap screw (402482). Pressurized hydraulic fluid may cause severe personal injury.

WARNING

When operating, repairing or overhauling tool, wear approved eye protection. Do not look in front of nose assembly or rear of tool when installing fastener.

WARNING

Always disconnect tool from power before performing any maintenance to any tool or nose assembly. Ensure that all connections are proper and there are no visible leaks from tool or hoses before connecting to power.

WARNING

Do not operate if deflector, bottle, catcher bag or vacuum tube is removed or damaged, broken pintails may eject forcibly from rear of tool. Severe personal injury may result.

CAUTION

Ensure that nose assembly and tip are properly matched for the fastener being installed.

CAUTION

Keep Nose Assemblies clean and free of chips and debris.

WARNING

Be sure there is adequate clearance for tool and operator's hands before proceeding. Keep fingers clear of any moving parts. Keep fingers clear from fasteners and installed materials. Severe personal injury may result.

CAUTION

Do not use beyond the design intent.

WARNING

Tool must be maintained in a safe working condition at all times and examined on a regular daily basis for damage or wear. Any repair should be done by qualified personnel trained on Gage Bilt procedures.

WARNING

It is required to use hearing protection. A test was carried out in a simulated work environment where the background level was 73.2 DBA. In this condition the max level was 81.5 DBA. Therefore, it is required where prolonged use, hearing protection be used.

WARNING

Where prolonged use is foreseen, it is recommended a tool balancer be used. Check suspension device to ensure that it is secure.

WARNING

Risk of crushing exists if nose assembly is not attached.

WARNING

Do no use tool in explosive atmosphere.

WARNING

It is recommended tool be operated 50 out of every 60 minutes, where prolonged use is expected.

WARNING

Shock:

It is recommended operator wear a suitable glove during operation where prolonged use is expected.

CAUTION

Tool is not to be used as a hammer.

WARNING

Air pressure not to exceed 100 psi., except where noted.

DESCRIPTION

The GB751SH is a pneumatic-hydraulic tools designed specifically for the efficient installation of a wide range of blind rivets. This tool's unique "split" system provides the operator with a lightweight ergonomic tool. The handle and head assembly when held in hand weighs just 2.50 lbs! The entire split handle riveter weighs 7.50 lbs. It has a .780 rivet setting stroke.

The GB751SH split handle riveter operates on a wide range of air pressure, with 90 to 100 psi. providing maximum efficiency. At 90 psi. air pressure, the GB751SH does not exceed 81.5 db (A) and consumes 3 cfm at 20 cycles per minute.

The GB751SH comes with 8 feet of hose. Vacuum systems are available for this tool, please consult our engineering department for specific applications.

The air inlet is provided with 1/4-18 female pipe threads to accept the users air hose fitting.

MAINTENANCE

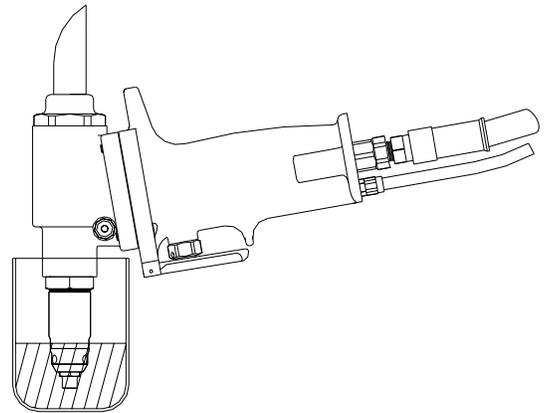
The performance of any tool depends upon good maintenance practices. Following these minimal requirements for service and care will extend the life of your tool.

