

H-20/35 Pro Proportioning Unit

Parts Identification Manual 66942-ID

March 30, 2004

Issue 1

GUSMER CORPORATION®

A Subsidiary of Gusmer Machinery Group, Inc.

One Gusmer Drive

Lakewood, New Jersey, USA 08701-8055

Toll Free 1-800-367-4767 (USA & Canada)

Phone: (732) 370-9000

Fax: (732) 905-8968

Copyright 2004, GUSMER CORPORATION®

<http://www.gusmer.com>



***NOTICE:** This manual contains important information about your GUSMER equipment. Read and retain for future reference.*

NOTICE: *The equipment described in this technical manual must only be operated or serviced by properly trained individuals, thoroughly familiar with the operating instructions and limitations of the equipment. For technical service, call your local distributor. Call: 1-800-FOR-GSMR (1-800-367-4767) for the name and telephone number of your local distributor.*

NOTICE: *All statements, information, and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind expressed or implied. Statements or suggestions concerning possible use of GUSMER equipment are made without representation or warranty that any such use is free of patent infringement, and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated or that other measures may not be required for a particular circumstance or application.*

CONTENTS

LIST OF FIGURES.....4

LIST OF TABLES.....5

LIST OF TABLES.....5

WARRANTY6

H-20/35 SERIES PROPORTIONING UNIT ASSEMBLIES.....7

 FINAL ASSEMBLY 8

 BASE ASSEMBLY 10

 PUMPLINE ASSEMBLY 12

 HYDRAULIC CYLINDER WITH SPACERS 14

 PROPORTIONING PUMP ASSEMBLY 16

 A-PRIMARY HEATER ASSEMBLY 18

 R-PRIMARY HEATER ASSEMBLY 20

 REVERSING SWITCH ASSEMBLY 22

 LUBE RESERVOIR HOSE ASSEMBLY 23

ELECTRICAL COMPONENTS 24

ELECTRICAL SCHEMATICS 26

 230 Volt, 1-Phase..... 26

 230 Volt, 3-Phase..... 28

 230 Volt, 3-Phase, 9KW..... 30

 380 Volt, 3-Phase..... 32

 380 Volt, 3-Phase, 9KW..... 34

 460 Volt, 3-Phase..... 36

 460 Volt, 3-Phase, 9KW..... 38

NOTES.....44

INSTRUCTION MANUAL DISCREPANCY REPORT45

LIST OF FIGURES

FIGURE 1. H-20/35 PRO PROPORTIONING UNIT.....	7
FIGURE 2. FINAL ASSEMBLY (PART NO. 66000-SIZE), EXPLODED VIEW.....	8
FIGURE 3. BASE ASSEMBLY (PART NO. 66501-SIZE-SIZE), EXPLODED VIEW.....	10
FIGURE 4. PUMPLINE ASSEMBLY (PART NO. 42430-SIZE), EXPLODED VIEW.....	12
FIGURE 5. HYDRAULIC CYLINDER WITH SPACERS (PART NO. 42511), EXPLODED VIEW.....	14
FIGURE 6. PROPORTIONING PUMP ASSEMBLY (PART NO. 42400/42450-80 AND 120), EXPLODED VIEW.....	16
FIGURE 7. A-PRIMARY HEATER ASSEMBLY (PART NO. 42370-SIZE, 42360-230-9KW, & 66350-460), EXPLODED VIEW.....	18
FIGURE 8. R-PRIMARY HEATER ASSEMBLY (PART NO. 42330-SIZE, 42320-230-9KW, & 66300-460), EXPLODED VIEW.....	20
FIGURE 9. REVERSING SWITCH ASSEMBLY (PART NO. 42531), EXPLODED VIEW.....	22
FIGURE 10. LUBE RESERVOIR HOSE ASSEMBLY (PART NO. 15585), EXPLODED VIEW.....	23
FIGURE 11. ELECTRICAL COMPONENTS (SHEET 1 OF 2).....	24
FIGURE 12. ELECTRICAL COMPONENTS (SHEET 2 OF 2).....	25
FIGURE 13. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1A.....	26
FIGURE 14. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2A.....	27
FIGURE 15. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1B.....	28
FIGURE 16. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2A.....	29
FIGURE 17. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1D.....	30
FIGURE 18. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2A.....	31
FIGURE 19. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1C.....	32
FIGURE 20. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2B.....	33
FIGURE 21. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1F.....	34
FIGURE 22. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2B.....	35
FIGURE 23. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1E.....	36
FIGURE 24. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2C.....	37
FIGURE 25. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 1G.....	38
FIGURE 26. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 2C.....	39
FIGURE 27. ELECTRICAL SCHEMATIC, SD66000-SIZE, SHEET 3.....	40

LIST OF TABLES

TABLE 1. FINAL ASSEMBLIES (PART NO. 66000-SIZE), PARTS9

TABLE 2. BASE ASSEMBLIES (PART NO. 66501-SIZE-SIZE), PARTS..... 11

TABLE 3. PUMPLINE ASSEMBLY (PART NO. 42430-SIZE), PARTS 13

TABLE 4. HYDRAULIC CYLINDER WITH SPACERS (PART NO. 42511), PARTS..... 15

TABLE 5. PROPORTIONING PUMP ASSEMBLY (PART NO. 42400/42450-80 AND 120), PARTS 17

TABLE 6. A-PRIMARY HEATER ASSEMBLY (PART NO. 42370-SIZE, 42360-230-9KW, & 66350-460), PARTS 19

TABLE 7. R-PRIMARY HEATER ASSEMBLY (PART NO. 42330-SIZE, 42320-230-9KW, & 66300-460), PARTS 21

TABLE 8. REVERSING SWITCH ASSEMBLY (PART NO. 42531), PARTS LIST 22

TABLE 9. LUBE RESERVOIR HOSE ASSEMBLY (PART NO. 15585), PARTS LIST 23

TABLE 10. ELECTRICAL SCHEMATIC, PARTS LIST 41

WARRANTY

Gusmer Corporation (Gusmer) provides a limited warranty to the original purchaser (Customer) of Gusmer manufactured parts and equipment (Product) against any defects in material or workmanship for a period of one year from the date of shipment from Gusmer facilities.

In the event Product is suspected to be defective in material or workmanship, it must be returned to Gusmer, freight prepaid. If Product is found to be defective in material or workmanship, as determined solely by Gusmer, Gusmer will issue full credit to Customer for the freight charges incurred in returning the defective Product, and either credit will be issued for the replacement cost of the Product or a replacement part will be forwarded no-charge, freight prepaid to Customer.

This warranty shall not apply to Product Gusmer finds to be defective resulting from: installation, use, maintenance, or procedures not accomplished in accordance with our instructions; normal wear; accident; negligence; alterations not authorized in writing by Gusmer; use of "look alike" parts not manufactured or supplied by Gusmer; or Product used in conjunction with any other manufacturer's pumping or proportioning equipment. For such Product, a written estimate will be submitted to the Customer at a nominal service charge, itemizing the cost for repair. Disposition of Product will be done in accordance with the terms stated on the written estimate.

The warranty provisions applied to product that are not manufactured by Gusmer will be solely in accordance with the warranty provided by the original manufacturer of the product.

GUSMER MAKES NO WARRANTY WHATSOEVER AS TO THE MERCHANTABILITY OF, OR SUITABILITY FOR, ITS PRODUCT TO PERFORM ANY PARTICULAR PURPOSE. CREDIT FOR, OR REPLACEMENT OF, PRODUCT DEFECTIVE IN MATERIAL OR WORKMANSHIP SHALL CONSTITUTE COMPLETE FULFILLMENT OF GUSMER OBLIGATIONS TO CUSTOMER. NO OTHER WARRANTY, EXPRESS OR IMPLIED ON ANY PRODUCT IT MANUFACTURES AND/OR SELLS, WILL BE RECOGNIZED BY GUSMER UNLESS SAID WARRANTY IS IN WRITING AND APPROVED BY AN OFFICER OF GUSMER.

Under no circumstances shall Gusmer be liable for loss of prospective or speculative profits, or special indirect, incidental or consequential damages. Further, Gusmer shall have no liability for any expenses including, but not limited to personal injury or property damage resulting from failure of performance of the product, use of the product, or application of the material dispensed through the product. Any information provided by Gusmer that is based on data received from a third source, or that pertains to product not manufactured by Gusmer, while believed to be accurate and reliable, is presented without guarantee, warranty, or responsibility of any kind, express or implied.

Gusmer through the sale, lease, or rental of Product in no way expresses or implies a license for the use of, nor encourages the infringement of any patents or licenses.

To ensure proper validation of your warranty, please complete the warranty card and return it to Gusmer within two weeks of receipt of equipment.

Revised 09/02

H-20/35 SERIES PROPORTIONING UNIT ASSEMBLIES

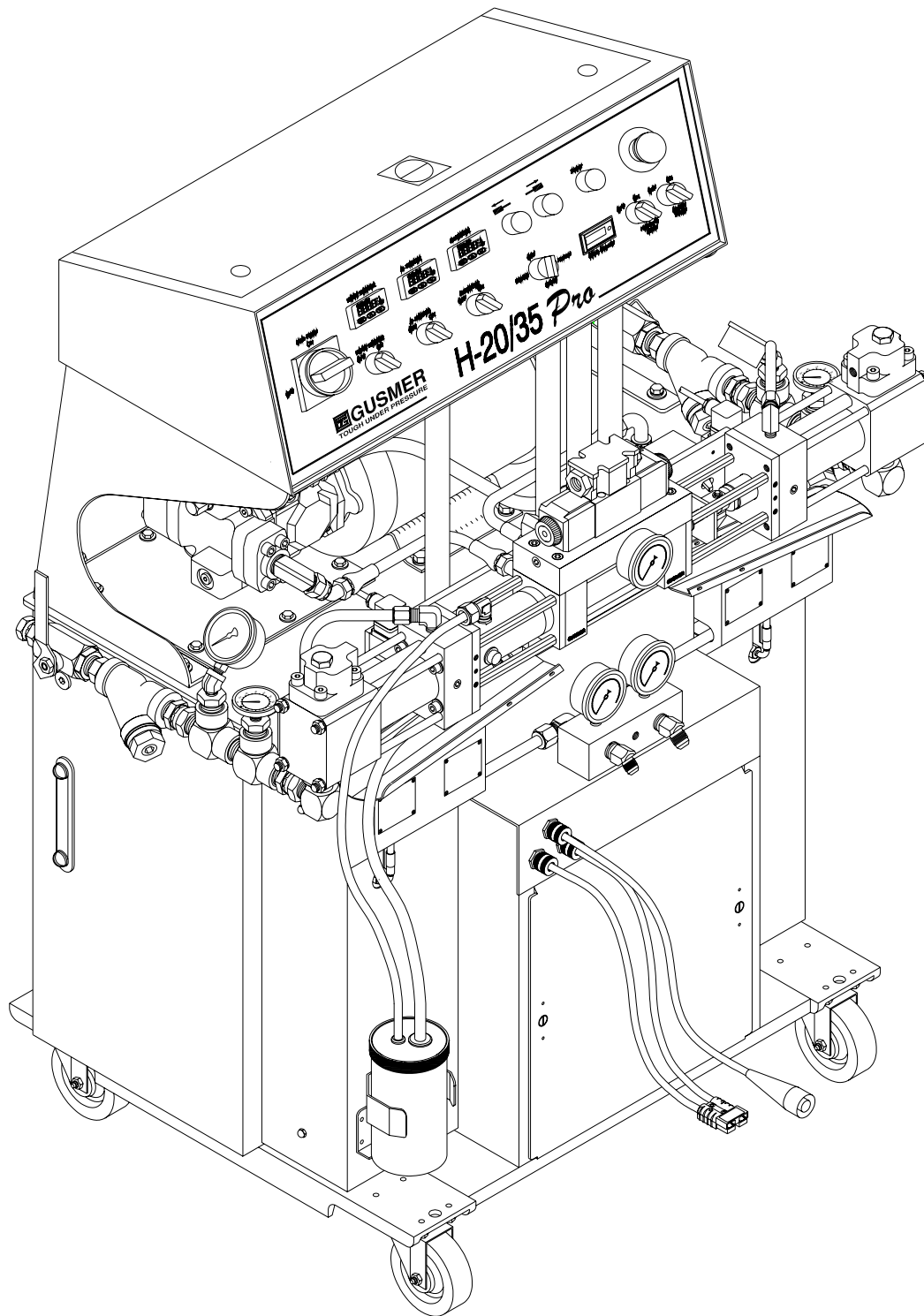


Figure 1. H-20/35 PRO Proportioning Unit

FINAL ASSEMBLY

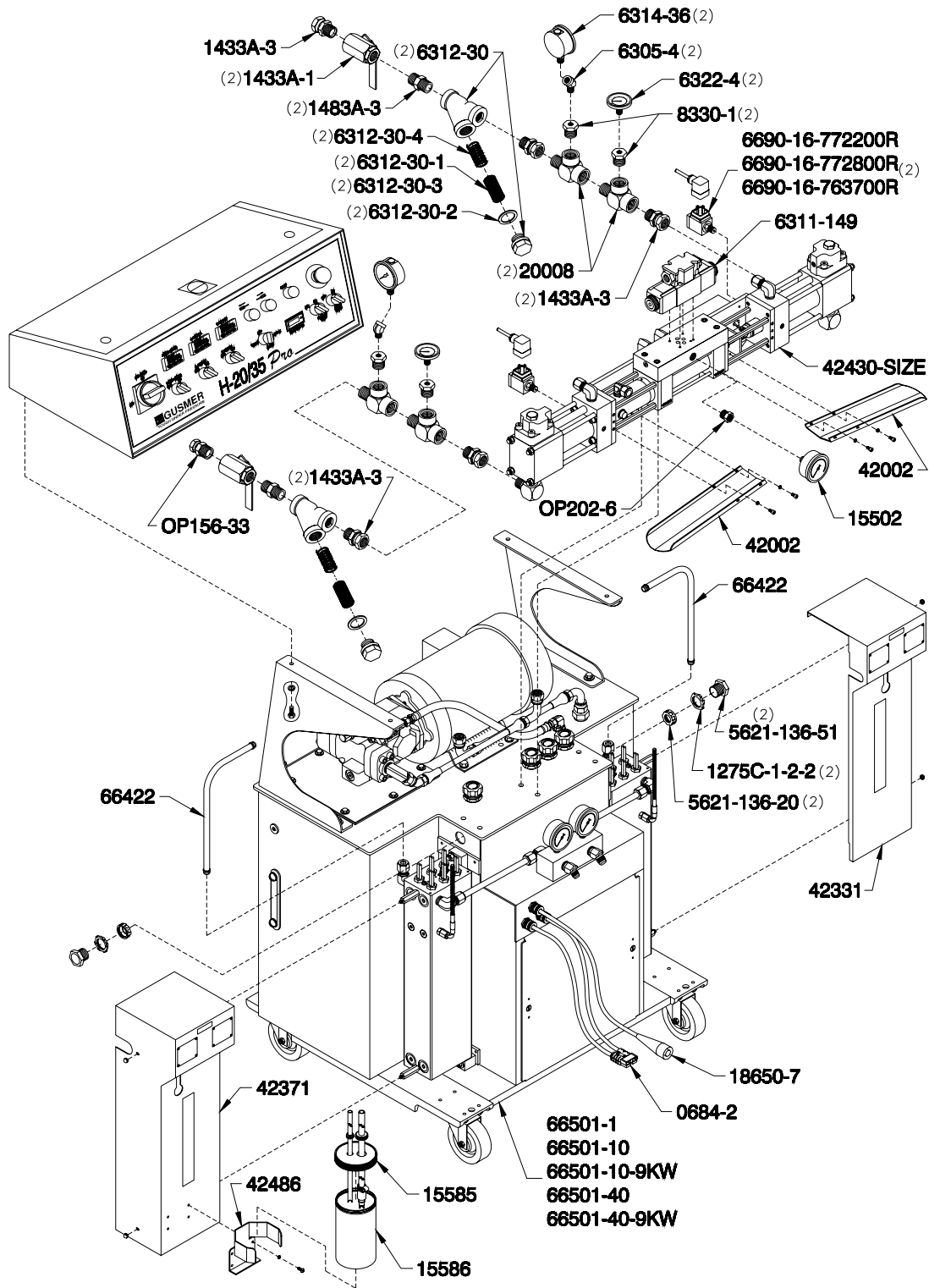


Figure 2. Final Assembly (Part No. 66000-SIZE), Exploded View

NOTE: See page 24 of this Manual for Electrical Components not called out in this Assembly.

TABLE 1. FINAL ASSEMBLIES (PART NO. 66000-SIZE), PARTS

Part Number	Description	Quantity
0684-2	Power-Lock™ Connector Housing	1
1275C-1-2-2	Locknut	2
1433A-1	Ball Valve	2
1433A-3	Swivel Union	5
1483A-3	Hex Nipple	2
5621-136-20	Conduit Bushing	2
5621-136-51	Nipple	2
6305-4	Street Elbow	2
6311-149	Directional Valve	1
6312-30	Strainer	2
6312-30-1	Strainer Screen (30 Mesh) <i>(Includes 6312-30-4)</i>	2
6312-30-3	Strainer Screen (80 Mesh) <i>(Optional)(Includes 6312-30-4)</i>	2
6312-30-2	Gasket	2
6312-30-4	Spring	2
6314-36	Pressure Gauge	2
6322-4	Thermometer	2
6690-16-772200R	2200 PSI Pressure Switch <i>(H-20 PRO)</i>	2
6690-16-772800R	2800 PSI Pressure Switch <i>(H-25 PRO)</i>	2
6690-16-763700R	3700 PSI Pressure Switch <i>(H-35 PRO)</i>	2
8330-1	Reducing Bushing	4
15502	0-2000 PSI Liquid Fill Gauge	1
15585	Lube Reservoir Hose Assembly	1
15586	Lube Bottle	1
18650-7	TSU Wire Assembly	1
20008	Pipe Tee	4
42002	Drip Pan	2
42331	R- Preheater Cover	1
42371	A- Preheater Cover	1
42430-SIZE	Pumpline Assembly (See page 12)	1
42486	Lube Reservoir Bracket	1
66422	A/R Pump/Heater Tube Assembly	2
66501-1	Base Assembly <i>(1-Phase 230V)</i>	1
66501-10	Base Assembly <i>(3-Phase 230V & 3-Phase 380V)</i>	1
66501-10-9KW	Base Assembly <i>(3-Phase 230V-9KW & 3-Phase 380V-9KW)</i>	1
66501-40	Base Assembly <i>(3-Phase 460V)</i>	1
66501-40-9KW	Base Assembly <i>(3-Phase 460V-9KW)</i>	1
OP156-33	Swivel Union	1
OP202-6	Bushing	1

BASE ASSEMBLY

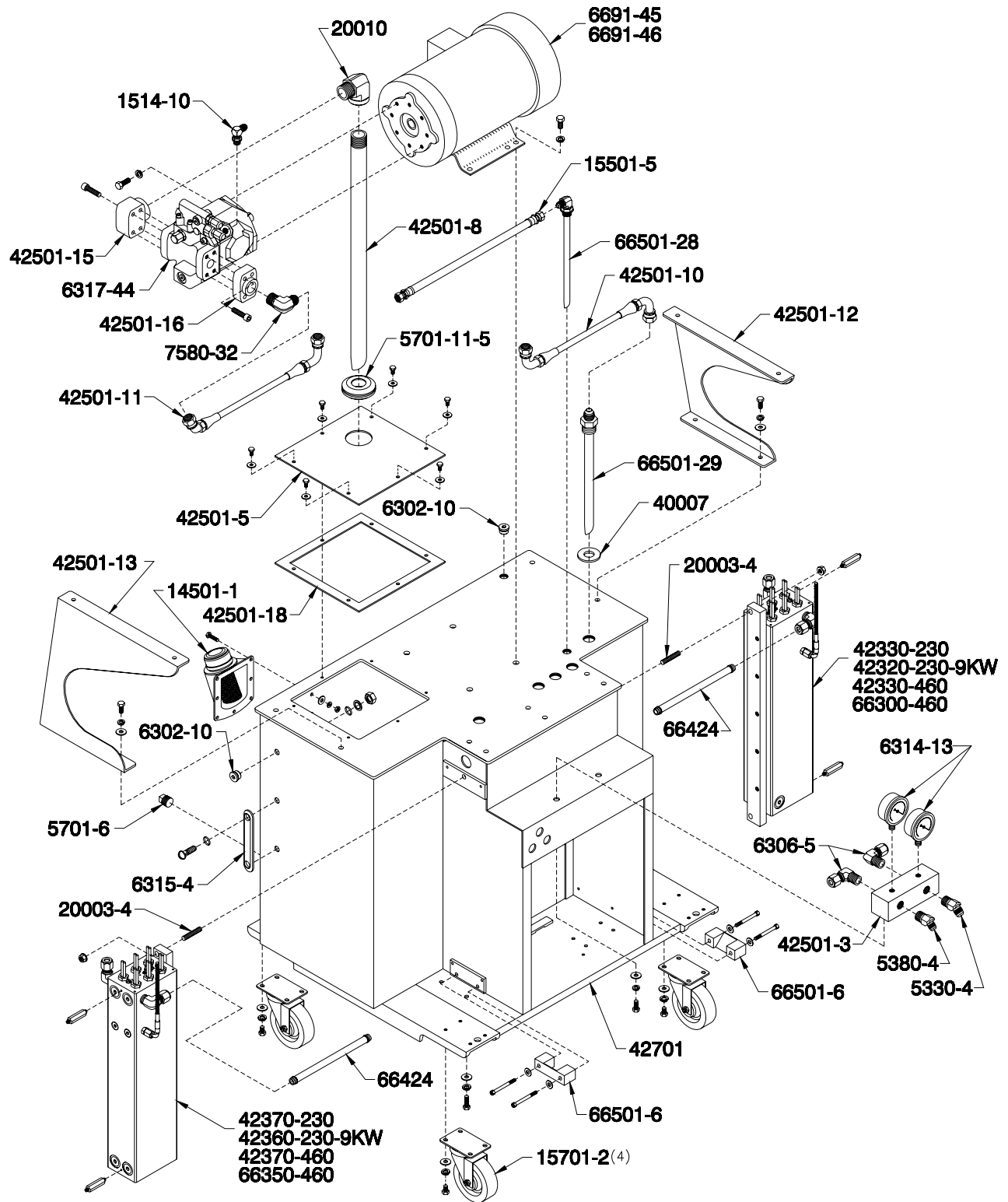


Figure 3. Base Assembly (Part No. 66501-SIZE-SIZE), Exploded View

TABLE 2. BASE ASSEMBLIES (PART NO. 66501-SIZE-SIZE), PARTS

Part Number	Description	Quantity
1514-10	Hose Elbow	1
5330-4	Hose Elbow	1
5380-4	Hose Elbow	1
5701-6	Reservoir Drain Plug	1
5701-11-5	Grommet	1
6302-10	O-Ring Plug	2
6306-5	Tube Elbow	2
6314-13	0-5000 PSI Liquid Fill Gauge	2
6315-4	Fluid Level Gauge	1
6317-44	Hydraulic Pump	1
6691-45	5 HP Motor (3-Phase Units)	1
6691-46	5 HP Motor (1-Phase Units)	1
7580-32	Elbow	1
14501-1	Hydraulic Oil Filler	1
66501-29	Hydraulic Reservoir Return	1
15501-5	Bleed Hose Assembly	1
66501-28	Hydraulic Reservoir Return	1
15701-2	Swivel Castor	4
20003-4	Threaded Rod	2
20010	Street Elbow	1
40007	Flat Washer	1
42330-230	R- Primary Heater 6000W (66501-1, 66501-10 Only)	1
42320-230-9KW	R- Primary Heater 9000W (66501-10-9KW Only)	1
42330-460	R- Primary Heater 6000W (66501-40 Only)	1
66300-460	R- Primary Heater 9000W (66501-40-9KW Only)	1
42370-230	A- Primary Heater 6000W (66501-1, 66501-10 Only)	1
42360-230-9KW	A- Primary Heater 9000W (66501-10-9KW Only)	1
42370-460	A- Primary Heater 6000W (66501-40 Only)	1
66350-460	A- Primary Heater 9000W (66501-40-9KW Only)	1
66424	Outlet Tube Assembly	2
42501-3	Chemical Manifold	1
42501-5	Tank Cover Plate	1
66501-6	Preheater Mounting Blocks	2
42501-8	Suction Tube	1
42501-10	T-Port Hose	1
42501-11	P-Port Hose	1
42501-12	Console Bracket (Right)	1
42501-13	Console Bracket (Left)	1
42501-15	Suction Flange	1
42501-16	Outlet Flange	1
42501-18	Access Cover Plate Gasket	1
42701	Hydraulic Tank	1

PUMPLINE ASSEMBLY

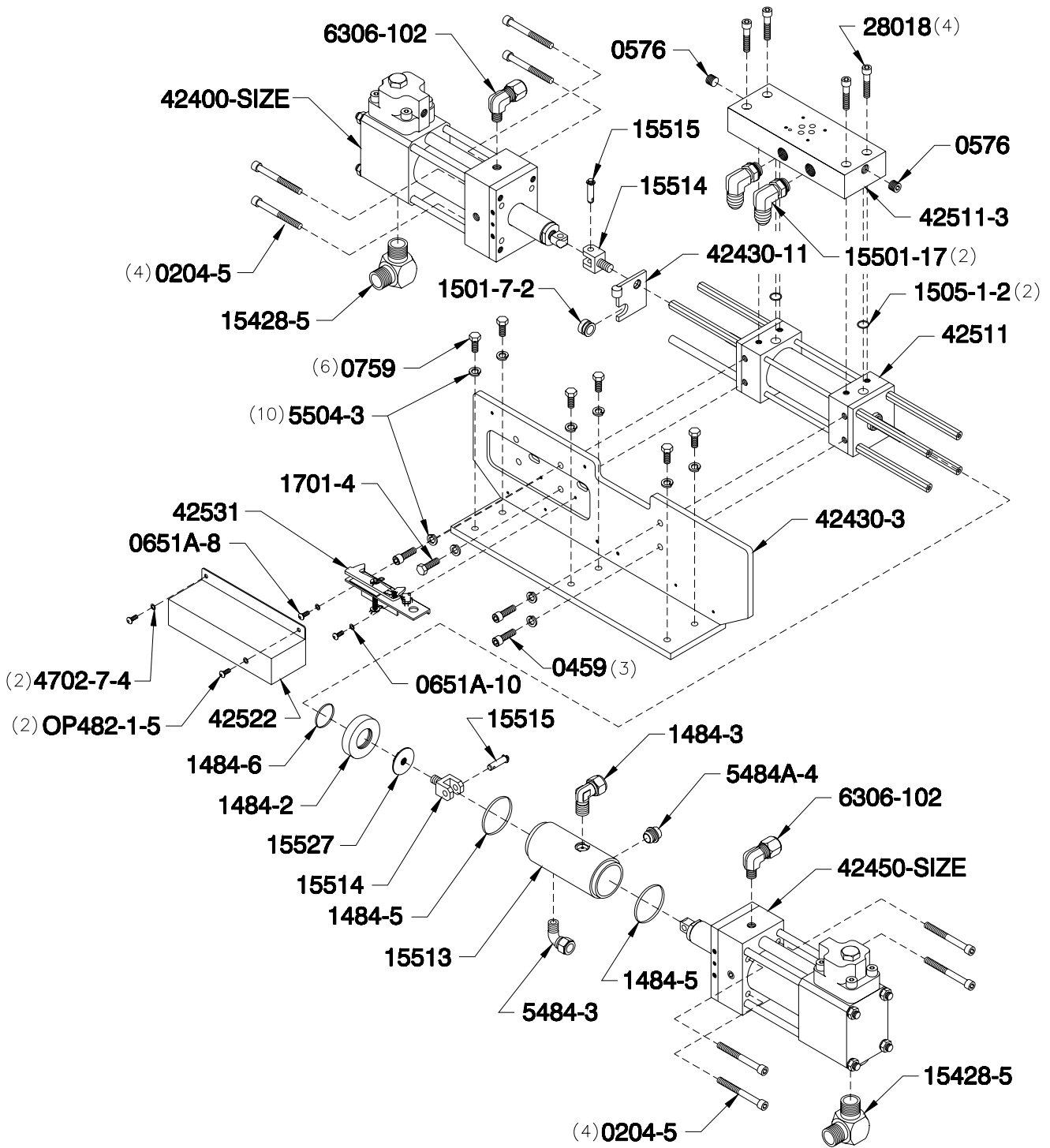


Figure 4. Pumpline Assembly (Part No. 42430-SIZE), Exploded View

TABLE 3. PUMPLINE ASSEMBLY (PART NO. 42430-SIZE), PARTS

Part Number	Description	Quantity
0204-5	Socket Head Cap Screw	8
0459	Socket Head Cap Screw	3
0576	Flush Seal Pipe Plug	2
0651A-8	Pan Head Machine Screw	2
0651A-10	Lockwasher	2
0759	Hex Head Cap Screw	6
1484-2	Lube Cylinder Adapter Plate	1
1484-3	Male Elbow	1
1484-5	O-Ring	2
1484-6	O-Ring	1
1501-7-2	Bronze Bushing	1
1505-1-2	O-Ring	2
1701-4	Hex Head Cap Screw	1
4702-7-4	Lockwasher	2
5484-3	Lube Hose Fitting	1
5484A-4	Polyethylene Pipe Plug	1
5504-3	Helical Lockwasher	10
6306-102	Tube Elbow	2
15428-5	Male Elbow	2
15501-17	O-Ring Elbow	2
15513	Iso Lube Cylinder	1
15514	Hydraulic Cylinder Clevis	2
15515	Clevis Pin	2
15527	Jam Nut/Baffle	1
28018	Socket Head Cap Screw	4
42400-SIZE	Resin Proportioning Pump Assembly (See page 16)	1
42430-3	Pump Mounting L-Bracket	1
42430-11	Activator Plate	1
42450-SIZE	Iso Proportioning Pump Assembly (See page 16)	1
42511	Hydraulic Cylinder with Spacers	1
42511-3	Hydraulic Manifold	1
42522	Reversing Switch Cover	1
42531	Reversing Switch Assembly	1
OP482-1-5	Button Head Cap Screw	2

HYDRAULIC CYLINDER WITH SPACERS

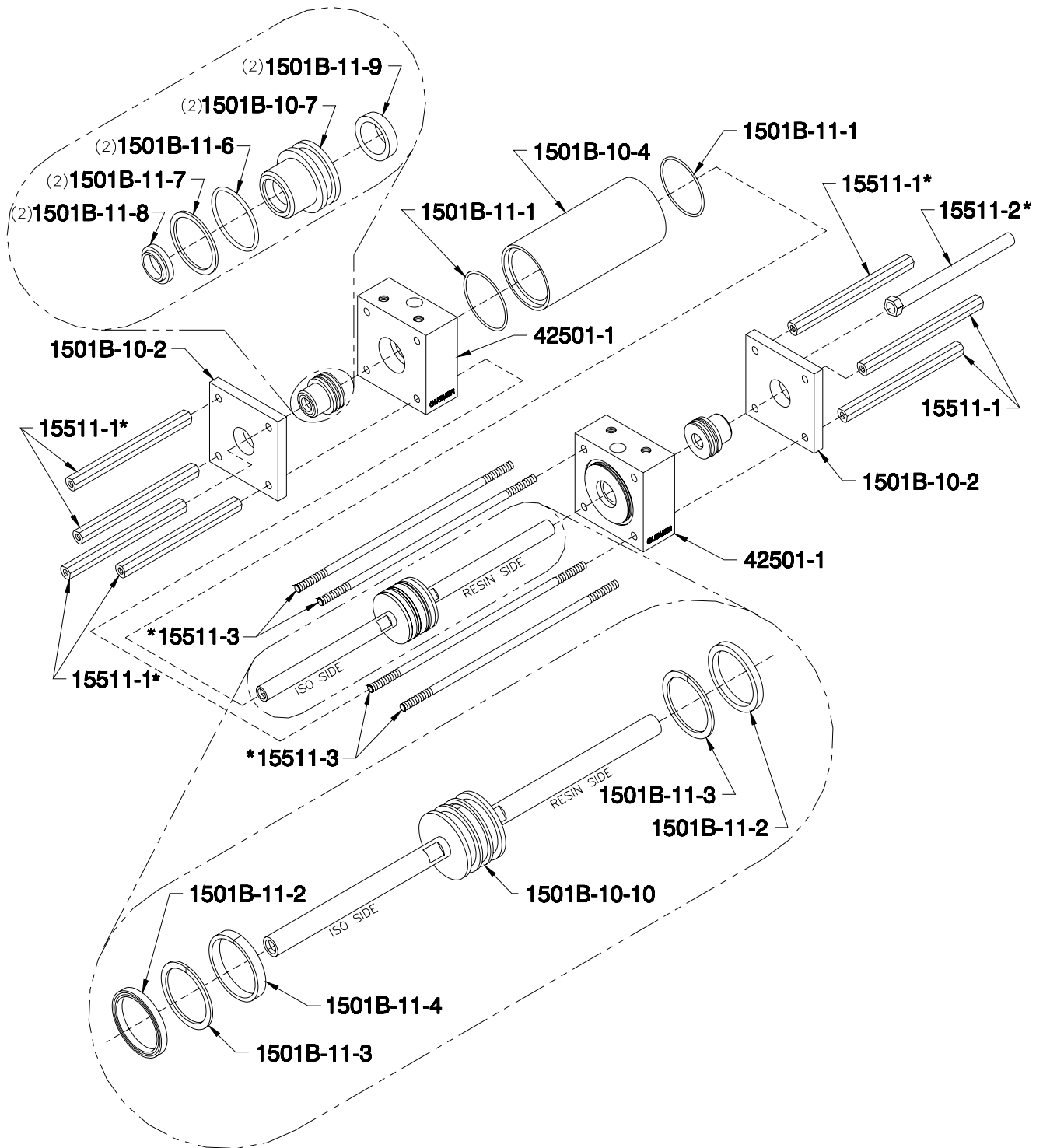


Figure 5. Hydraulic Cylinder with Spacers (Part No. 42511), Exploded View

** Torque to 200 Inch-Pounds*

TABLE 4. HYDRAULIC CYLINDER WITH SPACERS (PART NO. 42511), PARTS

Part Number	Description	Quantity
1501B-10-2	Retainer Plate	2
1501B-10-4	Cylinder Body	1
• ♦ 1501B-10-7	Rod Bushing	2
1501B-10-10	Piston Assembly	1
♦ 1501B-11-1	O-Ring	2
♦ 1501B-11-2	U-Cup	2
♦ 1501B-11-3	Back Up Ring	2
♦ 1501B-11-4	Teflon Glass Wear Ring	1
• ♦ 1501B-11-6	O-Ring	2
• ♦ 1501B-11-7	Back Up Ring	2
• ♦ 1501B-11-8	Rod Wiper	2
• ♦ 1501B-11-9	Shaft Seal	2
15511-1	Proportioning Pump Spacer (<i>Torque to 200 Inch-Pounds</i>)	7
15511-2	Reversing Switch Pump Spacer (<i>Torque to 200 Inch-Pounds</i>)	1
15511-3	Hydraulic Cylinder Tie Rod (<i>Torque to 200 Inch-Pounds</i>)	4
42501-1	Port Block	2

♦ *Hydraulic Cylinder Rebuild Kit (Part No. MK42511)*

• *Hydraulic Cylinder Bushing Kit (Part No. MK42511-1)*

PROPORTIONING PUMP ASSEMBLY

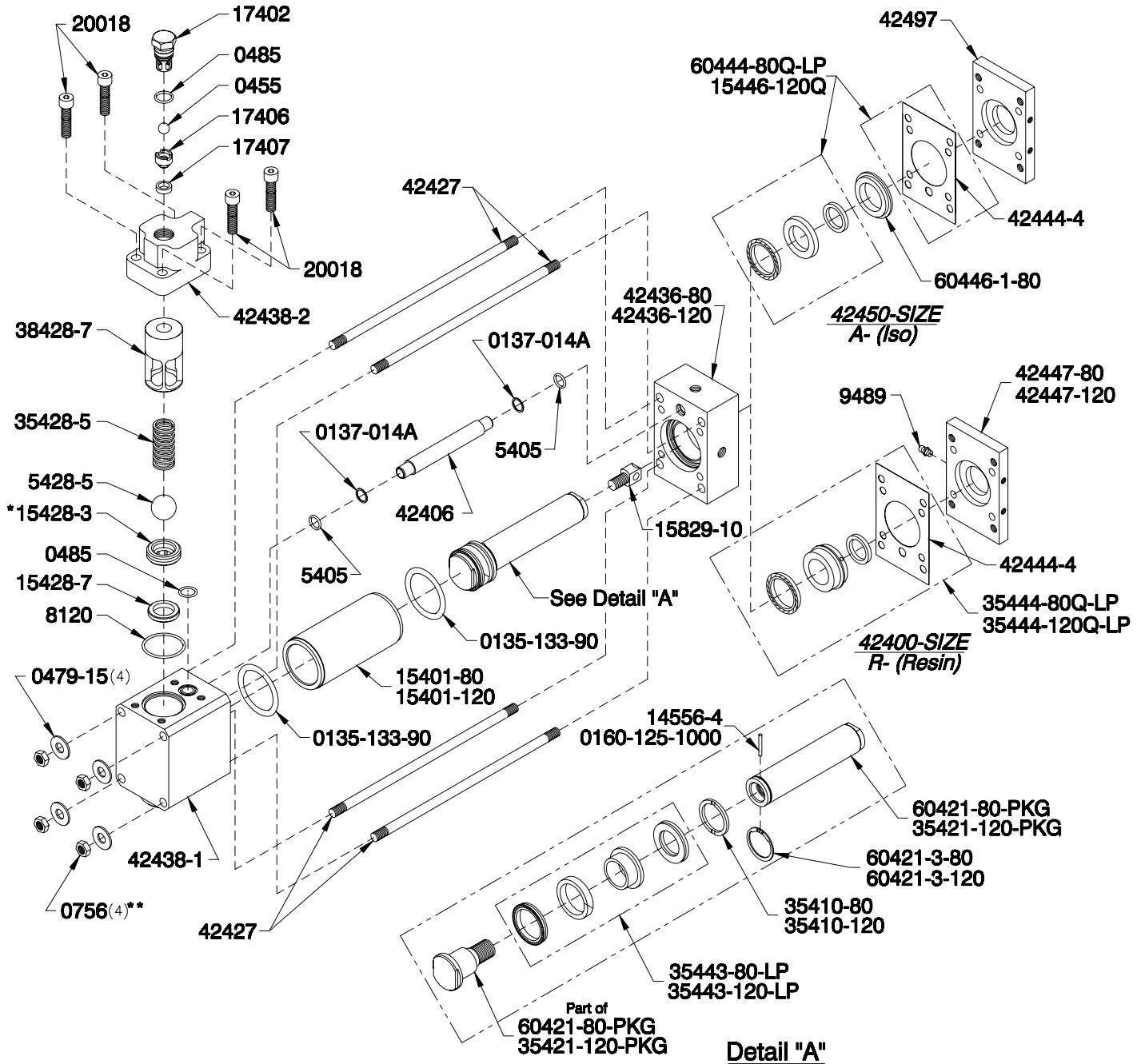


Figure 6. Proportioning Pump Assembly (Part No. 42400/42450-80 and 120), Exploded View

* Torque to 50 FT-LBS

** Torque to 30 FT-LBS

NOTE: Consult your distributor for information concerning the availability of non-standard pump sizes.

TABLE 5. PROPORTIONING PUMP ASSEMBLY (PART NO. 42400/42450-80 AND 120), PARTS

Part Number	Description	Quantity
0135-133-90	O-Ring	2
0137-014A	Back Up Ring	2
0160-125-1000	Dowel Pin (120 Size Pump)	1
0455	Valve Ball	1
0479-15	Packing Support Washer	4
0485	O-Ring	2
0756	Hex Nut (<i>Torque to 30 FT-LBS</i>)	4
5405	O-Ring	2
5428-5	Valve Ball	1
8120	O-Ring	1
9489	Grease Fitting	1
14556-4	Dowel Pin (80 Size Pump)	1
15401-80	Pump Cylinder (80 Size Pump)	1
15401-120	Pump Cylinder (120 Size Pump)	1
15446-120Q	A-Cylinder Seal Set (120 Size Iso Pump)	1
15428-7	Seat Seal	1
15428-3	Valve Ball Seat (<i>Torque to 50 FT-LBS</i>)	1
15829-10	Pump Clevis	1
17402	Check Valve Retainer	1
17406	Check Valve Seat	1
17407	Check Valve Seal	1
20018	Socket Head Cap Screw	4
35410-80	Piston Support Washer (80 Size Pump)	1
35410-120	Piston Support Washer (120 Size Pump)	1
35421-120-PKG	Piston Rod with Head (120 Size Pump)	1
35428-5	Spring	1
35443-80-LP	Piston Lip Seal Set	1
35443-120-LP	Piston Lip Seal Set	1
35444-80Q-LP	Cylinder Lip Seal Set (80 Size Resin Pump)	1
35444-120Q-LP	Cylinder Lip Seal Set (120 Size Resin Pump)	1
38428-7	Inlet Ball Sleeve & Stop	1
42406	Crossover Tube	1
42427	Pump Tie Rod	4
42436-80	Outlet Pump Flange (80 Size Pump)	1
42436-120	Outlet Pump Flange (120 Size Pump)	1
42438-1	Lower Pump Base	1
42438-2	Upper Pump Base	1
42444-4	Gasket	1
42447-80	R-Retainer Flange (80 Size Pump)	1
42447-120	R-Retainer Flange (120 Size Pump)	1
42497	A-Packing Retainer Flange	1
60421-3-80	Retainer Ring(80 Size Pump)	1
60421-3-120	Retainer Ring (120 Size Pump)	1
60444-80Q-LP	Cylinder Lip Seal Set (80 Size Iso Pump)	1
60421-80-PKG	Piston Rod with Head (80 Size Pump)	1
60446-1-80	Flange Adaptor Ring (42450-80 Only)	1

A-PRIMARY HEATER ASSEMBLY

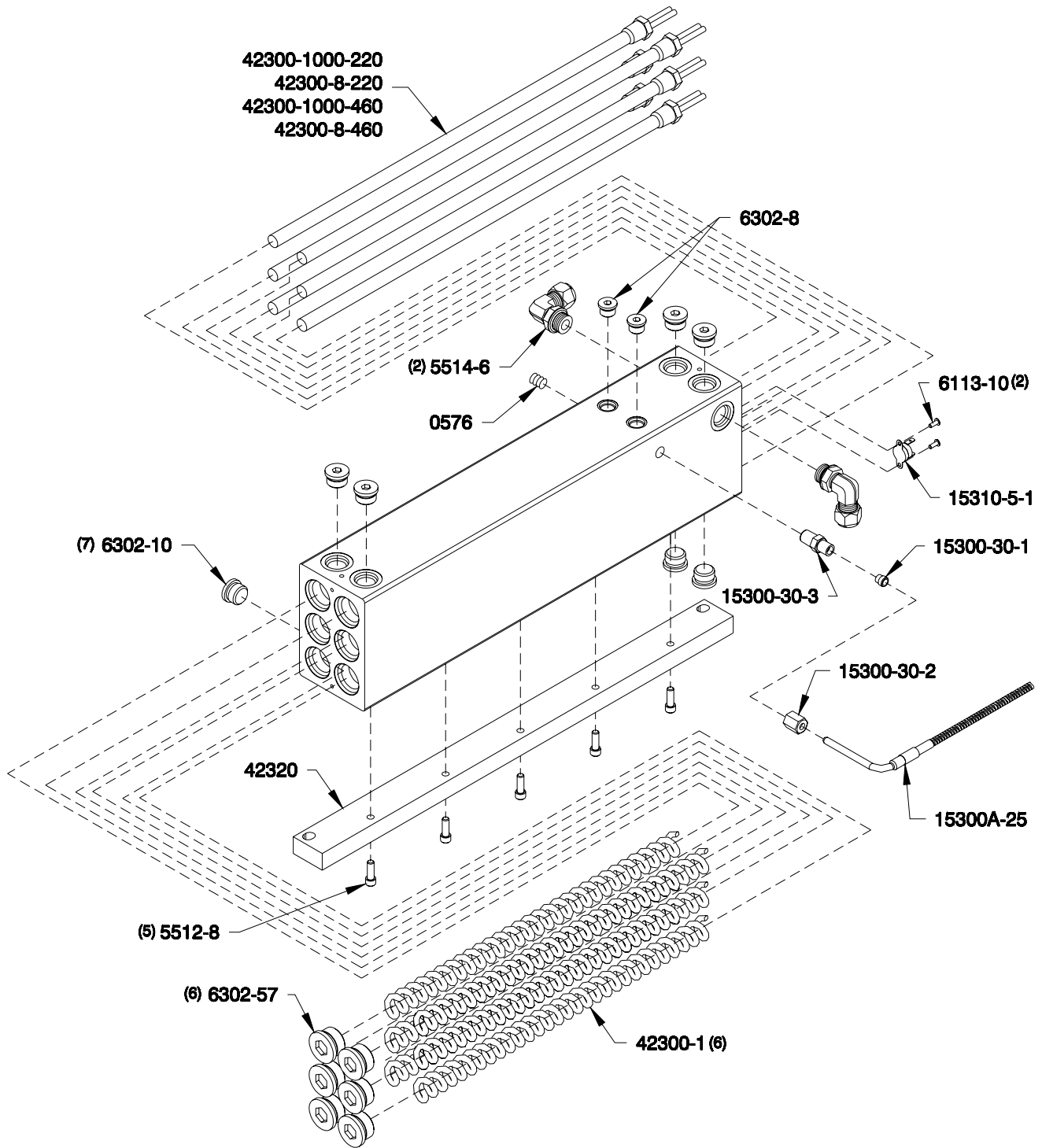


Figure 7. A-Primary Heater Assembly (Part No. 42370-SIZE, 42360-230-9KW, & 66350-460), Exploded View

TABLE 6. A-PRIMARY HEATER ASSEMBLY (PART NO. 42370-SIZE, 42360-230-9KW, & 66350-460), PARTS

Part Number	Description	Quantity
0576	Flush Seal Pipe Plug	2
5512-8	Socket Head Cap Screw	5
5514-6	O-Ring Elbow	2
6113-10	Binder Head Cap Screw	2
6302-8	O-Ring Plug	2
6302-10	O-Ring Plug	7
6302-57	O-Ring Plug	6
15310-5-1	Thermostat	1
15300A-25	Thermocouple	1
15300-30-1	Ferrule	1
15300-30-2	Nut	1
15300-30-3	1/4 Tube Body	1
42300-1	Spring	6
42300-1000-220	Heating Element 1000W (42370-230)	6
42300-8-220	Heating Element 1500W (42360-230-9KW)	6
42300-1000-460	Heating Element 1000W (42370-460)	6
42300-8-460	Heating Element 1500W (66350-460)	6
42320	Preheater Mount	1

R-PRIMARY HEATER ASSEMBLY

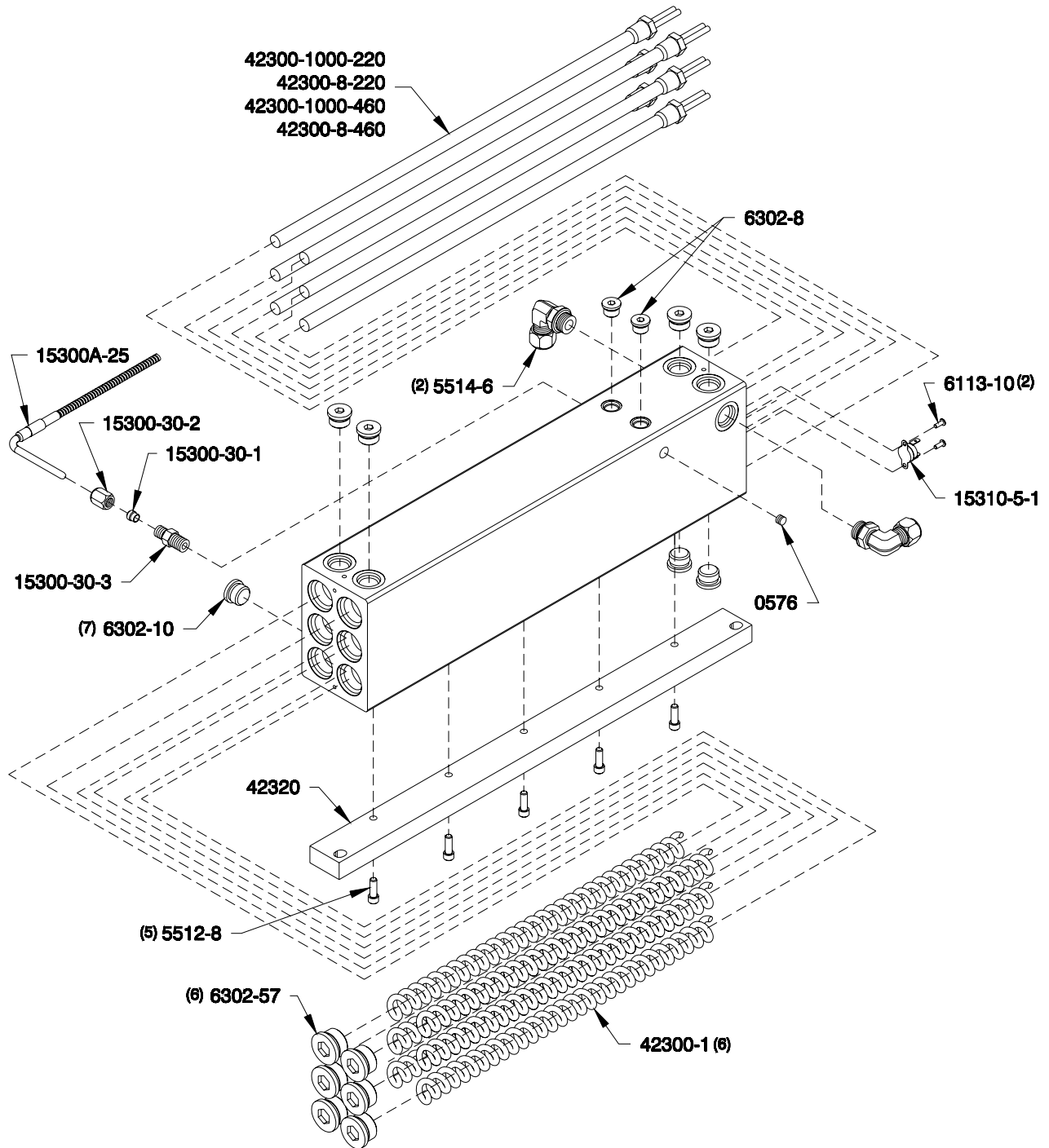


Figure 8. R-Primary Heater Assembly (Part No. 42330-SIZE, 42320-230-9KW, & 66300-460), Exploded View

TABLE 7. R-PRIMARY HEATER ASSEMBLY (PART NO. 42330-SIZE, 42320-230-9KW, & 66300-460), PARTS

Part Number	Description	Quantity
0576	Flush Seal Pipe Plug	2
5512-8	Socket Head Cap Screw	5
5514-6	O-Ring Elbow	2
6113-10	Binder Head Cap Screw	2
6302-8	O-Ring Plug	2
6302-10	O-Ring Plug	7
6302-57	O-Ring Plug	6
15310-5-1	Thermostat	1
15300A-25	Thermocouple	1
15300-30-1	Ferrule	1
15300-30-2	Nut	1
15300-30-3	1/4 Tube Body	1
42300-1	Spring	6
42300-1000-220	Heating Element 1000W (42330-230)	6
42300-8-220	Heating Element 1500W (42320-230-9KW)	6
42300-1000-460	Heating Element 1000W (42330-460)	6
42300-8-460	Heating Element 1500W (66300-460)	6
42320	Preheater Mount	1

REVERSING SWITCH ASSEMBLY

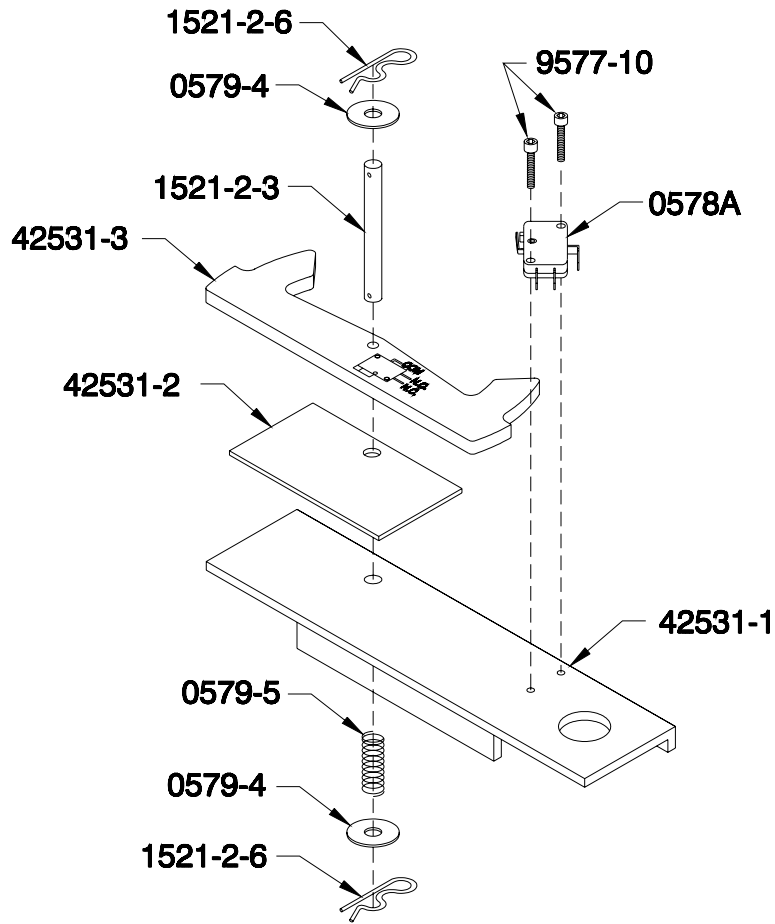


Figure 9. Reversing Switch Assembly (Part No. 42531), Exploded View

TABLE 8. REVERSING SWITCH ASSEMBLY (PART NO. 42531), PARTS LIST

Part Number	Description	Quantity
0578A	Reversing Switch	1
0579-4	Flat Washer	2
0579-5	Spring	1
1521-2-3	Rocker Arm Pin	1
1521-2-6	Hitch Pin Clip	2
9577-10	Socket Head Cap Screw	2
42531-1	Reversing Switch Bracket	1
42531-2	Rocker Arm Slide Pad	1
42531-3	Reversing Switch Rocker Arm	1

LUBE RESERVOIR HOSE ASSEMBLY

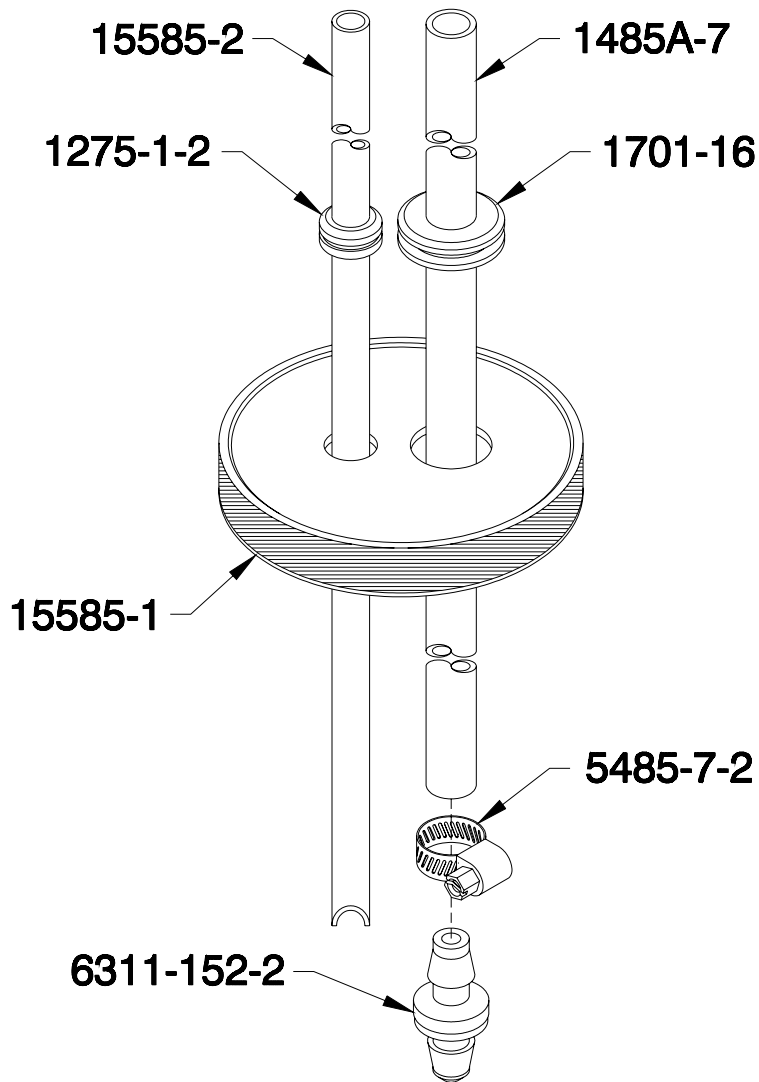


Figure 10. Lube Reservoir Hose Assembly (Part No. 15585), Exploded View

TABLE 9. LUBE RESERVOIR HOSE ASSEMBLY (PART NO. 15585), PARTS LIST

Part Number	Description	Quantity
1275-1-2	Rubber Grommet	1
1485A-7	Supply Line	1
1701-16	13/16 OD Grommet	1
6311-152-2	Lube Reservoir Check Valve	1
5485-7-2	Hose Clamp	1
15585-1	Lube Bottle Cap	1
15585-2	Return Line	1

ELECTRICAL COMPONENTS

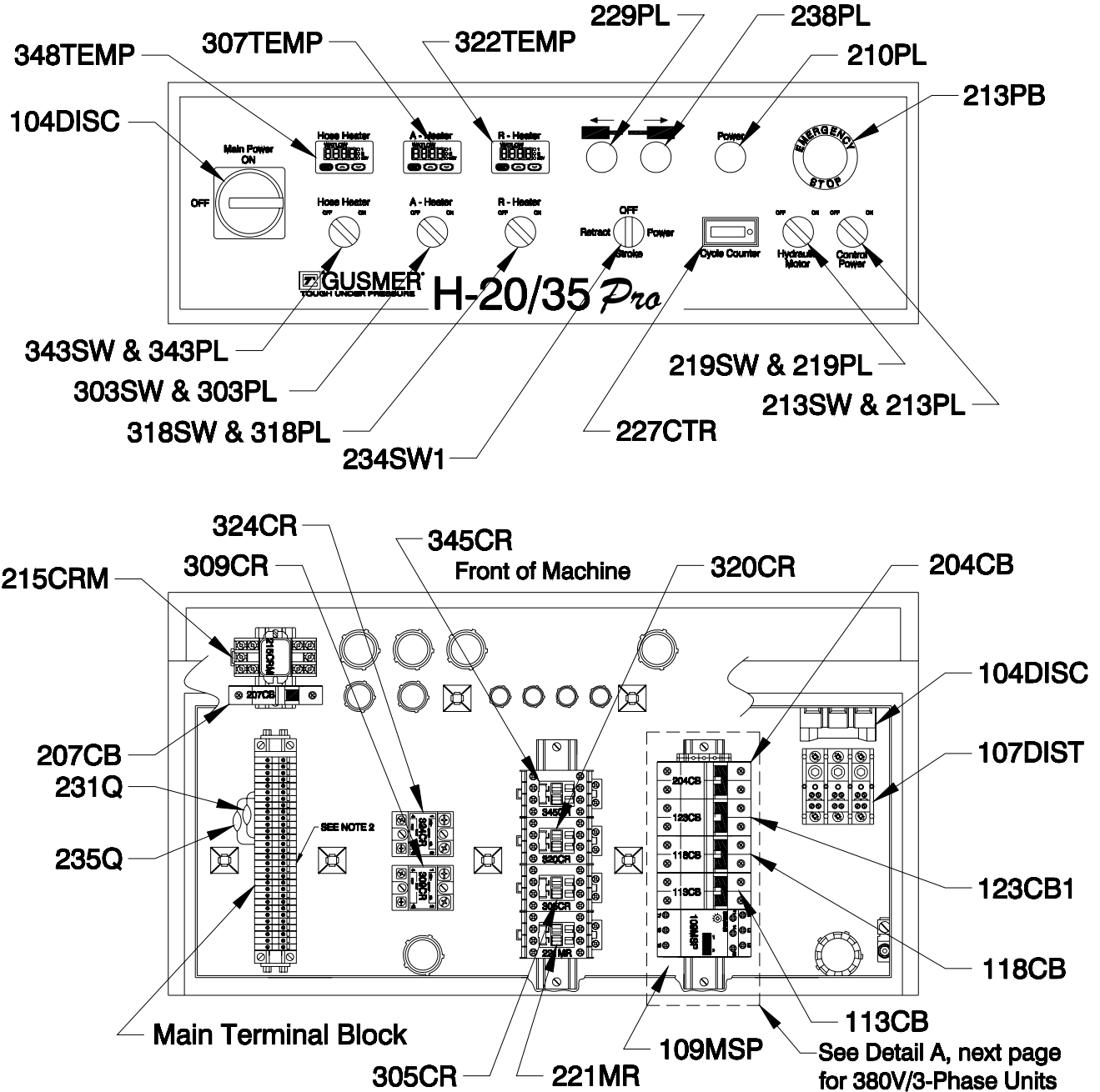


Figure 11. Electrical Components (Sheet 1 of 2)

For schematic symbol part numbers and descriptions see page 41.

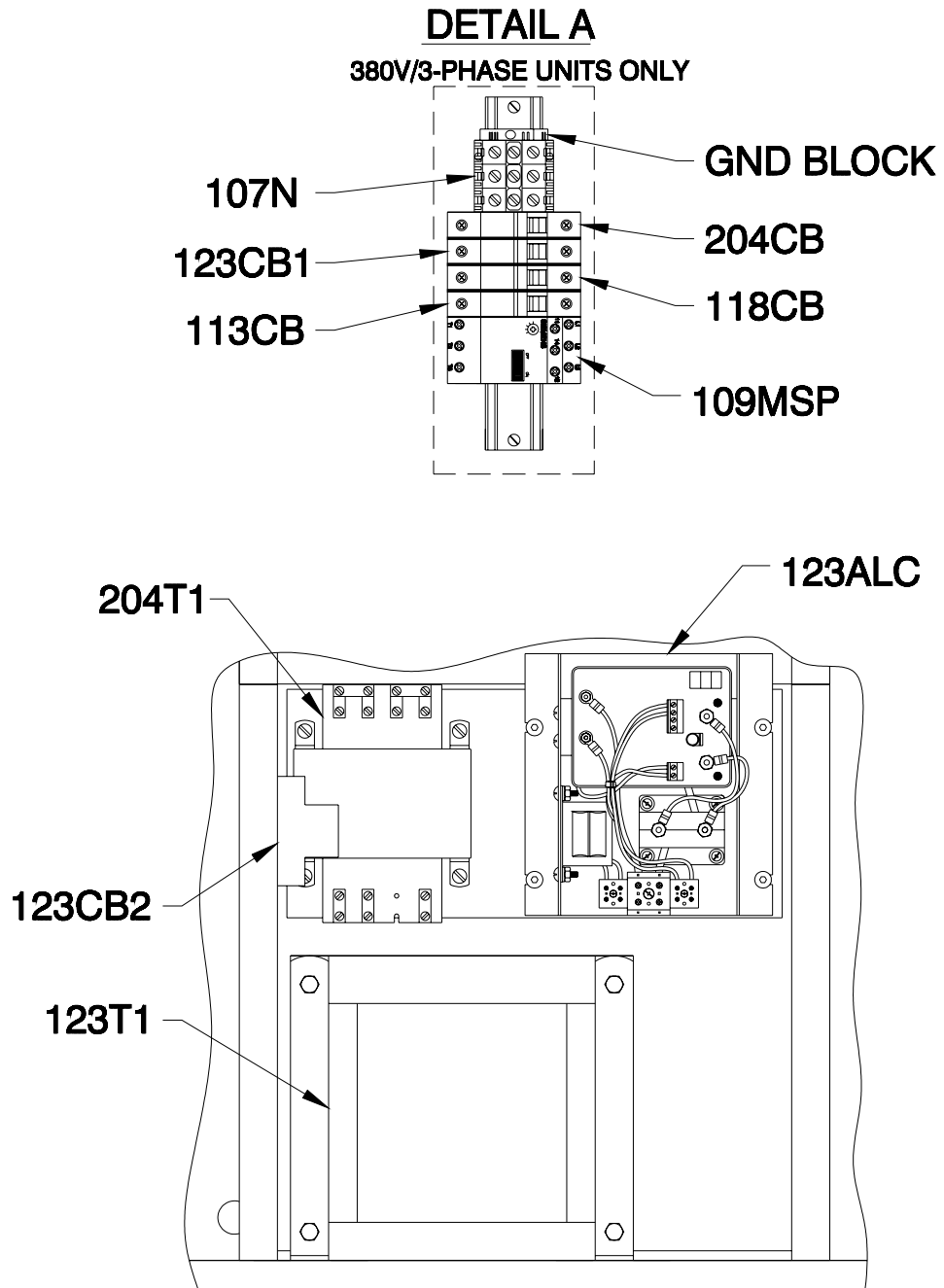


Figure 12. Electrical Components (Sheet 2 of 2)

For schematic symbol part numbers and descriptions see page 41.

ELECTRICAL SCHEMATICS

230 Volt, 1-Phase

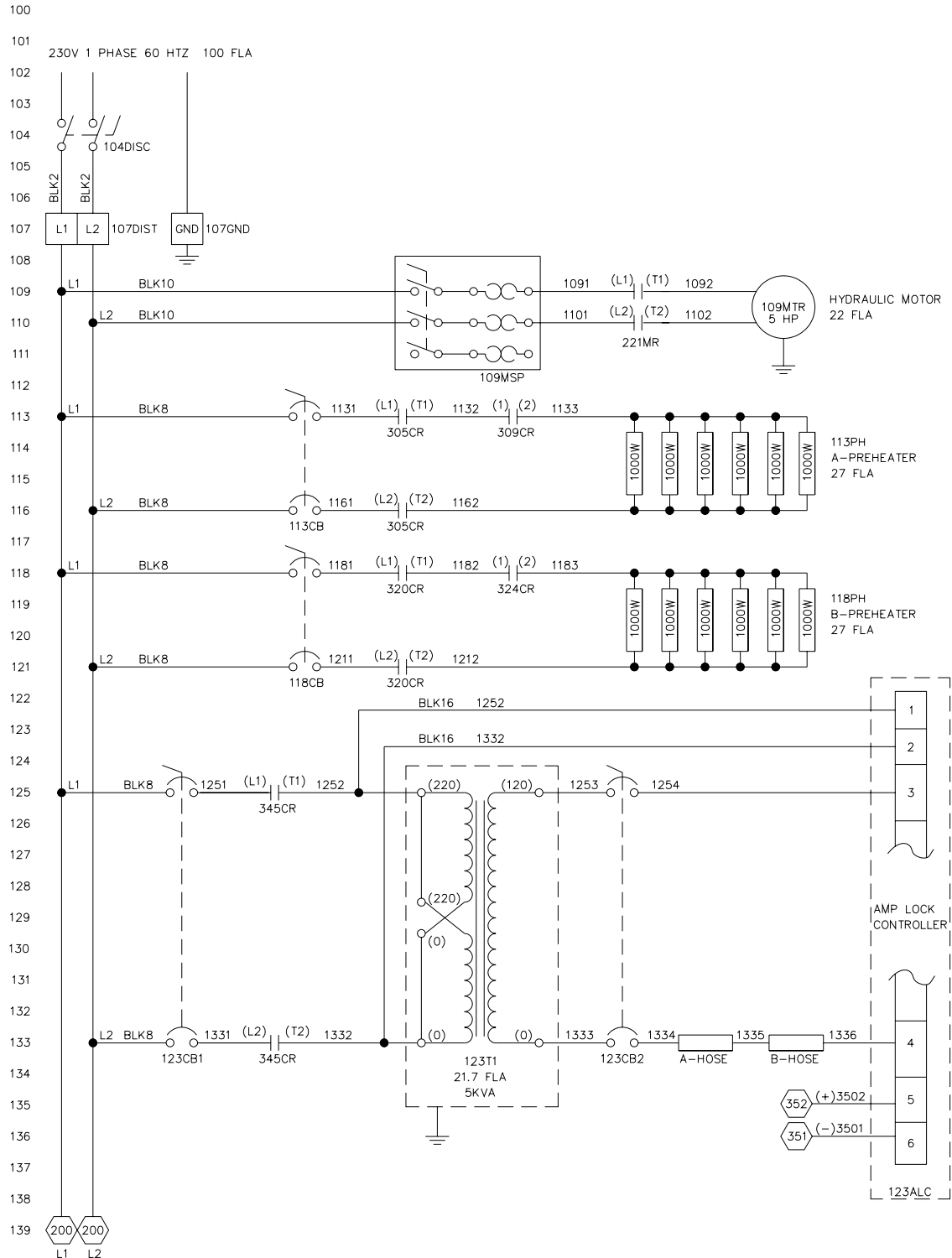


Figure 13. Electrical Schematic, SD6000-SIZE, Sheet 1A

230 Volt, 3-Phase

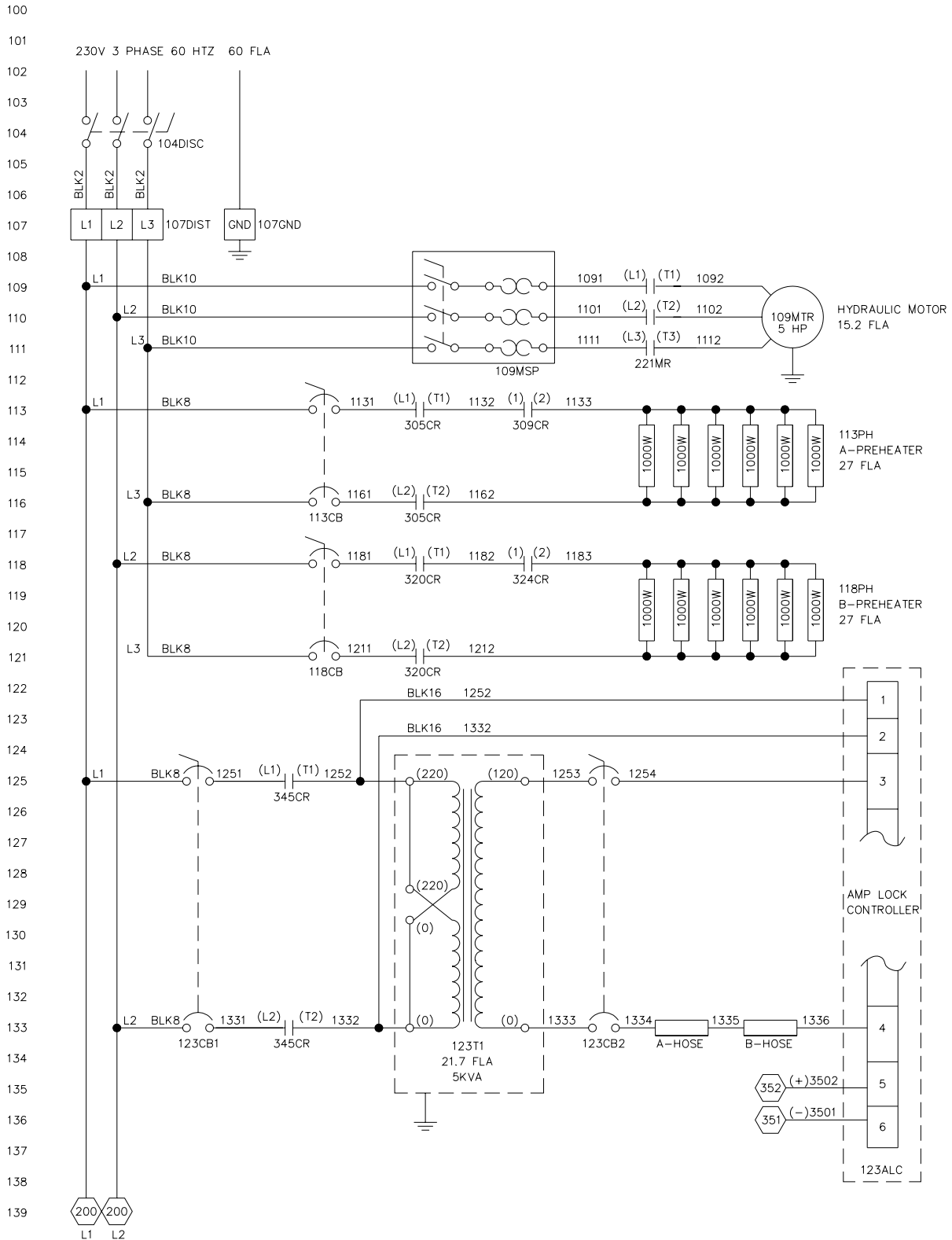


Figure 15. Electrical Schematic, SD66000-SIZE, Sheet 1B

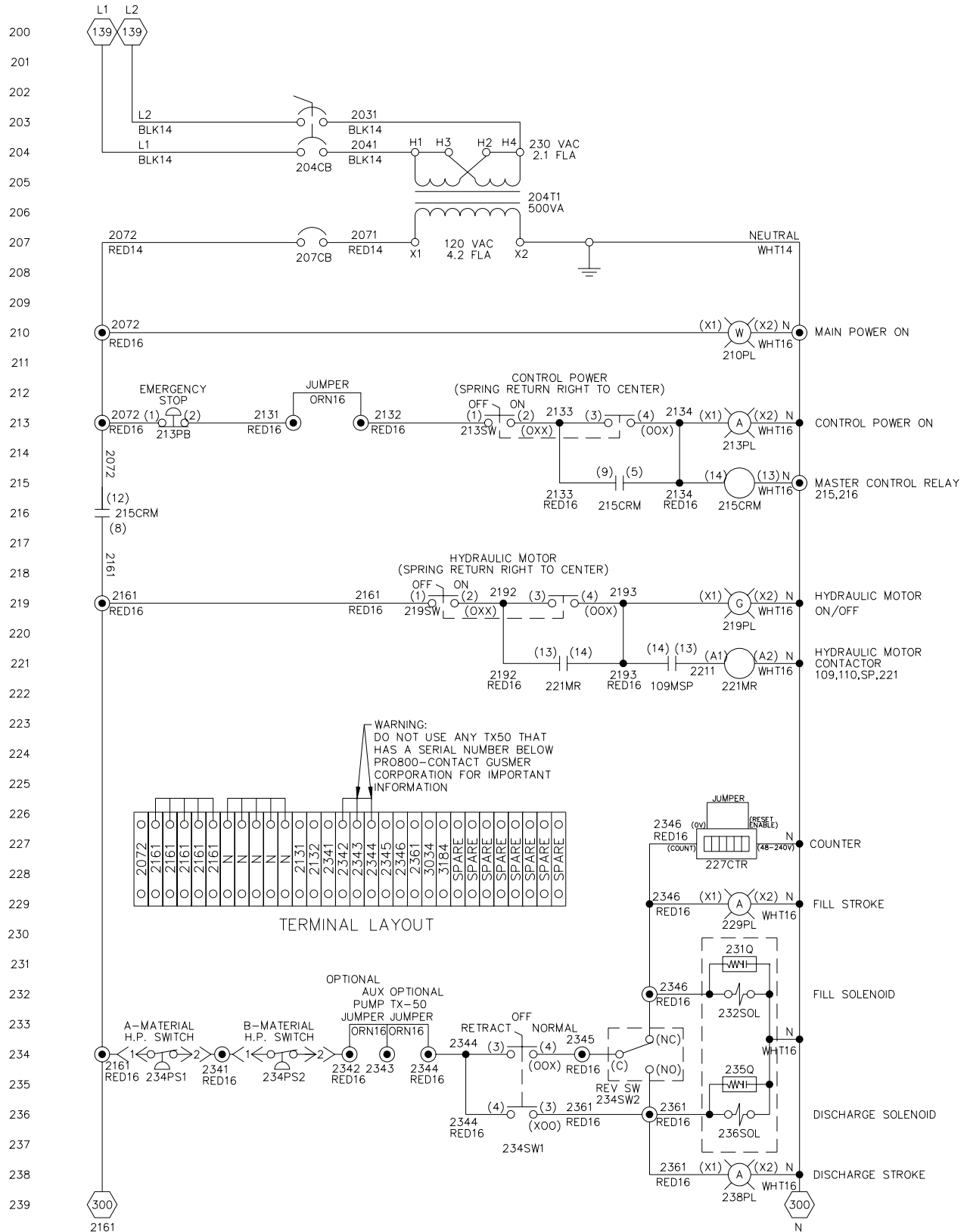


Figure 16. Electrical Schematic, SD66000-SIZE, Sheet 2A

Final segment of this schematic (Sheet 3) located on page 40.

