

To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

Enerpac recommends that all kit components be installed to insure optimum performance of the repaired product.

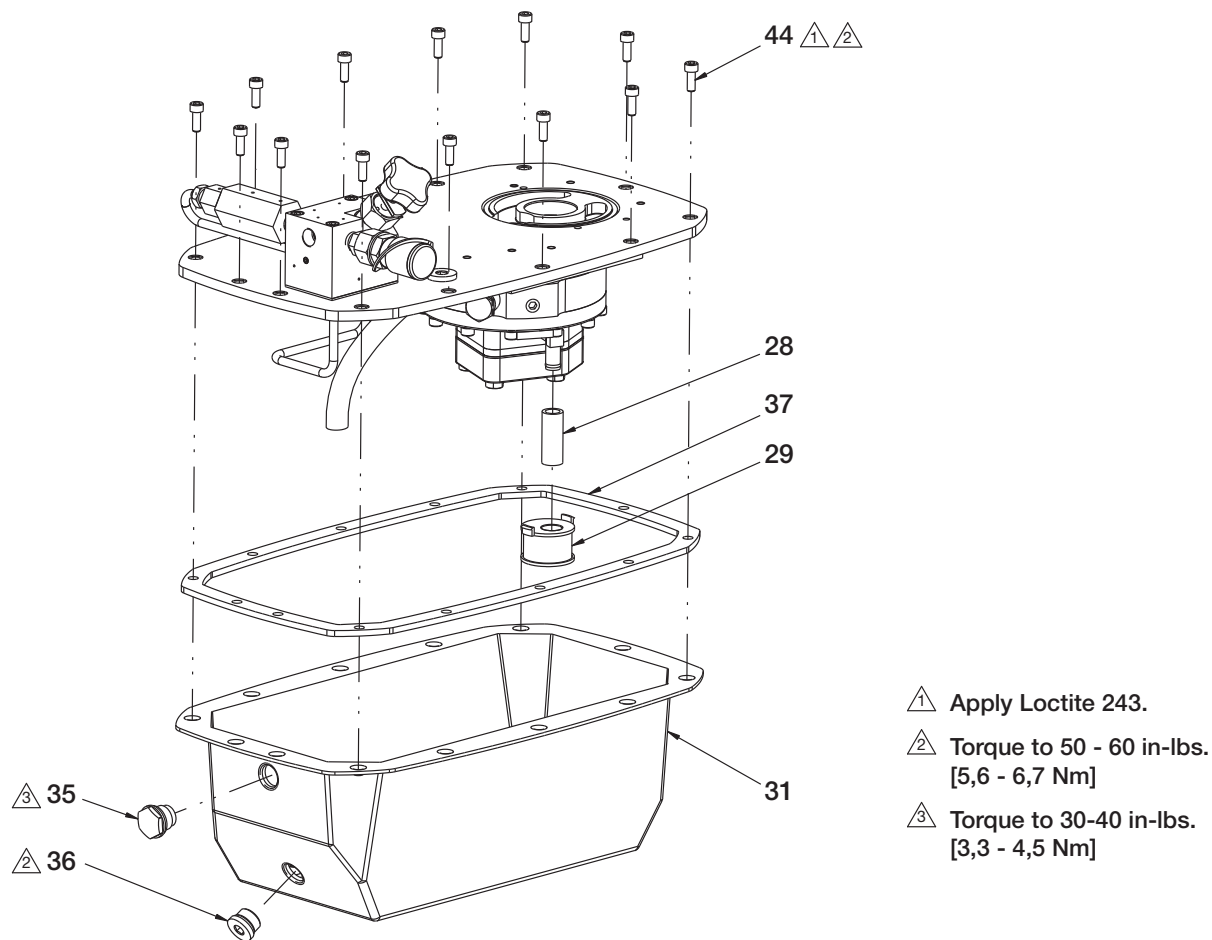
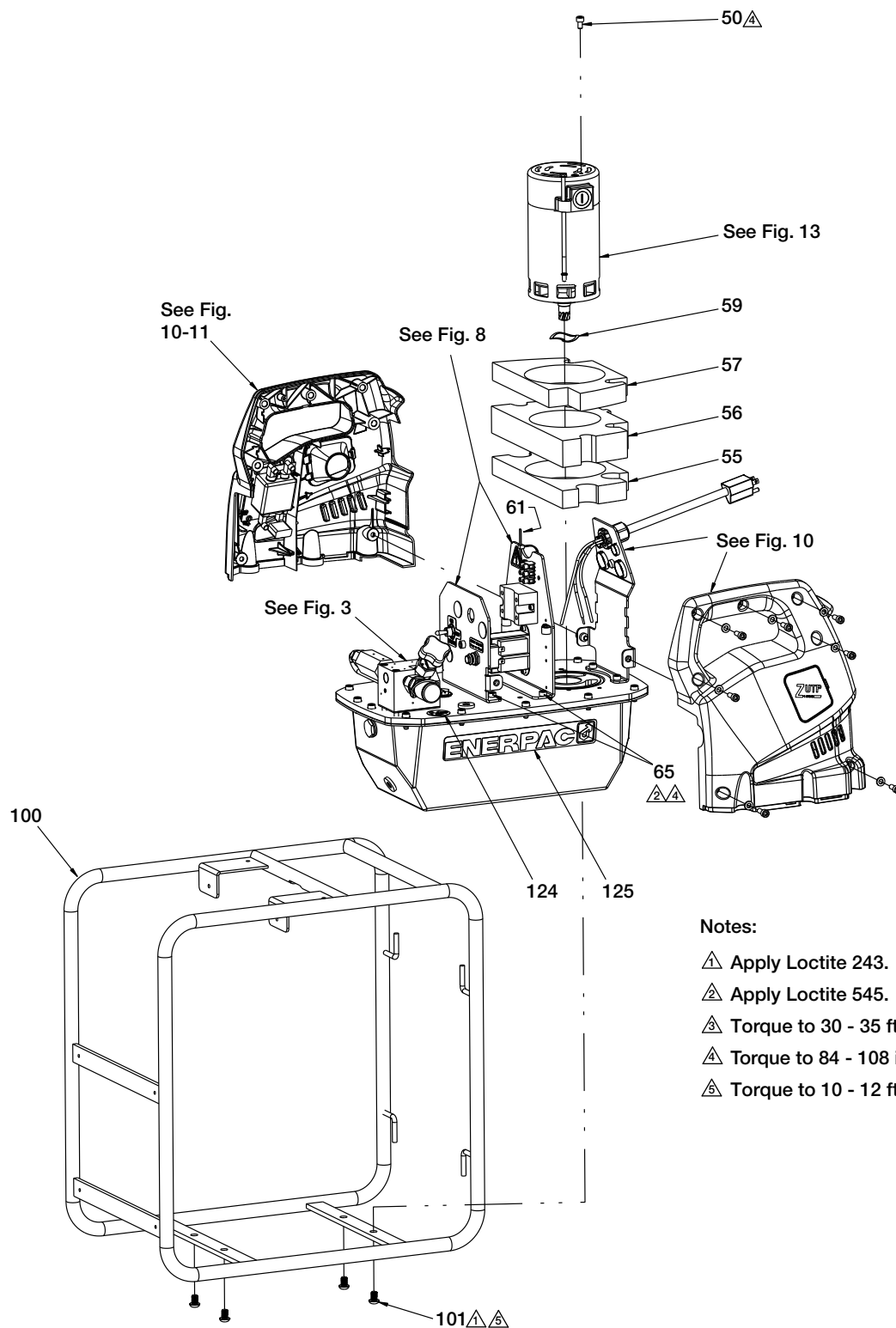


Figure 1, Reservoir and Coverplate Assembly

Repair Parts List for Figure1			
Item	Part Number	Qty.	Description
28	◆ DC9600268	1	Tube, Intake, 4L
29	◆ DC9178118	1	Filter, Intake
31	DD2070025	1	Reservoir, 4L, Aluminum
35	DC85900	1	Assembly, Sight Glass
36	DC8249006	1	Plug, Threaded Magnetic
37	■ DC9406037	1	Reservoir Gasket
44	CBE619028-1A	13	Screw, Socket Hd. M6 x 16 Zinc
◆ Items included in and available only as part of Repair Kit DD3360900SR.			
■ Items included in and available only as part of Repair Kit DC9551920SR.			



Notes:

- ▲ Apply Loctite 243.
- ▲ Apply Loctite 545.
- ▲ Torque to 30 - 35 ft-lbs. [40,6-47,4 Nm]
- ▲ Torque to 84 - 108 in-lbs. [9,4-12,2 Nm]
- ▲ Torque to 10 - 12 ft-lbs. [13,5-16,2 Nm]

Figure 2, Pump Main Assembly

Repair Parts List for Figure 2							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
50	(See Fig. 13)	1	SHCS, M6 x 10mm Lg	65	CBE619028-1A	4	SHCS, M6-1 x16" Zinc
55	DC9401298	1	Baffle, Lower	100	DD1654920	1	Roll Cage (late style)
56	DC9400298	1	Baffle, Middle	101	CBE817028-1E	4	BHCS, M8 x 12mm Zinc
57	DC9402298	1	Baffle, Upper	124	DC9920026	1	Decal, Read Instructions
59	DC9661066	1	Washer, Wavy, 40mm	125	DC9596026	2	Decal, Enerpac
61	DC9876647	1	Cable Tie, Black, 1"				