- *Only use an air supply set at 90-100 psi. equipped with a filter-regulator to prevent wear.
- *The tool will eventually lose some hydraulic oil. Keep the hydraulic system full (only use Dexron III, or equivalent) and free of air by using the air bleeder (704153 & 745163) on a regular basis.
- *Proper care by operator is necessary in maintaining full productivity and reducing downtime. Read all applicable tool manuals and nose assembly data sheets prior to operating tools.
- *Keep nose assemblies, especially jaws, clean and free of chips and debris.
- *For a complete overhaul, tool kit GBP740TK is recommended.

CLEANING AND LUBRICATING PROCEDURE

Daily cleaning and lubrication of nose assembly will greatly reduce downtime and increase life of components. Using sewing machine oil, or an equivalent cleaner/lubricant, follow instructions below.

1. Disconnect tool vacuum line (if equipped).
2. Point nose assembly into oil as shown.
3. Cycle tool 8-10 times and wipe dry.



TORQUE SPECIFICATIONS

- Socket Head Cap Screws (400061) = 40 inch lbs.
- Button Head Cap Screws (A-928) = 40 inch lbs.
- Packing Plug (744118) = 45 foot lbs.
- Flexlock Nut (400559) = 40 inch lbs.

FILLING & BLEEDING PROCEDURE:

NOTE: 704153 and 745263 Bleeder bottles are required.

NOTE: To replace a small amount of fluid follow bleeding steps 5-6.

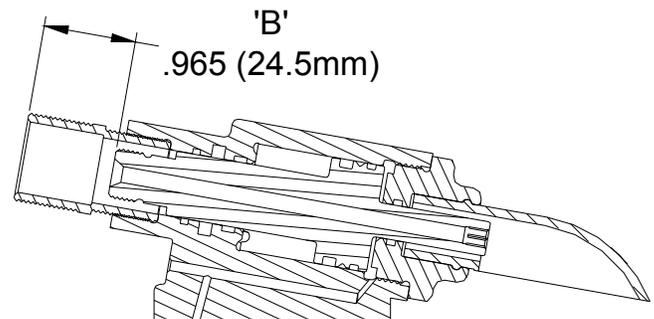
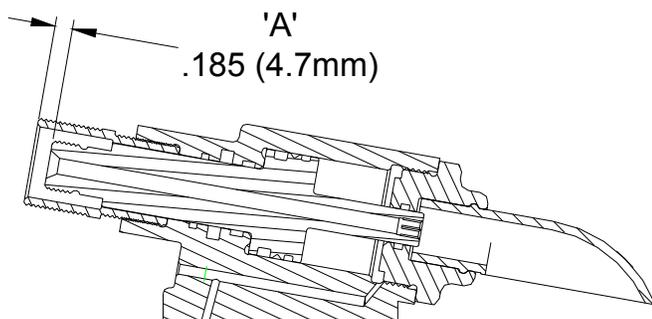
IMPORTANT: Be sure to use thread sealant on all hydraulic fittings, Loctite® 30534 or similar Teflon® infused pipe dope is recommended. **CAUTION:** Teflon® tape is an excellent thread sealer. If it is not properly applied, however, pieces may enter the hydraulic system and cause malfunctions and damage. Use 1 1/2 wraps of tape on each thread. Cut off all loose tape ends. Tighten until fitting feels snug and then go 1/2 to a full turn past that point. **CAUTION:** Over tightening can easily distort the threads.

FILLING:

1. Put the piston rod wrench (704149) into the top of handle (744129), pushing down firmly until piston rod (744136) is completely in the down position.
2. Fill oil passage and reservoir with Automatic Transmission Fluid Dexron III. The reservoir is the area surrounding the power cylinder (743131). When looking at the top of the handle the oil passage is the hole that has a counter bore for o' ring (S832). Do not overfill causing oil to go in air passage hole.
3. Install o' ring (S832), gasket (704129), cap screws (A-928) and manifold-handle (744303) to handle (744129) keeping hydraulic hose (A-317) towards plug (704313).
4. Push head piston full forward. Install gasket (704129), o' ring (S832) and cap screws (400061) on split handle (700323). Assemble head cylinder assembly to split handle (700323). Apply Loctite 242 to all cap screws.
5. Coil tool up on bench and lay handle (744129) down on side so that the hole marked #3 is to the bottom. Rest cylinder head assembly over a small bucket or can. Completely fill bleeder bottle (745263).
6. Connect bleeder bottle (745263) to manifold-handle (744303) hole marked #2. Remove bleeder screw (402482) and stat-o-seal (S572) from cylinder head assembly.
7. In one continuous squeeze force fluid into manifold-handle (744303) until oil starts to flow from bleeder hole on head assembly. While still squeezing the bleeder bottle (745263) use other hand to replace bleeder screw (402482) and stat-o-seal (S572). This may require two people.
8. Remove bleeder bottle (745263) and replace stat-o-seal (S572) and bleeder screw (402482).

