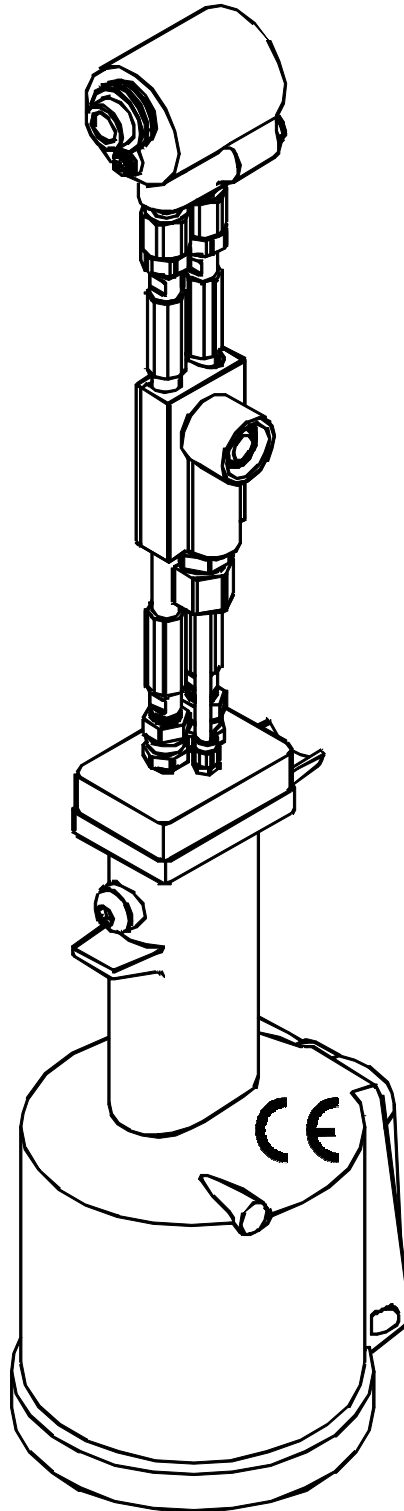


GBP745D/204

INSTALLATION TOOL



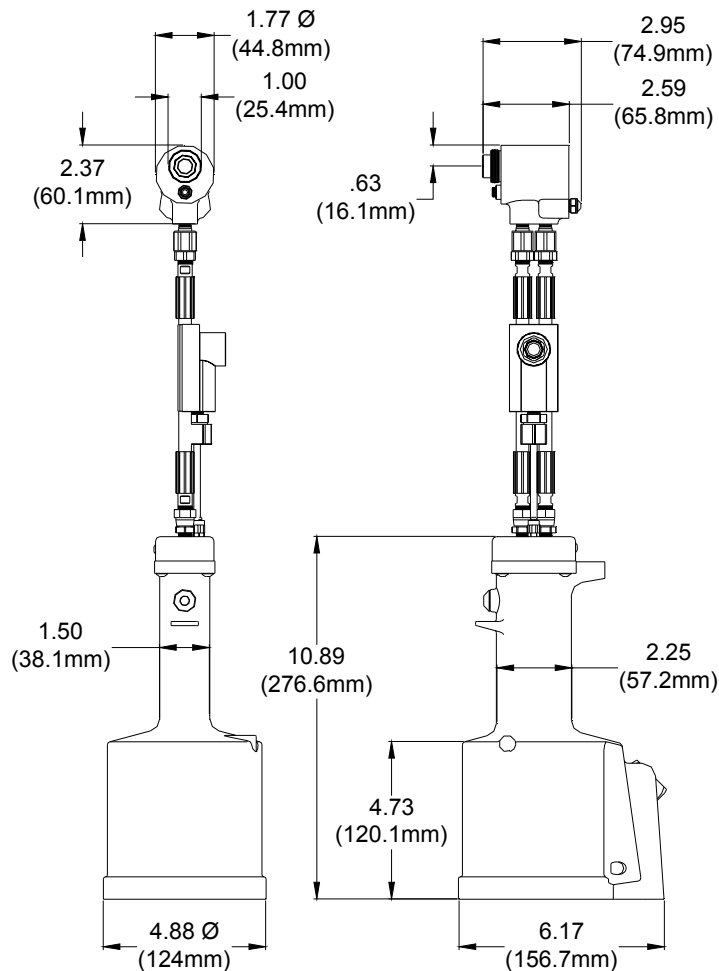
GAGE BILT TOOLS ARE AVAILABLE WORLDWIDE
E-MAIL US FOR A DISTRIBUTOR NEAR YOU.

