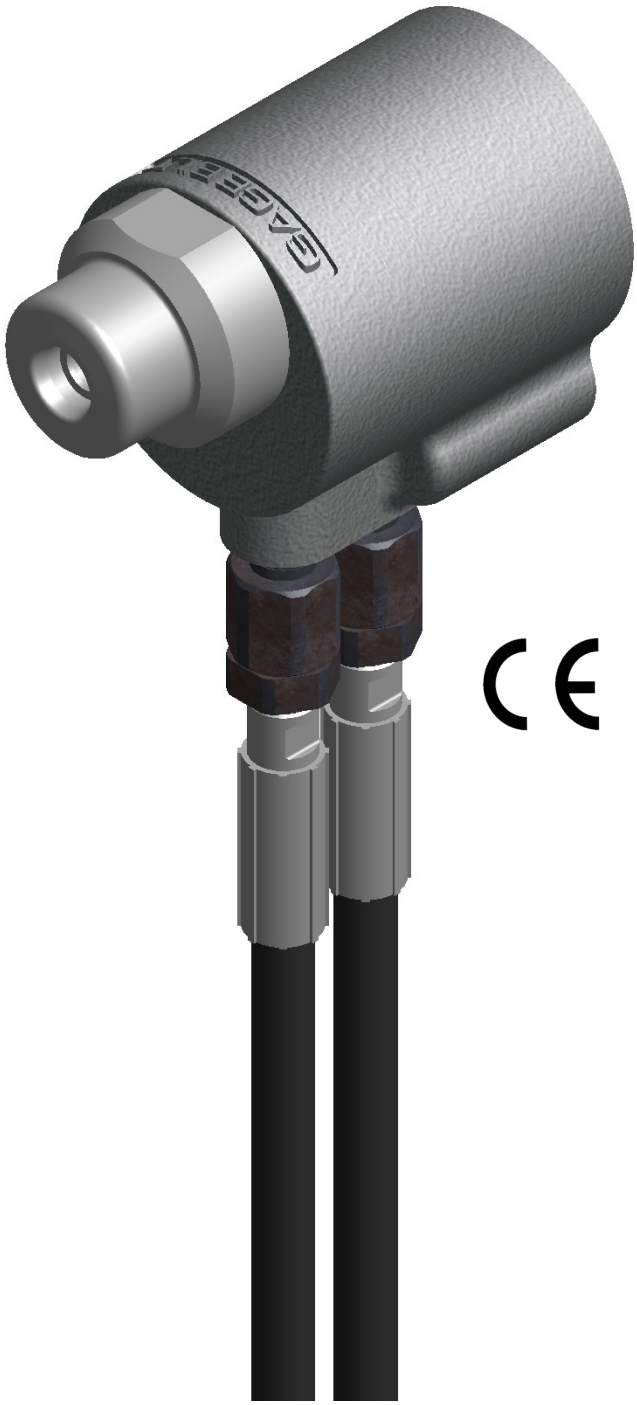
ORIGINAL INSTRUCTIONS

S/N: 1101 AND ABOVE
PLEASE CONTACT GAGE BILT FOR ALL OTHER SERIAL NUMBERS.

GB512BOM / GB512ABOM
INSTALLATION TOOL

GB512BOM
Digital Tool Manual



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

Registered to
ISO 9001:2015

GAGE BILT
MADE in USA

44766 Centre Court, Clinton Twp., MI. 48038 USA
Ph: +1 (586) 226-1500 Fax: +1 (586) 226-1505
solutions1@gagebilt.com / www.gagebilt.com

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GAGE BILT

DECLARATION OF CONFORMITY

MANUFACTURER: Gage Bilt Inc. 44766 Centre Ct., Clinton Twp., Michigan U.S.A. +1(586-226-1500)

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

Machinery Directive 2006/42/EC

EN12100-1 & 12100-2:2010

EN ISO 11148-1:2011

The Supply of Machinery (Safety) Regulations 2008

EU REPRESENTATIVE: Edgar Hausmann GmbH Förster-Busch-Str. 10 D-34346 Hann. Münden Germany

EQUIPMENT DESCRIPTION: GB512BOM / GB512ABOM FASTENER INSTALLATION TOOL

This product specified above conforms to the above dIrectives and standards.

SIGNATURE:

NAME: Tim Simmons
PRODUCT MANAGER
CLINTON TWP., MI. U.S.A.
OCT 2022
+1(586) 226-1500

UK CA

CE

WARRANTY

Seller warrants that all goods covered by this catalog will conform to applicable specifications and will replace or repair, EXW our plant, any goods providing defective from faulty workmanship, or material, for 1 year 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 1 year after the receipt of the material by the customer.

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

DESCRIPTION

⚠ WARNING: Any other use is forbidden.

The GB512BOM and GB512ABOM are hydraulic installation tools designed specifically for the efficient installation of 3/8" BOM® fasteners. These tools are unique in that they have a built in nose assembly which helps in limited clearance areas. These tools can be operated in any position. They have a .750 (19.1mm) setting stroke and rated pull load of 10,000 lbs. (44.5 kN).

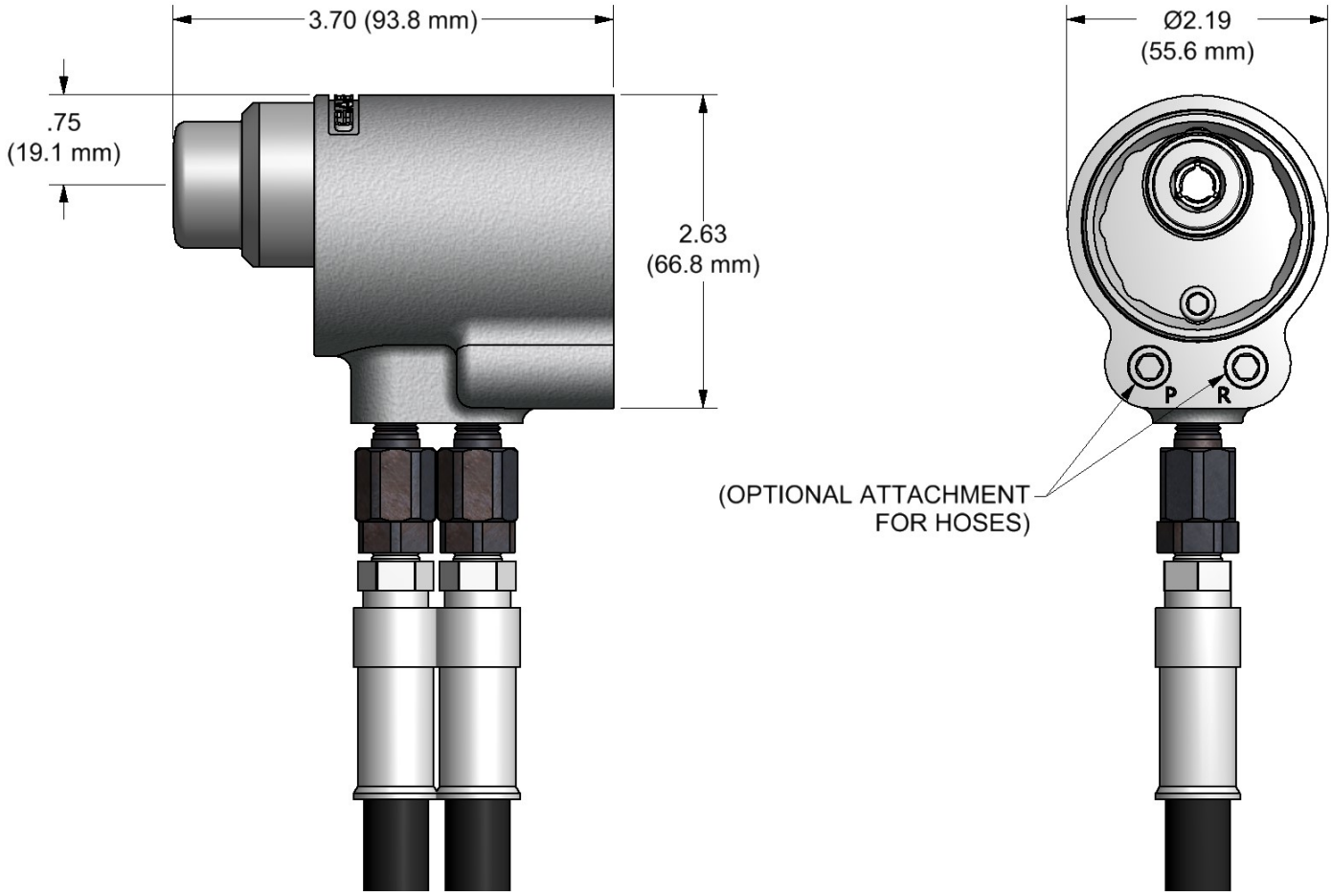
The GB512BOM (electric actuated) installation tool operates on hydraulic pressure developed by the GB947 Powerunit set at 5,400 psi. (372 bar) - 5,600 psi. (386 bar) maximum PULL pressure and 2,200 psi (152 bar) - 2,400 psi (166 bar) maximum RETURN pressure. The tool comes equipped with 12' (3.7 m) of hydraulic hoses with quick disconnects and a electric control cord assembly.

The GB512ABOM (air actuated) installation tool operates on hydraulic pressure developed by the GB910 & GB912 Powerunits set at 5,400 psi. (372 bar) - 5,600 psi (386 bar) maximum PULL pressure and 2,200 psi (152 bar) - 2,400 psi (166 bar) maximum RETURN pressure. The tool comes equipped with 12' (3.7 m) of hydraulic hoses with quick disconnects and an air line assembly.

ENVIRONMENTAL USE

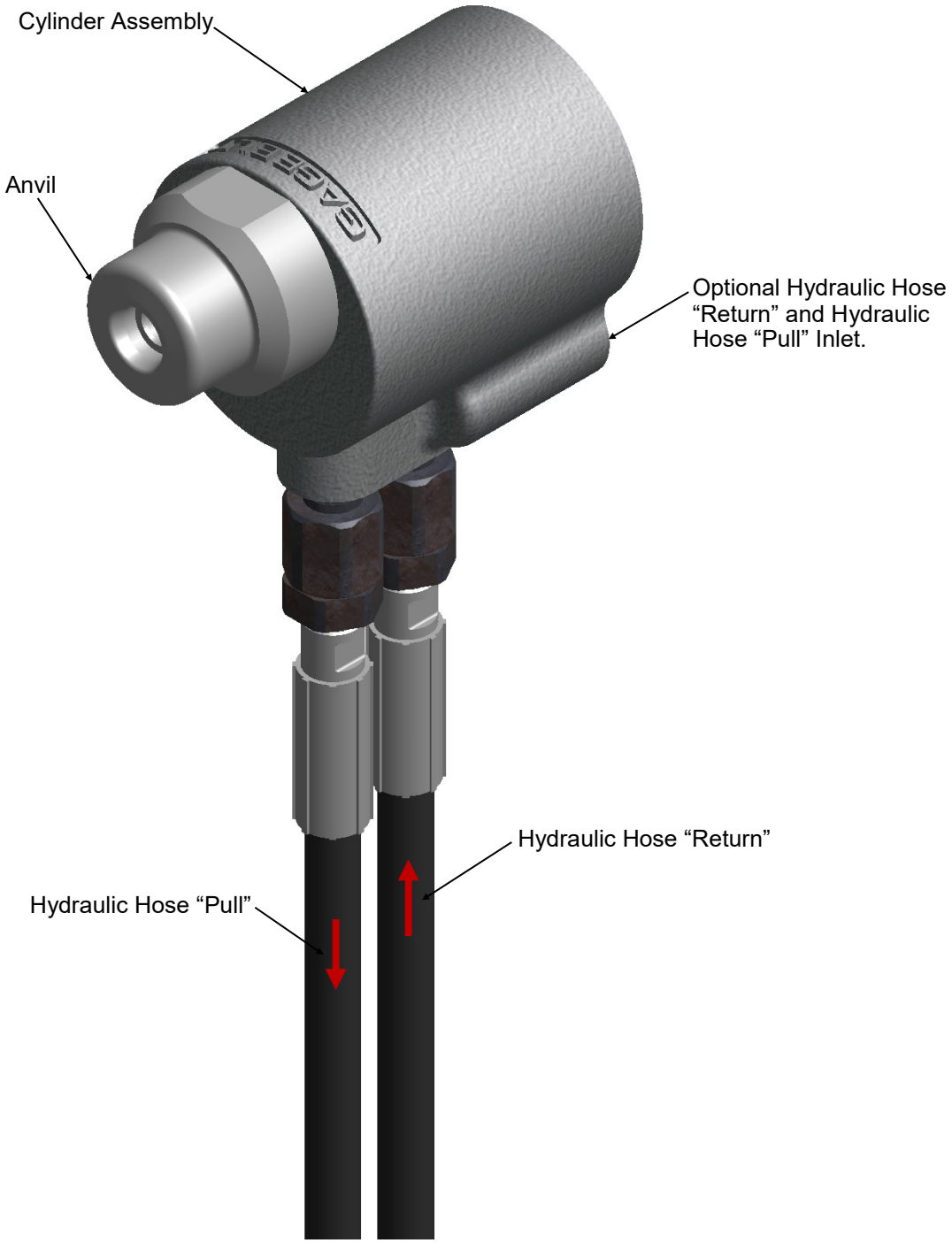
⚠ WARNING: Do not operate in an explosive atmosphere.

The GB512BOM & GB512ABOM can be operated between 0ºF - 118ºF (-17.8ºC / 47.8ºC)



SPECIFICATIONS

Weight	**- 4 lbs. (1.81kg)**
Hyd. Pressure Req'd.	**- 5,400 - 5,600 psi (372 - 386 bar) PULL** **2,200 - 2,400 psi (152 - 166 bar) RETURN**
Hyd. Power Source	**- GB947, GB910 or GB912 Powerunit or equivalent.**
Hydraulic Oil	**- See power unit for hydraulic oil specifications.**
Setting Stroke	**- .750" (19.1mm)**
Rated Pull Load	**- 10,000 lbs. (44.5 kN)**


Cylinder Assembly
Anvil
Optional Hydraulic Hose "Return" and Hydraulic Hose "Pull" Inlet.
Hydraulic Hose "Return"
Hydraulic Hose "Pull"

SAFETY WARNINGS

TERMS AND SYMBOLS

- Product complies with requirements

- Product complies with requirements

- Hearing protection and eye protection

- Read manual prior to using equipment

- Wear safety boots

WARNINGS - Must be understood to avoid severe personal injury.

CAUTIONS - show conditions that will damage equipment and/or structure.

Notes - are reminders of required procedures.

GENERAL SAFETY RULES:

1. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the assembly power tool for non-threaded mechanical fasteners.
2. Only qualified and trained operators shall install, adjust or use the assembly power tool for non threaded mechanical fasteners.
3. Do not modify this assembly power tool for non-threaded mechanical fasteners. Modifications can reduce effectiveness of safety measures and increase the risks to the operator.
4. Do not discard safety instructions; give them to the operator.
5. Do not use assembly power tool for non-threaded mechanical fasteners if it has been damaged.
6. Tools shall be inspected monthly to verify all ratings and markings required are legible. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.

ADDITIONAL SAFETY RULES FOR PNEUDRAULIC POWER TOOLS:

1. Air under pressure can cause severe injury.
2. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.
3. Never direct air at yourself or anyone else.
4. Whipping hoses can cause severe injury. Always check for damage or loose hoses and fittings.
5. Cold air shall be directed away from hands.
6. Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whip check safety cables shall be used to safeguard against possible hose-to-tool or hose-to-hose connection failure.
7. Do not exceed the maximum air pressure stated on the tool or manual.
8. Never carry an air tool by the hose.

PROJECTILE HAZARDS:

1. Disconnect the tool from the energy source when changing inserted tools/nose assemblies or accessories.
2. Be aware that failure of the workpiece, accessories, or the inserted tool/nose assembly itself can generate high-velocity projectiles.
3. Always wear impact resistant eye protection during operation of the tool.
4. Ensure that the workpiece is securely fixed.
5. Check that the means of protection from ejection of fastener and/or stem is in place and operative (such as the deflector, pintail collection bottle or catcher bag).
6. Forcible ejection of the mandrel from the front of the nose assembly is possible.

OPERATING HAZARDS:

1. Use of tool can expose the operator's hands to hazards, including crushing, impacts, cuts, abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
4. Maintain a balanced body position and secure footing.
5. Release the start-and-stop device in the case of interruption of energy supply.
6. Use only lubricants recommended by the manufacturer.
7. Avoid unsuitable postures as it is likely for these positions not to allow counteracting of normal or unexpected movement of the tool.
8. If the tool is fixed to a suspension device, make sure that fixation is secure.
9. Beware of the risk of crushing or pinching if nose equipment is not fitted.
10. Due to the tool weight, it is recommended safety shoes be worn during operation.
11. It is recommended tool be operated not more than 50 out of every 60 minutes, where prolonged use is expected.

REPETITIVE MOTIONS HAZARDS:

1. When using the tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. While using the tool, the operator should adopt a comfortable posture while maintaining a secure footing and avoiding awkward or off balanced postures. The operator should change posture during extended tasks; this can help avoid discomfort and fatigue.
3. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warning signs should not be ignored. The operator should tell the employer and consult a qualified health professional.

ACCESSORY HAZARDS:

1. Disconnect tool from energy supply before changing the nose assembly or accessory.
2. Use only sizes and types of accessories approved by the manufacturer. Do not use other types or sizes of accessories.

WORKPLACE HAZARDS:

1. Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by use of tool and also of trip hazards caused by the air line or hydraulic hose.
2. Proceed with care in unfamiliar surroundings. There could be hidden hazards, such as electricity or other utility lines.
3. The tool is not intended for use in potentially explosive atmospheres and is not insulated against contact with electrical power.
4. Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by the tool.

NOISE HAZARDS:

1. Exposure to high noise levels can cause permanent, disabling hearing loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears). Therefore, risk assessment and the implementation of appropriate controls for these hazards are essential.
2. Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from "ringing".
3. Always use hearing protection.
4. Operate and maintain the assembly power tool for non-threaded mechanical fasteners as recommended in the instruction handbook, to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise.
6. If the power tool has a silencer, always ensure that it is in place and in good working order when the power tool is being operated.

VIBRATION HAZARDS:

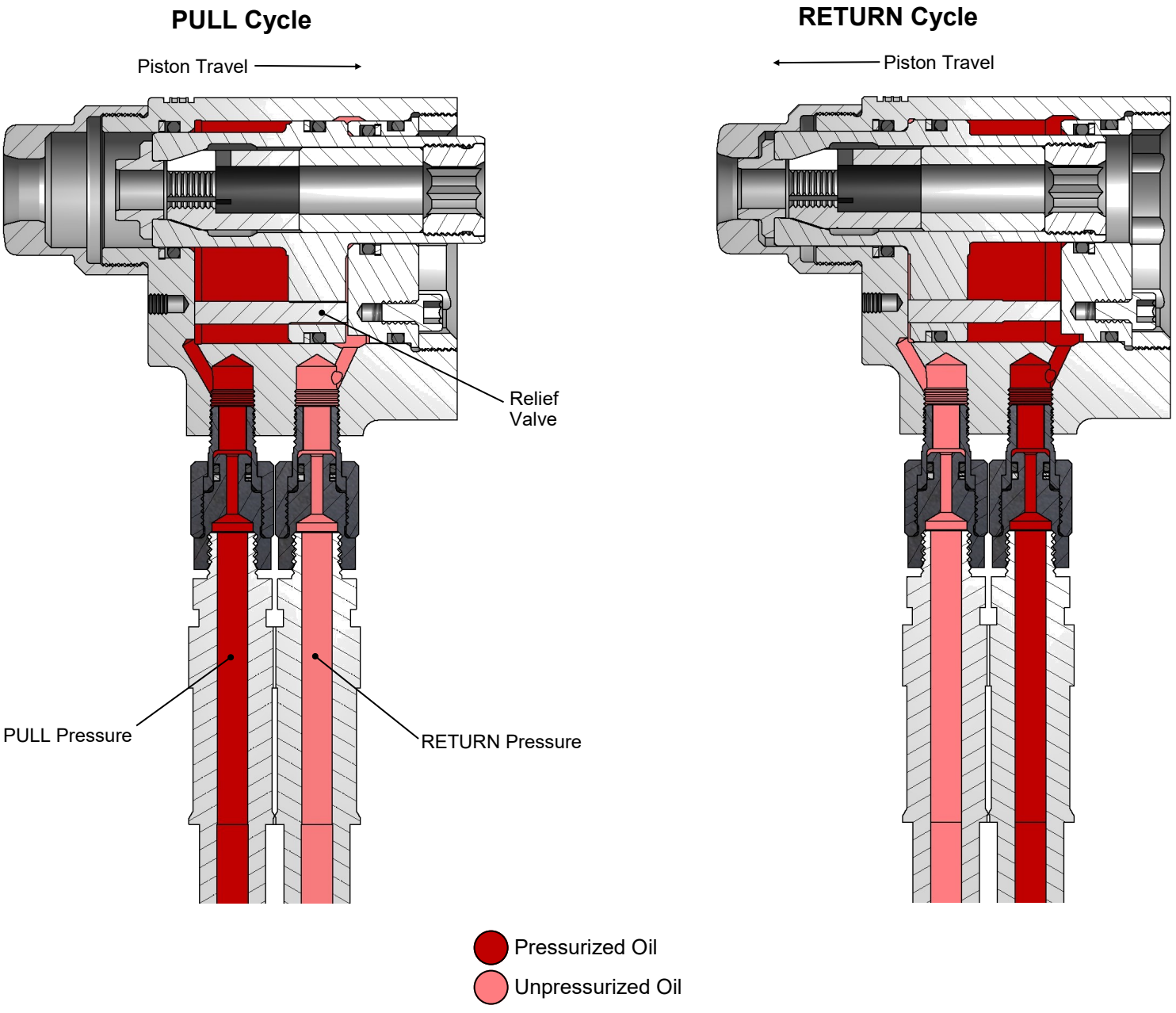
1. Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
2. Wear warm clothing when working in cold conditions and keep your hands warm and dry.
3. If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the assembly power tool for non-threaded mechanical fasteners, tell your employer and consult a physician.
4. Support the weight of the tool in a stand, tensioner or balancer, because a lighter grip can then be used to support the tool.

PRINCIPLE OF OPERATION

When the tool is connected to a powerunit, operation is controlled by an actuator to the hydraulic hoses. The GB512ABOM incorporates an air actuator to send a signal; the GB512BOM an electric actuator. When the button is depressed, a directional valve in the powerunit directs oil 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 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" oil back to the powerunit tank. When the button is released the directional valve reverses oil 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.

HYDRAULIC DIAGRAM



Images may not reflect actual tool

HOW TO SET-UP THE GB512BOM / GB512ABOM

WARNING: Only qualified and trained operators shall install, adjust or use the assembly power tool for non-threaded mechanical fasteners.

WARNING: Operator MUST read and understand all warnings and cautions.

WARNING: It is required that eye protection, hearing protection and safety boots be worn at all times while handling this equipment.

WARNING: The users or the user's employer must assess specific risks that could be present before each use based on their application.

- **Ensure 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.**
- ***Verify the air lines and/or hydraulic hoses are not a trip hazard.***
- ***Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by the tool.***
- ***Verify that hydraulic hose fittings and couplings, air and electrical connections are secure before each use.***

WARNING: Do not actuate fastener in the air. Personal injury from fastener ejecting may occur.

WARNING: Do not carry from hoses or use as a hammer.

WARNING: Do not use in explosive atmosphere.

WARNING: Ensure air hose is securely connected to avoid possible hose whipping.

WARNING: Always disconnect air supply, where applicable, when tool is not in use to prevent accidental start-up.

WARNING: Do not exceed the maximum relief-valve setting stated on the tool and manual.

WARNING: Do not operate when recommended pressures are exceeded as it could cause severe personal injury and or damage the equipment.

WARNING: Use only Gage Bilt hydraulic hoses and couplings, or equivalent, rated for 10,000 psi. (689.5 bar) working pressure.

WARNING: Do not operate this tool without deflector, pintail catcher bag or pintail collection bottle in place.

CAUTION: Do not use beyond the design intent.

1. **Set hydraulic power unit to the recommended pressure, 5,400 psi. (372 bar) - 5,600 psi. (386 bar) Max. for the pull and 2,200 (152 bar) - 2,400 psi (166 bar) Max. for the return. Gage Bilt pressure gage assembly (942280) (Sold Separately) is recommended to aid in this procedure. "See hydraulic power unit manual for correct procedure when adjusting pressures".**

5,600 psi (386 bar) Max. for the pull

2,400 psi (166 bar) Max. for the return

***Note**: Power units require a free flow of air for cooling purposes and should therefore be positioned in a well ventilated area free from hazardous fumes.*

2. **Turn off the hydraulic power unit. Wipe all couplers clean before connecting. Failure to do so can result in damage to the couplers and cause overheating. Connect hydraulic hoses then electric cord to power supply.**

3. **Turn hydraulic power unit on and cycle tool five times by depressing actuator to ensure piston is in the full forward position.**

HOW TO USE THE GB512BOM / GB512ABOM

WARNING: Only qualified and trained operators shall install, adjust or use the assembly power tool for non-threaded mechanical fasteners.

WARNING: Operator MUST read and understand all warnings and cautions.

WARNING: It is required that eye protection, hearing protection and safety boots be worn at all times while handling this equipment.

WARNING: The users or the user's employer must assess specific risks that could be present before each use based on their application.

- **Ensure 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.**
- ***Verify the air lines and/or hydraulic hoses are not a trip hazard.***
- ***Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by the tool.***
- ***Verify that hydraulic hose fittings and couplings, air and electrical connections are secure before each use.***

WARNING: Do not actuate fastener in the air. Personal injury from fastener ejecting may occur.

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WARNING: Do not operate when recommended pressures are exceeded as it could cause severe personal injury and or damage the equipment.

WARNING: Use only Gage Bilt hydraulic hoses and couplings, or equivalent, rated for 10,000 psi. (689.5 bar) working pressure.

WARNING: Do not operate this tool without deflector, pintail catcher bag or pintail collection bottle in place.

CAUTION: Do not use beyond the design intent.

Lockbolts

1. Insert fastener through the work piece.

2. Insert fastener into nose assembly.

Note: Always hold tool so pulling head is perpendicular to surface of material in which fastener is being installed. Exert firm pressure against fastener during installation.

3. Press actuator to start cycle.

4. Release actuator as soon as fastener breaks.

5. Repeat steps 1 - 4.

Images may not reflect actual tool or fastener

DAILY MAINTENANCE

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

⚠ **WARNING: Excessive contact with hydraulic oil and lubricants should be avoided.**

⚠ **WARNING: Maintenance personnel MUST read and understand all warnings and cautions.**

⚠ **WARNING: Disconnect tool from its power source before performing maintenance, cleaning or when replacing worn or damaged components. Severe personal injury may occur if power source is not disconnected.**

⚠ **WARNING: Read Material Safety Data Sheet documents for all applicable materials.**

Note:

- **Dispose of hydraulic oil in accordance with manufacture safety datasheet.**
- **All tool materials are recyclable except rubber o'rings, seals and wipers.**

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

*** Check tool and nose assembly for damage. (Replace/Repair if necessary). See Overhaul pg. 12 for tool repair.**

*** Inspect all hoses and couplings for wear, damage and leaks. Replace/Repair if necessary. (*See hydraulic thread preparation below)*.**

*** Verify that hydraulic hose fittings and couplings, air and electrical connections are secure. Tighten, Replace or Repair if necessary (*See hydraulic thread preparation below)*.**

*** Cycle the tool several times to assure there are no leaks during use.**

*** Only use a hydraulic power source equipped with relief valves and pressures set within specific limits. (See required max pressure for pull and return).**

*** 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 downtime.**

*** Keep nose assemblies, especially jaws, clean and free of chips and debris. Lube jaws and collet surfaces that jaws ride on with light machine oil on a daily basis.**

*** All Screwed End Caps, Base Covers, Air Fittings, Air Actuators, Screws and Nose Assemblies are to be examined at the end of each working shift to check that they are secure.**

SEE TROUBLESHOOTING (PG. 11) AND OVERHAUL (PG. 12) FOR FURTHER GUIDANCE.

HYDRAULIC THREAD PREPARATION

IMPORTANT: **Be sure to use thread sealant on all hydraulic fittings, Loctite® 545 or equivalent or a non-hardening Teflon® thread compound such as Slic-tite®. Tighten until fitting feels snug and then continue to tighten 1/2 to 1 full turn. *CAUTION:* Over tightening can easily distort the threads. DO NOT USE TEFLON® TAPE. *CAUTION:* Teflon tape is an excellent thread sealer, however, if it is not properly applied, pieces of Teflon® may enter the hydraulic system and cause a malfunction or damage.**

TROUBLESHOOTING

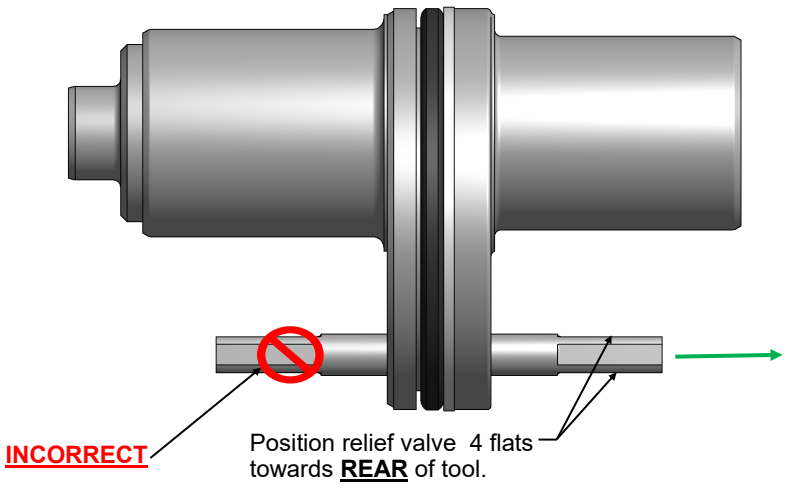
Providing all maintenance conditions have been met, follow this systematic approach to diagnosis.

1. **NO OPERATION WHEN ELECTRIC ACTUATOR ASSEMBLY (206148) / ACTUATOR ASSEMBLY-AIR (704130) IS DEPRESSED.**
   a) **Check powerunit power source.**
   b) **Control cord may be loose or damaged.**
   c) **Faulty Actuator. Replace.**
   d) **Check hydraulic couplings; tighten, repair or replace.**
2. **SLOW OR PARTIAL OPERATION WHEN ELECTRIC ACTUATOR ASSEMBLY (206148) / ACTUATOR ASSEMBLY-AIR (704130) IS DEPRESSED.**
   a) **Low hydraulic pressure. Check powerunit, adjust.**
   b) **Back-up ring (405875) or back-up ring (401121) on the piston assembly (512304) could be worn or damaged. Replace.**
   c) **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 instruction 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 or use a sharp pointed object to remove chips. 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 jaws before reassembling.**

RELIEF VALVE - INSTALLATION

⚠ **WARNING: Disconnect the tool from power source when adding or removing relief valves.**

1. **Insert relief valve into piston with 4 flats facing rear of tool (see image below). DO NOT insert into piston with 4 flats facing the opposite way or damage to the tool or personal injury can occur.**



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OVERHAUL

⚠ WARNING: Only qualified and trained personnel shall perform overhaul.

⚠ WARNING: Personnel must read and understand all warnings and cautions.

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

⚠ WARNING: Disconnect tool from its power source before performing overhaul. Severe personal injury may occur if power source is not disconnected.

⚠ WARNING: Excessive contact with hydraulic oil and lubricants must be avoided. (See safety data sheet documents for all applicable materials).

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

⚠ WARNING: Use only Gage Bilt hydraulic hoses and couplings, or equivalent, rated for 10,000 psi. (689.5 bar) working pressure.

⚠ WARNING: Ensure air hose is securely connected to avoid possible hose whipping. (Air Actuated Tools only).

⚠ WARNING: Do not exceed the maximum relief-valve setting stated on the tool and manual.

⚠ WARNING: Relief valve must be installed with four flats towards the rear of the cylinder.

Note:

- **Dispose of hydraulic oil in accordance with manufacture safety datasheet.**
- **All tool materials are recyclable except rubber o'rings, seals and wipers.**
- ***Use of SERVICE KIT (208100), which contains a complete set of o'rings, back-up rings and screws, can achieve a complete overhaul.***

- **Note: Gage Bilt does not recommend using a pneumatic lubricator or adding pneumatic oil to the air inlet on our tools or powerunits.**

If a tool is performing poorly or leaking, a complete overhaul may be necessary.

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® #630-AA (Gage Bilt part no. 402723) or equivalent during reassembly to prevent tearing or distorting of o'rings.

1. **Disconnect electric cord (206136) / air line (208126) from power supply.**
2. **Disconnect hydraulic hoses (206119) from power supply.**
3. **Remove hydraulic coupler-male (585047) & hydraulic coupler-female (585038) from hydraulic hoses (206119) and drain into a container. Remove nose assembly.**
4. **Push piston assembly (512304) rearward until remaining hydraulic oil is drained. Push piston back to the front of cylinder assembly (205103).**
5. **Unscrew socket head cap screw (206118) from retaining ring (208117) using a spanner wrench to remove retaining ring.**
6. **Push piston assembly (512304) back until cylinder cap assembly (208115) falls out of cylinder assembly (205103).**
7. **Continue pushing piston assembly (512304) rearward until piston assembly (512304) is out of cylinder assembly (205103). Remove relief valve (208110) from the piston assembly (512304).**
8. **Remove all O'rings and Back-up rings. 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.**
9. **Reassembly sequence is opposite of disassembly. Be sure relative positions of o'rings and back-up rings are as shown in exploded view and part list. When reinstalling relief valve (208110), be sure flats are to rear of tool (see pg. 11).**

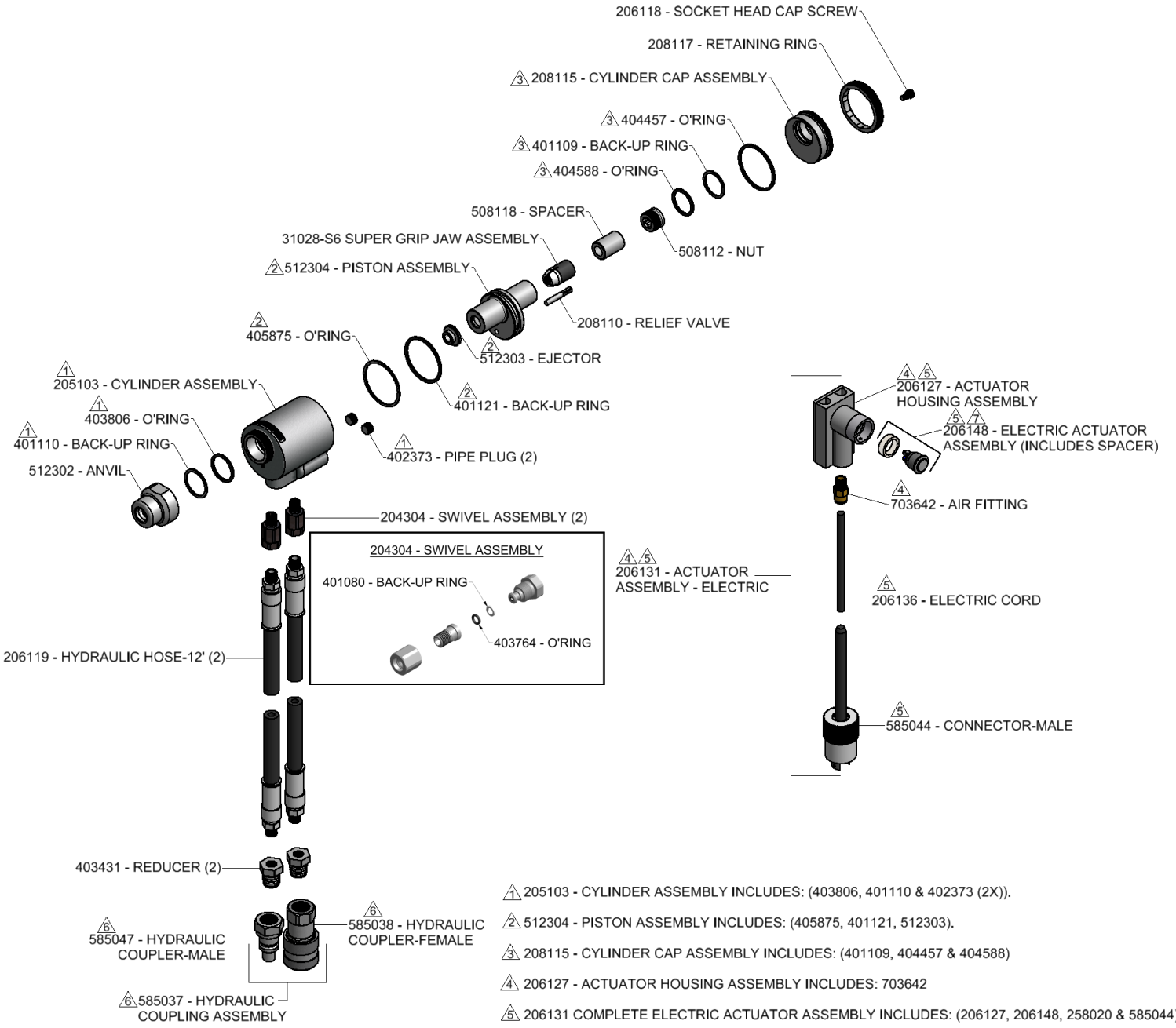
Coat hose fitting threads with a non-hardening Teflon thread compound such as Slic-tite®. DO NOT USE TEFLON® TAPE.
(*See hydraulic thread preparation pg. 10*).

Apply hot glue to wire connections of the electric actuator assembly (206148) to ensure wires DO NOT contact each other. (Electric actuated installation tool GB512BOM only).

TOOL DISPOSAL

1. **When tool life is met, drain hydraulic oil from tool and dispose of the hydraulic oil in accordance with the safety datasheet.**
2. **Disassemble tool and remove all rubber o'rings, seals, wipers and hydraulic hoses. All tool materials are recyclable except rubber o'rings, seals, wipers and hydraulic hoses. Dispose of rubber materials in accordance with the material safety datasheet.**

GB512BOM PARTS LIST



1 205103 - CYLINDER ASSEMBLY INCLUDES: (403806, 401110 & 402373 (2X)).

2 512304 - PISTON ASSEMBLY INCLUDES: (405875, 401121, 512303).

3 208115 - CYLINDER CAP ASSEMBLY INCLUDES: (401109, 404457 & 404588)

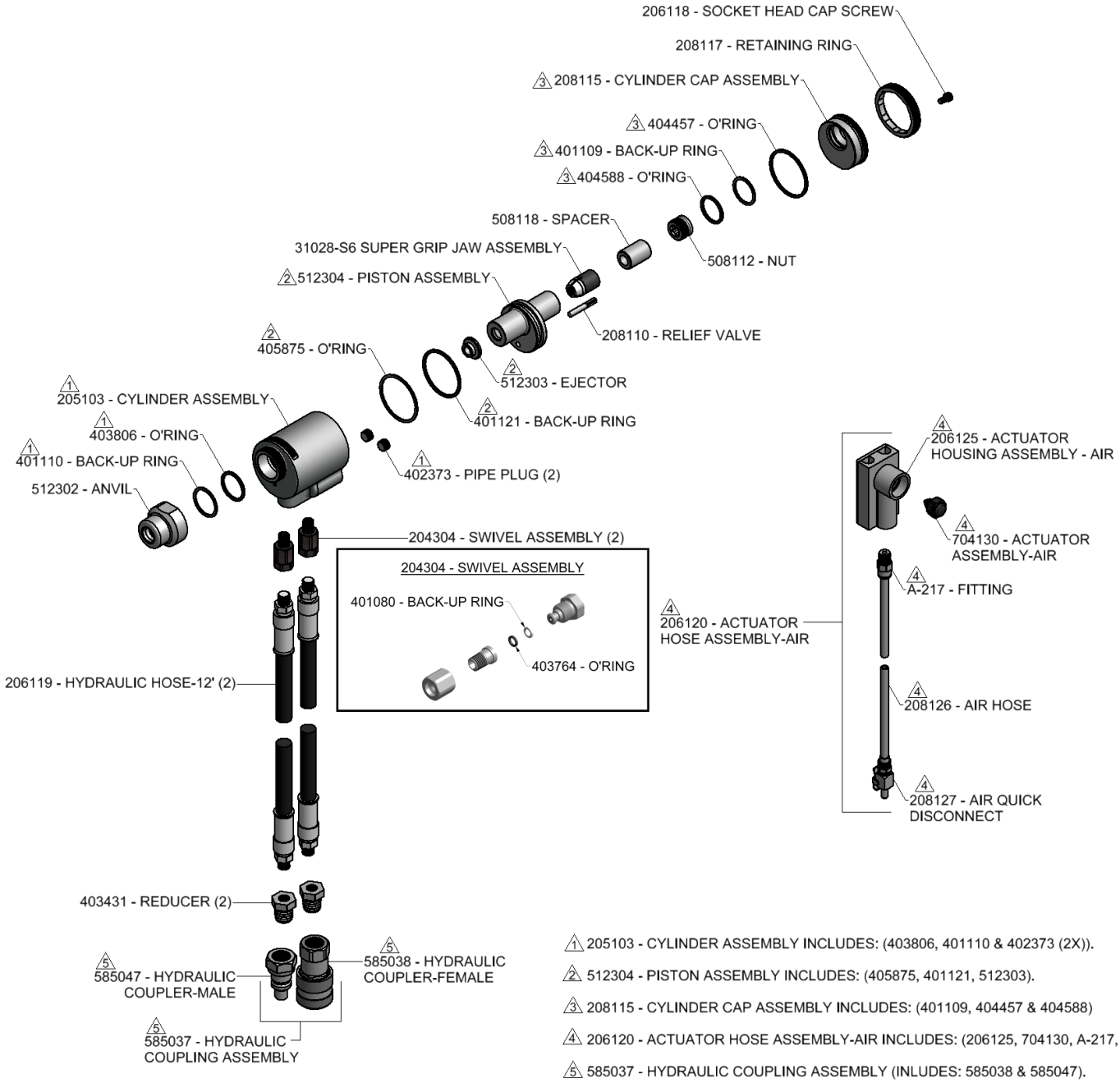
4 206127 - ACTUATOR HOUSING ASSEMBLY INCLUDES: 703642

5 206131 COMPLETE ELECTRIC ACTUATOR ASSEMBLY INCLUDES: (206127, 206148, 258020 & 585044)

6 585037 - HYDRAULIC COUPLING ASSEMBLY (INCLUDES: 585038 & 585047).

7 206148 - ELECTRIC ACTUATOR ASSEMBLY (INCLUDES A-2120 & 206135)

GB512ABOM PARTS LIST



1 205103 - CYLINDER ASSEMBLY INCLUDES: (403806, 401110 & 402373 (2X)).

2 512304 - PISTON ASSEMBLY INCLUDES: (405875, 401121, 512303).

3 208115 - CYLINDER CAP ASSEMBLY INCLUDES: (401109, 404457 & 404588)

4 206120 - ACTUATOR HOSE ASSEMBLY-AIR INCLUDES: (206125, 704130, A-217, 208126 & 208127)

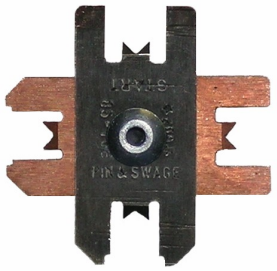
5 585037 - HYDRAULIC COUPLING ASSEMBLY (INLUDES: 585038 & 585047).

Accessories

Approved for use on Gage Bilt CE installation tools and/or other manufacturer's CE approved tools of similar design.
(Sold Separately)

Grip Gage #GB105093

For NAS LOCKBOLTS and blind fasteners
(Sold Separately)



Gage Bilt also supplies pin & collar swage inspection gages to certify correct swage installation
(Sold Separately)

Accessories Cont.

Approved for use on Gage Bilt CE installation tools and/or other manufacturer's CE approved tools of similar design.
(Sold Separately)

GB947 ELECTRIC POWERUNIT

(Sold Separately)

The **GB947** Hydraulic Powerunit is a light-weight, portable power source designed to operate on a wide range of hydraulic installation tools. The unit is electrically powered and delivers up to 10,000 psi (689.48 bar) working pressure with simple adjustable hydraulic outputs. The 24 volt remote control circuit, in the installation equipment, controls the pump output directional valve. The GB947 Hydraulic Powerunit is available in 110 volt or 220* volt, single phase, alternating current. Output pressures as shipped are: PULL 5400-5700 psi, RETURN 2200-2400 psi.

The **GB947** Hydraulic Powerunit is available separately or in kits including hydraulic quick-disconnect couplers, electrical connectors and hose cord kits in various lengths.

GB947-12 includes the GB947 and 12 ft. (3.7m) Hose Kit, part #940701
GB947-26 includes the GB947 and 26 ft. (7.9m) Hose Kit, part #940705
GB947-38 includes the GB947 and 38 ft. (11.6m) Hose Kit, part #940709
GB947-52 includes the GB947 and 52 ft. (15.8m) Hose Kit, part #940714

Image may not reflect actual tools

Accessories Cont.