BLEEDING:

1. Stand handle (744129) on floor, stretch hose and head assembly upward and lay flat on a table or bench. When bleeding tool always keep the head assembly higher than the handle assembly.
2. Attach bleeder bottle (704153) to manifold-handle (744303) hole marked #3 in an upright position.
3. Connect the tool to air supply and cycle tool 10 times holding the trigger (704130) down for 2-3 seconds between cycles to remove any air from the tool.
4. Disconnect air supply. Remove bleeder bottle (704153) from manifold-handle (744303) and replace with bleeder screw (402482) and stat-o-seal (S572).
5. Remove bleeder screw (402482) and stat-o-seal (S572) from head cylinder and attach bleeder bottle (704153) in an upright position.
6. Connect air supply. Cycle tool 10 times removing any air bubbles.
7. Disconnect air supply. Remove bleeder bottle (704153) and replace bleeder screw (402482) and stat-o-seal (S572).
8. Connect air supply. Cycle tool 5-6 times and check stroke of .780 (see diagram below). We recommend using a pair of dial calipers. With the trigger released, check dimension (A). Holding trigger check dimension (B). If stroke is not consistent within 1/64" (.0156) repeat bleeding steps 5-6.



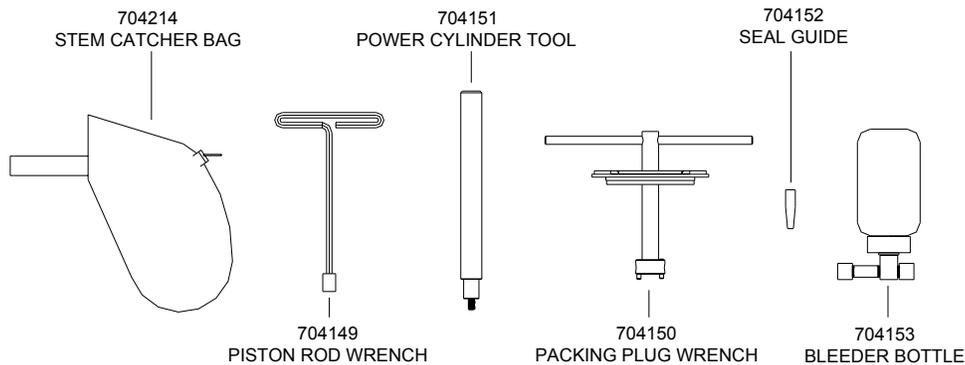
TROUBLESHOOTING

Providing all maintenance conditions have been met, follow this systematic approach to diagnosis.