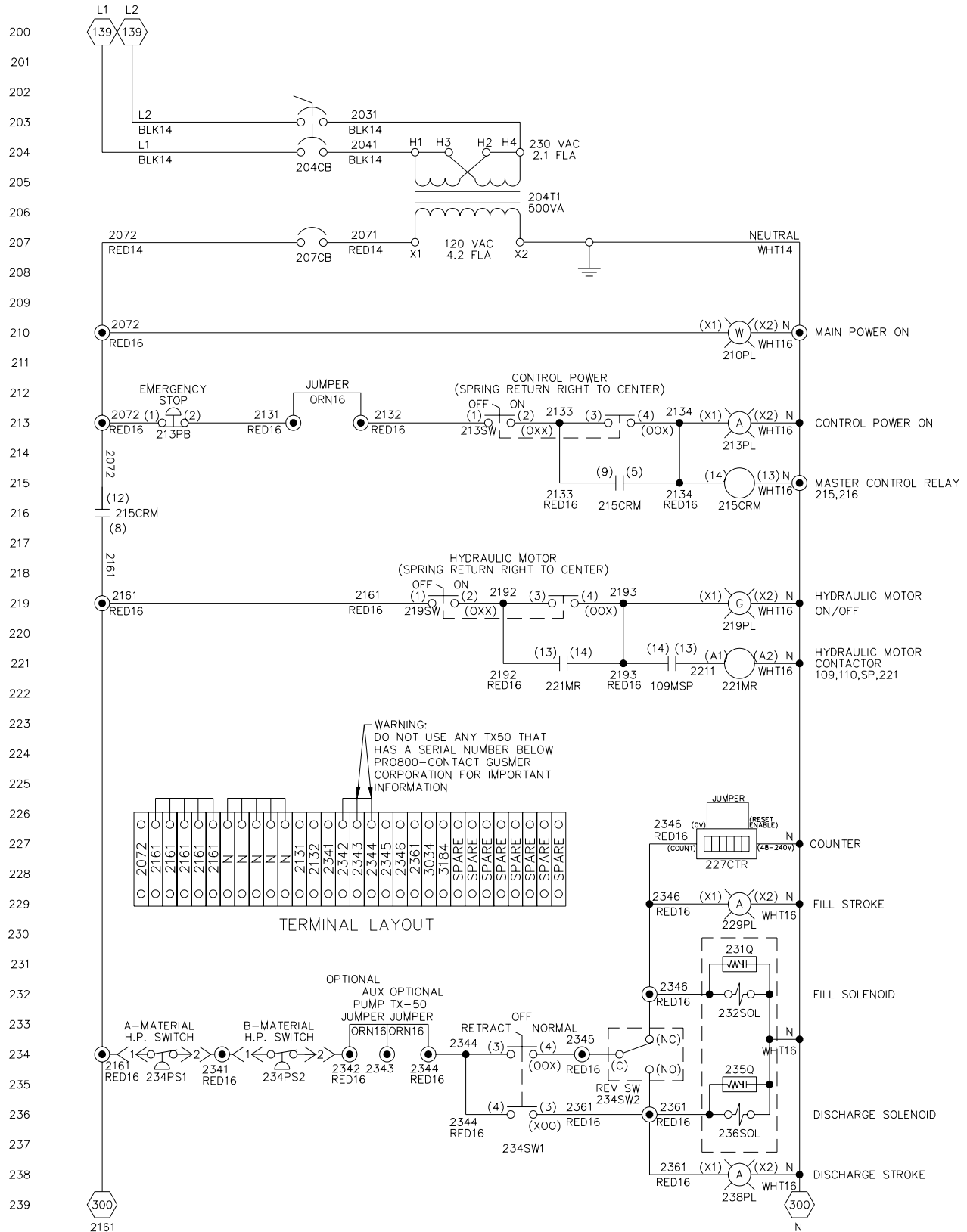


Figure 18. Electrical Schematic, SD66000-SIZE, Sheet 2A

Final segment of this schematic (Sheet 3) located on page 40.

380 Volt, 3-Phase

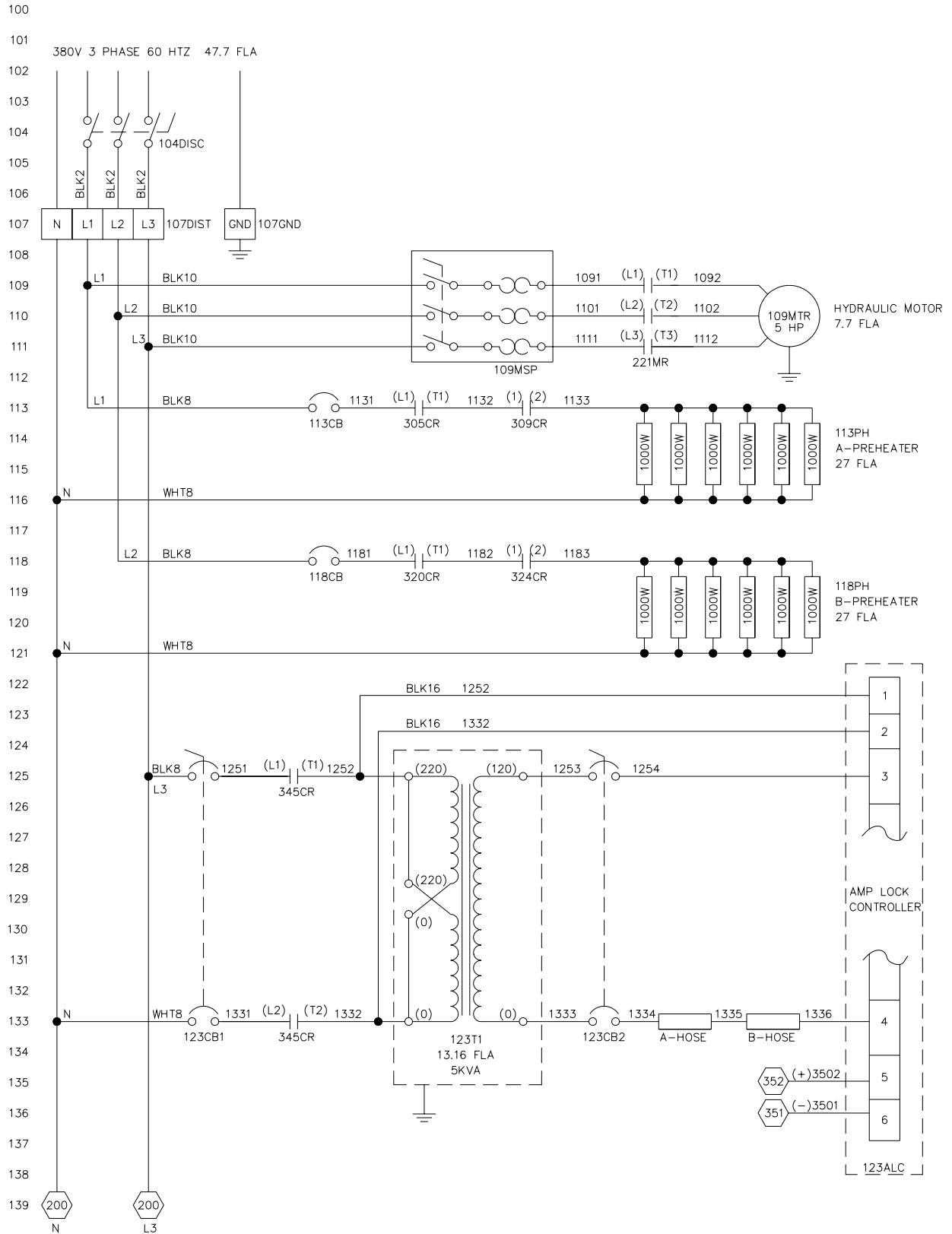


Figure 19. Electrical Schematic, SD66000-SIZE, Sheet 1C

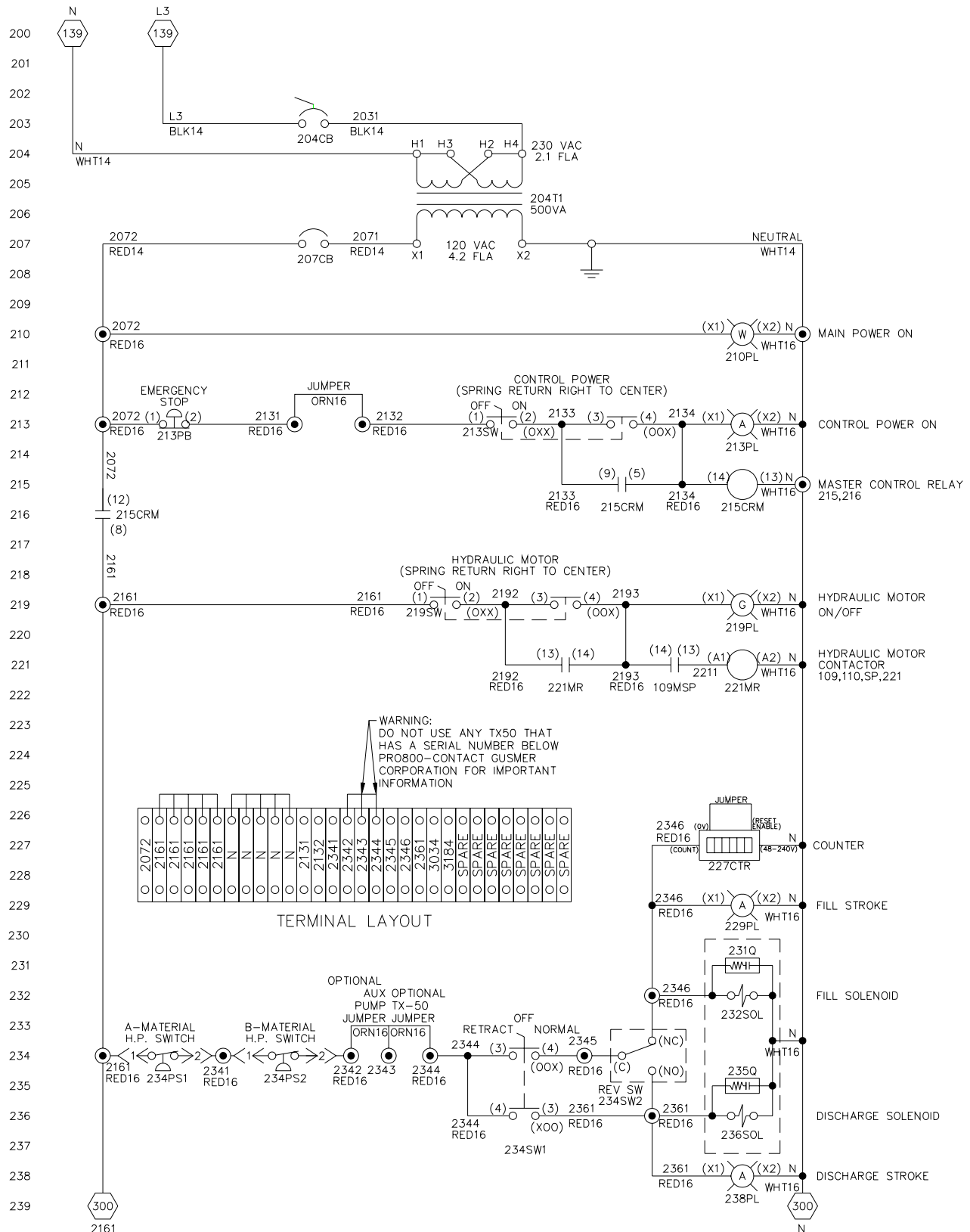


Figure 20. Electrical Schematic, SD66000-SIZE, Sheet 2B

Final segment of this schematic (Sheet 3) located on page 40.

380 Volt, 3-Phase, 9KW

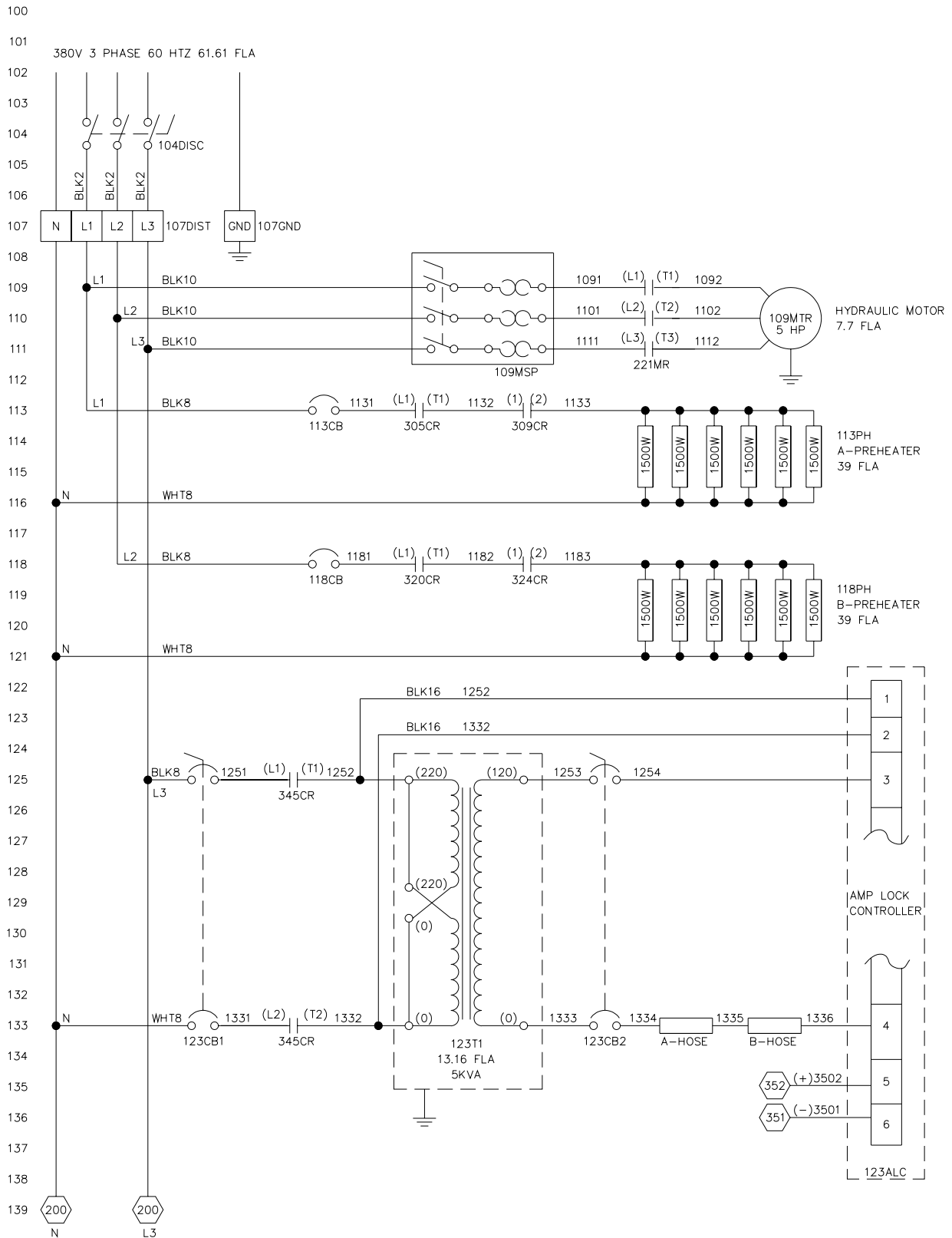


Figure 21. Electrical Schematic, SD66000-SIZE, Sheet 1F

460 Volt, 3-Phase

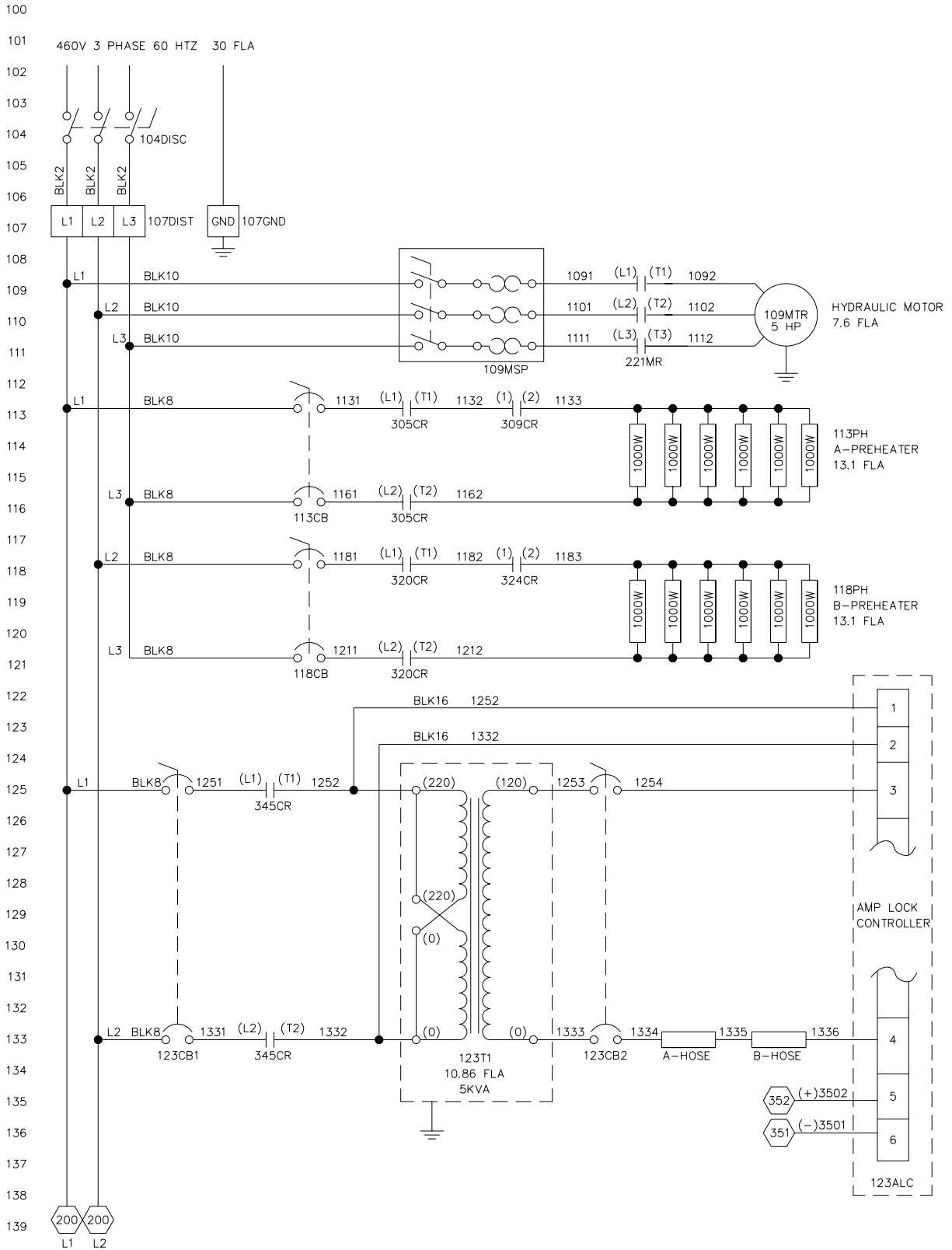


Figure 23. Electrical Schematic, SD66000-SIZE, Sheet 1E

460 Volt, 3-Phase, 9KW

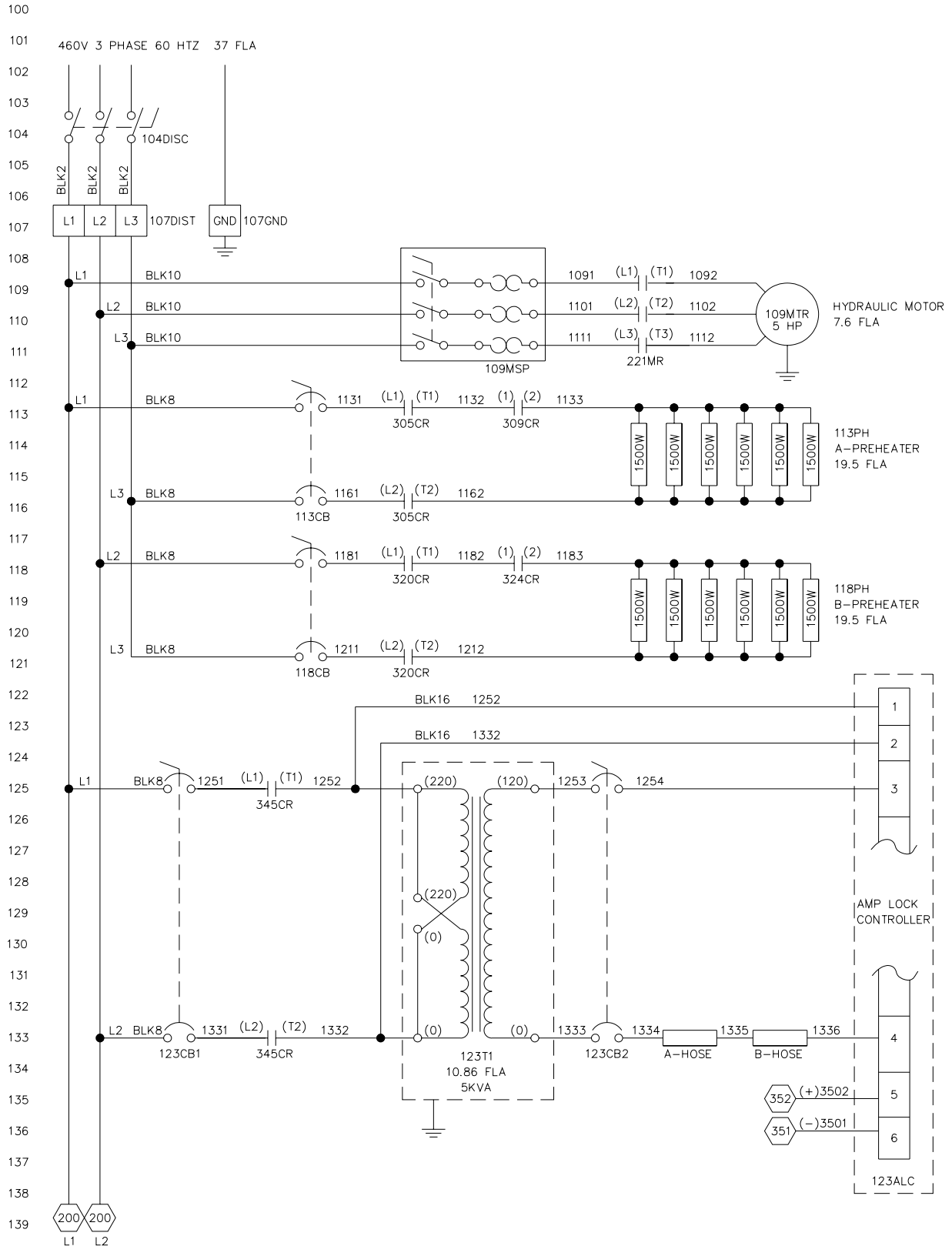


Figure 25. Electrical Schematic, SD6600-SIZE, Sheet 1G

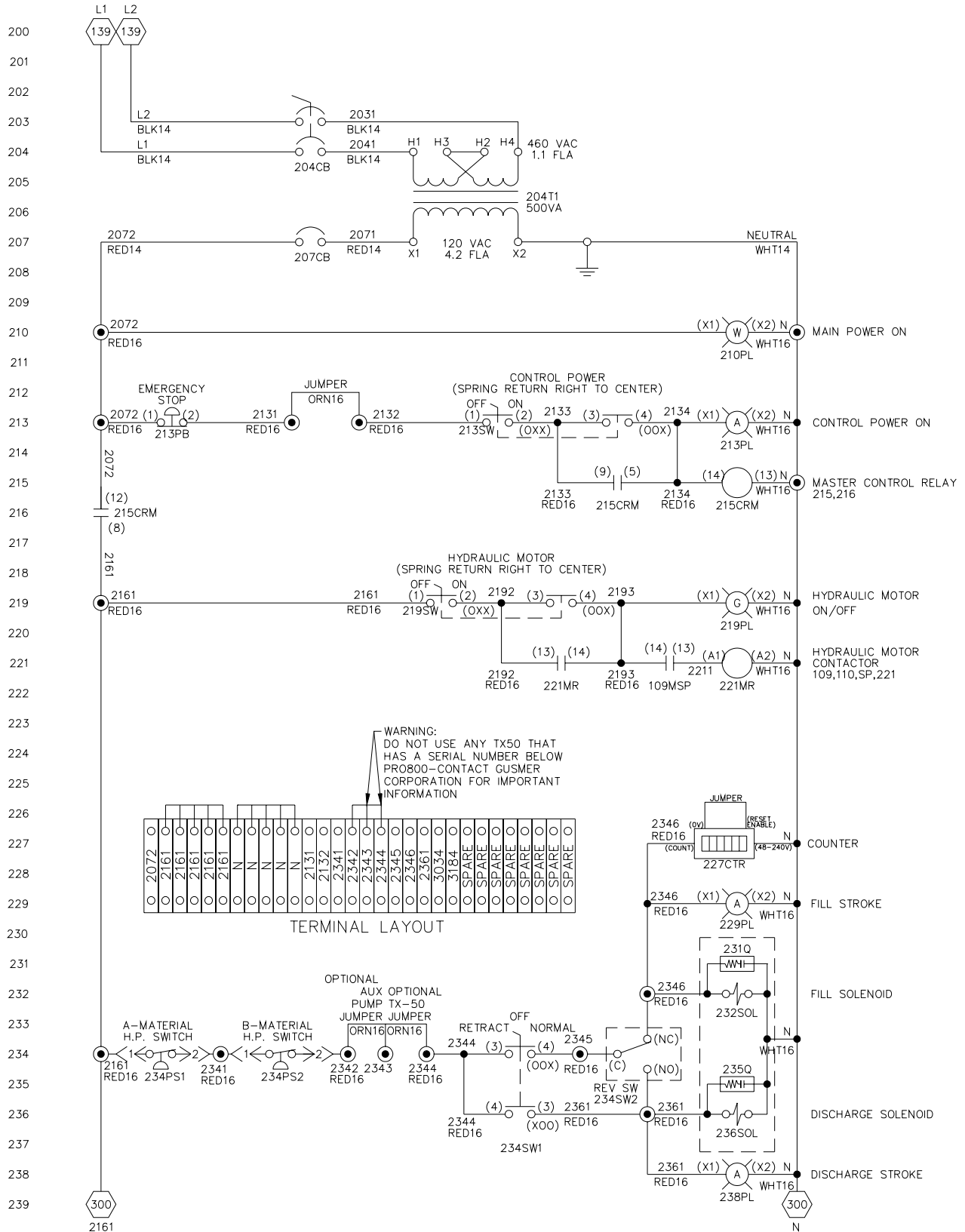


Figure 26. Electrical Schematic, SD66000-SIZE, Sheet 2C
 Final segment of this schematic (Sheet 3) located on page 40.

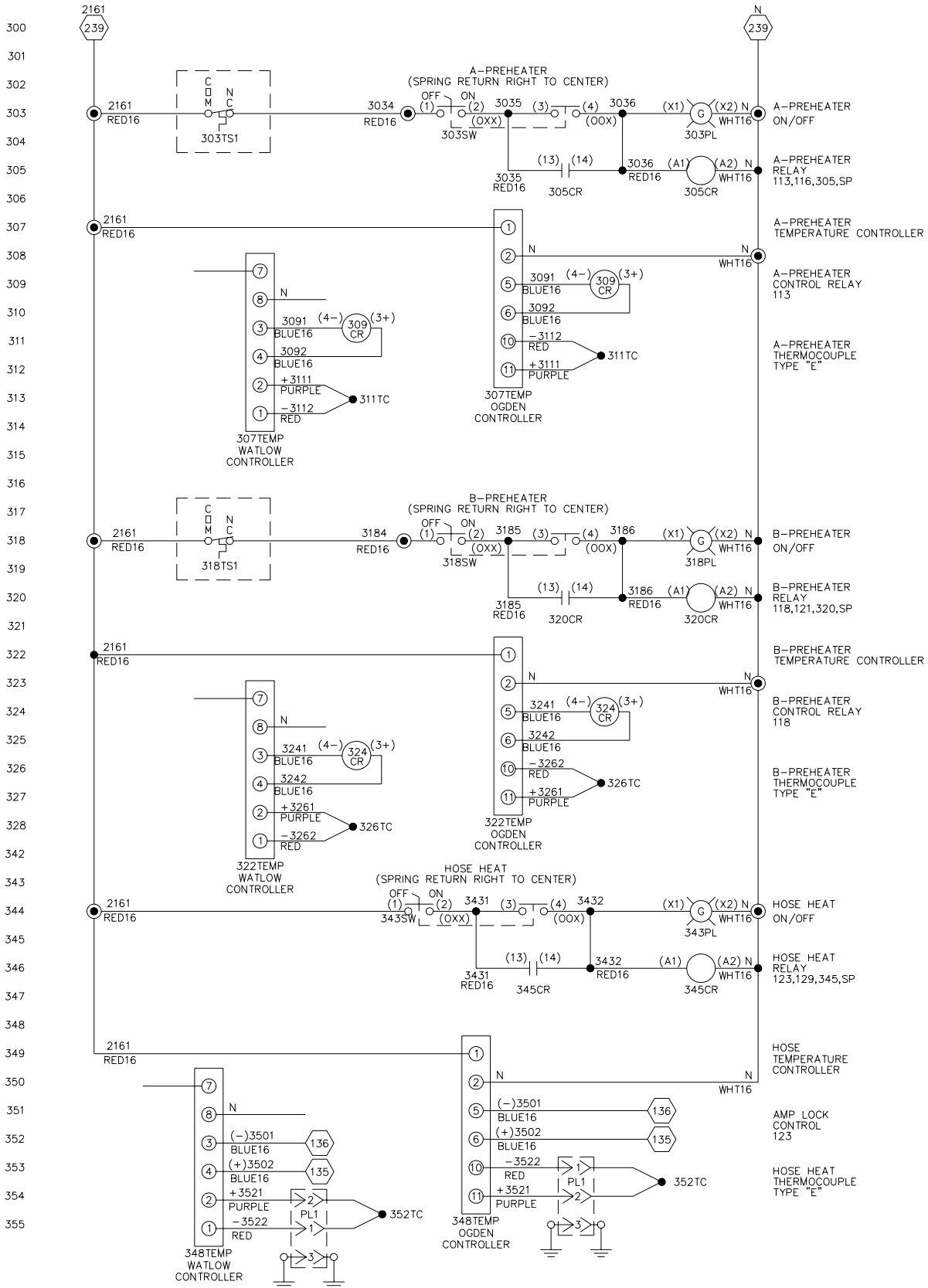


Figure 27. Electrical Schematic, SD66000-SIZE, Sheet 3

TABLE 10. ELECTRICAL SCHEMATIC, PARTS LIST

Reference Letter	Part Number	Description	Quantity
104DISC	6690-16-143	Disconnect	1
	6690-16-144	Disconnect Handle	1
107DIST	6690-20-10-3	3 Pole Terminal Block	1
107GND	1645-1-1	Ground Terminal Block	1
107N	6690-20-28-13	Neutral Terminal Block	3
109MSP			
	6690-27-121	Motor Circuit Protector (<i>1x220V</i>)	1
	6690-27-120	Motor Circuit Protector (<i>3x220V</i>)	1
	6690-27-119	Motor Circuit Protector (<i>3x380V; 3x460V</i>)	1
109MTR			
	6691-46	5HP 1 Phase 60Hz Motor (<i>1x220V</i>)	1
	6691-45	5HP Three Phase 50/60 Hz Motor (<i>3x220V; 3x380V; 3x460V</i>)	1
113CB			
	6690-25-22	Circuit Breaker for 6000W Heater (<i>1x220V</i>)	1
	6690-25-22	Circuit Breaker for 6000W Heater (<i>3x220V</i>)	1
	6690-25-48	Circuit Breaker for 9000W Heater (<i>3x220V, 9KW</i>)	1
	6690-25-21	Circuit Breaker for 6000W Heater (<i>3x380V</i>)	1
	6690-25-28	Circuit Breaker for 9000W Heater (<i>3x380V, 9KW</i>)	1
	6690-25-59	Circuit Breaker for 6000W Heater (<i>3x460V</i>)	1
	6690-25-24	Circuit Breaker for 9000W Heater (<i>3x460V, 9KW</i>)	1
113PH			
	42300-1000-220	1000 Watt Cartridge Heater (<i>1x220V</i>)	6
	42300-1000-220	1000 Watt Cartridge Heater (<i>3x220V</i>)	6
	42300-8-220	1500 Watt Cartridge Heater (<i>3x220V, 9KW</i>)	6
	42300-1000-220	1000 Watt Cartridge Heater (<i>3x380V</i>)	6
	42300-8-220	1500 Watt Cartridge Heater (<i>3x380V, 9KW</i>)	6
	42300-1000-460	1000 Watt Cartridge Heater (<i>3x460V</i>)	6
	42300-8-460	1500 Watt Cartridge Heater (<i>3x460V, 9KW</i>)	6
118CB			
	6690-25-22	Circuit Breaker for 6000W Heater (<i>1x220V</i>)	1
	6690-25-22	Circuit Breaker for 6000W Heater (<i>3x220V</i>)	1
	6690-25-48	Circuit Breaker for 9000W Heater (<i>3x220V, 9KW</i>)	1
	6690-25-21	Circuit Breaker for 6000W Heater (<i>3x380V</i>)	1
	6690-25-28	Circuit Breaker for 9000W Heater (<i>3x380V, 9KW</i>)	1
	6690-25-59	Circuit Breaker for 6000W Heater (<i>3x460V</i>)	1
	6690-25-24	Circuit Breaker for 9000W Heater (<i>3x460V, 9KW</i>)	1
118PH			
	42300-1000-220	1000 Watt Cartridge Heater (<i>1x220V</i>)	6
	42300-1000-220	1000 Watt Cartridge Heater (<i>3x220V</i>)	6
	42300-8-220	1500 Watt Cartridge Heater (<i>3x220V, 9KW</i>)	6
	42300-1000-220	1000 Watt Cartridge Heater (<i>3x380V</i>)	6
	42300-8-220	1500 Watt Cartridge Heater (<i>3x380V, 9KW</i>)	6
	42300-1000-460	1000 Watt Cartridge Heater (<i>3x460V</i>)	6
	42300-8-460	1500 Watt Cartridge Heater (<i>3x460V, 9KW</i>)	6
123ALC	6690-26-26	AmpLok Controller	1
123CB1			
	6690-25-22	Circuit Breaker for 6000W Heater (<i>1x220V</i>)	1
	6690-25-22	Circuit Breaker for 6000W Heater (<i>3x220V</i>)	1

Reference Letter	Part Number	Description	Quantity
	6690-25-21	Circuit Breaker for 6000W Heater (3x380V)	1
	6690-25-59	Circuit Breaker for 6000W Heater (3x460V)	1
123CB2	6690-25-69	Circuit Breaker	1
123T1	6690-15-37	Hose Transformer	1
204CB			
	6690-25-43	Circuit Breaker (1x220V)	1
	6690-25-43	Circuit Breaker (3x220V)	1
	6690-25-37	Circuit Breaker (3x380V)	1
	6690-25-61	Circuit Breaker (3x460V)	1
204T1	6690-15-27	120VAC Control Transformer	1
207CB	6690-25-36	Circuit Breaker	1
210PL	6690-19-15-17	Light Base	1
	6690-19-15-19	Pilot Light	1
	6690-19-15-11	Mounting Latch	1
	6690-19-15-20	130V Incandescent Bulb	1
	6690-19-15-14	Clear Lens	1
213PB	6690-16-67	Red Mushroom Head Switch	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
213SW	6690-16-145	Amber Switch	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
213PL	6690-19-15-17	Light Base	1
	6690-19-15-20	130V Incandescent Bulb	1
215CRM	6690-1-57	Relay	1
	6690-1-58	Relay Base	1
219SW	6690-16-146	Green Lens	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
219PL	6690-19-15-17	Light Base	1
	6690-19-15-20	130V Incandescent Bulb	1
221MR	6690-27-38	Contactactor (1x220V)	1
	6690-27-68	Contactactor (3x220V; 3x380V; 3x460V)	1
227CTR	6690-29-27	Digital Counter	1
229PL	6690-19-15-17	Light Base	1
	6690-19-15-19	Pilot Light	1
	6690-19-15-11	Mounting Latch	1
	6690-19-15-20	130V Incandescent Bulb	1
	6690-19-15-15	Amber Lens	1
231Q	6690-21-1	Quencharc	1
232SOL	6311-116-110-1	120VAC Coil	1
234PS1	6690-16-107	Pressure Switch	1
	6690-16-764700R	Pressure Switch	1
	6690-16-76-1	Din Connector	1
234PS2	6690-16-107	Pressure Switch	1
	6690-16-764700R	Pressure Switch	1
	6690-16-76-1	Din Connector	1
234SW1	6690-16-109	3 Position Switch	1

Reference Letter	Part Number	Description	Quantity
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
234SW2	0578A	Replacement Micro-Switch	1
235Q	6690-21-1	Quencharc	1
236SOL	6311-116-110-1	120VAC Coil	1
238PL	6690-19-15-17	Light Base	1
	6690-19-15-19	Pilot Light with out Lens	1
	6690-19-15-11	Mounting Latch	1
	6690-19-15-20	130V Incandescent Bulb	1
	6690-19-15-15	Amber Lens	1
303TS1	6690-7-26	Over Temperature Safety Switch	1
303SW	6690-16-146	Green Switch	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
303PL	6690-19-15-17	Light Base	1
	6690-19-15-20	130V Incandescent Bulb	1
305CR	6690-27-68	Contactora	1
307TEMP		Temperature Controller (Contact your Authorized Gusmer Sales Representative. Specify Fahrenheit or Celsius)	1
309CR	6690-1-55	Solid State Relay	1
311TC		Thermocouple	1
318TS1	6690-7-26	Over Temperature Safety Switch	1
318SW	6690-16-146	Green Lens	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
318PL	6690-19-15-17	Light Base	1
	6690-19-15-20	130V Incandescent Bulb	1
320CR	6690-27-68	Contactora	1
322TEMP		Temperature Controller (Contact your Authorized Gusmer Sales Representative. Specify Fahrenheit or Celsius)	1
324CR	6690-1-55	Solid State Relay	1
326TC		Thermocouple	1
343SW	6690-16-146	Green Lens	1
	6690-19-15-11	Mounting Latch	1
	6690-16-59-1	Switch Block	1
	6690-16-60-1	Switch Block	1
343PL	6690-19-15-17	Light Base	1
	6690-19-15-20	130V Incandescent Bulb	1
345CR	6690-27-68	Contactora	1
348TEMP		Temperature Controller (Contact your Authorized Gusmer Sales Representative. Specify Fahrenheit or Celsius)	1
352TC		TSU	1
	18650-7	TSU Replacement Plug Assembly	1

Field Number	Field Title	Description
1	Date	Enter date report is submitted.
2	Name	Enter name of person making report.
3	IM Number	Enter the Part Number of the Instruction Manual from the title page.
4	Issue Number	Enter the Issue number of the Instruction Manual from the title page. If there is no issue number, enter NONE .
5	Date of Issue	Enter the date of Issue of the Instruction Manual from the title page. If there is no issue date, enter NONE .
6	Page Number	Enter the page number containing the discrepancy.
7	Discrepancy	Provide a brief description of discrepancy.

NOTE: You may send a marked copy of the page as an attachment to your submittal.

PUMPLINE ASSEMBLY

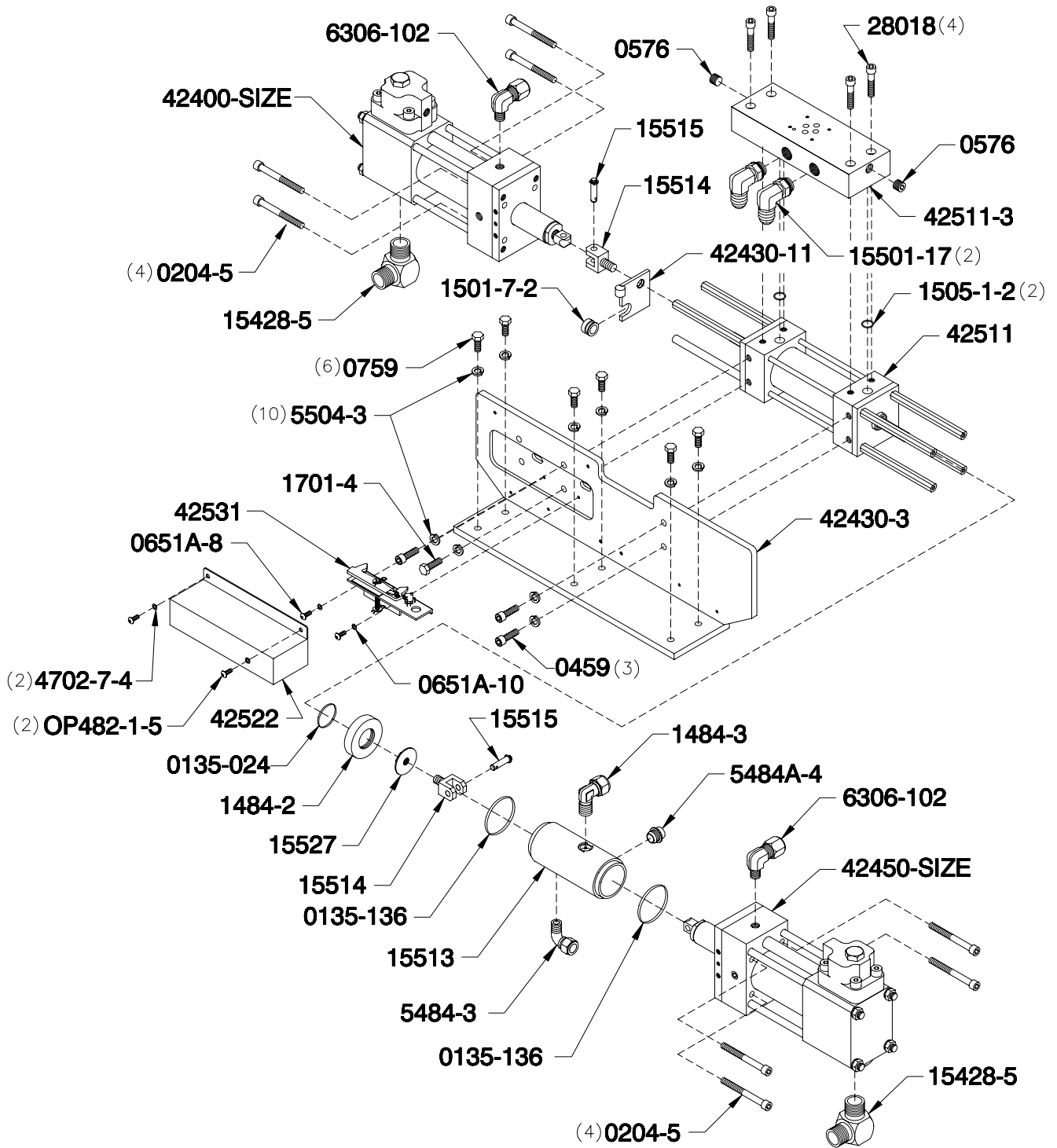


Figure 4. Pumpline Assembly (Part No. 42430-SIZE), Exploded View

TABLE 3. PUMPLINE ASSEMBLY (PART NO. 42430-SIZE), PARTS

Part Number	Description	Quantity
0135-024	O-Ring	1
0135-136	O-Ring	2
0204-5	Socket Head Cap Screw	8
0459	Socket Head Cap Screw	3
0576	Flush Seal Pipe Plug	2
0651A-8	Pan Head Machine Screw	2
0651A-10	Lockwasher	2
0759	Hex Head Cap Screw	6
1484-2	Lube Cylinder Adapter Plate	1
1484-3	Male Elbow	1
1501-7-2	Bronze Bushing	1
1505-1-2	O-Ring	2
1701-4	Hex Head Cap Screw	1
4702-7-4	Lockwasher	2
5484-3	Lube Hose Fitting	1
5484A-4	Polyethylene Pipe Plug	1
5504-3	Helical Lockwasher	10
6306-102	Tube Elbow	2
15428-5	Male Elbow	2
15501-17	O-Ring Elbow	2
15513	Iso Lube Cylinder	1
15514	Hydraulic Cylinder Clevis	2
15515	Clevis Pin	2
15527	Jam Nut/Baffle	1
28018	Socket Head Cap Screw	4
42400-SIZE	Resin Proportioning Pump Assembly (See page 16)	1
42430-3	Pump Mounting L-Bracket	1
42430-11	Activator Plate	1
42450-SIZE	Iso Proportioning Pump Assembly (See page 16)	1
42511	Hydraulic Cylinder with Spacers	1
42511-3	Hydraulic Manifold	1
42522	Reversing Switch Cover	1
42531	Reversing Switch Assembly	1
OP482-1-5	Button Head Cap Screw	2