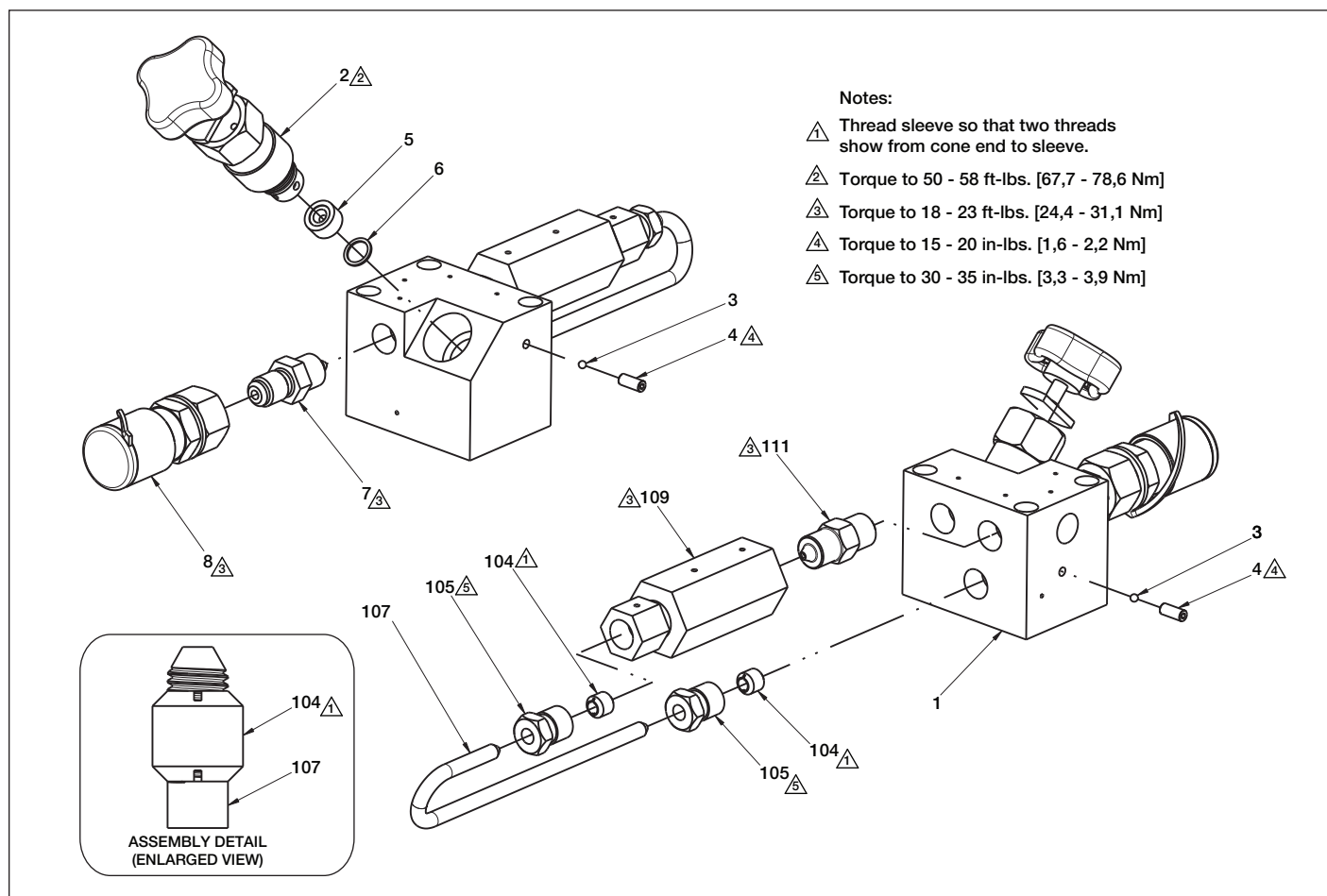


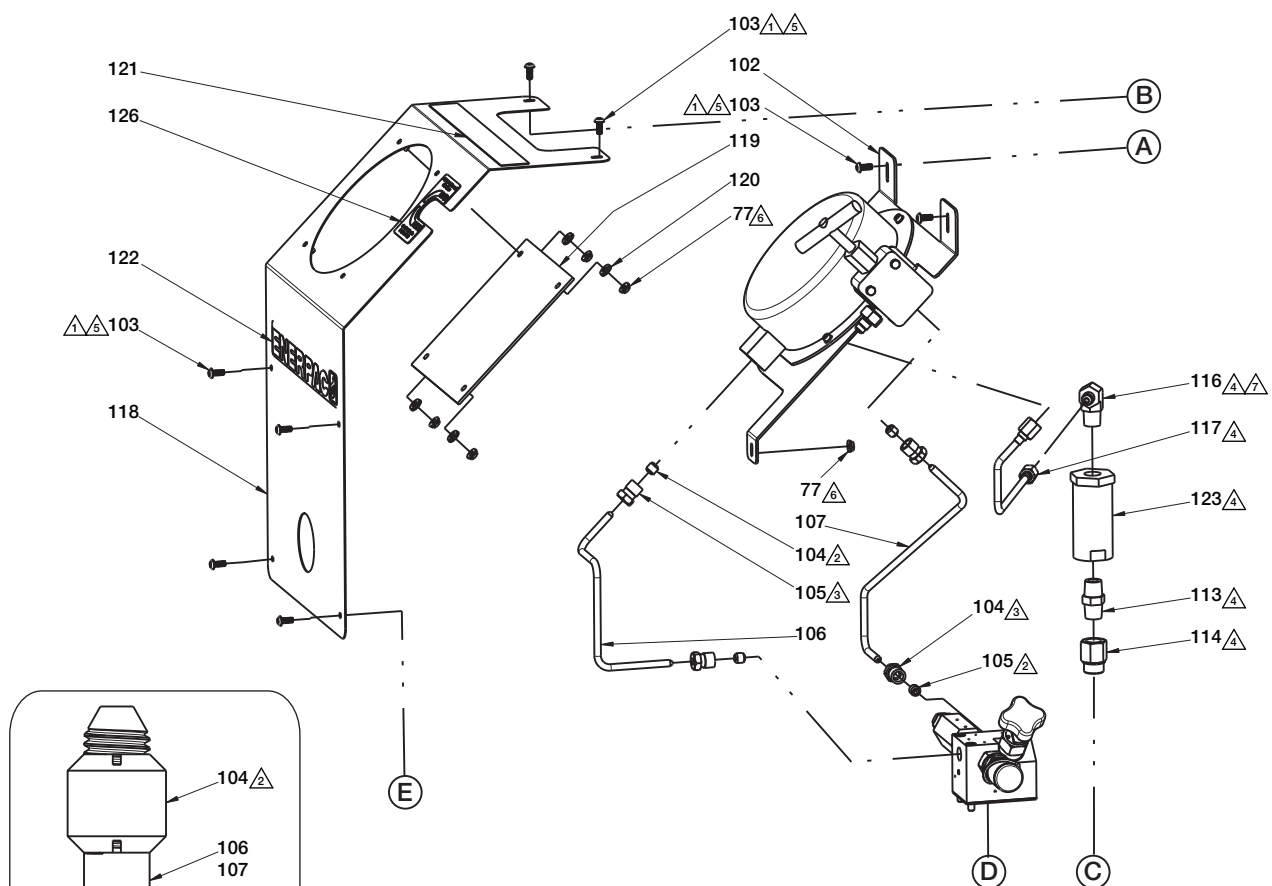
Figure 3, Assembly, Valve Manifold

Repair Parts List for Figure 3							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	❖ (DD1652038)	1	Port Block, ZUTP-1500	8	❖ DC7495034	1	Coupler, Female w/Cap
2	❖ (See Figure 6)	1	Assembly, Press Relief Valve	104	❖ F162232	2	Sleeve
3	❖ B1003016	2	Ball, 1/8" Dia	105	❖ F160021	2	Gland Nut
4	❖ BF1907027A	2	Screw, Set 10-32	107	❖ DD1658268	1	Tube, High Pressure
5	❖❖❖ DD2109290	1	Seat, ZUTP MPARV	109	❖ DD1673663	1	Check Valve, High Pressure
6	❖❖❖ P20037	1	Gasket	111	❖ DD1594038	1	Adaptor, 1/4" Male HP
7	❖ ❖ DD1679038	1	Adaptor, 1/4" HP to G1/4				

❖ Items included as part of DD2496920SR Manifold Block Repair Kit.

❖❖❖ Items included as part of DD2493920SR Relief Valve Seat and Piston Repair Kit.

❖❖❖ Items included as part of DD2497920SR Relief Valve Service Kit.



Notes:

- ▲ Apply Loctite 243.
- ▲ Thread sleeve so that two threads show from cone end to sleeve.
- ▲ Torque to 30 - 35 ft-lbs. [40,6 - 47,0 Nm]
- ▲ Torque to 15 ft-lbs [20 Nm] minimum.
- ▲ Torque to 6 - 10 in-lbs [0,6 - 1,1 Nm]
- ▲ Torque to 10 - 15 in-lbs. [1,1 - 1,6 Nm]
- ▲ Apply Loctite 545.

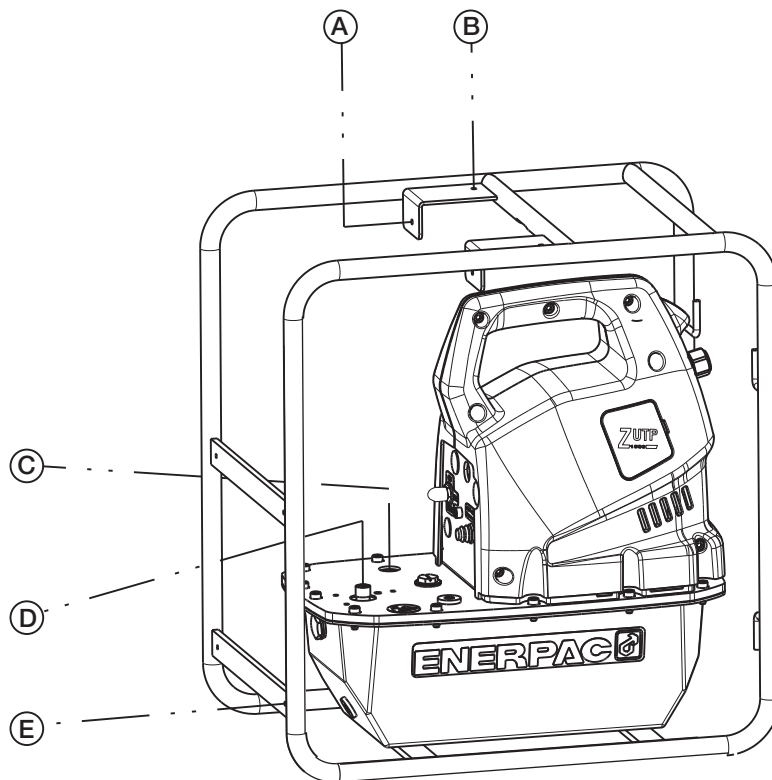


Figure 4, Assembly, Front Panel and Hydraulic Components

Repair Parts List for Figure 4							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
77	DD1004122	2	Nut, M5 Serrated	116	DA12300094	1	Elbow, Male
102	DD2377900	1	Subassembly, Gauge Bracket	117	DD2379268	1	Tube Assembly, Return
103	CBE515028-1E	8	Screw Button Head M5 X 10	118	DD1674424	1	Shroud, Metal
104	F162232	2	Sleeve, Service Only	119	DD1005689	1	Guard, Gauge
105	F160021	2	Gland Nut	120	DC1063108	4	Washer, Sealing
106	DD5207268	1	Tube, High Pressure	121	DC7812026	1	Decal, Warning
107	DD1661268	1	Tube, High Pressure	122	CR59026	1	Decal, Enerpac
113	CJ651096	1	Nipple, Pipe	123	DD1013118	1	Filter, Inline
114	F100096-38	1	Adapter, SAE 8 to 3/8"	126	DD2453026	1	Decal, ZUTP Valve

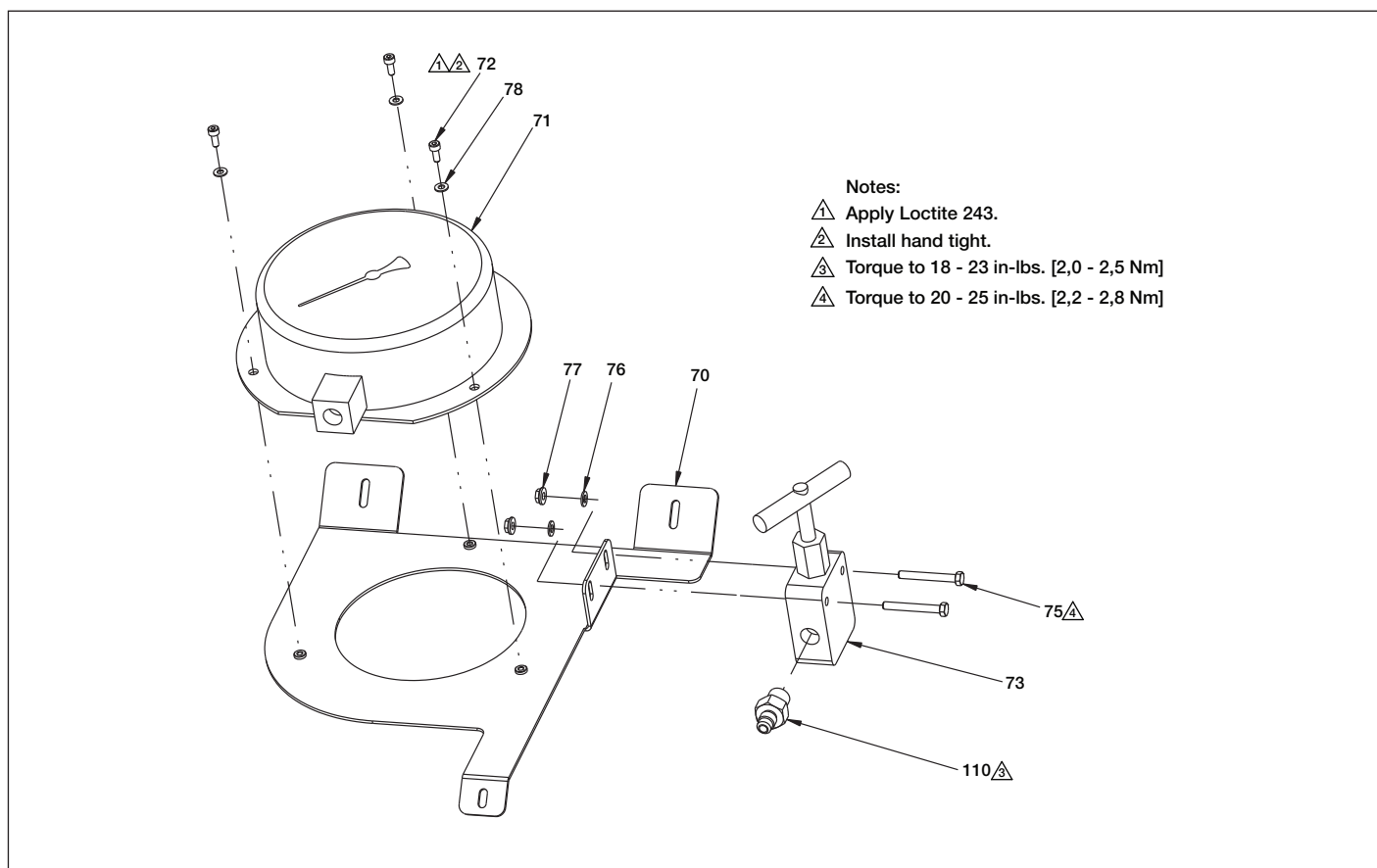


Figure 5, Assembly, Gauge Bracket

Repair Parts List for Figure 5							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
70	DD1669111	1	Bracket, Gauge	76	CAE1050108-1A	3	Washer
71	DD3338223	1	Gauge, 0-30,000 PSI	77	DD1004122	5	Nut, M5, Serrated
72	CBE415028-1A	3	SHCS, M4 x 7 x 10, Zinc	78	CAE1040108-1A	3	Washer
73	DC8508662	1	Valve, Pressure Release	110	DD2456038	1	Adaptor, F250C to 1/4" JIC
75	CBE529046-1A	2	Screw Hex Hd, M5 x 40mm				

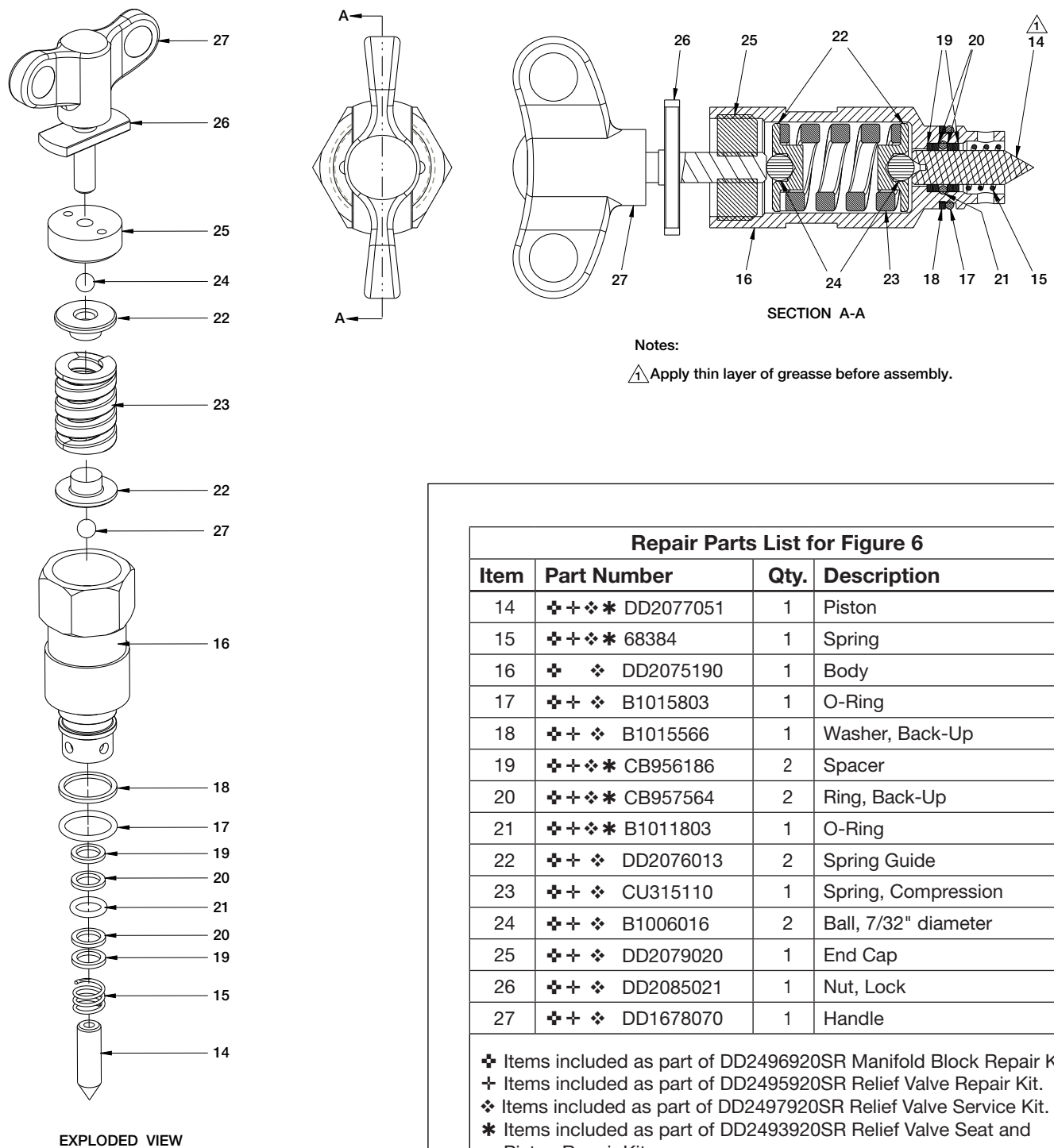


Figure 6, Relief Valve, User Adjustable (MPARV Style)

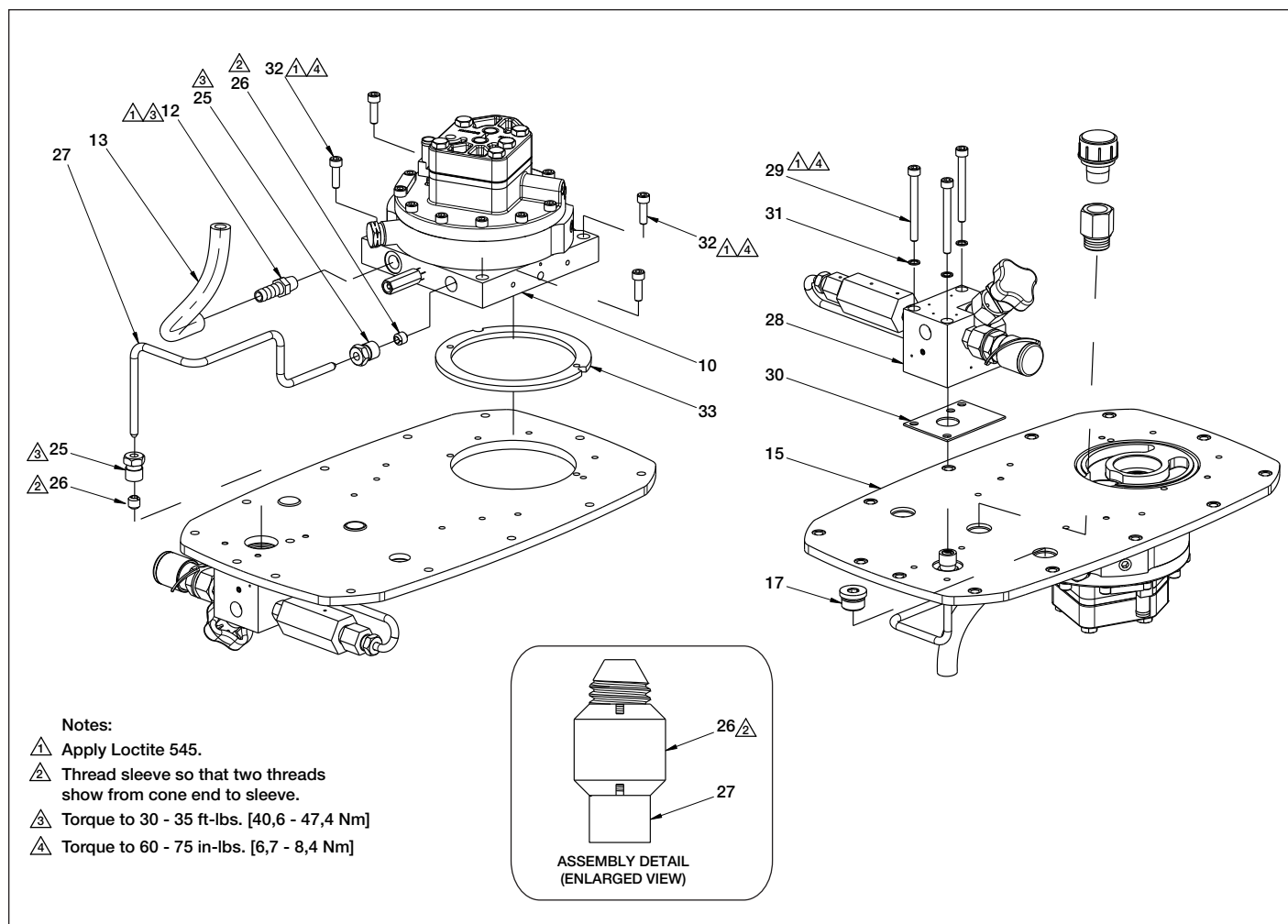


Figure 7, Pump Element Subassembly

Repair Parts List for Figure 7							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
10	❖ DD3360900SR	1	Pump Element Assy	27	DD5206268	1	Tube, High Pressure
12	F100097-16	1	Fitting, Hose Barb	28	DD2362900	1	Assembly, Valve Manifold
13	DC9335646	1	Hose, Bypass, 8"	29	CBE637028-1A	3	Screw, M6 x 1.0 x 60mm
15	DD1655101	1	Cover Plate	30	DD1677037	1	Gasket
16	DC9586271	1	Thread Protector	31	S3037	3	Gasket
17	B1006006	1	Plug, Socket, SAE #8	32	CBE621028-1A	1	SHCS, M6 x 20mm Zinc
25	F160021	2	Gland Nut	33	■ DC9550037	1	Gasket, Pump, Universal
26	F162232	2	Sleeve				

❖ Includes complete replacement pump element (MPE) assembly.
 ■ Items included in and available only as part of Repair Kit DC9551920SR.

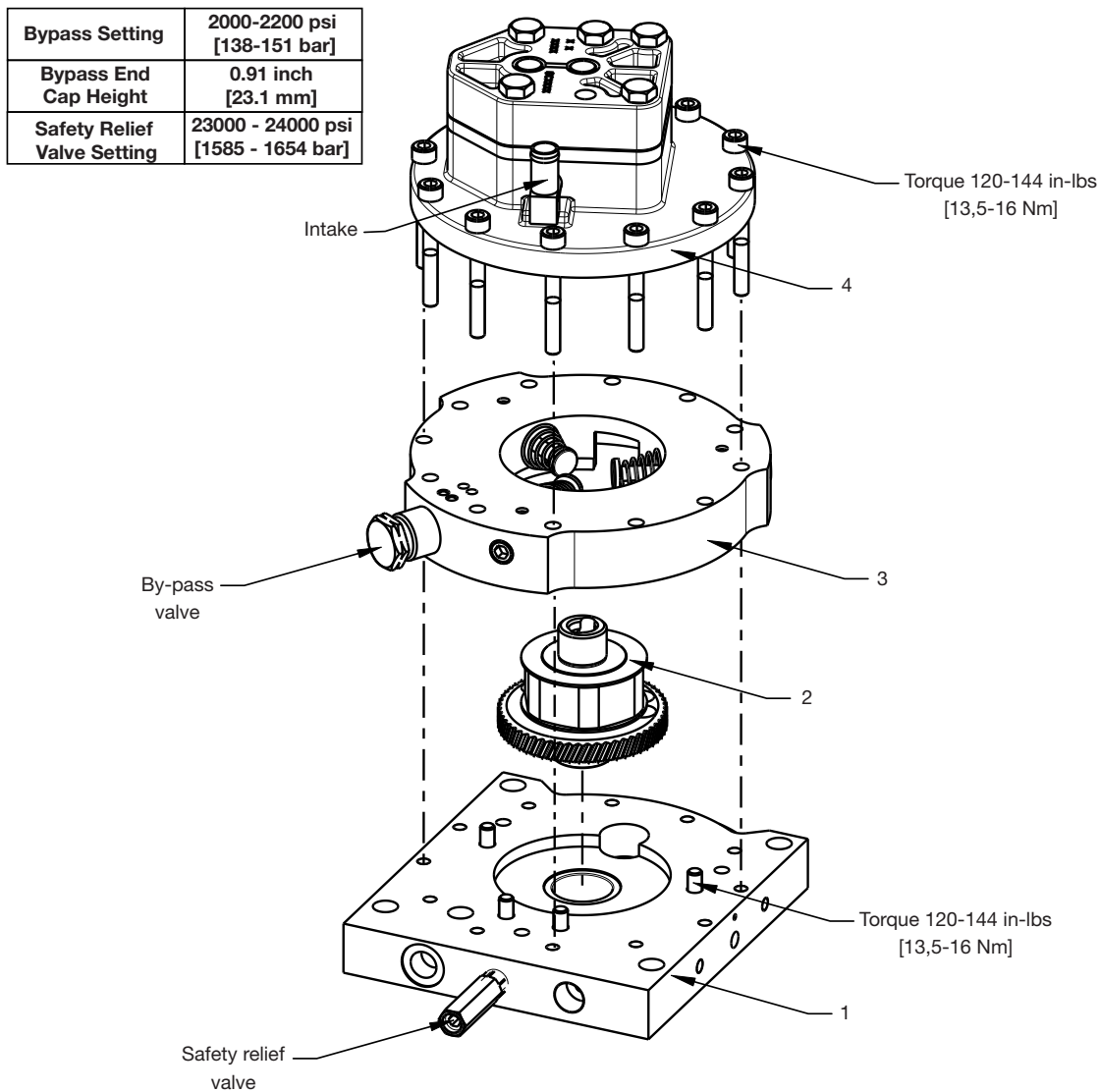


Figure 8, Pump Element Subassembly (3 Piston)

Repair Parts List for Figure 8				
Item	Part Number	Qty.	Description	Figure
1	◆ DD3362900	1	ZUTP1500 Top Plate Assembly	15
2	◆ DD3364900	1	Eccentric Assembly .05" Offset	16
3	◆ DD3363900	1	ZUTP1500 Piston Ring Assembly	17
4	◆ DC9285900	1	Gear Pump Assembly	18
◆ Items included in ZUTP pump element replacement kit (DD3360900SR).				

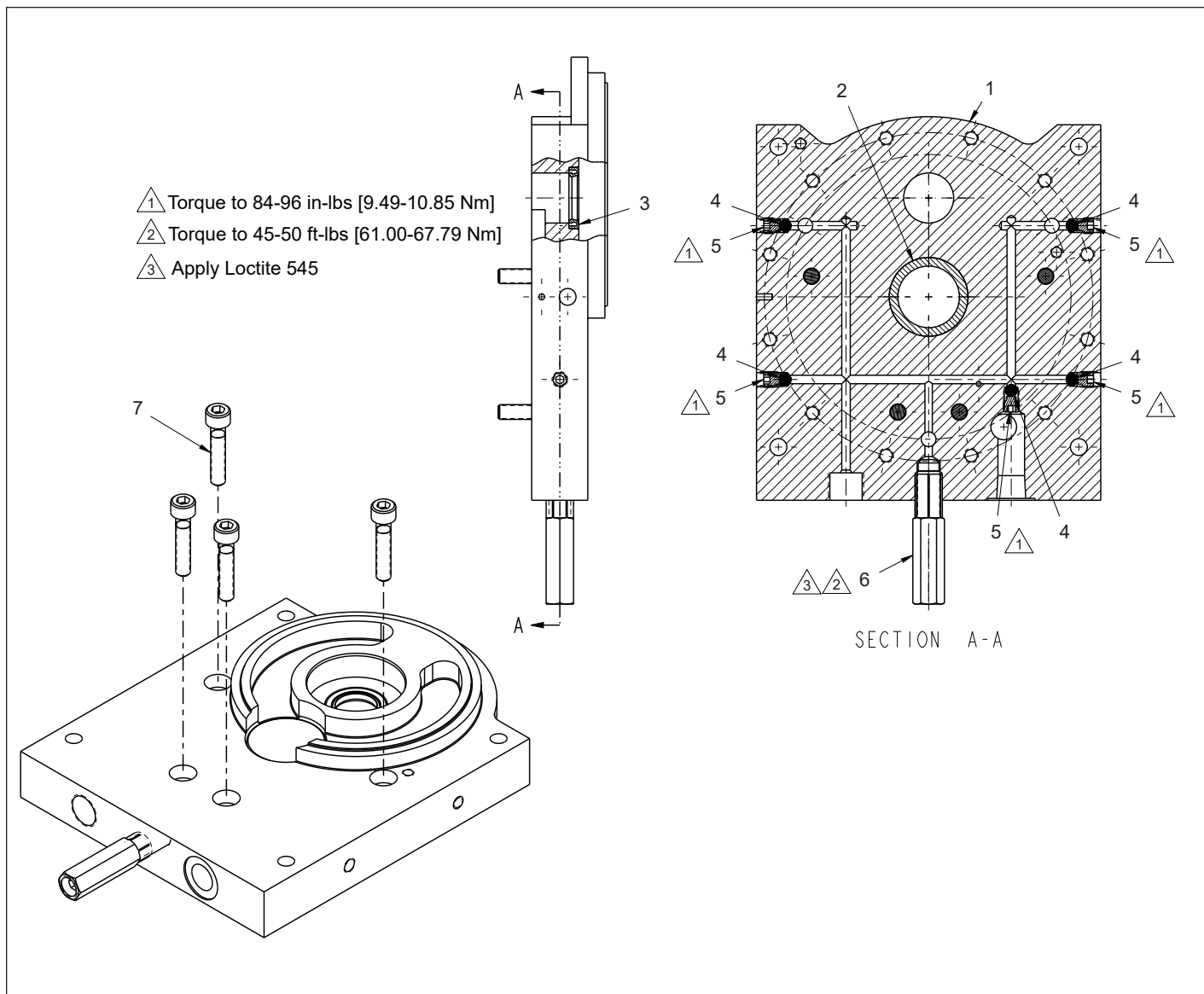


Figure 9, Top Plate Assembly

Repair Parts List for Figure 9				
Item	Part Number		Qty.	Description
1	*	DD2944101	1	Top Plate, 3 Piston MPE
2	*	DC9240155	1	Bearing, Needle 25 x 32 x 16 CL
3	*	DC9041776	1	Oil Seal, 17 x 25 x 4SC
4	*	B1005016	5	Ball, 3/16" Diameter
5	*	BC2504027D	5	Set Screw
6	*	DC7831900	1	Safety Relief Valve Assembly
7	*	CCA623028-1A	4	SHCS Screw
* Items included in ZUTP top plate service repair kit DD4098900 (shipped pre-assembled).				

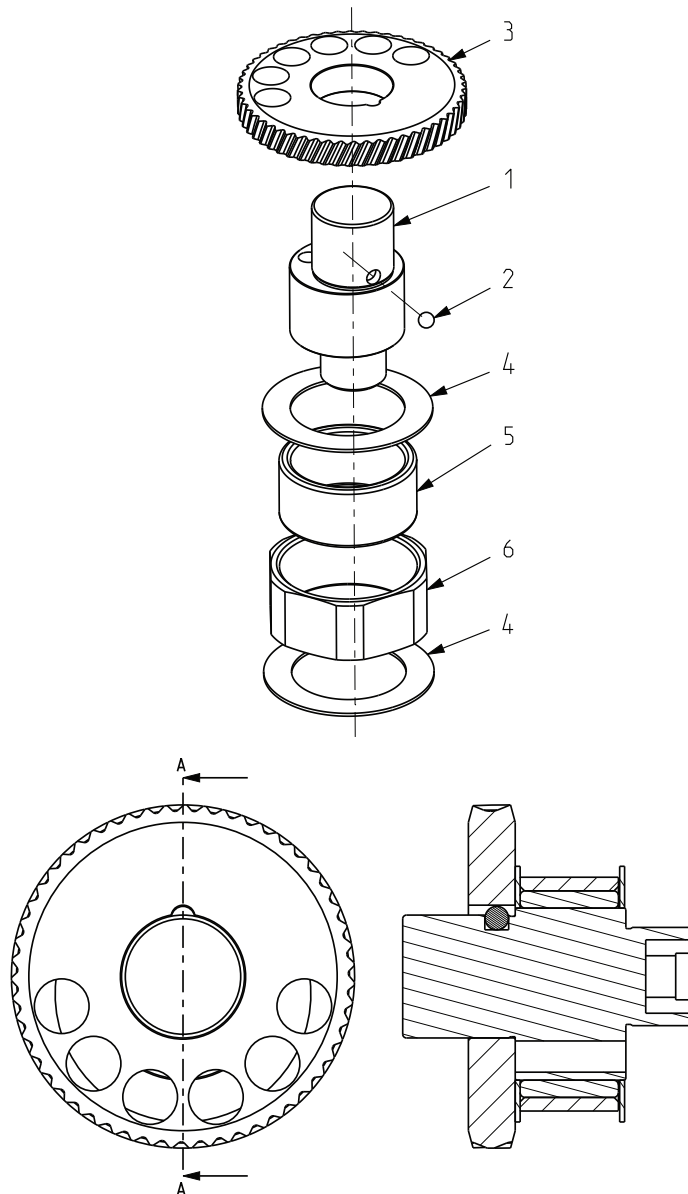


Figure 10, Eccentric Assembly

Repair Parts List for Figure 10			
Item	Part Number	Qty.	Description
1	♦ DD2960537	1	Eccentric
2	♦ B1005016	1	Ball
3	♦ DC9241228	1	Gear
4	♦ BS4725D	2	Ring
5	♦ DC4107155	1	Bearing
6	♦ DC4328350	1	Hex Cam
♦ Items included in ZUTP eccentric service repair kit DD4104900. Items 1, 2 and 6 are available ONLY as part of the kit and cannot be ordered separately.			

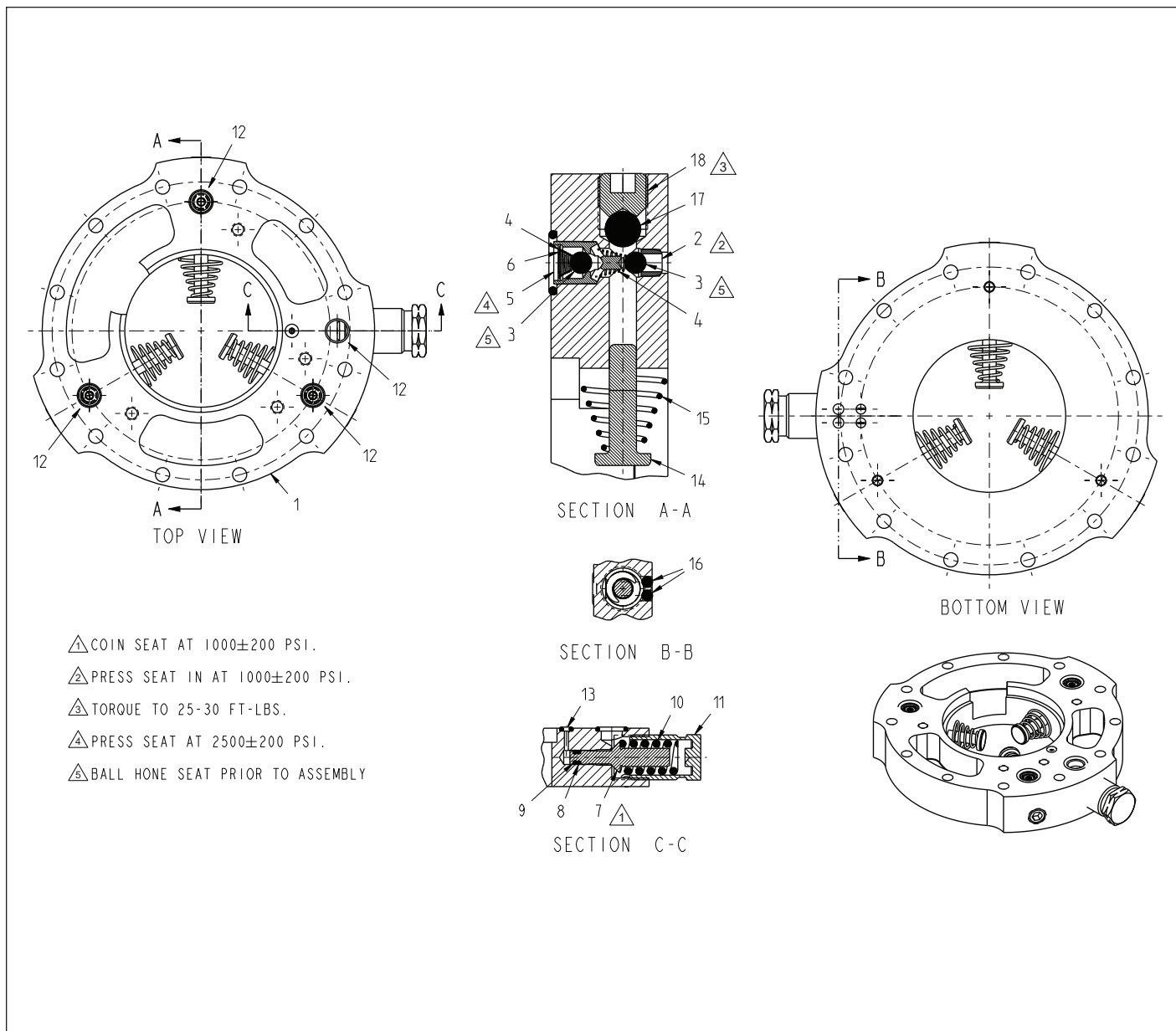


Figure 11, Piston Ring Assembly

Repair Parts List for Figure 11							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	* DD2937101	1	Piston Ring, 3 Piston	10	* DC394110	1	Spring, Bypass
2	** BSS5358D	3	Seat, Piston Inlet	11	* DC9208080	1	End Cap, Bypass
3	** B1005016	6	Ball	12	* B1013803	4	O-Ring
4	** BSS5809D	6	Spring, Piston Check	13	* B1005403	1	O-Ring
5	** BSS5357D	3	Seat, Piston Outlet	14	* CN691051	3	Piston Assembly
6	** BSS5356D	3	Retaining Ring	15	* BSS5509D	3	Spring
7	* DC9292051	1	Piston Bypass	16	* DC9293016	2	Ball
8	* B1006564	1	Washer, Back-up	17	* B1009016	3	Ball
9	* B1006803	1	O-Ring, 1/4" O.D.	18	* BF4406027A	3	Set Screw

★ Items included in ZUTP soft parts service kit DD2492920SR.
 * Items included in ZUTP piston ring service repair kit DD4102900.
Note: See Figure 18 for seat tool fabrication drawing.

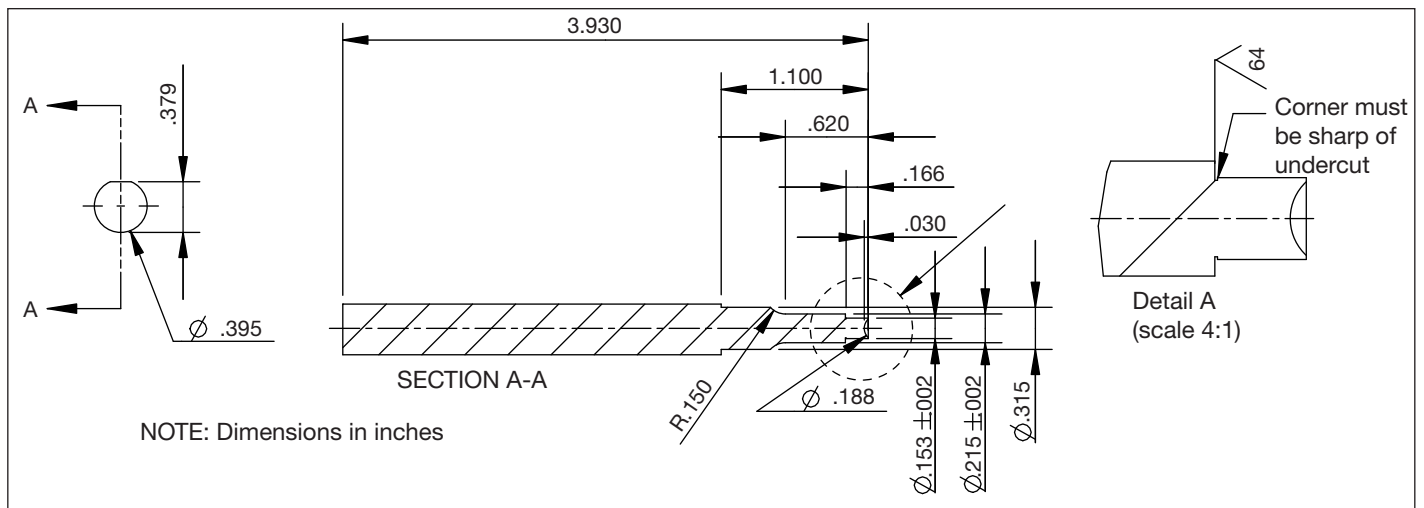


Figure 12, Seat Tool Fabrication Drawing

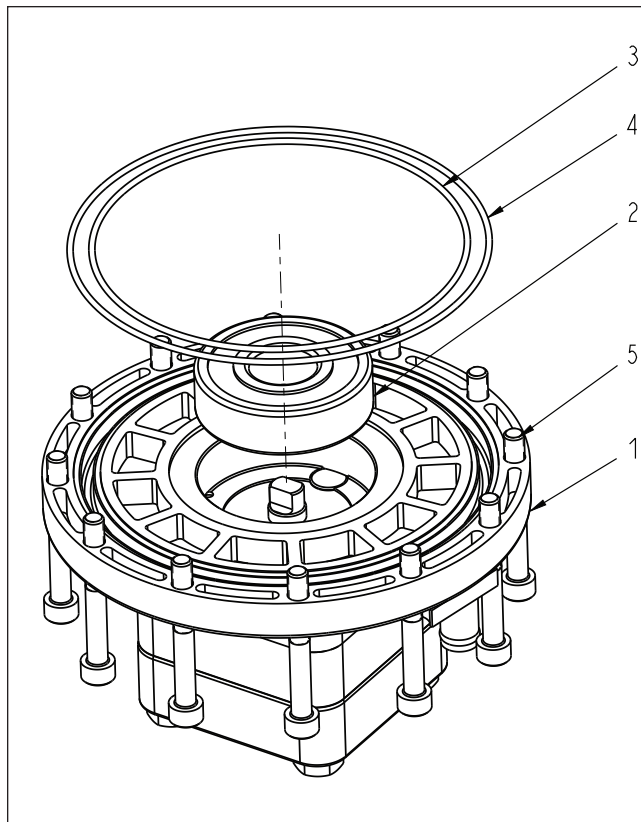


Figure 13, Gear Pump and O-Rings

Repair Parts List for Figure 13

Item	Part Number	Qty.	Description
1	★ DC9296920	1	Gear Pump
2	★ DC9219155	1	Bearing, Ball 20 x 52 x 15
3	★ ★ B1400503	1	O-Ring
4	★ ★ B1402503	1	O-Ring
5	CCA633028-1A	12	SHCS Screw

★ Items included in ZUTP soft parts service kit DD2492920SR.
 ★ Items included in ZUTP gear pump replacement kit DC9296920SR.

Table 1 - Specifications and Settings
ZUTP Three Piston Pump Element

Bypass Setting	Bypass End Cap Height (see Fig. 12)	Safety Relief Valve Setting (see Fig. 16, Item 10)
2000-2200 psi [138-151 bar]	0.91 inch [23.1 mm]	23000 - 24000 psi [1585 - 1654 bar]

Table 2 - Service Repair Kits - ZUTP Three Piston Pump Element

Pump Element Service Repair Kit	Top Plate Service Repair Kit	Eccentric Service Repair Kit	Piston Ring Replacement Kit	Gear Pump Replacement Kit
DD3360900SR See Figure 8	DD4098900 See Figure 9	DD4104900 See Figure 10	DD4102900 See Figure 11	DC9296920SR See Figure 13

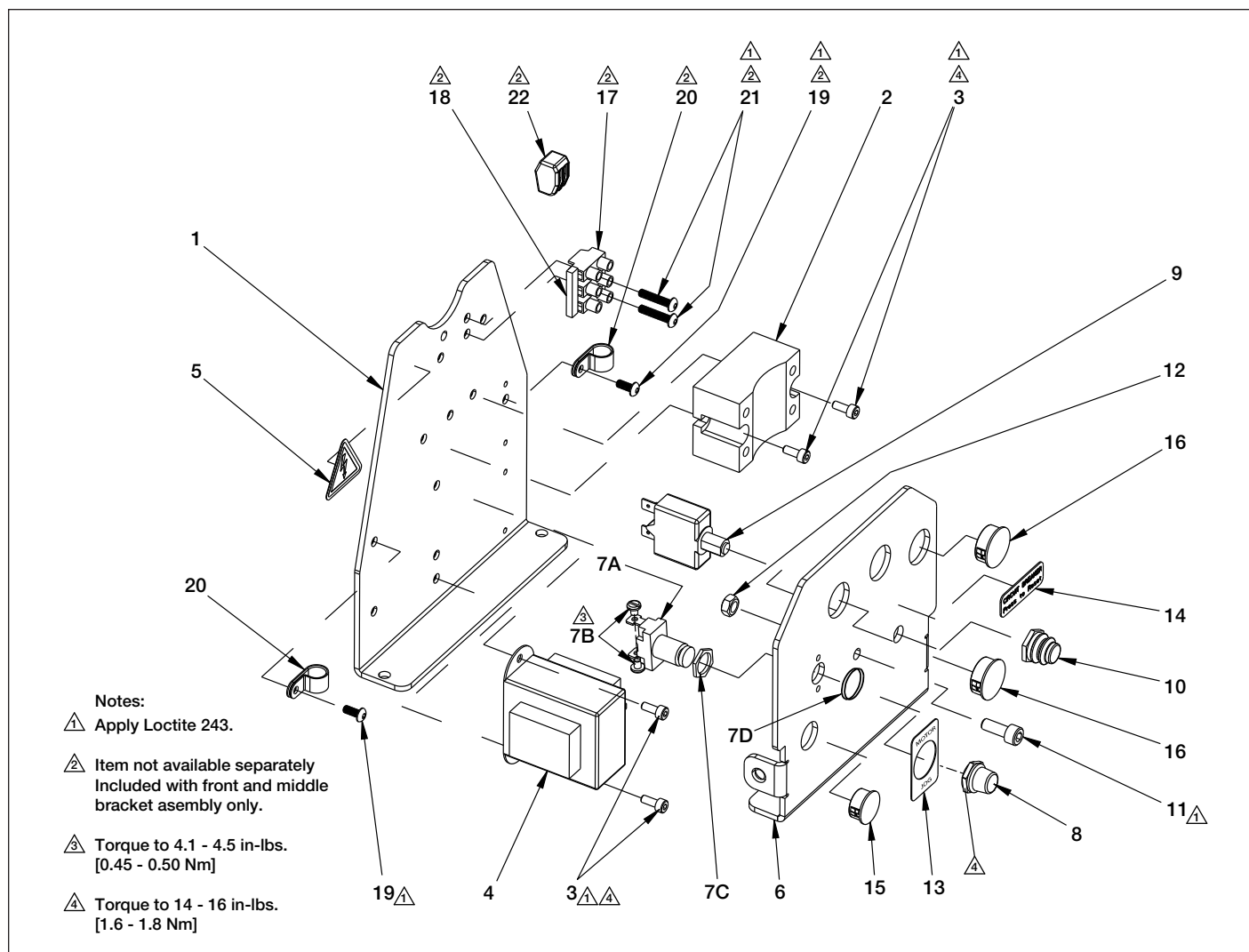


Figure 14, Electrical Components, Front and Middle Bracket

Repair Parts List List for Figure14

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	DC8354111	1	Bracket, Middle	10	DC8200380	1	Cap, Circuit Breaker
2	DD2211980	1	SSR	11	CBE619028-1A	1	SHCS, M6 x 16 mm Zinc
3	CBE415028-1A	4	SHCS, M4-7 x 10 mm Zinc	12	CBE1060120-AD	1	Nut, M6
4	DD2067480	1	Transformer	13	DD2856026	1	Decal, Motor Jog
5	DC9922026	1	Decal, High Voltage	14	DC8237026	1	Decal, CB Reset
6	DC8353111	1	Bracket, Front	15	DC9436009	1	Dome Plug, 16 mm
7A	DC8282379	1	Switch, Pushbutton, NO	16	DC9437009	2	Dome Plug, 20 mm
7B	---	2	Screw (included with 7A)	17	---	1	Terminal Block
7C	---	1	Nut (included with 7A)	18	---	1	Terminal Bus
7D	---	1	Nut (included with 7A)	19	---	2	Screw, Button Hd. M4 x 10
8	DC8284379	1	Boot, Pushbutton, Black	20	---	2	P-Clip
9	DD3378380	1	Circuit Breaker (115 V)	21	---	2	Screw, Button Hd. M4 x 20
	DD2790380	1	Circuit Breaker (230 V)	22	---	1	Wire Connector

Note: Complete front and middle bracket service kit includes all items shown above. Order the kit for your pump voltage:

• DD5808900SR - 115V Models. • DD5809900SR - 230V Models. • DC5810900SR - 230V CE Models.

Wires and hardware (not shown) are included with service kit.

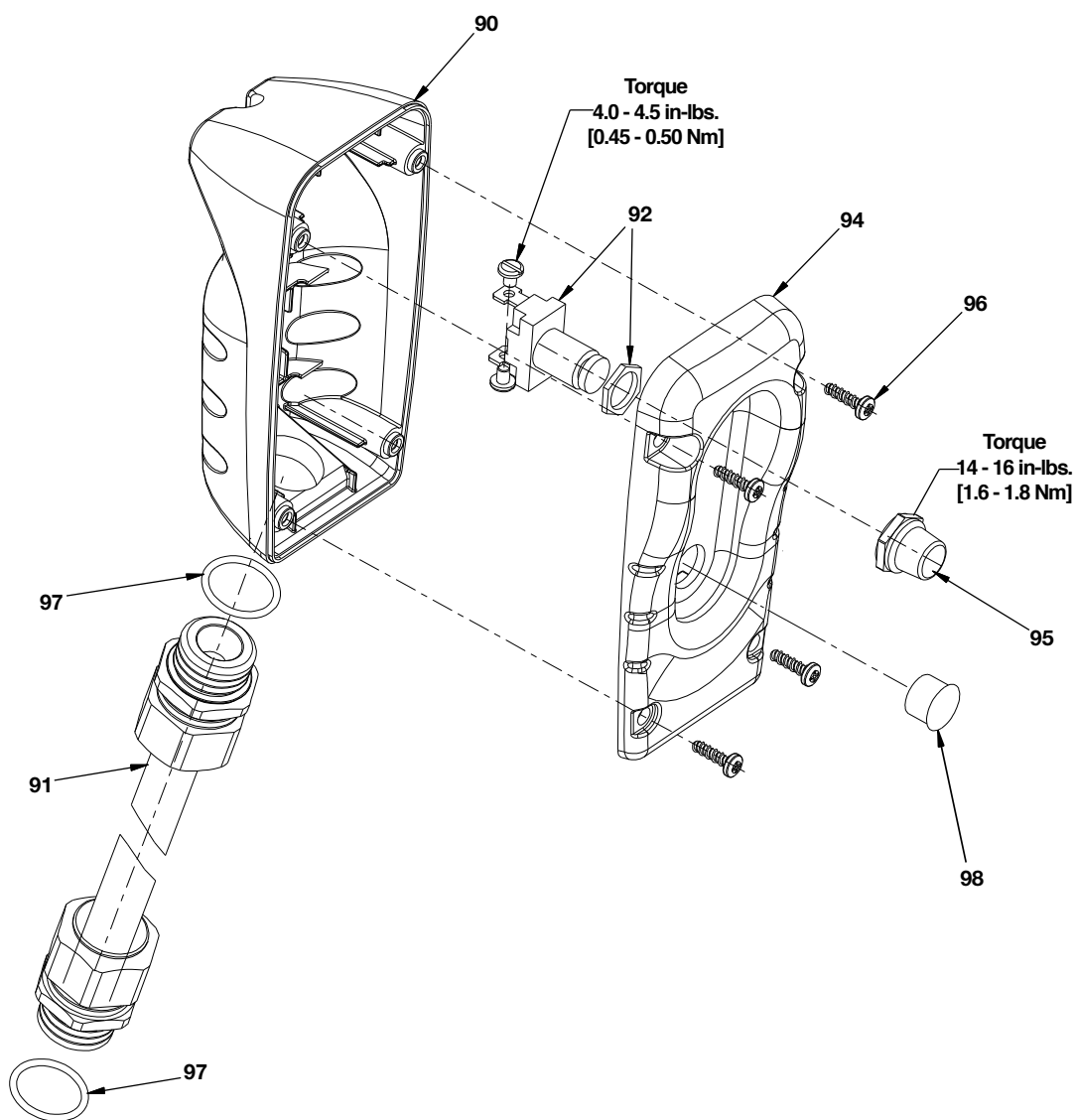


Figure 15, Pendant Assembly

Repair Parts List for Figure 15

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
91	DC8206960	1	Pendant Cable, 20 FT	96	DC9428008	4	Screw, Hi-Low #8 x 1/2
92	DC8282379	1	Switch, Pushbutton, NO	97	B1223503	2	O-Ring
94	DC8122424	1	Enclosure, Upper	98	DC8228009	1	Plug

Note: Pendant Kit ZCP-1M includes all items shown above.

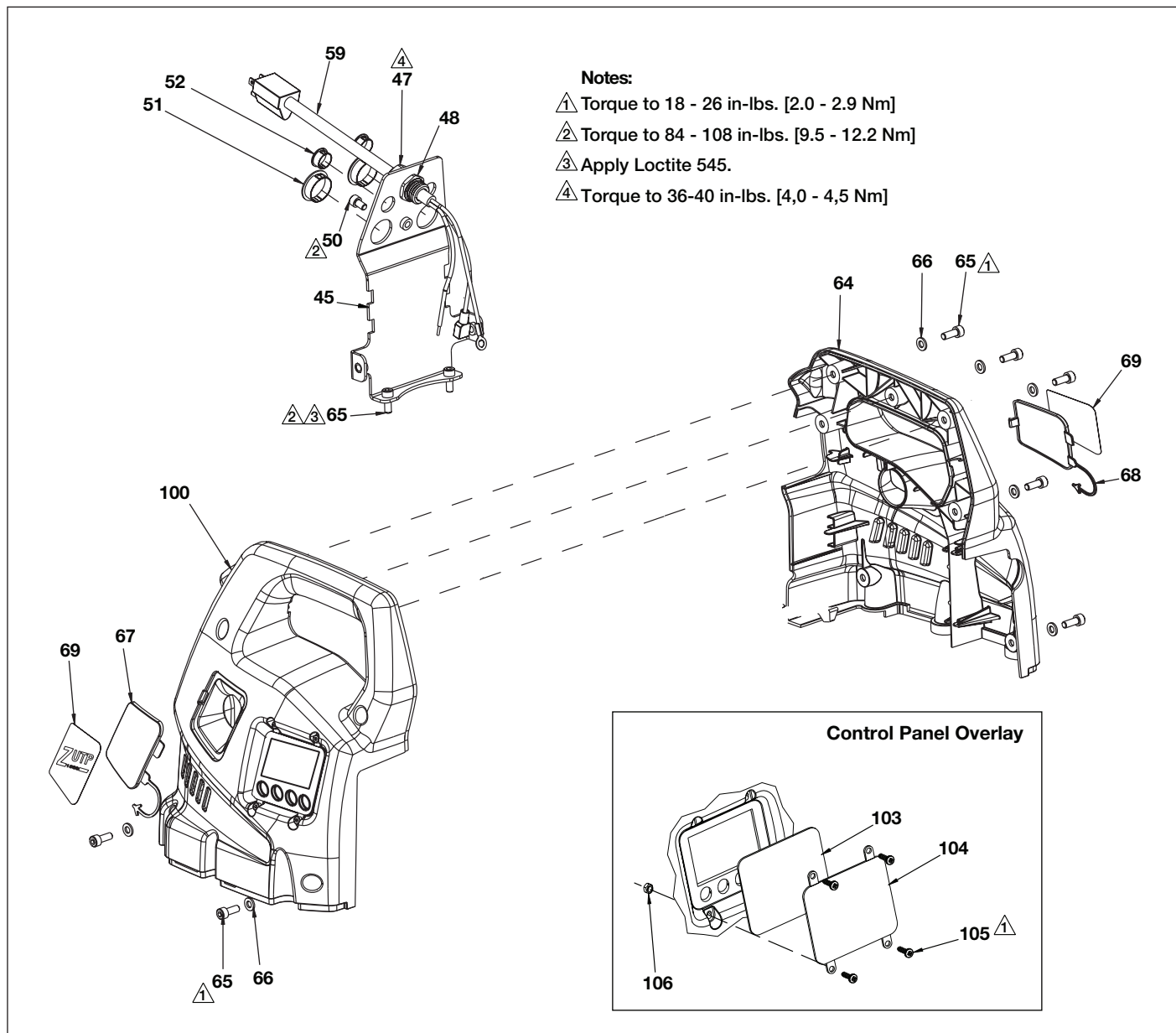


Figure 16, Shroud and Back Bracket Details

Repair Parts List for Figure 16							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
45	DC9405111	1	Back Bracket	65	CBE619028-1A	11	SHCS M6-1 x 16mm
47	B1223503	1	O-Ring	66	CAE1060108-1A	9	Washer, Flat, M6
48	DC9538021	1	Nut, Lock 20mm	67	DC9414424	1	Brush Cap, LH
50	CBE615028-1A	1	SHCS, M6 x 10mm	68	DC9413424	1	Brush Cap,RH
51	DC9435009	2	Dome Plug, 1"	69	DD2479026	2	Decal, Brush Cap
52	DC9435009	2	Dome Plug, 1"	100	* * DC9412424	1	Enclosure, LH
59	DC8286960	1	Power Cord - 115V 15A	103	* * DC8241037	1	Gasket, Overlay
	DC8287960	1	Power Cord - 230V NEMA	104	* * DC8240026	1	Overlay, Shroud
	DC8288960	1	Power Cord - 230V CE	105	* * CBE415028-1A	4	SHCS, M4 x 7 x 10mm
64	DC9411424	1	Enclosure, RH	106	* * CBE1040120-1D	4	Nut, 4mm

* Included in LH shroud subassembly DD2454900 (115 and 230V US Models).
 * Included in LH shroud subassembly DD2383900 (230V CE Models).

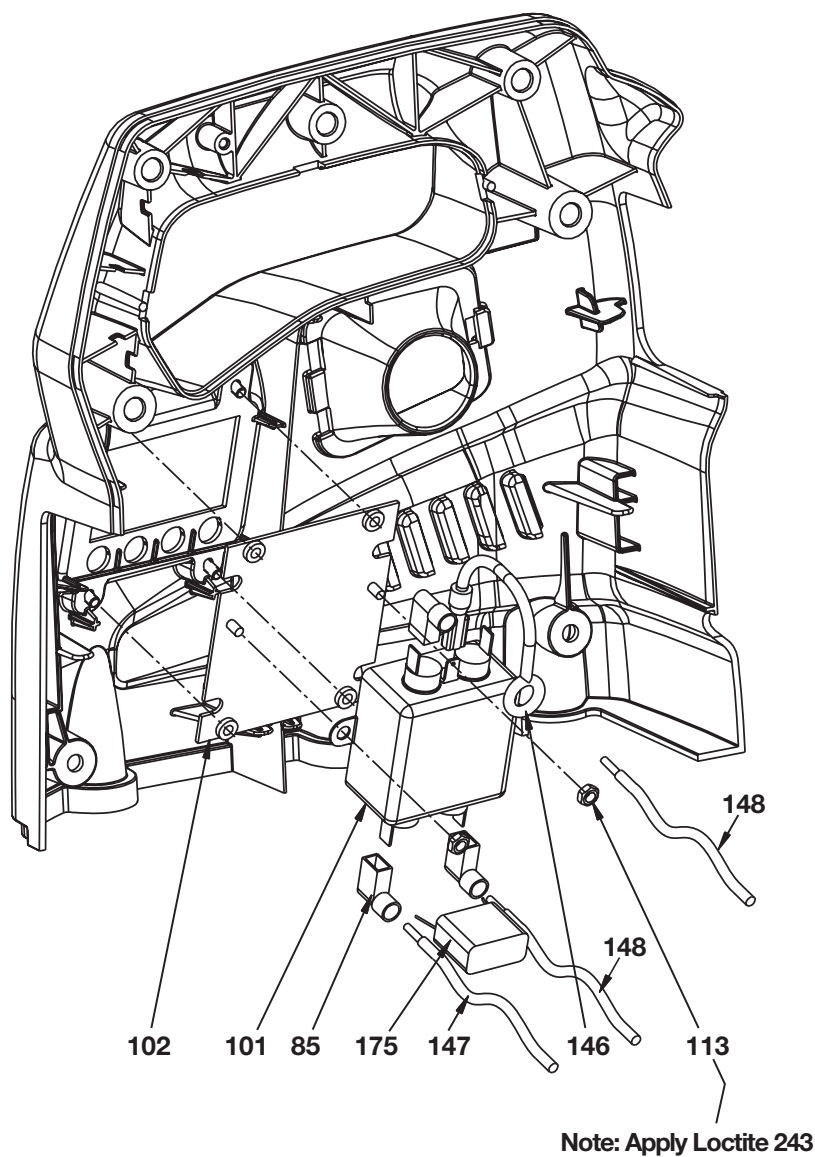


Figure 17, EMI Filter (230V CE Models Only)

Repair Parts List for Figure 17

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
85	* E1001352	3	Flag Connector, 1/4"	146	* DC9583960	1	Ground Earth Wire
101	* DC9580380	1	EMI In-line filter	147	* DD1591960	2	RF Filter Cable (blue)
102	* DC8290111	1	CE Bracket	148	* DD1590960	1	RF Filter Cable (brown)
113	* CBE1040120-1D	2	Nut, 4mm	175	* DC9579382	1	Capacitor, 1 Microfarad

* Included in LH shroud subassembly DD2383900 (230V CE Models only).

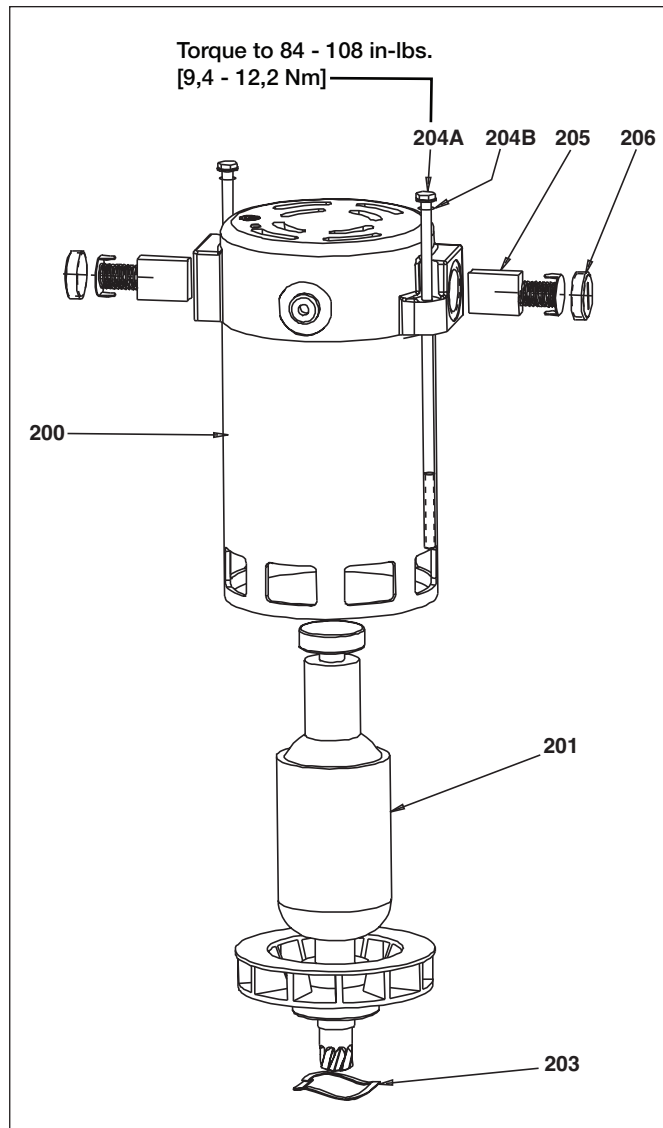


Figure 18, Electrical Motor Components

Repair Parts List for Figure 18			
Item	Part Number	Qty.	Description
85	▲ ▼ E1001181	2	Terminal, Flag (not shown)
200	Not available	-	Housing (order complete motor)
201	▼ DC8246736	1	Armature, 115V, ZU4
	▲ DC8247736	1	Armature, 230V, ZU4
203	▲ ▼ DC9661066	1	Spring Washer
204A	▲ ▼ DC9653028	2	Bolt #10-32 x 6.5"
204B	▲ ▼ B1080066	2	Washer, Lock
205	▲ ▼ DC9656259	2	Brush, ZU4
206	▲ ▼ DC9655020	2	Brush Cap, ZU4
▲ Items included as part of DC8244259SR Motor Kit (115V).			
▼ Items included as part of DC8245259SR Motor Kit (230V).			

115 Volts or 230 Volts 60 or 50 Hz., AC
Line Voltage In

Power Cord.
DC8286960 for 115V DC8287960 for 230V
DC8288960 for CE 230V

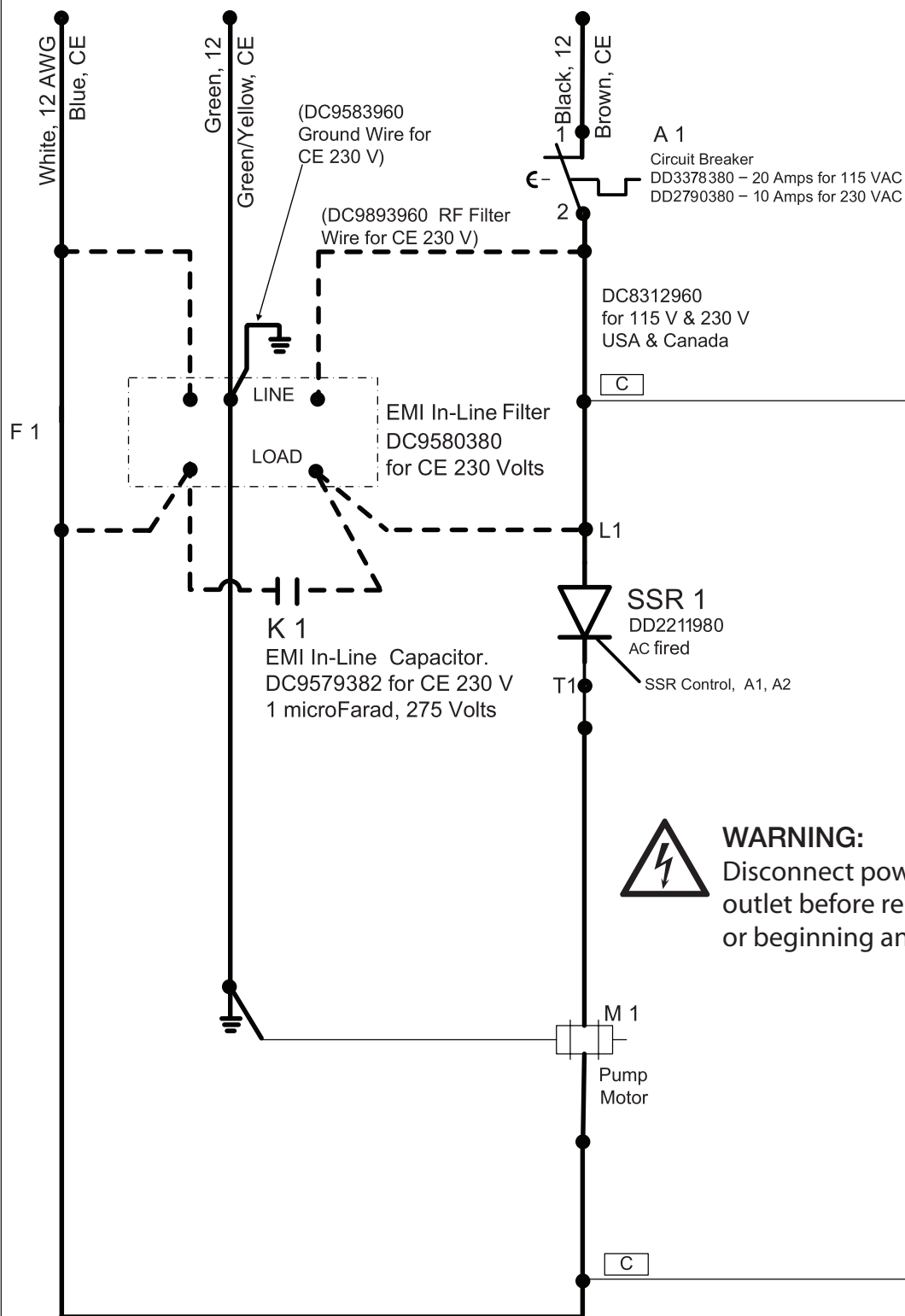


Figure 19, Electrical Diagram, ZUTP-1500 Electric Pump, Date Code "B" (View 1 of 2)