1. MORE THAN ONE PULL IS REQUIRED TO BREAK RIVET.
 - a) Tool needs to be bled. (See filling and bleeding instructions.)
 - b) Spring has fatigued, replace.
 - c) Jaws are stripped or packed with chips. Clean or replace.
 - d) Incorrect nose tip.
2. SLOW OR PARTIAL OPERATION WHEN THE TRIGGER IS DEPRESSED
 - a) Head Piston Rings (405865) and (400788) could be worn or damaged. Replace.
 - b) Piston Rod Rings (S908) and (A-201) could be worn or damaged. Replace.
 - c) Muffler (744143) or filter inside spool (744140) may be plugged with dirt. Clean thoroughly and back-blow with compressed air.
 - d) Hole in metering screw in valve spool (744140) may be blocked or damaged. Hole diameter should be .028". Clear and size or replace.
3. NO OPERATION WHEN TRIGGER IS DEPRESSED
 - a) Tool seized due to mechanical failure or damaged parts.
4. OIL LEAKAGE
 - a) **DO NOT OPERATE WITH OIL LEAKING FROM TOOL. HIGH PRESSURE OIL MAY CAUSE SEVERE PERSONAL INJURY.**
 - b) Any oil leaking externally should be traced to its source. An o'ring or seal that leaks should be replaced.
5. AIR BYPASS FROM VALVE HOUSING
 - a) If the spring (744144) breaks or dislodges, air will flow freely through the muffler (744143). Replace or reset. Valve spring installation tool (744151) is recommended.
 - b) Check o'rings on valve sleeve (744138), valve spool (744140), and valve plug (744142). If worn or damaged, replace. Valve sleeve removal tool (744152) is recommended.
6. FASTENER STEM JAMMED IN NOSE ASSEMBLY
 - a) Nose assembly components require service. **DISCONNECT AIR FROM TOOL**, remove the nose from the tool and disassemble. Replace worn or broken parts. Clean the surface the jaws ride on.
 - b) Items lodged side by side in the follower. Disassemble, remove stems, and reassemble.
 - c) Incorrect follower.

OVERHAUL

The disassembly and re-assembly procedure can be accomplished by utilizing the following instructions and drawings. Use extreme care during disassembly and re-assembly not to mar or nick any smooth surface that comes in contact with seals. Before installing seals, always apply a good lubricant, such as Lubriplate®, to the surfaces. It is recommended that tool kit (GBP740TK) be used to facilitate overhaul. A complete overhaul can be achieved by the use of Service Kit 703041 which contains a complete set of o'rings, back-up rings, screws, washers and gasket. It is recommended that this service kit be kept available for spare parts.



GBP740TK Service Tool Kit

Part No.	Description
704149	Piston Rod Wrench
704150	Packing Plug Wrench
704151	Power Cylinder Tool
704152	Seal Guide
S1178	Valve Extractor (Not Shown)
744151	Valve Spring Installation Tool (Not Shown)
744152	Valve Sleeve Removal Tool (Not Shown)

