

Repair



# Displacement Pump

3A6583A

EN

***For professional use only.***

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

**Model 16X414, Series A**  
GMAX II 3900 Lo-Boy

**Model 17H832, Series A**  
TexSpray Mark IV Pro

**Model 16X419, Series A**  
GMAX II 5900 Lo-Boy

**Model 17H823, Series A**  
UltraMax II and Ultimate MX II 695/795 Pro  
GMAX II 3900 Pro

**Model 17H824, Series A**  
UltraMax II and Ultimate MX II 1095/1595 Pro  
GMAX II 5900 Pro

**Model 17H825, Series A**  
GMAX II 7900 Pro

**Model 17H826, Series A**  
UltraMax II and Ultimate MX II 1095/1595 IronMan  
GMAX 5900 IronMan

**Model 17H827, Series A**  
GMAX II 7900 IronMan

**Model 17H833, Series A**  
TexSpray Mark V Pro and 5900 HD Pro

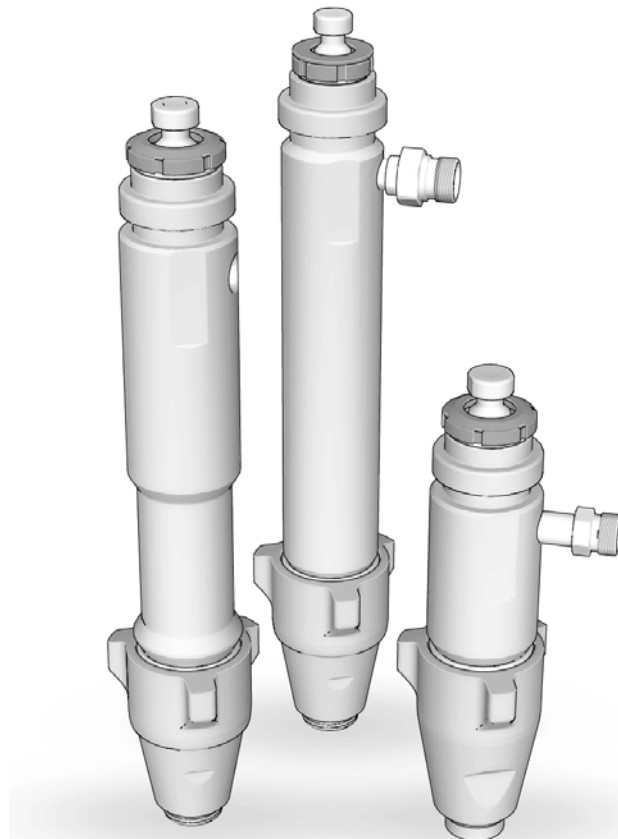
**Model 17H834, Series A**  
TexSpray Mark VII Pro

**Model 17H835, Series A**  
TexSpray Mark X Pro and 7900HD Pro

**Model 17H836, Series A**  
TexSpray Mark V IronMan

**Model 17H837, Series A**  
TexSpray Mark X IronMan and 7900 HD IronMan

**Model 17H892, Series A**  
TexSpray Mark VII IronMan



ti34207a



## Important Safety Instructions









Read all warnings and instructions in this manual and all related manuals before servicing. Save all instructions.

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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.

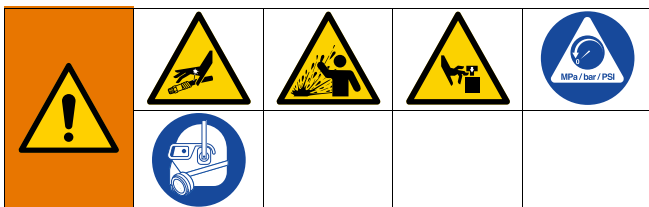
|  <b>WARNING</b>  |   |
|---|---|
|     | <b>EQUIPMENT MISUSE HAZARD</b><br>Misuse can cause death or serious injury. <ul style="list-style-type: none"> <li>Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Specifications</b> in all equipment manuals.</li> <li>Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Specifications</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.</li> <li>Do not leave the work area while equipment is energized or under pressure.</li> <li>Turn off all equipment and follow the <b>Pressure Relief Procedure</b> when equipment is not in use.</li> <li>Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.</li> <li>Make sure all equipment is rated and approved for the environment in which you are using it.</li> <li>Use equipment only for its intended purpose. Call your distributor for information.</li> <li>Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>Keep children and animals away from work area.</li> <li>Comply with all applicable safety regulations.</li> </ul> |
|     | <b>MOVING PARTS HAZARD</b><br>Moving parts can pinch, cut or amputate fingers and other body parts. <ul style="list-style-type: none"> <li>Keep clear of moving parts.</li> <li>Do not operate equipment with protective guards or covers removed.</li> <li>Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.</li> </ul>   |
|    | <b>SKIN INJECTION HAZARD</b><br>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. <b>Get immediate surgical treatment.</b> <ul style="list-style-type: none"> <li>Do not spray without tip guard and trigger guard installed.</li> <li>Engage trigger lock when not spraying.</li> <li>Do not point gun at anyone or at any part of the body.</li> <li>Do not put your hand over the spray tip.</li> <li>Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>Follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing equipment.</li> <li>Tighten all fluid connections before operating the equipment.</li> <li>Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>   |

# 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. Unplug power cord on electrical units.
3. Disengage the trigger lock.
4. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.
5. Engage the trigger lock.
6. Turn prime valve down to the DRAIN position. Leave prime valve down until ready to spray again.
7. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above:
  - a. VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually.
  - b. Loosen the nut or the coupling completely.
  - c. Clear the obstruction into the hose or tip.

## Pump Repair Kits

| Pump   | Repair Kit |
|--------|------------|
| 16X414 | 17H838     |
| 16X419 | 17H839     |
| 17H835 | 17H852     |
| 17H832 | 17H849     |
| 17H833 | 17H850     |
| 17H834 | 17H851     |
| 17H826 | 17H843     |
| 17H836 | 17H850     |
| 17H823 | 17H841     |
| 17H824 | 17H842     |
| 17H825 | 17H840     |
| 17H827 | 17H844     |
| 17H837 | 17H852     |
| 17H892 | 17H851     |

## Tools Needed

- Vise
- 12 in. adjustable, open-end wrench (2)
- Hammer (20 oz maximum)
- Small screwdriver
- Throat Seal Liquid
- Pick or long small screwdriver

## 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 sleeve and the outside of the piston rod, which must not be worn or scratched. Replace worn or damaged parts.

**NOTE:** Remove and clean sleeve when repacking pump.

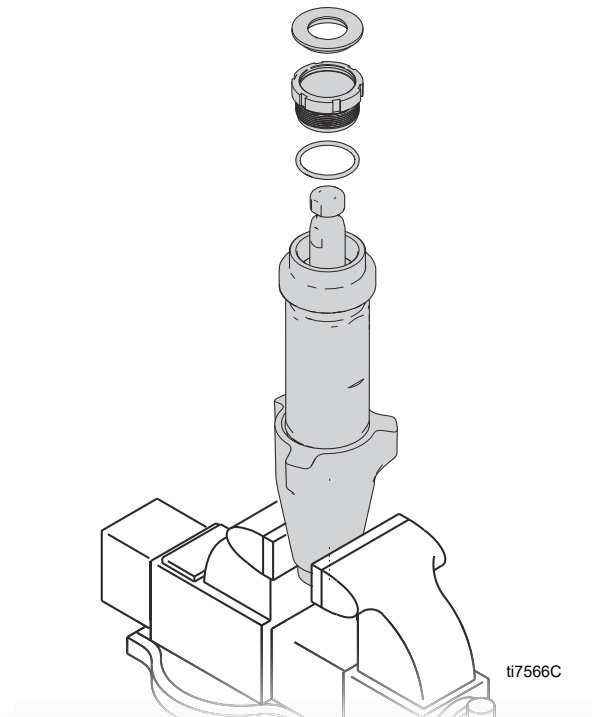
### NOTICE

To reduce the risk of damaging sealing surfaces, never use sharp or pointed tools to remove sleeve. If the sleeve cannot be removed easily, return the sleeve and cylinder to a Graco distributor for removal.

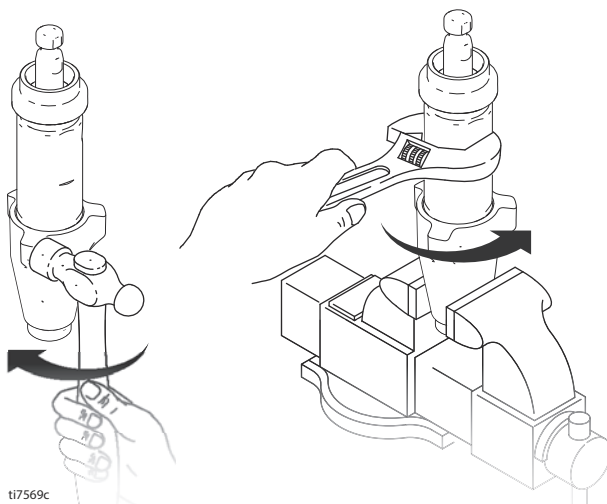
# Repair When Pump is Separated From Sprayer

## Disassembling the Pump

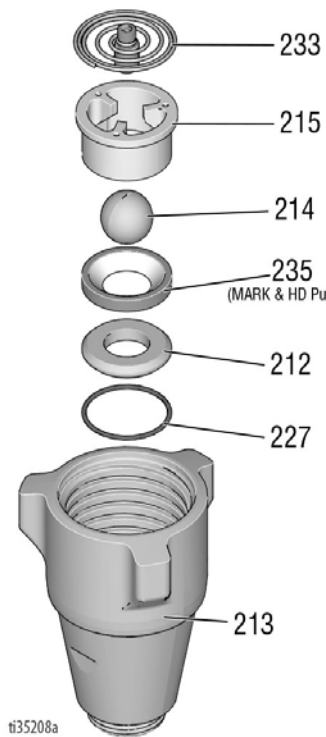
1. Remove packing nut (202) and o-ring (228).



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.

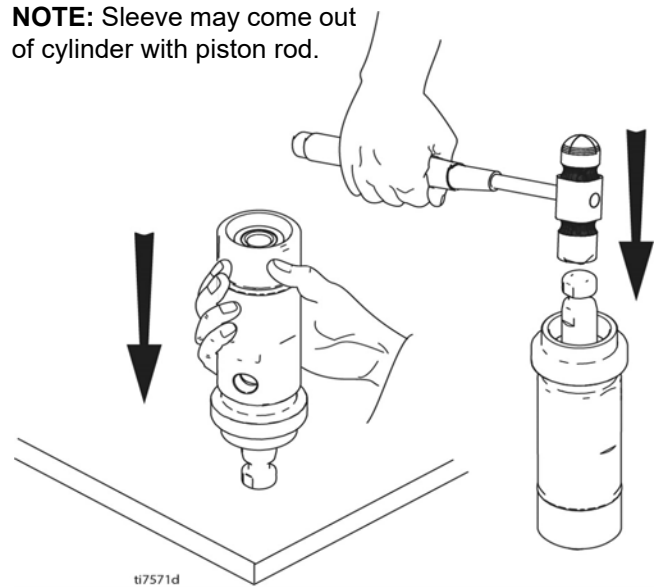


**NOTE:** Spring (233) only used on 16X426, 17H835, 17H834, 17H825, 17H827, 17H837, and 17H892

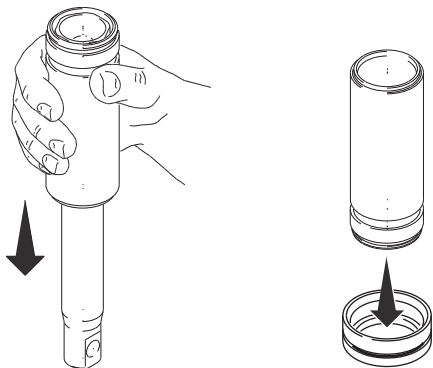
**NOTE:** Mark and HD pumps only.

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

**NOTE:** Sleeve may come out of cylinder with piston rod.



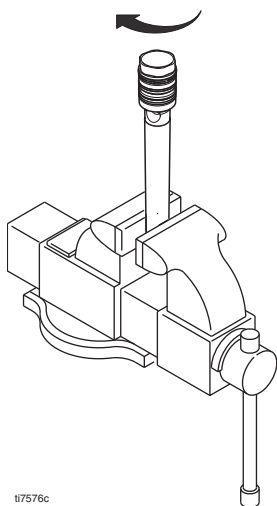
5. Remove piston rod from sleeve, or remove sleeve from cylinder. **Mark IV and Mark VII models:** Remove sleeve spacer (232) from sleeve.



#### NOTICE

To reduce the risk of damaging sealing surfaces, never use sharp or pointed tools to remove sleeve. If the sleeve cannot be removed easily, return the sleeve and cylinder to a Graco distributor for removal.

6. 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 thread sealant to the threads.



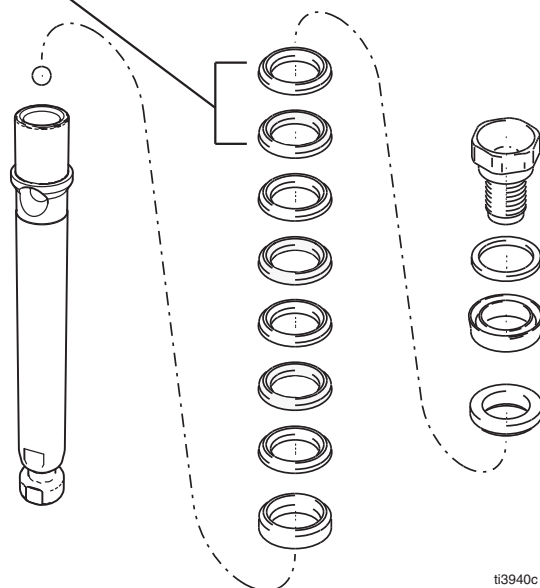
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#### NOTICE

To avoid damage to pump and sprayer, do not clean or wipe the piston threads. Cleaning the piston threads could destroy the special sealing patch and cause the piston to come loose during operation. Use thread sealant if unsure about the effectiveness of the thread patch.

7. Remove packings and glands from piston rod.

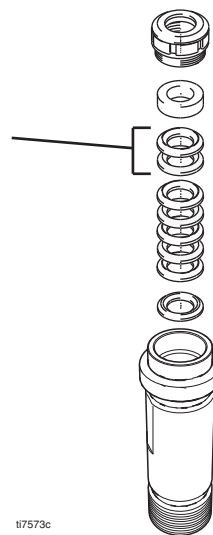
Not used on 16X414, 17H823, 17H832



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

Not used on 16X414, 17H832, 17H823



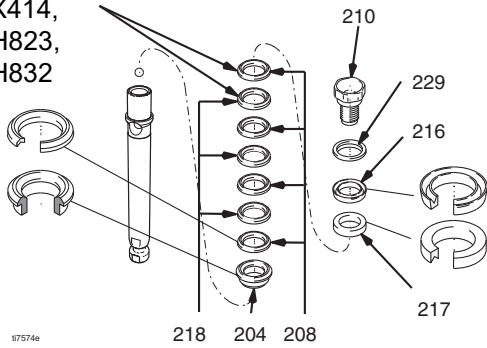
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## Assembling the Pump

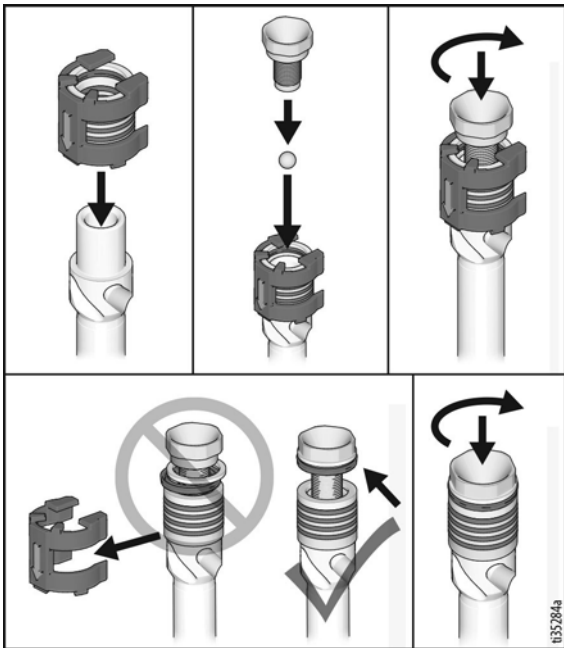
1. A) For all non-QuikPak Repair Kits. Soak all leather packings in SAE 30W oil for 1 hour minimum prior to assembly. Stack male gland (204) on piston rod. Alternately stack UHMWPE (208) and leather (218) packings (note orientation) on piston rod. Install female gland (217). Install piston wiper

(216) (note orientation) and backup washer (229) on piston valve, threads are good for four repackings. Use thread sealant on piston valve threads after four repackings.

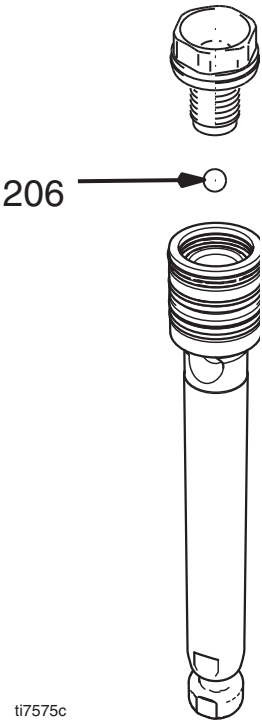
Not used on 16X414, 17H823, 17H832



B) For all QuikPak™ Piston Repair Kits (provided pre-soaked in oil)

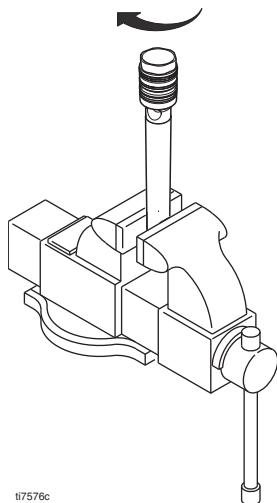


2. Install ball (206) in piston rod. If thread sealant is applied to piston valve threads, make sure that none gets on ball.



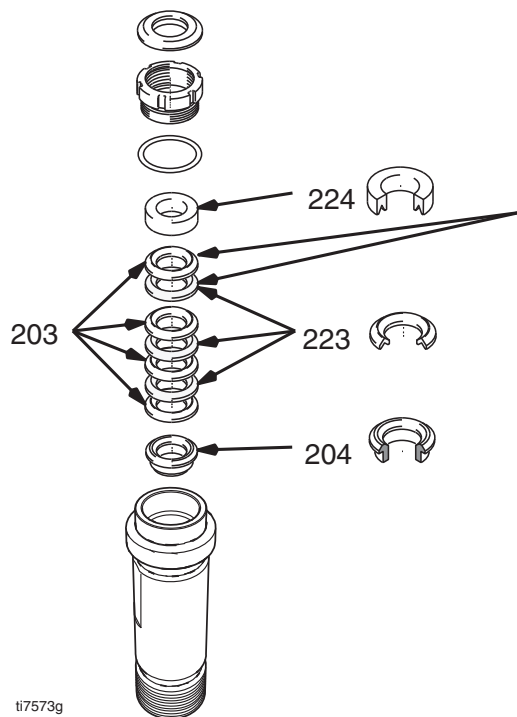
3. Tighten piston valve to piston rod as specified:

| Models   | Torque                            |
|--|-----------------------------------|
| 16X414, 17H832, 17H823                                       | 27 ± 3 ft-lb.<br>(36.1 ± 4.1 N•m) |
| 16X419, 17H826, 17H824,<br>17H833, 17H892, 17H834,<br>17H836 | 55 ± 3 ft-lb.<br>(74.6 ± 4.1 N•m) |
| 16X426, 17H827, 17H837,<br>17H825, 17H835                    | 100 ± 5 ft-lb.<br>(136 ± 7 N•m)   |



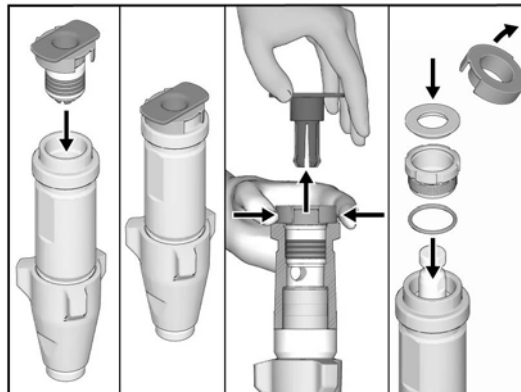
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4. A) For all non-QuikPak Repair Kits. Soak all leather packings in SAE 30W oil for one hour minimum prior to assembly. Place male gland (204) in cylinder. Alternately stack UHMWPE (203) and leather packings (223) (note orientation). Place female gland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

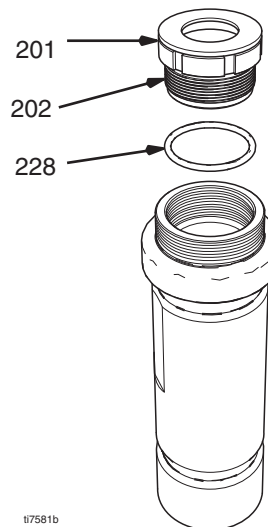


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- B) For all QuikPak Piston Repair Kits (provided pre-soaked in oil).

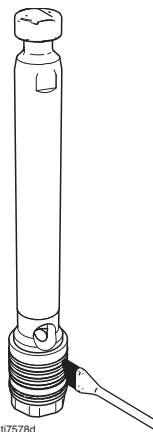


5. Install seal (201) into packing nut (202). Install o-ring (228) onto packing nut. Loosely install packing nut into cylinder.



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6. Grease piston packings.



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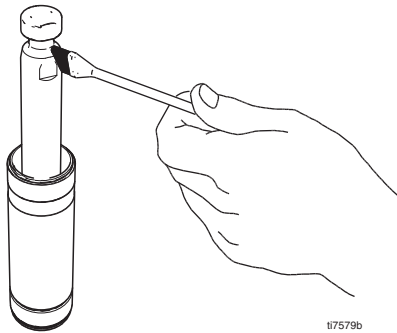
NOTE: Do not slide piston assembly into top of sleeve as this may damage piston packing.



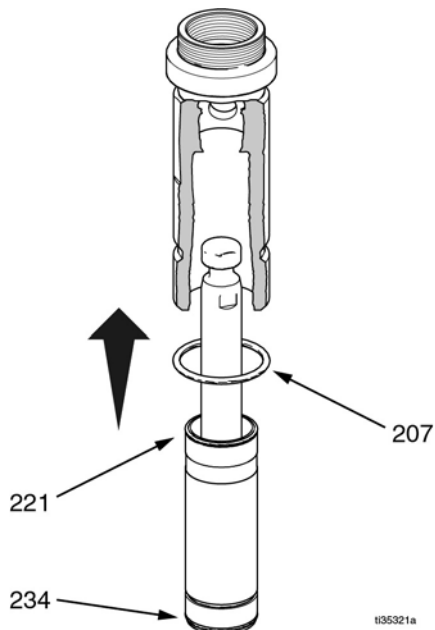
7. Slide piston assembly (with force) into bottom of sleeve.



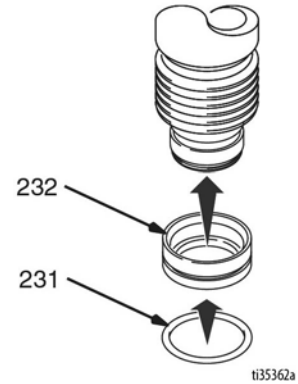
8. Grease top inch or two of piston rod that will go through the cylinder throat packings.



9. Grease o-rings (221 and 234) and place on sleeve. Slide sleeve/piston rod assembly into bottom of cylinder. Replace o-ring (207) if desired.

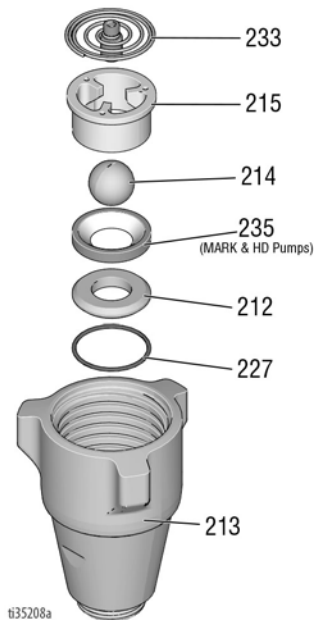


10. **Mark IV, Mark VII models:** Install o-ring (231) on sleeve spacer (232) and install sleeve spacer on sleeve.



11. 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.

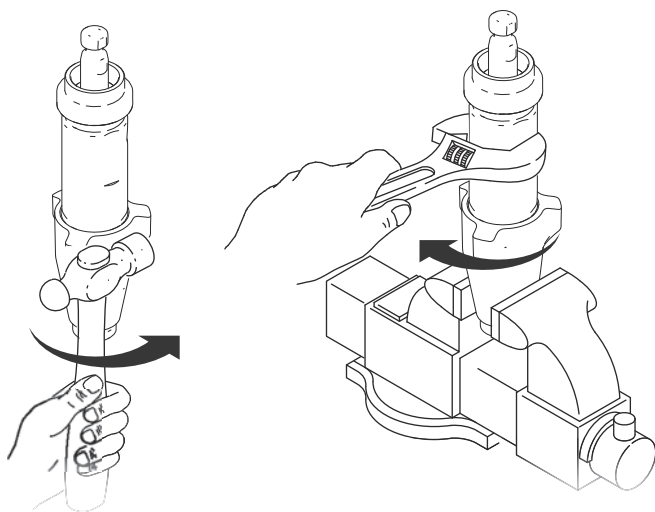
**NOTE:** Spring (233) only used on 16X426, 17H835, 17H834, 17H827, 17H837, 17H892



**NOTE:** Mark and HD pumps only.

12. Install intake valve on cylinder. If a wrench is used torque as follows:

| Models   | Torque                            |
|--|-----------------------------------|
| 16X414, 17H823, 17H832                                 | 70 ± 5 ft-lb (95 ± 7 N•m)         |
| 16X419, 17H826, 17H833, 17H836, 17H824                 | 80 ± 5 ft-lb (108.5 ± 6.8 N•m)    |
| 16X426, 17H834, 17H825, 17H835, 17H827, 17H837, 17H892 | 200 ± 15 ft-lb (271.2 ± 20.3 N•m) |

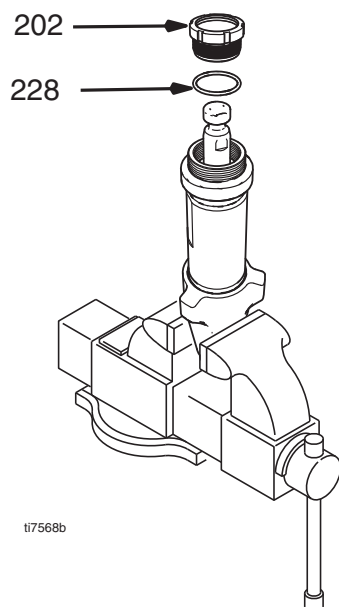


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13. Torque packing nut (202) as follows:

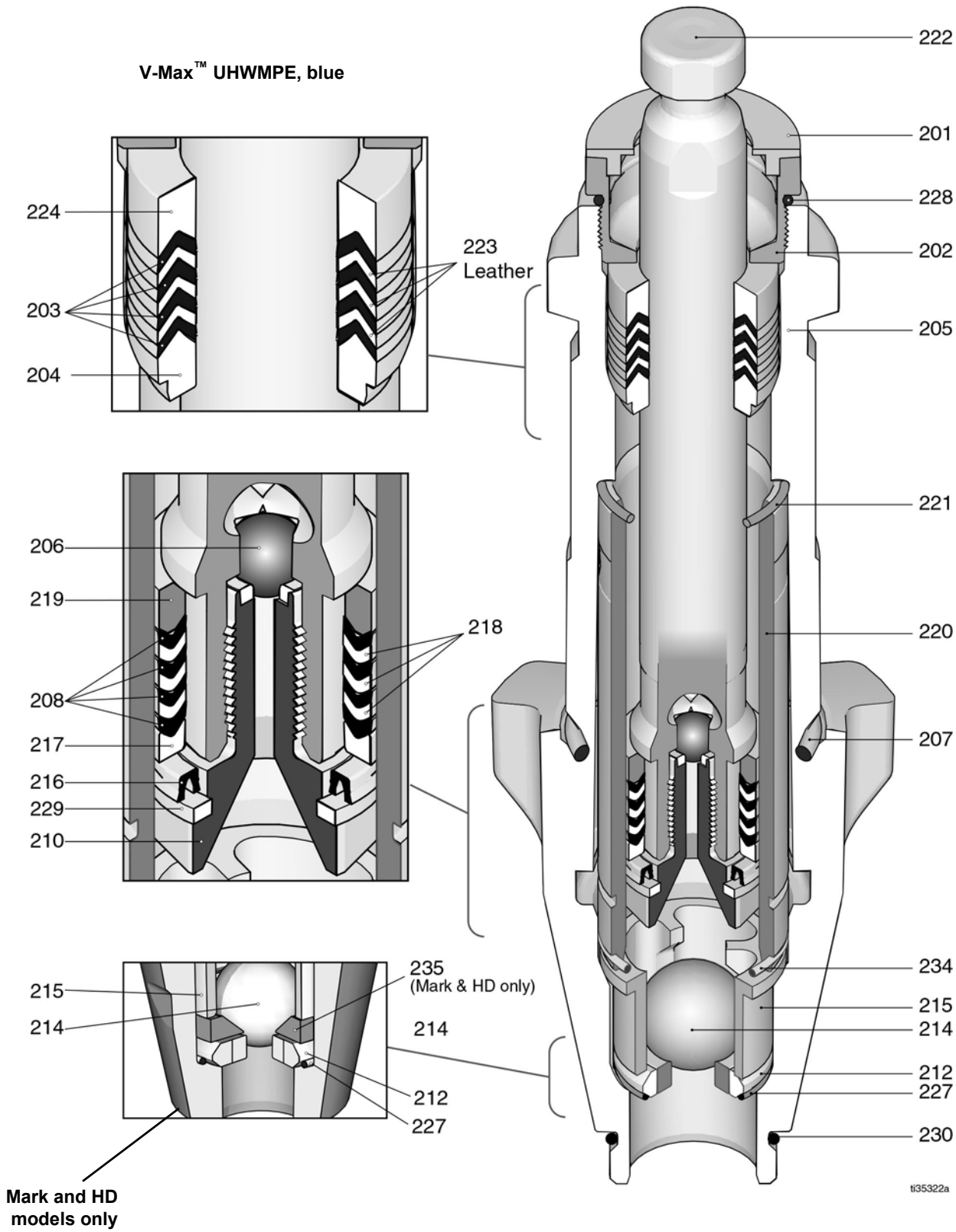
| Models   | Torque                             |
|--|------------------------------------|
| 16X414, 17H832, 17H823   | 100 ± 10 in-lb<br>(11.3 ± 1.1 N•m) |
| 16X426, 16X419, 17H826, 17H833,<br>17H834, 17H835, 17H836, 17H824,<br>17H825, 17H827, 17H892, 17H837 | 140 ± 10 in-lb<br>(15.8 ± 1.1 N•m) |

14. Remove o-ring (228) 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.



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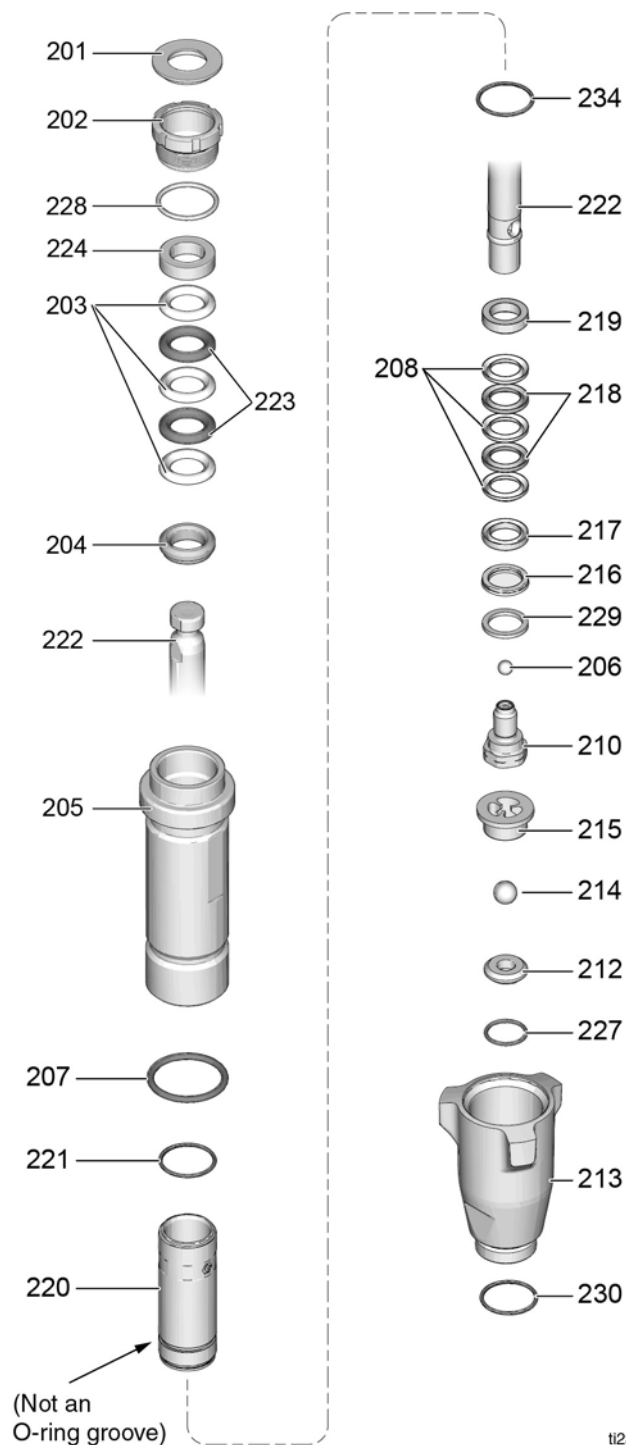
# Cross-Section Reference



# Parts - Pump 16X414

| Ref. | Part   | Description   | Qty. |
|------|--------|---|------|
| 201* | 179810 | SEAL, throat  | 1    |
| 202  | 193046 | NUT, packing  | 1    |
| 203* | 192692 | V-PACKING, throat, V-Max, UHMWPE, blue              | 3    |
| 204* | 15C987 | GLAND, male, throat,                                | 1    |
| 205  | 16X450 | CYLINDER, pump                                      | 1    |
| 206* | 105444 | BALL check (Stainless steel)                        | 1    |
| 207* | 156593 | PACKING, o-ring                                     | 1    |
| 208* | 192693 | V-PACKING, piston, V-MAX, UHMWPE, blue              | 3    |
| 210  | 287877 | VALVE, piston                                       | 1    |
| 212  | 239922 | KIT, seat, carbide<br><i>includes 214, 215, 227</i> | 1    |
| 213  | 15C785 | VALVE, intake (foot)                                | 1    |
| 214* | 105445 | BALL, check, inlet (Stainless steel)                | 1    |
| 215  | 192624 | GUIDE, ball   | 1    |
| 216* | 118503 | WIPER, piston                                       | 1    |
| 217* | 178969 | GLAND, female, piston                               | 1    |
| 218* | 178939 | V-PACKING, leather, piston                          | 2    |
| 219* | 196880 | GLAND, male, piston                                 | 1    |
| 220  | 248209 | SLEEVE, cylinder                                    | 1    |
| 221* | 108526 | O-RING, ptfe  | 1    |
| 222  | 16X434 | ROD, piston   | 1    |
| 223* | 178940 | V-PACKING, leather, throat                          | 2    |
| 224* | 15C988 | GLAND, female, throat                               | 1    |
| 227* | 107079 | O-RING, ptfe  | 1    |
| 228* | 158776 | O-RING  | 1    |
| 229* | 15C997 | WASHER, backup                                      | 1    |
| 230* | 118494 | O-RING, fluoroelastomer                             | 1    |
| 234* | 17V093 | O-RING, FX90  | 1    |

\* These parts are also included in Repair Kit 17H838, which may be purchased separately.

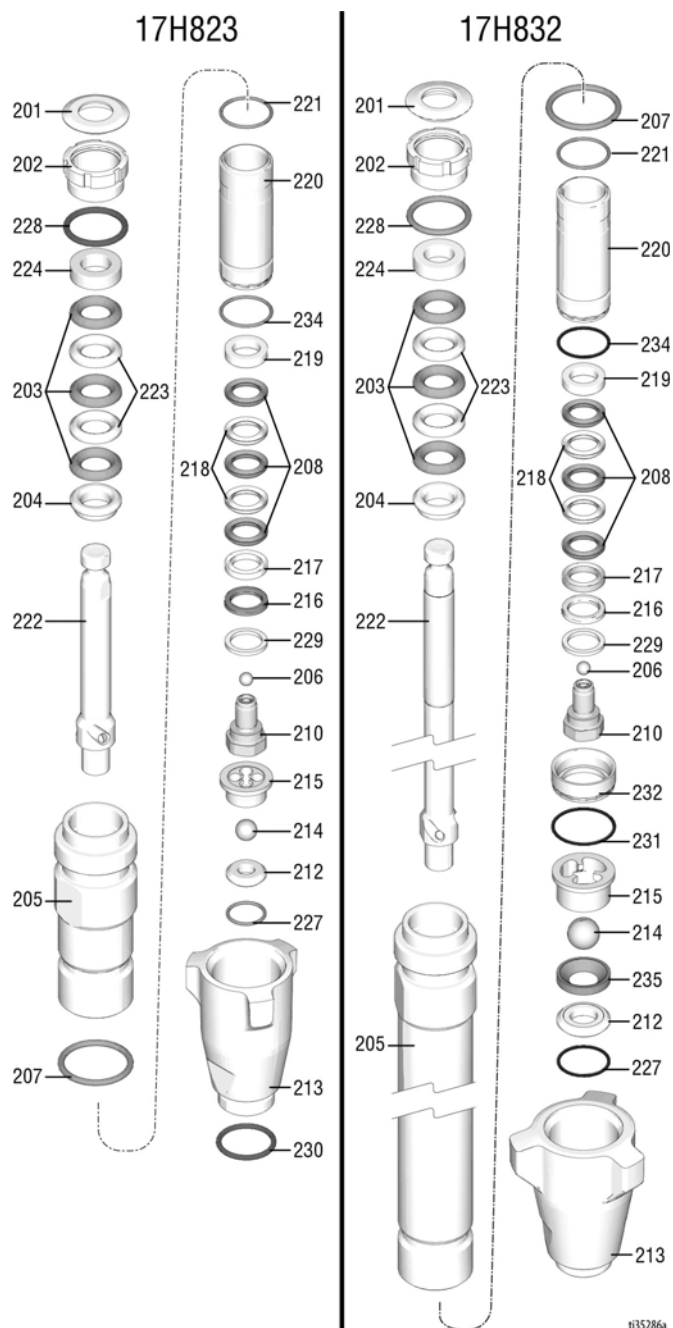


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# Parts - Pump 17H823, 17H832

Parts - Pump 17H823, 17H832

| Ref. | Part    | Description                                      | Qty |
|------|---------|--|-----|
| 201* | 179810  | SEAL, throat                                     | 1   |
| 202  | 193046  | NUT, packing                                     | 1   |
| 203* | 192692  | V-PACKING, throat, V-Max, UHMWPE, blue           | 3   |
| 204* | 15C987  | GLAND, male, throat                              | 1   |
| 205  | 17H865  | Model 17H823                                     | 1   |
|      | 17H870  | Model 17H832                                     |     |
| 206  |         | BALL, check                                      | 1   |
|      | 105444* | Model 17H823 (Stainless steel)                   |     |
|      | 17R145† | Model 17H832 (Ceramic)                           |     |
| 207* | 156593  | PACKING, o-ring                                  | 1   |
| 208* | 18A049  | V-PACKING, piston, V-MAX, UHMWPE, blue           | 3   |
| 210  | 287877  | VALVE, piston                                    | 1   |
| 212  |         | KIT, seat, carbide                               | 1   |
|      | 239922  | Model 17H823 includes 214, 215, 227              |     |
|      | 244571  | Model 17H832 includes 214, 227                   |     |
| 213  |         | VALVE, intake (foot)                             | 1   |
|      | 15C785  | Model 17H823                                     |     |
|      | 287878  | Model 17H832                                     |     |
| 214  |         | BALL, check, inlet                               | 1   |
|      | 105445* | Model 17H823 (Stainless steel)                   |     |
|      | 17Y533† | Model 17H832 (Ceramic)                           |     |
| 215  |         | GUIDE, ball                                      | 1   |
|      | 192624  | Model 17H823                                     |     |
|      | 17Y280  | Model 17H832                                     |     |
| 216* | 118503  | WIPER, piston                                    | 1   |
| 217* | 178969  | GLAND, female, piston                            | 1   |
| 218* | 18A011  | V-PACKING, brown, piston                         | 2   |
| 219* | 196880  | GLAND, male, piston                              | 1   |
| 220  | 17H864  | SLEEVE, cylinder                                 | 1   |
| 221* | 108526  | O-RING, ptfe                                     | 1   |
| 222  |         | ROD, piston                                      | 1   |
|      | 17H876  | Model 17H823                                     |     |
|      | 17H881  | Model 17H832                                     |     |
| 223* | 178940  | V-PACKING, leather, throat                       | 2   |
| 224* | 15C988  | GLAND, female, throat                            | 1   |
| 227  |         | O-RING, ptfe                                     | 1   |
|      | 107079* | Model 17H823                                     |     |
|      | 108526† | Model 17H832                                     |     |
| 228* | 158776  | O-RING   | 1   |
| 229* | 15C997  | WASHER, backup                                   | 1   |
| 230* | 118494  | O-RING, fluoroelastomer (Model 17H823)           | 1   |
| 231† | 17E792  | O-RING, FX90 (Model 17H832)                      | 1   |
| 232  | 15G494  | SPACER, sleeve (Model 17H832)                    | 1   |
| 234* | 17V093  | O-RING, FX90                                     | 1   |
| 235  | 17Y287  | SEAL, ball guide, Mark IV, Mark V (Model 17H832) | 1   |



\* These parts are also included in Repair Kit 17H841, which may be purchased separately.

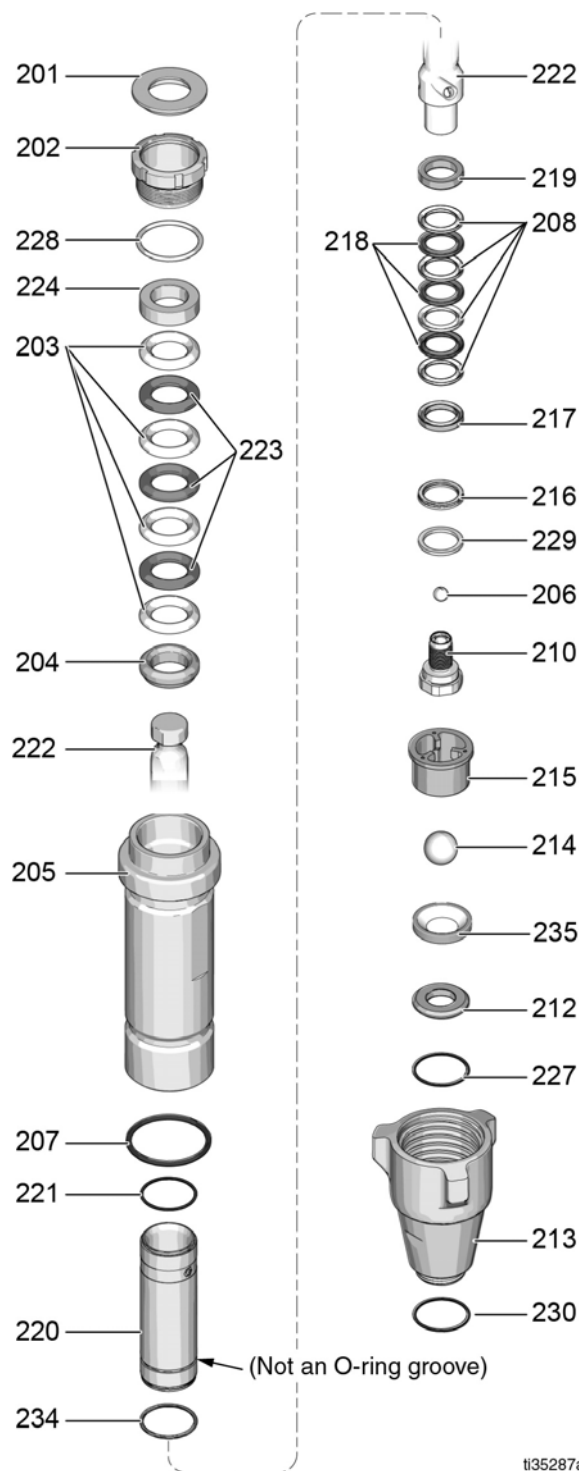
† These parts are also included in Repair Kit 17H849, which may be purchased separately.

## Parts - Pump 17H826, 17H836

| Ref.  | Part    | Description                            | Qty. |
|-------|---------|--|------|
| 201*† | 183171  | SEAL, throat                           | 1    |
| 202   | 193032  | NUT, packing                           | 1    |
| 203*† | 193124  | V-PACKING, throat, V-Max, UHMWPE, blue | 4    |
| 204*† | 15C989  | GLAND, male, throat                    | 1    |
| 205   |         | CYLINDER, pump                         | 1    |
|       | 17H868  | Model 17H826                           |      |
|       | 17H874  | Model 17H836                           |      |
| 206*† | 124249  | BALL, check (Ceramic)                  | 1    |
| 207*† | 156633  | PACKING, o-ring                        | 1    |
| 208*† | 128779  | V-PACKING, piston, UHMWPE, blue        | 4    |
| 210   | 14U993  | VALVE, piston                          | 1    |
| 212   |         | KIT, seat, carbide                     | 1    |
|       | 17H888  | Model 17H826 <i>includes 214, 227</i>  |      |
|       | 244571  | Model 17H836 <i>includes 214, 227</i>  |      |
| 213   |         | VALVE, intake (foot)                   | 1    |
|       | 15E654  | Model 17H826                           |      |
|       | 196753  | Model 17H836                           |      |
| 214   |         | BALL, check, inlet                     | 1    |
|       | 17R046* | Model 17H826 (Ceramic)                 |      |
|       | 17Y533† | Model 17H836 (Ceramic)                 |      |
| 215   |         | GUIDE, ball                            | 1    |
|       | 193027  | Model 17H826                           |      |
|       | 17Y280  | Model 17H836                           |      |
| 216*† | 118504  | WIPER, piston                          | 1    |
| 217*† | 183185  | GLAND, female, piston                  | 1    |
| 218*† | 128296  | V-PACKING, brown poly seal             | 3    |
| 219*† | 183178  | GLAND, male, piston                    | 1    |
| 220   | 257031  | SLEEVE, cylinder                       | 1    |
| 221*† | 107098  | O-RING, ptfе                           | 1    |
| 222   |         | ROD, piston                            | 1    |
|       | 17H879  | Model 17H826                           |      |
|       | 17H884  | Model 17H836                           |      |
| 223*† | 183175  | V-PACKING, leather, throat             | 3    |
| 224*† | 15C990  | GLAND, female, throat                  | 1    |
| 227*† | 108526  | O-RING, ptfе                           | 1    |
| 228*† | C20987  | O-RING                                 | 1    |
| 229*† | 15C998  | WASHER, backup                         | 1    |
| 230*  | 118494  | O-RING, fluoroelastomer (Model 17H826) | 1    |
| 234*† | 17E792  | O-RING, FX90                           | 1    |
| 235   | 17Y287  | SEAL, ball guide (Model 17H836)        | 1    |

\* These parts are also included in Repair Kit 17H843 (stainless steel balls), which may be purchased separately.

† These parts are also included in Repair Kit 17H850 (ceramic balls), which may be purchased separately.

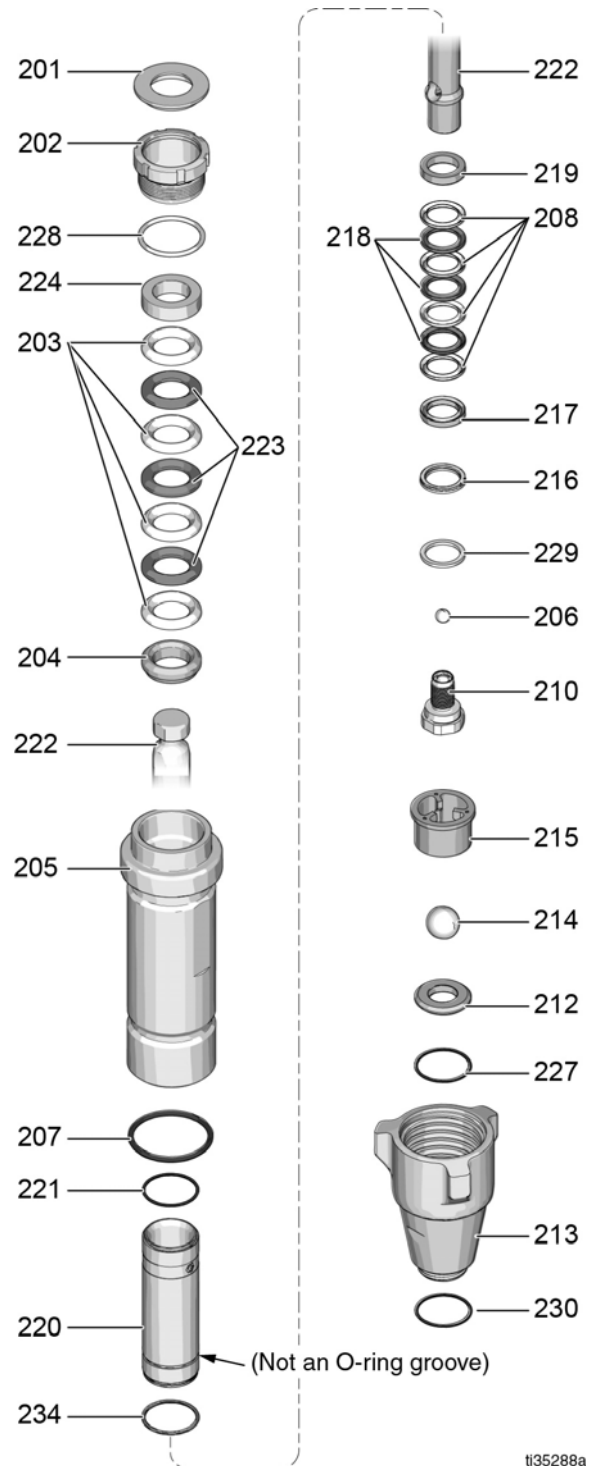


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# Parts - Pump 16X419

| Ref. | Part   | Description                                 | Qty. |
|------|--------|---|------|
| 201* | 183171 | SEAL, throat                                | 1    |
| 202  | 193032 | NUT, packing                                | 1    |
| 203* | 193124 | V-PACKING, throat, V-Max, UHMWPE, blue      | 4    |
| 204* | 15C989 | GLAND, male, throat                         | 1    |
| 205  | 16X451 | CYLINDER, pump                              | 1    |
| 206* | 101947 | BALL, check (Stainless Steel)               | 1    |
| 207* | 156633 | PACKING, o-ring                             | 1    |
| 208* | 193125 | V-PACKING, piston, V-MAX, UHMWPE, blue      | 4    |
| 210  | 24U993 | VALVE, piston                               | 1    |
| 212  | 244199 | KIT, seat, carbide                          | 1    |
| 213  | 15E654 | VALVE, intake (foot)                        | 1    |
| 214* | 102972 | BALL, check, inlet (Stainless Steel)        | 1    |
| 215  | 193027 | GUIDE, ball                                 | 1    |
| 216* | 118504 | WIPER, piston                               | 1    |
| 217* | 183185 | GLAND, female, piston                       | 1    |
| 218* | 15E329 | V-PACKING, leather, piston                  | 3    |
| 219* | 183178 | GLAND, male, piston                         | 1    |
| 220  | 248210 | SLEEVE, cylinder                            | 1    |
| 221* | 107098 | O-RING, ptfe                                | 1    |
| 222  | 16X435 | ROD, piston                                 | 1    |
| 223* | 183175 | V-PACKING, leather, throat                  | 3    |
| 224* | 15C990 | GLAND, female, throat                       | 1    |
| 227* | 108526 | O-RING, ptfe                                | 1    |
| 228* | C20987 | O-RING                                      | 1    |
| 229* | 15C998 | WASHER, backup                              | 1    |
| 230* | 118494 | O-RING, fluoroelastomer (Model 16X419 only) | 1    |
| 234* | 17E792 | O-RING, FX90                                | 1    |

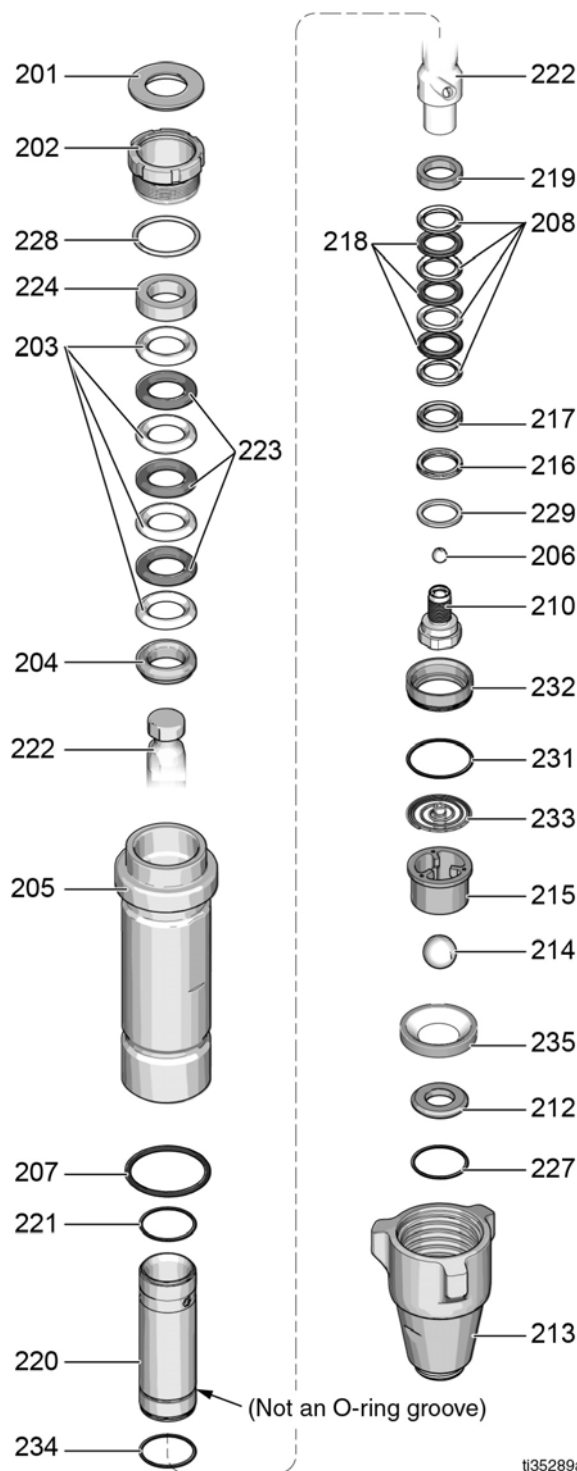
\* These parts are also included in Repair Kit 17H839 (stainless steel balls), which may be purchased separately.



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## Parts - Pump 17H833, 17H834, 17H892

| Ref. | Part    | Description                                       | Qty. |
|------|---------|---|------|
| 201† | 183171  | SEAL, throat                                      | 1    |
| 202  | 193032  | NUT, packing                                      | 1    |
| 203† | 193124  | V-PACKING, throat, V-Max, UHMWPE, blue            | 4    |
| 204† | 15C989  | GLAND, male, throat                               | 1    |
| 205  |         | CYLINDER, pump                                    | 1    |
|      | 17H871  | Model 17H833                                      |      |
|      | 17H872  | Model 17H834                                      |      |
|      | 17H894  | Model 17H892                                      |      |
| 206† | 124249  | BALL, check (Ceramic)                             | 1    |
| 207  |         | PACKING, o-ring                                   | 1    |
|      | 156633† | Model 17H833                                      |      |
|      | 160325* | Model 17H834, 17H892                              |      |
| 208† | 128779  | V-PACKING, piston, V-MAX, UHMWPE, blue            | 4    |
| 210  | 24U993  | VALVE, piston                                     | 1    |
| 212  |         | KIT, seat, carbide                                | 1    |
|      | 244571  | Model 17H833 includes 214, 227                    |      |
|      | 24N013  | Model 17H834, 17H892 includes 214, 227, 233       |      |
| 213  |         | VALVE, intake (foot)                              | 1    |
|      | 196753  | Model 17H833                                      |      |
|      | 15A303  | Model 17H834, 17H892                              |      |
| 214  |         | BALL, check, inlet                                | 1    |
|      | 17Y533† | Model 17H833 (Ceramic)                            |      |
|      | 17R046* | Model 17H834, 17H892 (Ceramic)                    |      |
| 215  |         | GUIDE, ball                                       | 1    |
|      | 17Y280  | Model 17H833                                      |      |
|      | 17Y281  | Model 17H834, 17H892                              |      |
| 216† | 118504  | WIPER, piston                                     | 1    |
| 217† | 183185  | GLAND, female, piston                             | 1    |
| 218† | 128296  | V-PACKING, brown, piston                          | 3    |
| 219† | 183178  | GLAND, male, piston                               | 1    |
| 220  | 257031  | SLEEVE, cylinder                                  | 1    |
| 221† | 107098  | O-RING, ptfe                                      | 1    |
| 222  |         | ROD, piston                                       | 1    |
|      | 17H882  | Model 17Y833, 17Y834                              |      |
|      | 17H884  | Model 17H892                                      |      |
| 223† | 183175  | V-PACKING, leather, throat                        | 3    |
| 224† | 15C990  | GLAND, female, throat                             | 1    |
| 227  |         | O-RING, ptfe                                      | 1    |
|      | 108526† | Model 17Y833                                      |      |
|      | 107098* | Model 17H834, 17H892                              |      |
| 228† | C20987  | O-RING  | 1    |
| 229† | 15C998  | WASHER, backup                                    | 1    |
| 231* | 17E793  | O-RING (Models 17H834, 17H892 only)               | 1    |
| 232  | 16M291  | SPACER, sleeve (Models 17H834, 17H892 only)       | 1    |
| 233  | 24E027  | SPRING, intake, ball (Models 17H834, 17H892 only) | 1    |
| 234† | 17E792  | O-RING, FX90                                      | 1    |
| 235  |         | SEAL, ball guide                                  | 1    |
|      | 17Y287  | Model 17H833                                      |      |
|      | 17Y288  | Models 17H834, 17H892                             |      |



† These parts are also included in Repair Kit 17H850 (ceramic balls), which may be purchased separately.

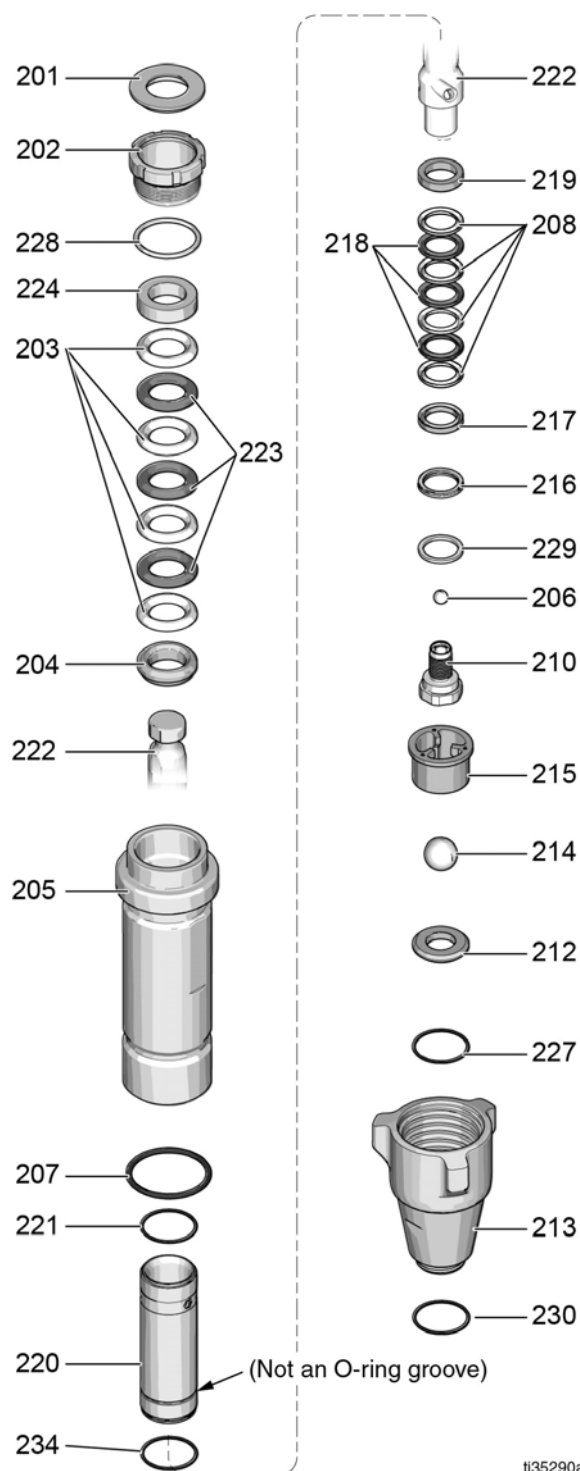
\* These parts are also included in Repair Kit 17H851 (ceramic balls), which may be purchased separately.



# Parts - Pump 17H824

| Ref. | Part   | Description                            | Qty. |
|------|--------|--|------|
| 201* | 183171 | SEAL, throat                           | 1    |
| 202  | 193032 | NUT, packing                           | 1    |
| 203* | 193124 | V-PACKING, throat, V-Max, UHMWPE, blue | 4    |
| 204* | 15C989 | GLAND, male, throat                    | 1    |
| 205  | 17H866 | CYLINDER, pump                         | 1    |
| 206* | 101947 | BALL, check (Stainless Steel)          | 1    |
| 207* | 156633 | PACKING, o-ring                        | 1    |
| 208* | 128779 | V-PACKING, piston, UHMWPE, blue        | 4    |
| 210  | 24U993 | VALVE, piston                          | 1    |
| 212  | 244199 | KIT, seat, carbide                     | 1    |
| 213  | 15E654 | VALVE, intake (foot)                   | 1    |
| 214* | 102972 | BALL, check, inlet (Stainless Steel)   | 1    |
| 215  | 193027 | GUIDE, ball                            | 1    |
| 216* | 118504 | WIPER, piston                          | 1    |
| 217* | 183185 | GLAND, female, piston                  | 1    |
| 218* | 128296 | V-PACKING, brown poly seal             | 3    |
| 219* | 183178 | GLAND, male, piston                    | 1    |
| 220  | 257031 | SLEEVE, cylinder                       | 1    |
| 221* | 107098 | O-RING, ptfe                           | 2    |
| 222  | 17H877 | ROD, piston                            | 1    |
| 223* | 183175 | V-PACKING, leather, throat             | 3    |
| 224* | 15C990 | GLAND, female, throat                  | 1    |
| 227* | 108526 | O-RING, ptfe                           | 1    |
| 228* | C20987 | O-RING                                 | 1    |
| 229* | 15C998 | WASHER, backup                         | 1    |
| 230* | 118494 | O-RING, fluoroelastomer                | 1    |
| 234* | 17E792 | O-RING, FX90                           | 1    |

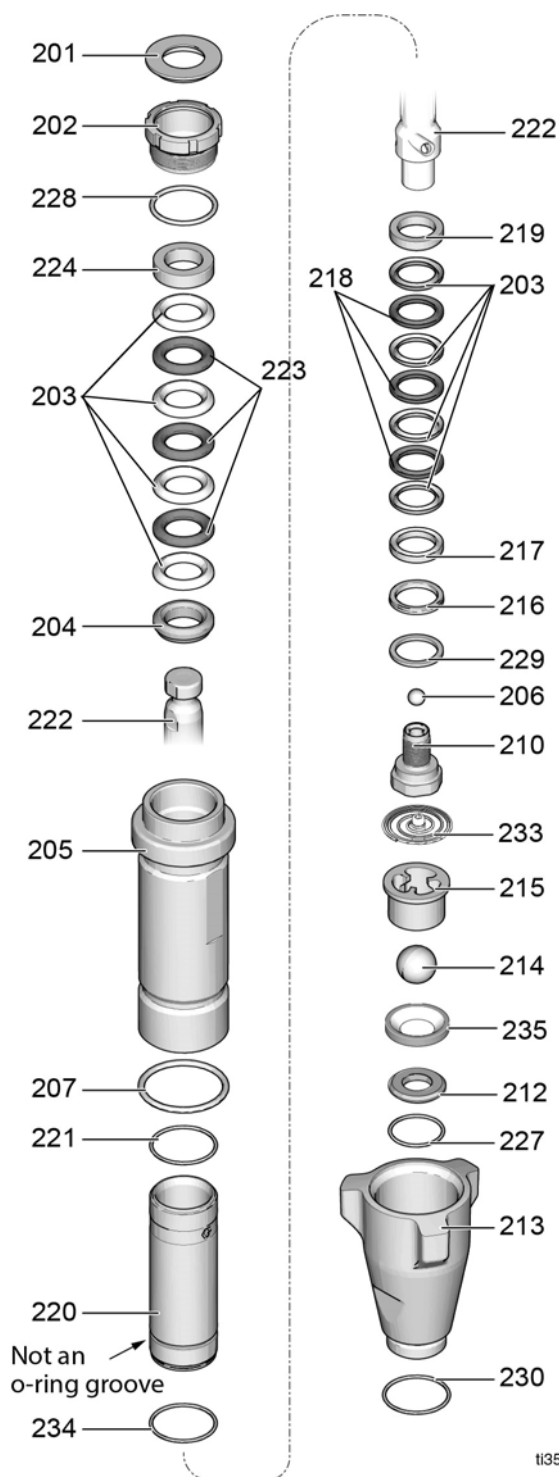
\* These parts are also included in Repair Kit 17H842 (stainless steel balls), which may be purchased separately.



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# Parts - Pump 17H827, 17H835, 17H837

| Ref. | Part    | Description  | Qty. |
|------|---------|--|------|
| 201* | 112590  | SEAL, throat   | 1    |
| 202  | 16X768  | NUT, packing   | 1    |
| 203* | 193722  | V-PACKING, throat, V-Max, UHMWPE, blue                           | 8    |
| 204* | 15G658  | GLAND, male, throat  | 1    |
| 205  |         | CYLINDER, pump   | 1    |
|      | 17H869  | Model 17H827   |      |
|      | 17H873  | Model 17H835   |      |
|      | 17H875  | Model 17H837   |      |
| 206* | 17R047  | BALL, check (Ceramic)  | 1    |
| 207* | 160325  | PACKING, o-ring  | 1    |
| 210  | 249177  | VALVE, piston  | 1    |
| 212  |         | KIT, seat, carbide   | 1    |
|      | 17H889  | Model 17H827 includes 214, 227 (Ceramic check ball)              |      |
|      | 24N013  | Model 17H835, 17H837 includes 214, 227, 233 (ceramic check ball) |      |
| 213  |         | VALVE, intake (foot)   | 1    |
|      | 15E655  | Model 17H827   |      |
|      | 15A303  | Model 17H835, 17H837   |      |
| 214  |         | BALL, check, inlet   | 1    |
|      | 17Y504* | Model 17H827 (Ceramic)   |      |
|      | 17R046* | Model 17H835, 17H837 (Ceramic)                                   |      |
| 215  |         | GUIDE, ball  | 1    |
|      | 198505  | Model 17H827   |      |
|      | 17Y281  | Model 17H835, 17H837   |      |
| 216* | 119636  | WIPER, piston  | 1    |
| 217* | 189588  | GLAND, female, piston  | 1    |
| 218* | 15E639  | V-PACKING, leather, piston                                       | 3    |
| 219* | 189585  | GLAND, male, piston  | 1    |
| 220  | 249121  | SLEEVE, cylinder, MaxLife  | 1    |
| 221* | 108822  | O-RING, ptfe   | 1    |
| 222  |         | ROD, piston  | 1    |
|      | 17H880  | Model 17H827   |      |
|      | 17H883  | Model 17H835   |      |
|      | 17H885  | Model 17H837   |      |
| 223* | 112591  | V-PACKING, leather, throat                                       | 3    |
| 224* | 15G657  | GLAND, female, throat  | 1    |
| 227* | 107098  | O-RING, ptfe   | 1    |
| 228* | 156593  | O-RING   | 1    |
| 229* | 15J800  | WASHER, backup   | 1    |
| 230* | 118494  | O-RING, fluoroelastomer (Model 17H827 only)                      | 1    |
| 233  |         | SPRING, intake, ball   | 1    |
|      | 249770  | Model 17H827   |      |
|      | 24E027  | Model 17H835, 17H837   |      |
| 234* | 17E793  | O-RING, FX90   | 1    |
| 235  | 17Y288  | SEAL, ball guide (Model 17H835, 17H837)                          | 1    |



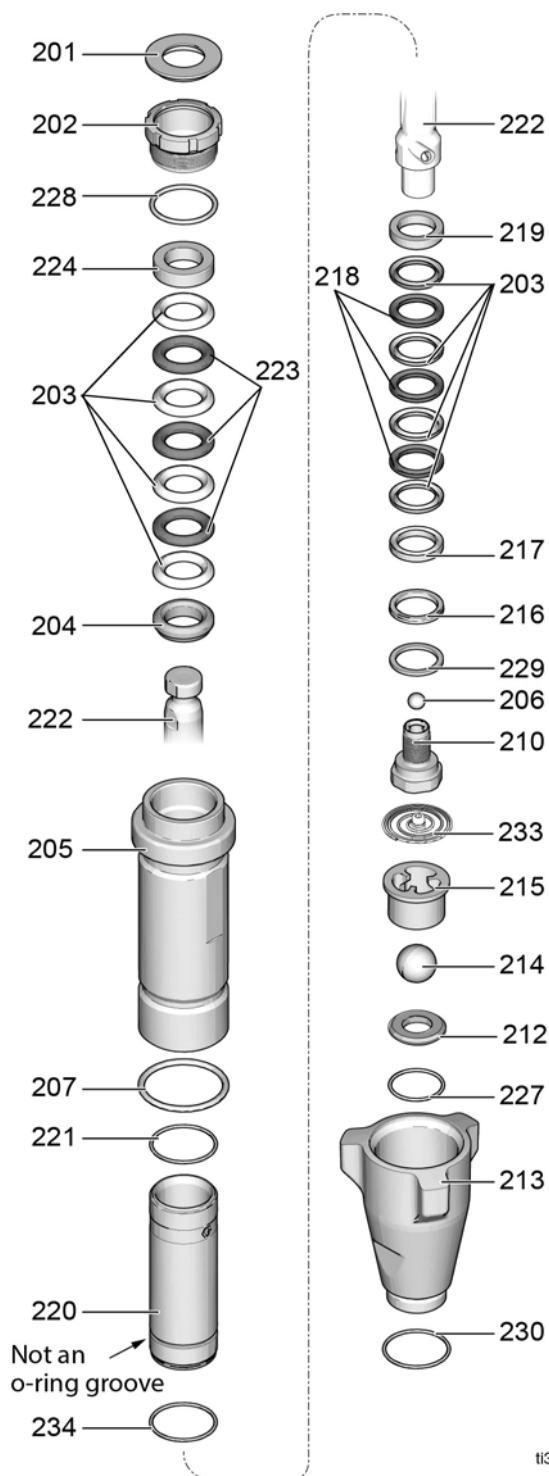
\* These parts are also included in Repair Kit 17H844 (ceramic balls), which may be purchased separately.

\* These parts are also included in Repair Kit 17H852 (ceramic balls), which may be purchased separately.

## Parts - Pump 17H825

| Ref. | Part   | Description  | Qty. |
|------|--------|--|------|
| 201* | 112590 | SEAL, throat   | 1    |
| 202  | 16X768 | NUT, packing   | 1    |
| 203* | 193722 | V-PACKING, throat, V-Max, UHMWPE, blue                                   | 8    |
| 204* | 15G658 | GLAND, male, throat  | 1    |
| 205  | 17H867 | CYLINDER, pump   | 1    |
| 206* | 107203 | BALL, check (Stainless Steel)  | 1    |
| 207* | 160325 | PACKING, o-ring  | 1    |
| 210  | 249177 | VALVE, piston  | 1    |
| 212  | 240918 | KIT, seat, carbide <i>includes 214, 227</i> (stainless steel check ball) | 1    |
| 213  | 15E655 | VALVE, intake (foot)   | 1    |
| 214* | 107167 | BALL, check, inlet (Stainless Steel)                                     | 1    |
| 215  | 198505 | GUIDE, ball  | 1    |
| 216* | 119636 | WIPER, piston  | 1    |
| 217* | 189588 | GLAND, female, piston  | 1    |
| 218* | 15E639 | V-PACKING, brown, piston   | 3    |
| 219* | 189585 | GLAND, male, piston  | 1    |
| 220  | 249121 | SLEEVE, cylinder, MaxLife  | 1    |
| 221* | 108822 | O-RING, ptfe   | 1    |
| 222  | 17H878 | ROD, piston  | 1    |
| 223* | 112591 | V-PACKING, leather, throat   | 3    |
| 224* | 15G657 | GLAND, female, throat  | 1    |
| 227* | 107098 | O-RING, ptfe   | 1    |
| 228* | 156593 | O-RING   | 1    |
| 229* | 15J800 | WASHER, backup   | 1    |
| 230* | 118494 | O-RING, fluoroelastomer  | 1    |
| 233  | 249770 | SPRING, intake, ball   | 1    |
| 234* | 17E793 | O-RING, FX90   | 1    |

\* These parts are also included in Repair Kit 17H840 (stainless steel balls), which may be purchased separately.



## Technical Data

|  | U.S.   | Metric            |
|--|--|-------------------|
| Maximum Working Pressure   | 3300 psi   | 227 bar, 22.7 MPa |
| Fluid Inlet Size   | 1-5/16-12 un(m)  | 1-5/16-12 un(m)   |
| Fluid Outlet Size  |  |                   |
| 16X414, 17H832, 16X419, 17H826,<br>17H833, 17H827, 17H834, 16X426,<br>17H836, 17H823, 17H824, 17H825 | 3/8 npt(f)   | 3/8 npt(f)        |
| 17H835, 17H837   | 1/2 npt(f)   | 1/2 npt(f)        |
| Wetted Parts   | stainless steel, PTFE, leather, nylon, nickel and zinc-plated carbon steel, tungsten carbide, chrome plating, fluoroelastomer, acetal, polyethylene, ceramic |                   |

### CALIFORNIA PROPOSITION 65



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Revision E, April 2019