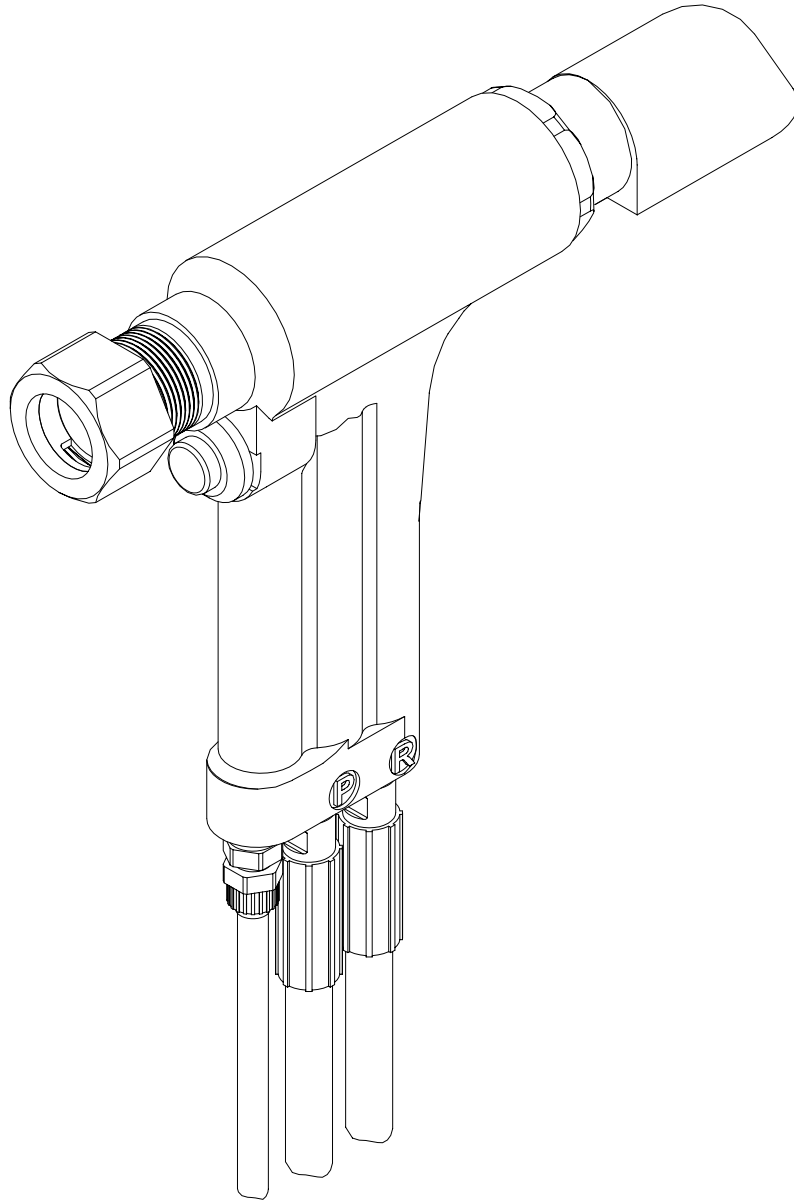


GBP2480 GBP2480A

HYDRAULIC INSTALLATION TOOL



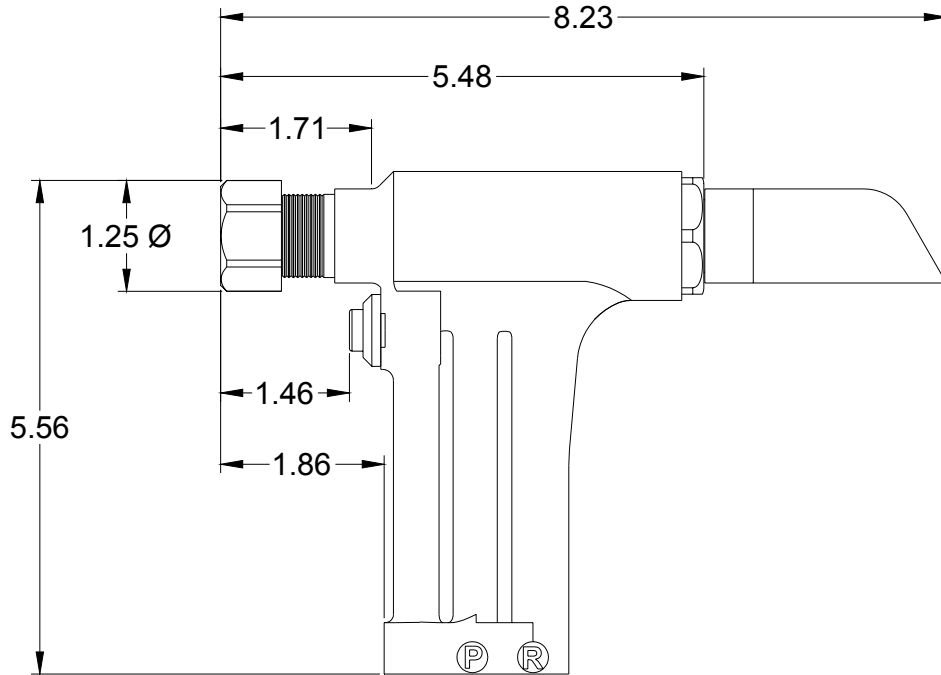
GAGE BILT
MADE IN U.S.A.

GAGE BILT PRODUCTS CORP.

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SPECIFICATIONS

Weight	- 3 1/2 lbs.
Hyd. Pressure Req'd.	- 8400 psi MAX PULL 3200 psi MAX RETURN
Hyd. Power Source	- GBP940 or GBP910A Powerunit or equivalent.
Hydraulic Fluid	- Fire resistant hydraulic fluid conforming with OSHA regulation 1926.302.
Setting Stroke	- .875"
Rated Pull Load	- 5600 lbs.



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



CAUTION:
GAGE BILT TOOLS ARE APPROVED TO INSTALL HUCK®, AVDEL®, CHERRY®, POP® AND OTHER FASTENERS WHEN USED BY PERSONS WITH SPECIFIC TRAINING OF BLIND RIVET AND LOCKBOLT INSTALLATION EQUIPMENT.

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 (2) and cap screw (3). Pressurized hydraulic fluid may cause severe personal injury.

WARNING
When operating installation equipment always 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. Insure 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
Insure that nose assembly and tip are properly matched for the fastener being installed.

WARNING
Installation of fasteners may exceed acceptable noise levels. Use approved hearing protection.

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
Keep Nose Assemblies clean and free of chips and debris.

Description

The GBP2480 is a hydraulic installation tool designed specifically for the efficient installation of a wide range of blind rivets, lockbolts and Multi-Grip fasteners thru 1/4" diameter. It weighs just over 3 lbs. and can be operated in any position with one hand. It has an .875 rivet setting stroke and rated pull load of 5600 lbs.

The GBP2480 installation tool operates on hydraulic pressure developed by the GBP940 Powerunit set at 8400 psi max PULL pressure and 3200 psi max RETURN pressure. The tool comes equipped with 12 ft. hydraulic hoses and couplings, electric switch and cord (GBP2480) or air trigger and tubing (GBP2480A).

NOSE ASSEMBLIES ARE NOT FURNISHED WITH THE RIVETER AND MUST BE ORDERED SEPARATELY.

OPERATION

When the tool is connected to a powerunit, operation is controlled by a trigger or switch in the handle. The GBP2480A incorporates an air trigger to send a signal; the GBP2480 an electric switch. When the button is depressed, a directional valve in the powerunit directs fluid to the front side of the piston forcing it and the nose assembly collet rearward. This action causes the jaws to clamp on the fastener pintail and pull the sheets together. The anvil is forced over the collar, swaging it into the locking grooves of the fastener. Further force breaks the pintail off, approximately flush with the collar.

When the piston nears the end of its stroke it exposes flats on the back of the unloading valve. These flats "dump" fluid back to the powerunit tank. When the button is released the directional valve reverses fluid flow to the back of the piston and pushes the nose assembly off of the swaged fastener. The spent pintail is released and drops out the back of the tool.

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 a hydraulic power source equipped with relief valves and pressures set within specified limits. Consult Powerunit Manual for procedure to set PULL and RETURN pressures.
- *Keep hydraulic system free of dirt. Avoid letting couplers contact a dirty floor.
- *Do not use as a hammer to force fasteners into holes or otherwise abuse tool.
- *Proper care by operators is necessary in maintaining full productivity and reducing down time.

WARNING

Be sure powerunit is disconnected before cleaning, or when replacing worn or damaged components. Severe personal injury may occur if power source is not disconnected.