WARNING

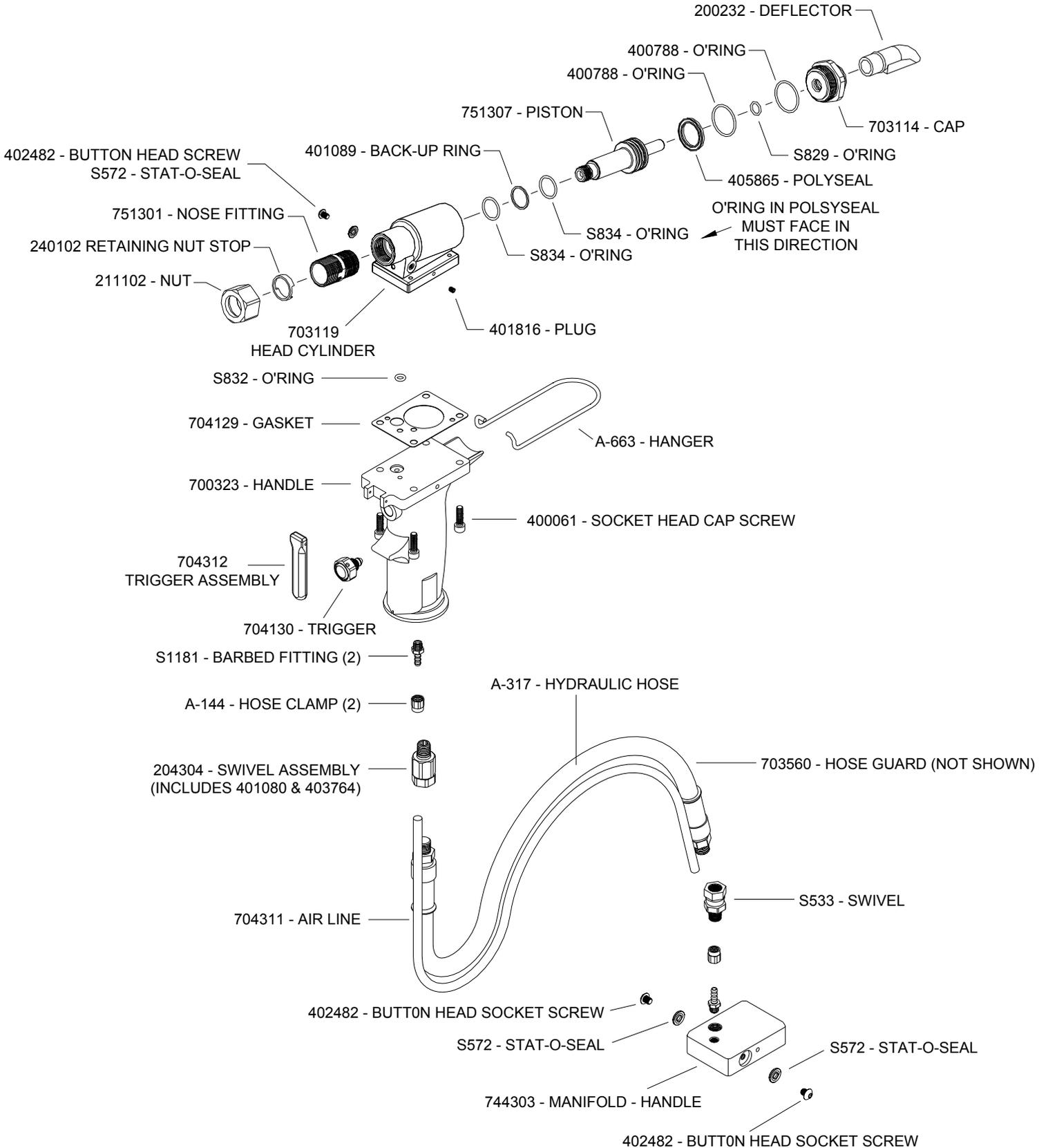
DEPRESS TRIGGER AND DISCONNECT FROM AIR WITH HEAD PISTON IN THE REAR POSITION BEFORE OVERHAUL. SEVERE PERSONAL INJURY MAY OCCUR IF AIR HOSE IS NOT DISCONNECTED. **USE CAUTION** WHEN FORCING PISTON ROD ASSEMBLY DOWNWARD WITH HEAD CYLINDER ASSEMBLY REMOVED, HYDRAULIC FLUID WILL EJECT FORCIBLY FROM HANDLE.

HEAD

Remove nose assembly from tool before attempting disassembly of head assembly.

Remove end cap (703114). Push against threaded end of head piston (751307) to slide it out of head cylinder (703119). Be careful not to damage threads or cause burrs on polished piston rod surface.

The re-assembly sequence is the opposite of disassembly. (See Filling and Bleeding instructions.) Apply Loctite #242 and torque the four socket-head cap screws (400061) uniformly to 40 inch lbs. to prevent leakage around the gasket.



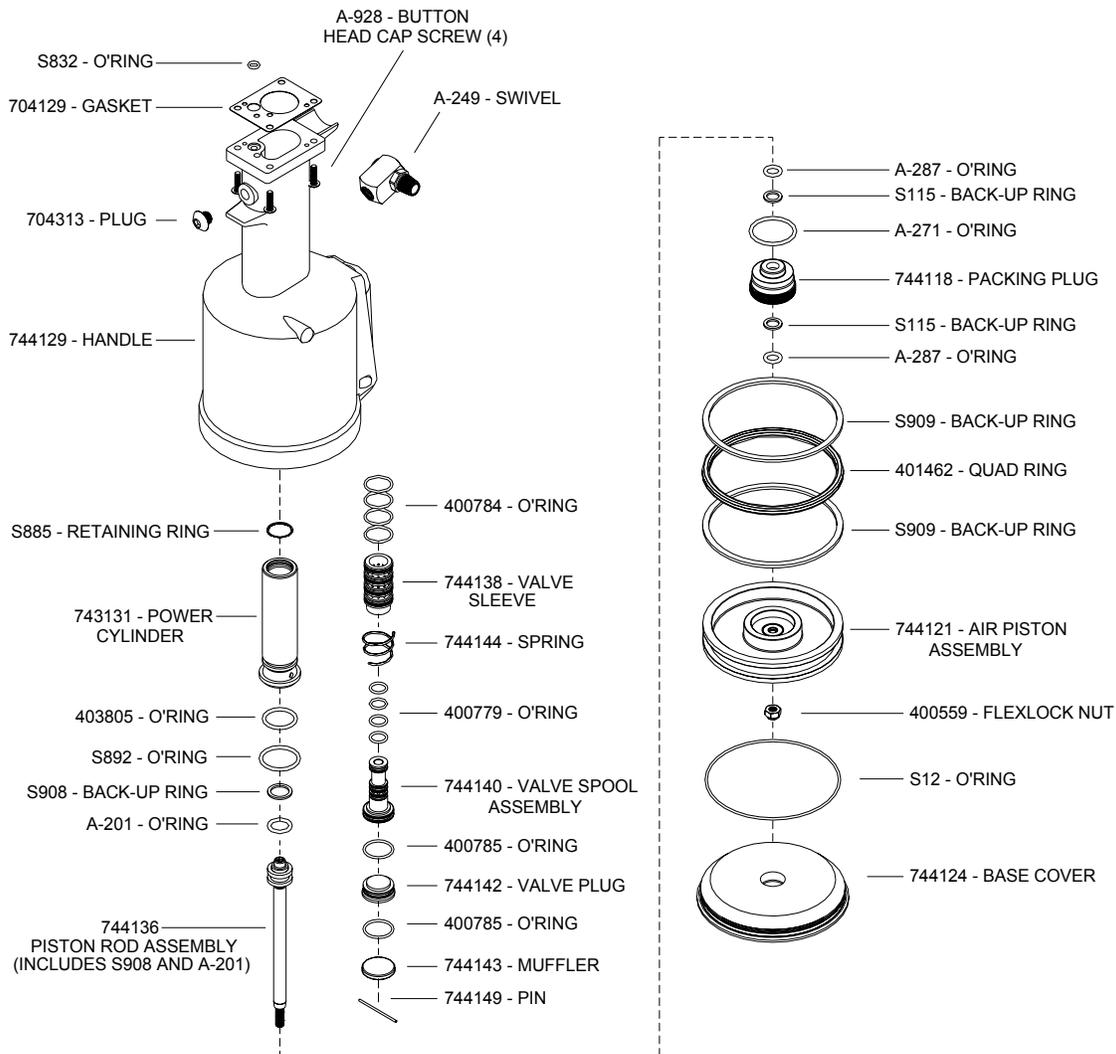
HANDLE

To inspect air cylinder bore, remove base cover (744124). Any further disassembly will require removal of the manifold (744303) first. For complete disassembly, start by removing base cover (744124). Next, holding tool upright, remove four button-head cap screws (A-928). Lift manifold (744303) from handle (744129) and set aside o'ring (S832) and gasket (704129). Empty all hydraulic fluid into a container. Place piston rod wrench (704149) down into top of power cylinder (743131), into the hex of piston rod assy. (744136). While holding this wrench, remove flexlock nut (400559) using a 7/16" socket wrench. Still holding piston rod wrench, remove air piston (744121) using packing plug wrench (704150), by turning counterclockwise. When air piston is completely free from piston rod, tap or push on the piston rod wrench to eject air piston from bottom of handle. After removal of air piston, slide piston rod (744136) back up to the end of its travel. Using packing plug wrench (704150) remove packing plug (744118). With packing plug removed, power cylinder (743131) can be removed by pushing on power cylinder tool (704151) when inserted into top of power cylinder.

To reassemble the handle, reverse the above procedure, being certain that all o'rings are properly lubricated before installation. Torque packing plug (744118) to 45 foot lbs. Attach the seal guide (704152) to the piston rod (744136) and tap the piston rod through the packing plug (744118). Attach air piston (744121) and flexlock nut (400559) torque flexlock nut to 40 inch lbs. Attach air piston (744121) to piston rod (744136). With the piston rod in the down position, fill oil passage on top of handle with automatic transmission fluid, Dexron III or equivalent, when looking at top of handle the oil passage is the hole that has a counterbore for (S832) o'ring. Replace gasket (704129) and o'ring (S832), just prior to replacing manifold (744303). (See Filling & Bleeding instructions.)

AIR VALVE

To disassemble, first disconnect tool from its air source. Remove pin (744149) and muffler (744143). Insert valve extractor (S1178) into end of valve plug (744142) and pull it out. Using the same procedure, pull out spool (744140). NOTE: It should never be necessary to remove valve sleeve (744138) unless the ports in the sleeve are plugged from contaminated air. If ports are plugged, use needle nose pliers to grasp end of spring (744144), turning clockwise and pulling to dislodge from groove in casting. NOTE: 744151 valve spring tool will facilitate the proper installation of the spring (744144), valve sleeve (744138) can be pulled out using valve sleeve removal tool 744152.



GB751 - SELECTION CHART

FASTENER	DIA.	STRAIGHT		RIGHT ANGLE	OFFSET
BLIND BOLT (SINGLE ACTION) WITH OR W/O DRIVE WASHER MS90353S & U / MS90354S & U MS21140S & U / MS21141S & U CR7000 SERIES, BACB30YY, YU, & YT	5/32	SB05-752C-20 SB05-752C-80	SB05-752C-45	SB05-751B-54RA	SB05-752A-43OS
EN6122 & UAB130-EU EN6127 & UAB6127-EU EN6128 & UAB100-EU EN6129 & UABP-EU	5/32	UAB568-713-21	UAB568-713-61		
BLIND RIVET (SINGLE ACTION) WITH OR W/O DRIVE WASHER NAS1900 S & U SERIES	1/8 5/32 3/16 1/4 ₃	SMLS04-752B-20 SMLS05-752B-20 SMLS06-752B-20 SMLS08-713-20	SMLS04-752B-45 SMLS05-752B-45 SMLS06-752B-45 SMLS08-713-45	SMLS04-751B-54RA SMLS05-751B-54RA SMLS06-751B-54RA SMLS08-751B-54RA	SMLS04-752A-43OS SMLS05-752A-43OS SMLS06-752A-43OS SMLS08-752A-43OS ₃
"A" CODE NAS1398A & NAS1399A	3/32 1/8 5/32 3/16	3A-352B-25 4A-752B-20 5A-752B-20 6A-752B-20	4A-752B-45 5A-752B-45 6A-752B-45	3A-751B-54RA 4A-751B-54RA 5A-751B-54RA 6A-751B-54RA	4A-752A-43OS 5A-752A-43OS 6A-752A-43OS
NUT PLATE RIVETS CCR244/264/274 BACR15DR MS20600	3/32 1/8	3NP-352-21 5N-352-21	3NP-352-61 5N-352-61	3NP-751B-54RA 45N-751B-54RA	3NP-751-43OS 5N-751-43OS
CHERRY MAX®, CHERRY MAX® 'AB', MBC® LOCK CREATOR BACR15FR/FP, BACR15GF/GK, NAS1900 S & U SERIES BLIND RIVET WITH DRIVE WASHER	1/8 5/32 3/16	456MAX-751A-21 ₂	456MAX-751A-61 ₂	456MAX-751C-54RA ₂	456MAX-752A-42OS
ASP® ASP 2, ASP PF, ASP 4 FF, ASP 2 F, ASP 2 LC	13/64	ASP06-752B-20	ASP06-752B-45	ASP06-751B-54RA	ASP06-752A-43OS
NAS1719, NAS1720 NAS1721	1/8 5/32 3/16	MBC04-752B-20 MBC05-752B-20 MBC06-752B-20	MBC04-752B-45 MBC05-752B-45 MBC06-752B-45	MBC04-751A-54RA MBC05-751A-54RA MBC06-751A-54RA	MBC04-752A-43OS MBC05-752A-43OS MBC06-752A-43OS
GROUND STUD, M83454 & BACS53B	8/32 10/32	GS8-752B-20 GS10-752B-20	GS8-752B-45 GS10-752B-45	GS8-751B-54RA GS10-752A-54RA	GS8-752A-43OS GS10-752A-43OS
OPEN END, CLOSED END, C'SUNK, PROTRUDING HEAD COMMERCIAL NAIL RIVETS	3/32 1/8 5/32 3/16	3N-352-21 4N-352-21 5N-352-21 6N-352-21	3N-352-61 4N-352-61 5N-352-61 6N-352-61	3N-751B-54RA 45N-751B-54RA 45N-751B-54RA 6N-751C-54RA	3N-751-43OS 4N-751-43OS 5N-751-43OS 6N-751-43OS

ASP® IS A REGISTERED TRADEMARK OF ALCOA INC.

THE GAGE BILT GB751 TOOL IS APPROVED TO INSTALL THE ABOVE FASTENERS

1) RIGHT ANGLE NOSE ASSEMBLIES MAY REQUIRE MORE THAN ONE PULL.

2) INSTALLS 1/8", 5/32" & 3/16" DIAMETERS.

3) ALUMINUM ONLY.

NOTE: THE LAST 2 DIGITS OF THE NOSE ASSEMBLY REPRESENTS THE LENGTH
THE NOSE EXTENDS FROM THE TOOL I.E. -20 = 2.0 INCHES

10/11

GAGE BILT



DECLARATION OF CONFORMITY

WE DECLARE THAT THE EQUIPMENT SPECIFIED HEREIN
CONFORMS TO THE FOLLOWING STANDARDS AND DIRECTIVES.

EN12100-1 & EN12100-2
EN13849
EN792-1:2000+A1

COUNCIL DIRECTIVE: MACHINE DIRECTIVE 2006/42/EC

EQUIPMENT DESCRIPTION:
GBP700 SERIES FASTENER INSTALLATION TOOLS

MANUFACTURER:
GAGE BILT Inc.

SIGNATURE: 

NAME: BRUCE T. GODFREY
CHAIRMAN
CLINTON TWP., MI U.S.A.
MAY 2010
(586) 226-1500

WARRANTY

Seller warrants that all goods covered by this catalog will conform to applicable specifications and will replace or repair, F.O.B. our plant, any goods providing defective from faulty workmanship, or material, for 90 days from date of shipment.

Said warranty to remain in effect if, and only if, such goods are used in accordance with all instructions as to maintenance, operation and use, set forth in manuals and instruction sheets furnished by seller.

Sellers obligation under this warranty shall be limited to the repair or rework of the goods supplied or replacement thereof, at Seller's option, and in no case is to exceed the invoice value of said goods. Under no circumstances will the seller be liable for incidental or consequential damages or for damages incurred by the buyer or subsequent user in repairing or replacing defective goods or if the goods covered by this warranty are reworked or subjected to any type of additional processing.

This warranty is void if Seller is not notified in writing of any rejections or defects within 90 days after the receipt of the material by the customer.

THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY.