

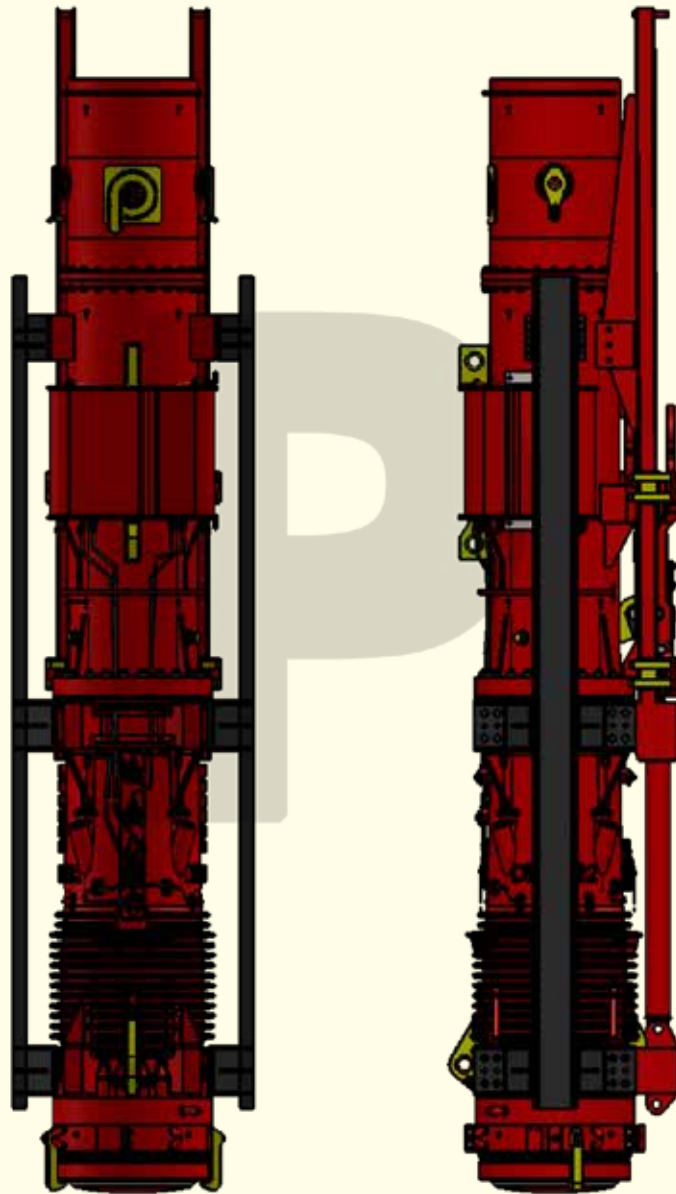


**PILECO INC.**

# Diesel Pile Hammer **D225-22**

*Parts Manual*

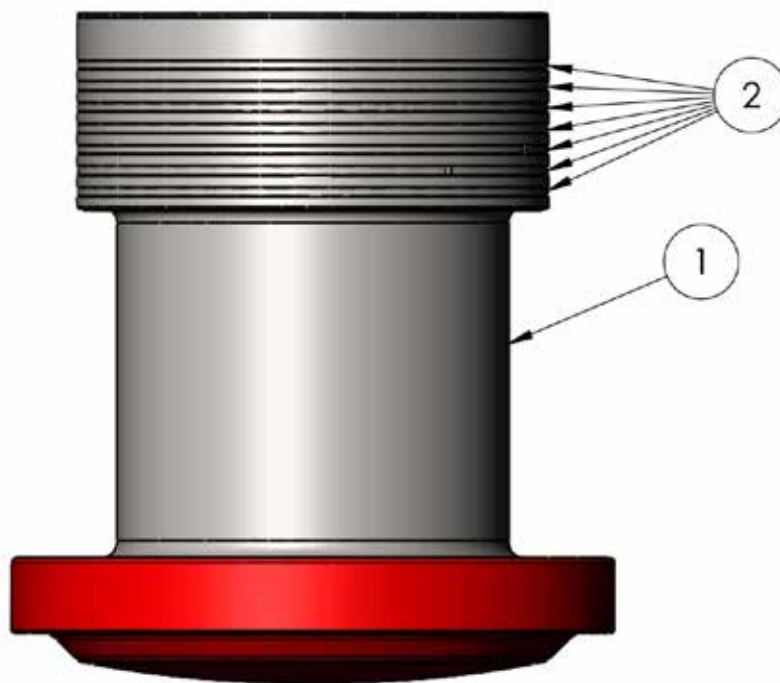
**Parts Manual**





**Contents Page**

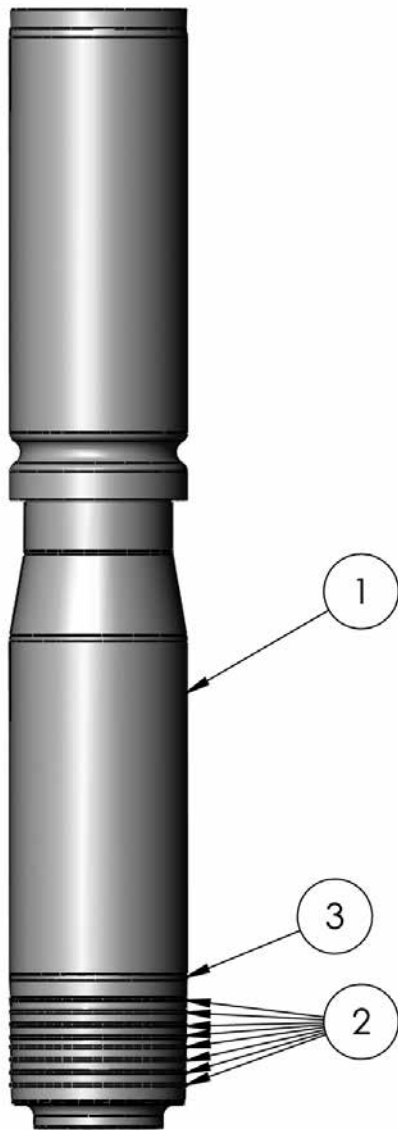
|  |                    |
|--|--------------------|
| <b>Impact Block</b>                          | <b>page #3</b>     |
| <b>Striking Weight Piston</b>                | <b>page #4</b>     |
| <b>Lower Cylinder Complete</b>               | <b>page #5</b>     |
| <br>   |                    |
| <b>Lube Pump</b>                             | <b>page #6-8</b>   |
| <b>Cylinder Complete</b>                     | <b>page #9</b>     |
| <b>Pressure Valve</b>                        | <b>page #10</b>    |
| <b>Piston Complete</b>                       | <b>page #11</b>    |
| <br>   |                    |
| <b>Manual Variable Delivery Fuel Pump</b>    | <b>page #12-18</b> |
| <b>Pump Element 39MM</b>                     | <b>page #19</b>    |
| <b>Stop Valve Complete</b>                   | <b>page #20</b>    |
| <b>Suction Valve Complete</b>                | <b>page #21</b>    |
| <b>Check Non-Return Valve</b>                | <b>page #22</b>    |
| <br>   |                    |
| <b>Hydraulic Variable Delivery Fuel Pump</b> | <b>page #23-25</b> |
| <b>Fuel Pump Control</b>                     | <b>page #26</b>    |
| <b>Hydraulic Hand Pump</b>                   | <b>page #27-28</b> |
| <b>Manifold Complete</b>                     | <b>page #29</b>    |
| <b>Hand Pump 1/4" Hose assembly</b>          | <b>page # 30</b>   |
| <br>   |                    |
| <b>Fuel Injection Device</b>                 | <b>page #31-32</b> |
| <b>Threaded Pipe Joint</b>                   | <b>page #33</b>    |
| <br>   |                    |
| <b>Upper Cylinder Complete</b>               | <b>page #34-35</b> |
| <b>Filter Assembly</b>                       | <b>page #36</b>    |
| <br>   |                    |
| <b>Counterbalance Valve Assembly</b>         | <b>page #37</b>    |
| <br>   |                    |
| <b>Hydraulic Starting Device—Trip</b>        | <b>page #38-39</b> |
| <b>Hydraulic Start Cylinder Ring</b>         | <b>page #40</b>    |
| <br>   |                    |
| <b>Tool Box</b>                              | <b>page #41-42</b> |

**Impact Block  
Complete**


Rotate Rings  
120° As  
Stacked

*\*each part number links to web site part*

| ITEM NO. | PART NUMBER | DESCRIPTION  | QTY. |
|----------|-------------|--------------|------|
| 1        | 230201      | IMPACT BLOCK | 1    |
| 2        | 230202      | PISTON RING  | 7    |

**Striking Weight (Piston)  
Complete**


\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION             | QTY. |
|----------|-------------|-------------------------|------|
| 1        | 230302      | STRIKING WEIGHT(PISTON) | 1    |
| 2        | 230202      | PISTON RING             | 8    |
| 3        | 230304      | CATCH PISTON RING       | 1    |

Rotate Rings  
120° As  
Stacked



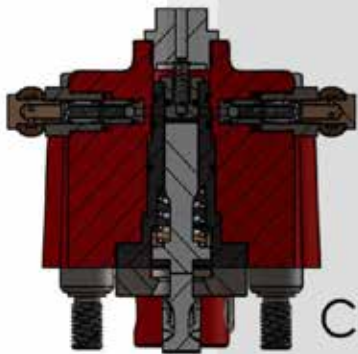
---

## **Lower Cylinder Complete**

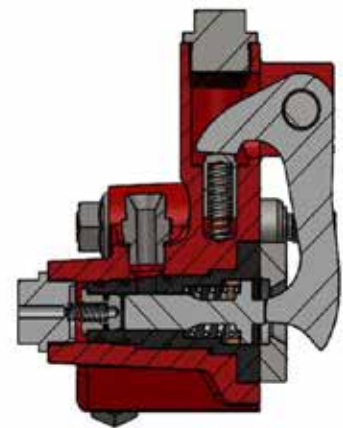
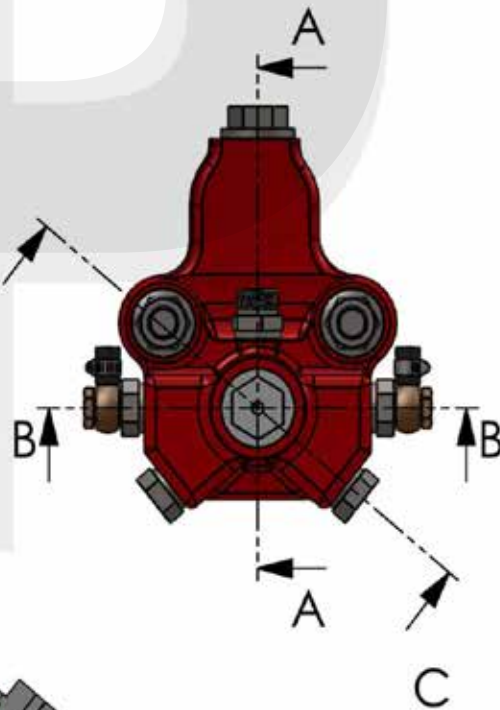
**LOWER CYLINDER COMING SOON**



# ***Lube Pump***

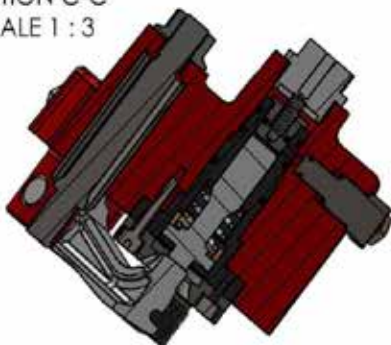


SECTION B-B  
SCALE 1 : 3

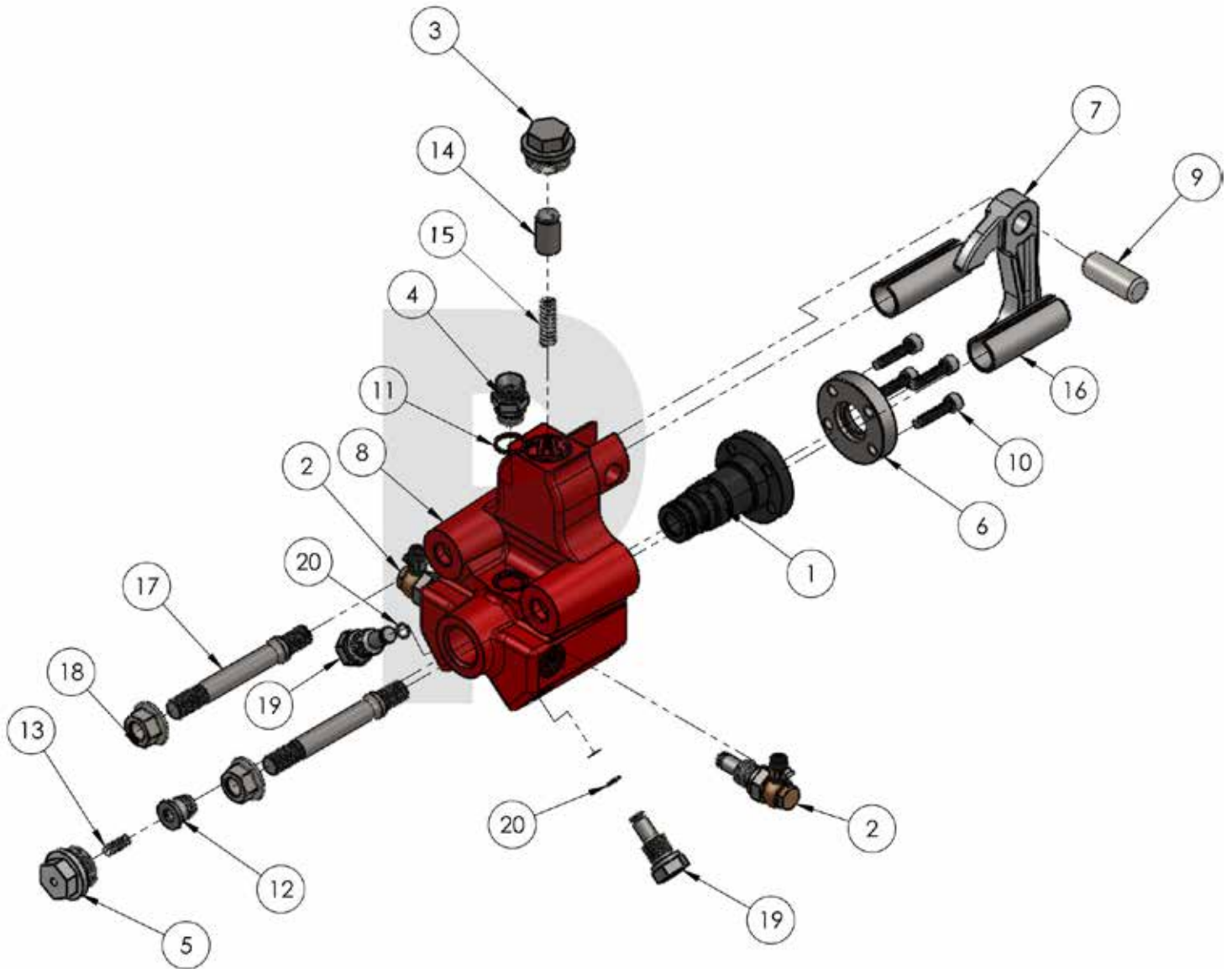


SECTION A-A  
SCALE 1 : 3

SECTION C-C  
SCALE 1 : 3



**Lube Pump  
Complete**



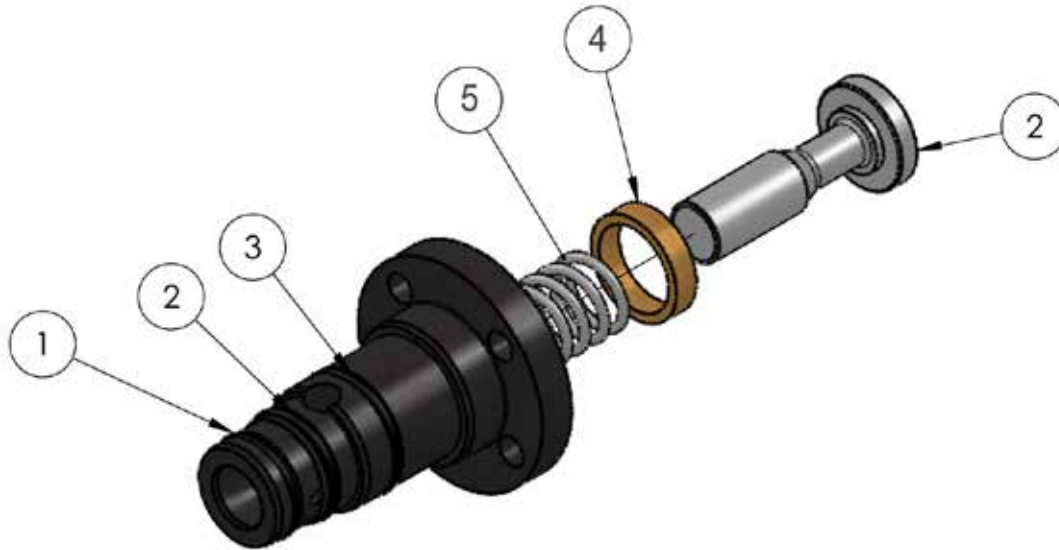
Continued.....

**Lube Pump  
Complete**

\*each part number links to web site part

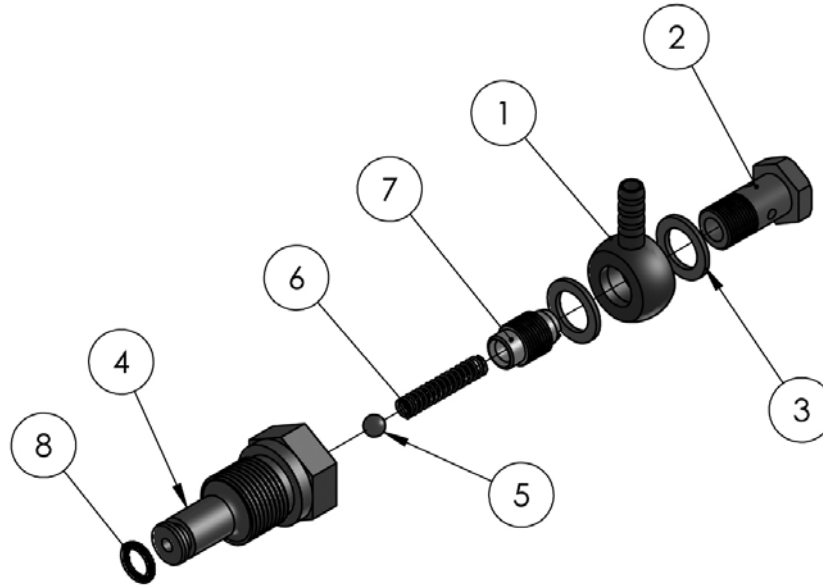
| ITEM NO. | PART NUMBER | DESCRIPTION                      | QTY. |
|----------|-------------|----------------------------------|------|
| 1        | 67279       | CYLINDER COMPLETE                | 1    |
| 2        | 108317      | PRESSURE VALVE COMPLETE          | 3    |
| 3        | 91976       | PLUG SCREW                       | 1    |
| 4        | 67290       | ADAPTER                          | 1    |
| 5        | 108328      | PLUG SCREW                       | 1    |
| 6        | 67282       | WASHER                           | 1    |
| 7        | 22081       | LUBE PUMP LEVER                  | 1    |
| 8        | 108315      | LUBE PUMP BODY                   | 1    |
| 9        | 22082       | PUMP LEVER PIN                   | 1    |
| 10       | 90937       | M8 x 35 DIN 912 8.8              | 4    |
| 11       | 92031       | SEALING RING A20 X 24            | 1    |
| 12       | 67284       | PISTON COMPLETE                  | 1    |
| 13       | 190479      | PRESSURE SPRING 7.3 X 29.4 X 1.2 | 1    |
| 14       | 22090       | SLEEVE                           | 1    |
| 15       | 22089       | PRESSURE SPRING 10 X 43 X 2      | 1    |
| 16       | 94315       | DOWEL PIN 28 X 80 DIN 7346       | 2    |
| 17       | 20189       | PUMP STUD M16                    | 2    |
| 18       | 94722       | M16 WASHER NUT                   | 2    |
| 19       | 108316      | PLUG SCREW                       | 1    |
| 20       | 97855       | O RING 8 X 2                     | 1    |



**Cylinder  
Complete**


\*each part number links to web site part

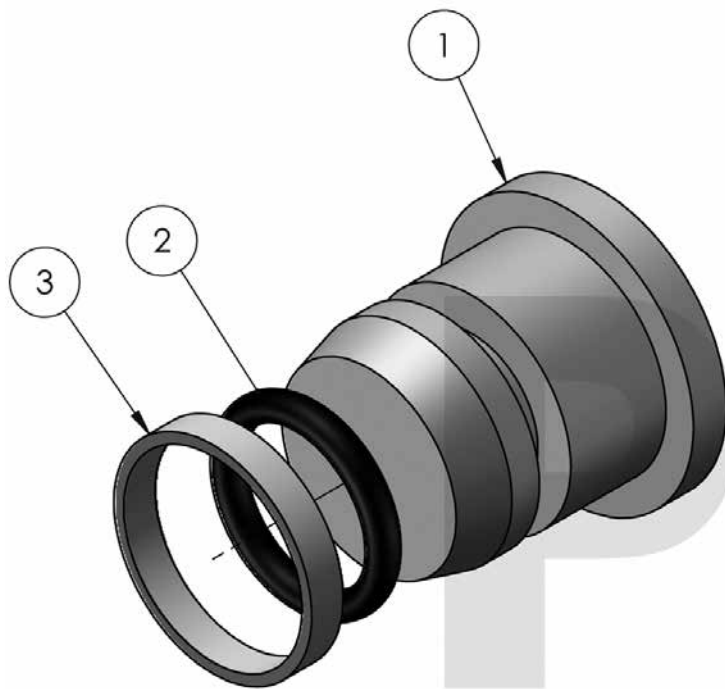
| ITEM NO. | PART NUMBER | DESCRIPTION                    | QTY. |
|----------|-------------|--------------------------------|------|
| 1        | 205020      | O RING 24 X 3                  | 1    |
| 2        | 91357       | O RING 26 X 3                  | 1    |
| 3        | 92952       | O RING 30 X 3                  | 1    |
| 4        | 67283       | RING                           | 1    |
| 5        | 97325       | PRESSURE SPRING 22 X 52 X 2, 8 | 1    |

**Pressure Valve  
Complete**


\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION                         | QTY. |
|----------|-------------|-------------------------------------|------|
| 1        | 97949       | RING NIPPLE                         | 1    |
| 2        | 97948       | HOLLOW SCREW A6 DIN 7623-6.8        | 1    |
| 3        | 91417       | SEALING RING A12 X 15.5 DIN 7603-CU | 2    |
| 4        | 108319      | ADAPTER                             | 1    |
| 5        | 90307       | BALL 6MM DIN 5401                   | 1    |
| 6        | 190005      | PRESSURE SPRING 5 X 36 X 0.8        | 1    |
| 7        | 104679      | PLUG SCREW                          | 1    |
| 8        | 97855       | 8 X 2 O-RING                        | 1    |

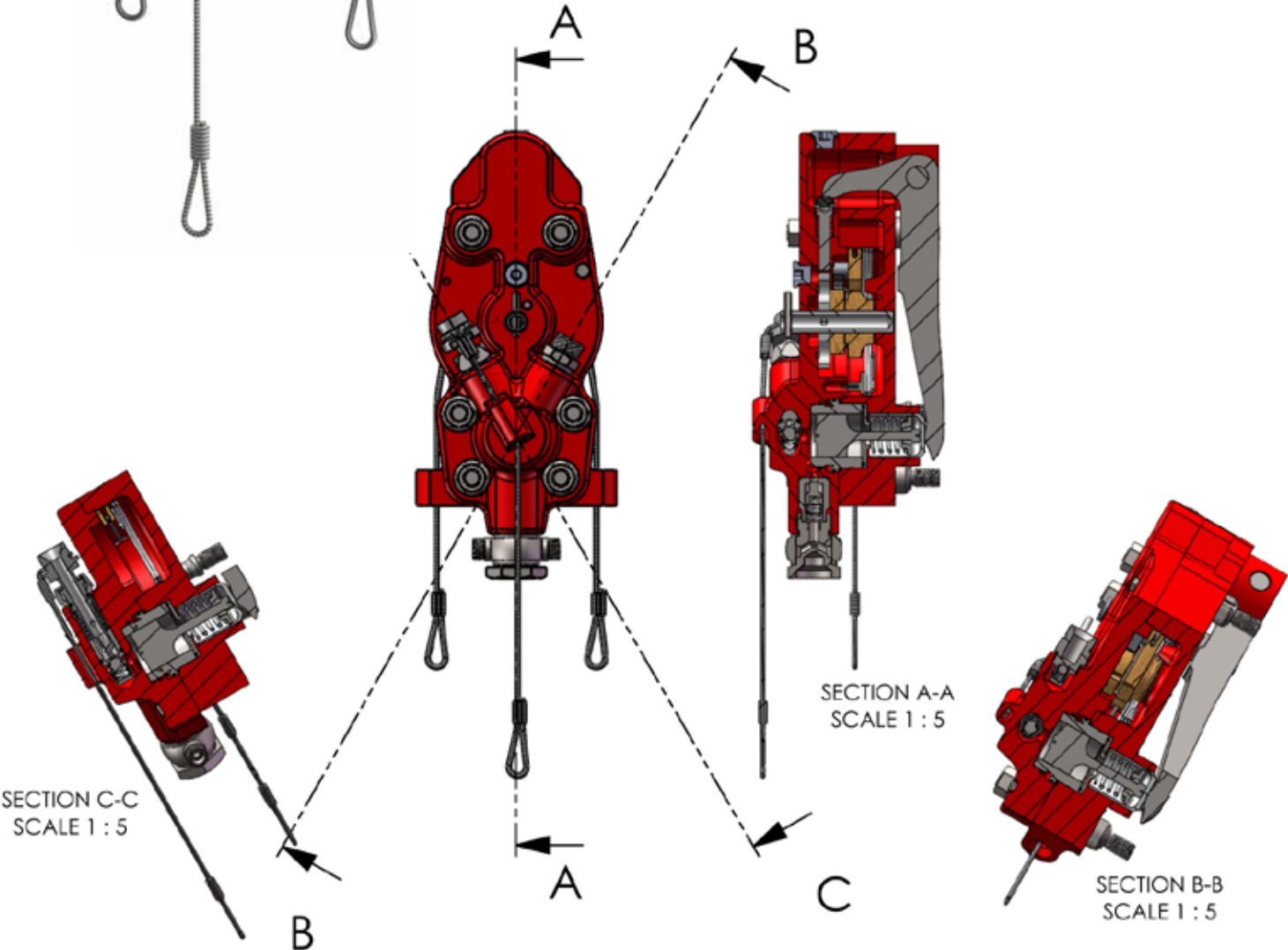
**SOLD  
TOGETHER**

**Piston  
Complete**

**SOLD AS A COMPLETE**

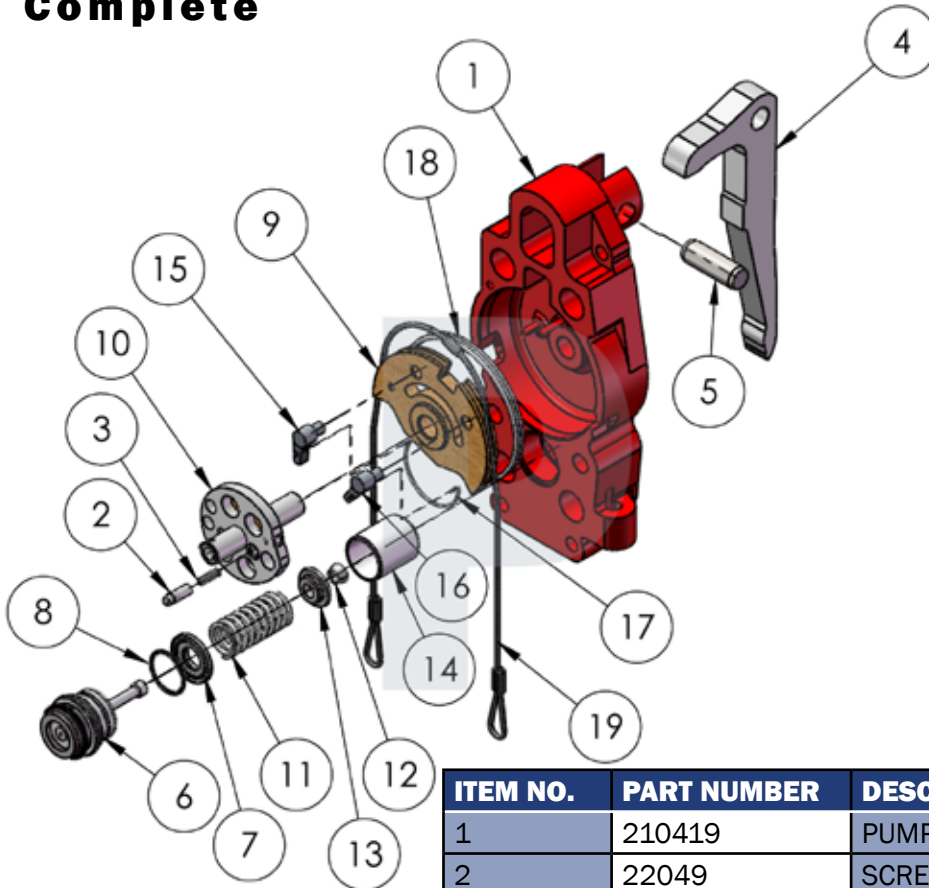
\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|-------------|------|
| 1        | 67285       | PISTON      | 1    |
| 2        | 97326       | O RING      | 1    |
| 3        | 97326       | SLIP RING   | 1    |

# Manual Delivery Fuel Pump

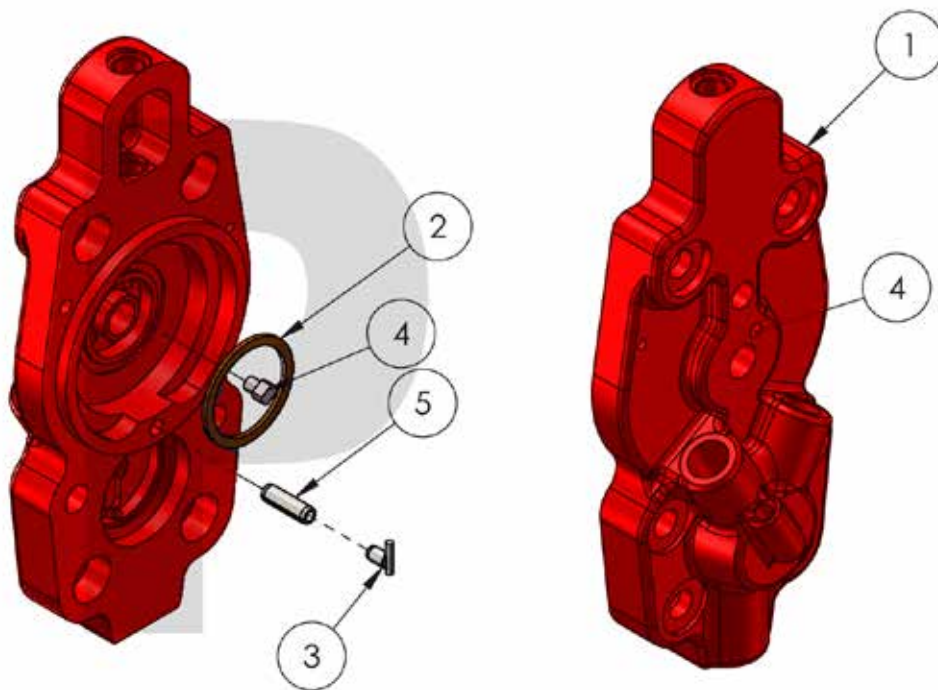


# Manual Variable Delivery Fuel Pump Complete



\*each part number links to web site part

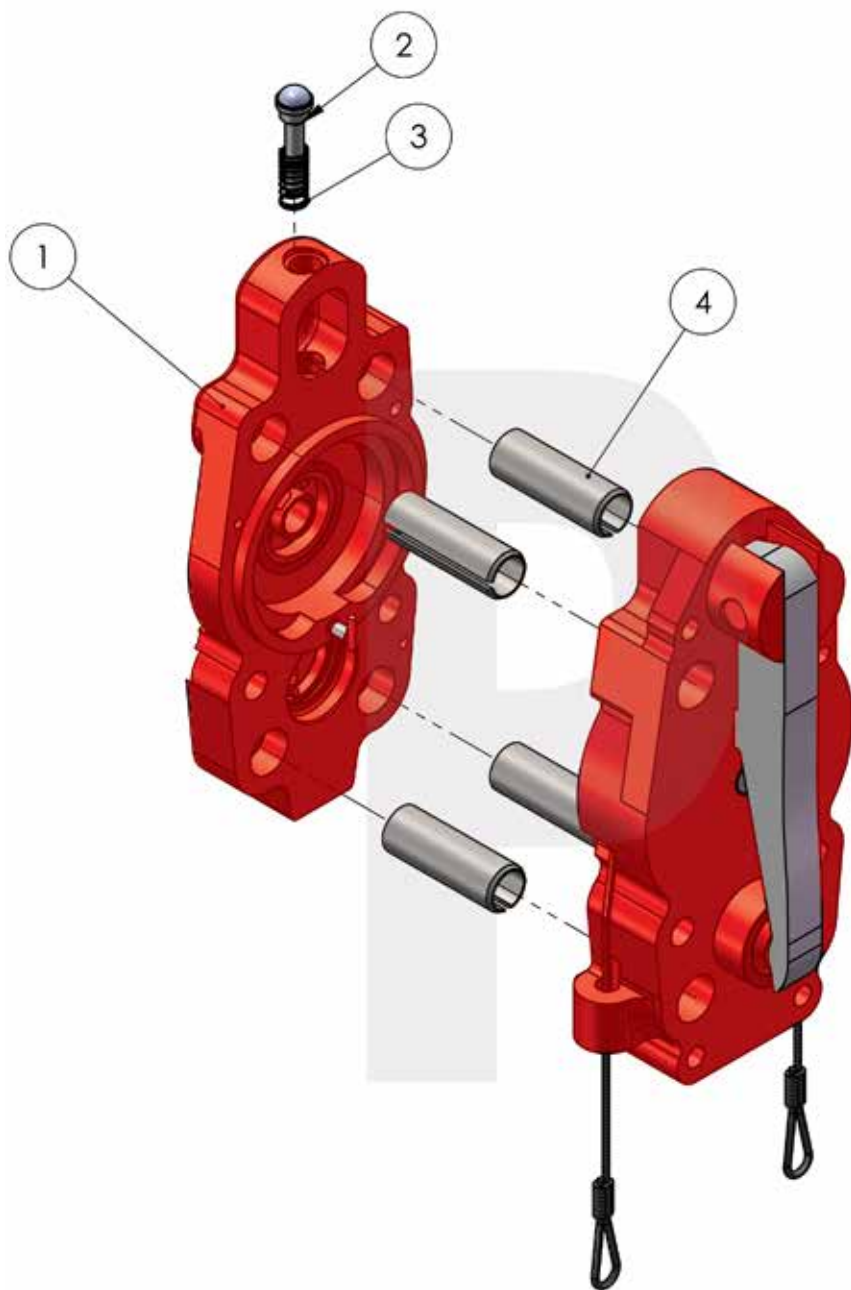
| ITEM NO. | PART NUMBER | DESCRIPTION                     | QTY. |
|----------|-------------|---------------------------------|------|
| 1        | 210419      | PUMP BODY                       | 1    |
| 2        | 22049       | SCREEN PIN                      | 1    |
| 3        | 22044       | PRESSURE SPRING 5.5 X 20 X 1.2  | 1    |
| 4        | 210409      | PUMP LEVER                      | 1    |
| 5        | 22043       | PUMP LEVER PIN                  | 1    |
| 6        | 210414      | D225 PUMP ELEMENT COMPLETE 39MM | 1    |
| 7        | 210411      | HOLDER RING                     | 1    |
| 8        | 210410      | ROUND SEALING RING 48.7 X 2.65  | 1    |
| 9        | 22040       | ROPE DISC                       | 1    |
| 10       | 43308       | SWITCH SHAFT                    | 1    |
| 11       | 22060       | PRESSURE SPRING 28 X 67.2 X 3.5 | 1    |
| 12       | 22059       | CONICAL RING 2 PCS              | 1    |
| 13       | 22058       | SPRING RETAINING COLLAR         | 1    |
| 14       | 43287       | GUIDE SLEEVE                    | 1    |
| 15       | 22051       | CAM                             | 1    |
| 16       | 22052       | CAM                             | 1    |
| 17       | 22245       | SPRING                          | 1    |
| 18       | 22062       | SWIVEL SPRING                   | 1    |
| 19       | 17546       | REGULATION ROPE                 | 1    |

**Manual Variable Delivery Fuel  
Pump Cover Complete**


\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION        | QTY. |
|----------|-------------|--------------------|------|
| 1        | 210420      | PUMP COVER         | 1    |
| 2        | 22050       | RING               | 1    |
| 3        | 22796       | STOP               | 1    |
| 4        | 43307       | STOP PIN           | 1    |
| 5        | 90231       | 10MM X 32 ROLL PIN | 1    |

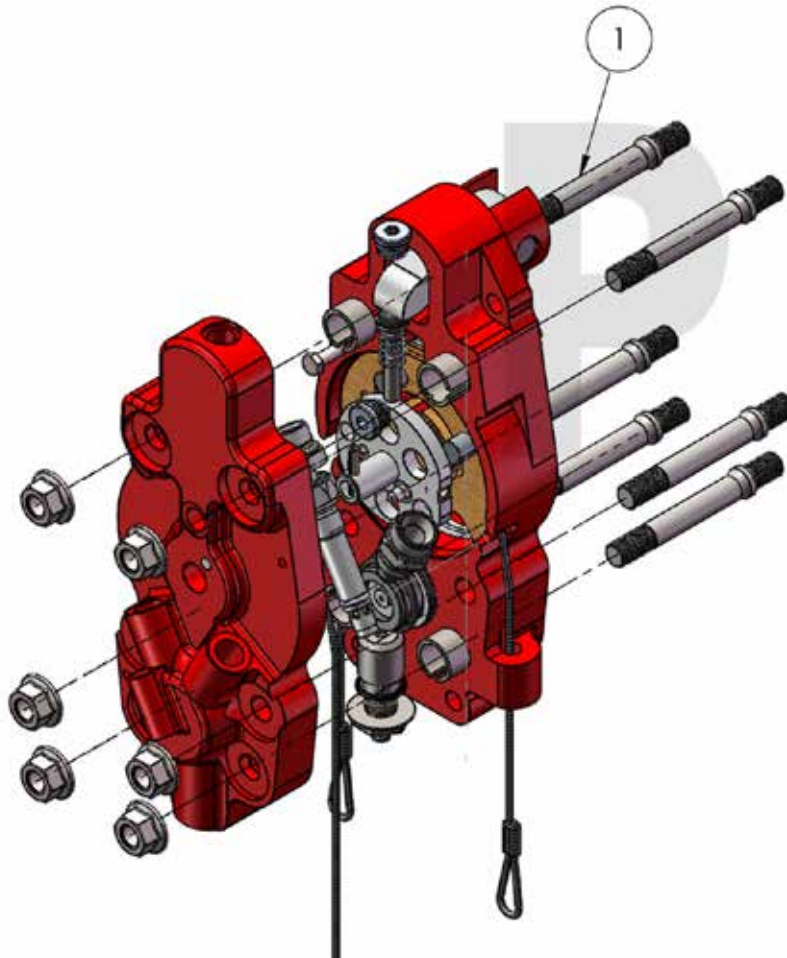
# Manual Variable Delivery Fuel Pump Complete



\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION             | QTY. |
|----------|-------------|-------------------------|------|
| 1        | 210420      | PUMP COVER complete     | 1    |
| 2        | 62125       | PRESSURE PIECE complete | 1    |
| 3        | 22046       | PRESSURE SPRING         | 1    |
| 4        | 94315       | DOWEL PIN 28 X 80       | 4    |



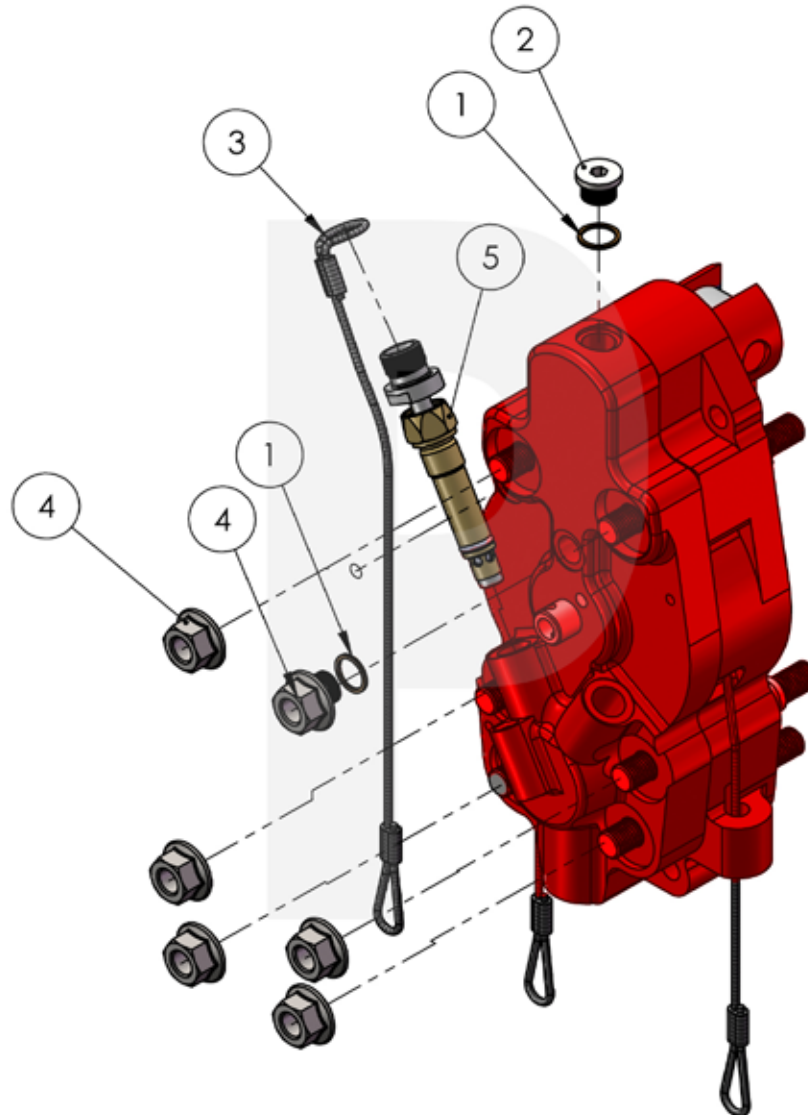
**Manual Variable Delivery Fuel Pump  
Complete**


\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION   | QTY. |
|----------|-------------|---------------|------|
| 1        | 20189       | PUMP STUD M16 | 6    |



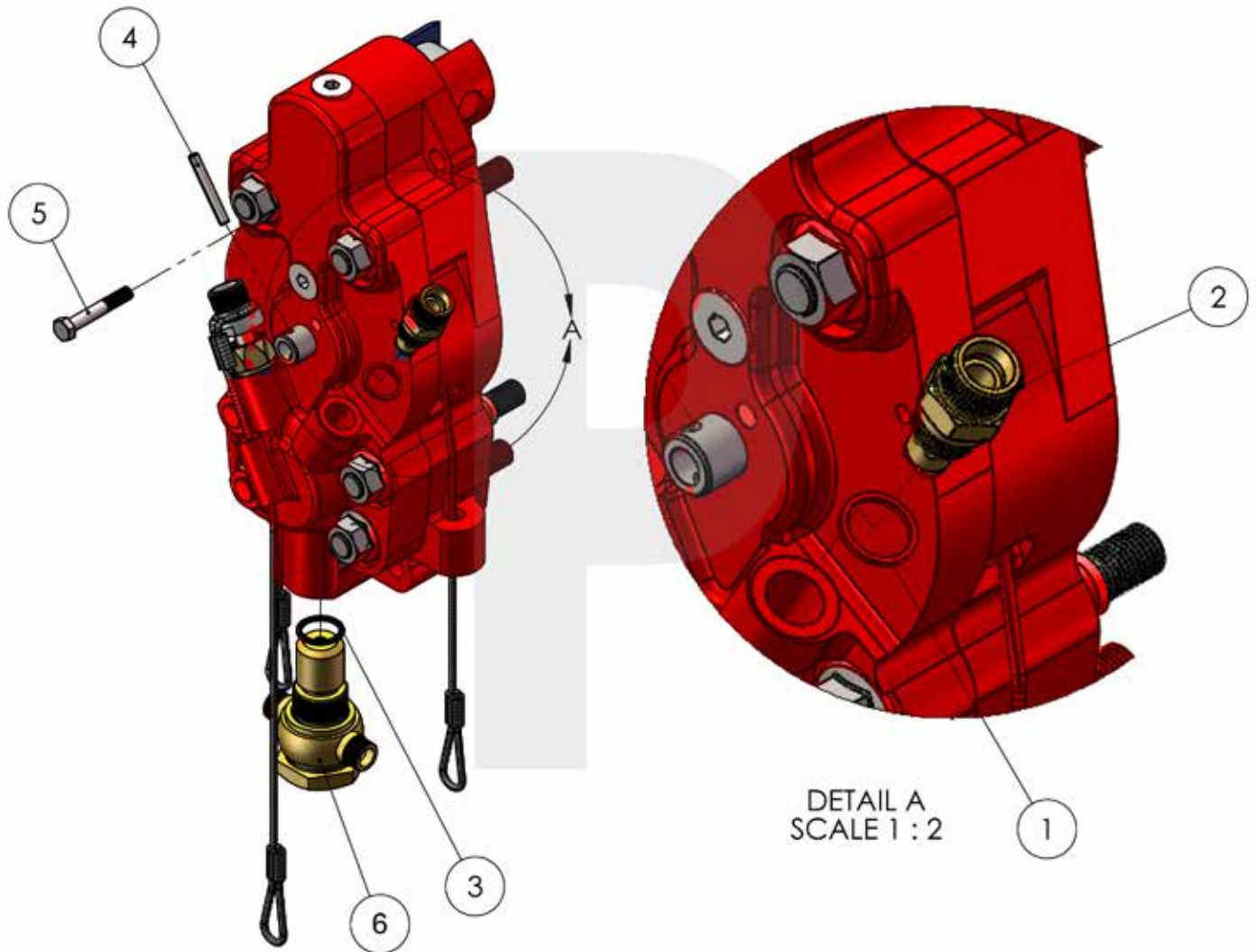
# Manual Variable Delivery Fuel Pump Complete



\*each part number links to web site part

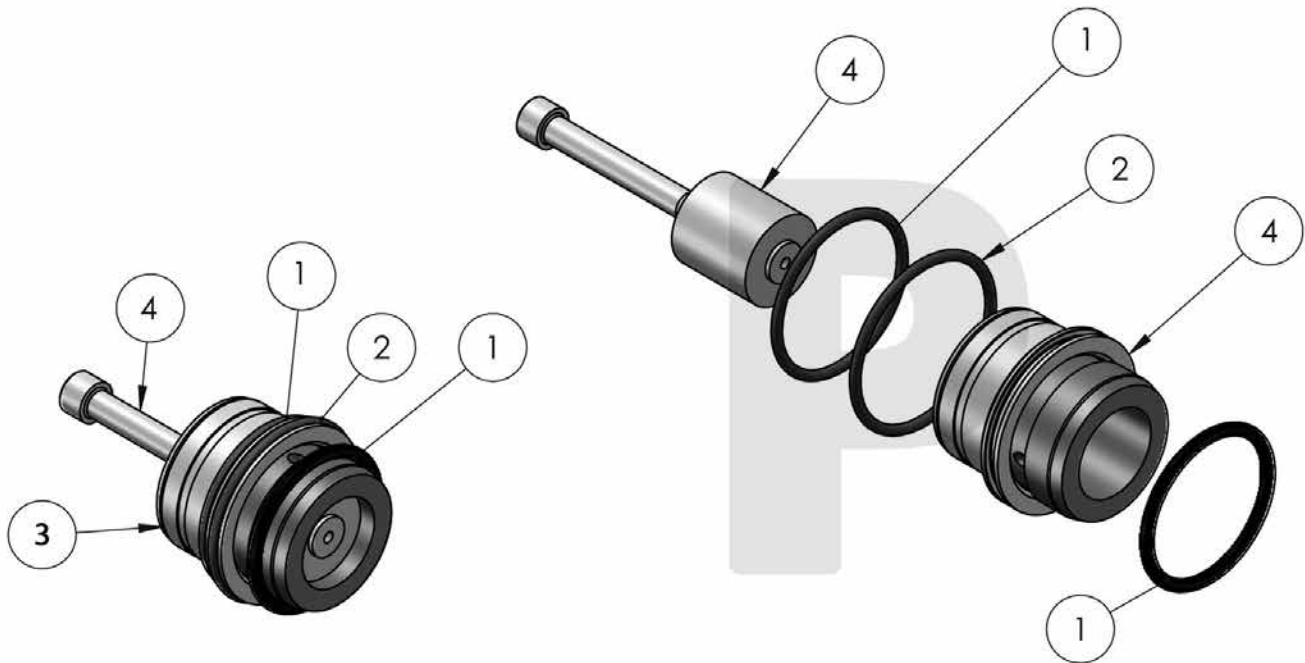
| ITEM NO. | PART NUMBER | DESCRIPTION           | QTY. |
|----------|-------------|-----------------------|------|
| 1        | 90002       | SEALING RING A18 X 22 | 2    |
| 2        | 93055       | PLUG SCREW M18 X 1.5  | 2    |
| 3        | 17546       | REGULATING ROPE       | 1    |
| 4        | 94722       | M16 WASHER NUT        | 6    |
| 5        | 210422      | STOP VALVE COMPLETE   | 1    |

## Manual Variable Delivery Fuel Pump Complete



\*each part number links to web site part

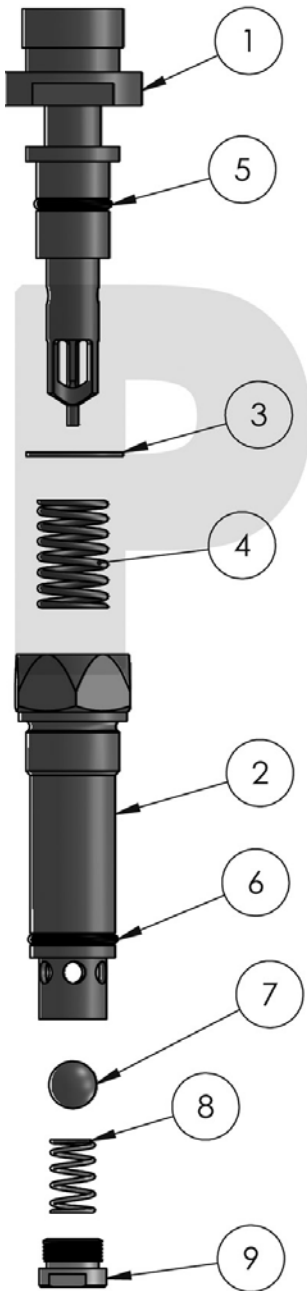
| ITEM NO. | PART NUMBER | DESCRIPTION                     | QTY. |
|----------|-------------|---------------------------------|------|
| 1        | 210412      | SEALING RING A25 X 30           | 1    |
| 2        | 210421      | SUCTION VALVE complete          | 1    |
| 3        | 91296       | O-RING 22 X 3                   | 1    |
| 4        | 90150       | DOWEL PIN 6 X 40                | 1    |
| 5        | 93456       | LOCKING SCREW M8 X 50           | 1    |
| 6        | 60827       | CHECK NON-RETURN VAVLE COMPLETE | 1    |

**39MM Pump Element  
Complete**


*\*each part number links to web site part*

| ITEM NO.              | PART NUMBER | DESCRIPTION                  | QTY. |
|-----------------------|-------------|------------------------------|------|
| 1                     | 210416      | ROUND SEALING RING 56 X 2.65 | 2    |
| 2                     | 210417      | ROUND SEALING RING 60 X 2.65 | 1    |
| 3 not sold seperately | 210414      | 39MM ELEMENT BODY            | 1    |
| 4 not sold seperately | 210414      | 39MM ELEMENT PLUNGER         | 1    |

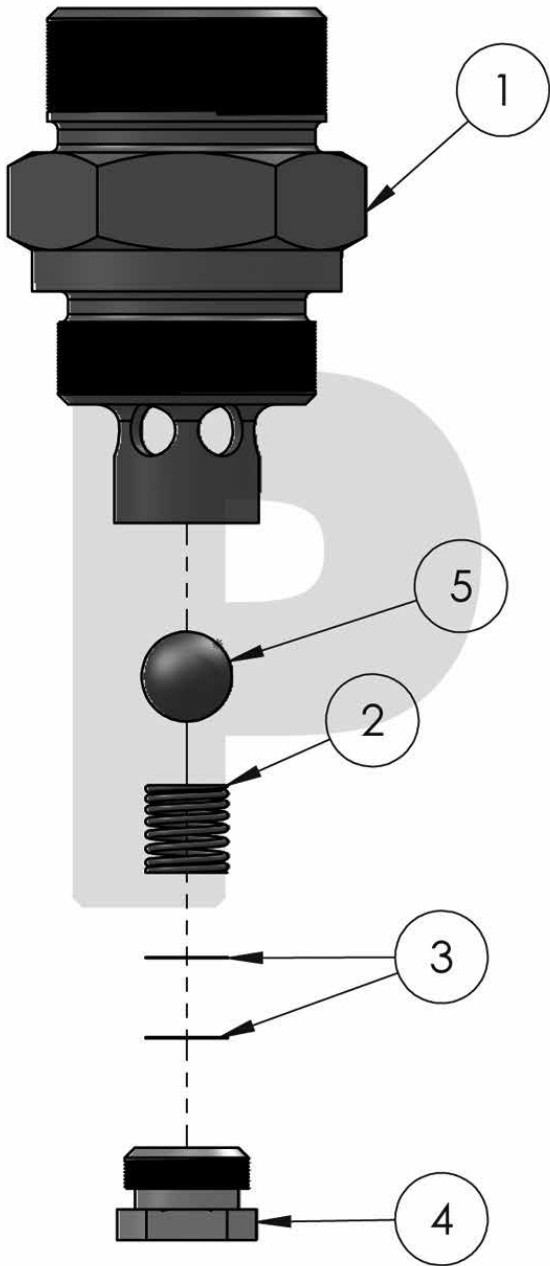
## Stop Valve Complete



\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION                    | QTY. |
|----------|-------------|--------------------------------|------|
| 1        | 210423      | VALVE PISTON                   | 1    |
| 2        | 210429      | VALVE SCREW                    | 1    |
| 3        | 210430      | 25 X 1.2 CIRCLIP               | 1    |
| 4        | 210424      | PRESSURE SPRING 18.8 X 2 X 30  | 1    |
| 5        | 210428      | O RING 15 X 2.65               | 1    |
| 6        | 210425      | O RING 18 X 2.65               | 1    |
| 7        | 210431      | 12.7MM BALL BEARING            | 1    |
| 8        | 210427      | PRESSURE SPRING 12 X 1.2 X19.5 | 1    |
| 9        | 210426      | THREADED PLUG                  | 1    |

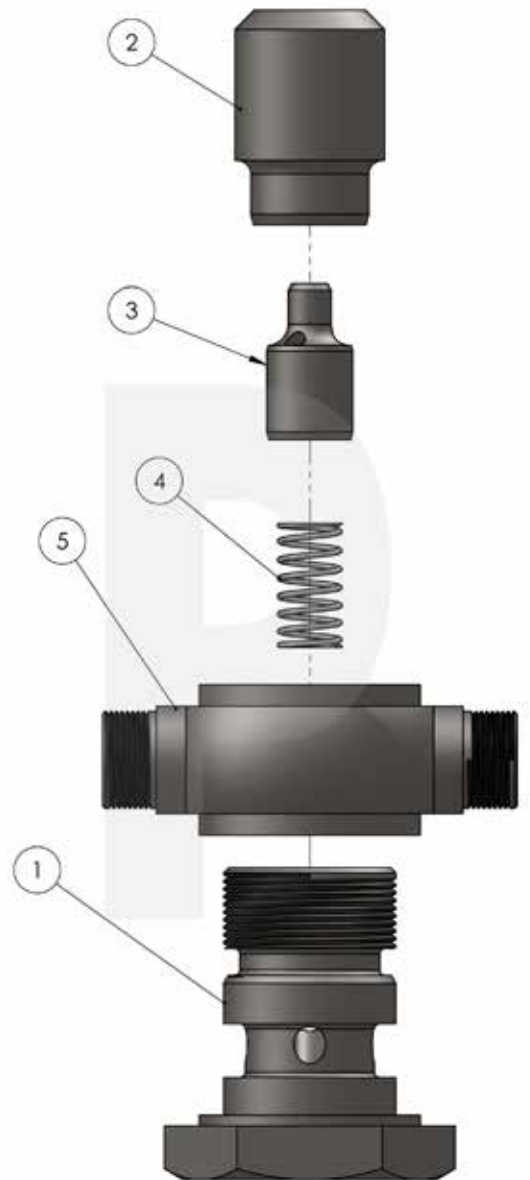
## Suction Valve Complete



*\*each part number links to web site part*

| ITEM NO. | PART NUMBER | DESCRIPTION                   | QTY. |
|----------|-------------|-------------------------------|------|
| 1        | 210432      | SLEEVE                        | 1    |
| 2        | 22022       | PRESSURE SPRING 7.3 X 8 X 0.7 | 1    |
| 3        | 22023       | WASHER                        | 2    |
| 4        | 41862       | THREADED PLUG                 | 1    |
| 5        | 98511       | BALL 8.731MM                  | 1    |

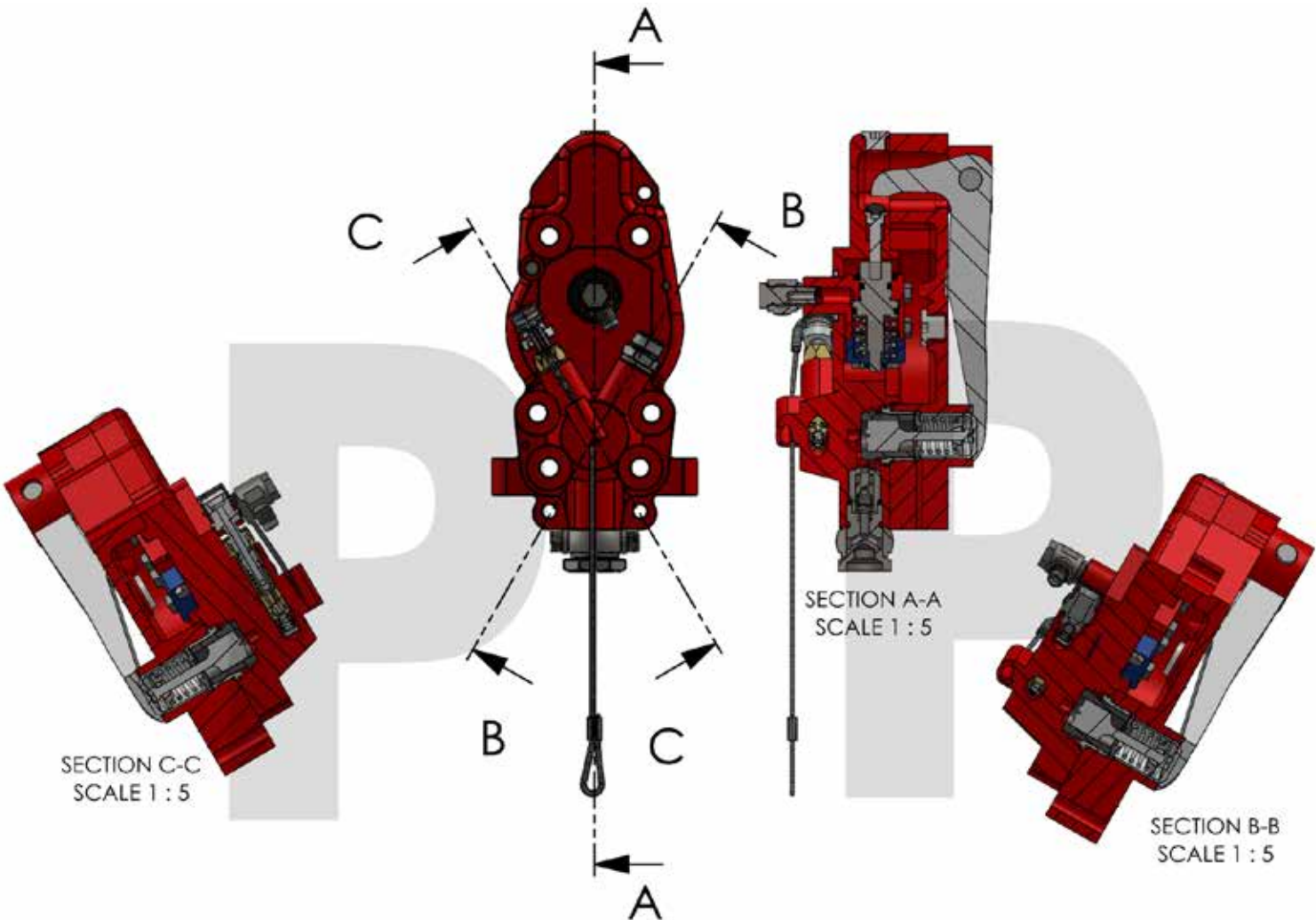
## Check Non-Return Valve Complete



\*each part number links to web site part

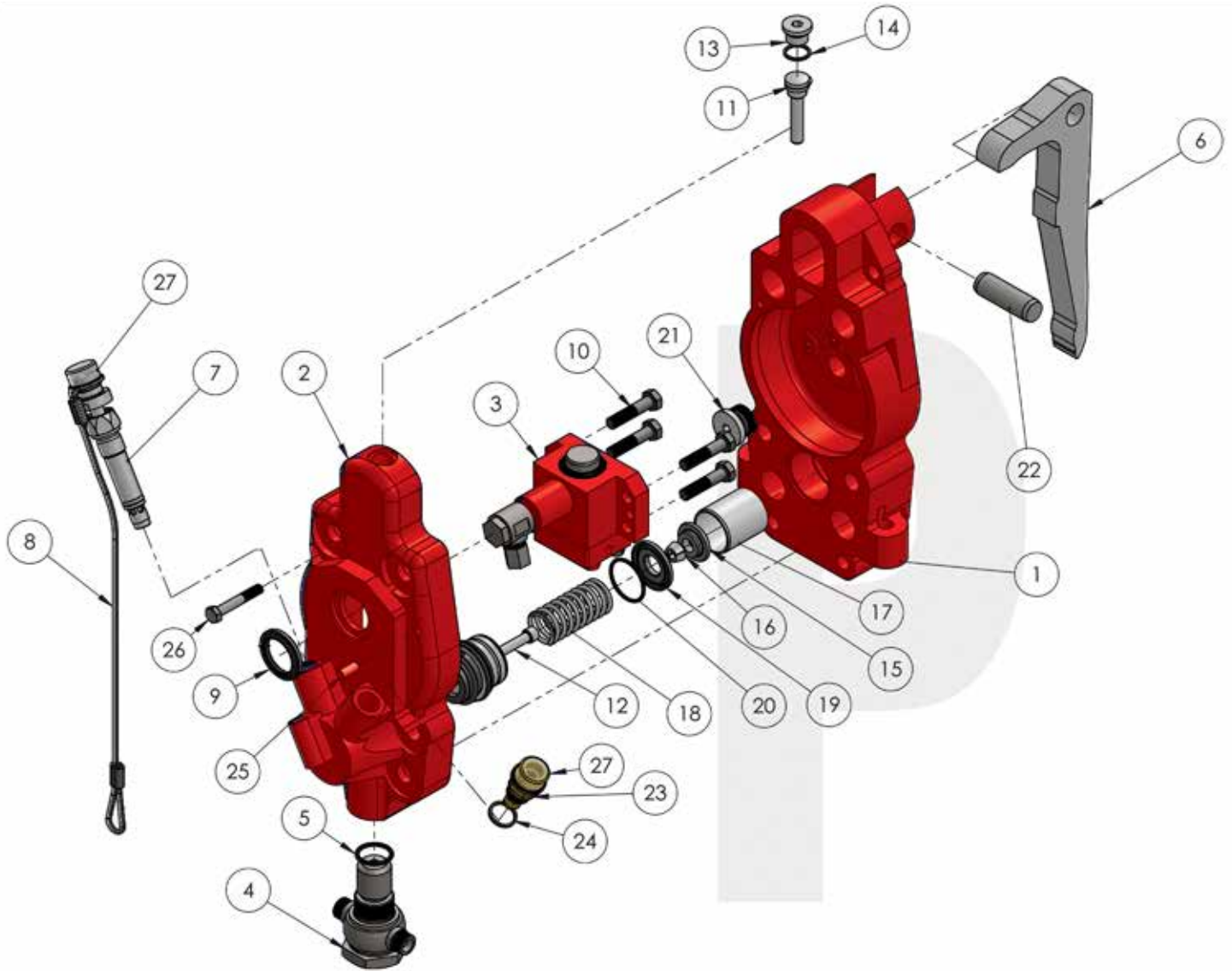
| ITEM NO. | PART NUMBER | DESCRIPTION     | QTY. |
|----------|-------------|-----------------|------|
| 1        | 60194       | HOLLOW SCREW    | 1    |
| 2        | 43297       | HOUSING         | 1    |
| 3        | 43299       | VALVE PISTON    | 1    |
| 4        | 22034       | PRESSURE SPRING | 1    |
| 5        | 60195       | RING NIPPLE     | 1    |

# Hydraulic Delivery Fuel Pump





# Hydraulic Variable Delivery Fuel Pump Complete



Hydraulic Variable Fuel Pump Continued.....

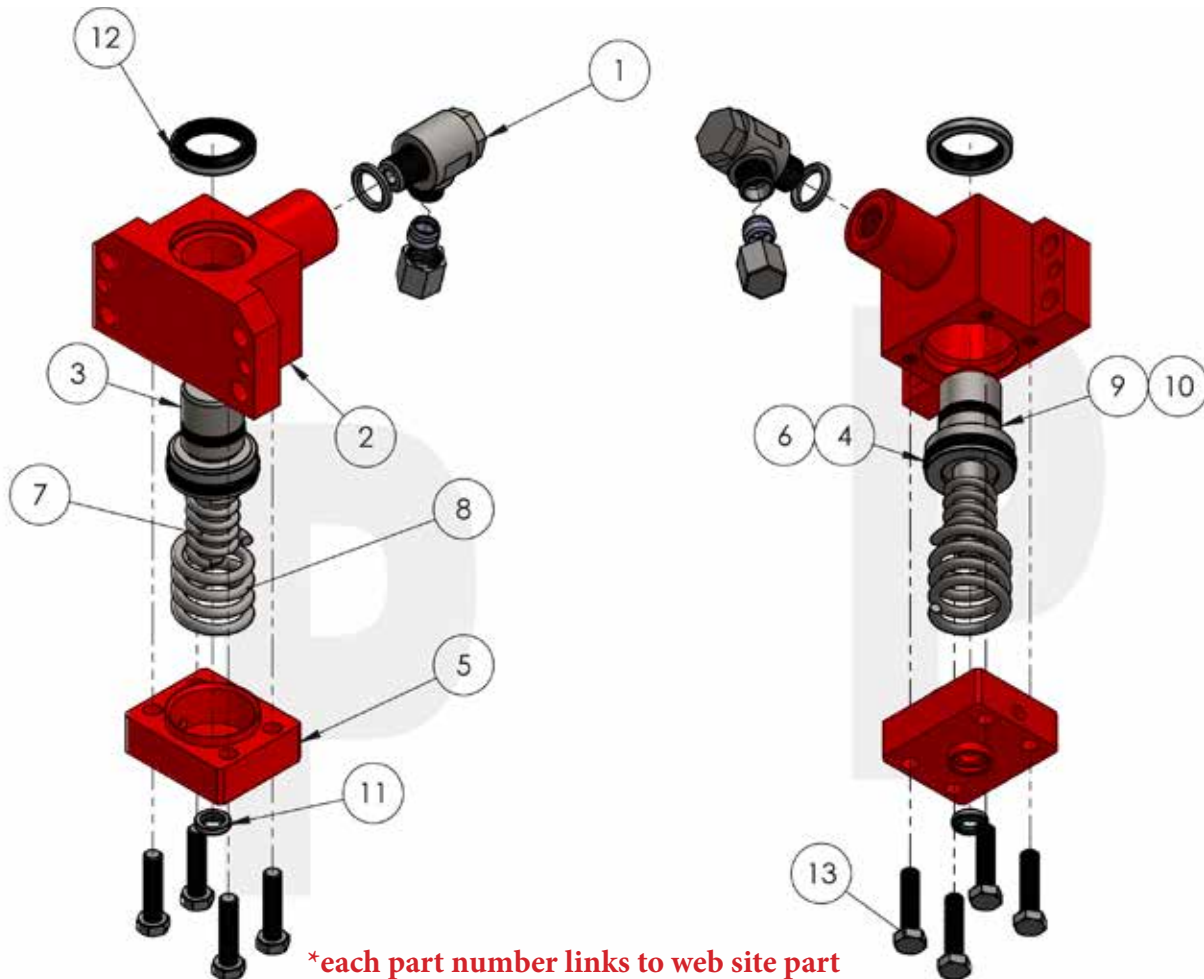


## Hydraulic Variable Delivery Fuel Pump Complete

\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION                       | QTY. |
|----------|-------------|-----------------------------------|------|
| 1        | 212401      | PUMP BODY                         | 1    |
| 2        | 212404      | PUMP COVER                        | 1    |
| 3        | 122446-C    | FUEL PUMP CONTROL COMPLETE        | 1    |
| 4        | 60827       | CHECK NON RETURN VALVE COMPLETE   | 1    |
| 5        | 91296       | O RING 22 X 3                     | 1    |
| 6        | 210409      | PUMP LEVER                        | 1    |
| 7        | 210422      | STOP VALVE COMPLETE               | 1    |
| 8        | 17546       | REGULATING ROPE                   | 1    |
| 9        | 205507      | DUST RING                         | 1    |
| 10       | 93414       | 10-1.5 X 30 HEX HEAD CAPSCREW 8.8 | 4    |
| 11       | 205501      | PRESSURE PIECE                    | 1    |
| 12       | 210414      | D225 PUMP ELEMENT 39MM            | 1    |
| 13       | 93055       | PLUG SCREW 18 X 1.5               | 1    |
| 14       | 90002       | SEALING RING 18 X 22              | 1    |
| 15       | 22058       | SPRING RETAINING COLLAR           | 1    |
| 16       | 22059       | CONICAL RING 2 PCS                | 1    |
| 17       | 43287       | GUIDE SLEEVE                      | 1    |
| 18       | 22060       | PRESSURE SPRING 28 X 67.2 X 3.5   | 1    |
| 19       | 210411      | HOLDER RING                       | 1    |
| 20       | 210410      | ROUND SEALING RING 49 X 2.5       | 1    |
| 21       | 91885       | PLUG SCREW M26 X 1.5              | 1    |
| 22       | 22043       | PIN                               | 1    |
| 23       | 210421      | SUCTION VALVE                     | 1    |
| 24       | 92031       | SEALING RING A20 X 24             | 1    |
| 25       | 205506      | DOWEL PIN 8 X 20                  | 1    |
| 26       | 93456       | LOCKING SCREW M8 X 50             | 1    |
| 27       | 210413      | PROTECTION CAP                    | 2    |

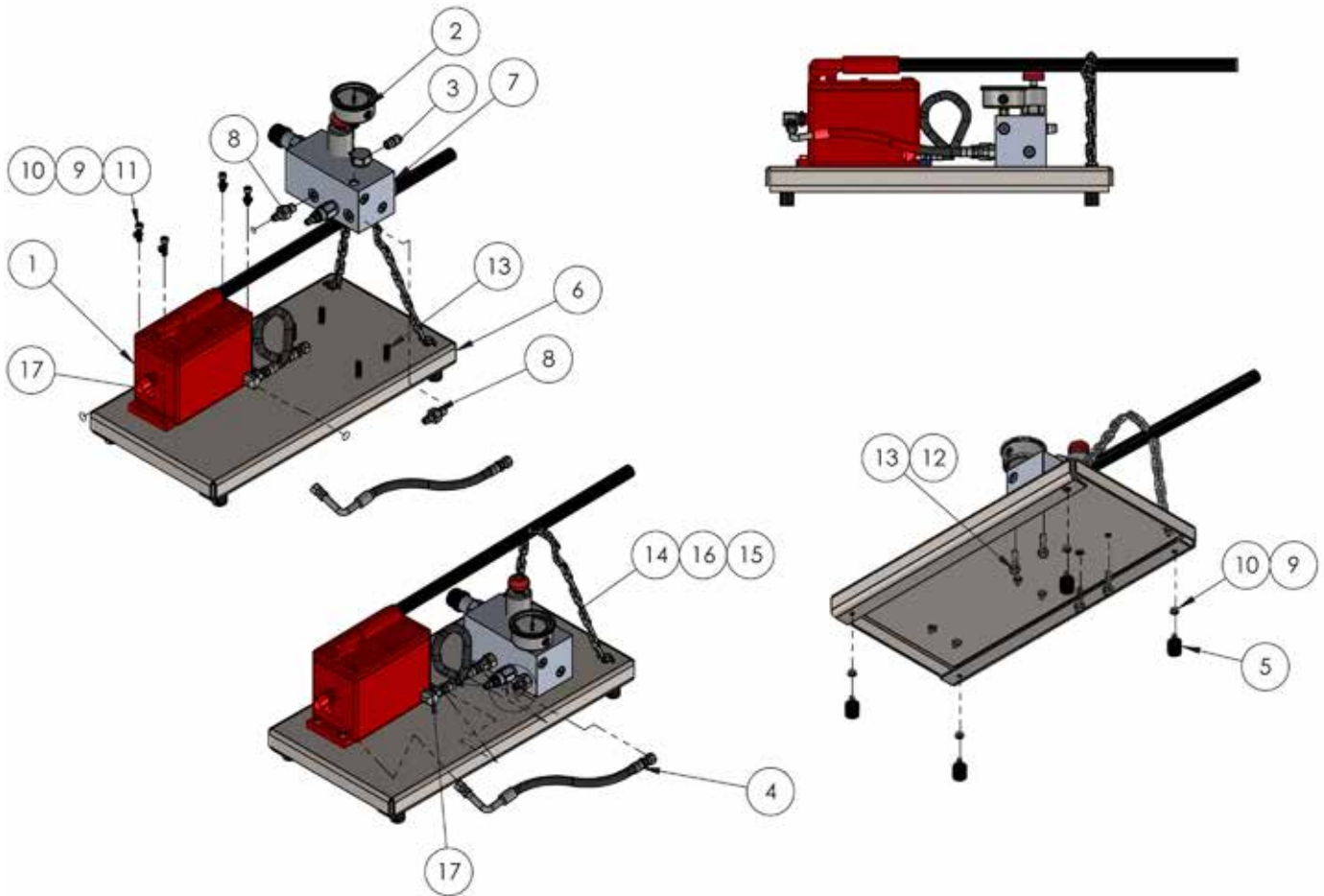
## Fuel Pump Control Complete



\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION                        | QTY. |
|----------|-------------|------------------------------------|------|
| 1        | 205509      | METRIC BITE TYPE FITTING M16 X 1.5 | 1    |
| 2        | 126538-C    | CYLINDER                           | 1    |
| 3        | 126539      | PISTON                             | 1    |
| 4        | 193444      | O-RING 32.93 X 3.53                | 1    |
| 5        | 126537-C    | COVER                              | 1    |
| 6        | 193446      | BACK UP RING                       | 1    |
| 7        | 193451      | PRESSURE SPRING                    | 1    |
| 8        | 193450      | PRESSURE SPRING                    | 1    |
| 9        | 193445      | O-RING 20.22 X 3.53                | 1    |
| 10       | 193447      | BACK UP RING                       | 1    |
| 11       | 193448      | ROD WIPER                          | 1    |
| 12       | 193449      | ROD WIPER                          | 1    |
| 13       | 93414       | 10 X 30 HEX HEAD CAPSCREW          | 4    |

# Hydraulic Hand Pump Assembly



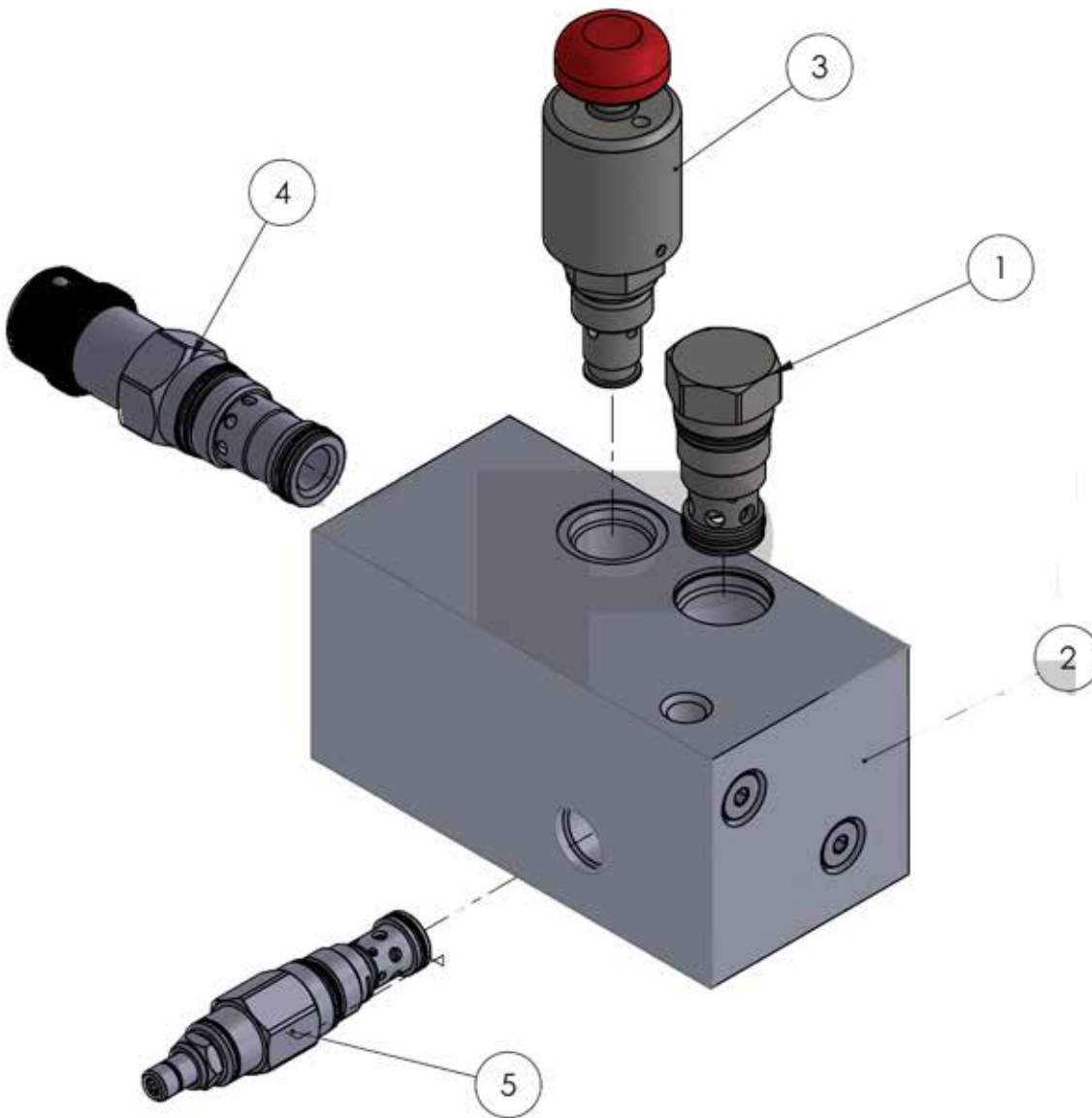
Continued...

## Hydraulic Hand Pump Assembly

Hydraulic Hand Pump Continued...

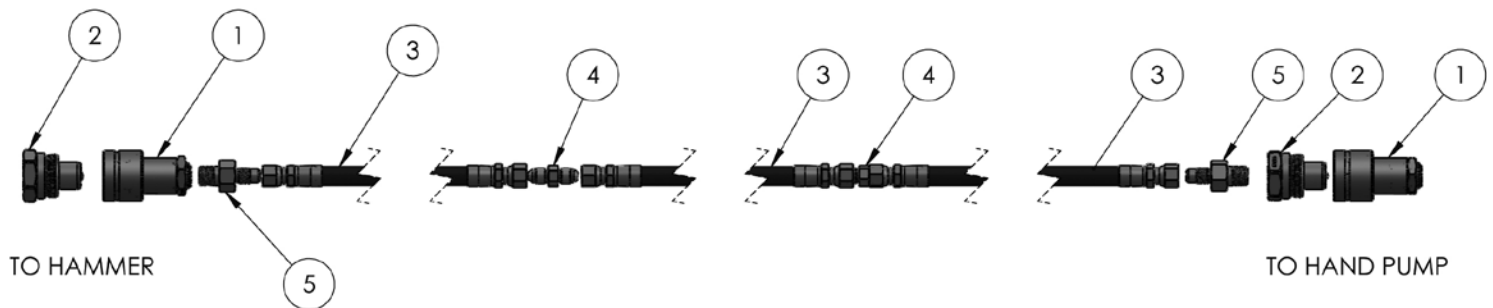
\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION   | QTY. |
|----------|-------------|---|------|
| 1        | 55107       | P-51 ENERPAC PUMP   | 1    |
| 2        | 55120       | G25-SL600-CB SS PRESSURE GAUGE  | 1    |
| 3        | 55121       | 4SAE MALE TO 1/4 NPT MALE ADAPTER   | 1    |
| 4        | 55104       | 1/4 JIC FEMALE SWIVEL FITTING TO 1/4 JIC FEMALE SWIV-<br>EL 1/4 PRESSURE HOSE | 1    |
| 5        | 55122       | RUBBER FOOT 1" X 1"-1/4-20 X 3/4 BOLT   | 4    |
| 6        | 55105       | PLATE   | 1    |
| 7        | 55103       | MANIFOLD COMPLETE   | 1    |
| 8        | 55123       | 4 SAE MALE TO 1/4 JIC MALE STRAIGHT ADAPTER                                   | 2    |
| 9        | 55124       | M6 SPLIT LOCKWASHER   | 14   |
| 10       | 55125       | M6-1.0 JAM NUT  | 10   |
| 11       | 55126       | 6-1.0 X 25 SOCKET HEAD CAPSCREW   | 4    |
| 12       | 55127       | 8MM SPLIT LOCKWASHERS   | 4    |
| 13       | 55128       | 8-1.25 X 30 HEX HEAD CAPSCREW   | 4    |
| 14       | 55108       | CHAIN LINK #2/0 X 16"   | 1    |
| 15       | 55129       | 6MM FLAT WASHER   | 2    |
| 16       | 55130       | 6-1.0 X 20 HEX HEAD CAPSCREW  | 2    |
| 17       | 55131       | 3/8 NPT MALE TO 1/4 JIC MALE 90 ADAPTER                                       | 2    |
| 18       | 55109       | 1/4 JIC FEMALE SWIVEL FITTING TO 1/4 JIC FEMALE SWIV-<br>EL HOSE TO TANK      | 1    |

**Manifold  
Complete**


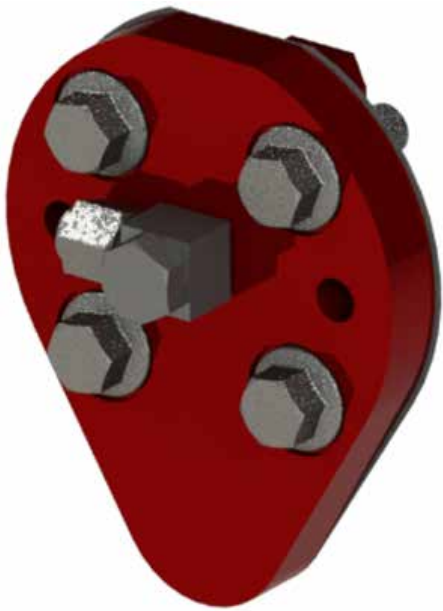
*\*each part number links to web site part*

| ITEM NO. | PART NUMBER | DESCRIPTION              | QTY. |
|----------|-------------|--------------------------|------|
| 1        | 55110       | CXFA-XCN DIRECTION CHECK | 1    |
| 2        | 55106       | MANIFOLD                 | 1    |
| 3        | 55111       | DOERING DUMP VALVE       | 1    |
| 4        | 55112       | NEEDLE VALVE             | 1    |
| 5        | 55113       | RELIEF VALVE             | 1    |

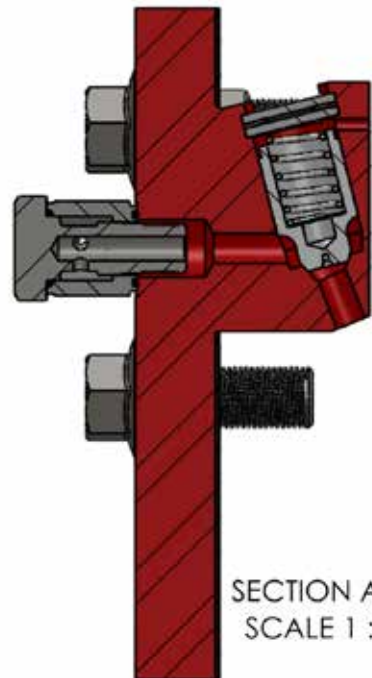
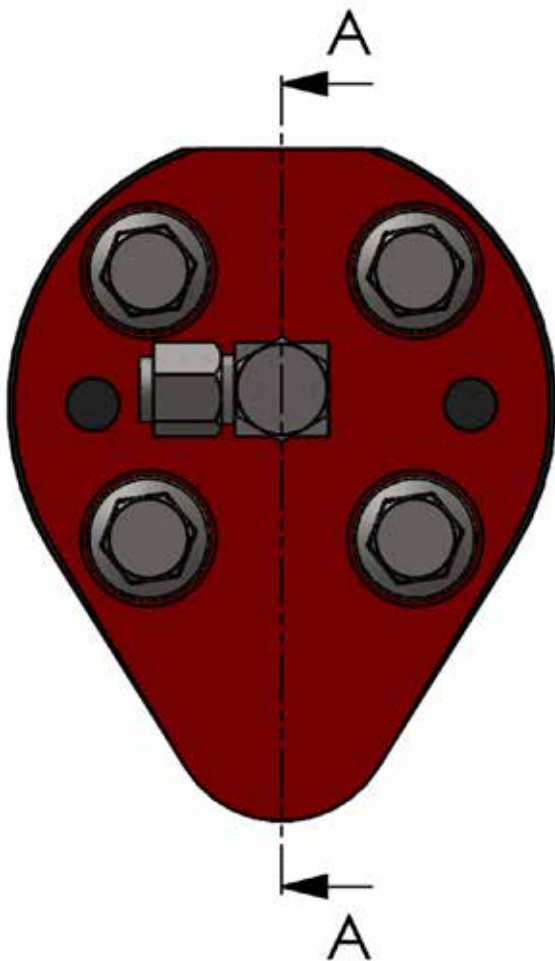
**HAND PUMP 1/4" HOSE ASSEMBLY  
150FT IN 50FT SECTIONS**


*\*each part number links to web site part*

| ITEM NO. | PART NUMBER | DESCRIPTION   | QTY. |
|----------|-------------|---|------|
| 1        | 55133       | 1/4" COUPLER NPFT SCREW TYPE QUICK DISCONNECT FEMALE          | 2    |
| 2        | 55134       | 1/4" 3000 SERIES NIPPLE NPFT SCREW TYPE QUICK DISCONNECT MALE | 2    |
| 3        | 8000440     | 4 FEMALE JIC TO 4 FEMALE JIC 1/4 HOSE 50FT                    | 3    |
| 4        | 55137       | 4 JIC MALE TO 4 JIC MALE STRAIGHT ADAPTER                     | 2    |
| 5        | 8001067     | 1/4 NPT MALE TO 1/4 JIC MALE STRAIGHT ADAPTER                 | 2    |

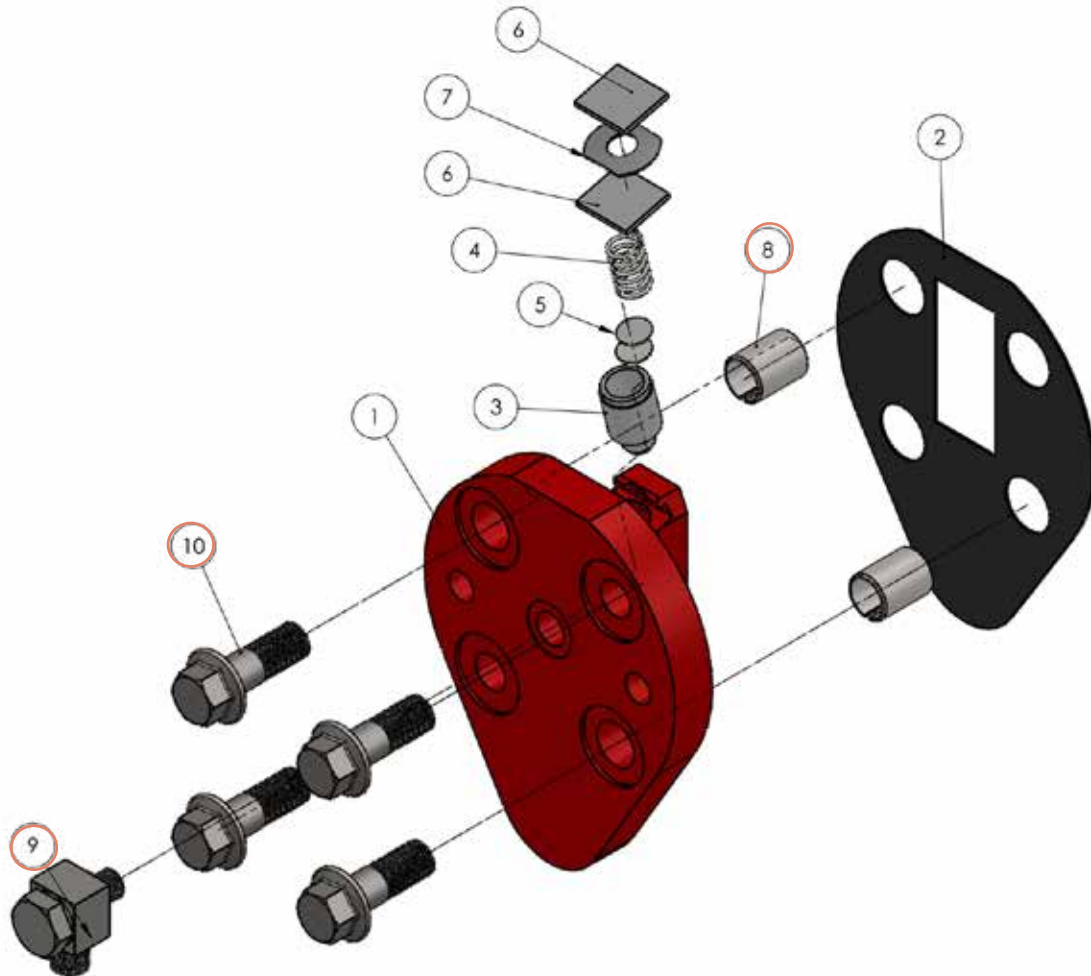


# ***Fuel Injection***



SECTION A-A  
SCALE 1 : 2



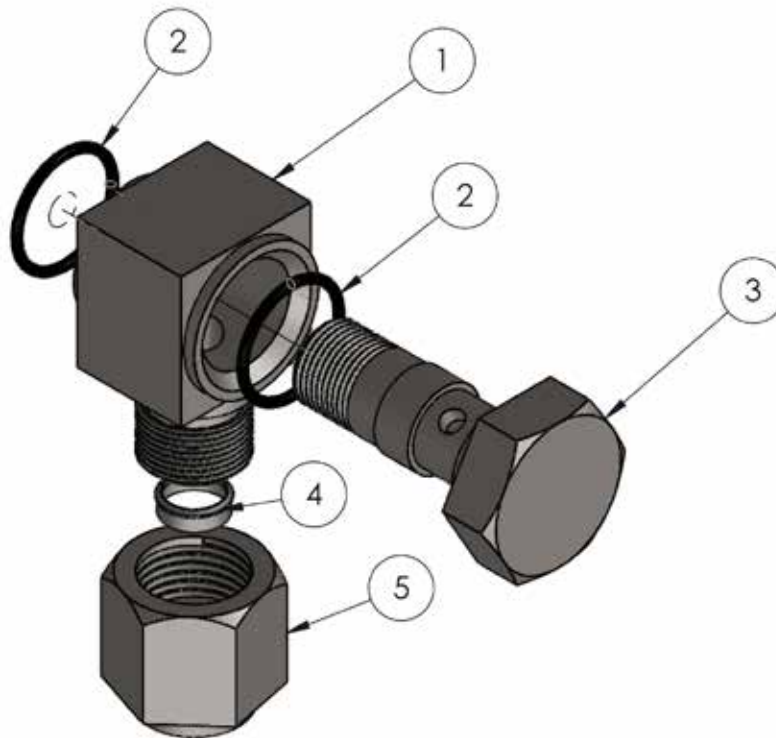
**Fuel Injection Device  
Complete**


*\*each part number links to web site part*

| ITEM NO.                  | PART NUMBER | DESCRIPTION                 | QTY. |
|---------------------------|-------------|-----------------------------|------|
| 1                         | 230405      | INJECTION PLATE             | 1    |
| 2                         | 45647       | GASKET                      | 1    |
| 3                         | 63843       | VALVE PISTON                | 1    |
| 4                         | 97569       | PRESSURE SPRING             | 1    |
| 5                         | 97573       | ADJUSTING WASHER            | 1    |
| 6                         | 64460       | LOCKING PLATE               | 2    |
| 7                         | 64461       | SPRING WASHER               | 1    |
| 8 <b>sold separately</b>  | 95633       | DOWEL PIN 21 X 28 DIN 7346  | 2    |
| 9 <b>sold separately</b>  | 97038       | THREADED PIPE JOINT (UNION) | 1    |
| 10 <b>sold separately</b> | 95639       | LOCKING SCREW M16 X 45      | 4    |



## Threaded Pipe Joint Complete



**NOTE:** ITEM SHOULD BE REPLACED WITH  
NEW PIPE JOINT COMPLETE WHEN  
REMOVED FOR SERVICING

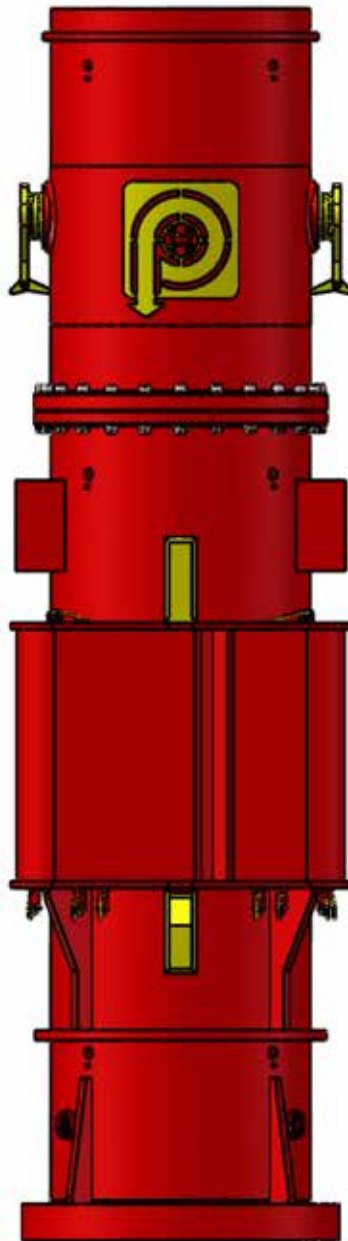
**#1 SOLD COMPLETE**

*\*each part number links to web site part*

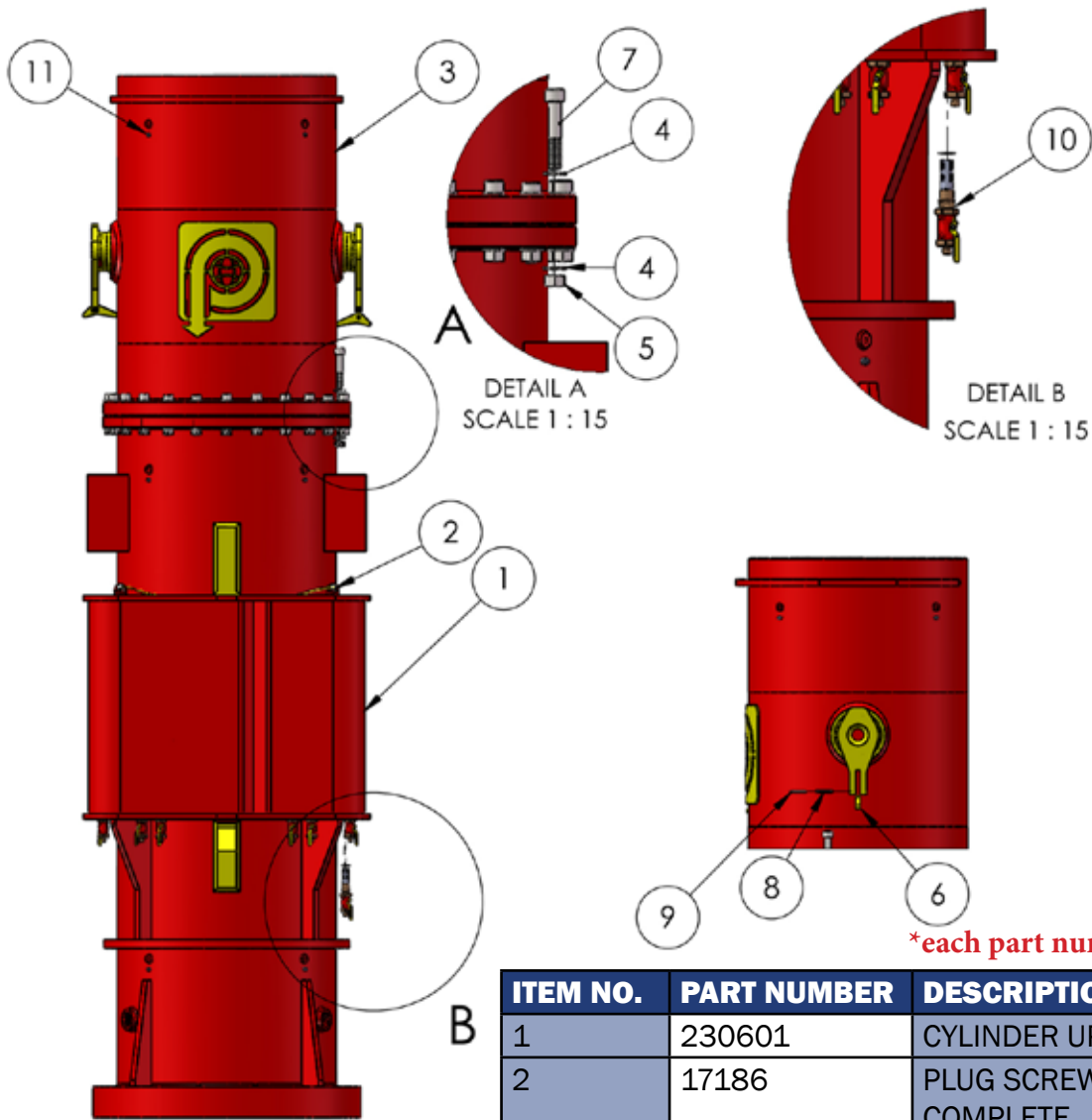
| ITEM NO. | PART NUMBER  | DESCRIPTION         | QTY.     |
|----------|--------------|---------------------|----------|
| <b>1</b> | <b>97038</b> | THREADED PIPE JOINT | <b>1</b> |
| 2        | 97258        | O RING 17 X 1.5     | 2        |
| 3        | 210405       | HOLLOW SCREW        | 1        |
| <b>4</b> | 90127        | OLIVE               | 1        |
| <b>5</b> | 204012       | UNION NUT M16X1.5   | 1        |

**SOLD  
TOGETHER**

# ***Upper Cylinder***

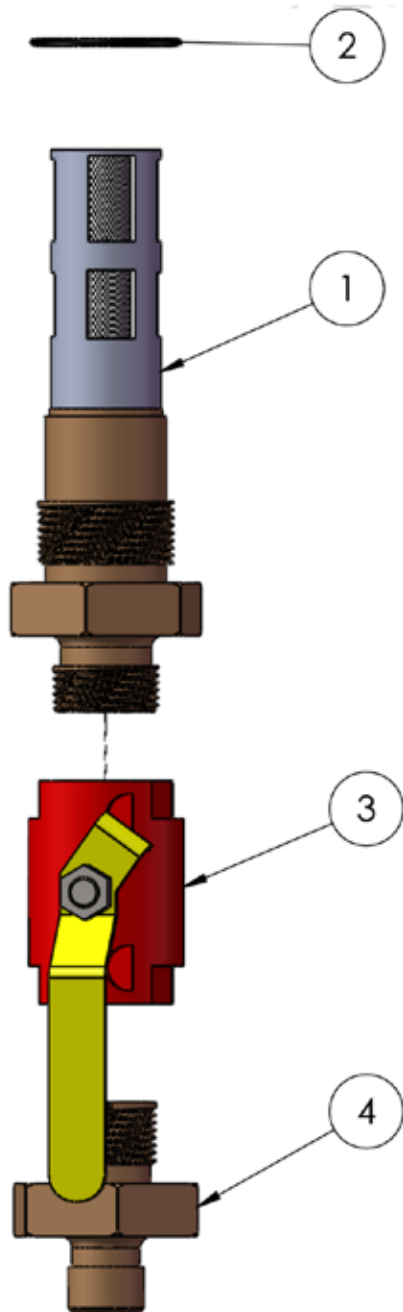


## Upper Cylinder Complete



\*each part number links to web site part

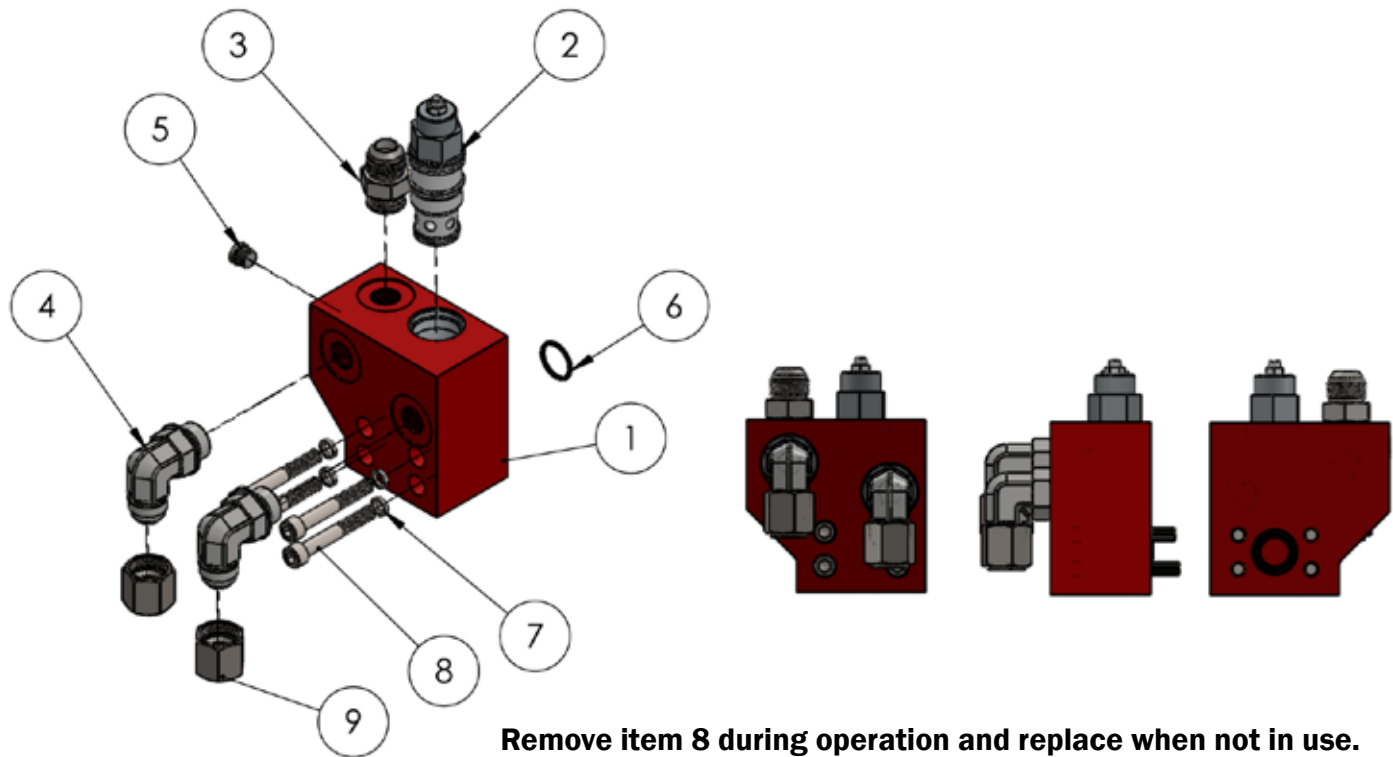
| ITEM NO. | PART NUMBER | DESCRIPTION                       | QTY. |
|----------|-------------|-----------------------------------|------|
| 1        | 230601      | CYLINDER UPPER                    | 1    |
| 2        | 17186       | PLUG SCREW (DIESEL)<br>COMPLETE   | 2    |
| 3        | 230605      | UPPER END RING<br>L=1600mm        | 1    |
| 4        | 220605      | WASHER 30MM                       | 42   |
| 5        | 220604      | 30MM-3.5 HEX NUT                  | 21   |
| 6        | 230604      | RACHET                            | 2    |
| 7        | 230603      | M30 X 160 SOCKET<br>HEAD CAPSCREW | 21   |
| 8        | 230606      | DOWEL PIN 12×80                   | 2    |
| 9        | 95186       | DOWEL PIN 8×80                    | 2    |
| 10       | 220606      | FILTER ASSEMBLY                   | 7    |
| 11       | 90791       | GREASE NIPPLE M10 X 1             | 10   |

**Filter Assembly**


*\*each part number links to web site part*

| ITEM NO. | PART NUMBER | DESCRIPTION                  | QTY. |
|----------|-------------|------------------------------|------|
| 1        | 220607      | FILTER ELBOW                 | 1    |
| 2        | 210607      | ROUND SEALING RING<br>36×1.5 | 1    |
| 3        | 220608      | BALL VALVES 1/2              | 1    |
| 4        | 220609      | SCREW JOINT                  | 1    |

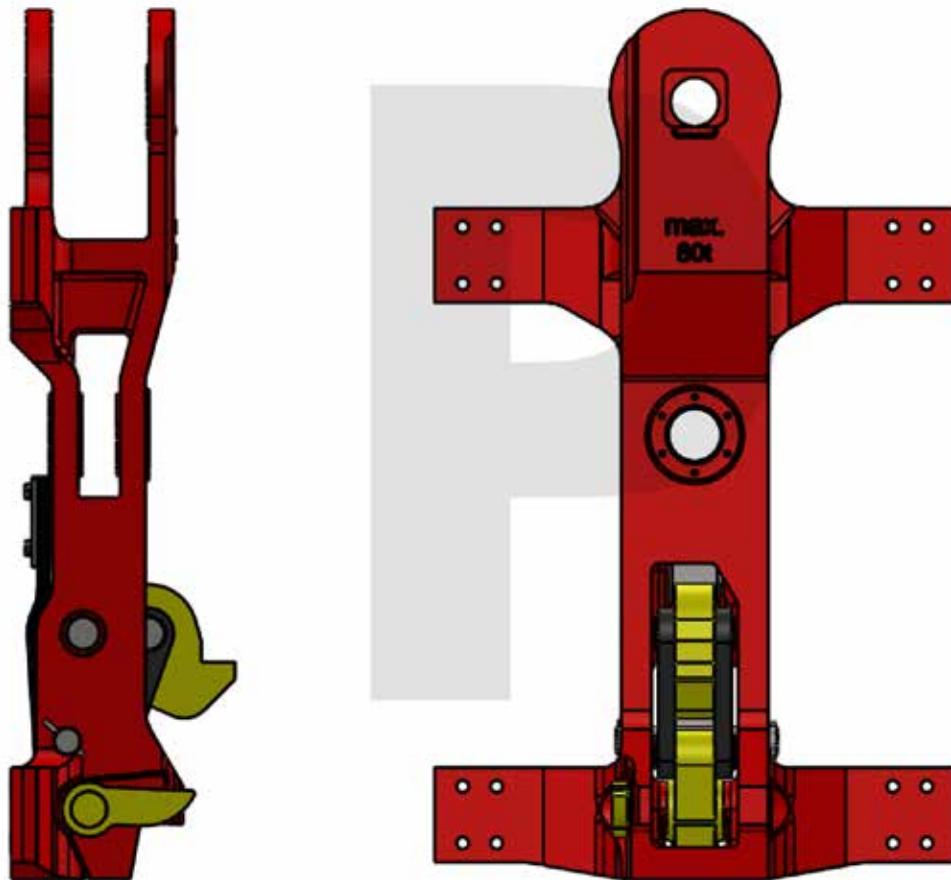
## Counterbalance Valve Assembly



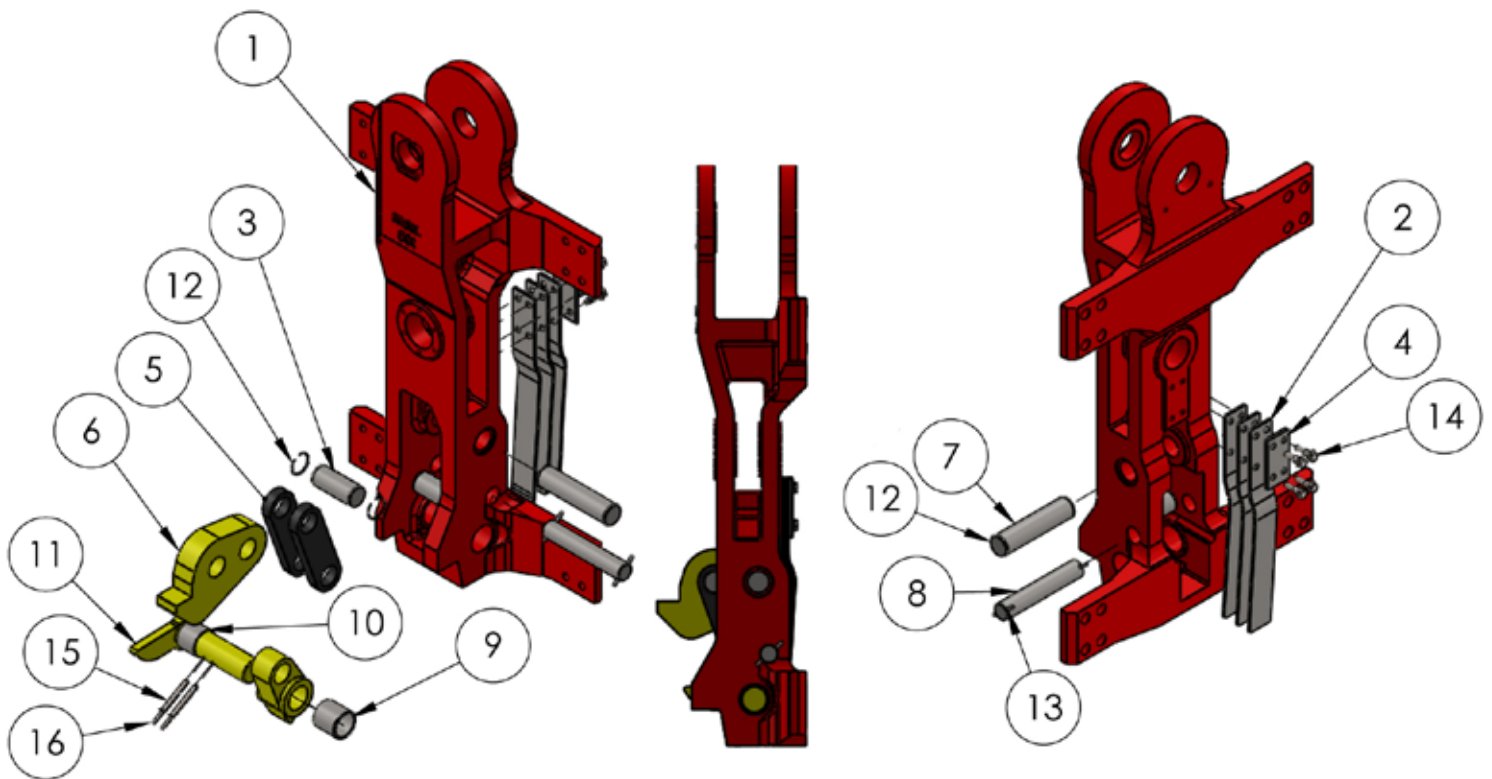
\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION  | QTY. |
|----------|-------------|--|------|
| 1        | 203177      | LOWER HYDRAULIC BLOCK  | 1    |
| 2        | 203122      | CBGG-LJN SUN HYDRAULICS  | 1    |
| 3        | 203124      | 3/4-1 1/16 - 12 JIC Straight Thread Connectors<br>37° Flare /SAE-ORB 12 F50X | 1    |
| 4        | 203112      | 3/4-1 1/16 - 12 JIC 90 Thread Connectors<br>37° Flare /SAEORB 12 C50X        | 2    |
| 5        | 203125      | G1/4 PLUG  | 1    |
| 6        | 203172      | O-RING 2-214 24.99 X 3.53  | 1    |
| 7        | 207116      | 10MM HI COLLAR LOCK WASHER   | 4    |
| 8        | 207115      | 10MM-1.5 X 70 SOCKET HEAD CAP SCREW  | 4    |
| 9        | 203138      | 12 FNTX-S CAP  | 2    |

# ***Hydraulic Starting Device (Trip)***

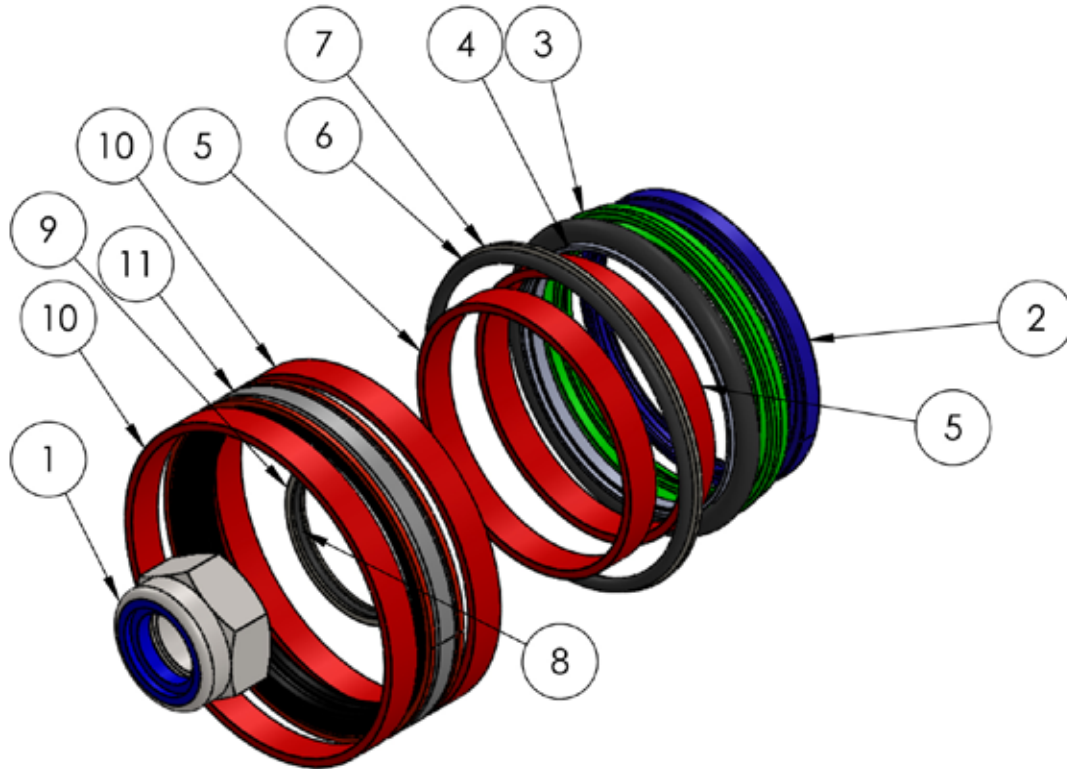


## Hydraulic Starting Device (Trip) Assembly



| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY. |
|----------|-------------|---------------------|------|
| 1        | 230901      | GUIDE BODY          | 1    |
| 2        | 230920      | LEAF SPRING         | 3    |
| 3        | 230913      | JOINT BOLT          | 2    |
| 4        | 230921      | PLATE               | 1    |
| 5        | 230915      | SHACKLE             | 2    |
| 6        | 230912      | PAWL                | 1    |
| 7        | 230925      | JOINT BOLT          | 1    |
| 8        | 230926      | SHAFT               | 1    |
| 9        | 230930      | SLEEVE              | 1    |
| 10       | 230928      | SLEEVE              | 1    |
| 11       | 230916      | PAWL LEVER          | 1    |
| 12       | 230914      | 90 X 2.5 CIRCLIP    | 6    |
| 13       | 230927      | SPLIT PIN 12×140    | 2    |
| 14       | 230922      | LOCK SCREW M24×80   | 4    |
| 15       | 230917      | 20MM X 160 ROLL PIN | 2    |
| 16       | 230918      | ROLL PIN 12×160     | 2    |

## D225 Hydraulic Start Cylinder Ring Kit



\*each part number links to web site part

| ITEM NO. | PART NUMBER | DESCRIPTION                              | QTY. |
|----------|-------------|--|------|
| 1        | 201104      | 20MM X 2.5 NYLON INSERT LOCK NUT         | 1    |
| 2        | 211337      | WIPER SEAL                               | 1    |
| 3        | 211338      | ROD SEAL                                 | 1    |
| 4        | 211339      | ROD SEAL                                 | 1    |
| 5        | 211340      | WEAR RING                                | 2    |
| 6        | 211341      | 165 X 5.7 O-RING                         | 1    |
| 7        | 211342      | 166 X 156-2 BACKING RING                 | 1    |
| 8        | 211343      | 2-230 63.09 X 3.53 O-RING                | 1    |
| 9        | 211344      | 65 X 70.5-1.5 BACKING RING               | 2    |
| 10       | 211345      | 165 X 160-1.5 GUIDING RING               | 2    |
| 11       | 211346      | 165 X 142 X 16 DOUBLE ACTING PISTON SEAL | 1    |





| ITEM NO. | PART NUMBER | DESCRIPTION                         | QTY. |
|----------|-------------|-------------------------------------|------|
| 1        | 90890       | TOOL BOX PART                       | 1    |
| 2        | 231402      | PISTON RING FITTING PLIERS COMPLETE | 1    |
| 3        | 90655       | 30 X 32 DOUBLE ENDED OPEN WRENCH    | 1    |
| 4        | 92015       | 17 X 19 DOUBLE ENDED OPEN WRENCH    | 1    |
| 5        | 90055       | 5MM HEX KEY                         | 1    |
| 6        | 90862       | 6MM HEX KEY                         | 1    |
| 7        | 90194       | 19MM HEX KEY                        | 1    |
| 8        | 90795       | GREASE GUN, 14 OZ                   | 1    |
| 9        | 93551       | MOLYLUBE GREASE                     | 12   |
| 10       | 90443       | 19 X 22 OPEN END WRENCH             | 1    |
| 11       | 231401      | PISTON RING BAND                    | 2    |
| 12       | 231403      | M100 RING SCREW                     | 1    |
| 13       | 90657       | 8MM HEX KEY                         | 1    |
| 14       | 90184       | SINGLE ENDED OPEN SPANNER 46        | 1    |
| 15       | 93600       | OIL CAN                             | 1    |
| 16       | 95071       | 17MM WRENCH SINGLE OPEN END         | 1    |
| 17       | 90465       | 27MM SINGLE ENDED OPEN WRENCH       | 1    |
| 18       | 95834       | DOUBLE ENDED RING SPANNER 22×24     | 1    |
| 19       | 90354       | PUNCH 4/8 DIAMETER                  | 1    |
| 20       | 93349       | PUNCH 12/16 DIAMETER                | 1    |
| 21       | 90791       | GREASE NIPPLE M10 X 1               | 4    |
| 22       | 90079       | 14MM HEX KEY                        | 1    |
| 23       | 90469       | 10MM HEX KEY                        | 1    |
| 24       | 261512      | 13 X 15 DOUBLE ENDED RING WRENCH    | 1    |
| 25       | 94461       | IMPACT SOCKET 36MM                  | 1    |
| 26       | 90196       | RACHET                              | 1    |
| 27       | 90785       | PLIERS 7"                           | 1    |
| 28       | 230917      | 20MM X 160 ROLL PIN                 | 2    |
| 29       | 230918      | ROLL PIN 12×160                     | 2    |
| 30       | 22700       | ASSEMBLY PLATE COMPLETE             | 1    |
| 31       | 93371       | 17MM HEX KEY                        | 1    |
| 32       | 93370       | 22MM HEX KEY                        | 1    |
| 33       | 93347       | 27MM HEX KEY                        | 1    |