

Field Lazer™ S100 Displacement Pump

3A5053B

EN

For use with water-based materials

3300 psi (22.7 MPa, 227 bar) Maximum Working Pressure

Model 246426

Series A

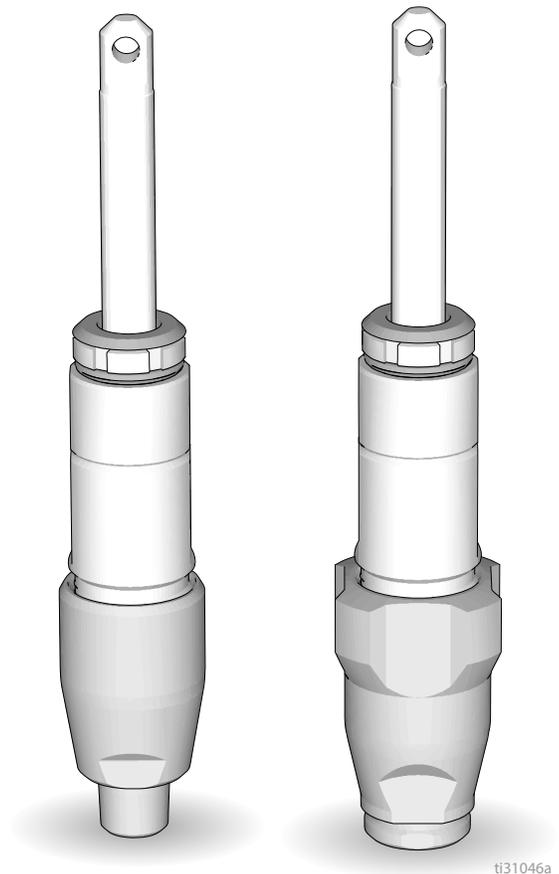
Model 17M873

Series B



Important Safety Instructions

Read all warnings and instructions in this manual, related stripping manuals and on the equipment. Be familiar with the controls and the proper usage of the equipment. Save these instructions.



ti31046a

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Warnings

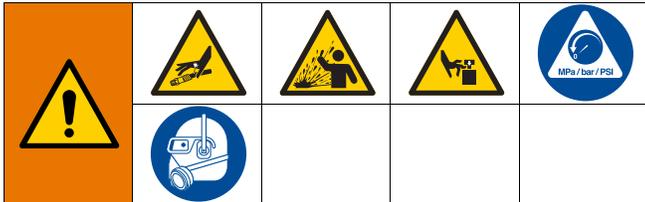
The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h1 style="margin: 0;">WARNING</h1>	
 	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer. Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use. Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards. Use equipment only for its intended purpose. Call your distributor for information. Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents. Comply with all applicable safety regulations.
 	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> Keep clear of moving parts. Do not operate equipment with protective guards or covers removed. Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.
  	<p>SKIN INJECTION HAZARD</p> <p>High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, get immediate surgical treatment.</p> <ul style="list-style-type: none"> Do not aim the gun at, or spray any person or animal. Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body. Always use the nozzle tip guard. Do not spray without nozzle tip guard in place. Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and follow the Pressure Relief Procedure for turning off the unit. Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.

Service

Pressure Relief Procedure

 Follow the Pressure Relief Procedure whenever you see this symbol.



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

1. Engage trigger lock.
2. Turn ON/OFF switch to OFF.
3. Disengage trigger lock. Hold metal part of gun against grounded metal pail and trigger gun into pail to relieve pressure.
4. Engage the trigger lock.
5. Open all fluid drain valves in the system, having a waste container ready to catch drainage. Leave drain valve(s) open until you are ready to spray again.
6. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, **VERY SLOWLY** loosen tip

guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

Pump Repair Kits

Pump	Repair Kit
17M779	17M873
287064	246426

Tools & Materials Needed

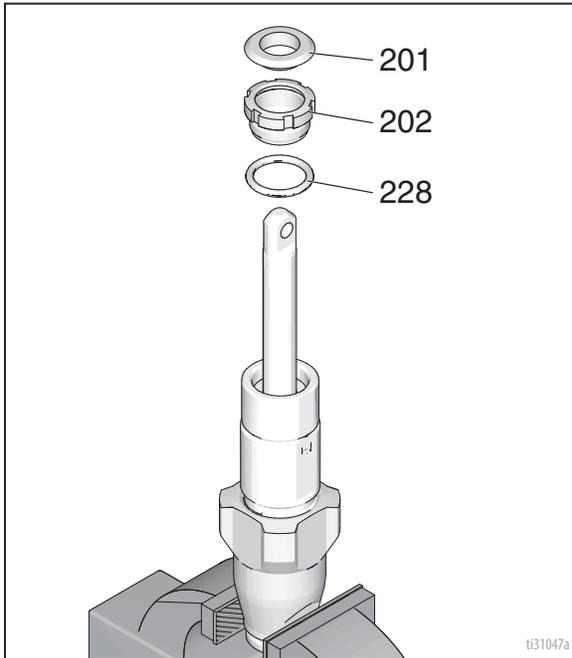
- vise
- 12 in. adjustable, open-end wrench (2)
- Hammer (20 oz maximum)
- Small screwdriver
- Pick or long small screwdriver
- Throat Seal Liquid
- Medium strength threadlocker
- Grease
- SAE 30W oil

Cleaning and Inspecting Parts

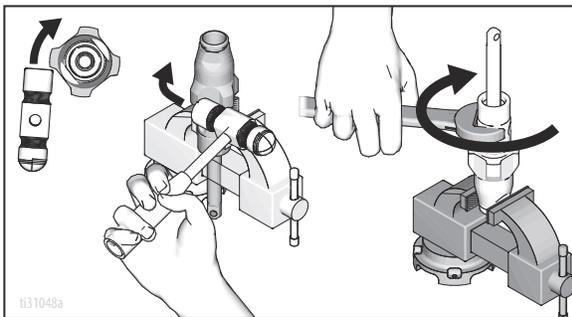
Clean and inspect parts. Pay particular attention to the ball seats in the intake valve and piston, which must have no nicks or wear, and to the inside of the cylinder and the outside of the piston rod, which must not be worn or scratched. Replace worn or damaged parts.

Disassemble

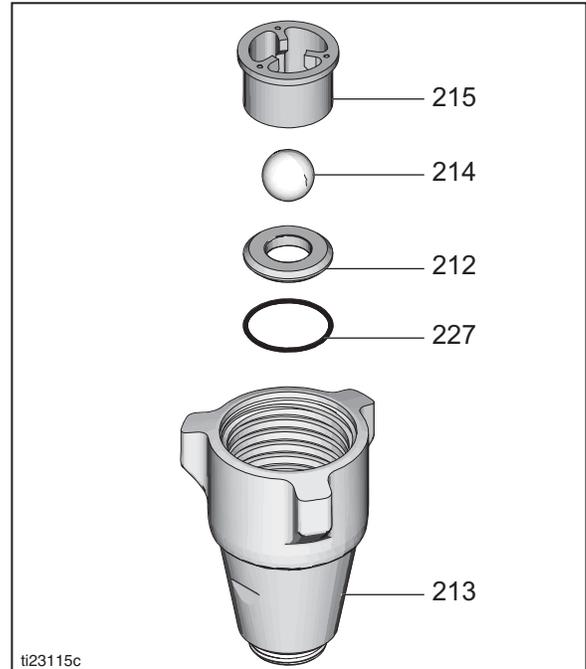
1. Remove seal (201), packing nut (202) and o-ring (228).