Approved for use on Gage Bilt CE installation tools and/or other manufacturer's CE approved tools of similar design.
(Sold Separately)

GB910 HYDRAULIC POWERUNIT
(Sold Separately)

The **GB910** Hydraulic Powerunit is a portable power source designed to operate a wide range of hydraulic installation tools. The unit air powered, air actuated and delivers up to 10,000 psi (689.48 bar) working pressure. The actuator on the installation tool remotely controls the hydraulic oil directional flow. The unit consists of a two position air hydraulic pump, four way control valve and relief valve mounted on the reservoir.

The **GB910** Hydraulic Powerunit is available separately or in kits including hydraulic quick-disconnect couplers, air connectors, air lines and hydraulic hoses in various lengths.

GB910-12 includes the GB910 and 12 ft. (3.7m) Hose Kit-Air, part #910701

GB910-26 includes the GB910 and 26 ft. (7.9m) Hose Kit-Air, part #910705

GB910-38 includes the GB910 and 38 ft. (11.6m) Hose Kit-Air, part #910709

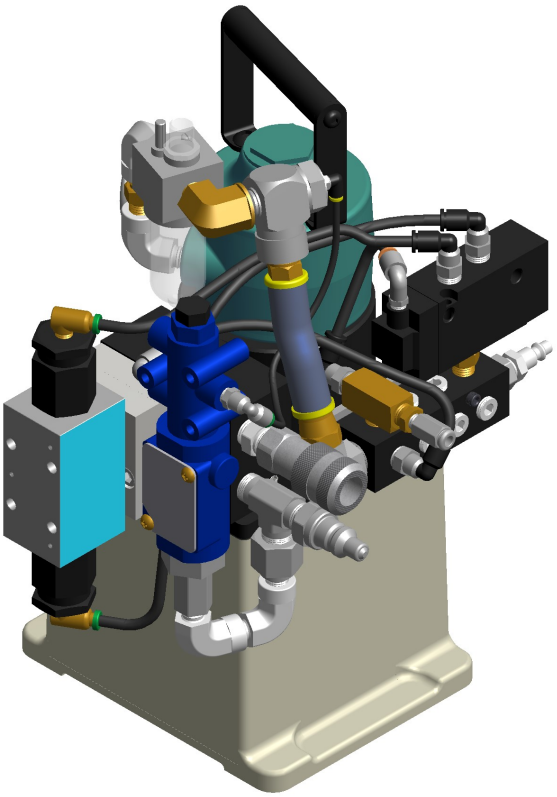
GB910-52 includes the GB910 and 52 ft. (15.8m) Hose Kit-Air, part #910714

Image may not reflect actual tools

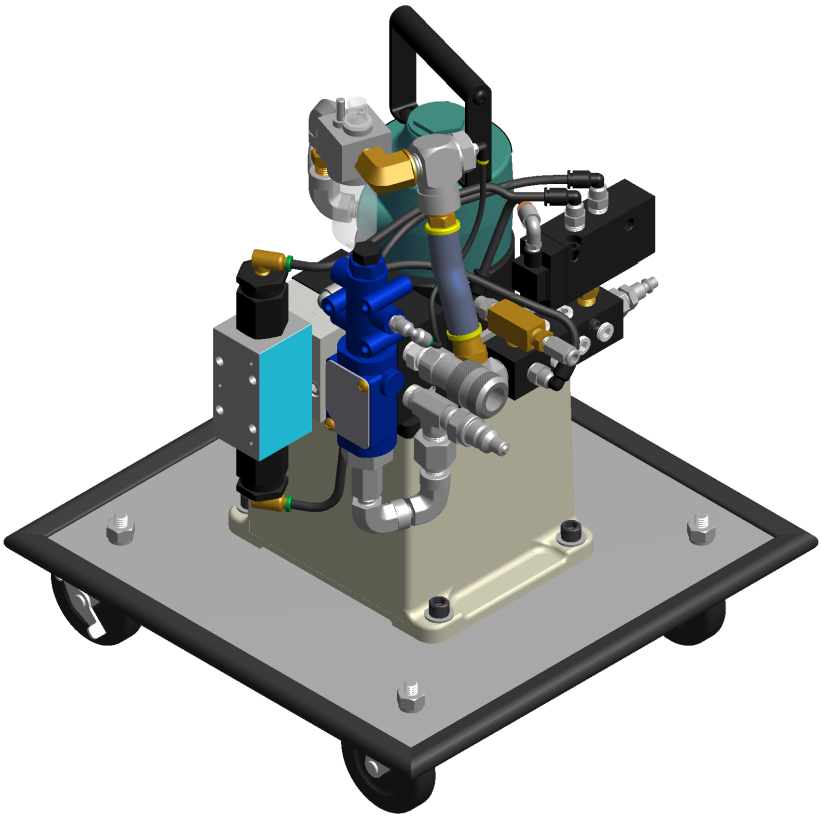
Accessories Cont.

Approved for use on Gage Bilt CE installation tools and/or other manufacturer's CE approved tools of similar design.
(Sold Separately)

GB912 / GB912-D HYDRAULIC POWERUNITS
(Sold Separately)



GB912 HYDRAULIC POWERUNIT



GB912-D HYDRAULIC POWERUNIT

The **GB912** Hydraulic Powerunit is a portable power source designed to operate a wide range of hydraulic installation tools. The unit air powered, air actuated and delivers up to 10,000 psi (689.48 bar) working pressure. The actuator on the installation tool remotely controls the hydraulic oil directional flow. The unit consists of a two position air hydraulic pump, four way control valve and relief valve mounted on the reservoir. The rapid tool piston movement is obtained through a higher (12 cubic inches a minute) output pump. Quick disconnect hydraulic couplings and air control socket are included to attach the equipment hydraulic hoses and air control tube.

The **GB912** Hydraulic Powerunit is available separately or in kits including hydraulic quick-disconnect couplers, air connectors, air lines and hydraulic hoses in various lengths.

GB912-12 includes the GB912 Powerunit and 12 ft. (3.7m) Hose Kit-Air, part #910701.

GB912-26 includes the GB912 Powerunit and 26 ft. (7.9m) Hose Kit-Air, part #910705.

GB912-38 includes the GB912 Powerunit and 38 ft. (11.6m) Hose Kit-Air, part #910709.

GB912-52 includes the GB912 Powerunit and 52 ft. (15.8m) Hose Kit-Air, part #910714

Image may not reflect actual tools

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Riveter Kits Available

(Sold Separately)

Gage Bilt offers a wide selection of standard and custom kits tailored to your needs.
Contact us for more information.

CE Approved

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