GAGE BILT
MADE IN U.S.A.

GAGE BILT Inc.
44766 Centre Court (586) 226-1500
Clinton Twp. MI 48038 (586) 226-1505 Fax
e-mail: solutions@gagebilt.com / www.gagebilt.com

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SPECIFICATIONS

Weight	- 12 lbs.
Air pressure req'd	- 90-100 p.s.i.
Air consumption	- .3 c.f.m., based on 20 cycles/min.
Hydraulic fluid	- Automatic Transmission Fluid, Dexron® III, or equivalent.
Setting stroke	- .500"
Rated pull load	- 3,600 lbs.
Noise level	- Less than 81.5 dB (A)

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 GBP745D/204 Split Riveter Pneumatic-Hydraulic Installation Tool is designed specifically for the efficient installation of a wide range of blind rivet and lockbolt fasteners. This tool's unique "split" system provides the operator with a lightweight ergonomic tool for a fraction of the cost of other cumbersome power rigs. It has a .500" rivet setting stroke with a rated pull load of 3600 lbs. at 90 psi. air pressure at the air inlet.

The GBP745D/204 comes with 8 ft. of hose and a remote trigger. The GBP204 cylinder when held in your hand, weighs just 2.0 lbs! while the entire split riveter weighs 12 lbs.

The GBP745D/204 Split Riveter operates on a wide range of air pressure, with 90 to 100 psi. providing maximum efficiency. At 90 psi. air pressure the GBP745D/204 does not exceed 81.5 db (A) and consumes 6.0 cfm at 20 cycles a minute.

This tool accepts all patented GBP204 style nose assemblies.

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 unit to prevent wear.

*The tool will eventually lose some hydraulic oil. Keep the hydraulic system full and free of air by using the air bleeder 704153 on a regular basis.

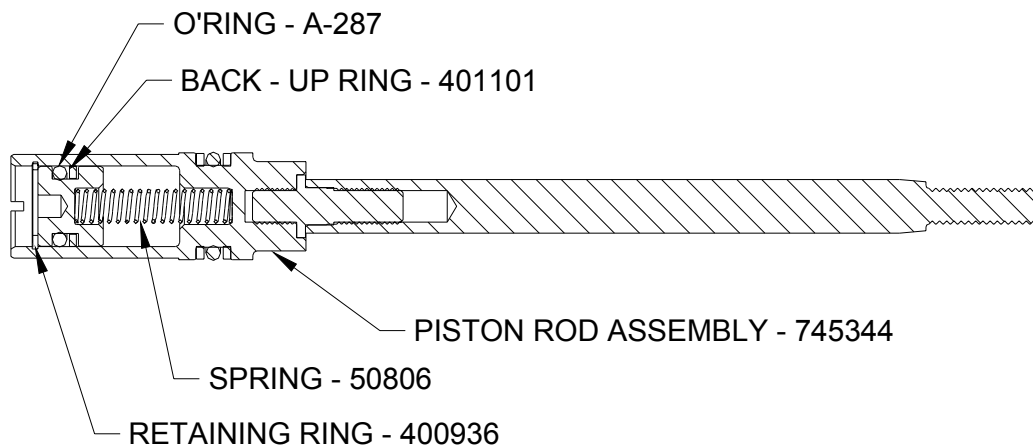
*Proper care by operator is necessary in maintaining full productivity and reducing downtime. Read all applicable tool manuals and nose assembly data sheets prior to operating tools.

*Keep nose assemblies, especially jaws, clean and free of chips and debris.

*A complete overhaul can be achieved by the use of Service Kit 745204 which contains a complete set of o'rings, back-up rings, screws, washers and gasket.

WARNING:

This tool incorporates a patented hydraulic relief valve. When overhauling tool, o'ring (A-287), back-up ring (401101), retaining ring (400936) and spring (50806) must be replaced. Failure to do so could result in SEVERE PERSONAL INJURY!



TORQUE SPECIFICATIONS

Socket Head Cap Screws (A-928) = 40 inch lbs.

Packing Plug (744118) = 45 foot lbs.

Flexlock Nut (400059) = 40 inch lbs.

FILLING AND BLEEDING TOOL

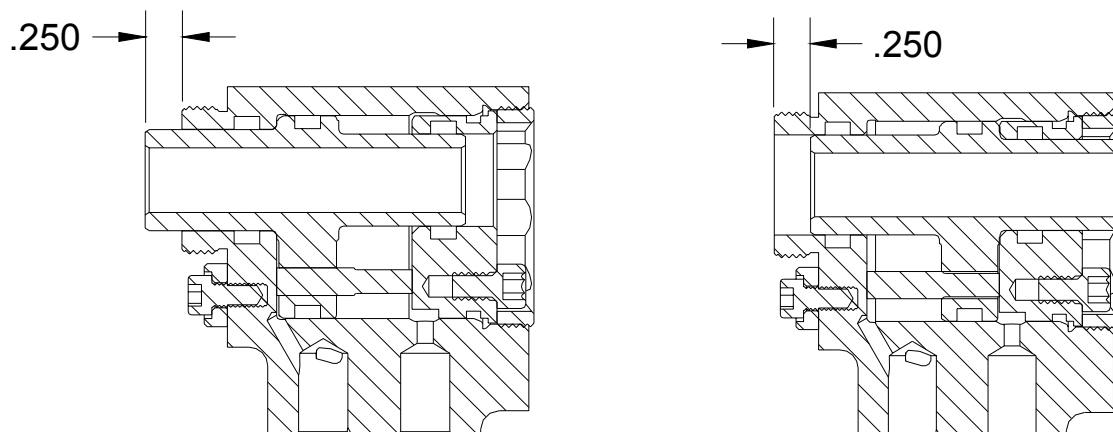
WARNING: DO NOT CYCLE TOOL WITHOUT AIR BLEEDER, OR THE SCREW AND STAT-O-SEAL, INSTALLED IN TOOL HEAD. SEVERE PERSONAL INJURY MAY RESULT.

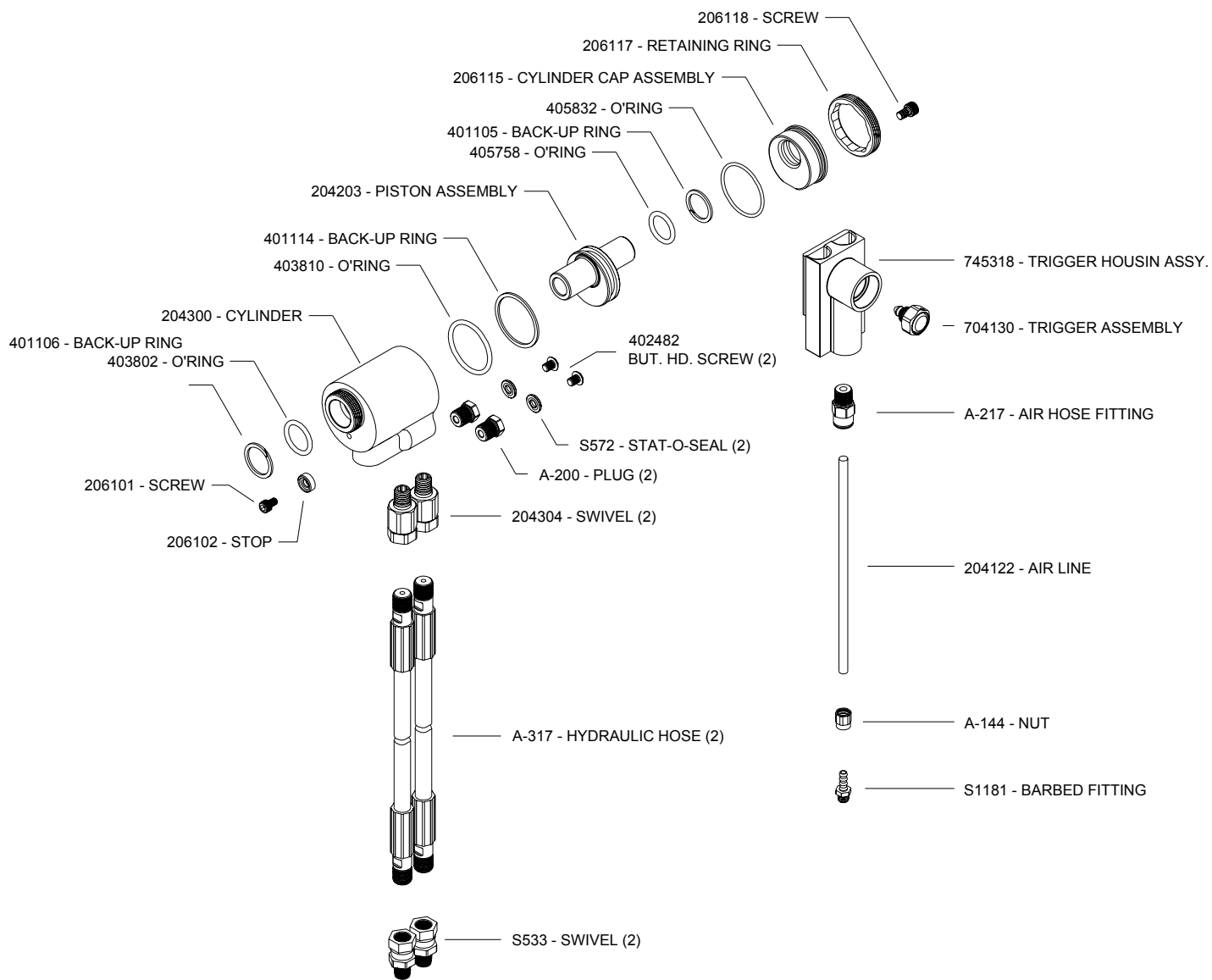
CAUTION: BEFORE FILLING HANDLE, AIR PISTON SHOULD BE ALL THE WAY DOWN.

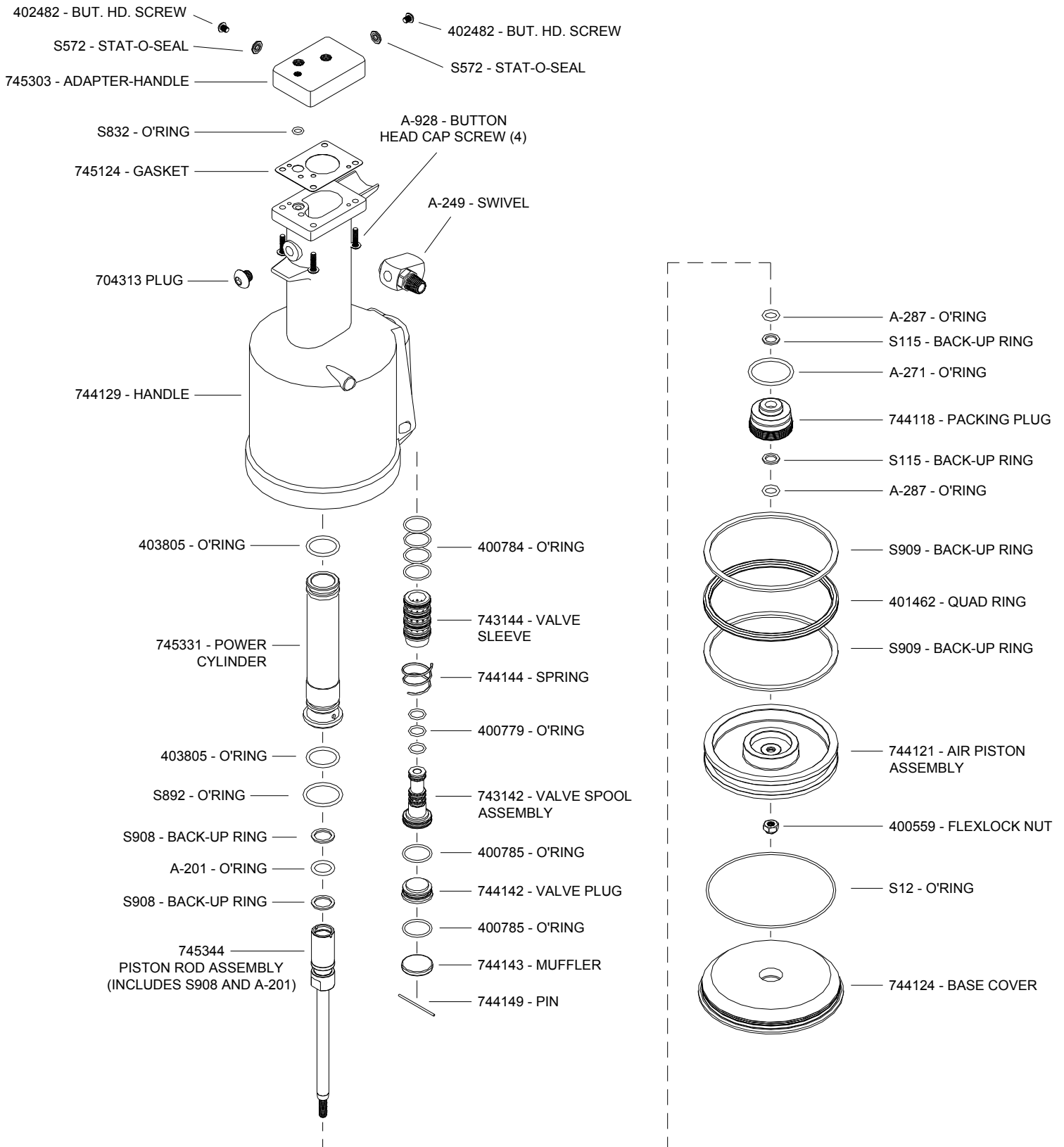
To replace a small amount of oil in the tool, connect tool to air line, to ensure power piston is at top of stroke. Follow steps 11-19 below. Should it become necessary to completely refill the tool (such as would be required after tool has been dismantled and reassembled), take the following steps:

1. Ensure air piston (744121) is at the bottom of stroke by pushing power piston (745344) rod down. Head piston (204203) should be at end of stroke.
2. Fill power cylinder and oil passage to the top, (where S-832 sits).
3. Place gasket (745124) and o'ring (S832) on top of the handle.
4. Install adapter-handle (745303), with swivels (S533) attached, carefully install screws (A-928), tighten evenly. Apply Loctite® 242 to all cap screws
5. With hoses (A-317) attached to cylinder, attach hoses to swivels on adapter-handle.
6. Stretch tool out horizontally and lay flat on table or floor.
5. Attach fill bottle assembly 745163, to bleeder hole that leads to #2 hole on manifold handle.
8. Attach bleeder bottle assembly 704153, to the pressure side, marked "P", on the rear of cylinder (204300).
9. Squeeze bleeder bottle 745163 on manifold-handle until no air rises into bleeder bottle 704153. Remove bleeder bottles and install screws and seal. **CAUTION:** Do not cycle tool without screws or bleeder bottles installed in tool.
10. Repeat steps 7-9 using the return pressure holes (the bleeder hole leading to hole #3 on manifold-handle and hole marked "R" on rear of cylinder (204300).
11. Stand handle (744129) on floor, and stretch hose assembly upward on a table or bench laying head cylinder (204300) flat on it's side.
12. Connect tool to air, slowly loosen screw marked #2 on the manifold handle (CAUTION TOOL IS UNDER PRESSURE) let oil SEEP out. Remove screw and attach bleeder bottle 704153. Cycle 10 times.
13. Remove bleeder bottle and install screw and seal.
14. With tool connected to air slowly loosen screw, marked "P" on back of cylinder (CAUTION TOOL IS UNDER PRESSURE) let oil seep out. Remove screw and attach bleeder bottle 704153. Cycle 10 times.
15. Remove bleeder bottle and install screw and seal.
16. Hold trigger down until piston (204203) is at end of stroke, disconnect air.
17. Slowly loosen screw marked R. (back of cylinder). Remove screw and manually push piston to full rear position. **CAUTION:** oil may bleed from oil port. Attach bleeder bottle 704153 connect tool to air and cycle tool 10 times.
18. Hold trigger down until piston (204203) is at end of stroke. Disconnect air remove bleeder bottle and install screw and seal.
19. Connect air and cycle tool several times, check dimensions below, if dimensions do not check repeat steps 12-19.

WARNING: Failure to follow these instructions carefully could result in severe personal injury.





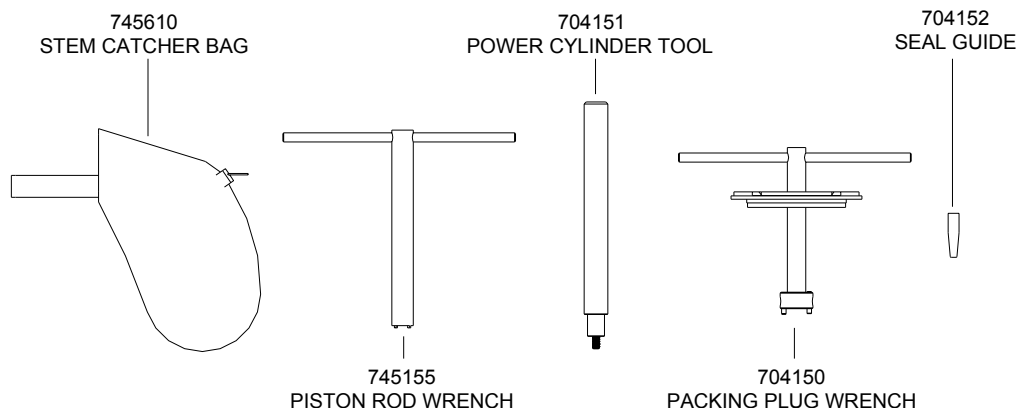


TROUBLESHOOTING

1. Check air line for correct pressure at the tool. It must be 90 to 120 psi.
2. Check tool for lack of hydraulic fluid (see filling instructions).
3. Check for oil leakage.
 - a. Hydraulic oil leaks from connections. Tighten threaded connections.
 - b. If oil should leak through the by-pass hole at the base of the handle (744129), quad rings (401462) is worn or damaged.
 - c. Oil leaking from the front of the head (204300) indicates that o'ring (403802) is worn or damaged.
4. Check for excessive air leakage from air valve.
 - a. If spring (744144) is broken or dislodged, air will bleed directly through the bottom of the air valve and the head piston retreat to its full stroke without returning.
 - b. If o'ring (400785) on valve plug (744142) is worn or damaged, replace.
 - c. If o'rings (400779) on valve spool (743142) are worn or damaged, replace.
5. Check movement of piston (204203). If it does not move freely or is slow in operation:
 - a. O'ring (403810) may be damaged and require replacement.
 - b. Piston may be mechanically locked due to damaged parts.
 - c. Muffler (744143) or air filter inside spool (743142) may be blocked or damaged. Hole diameter should be .028" clear and size or replace valve spool.
6. Rivet stem sticks in nose assembly.
 - a. Nose assembly components need maintenance. Disassemble nose assembly, clean and replace worn parts.
 - b. Spent pintail may be jammed in nose assembly. Disassemble nose assembly, remove pintails and reassemble.

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. A complete overhaul can be achieved by the use of Service Kit 745204 which contains a complete set of o'rings, back-up rings, screws, washers and gasket.



GBP745CTK Service Tool Kit Includes:

Part No.	Description
745155	Piston Rod Wrench
704150	Packing Plug Wrench
704151	Power Cylinder Tool
704152	Seal Guide
745163	Fill Bottle Assembly (Not Shown)
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

Disconnect hydraulic hoses and air line from adapter-handle (745303) and drain hoses. Push piston (204203) back to rear of the cylinder (204300) to empty all fluid from the tool. Push piston to the front of the cylinder.

Unscrew socket head cap screw (206118) from retaining ring (206117) use a spanner wrench to remove retaining ring. Push piston back until cylinder cap (206115) falls out of cylinder. Push piston (204203) out the rear of the cylinder. Using a small blunt object, remove o'rings and back-up rings from components.

Clean parts mineral spirits or other o'ring compatible solvent being sure to clean o'ring grooves. Inspect components for scoring, excessive wear or damage.

Reassembly sequence is opposite of disassembly. Coat hose fitting threads with a non-hardening Teflon® thread compound such as Slic-tite® (GAGE BILT part no. 403237).

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.

HANDLE

To inspect air cylinder bore, remove only parts (744124) . Any further disassembly will require removal of the handle adapter first.

For complete disassembly, start by removing socket head cap screws (A-928). Lift adapter-handle (745303) from handle (744129) and set aside o'ring (S832) and gasket (745124). Empty all hydraulic fluid into a container.

Place piston rod wrench 745155 down into top of handle, into the slot of piston rod assembly (745344) and remove nut (400559) then unscrew and remove piston rod assembly (745344) from air piston (744121). Insert threaded end of power cylinder assembly tool 704151 into bottom of air cylinder and remove air piston (744121).

After removal of air piston, slide piston rod (745344) back up the end of its travel. Using packing plug wrench 704150 remove packing plug (744118). With packing plug removed, power cylinder (745331) can be tapped out by lowering power cylinder tool 704151 down into top of handle onto top of cylinder.

To reassemble the handle, reverse the above procedure, being certain that all o'rings are properly lubricated before installation. Attach the seal guide 704152 to the piston rod (745344) and with a mallet, tap the piston rod through the packing plug (744118).

AIR VALVE

To disassemble, first disconnect tool from its air source. Remove pin (744149) and muffler (744143). Thread S1178 in end of valve plug (744142) and pull it out. Using the same procedure, pull out spool (743142). NOTE: It should never be necessary to remove valve sleeve (743144) unless the ports in the sleeve are plugged from contaminated air. If it is suspected that the ports are plugged up, use needle nose pliers to grasp end of spring (744144), turning clockwise and pulling to dislodge from groove in casting. With spring removed, valve sleeve (743144) can be pulled out using 744152 valve sleeve removal tool.

GBP745D/204 - SELECTION CHART

FASTENER	DIA.	STANDARD	STRADDLE NOSE 1	LONG
LOCKBOLT, NAS SHEAR PULL TYPE, NAS TENSION PULL TYPE, NASS = SHEAR & GP® NAST = TENSION	5/32"	NAST05-204C-25OS NASS05-204C-25OS	NAST05-204C-30OS NASS05-204C-30OS	NAST05-204C-34OS NASS05-204C-34OS
	3/16"	NAS06-204C-25OS	NAS06-204C-30OS	NAS06-204C-34OS
	1/4" (1)	NAS08-204C-25OS	NAS08-204C-30OS	NAS08-204C-34OS
MGP®	4mm	MGP4-204C-25OS	MGP4-204C-30OS	MGP4-204C-34OS
	5mm	MGP5-204C-25OS	MGP5-204C-30OS	MGP5-204C-34OS
LGP® Lightw eight Groove Proportion LOCKBOLT	5/32"	LGP05-204C-25OS	LGP05-204C-30OS	LGP05-204C-34OS
	3/16"	LGP06-204C-25OS	LGP06-204C-30OS	LGP06-204C-34OS
	1/4"	LGP08-204C-25OS	LGP08-204C-30OS	LGP08-204C-34OS
MLGP®	4mm	MLGP4-204C-25OS	MLGP4-204C-30OS	MLGP4-204C-34OS
	5mm	MLGP5-204C-25OS	MLGP5-204C-30OS	MLGP5-204C-34OS
BLIND RIVET (SINGLE ACTION) WITH OR W/OUT DRIVE WASHER NAS1900 S & U SERIES	1/8"	SMLS04-204D-27OS		SMLS04-204D-37OS
	5/32"	SMLS05-204D-27OS		SMLS05-204D-37OS
	3/16"	SMLS06-204D-27OS		SMLS06-204D-37OS
	1/4"	SMLS08-204D-27OS		SMLS08-204D-37OS
BLIND BOLT (SINGLE ACTION) WITH OR W/OUT DRIVE WASHER MS90353S & U / MS90354S & U MS21140S & U / MS21141S & U CR7000 SERIES, BACB30YY, YU, & YT	5/32"	SB05-204D-27OS		SB05-204D-37OS
	3/16"	SB06-204D-27OS		SB06-204D-37OS
BACR15FR/FP, BACR15GF/GK, NAS1900 S & U SERIES BLIND RIVET WITH DRIVE WASHER NAS9301-9312	1/4"	08MAX-204D-27OS		08MAX-204D-37OS
"A" CODE NAS1398A & NAS1399A	1/8"	4A-204D-27OS		4A-204D-37OS
	5/32"	5A-204D-27OS		5A-204D-37OS
	3/16"	6A-204D-27OS		6A-204D-37OS
	1/4"	SMLS08-204D-27OS		SMLS08-204D-37OS
ASP® ASP 2, ASP PF, ASP 4 FF, ASP 2 F, ASP 2 LC	13/64"	ASP06-204D-27OS		ASP06-204D-37OS
	17/64"	ASP08-204D-27OS		ASP08-204D-37OS
NAS1719, NAS1720, NAS1721 & MBC	1/8"	MBC04-204D-27OS		MBC04-204D-37OS
	5/32"	MBC05-204D-27OS		MBC05-204D-37OS
	3/16"	MBC06-204D-27OS		MBC06-204D-37OS
GROUND STUD, BACS53B	13/64"	GS8-204D-32OS		GS8-204D-42OS
	17/64"	GS10-204D-32OS		GS10-204D-42OS

GP®, MGP®, LGP®, MLGP®, AND ASP® ARE REGISTERED TRADEMARKS OF ALCOA INC.

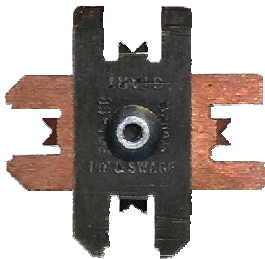
THE GBP745D/204 TOOL IS APPROVED TO INSTALL THE ABOVE FASTENERS.

1) 100 PSI FOR TITANIUM, NO ALLOY.

2) -30 STRADDLE NOSES ARE DESIGNED TO REACH OVER THE COLLAR.

NOTE: THE LAST 2 DIGITS OF THE NOSE ASSEMBLY REPRESENTS THE LENGTH THE NOSE ASSEMBLY EXTENDS FROM THE TOOL. (I.e. -25 = 2.5 inches)

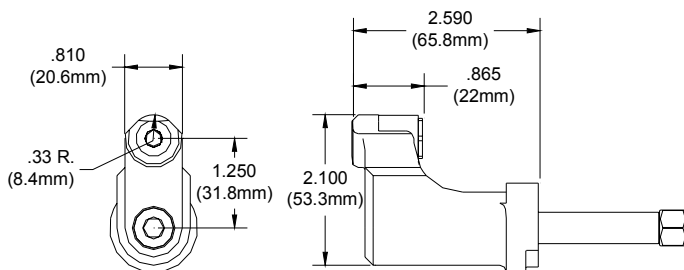
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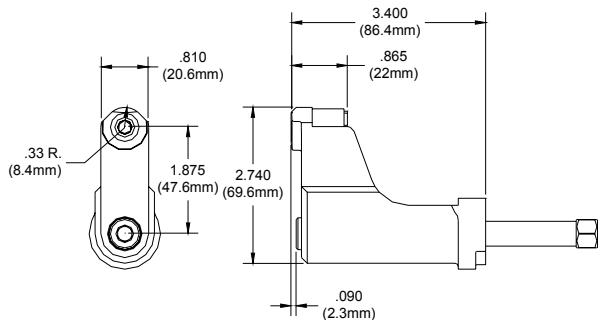
GAGE BILT ALSO SUPPLIES PIN & COLLAR SWAGE INSPECTION GAGES TO CERTIFY CORRECT SWAGE INSTALLATION.



APPROXIMATE STANDARD DIMENSIONS



APPROXIMATE LONG DIMENSIONS



GAGE BILT



DECLARATION OF CONFORMITY

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

EN292 part 1 and part 2
ISO 8662 part 1
ISO 3744
COUNCIL DIRECTIVE: 89/392/EEC, 91/368/EEC
93/44/EEC, 93/68/EEC

EQUIPMENT DESCRIPTION:
GBP700 SERIES FASTENER INSTALLATION TOOLS

MANUFACTURER:
GAGE BILT Inc.

SIGNATURE:

NAME: BRIAN LEIGH
PRODUCT MANAGER
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.