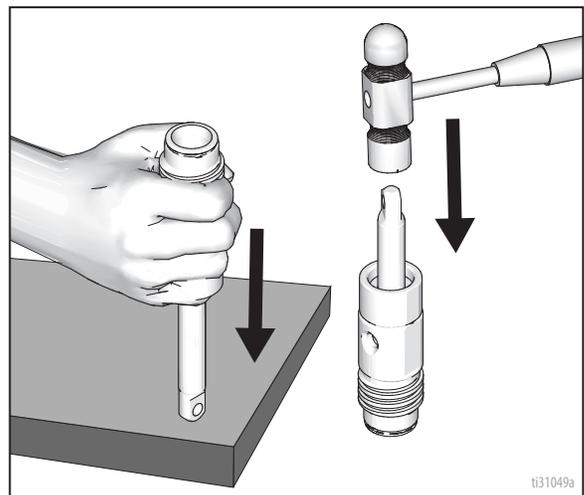
2. Unscrew intake valve from cylinder.



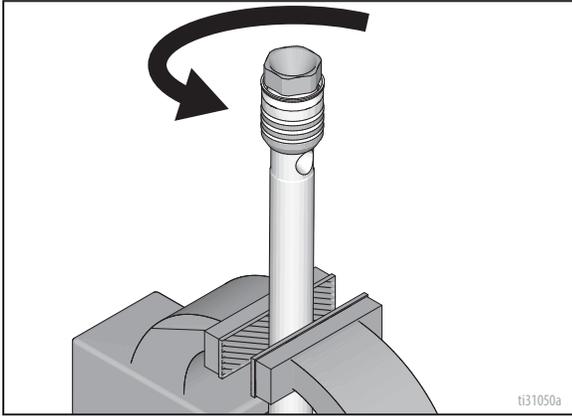
3. Disassemble intake valve. Clean and inspect o-ring (227). **NOTE:** A pick may be required to remove o-ring.



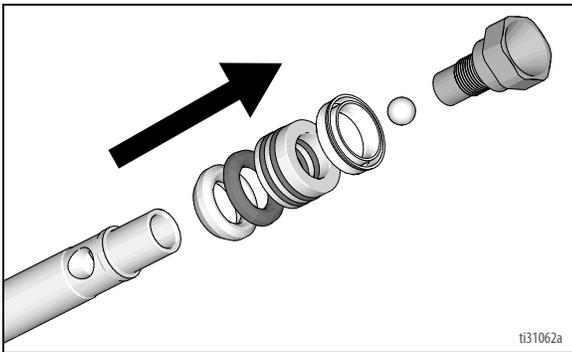
4. Tap piston rod out of cylinder with a hammer or flip over and tap piston rod out against a bench.



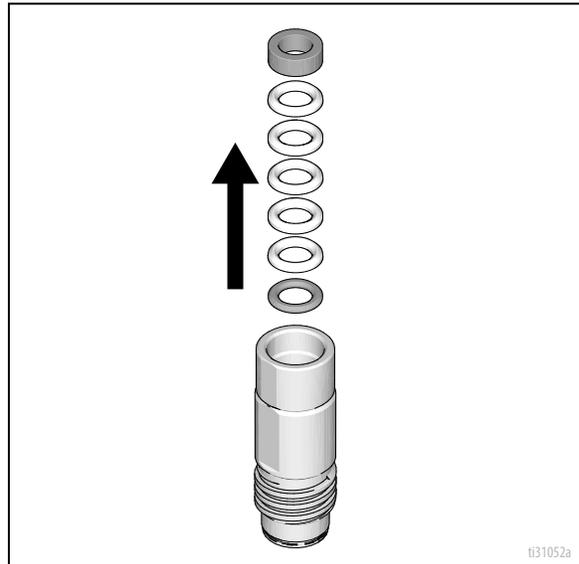
5. Unscrew piston valve from piston rod. Clean and inspect parts. The piston has a special thread locking/sealing patch. Do not remove the patch. The patch allows four disassembly/assembly procedures before it is necessary to apply medium strength threadlocker to the threads.



6. Remove packings and glands from piston rod.

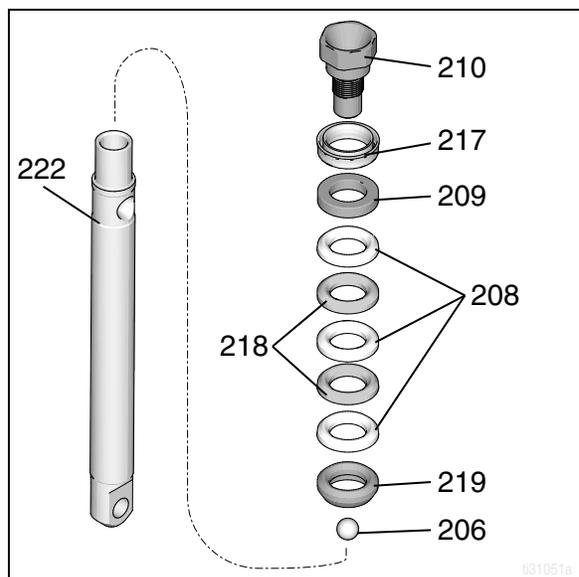


7. Remove throat packings and glands from cylinder. Discard throat packings and glands.

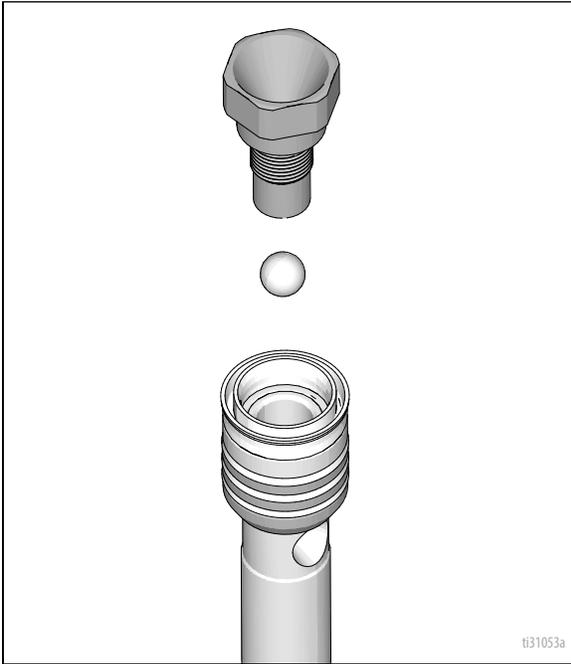


Assemble

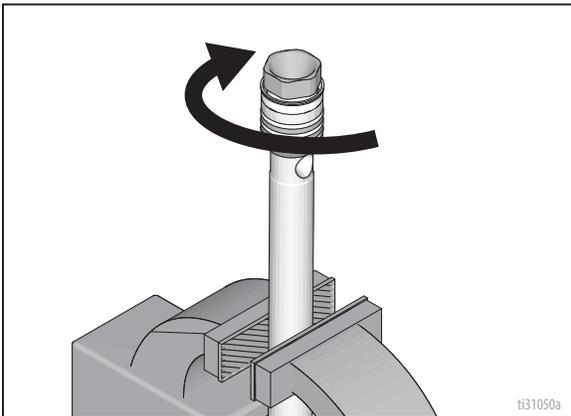
1. Soak all leather packings in SAE 30W oil for 1 hour minimum prior to assembly. Stack male gland (219) on piston rod. Alternately stack UHMWPE (208) and leather (218) packings (note orientation) on piston rod. Install female gland (209). Install piston wiper (217) (note orientation) on piston valve, threads are good for four repackings. Use medium strength threadlocker on piston valve threads after four repackings.



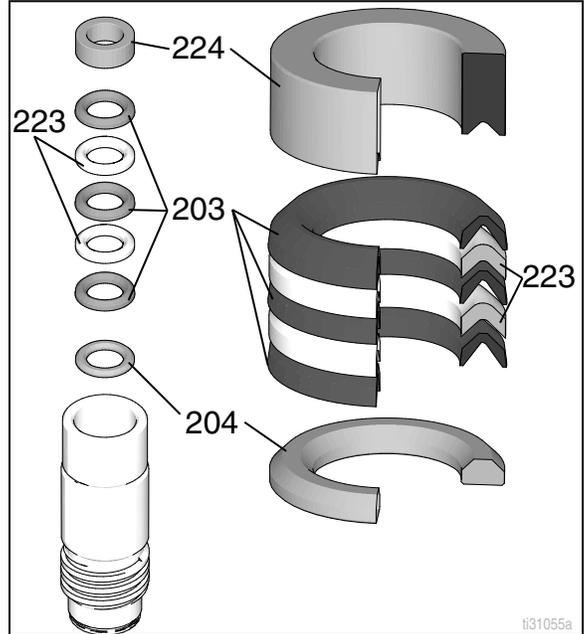
2. Install ball (206) in piston rod. If threadlocker is applied to piston valve threads, make sure that none gets on ball.



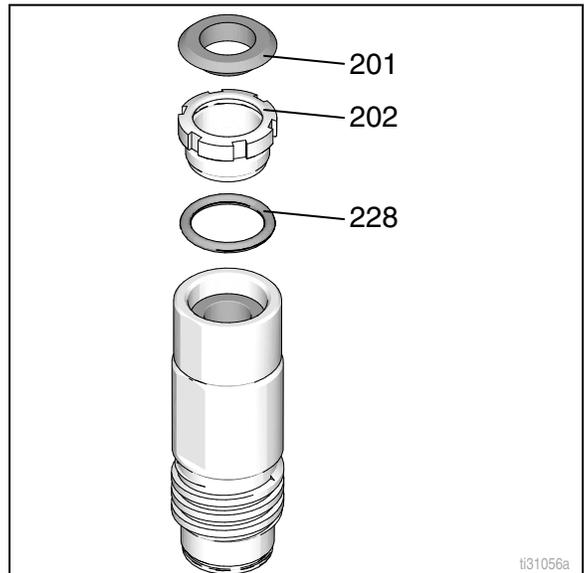
3. Tighten piston valve to piston rod. torque piston valve to 27 ± 3 ft-lb. (37 ± 4.1 N•m).



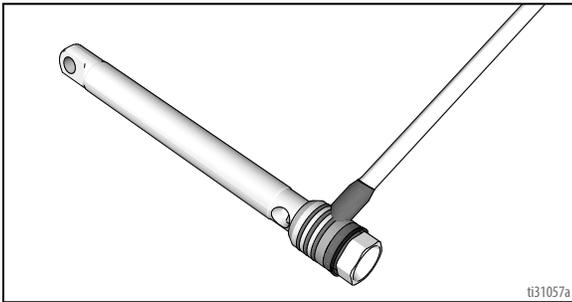
4. Soak all leather packings in SAE 30W oil for one hour minimum prior to assembly. Place male gland (204) in cylinder. Alternately stack UHMWPE (203) and leather packings (223) (note orientation). Place female gland (224) on top of cylinder seat packings.



5. O-ring replaces clip ring on older models. Install o-ring (228) onto packing nut. Loosely install packing nut into cylinder.



6. Grease piston packings.

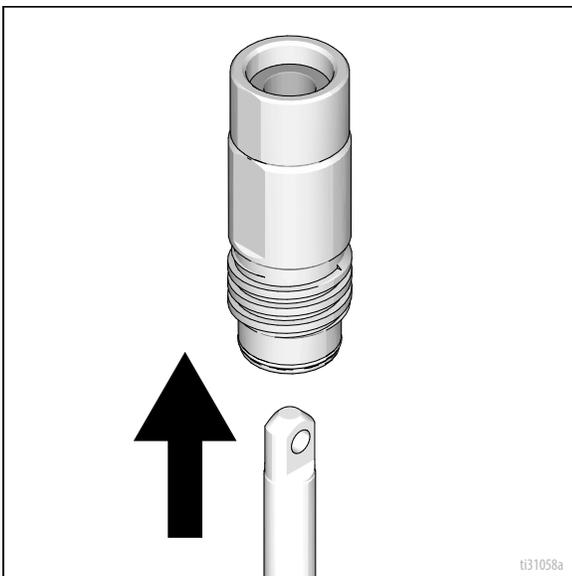


7. Grease top inch or two of piston rod that will go through the cylinder throat packings.

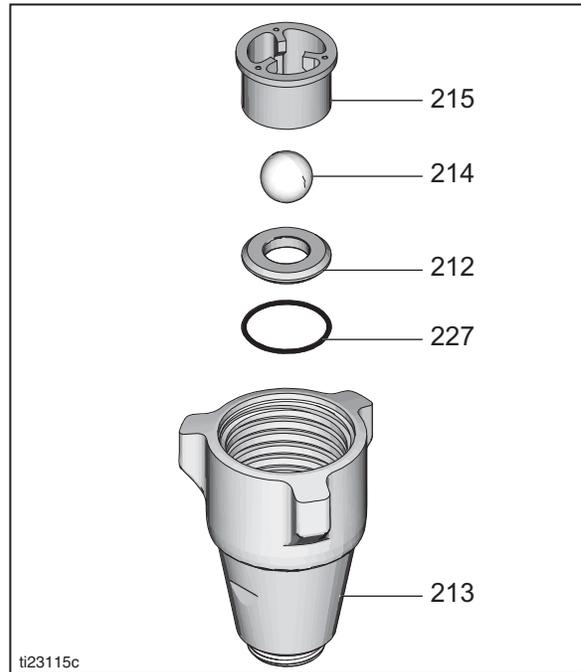
NOTICE

Do not slide piston assembly into top of cylinder as this may damage piston packing.

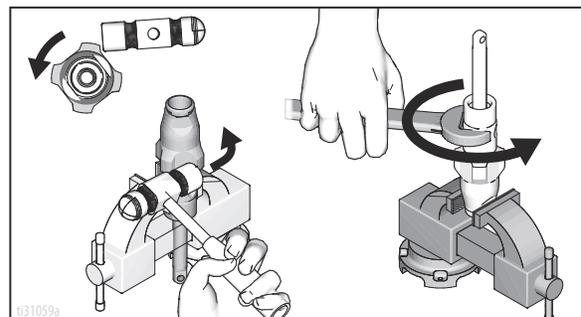
8. Slide piston rod assembly into bottom of cylinder. Replace o-ring (207) if desired.



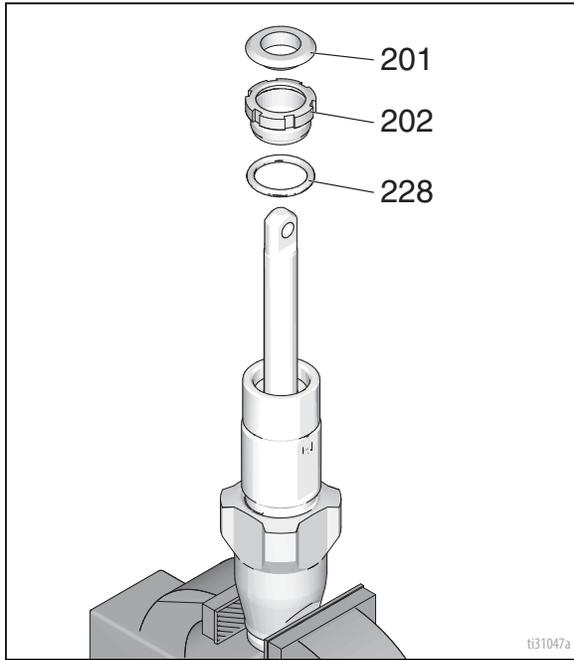
9. Reassemble intake valve with new o-ring (227), seat (212) and ball (214). Seat may be flipped over and used on other side. Clean seat thoroughly.



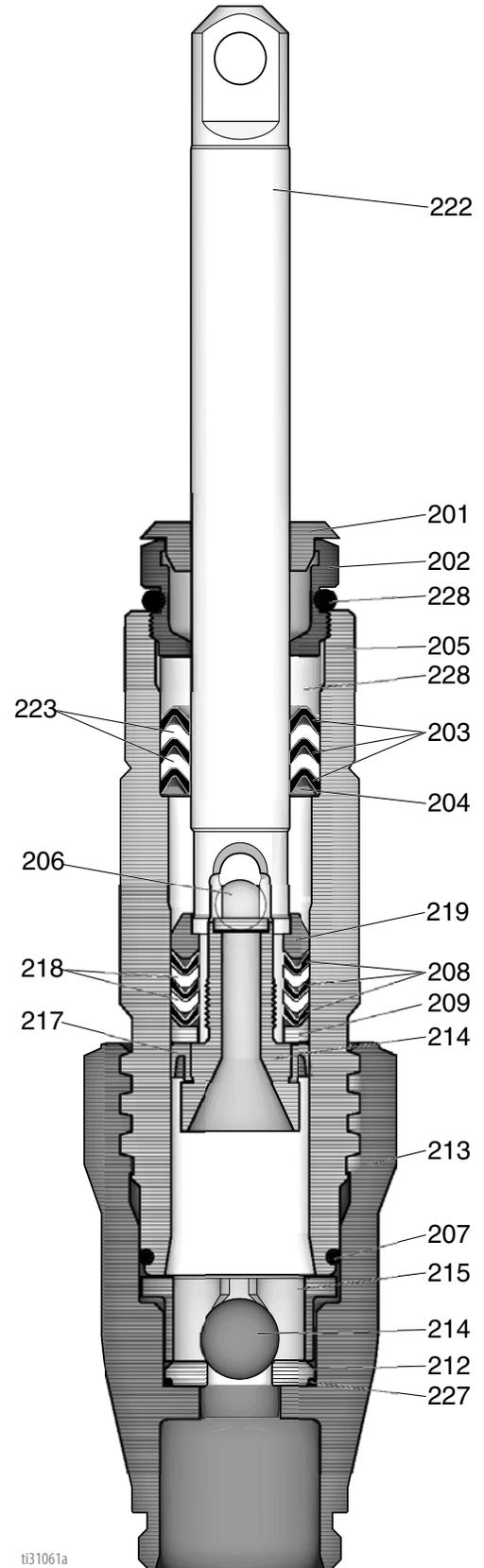
10. Install intake valve on cylinder. If a wrench is used torque to 60 ± 5 ft-lb (81 ± 7 N•m).



11. Torque packing nut (202) to 75 ± 5 in.-lb ($8.5 \pm .5$ N•m).
12. Remove throat seal (201) when pump packings begin to leak after extended use. Then tighten packing nut down until leakage stops or lessens. This allows approximately 100 gallons of additional operation before a repacking is required.



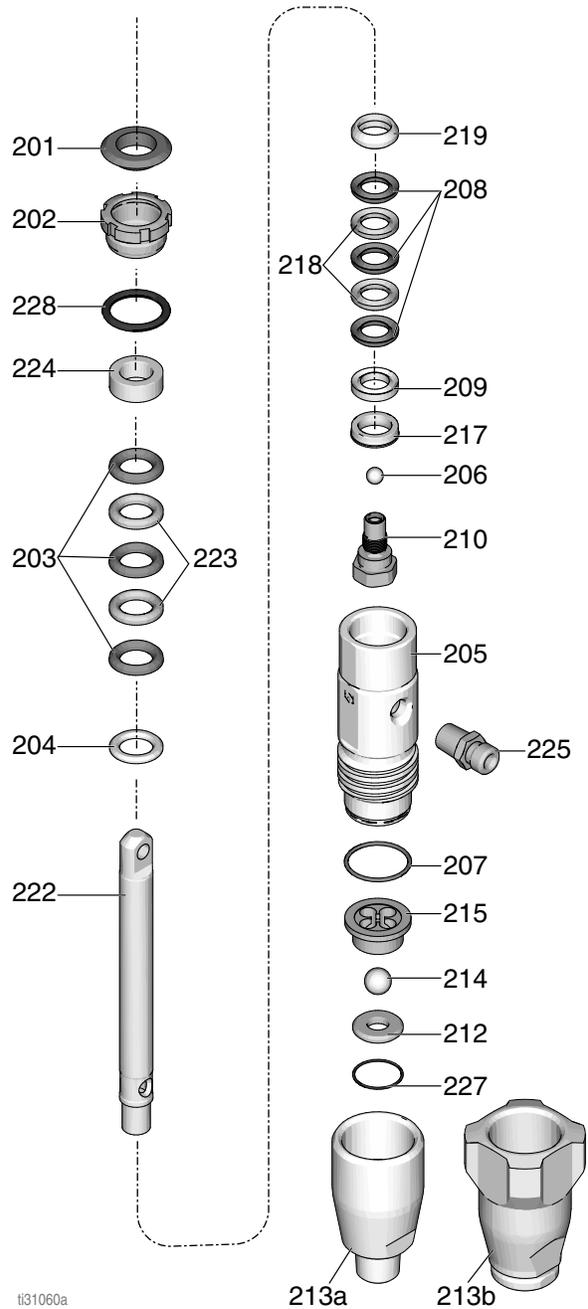
Cross-Section Reference



Parts - Pump 246426, 17M873

Ref.	Part	Description	Qty.
201*	180656	SEAL, throat	1
202	193047	NUT, packing	1
203*	192710	V-PACKING, throat, V-Max, UHMWPE, blue	3
204*	176754	GLAND, male, throat	1
205	24X749	CYLINDER, pump	1
206*	105444	BALL, set, 0.3125 in.	1
207*	17V093	PACKING, o-ring	1
208*	192712	V-PACKING, piston, V-Max, UHMWPE, blue	3
209*	180073	GLAND, female, piston	1
210	243181	VALVE, piston	1
212†	15A968	SEAT, footvalve, carbide	1
213		VALVE, intake (foot)	
213a	15B874	Series A	1
213b	15B611	Series B	1
214*†	105445	BALL, set, 0.5000 in.	1
215†	15C011	GUIDE, ball	1
217*	15G234	WIPER, piston	1
218*	176749	V-PACKING, leather, throat	2
219*	195129	GLAND, male, piston	1
222	243174	ROD, piston	1
223*	176755	V-PACKING, leather, throat	2
224*	176757	GLAND, female, throat	1
225	162453	NIPPLE, 1/4 npsm x 1/4 npt	1
227*†	15B112	PACKING, o-ring (0.941 in. OD)	1
228	160516	PACKING, o-ring	1

* - These parts included in pump repair Kit 244194
 †- These parts included in inlet valve seat Kit 246429



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Technical Data

	U.S.	Metric
Maximum Working Pressure	3300 psi	227 bar, 22.7 MPa
Fluid Inlet Size	1/2 npt(f)	1/2 npt(f)
Fluid Outlet Size	1/4 npt(f)	1/4 npt(f)
Wetted Parts	stainless steel, PTFE, leather, polyurethane, zinc-plated carbon steel, tungsten carbide, chrome plating, UHMWPE, acetal, polyethylene, nylon,	

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.

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Original instructions. This manual contains English. MM 3A5053

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