TROUBLE SHOOTING

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

1. NO OPERATION WHEN TRIGGER IS DEPRESSED
 - a.) Check powerunit power source.
 - b.) Control cord may be loose or damaged.
 - c.) Faulty trigger. Replace.
 - d.) Check hydraulic couplings; tighten, repair or replace.

2. SLOW OR PARTIAL OPERATION WHEN TRIGGER IS DEPRESSED
 - a.) Low hydraulic pressure. Check powerunit, adjust.
 - b.) Cylinder Piston O'Ring (2) could be worn or damaged. Replace.
 - c.) Solenoid pin in directional valve on powerunit worn or peened over. Replace.
 - d.) Excessive wear or scoring on moving parts. Check and replace faulty parts.

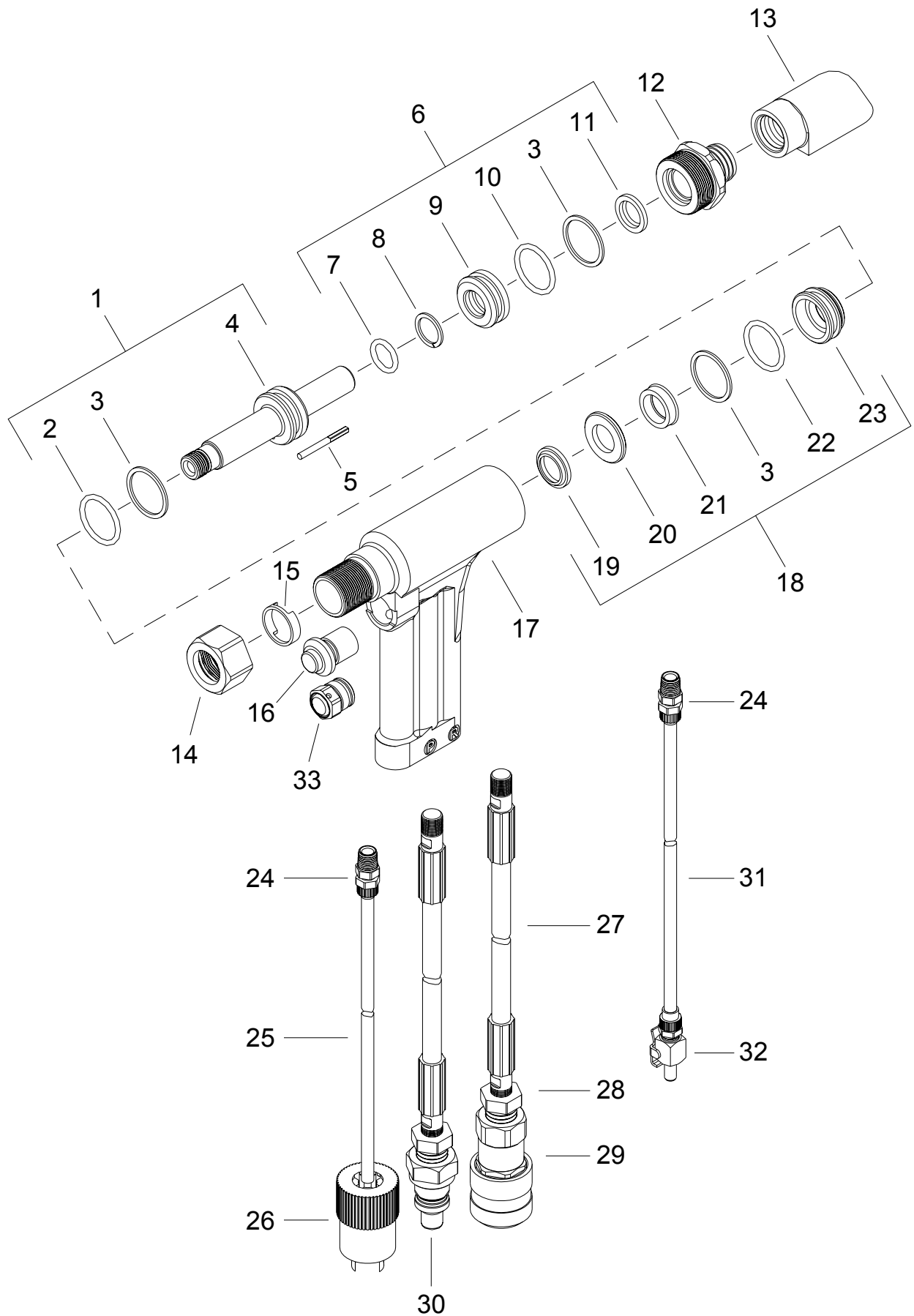
3. TOOL OPERATES IN REVERSE
 - a.) Tool stops in back position. Hydraulic hoses are reversed.
Correct.

4. HYDRAULIC OIL OVERHEATS
 - a.) Powerunit motor rotation reversed. Electrical connections reversed. See powerunit instructional manual.
 - b.) Restrictions in either hydraulic lines, hoses or couplings.
Check and Tighten, clean or replace.

5. OIL LEAKAGE
 - a.) Hydraulic oil leaks from connections. Tighten threaded connections. Do not use teflon tape.
 - b.) Oil leaks from tool. Determine source of leak and replace worn or defective O'Rings and back-up rings.

6. PINTAIL GROOVES STRIPPED DURING PULL STROKE
 - a.) Nose Assembly must be pushed onto fastener fully.
 - b.) Chips may have collected in chuck jaws. Disassemble nose assembly, clean jaws in mineral spirits using sharp pointed object and re-lube surfaces jaws ride on.
 - c.) Chuck jaws may be worn or damaged. Replace
 - d.) Pintail too short for jaws to properly grip. Select proper grip length fastener.
 - e.) Excessive gap between sheets. Reduce gap before attempting to install fastener.

7. NOSE ASSEMBLY WON'T ACCEPT FASTENER PINTAIL
 - a.) Spent fastener stem may be jammed in pulling head. Disassemble and check for worn or broken parts in nose assembly. Replace defective parts, clean and re-lube before reassembling.



GBP2480/GBP2480A Parts List

Ref. No.	Part Number	Description	Qty.
1	248010	Piston Assembly (Inc. 2-4)	1
*2	403806	O'Ring	1
*3	401110	Back-Up Ring	3
4	248011	Piston	1
5	248013	Relief Valve	1
6	248017	Rear Gland Assembly (Inc. 3, 7-9 & 11)	1
*7	403800	O'Ring	1
*8	401104	Back-Up Ring	1
9	248018	Rear Gland	1
*10	404446	O'Ring	1
*11	407108	Wiper	1
12	248019	Cap	1
13	756120	Deflector	1
14	211102	Nut	1
15	240102	Retaining Nut Stop	1
16	240126	Electric Switch	1
17	248004	Handle	1
18	248006	Front Gland Assembly (Inc. 3, 19-23)	1
*19	405843	Wiper	1
20	248005	Front Gland Cap	1
*21	405818	Poly Seal	1
*22	403806	O'Ring	1
23	248008	Front Gland	1
24	240128	Strain Relief	1
25	206136	Electric Cord	1
26	585044	Connector-Male	1
27	206119	Hydraulic Hose - 12'	2
28	403431	Reducer	2
29	585038	Coupler-Female	1
30	585047	Coupler-Male	1
**31	208126	Air Hose	1
**32	208127	Male Disconnect	1
**33	240123	Air Trigger Assembly (Inc. 400780 & 400773)	1

*Service Kit 248001 (GBP2480) and 248002 (GBP2480(A)) contains a complete set of O'Rings, Back-Up Ring and Screws. These items should be kept on hand at all times.

**Ref No. 31-33 are included in GBP2480(A) only.

OVERHAUL

If a tool is performing sluggish or leaking badly, a complete overhaul may be necessary. Service Kit 248001 (GBP2480A) and 248002 (GBP2480) contains a complete set of O'rings, back-up rings and screws.

Perform overhaul in a clean, well-lit area using care not to scratch or nick any smooth surface that comes in contact with an O'ring. Use of lubriplate (GBP part no. 402723) or another lubricant is recommended during reassembly to prevent tearing or distorting of O'rings.

Disconnect hydraulic hoses and electrical cord or air line from powerunit. Remove couplers (29 & 30) from hoses and drain. Push piston (4) back into cylinder (17) to empty all fluid from tool. Push piston back to the front of cylinder. Remove end cap (12) and deflector (13) from cylinder.

Push piston back until rear gland assembly (6) falls out of cylinder. Push piston further back and guide it out the rear of the cylinder. Slide dump valve (5) from piston. Use an arbor to push rod wiper (19), front gland cap (23) and polyseal (21) and front gland assembly (18) out the rear of the cylinder taking care not to mar cylinder bore. Using a small blunt object, remove O'rings and back-up rings from components.

Clean parts in 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. Be sure relative positions of O'rings and back-up rings are as shown in exploded view and parts list. Relief valve must be installed with four flats towards the rear and must enter notch in the rear of adapter. Coat hose fitting threads with a non-hardening teflon thread compound such as Slicite (GBP part no. 403237).

DO NOT USE TEFLON TAPE.

SELECTION CHART FOR GBP2480/2480A

FASTENER	DIA.	STRAIGHT		*RIGHT ANGLE ¹	OFFSET ³	
Light weight Groove Proportion LOCKBOLT	5/32	LGP05-731-10	LGP05-731-20		LGP05-204B-25OS	LGP05-204B-30OS
	3/16	LGP05-731-45	LGP06-731-20		LGP05-204B-34OS	LGP06-204B-30OS
	1/4	LGP06-731-10 LGP06-731-45 LGP08-730B-10 LGP08-730B-45	LGP08-730B-20		LGP06-204B-25OS LGP06-204B-34OS LGP08-204B-25OS LGP08-204B-34OS	LGP08-204B-30OS
LOCKBOLT, NAS SHEAR PULL TYPE, NAS TENSION PULL TYPE, NASS = SHEAR & GP NAST = TENSION	5/32	NASS05-731-10 NASS05-731-20	NAST05-731-10 NAST05-731-20		NASS05-204B-25OS NASS05-204B-30OS	NAST05-204B-25OS NAST05-204B-30OS
	3/16	NASS05-731-45 NAS06-731-10 NAS06-731-45	NAST05-731-45 NAS06-731-20		NASS05-204B-34OS NAS06-204B-25OS NAS06-204B-34OS	NAST05-204B-34OS NAS06-204B-30OS
	1/4	NAS08-730B-10 NAS08-730B-45	NAS08-730B-20		NAS08-204B-25OS NAS08-204B-34OS	NAS08-204B-30OS
COMMERCIAL LOCKBOLTS	3/16 1/4	LB06-713-20 LB08-713-20			NAS06-204B-25OS NAS08-204B-25OS	
MULTIGRIP LOCKBOLTS	3/16 1/4	MG06-713-20 MG08-713-20	MG06-713-60 MG08-713-60			
MS90353S & U & MS90354S & U MS21140S & U & MS21141S & U CR7000 SERIES BACB30YY, YU, & YT	5/32	SB05-752B-20	SB05-752B-45	SB05-751B-54RA	SB05-752A-43OS	
	3/16	SB05-752B-80 SB06-752B-20 SB06-752B-80	SB06-752B-45	SB06-751B-54RA	SB06-204C-27OS	
	1/4	SB08-713-20		SB08-713-58RA	SB08-204C-27OS	SB08-204C-37OS
MS90353 & MS90354 MS21140 & MS21141 "U" TYPE BLIND BOLT WITH DRIVE WASHER	5/32	UBB05-752B-20	UBB05-752B-45	UBB05-751B-54RA	UBB05-752A-43OS	
	3/16	UBB05-752B-80 UBB06-752B-20 UBB06-752B-80	UBB06-752B-45	UBB06-751B-54RA	UBB06-752A-43OS	
	1/4	UBB08-713-20			UBB08-204C-27OS	UBB08-204C-37OS
EN6122 & UAB130-EU EN6127 & UAB6127-EU EN6128 & UAB100-EU EN6129 & UABP-EU	5/32			UAB05-751B-54RA	UAB05-752A-43OS	
	3/16	⁴ UAB568-713-21	⁴ UAB568-713-61	UAB06-751B-54RA	UAB06-752A-43OS	
	1/4				UAB08-204C-27OS	UAB08-204C-37OS
SINGLE ACTION BLIND RIVET NAS1919S & U NAS1921S & U	1/8	SMLS04-752B-20	SMLS04-752B-45	SMLS04-751B-54RA	SMLS04-752A-43OS	
	5/32	SMLS05-752B-20	SMLS05-752B-45	SMLS05-751B-54RA	SMLS05-752A-43OS	
	3/16	SMLS06-752B-20	SMLS06-752B-45	SMLS06-751B-54RA	SMLS06-752A-43OS	
	1/4	SMLS08-713-20		SMLS08-713-54RA	SMLS08-752A-43OS	
"A" CODE NAS1398A & NAS1399A	3/32	3A-352B-25		3A-751B-54RA		
	1/8	4A-752B-20	4A-752B-45	4A-751B-54RA	4A-752A-43OS	
	5/32	5A-752B-20	5A-752B-45	5A-751B-54RA	5A-752A-43OS	
	3/16	6A-752B-20	6A-752B-45	6A-751B-54RA	6A-752A-43OS	
1/4	SMLS08-713-20			SMLS08-204C-27OS		
T RIVET	3/16	6T-752A-21	6T-752A-61			
	1/4	8T-752A-21	8T-752A-61			
PROTRUDING HEAD, MULTI-GRIP BLIND RIVETS	3/16	MGL06-752A-21	MGL06-752A-61	MGL06-751C-54RA		
	1/4	MGL08-752A-21	MGL08-752A-61			
MONOBOLT	3/16	MB06-752A-21	MB06-752A-61	MB06-751B-54RA		
	1/4	MB08-752A-21	MB08-752A-61			
CONTAINER BOLT(R 12) HLPP, HLP, HLPE, HLPB HLPS & HLPBM	3/8	HT12-713-20				
BOM-R08	1/4	BOM08-713-20				
TLR RIVET	1/4	8TLR-352-21	8TLR-352-60			
BACR15FR/FP, BACR15GF/GK, NAS1919 & NAS1921 "U" TYPE BLIND RIVET WITH DRIVE WASHER NAS9301-9312	1/8	² 456MAX-751A-21	² 456MAX-751A-61	² 456MAX-751C-54RA	² 456MAX-752-42OS	
	5/32					
	3/16					
1/4	08MAX-752B-20	08MAX-752B-45	08MAX-713-58RA	08MAX-204C-27OS	08MAX-204C-37OS	
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	
	17/64	ASP08-752B-20	ASP08-752B-45	ASP08-752B-45	ASP08-752A-43OS	
	21/64	ASP10-713-20	ASP10-730-45		ASP10-204C-27OS	ASP10-204C-37OS
NAS1719, NAS1720 NAS1721	1/8	MBC04-752B-20	MBC04-752B-45	MBC04-751A-54RA	MBC04-752A-43OS	
	5/32	MBC05-752B-20	MBC05-752B-45	MBC05-751A-54RA	MBC05-752A-43OS	
	3/16	MBC06-752B-20	MBC06-752B-45	MBC06-751A-54RA	MBC06-752A-43OS	
GROUND STUD, M83454 & BACS53B	8/32	GS8-752B-25	GS8-752B-50	GS8-751B-54RA	GS8-751A-43OS	
	10/32	GS10-752B-25	GS10-752B-50	GS10-751B-54RA	GS10-751A-43OS	
OPEN END, CLOSED END, C'SUNK, PROTRUDING HEAD COMMERCIAL NAIL RIVETS	3/32	3N-352-21	3N-352-61	3N-751B-54RA	3N-751-43OS	
	1/8	4N-352-21	4N-352-61	4N-751B-54RA	4N-751-43OS	
	5/32	5N-352-21	5N-352-61	5N-751B-54RA	5N-751-43OS	
	3/16	6N-352-21	6N-352-61	6N-751B-54RA	6N-751-43OS	

THE GAGE BILT GBP2480/2480A TOOL IS APPROVED TO INSTALL THE ABOVE FASTENERS

*REDUCING POWER UNIT PRESSURE TO 3500PSI IS RECOMMENDED.
1) RIGHT ANGLE NOSES REQUIRE 248153 STROKE LIMITER & 248155 RELIEF VALVE
2) INSTALLS 1/8", 5/32" AND 3/16" DIAMETERS.
3) OFFSET NOSES REQUIRE 751204 ADAPTER AND 248152 STROKE LIMITER & 248154 RELIEF VALVE
4) INSTALLS 5/32", 3/16" AND 1/4" DIAMETERS.

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

GAGE BILT



DECLARATION OF CONFORMITY

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

EN 292 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 PRODUCTS CORP.

SIGNATURE:

NAME:

BRUCE T. GODFREY

CHAIRMAN

WARREN, MI U.S.A.

JUNE 2003

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 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, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY.