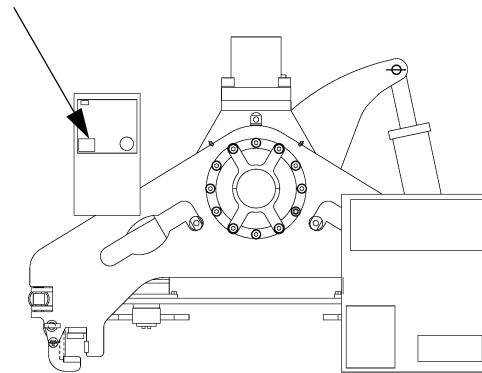
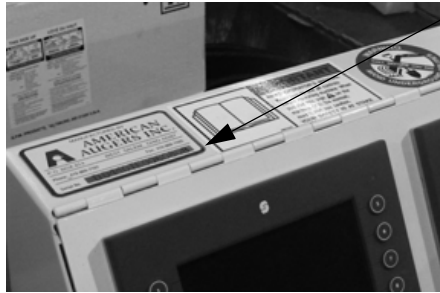
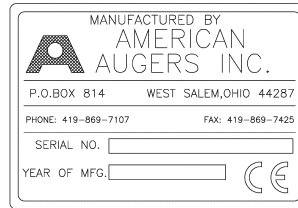
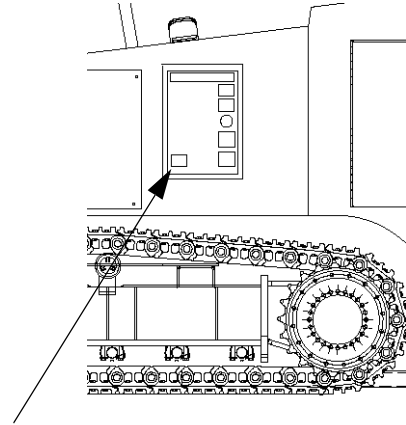
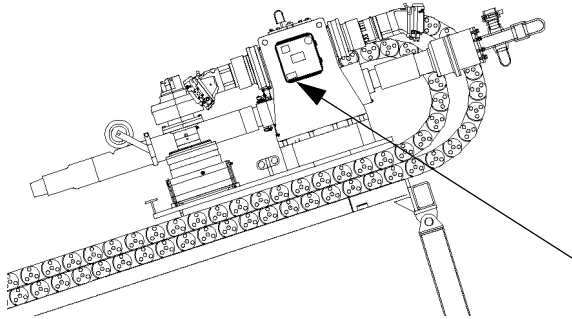




**DD-440T**  
**Parts Manual**  
**(44DD10011)**

American Augers, Inc.  
135 US Route 42  
P.O. Box 814  
West Salem, Ohio 44287  
[www.americanaugers.com](http://www.americanaugers.com)



Location of Machine Serial Number Plate

Machine Serial Number

---

**PARTS SALES INFORMATION**  
Phone: 800.324.4930 or 419.869.7107  
Fax: 419.869.1998  
or E-Mail: [parts@americanaugers.com](mailto:parts@americanaugers.com)

Always include machine serial number when ordering parts  
Due to our continuing product improvement, machine specifications are subject to change without notice.

Manual Part Number 44DD20100T  
Released March 2015 Revision 02

# WELCOME

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This manual contains illustrated parts lists to help you select quality American Augers replacement parts for your equipment. Using other replacement parts will lessen the productivity of your equipment.

- Descriptions and specifications in this book were current at publication. However, American Augers reserves the right to improve equipment, so this manual might not reflect the most current improvements.
- Filters (page 10) and Seal Kits (page 12) are listed in the General Section in the front of the Parts Manual.
- Parts may be hidden on drawings for clarity.
- Instructions on recommended equipment use and maintenance are in the Operator's Manual that was shipped with your equipment.

Keep the following in mind when ordering American Augers replacement parts:

- Specify parts you need by part number and description, not by illustration reference numbers.
- Have equipment model and serial number on hand to help ensure you get the right parts for your machine whether it's old or new.

Thank you for buying and using American Augers equipment replacement parts.



## WARRANTY CERTIFICATE

**PARTS:** 2 YEARS / 2,000 HOURS

**LABOR:** 1 YEAR / 1,000 HOURS

**ENGINE AND TRANSMISSION:** 2 YEARS / 2,000 HOURS

**RACK AND PINION:** 5 YEARS / 10,000 HOURS

**Warranty Terms and Conditions** - The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of products, neglect or abuse, or use of the product in a manner inconsistent with its design. This warranty does not extend to any component parts not manufactured by the Manufacturer; however the Manufacturer's warranty herein shall not limit any warranties made by the manufacturers of component parts which may extend to Buyer.

**THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AND NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO A WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE BY THE MANUFACTURER IN CONNECTION WITH THE MANUFACTURE OR SALE OF ITS PRODUCTS.**

No employee, distributor, or representative is authorized to change this warranty in any way or grant any other warranty on behalf of the Manufacturer.

Claims for defects in material and workmanship shall be made in writing to the Manufacturer within ten business days of the discovery of defect. The Manufacturer may either send a service representative or have the product returned to its factory at the Buyer's expense for inspection. If the product has not been returned within 30 days of receipt of written notice, the product will not longer be eligible for the warranty claims. If, upon receipt, judged by the Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of the Manufacturer, free from all charges except authorized transportation.

The remedies of the Buyer set forth herein are exclusive and are in lieu of all other remedies. The liability of the Manufacturer whether in contract, tort, under any warranty, or otherwise shall not extend beyond its obligation to repair or replace, at its option, any product or part found by the Manufacturer to be defective in material or workmanship. The Manufacturer shall not be liable for cost of installation and/or removal or be responsible for direct, indirect, special or consequential damage of any nature. Under no circumstances shall the Manufacturer be liable for lost or anticipated profits.

14 January 2015

**IMPORTANT:** *Warranty details are provided in the "American Augers Warranty Policy". A copy of this document is available by contacting the American Augers/Trencor factory by calling 419-869-7107 or 800-324-4930 (USA Toll Free).*

### Revision to Manual

Revision Number	Description of Change	Date
00	New Release thru ECN 9603; Machines made under top level 44DD10011 beginning with serial number DD440TD0010810	10/31/2011
01	Changes to machines thru ECN 10455; For machines made after serial number DD440TD0230214, see Rev 02 of this manual	1/9/2014
02	Covers machines made under top level 44DD10011 with serial numbers DD440TD0270714, DD440TD0301114 and DD440TD0311114 only; For previous machines made under top level 44DD10011, see Rev 01 of this manual.	3/24/2015



### Revision to Manual, Continued

Revision Number	Description of Change	Date

**DD-440T**

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# GENERAL SECTION

## HYDRAULIC FILTERS

**DD-440T**

**Hydraulic Filters  
Bill of Material Number: 44DD10011**

**Hydraulic Tank/Pump**

<b>FILTER</b>	<b>ELEMENT</b>	<b>QTY</b>	<b>DESCRIPTION</b>
8FL10006		2	Strainer, Suction, -20
8FL10008		1	Strainer, Suction, -48
8FL20038	8FL20033-1	1	Return
8FL20039	8FL20031-1	2	Charge, Closed Loop
8FL51007	8FL20015-1	2	High Pressure
90GB3315		1	Water & Particulate Removal Breather

See Diesel Engine Manual for fuel and air filter specifications.

# SEAL KITS

**DD-440T**

**Seal Kits**

**Bill of Material Number: 44DD10011**

<b>PART</b>	<b>KIT OR PART</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>
8GB80010	8GB80010-01	Repair Kit	Wrench
8GB80057	8GB80057-1	Seal, Shaft	Rotary
8GB80096	8GB80095-03	Shaft Seal	Carriage
"	8HS51276	Seal, O-Ring, BUNA N, -276	Carriage
"	8HS51280	Seal, O-Ring, BUNA N, -280	Carriage
"	8HS51284	Seal, O-Ring, BUNA N, -284	Carriage
"	8GB80096-1	Kit, Motor Adaptor	Carriage
"	8GB80096-2	Kit, Brake Adaptor	Carriage
"	8GB80095-04	Breather	Carriage
"	8GB80095-05	Drain Plug	Carriage
8GB80097	8GB80097-01	Seal, Shaft, Output	Rotary
"	8GB80097-02	Cover, Seal Output	Rotary
"	8GB80097-03	O-Ring, Output Cover	Rotary
"	8GB80097-04	Snap Ring, Seal Cover	Rotary
8GB85023	8GB85023-01	Motor Seal Kit	Track Crawler Asm
"	8GB85023-02	Gearbox Seal Kit	Track Crawler Asm
8HC20005	8HC20005-1	Packing	Mud Blow Down
8HC40001	8HC40010	Seal Kit	Wrench
8HC50030	8HC50030-01	Seal Kit	Undercarriage
8HC60017	8HC60017-1	Seal Kit, Piston and Gland	Wrench
8HC80006	8HC80007-01	Seal Kit	Wrench
8HC80007	8HC80006-KT	Kit, Cylinder, Hydraulic	Wrench
8HM24001	8HM24001-01	Seal Kit, Complete	Wrench
8HM60031	8HM60031-18	Shaft Seal	Carriage
8HM60046	8HM60046-01	Seal Kit	Rotary
270083	no kit		Carriage
8HV00012	8HV00012-1	Seal Kit	Hyd Schematic
8HV22033	8HV22033-1	Kit, Seal for Ball Valve	Mud Blow Down
8HV28008	no kit		Hyd Tank
8HV28020	no kit		Hyd Tank
8HV28048	8HV28048-01	Teflon Ball Seal	Hyd Tank
"	8HV28048-02	Connection Seal	Hyd Tank
"	8HV28048-03	Spindle Seal	Hyd Tank
8HV32002	8HV32002-01	Seal Kit, Check Valve	Undercarriage
8HV32004	8HV32004-01	Seal Kit	Engine
8HV32005	8HV40024-01	Seal Kit	Engine

**DD-440T**

**Seal Kits (Continued)**  
**Bill of Material Number: 44DD10011**

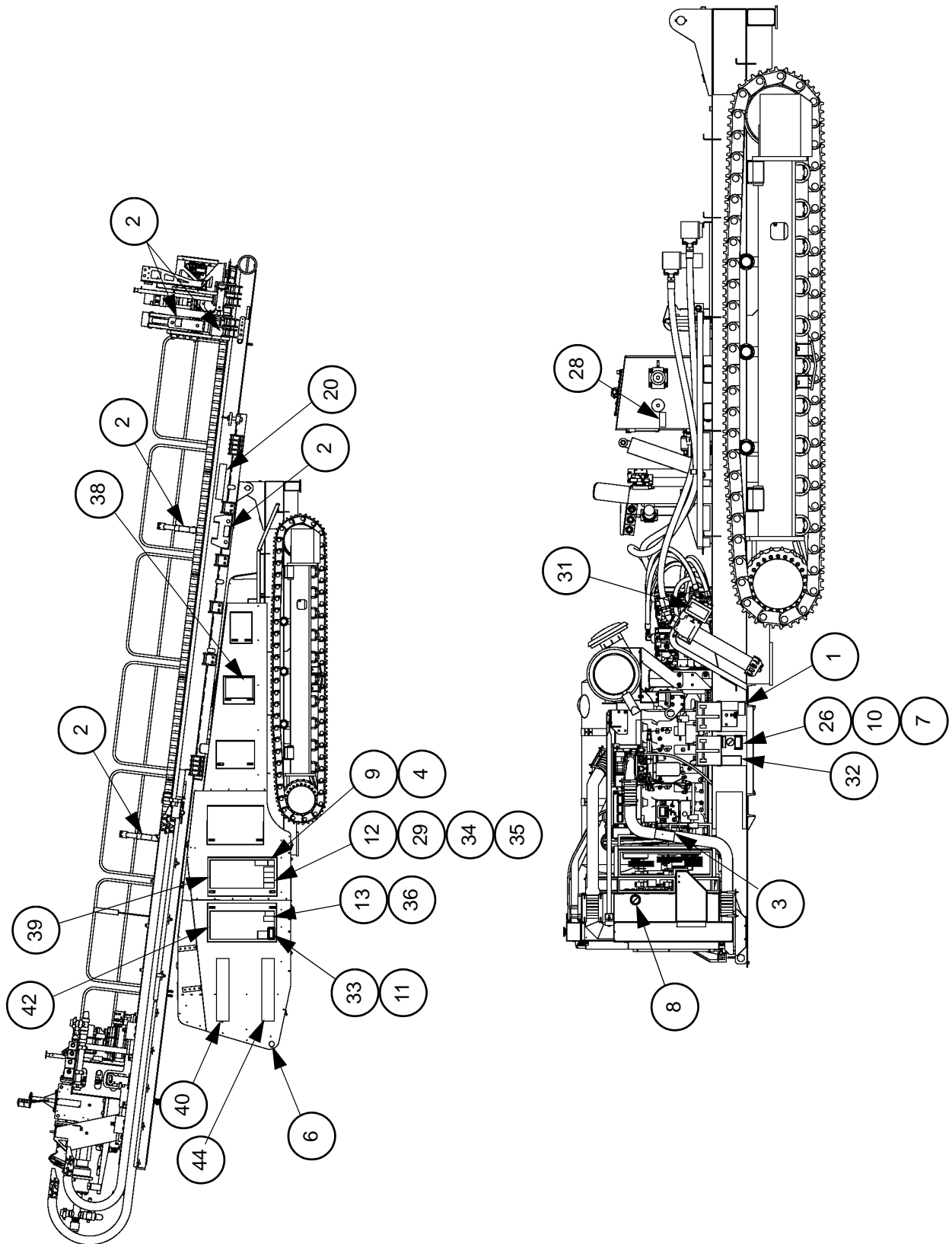
<b>PART</b>	<b>KIT OR PART</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>
8HV34006	no kit		Hyd Schm
8HV34020	no kit		Hyd Schm
8HV34106	no kit		Hyd Schm
8HV34120	no kit		Carriage
8HV34206	no kit		Hyd Schm
8HV40024	8HV40024-01	Cartridge Seal Kit	Hyd Schm
8HV61009	8HV61009-2	Seal Kit	Rotary
8HV61015	8HV61015-01	Cartridge Seal Kit	Undercarriage
8HV61107	8HV61107-01	Seal Kit	Undercarriage
8HV61303	8HV61303-04	Seal Kit	Undercarriage
8HV62002	no kit		Undercarriage
8HV68080	8HV68080-01	Cartridge Seal Kit	Hyd Schm
8HV80102	8HV80102-01	Seal Kit	Carriage
8HV80148	8HV80064-03	Seal Kit	Thrust Frame
"	8HV80033-3	Seal Kit, Work Section	Thrust Frame
"	8HV80076-80	Solenoid Kit, Pulsar	Thrust Frame
"	8HV80020-1	Port Relief	Thrust Frame
"	8HV80105-1	Port Relief	Thrust Frame
"	8HV80008-47	Port Relief	Thrust Frame
8HV80177	8HV80177-01	Seal Kit	Wrench
8HV80181	8HV80102-01	Valve	Undercarriage
8HV80182	8HV80131-37	Kit, Pressure Limiter	Undercarriage
"	8HV80182-01	Inlet Seal Cartridge	Undercarriage
"	8HV80182-02	Size 5, Twin Solenoid Valve	Undercarriage
"	8HV80182-03	Size 5, Seal Kit	Undercarriage
"	8HV80182-04	Size 2, Seal Kit	Undercarriage
"	8HV80214-03	Dual Solenoid Coil	Undercarriage
8HV80188	8HV80113-01	Seal Kit	Undercarriage
8HV80288	8HV80113-01	Seal Kit	Undercarriage
8PH50045	8PH50045-1	Assembly, Shaft Seal	Engine
"	8PH50045-01	Shaft Seal	Engine
"	8PH50045-02	Seal Kit	Engine
8PH60038	8PH60037-1	Gasket and Seal Overhaul Kit	Engine
"	8PH60020-M9KP	Press Control Pilot	Engine
"	8PH60021-M0KP	EDC Servo Kit	Engine
"	8PH60002-3	Multi Function Valve	Engine
"	8PH60038-01	Valve Plate	Engine
"	8PH60038-02	Charge Pump Set	Engine
8PH60056	8PH60038-1	Kit, Orifice/Check	Engine

**DD-440T**

**Seal Kits (Continued)  
Bill of Material Number: 44DD10011**

<b>PART</b>	<b>KIT OR PART</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>
8QD11504	no kit		Hoses
8QD11508	8QD71508-1	Seal Kit	Hyd Schematic
8QD14506	no kit		Hyd Schematic
8QD21524	8QD21524-1	Seal Kit	Hyd Schematic
8QD22524	8QD22524-1	Seal Kit	Hyd Schematic
8QD61504	no kit		Hyd Schematic
8QD63501	no kit		Hyd Schematic
8QD63502	no kit		Hyd Schematic
8QD65502	no kit		Hoses
8QD71612	no kit		Hyd Schematic
8QD71616	no kit		Hyd Schematic
8QD72612	no kit		Hyd Schematic
8QD72616	no kit		Hyd Schematic
8QD81208	no kit		Hyd Schematic
8QD81608	no kit		Hyd Schematic
8QD82208	no kit		Hyd Schematic
8QD82608	no kit		Hyd Schematic
8QD91216	8QD91216-01	Coupler Repair Kit	Hyd Schematic
8QD91604	no kit		Hyd Schematic
8QD92216	8QD92216-01	Coupler Repair Kit	Hyd Schematic
8QD92604	no kit		Hyd Schematic
8QD93116	8QD93116-01	Kit, Seal, O-Ring and Back Up	Hyd Schematic
8QD94116	no kit		Hyd Schematic

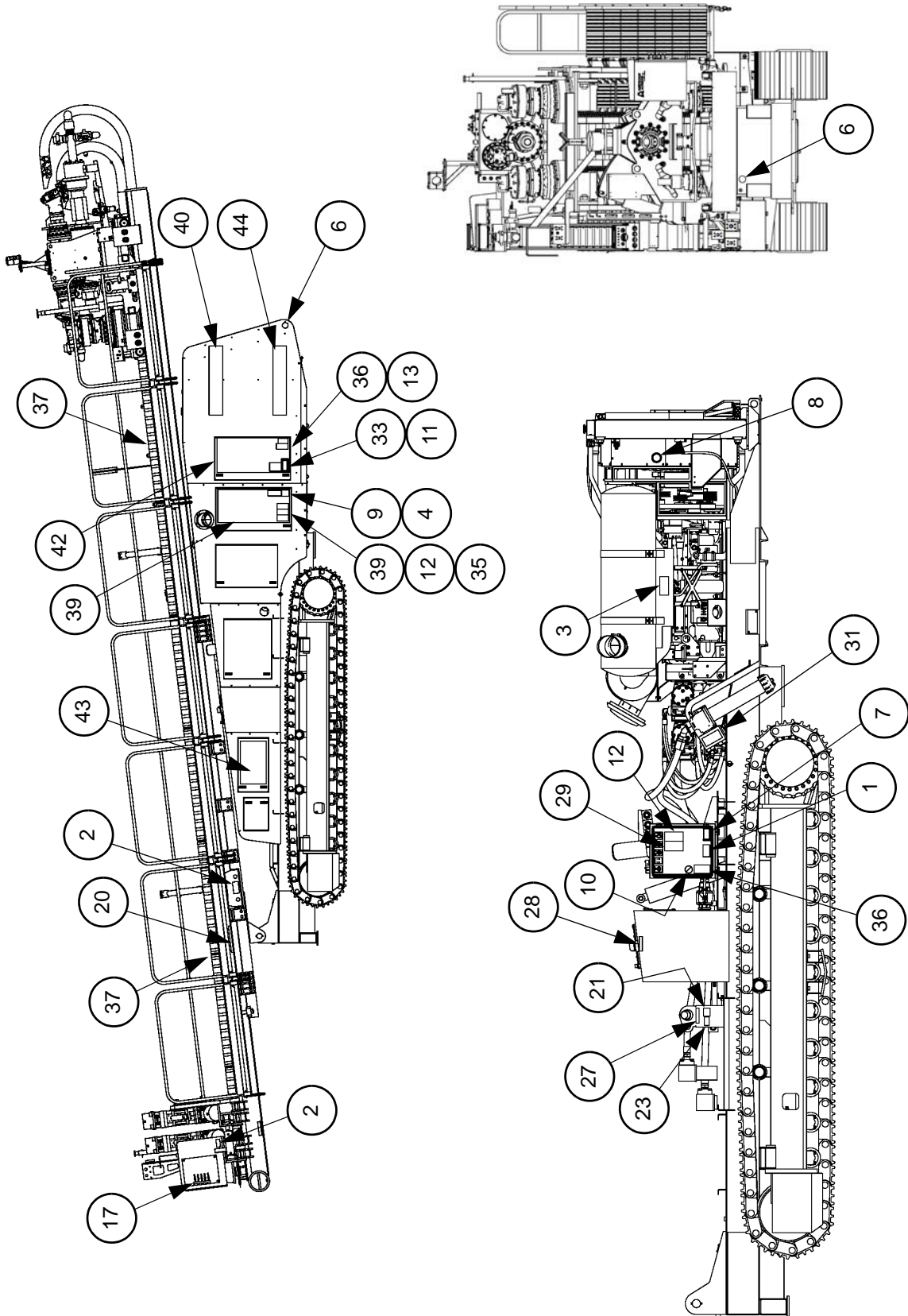
# DECALS





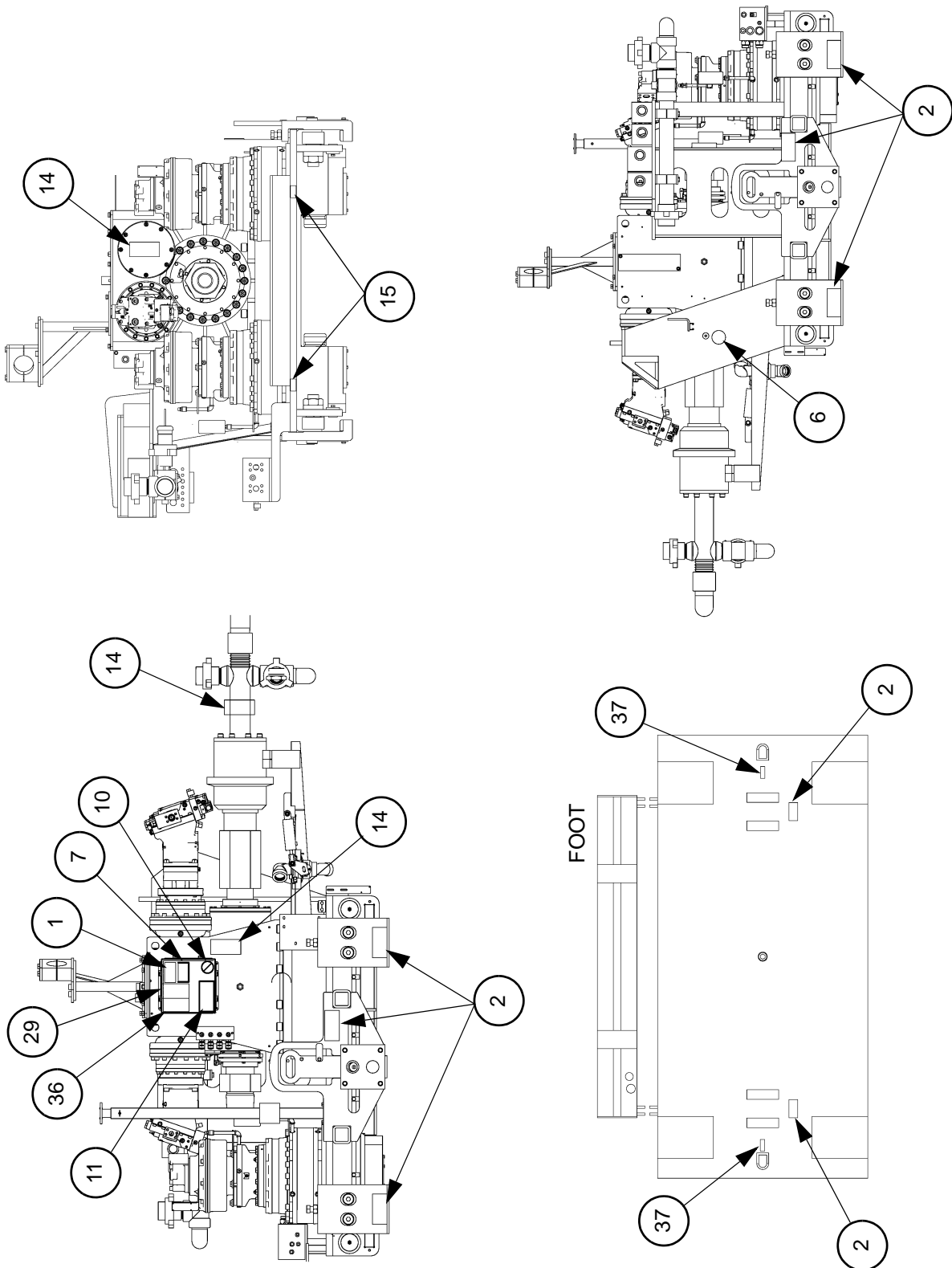
**DD-440T****Decals****Bill of Material Number: 44DD7406**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	8NP80004	5	Nameplate, Serial Number
2	8NP41828	17	Decal, DANGER Keep Hands and Feet a Safe Distance
3	8NP41806	2	Decal, DANGER Hot Surface Do Not Touch
4	8NP41804	2	Decal, Sound Level Not to Exceed
6	8NP41786	6	Decal, Earth Ground
7	8NP41785	3	Decal, Disconnect Battery Before Welding
8	8NP41784	2	Decal, Do Not Operate with Guards Removed
9	8NP41780	3	Decal, DANGER Electrocutation Hazard If Beacon is Flashing
10	8NP41779	4	Decal, Do Not Pressure Wash
11	8NP41778	4	Decal, DANGER In Case of Electric Strike Do Not Move
12	8NP41773	4	Decal, DANGER Read Operator's Manual
13	8NP41768	2	Decal, DANGER Stay Safe Distance from Machine
26	8NP41160	1	Decal, WARNING Engine Must Be...
28	8NP41107	2	Decal, Hydraulic Oil
29	8NP41783	4	Decal, DANGER Electrocutation, Explosion Hazard
31	8NP41777	2	Decal, DANGER High Pressure Fluid; Keep Hands Away
32	8NP41769	1	Decal, DANGER Explosion of Battery During Jump Starting
33	8NP41514	2	Decal, CAUTION High Pressure Washing
34	8NP41771	1	Decal, DANGER Use Proper Lockout and Tagout Procedures
35	8NP41772	2	Decal, DANGER Run-Over Hazard
36	8NP71119	5	Decal, WARNING Call Before You Dig
38	8NP41905	1	Decal, "A", Riveted Look
39	8NP41907	2	Decal, Website, Riveted Look
40	8NP41909	2	Decal, "A", Riveted Look
42	8NP41906	2	Decal, DD-440T, Riveted Look
44	8NP41910	2	Decal, Quiet-Pak, Riveted Look



**DD-440T****Decals (Continued)  
Bill of Material Number: 44DD7406**

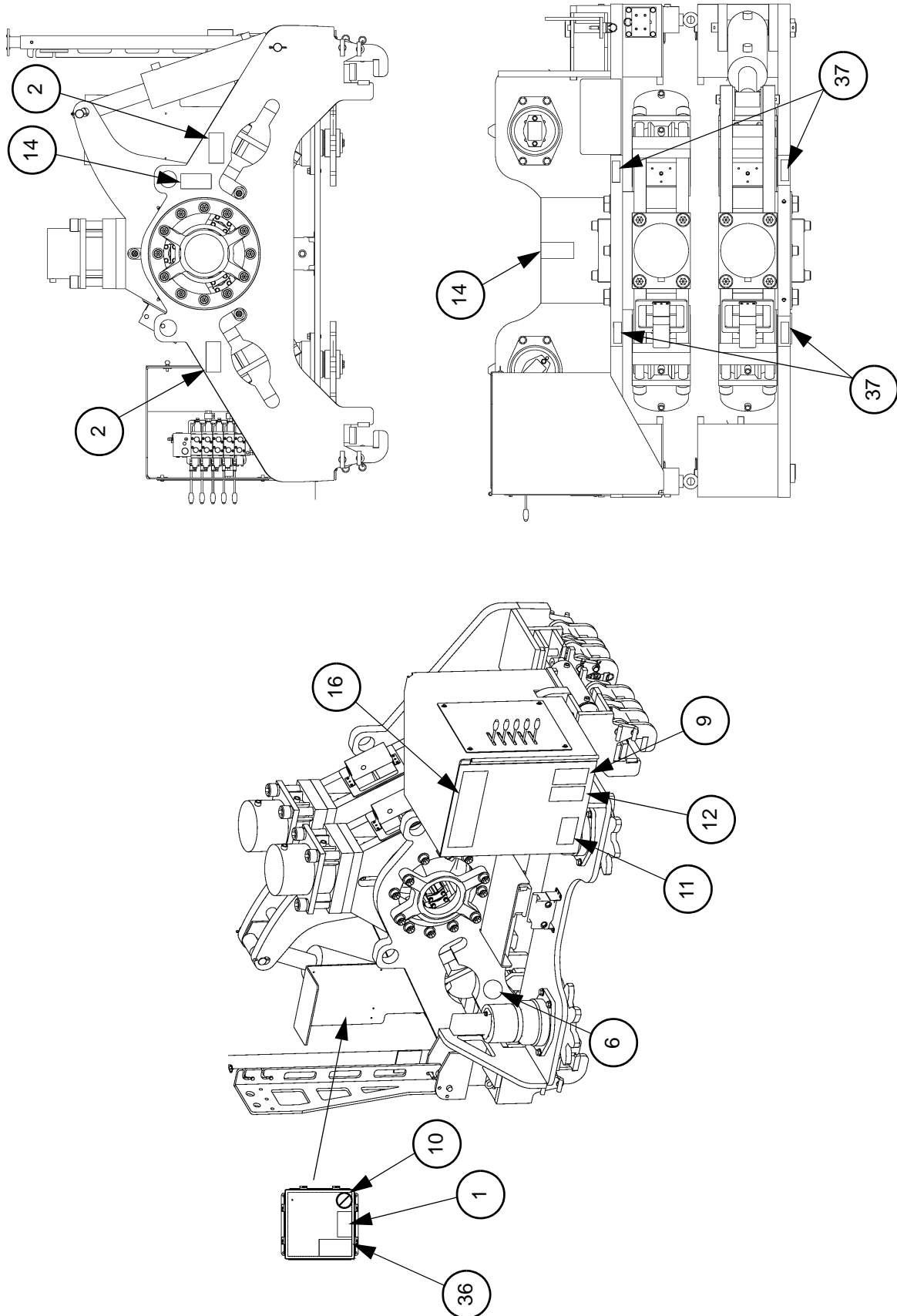
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	8NP80004	5	Nameplate, Serial Number
2	8NP41828	17	Decal, DANGER Keep Hands and Feet a Safe Distance
3	8NP41806	2	Decal, DANGER Hot Surface Do Not Touch
4	8NP41804	2	Decal, Sound Level Not to Exceed
6	8NP41786	6	Decal, Earth Ground
7	8NP41785	3	Decal, Disconnect Battery Before Welding
8	8NP41784	2	Decal, Do Not Operate with Guards Removed
9	8NP41780	3	Decal, DANGER Electrocutation Hazard If Beacon is Flashing
10	8NP41779	4	Decal, Do Not Pressure Wash
11	8NP41778	4	Decal, DANGER In Case of Electric Strike Do Not Move
12	8NP41773	4	Decal, DANGER Read Operator's Manual
13	8NP41768	2	Decal, DANGER Stay Safe Distance from Machine
17	8NP41562	2	Decal, Wrench Valve Control
20	8NP41516	2	Decal, DD-440 T
21	8NP41404	1	Decal, Minimum Fuel Cetane
23	8NP41209	1	Decal, Diesel Exhaust Warning
27	8NP41108	1	Decal, Diesel Fuel
28	8NP41107	2	Decal, Hydraulic Oil
29	8NP41783	4	Decal, DANGER Electrocutation, Explosion Hazard
31	8NP41777	2	Decal, DANGER High Pressure Fluid; Keep Hands Away
33	8NP41514	2	Decal, CAUTION High Pressure Washing
35	8NP41772	2	Decal, DANGER Run-Over Hazard
36	8NP71119	5	Decal, WARNING Call Before You Dig
37	8NP41809	20	Decal, DANGER Read Manual for Lifting Procedure
39	8NP41907	2	Decal, Website, Riveted Look
40	8NP41909	2	Decal, "A", Riveted Look
42	8NP41906	2	Decal, DD-440T, Riveted Look
43	8NP41908	1	Decal, "A", Riveted Look
44	8NP41910	2	Decal, Quiet-Pak, Riveted Look



**DD-440T**

**Decals (Continued)**  
**Bill of Material Number: 44DD7406**

REF. NO.	PART NO.	QTY	DESCRIPTION
1	8NP80004	5	Nameplate, Serial Number
2	8NP41828	17	Decal, DANGER Keep Hands and Feet a Safe Distance
6	8NP41786	6	Decal, Earth Ground
7	8NP41785	3	Decal, Disconnect Battery Before Welding
10	8NP41779	4	Decal, Do Not Pressure Wash
11	8NP41778	4	Decal, DANGER In Case of Electric Strike Do Not Move
14	8NP41767	5	Decal, DANGER Whole Body Entanglement in Machinery
15	8NP41578	2	Decal, Grease Carriage Pinion Bearings
29	8NP41783	4	Decal, DANGER Electrocutation, Explosion Hazard
36	8NP71119	5	Decal, WARNING Call Before You Dig
37	8NP41809	20	Decal, DANGER Read Manual for Lifting Procedure



**DD-440T****Decals (Continued)  
Bill of Material Number: 44DD7406**

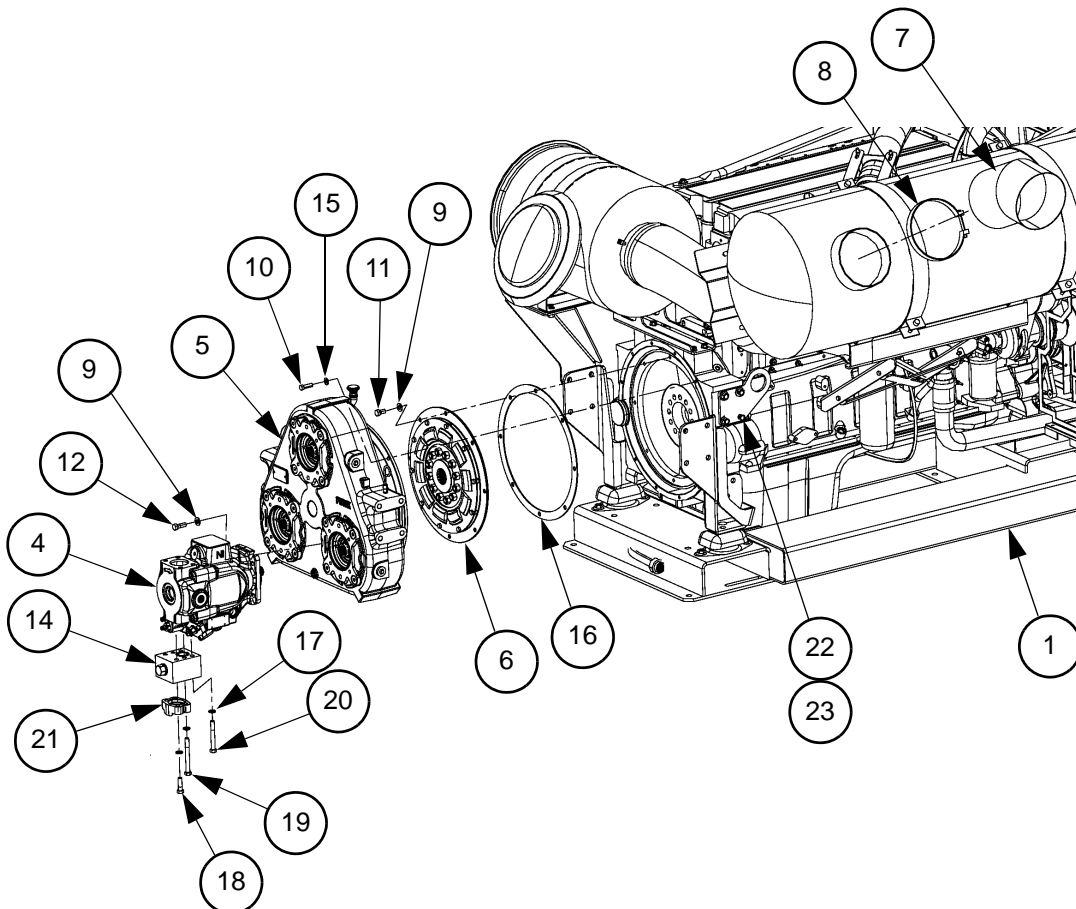
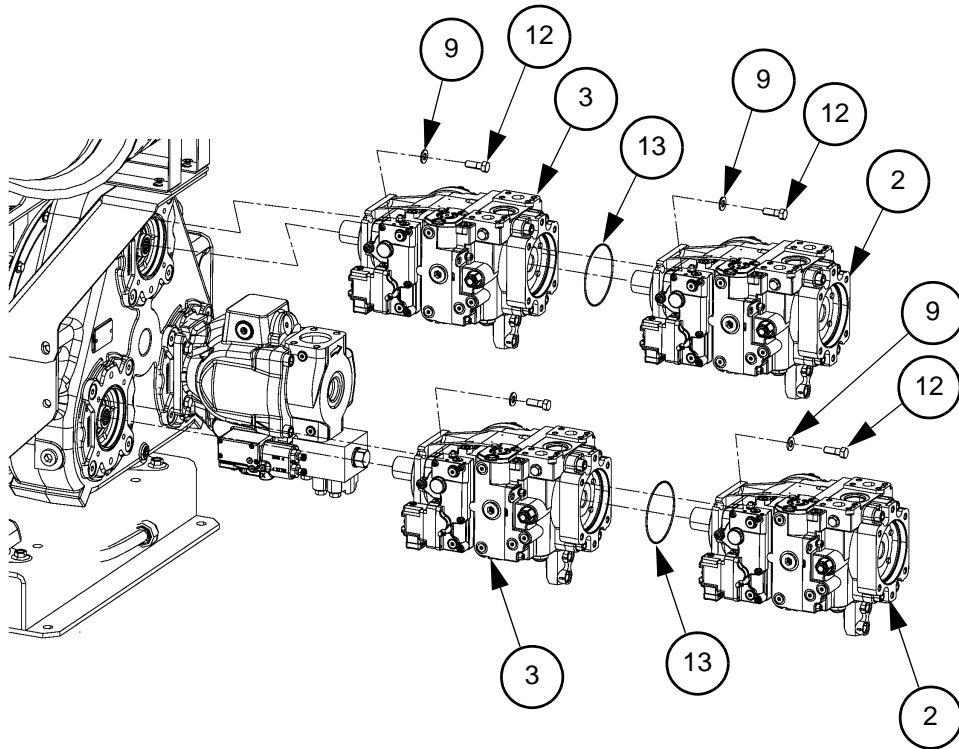
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	8NP80004	5	Nameplate, Serial Number
2	8NP41828	17	Decal, DANGER Keep Hands and Feet a Safe Distance
6	8NP41786	6	Decal, Earth Ground
9	8NP41780	3	Decal, DANGER Electrocutation Hazard If Beacon is Flashing
10	8NP41779	4	Decal, Do Not Pressure Wash
11	8NP41778	4	Decal, DANGER In Case of Electric Strike Do Not Move
12	8NP41773	4	Decal, DANGER Read Operator's Manual
14	8NP41767	5	Decal, DANGER Whole Body Entanglement in Machinery
16	8NP41568	1	Decal, American Augers
36	8NP71119	5	Decal, WARNING Call Before You Dig
37	8NP41809	20	Decal, DANGER Read Manual for Lifting Procedure





# POWER SUPPLY SECTION

## ENGINE ASSEMBLY



**DD-440T**

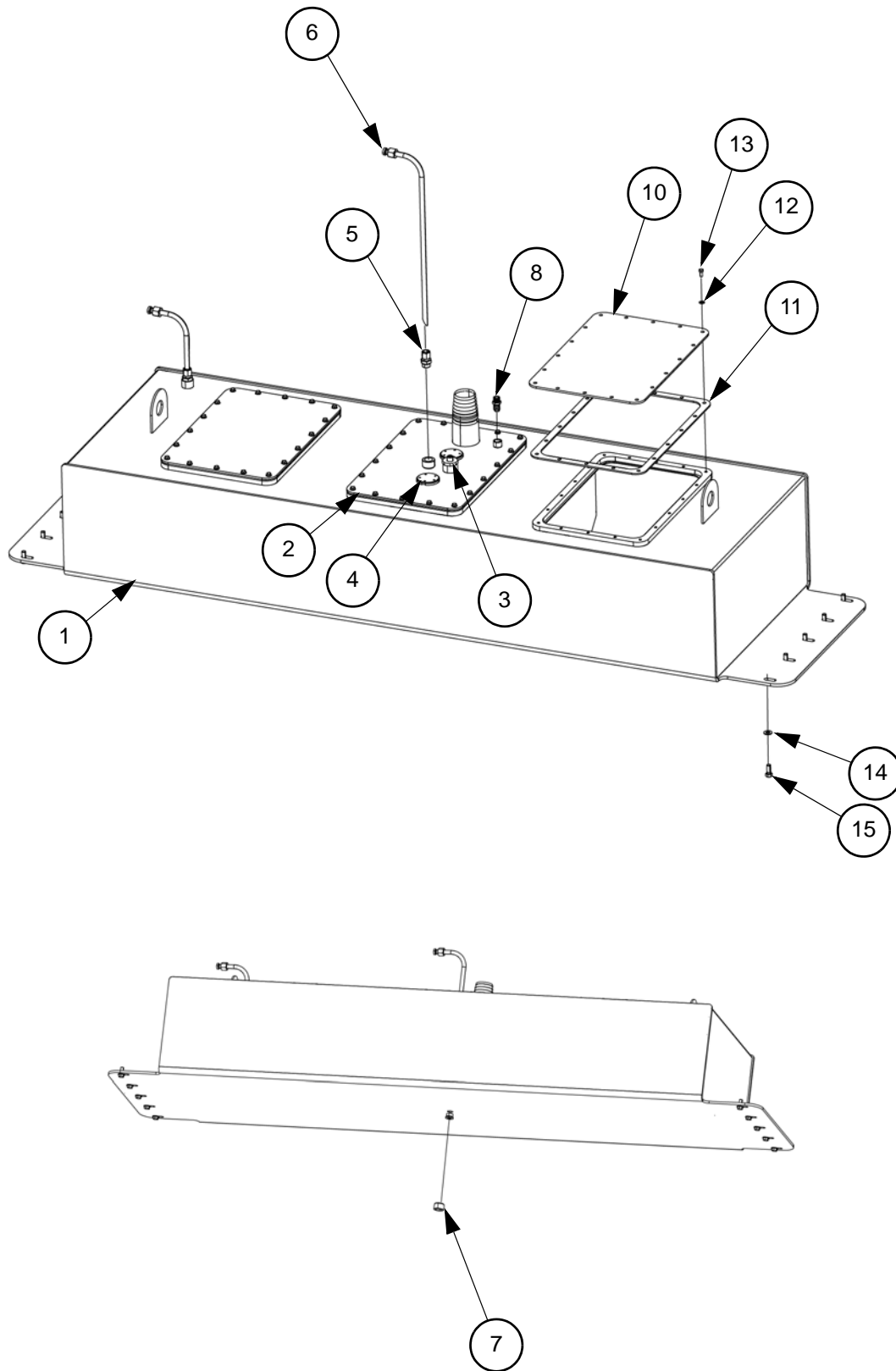
**Engine Assembly  
Bill of Material Number: 44DD3108**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	8NG60012	1	Power Unit Assembly, 600 HP
2	8PH60038	2	Pump, Piston
3	8PH60056	2	Pump, Piston
4	8PH50045	1	Pump, Piston
5	8PD31009	1	Pump Drive
6	8PD92019	1	Coupling, Spring
7	44DD3824	1	Exhaust Tip, 8 Inch
8	8CL17128	1	Clamp, Exhaust Tube, 8 Inch Single Bolt
9	8FW21108	40	Washer, Flat, 1/2N
10	8HH51356	12	Screw, Cap, Hex Head, 7/16-14 X 1-1/4 Inch Long
11	8HH51405	8	Screw, Cap, Hex Head, 1/2-13 X 1 Inch Long
12	8HH51407	20	Screw, Cap, Hex Head, 1/2-13 X 1-1/2 Inch Long
13	8PH60056-C	2	O-Ring, for SAE C Auxiliary Mount
14	8HV32005	1	Valve, Check, 50 PSI, Cartridge/Manifold, 80 GPM
15	8FW21107	12	Washer, Flat, 7/16N
16	8PD92019-01	-	Plate, Coupling Spacer
17	8LW51108	6	Washer, Lock, Split, 1/2 Inch
18	8HH81408	2	Screw, Cap, Hex Head, 1/2-13 X 1-3/4 Inch Long
19	8HH81421	2	Screw, Cap, Hex Head, 1/2-13 X 5 Inch Long
20	8HH81417	2	Screw, Cap, Hex Head, 1/2-13 X 4 Inch Long
21	8TS46220	0	Kit, Split Flange, 1-1/4 Inch, Code 62, -20 SAE
22	8FW21110	8	Washer, Flat, 5/8N
23	8HH51508	8	Screw, Cap, Hex Head, 5/8-11 X 1-3/4 Inch Long



# TANK SECTION

## FUEL TANK ASSEMBLY



**DD-440T****Fuel Tank Assembly  
Bill of Material Number: 44DD3350**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	44DD3351	1	Tank Weldment, Fuel
2	44DD3352	1	Lid Weldment for Fuel Tank
3	6EP59004	1	Switch, Assembly, Float
4	8NG10010-39	2	Fuel Sending Unit
5	8TA61012	2	Drill Straight Thread Connector, 5/8 Tube X 3/4 SAE
6	DD1033021	2	Tube, Dip, Fuel
7	8SP00012	1	Plug, O-Ring, Hex Socket Head, -12 SAE Male
8	0HP00012	1	Nipple, Combination, 1/2 Inch Male NPT X 3/4 Inch Hose Barb
10	44DD3353	2	Lid for Fuel Tank
11	44DD3354	3	Gasket, Fuel Tank Lid
12	8FW21105	54	Washer, Flat, 5/16N
13	8HH51253	54	Screw, Cap, Hex Head, 5/16-18 X 3/4 Inch Long
14	8FW21108	10	Washer, Flat, 1/2N
15	8HH51406	10	Screw, Cap, Hex Head, 1/2-13 X 1-1/4 Inch Long

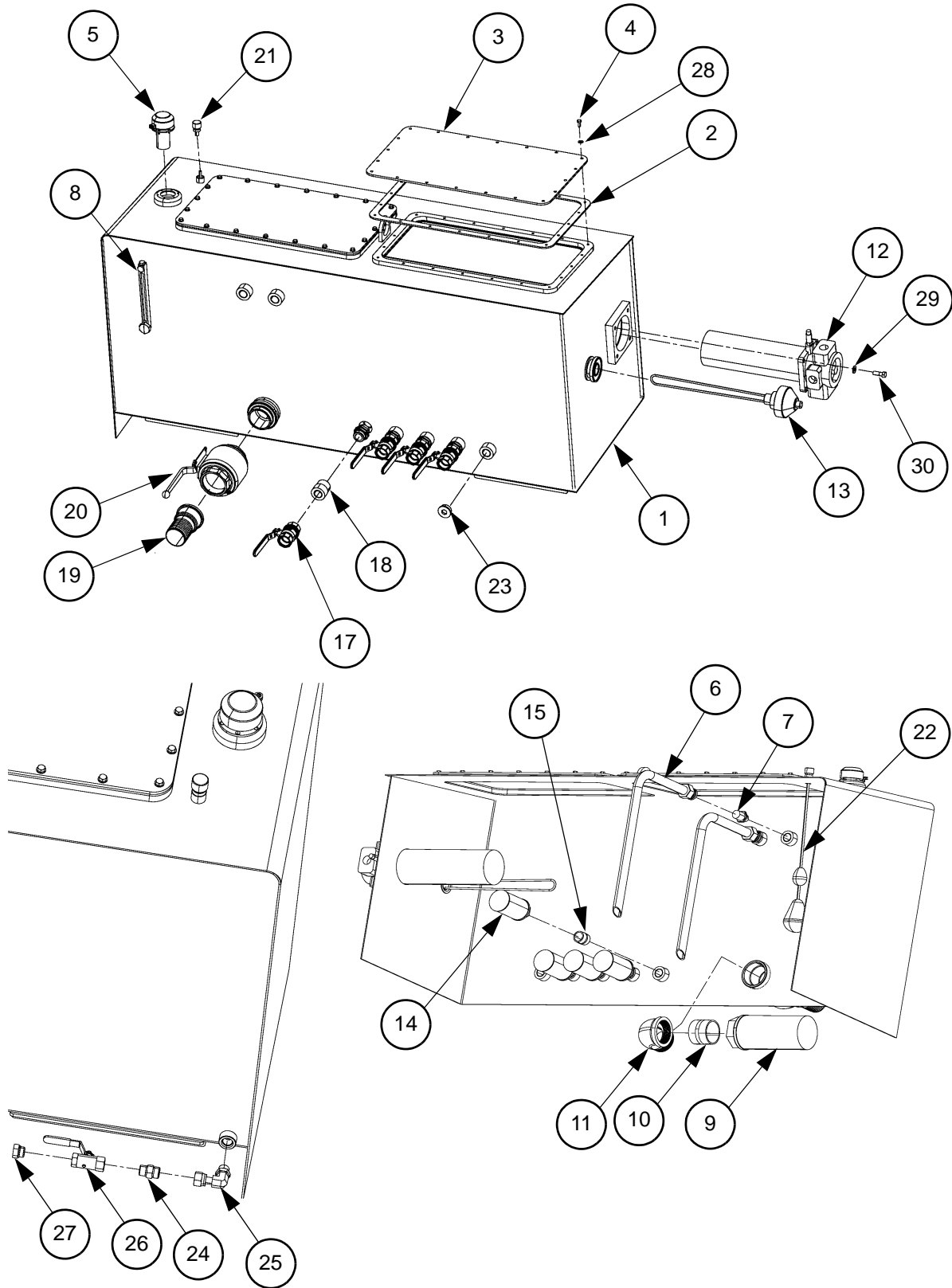


**NOTES**

A large rectangular area containing 25 horizontal lines for writing notes.



# HYDRAULIC TANK ASSEMBLY



**DD-440T**

**Hydraulic Tank Assembly  
Bill of Material Number: 33DD3364**

REF	PART NO.	QTY	DESCRIPTION
1	33DD3365	1	Tank, Hydraulic, Weldment
2	24DD3205	2	Gasket, Upper Hydraulic Tank Lid
3	24DD3203	2	Lid, Upper Hydraulic Tank
4	8HH51253	40	Screw, Cap, Hex Head, 5/16-18 X 3/4 Inch Long
5	14DD3301	1	Cap, Filter, Pressurized, Vented
6	33DD3368	2	Tube, Drain, Hydraulic Reservoir
7	8OA12020	2	ORFS Male Connector, -20 ORFS Male X -20 NPT Male
8	293017	1	Level Gauge with Temperature
9	8FL10008	1	Strainer, Suction, 100 Mesh, 3 Inch FNPT
10	8PN24800	1	Nipple, Pipe, 3 Inch NPT
11	8PE18048	1	Elbow, Pipe, Street, 90 Degree, 3", 150 PSI
12	8FL20019	1	Filter, Hydraulic, Return, 6 Micron Absolute
13	6EP28207	1	Heater Assembly, 3 KW, 240 Volt
14	8FL10006	4	Strainer, Suction, 100 Mesh, 1-1/4 Inch FNPT
15	8PN22000	4	Nipple, Pipe, Steel, 1-1/4 Inch NPT
17	8HV28020	4	Valve, Ball, Brass, -20 SAE O-Ring, Female
18	8OA61020	4	Straight Thread Union, -20 SAE Male X -20 SAE Male
19	8PN11248	1	Nipple, Combination, 3 Inch SAE Male to 3 Inch Barb
20	8HV28048	1	Valve, Ball, -48 SAE O-Ring, Female
21	8EP19003	1	Cord Grip
22	8EP59001	1	Switch, Float, Mercury
23	8SP00020	1	Plug, O-Ring, Hex Socket Head, -20 SAE Male
24	8OA30808	1	Strt Thrd Conn, -08 ORFS Male X -08 SAE M
25	8OL00808	1	Strt Thrd Elbow, -08 ORFS Fem X -08 SAE M
26	8HV28008	1	Valve, Ball, Brass, -08 SAE O-Ring, Female
27	8SP10008	1	Plug, O-Ring, Hex Head, -8 SAE Male
28	8FW21105	40	Washer, Flat, 5/16N
29	8FW21108	4	Washer, Flat, 1/2N
30	8HH51407	4	Screw, Cap, Hex Head, 1/2-13 X 1-1/2 Inch Long



# **ELECTRICAL SECTION**

## **ELECTRICAL SCHEMATIC**

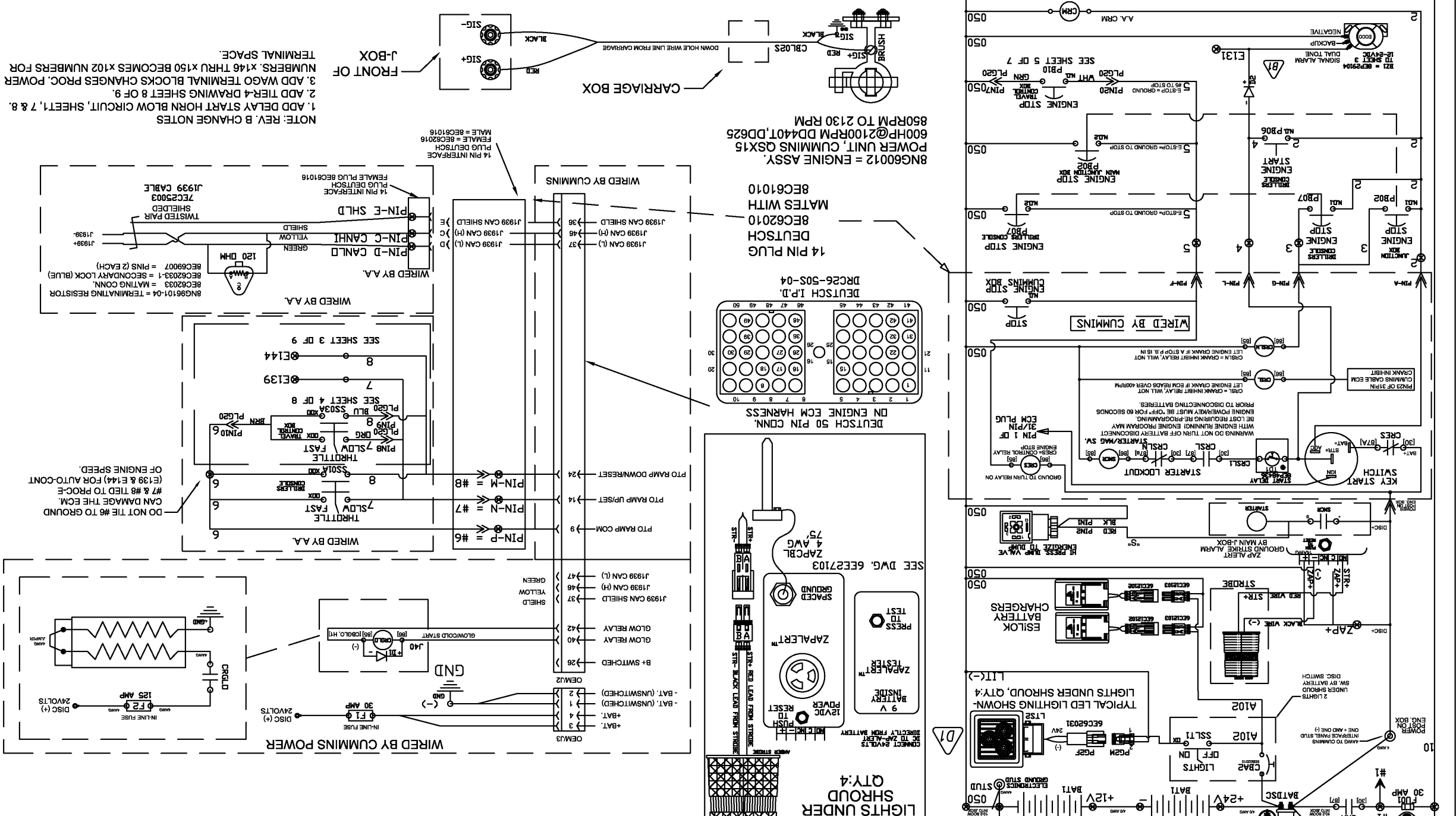
NOTES

A large rectangular area containing 25 horizontal lines for taking notes.

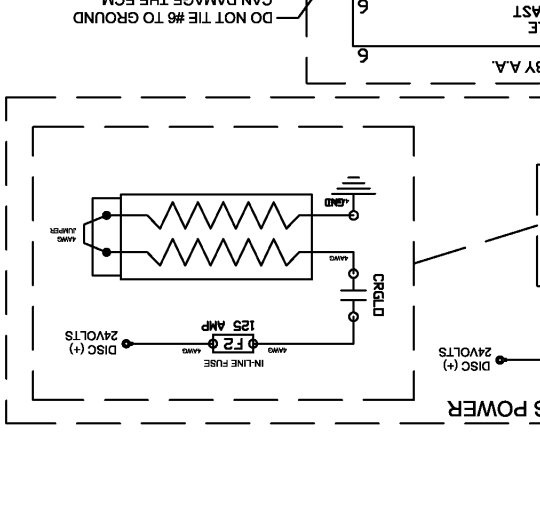
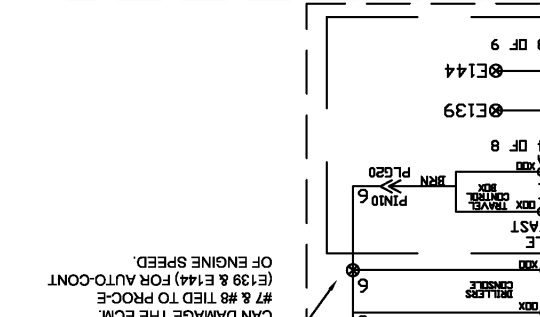
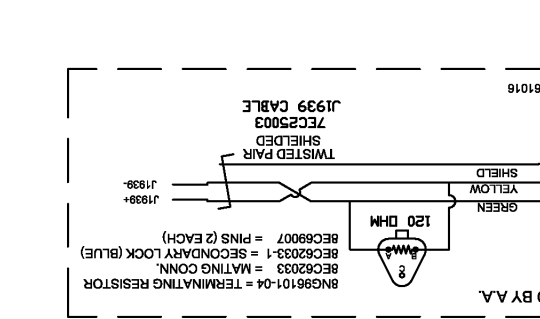
ECN	DR	REV	DATE	DESCRIPTION
		A	1/17/11	NEW RELEASE
				SEE SHEET 1 FOR REVISIONS

REV	DESCRIPTION & SIZE OF MAT'L	QTY	ITEM PART/DWG
MEM	APPROVED		
MEM	SCALE 2 OF 10		
MEM	DATE 44DD9507		

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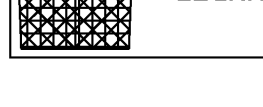
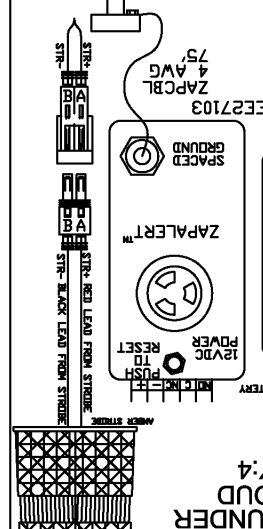
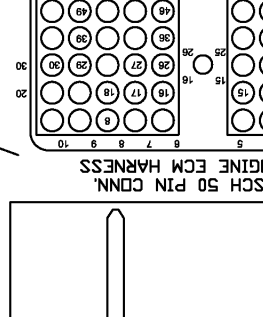
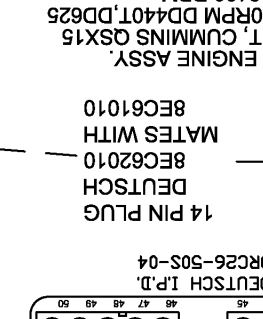
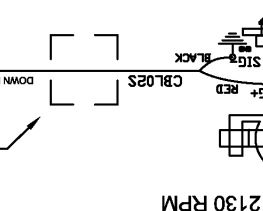
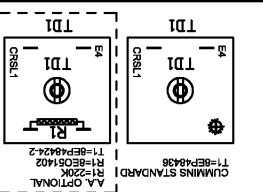
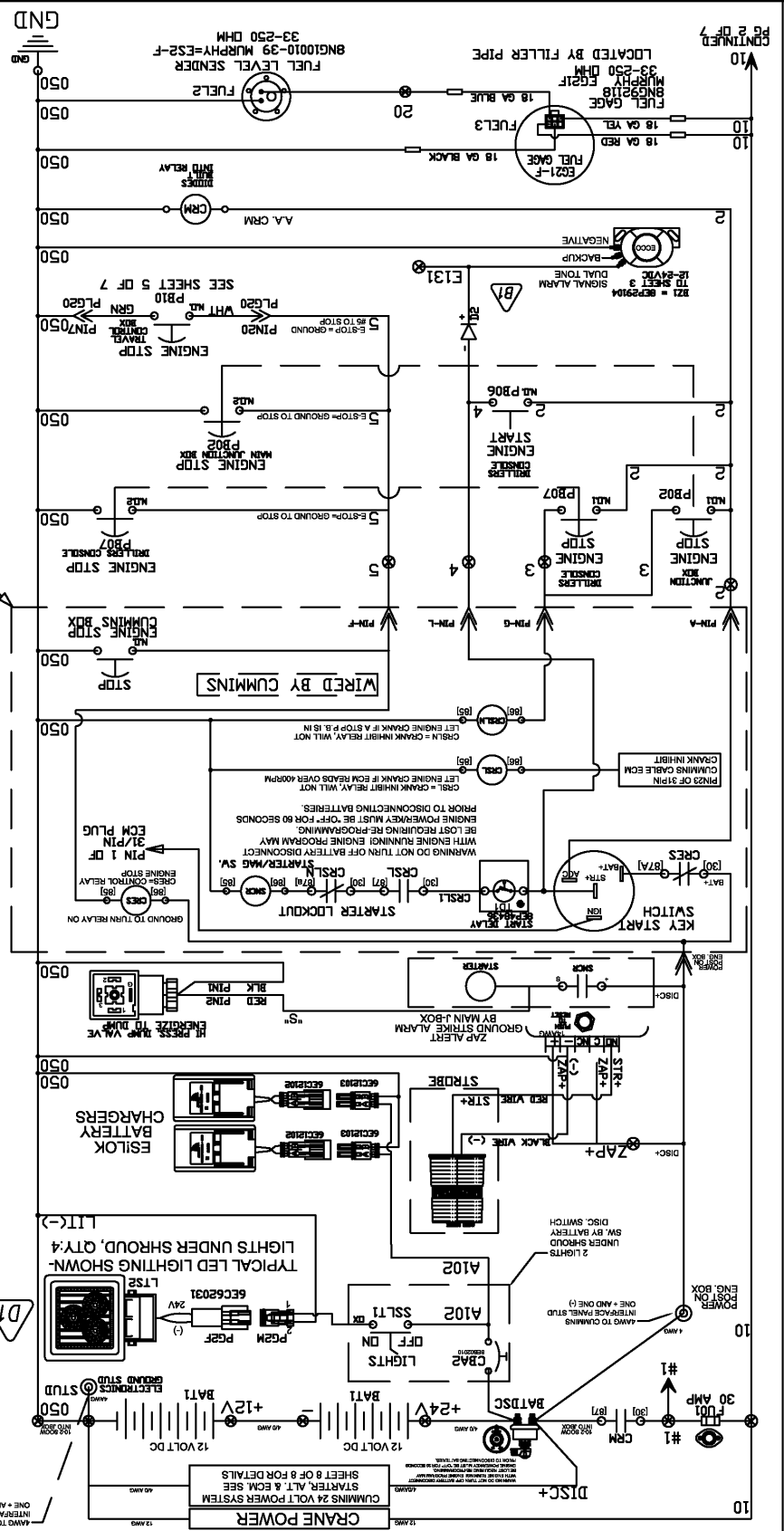


NOTE: REV. B CHANGE NOTES  
 1. ADD DELAY START HORN BLOW CIRCUIT, SHEET 1, 7 & 8.  
 2. ADD TIER 4 DRAWING SHEET 8 OF 9.  
 3. ADD WAGO TERMINAL BLOCKS CHANGES PROC. POWER TERMINAL SPACE.  
 4. ADD WAGO TERMINAL BLOCKS CHANGES PROC. POWER TERMINAL SPACE.



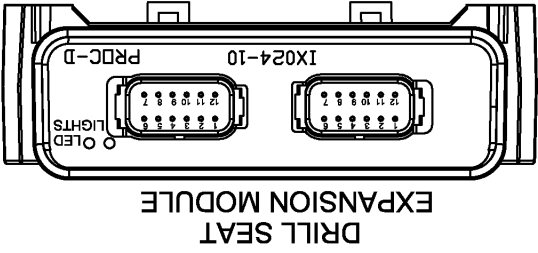
MAIN J-BOX

LIGHTS UNDER SHROUD QTY:4

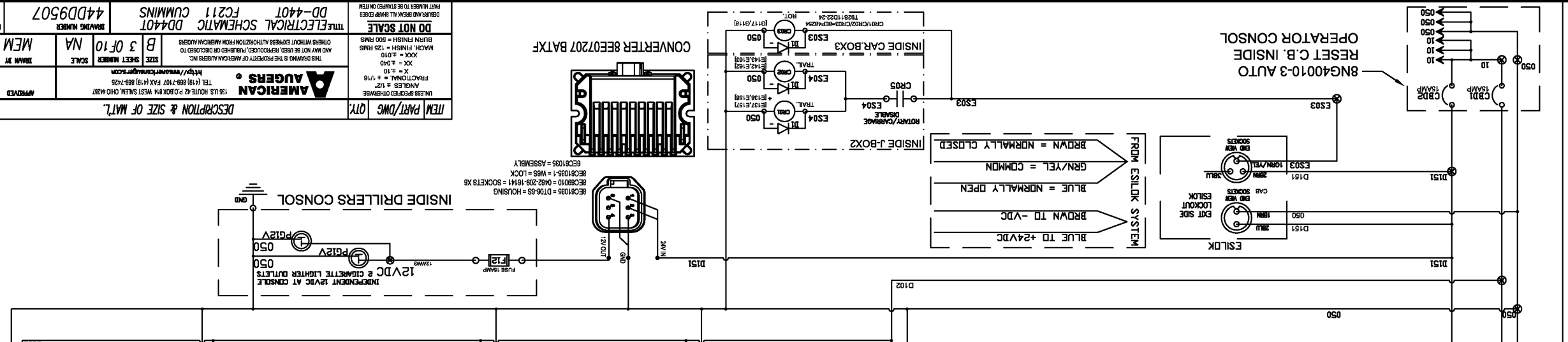
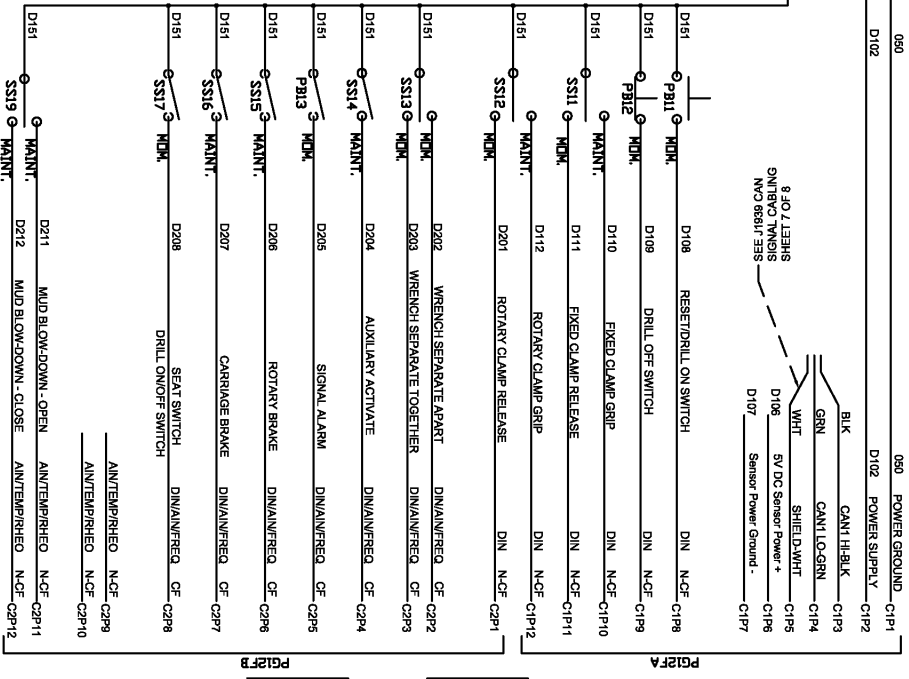
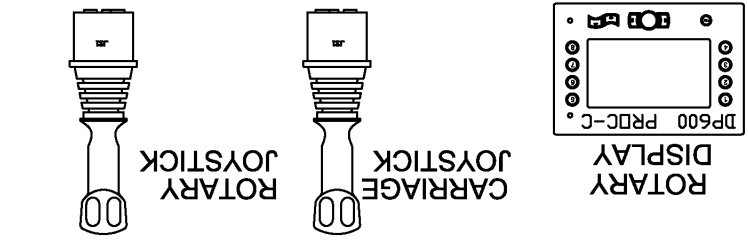


DATE	REV	REVISION RECORD
1/17/11	A	NEW RELEASE
	NR	MEM
	ECN	DR

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NTE- ALL PLUG CONNECTORS NOW COME AS ITS DYN HARNESS AND PGM. THESE ARE INTERCHANGEABLE WITH EXISTING CONNECTORS.



DATE	REV	REVISION RECORD
1/17/11	A	NEW RELEASE
	NR	MEM
	ECN	DR

ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L	APPROVED	REMAN	MEM

**DO NOT SCALE**

UNLESS SPECIFIED OTHERWISE  
ANGLES ± 1/2°  
FRACTIONAL = 1/16  
X = 1.0  
XX = 2.0  
XXX = 3.0  
BLIND FINISH = 500 RIMS  
BLIND FINISH = 500 RIMS  
OTHERS WITHOUT EXPRESS AUTHORIZATION FROM AMERICAN AUGERS  
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**AMERICAN AUGERS**  
181 S. ROUTE 42 P.O. BOX 84 WEST SALEM, OHIO 44387  
TEL: (419) 883-7107 FAX: (419) 889-7428

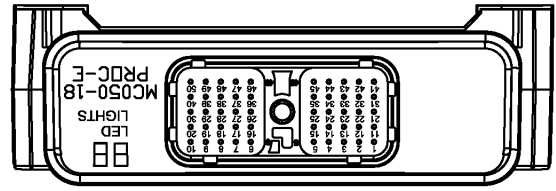
**REWORKING NUMBER** 44DD9507



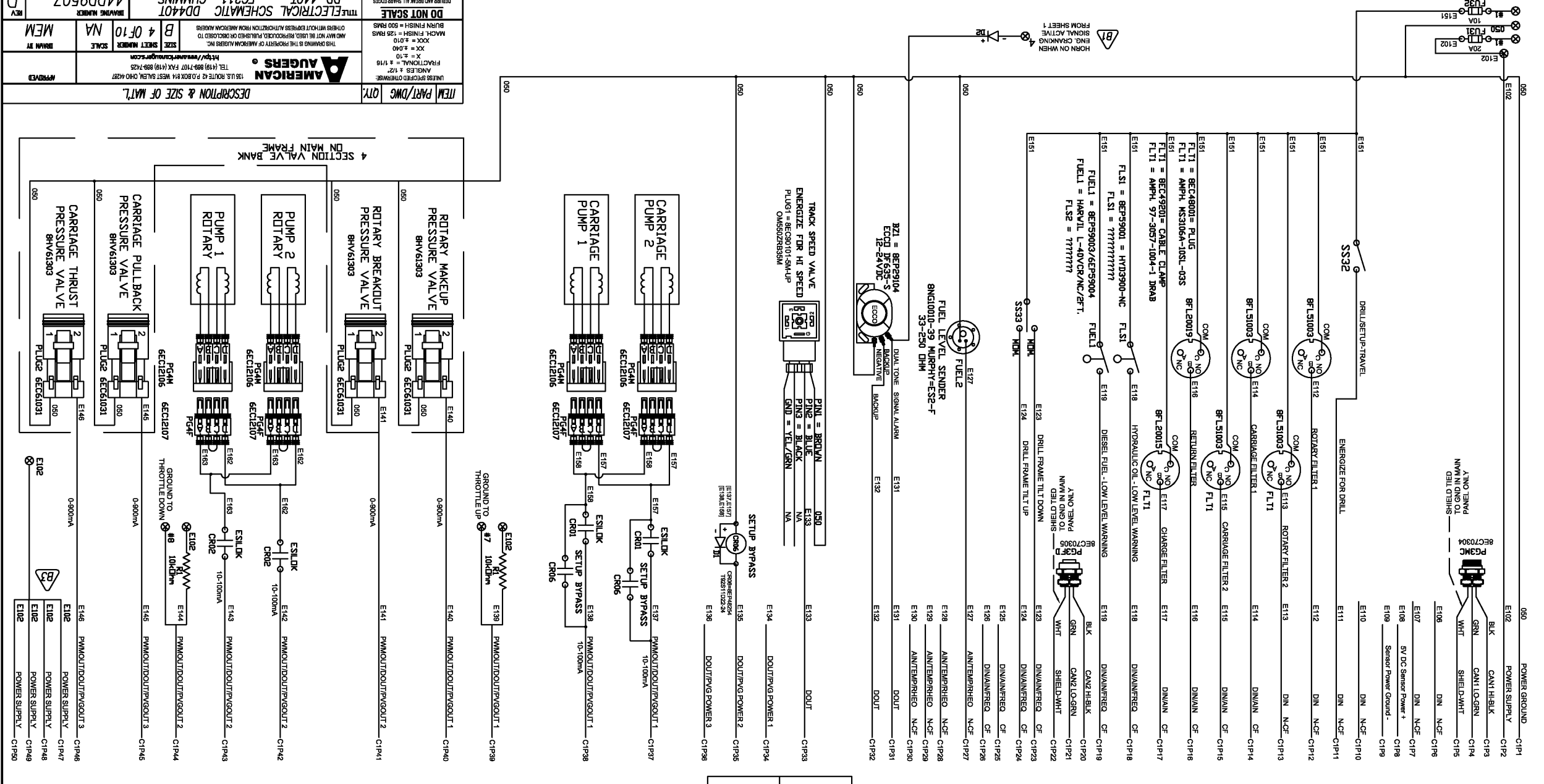
ECN	DR	REV	DATE	DESCRIPTION
		A	1/17/11	NEW RELEASE
				SEE SHEET 1 FOR REVISIONS

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NOTE - ALL PLUG CONNECTORS NOW COME AS ITS OWN HARNESS ASSEMBLY. THIS INCLUDES ALL CONNECTORS PER EJA, PART B, AND PG50F. THESE ARE INTERCHANGEABLE WITH EXISTING CONNECTORS.



MAIN FRAME CONTROL MODULE



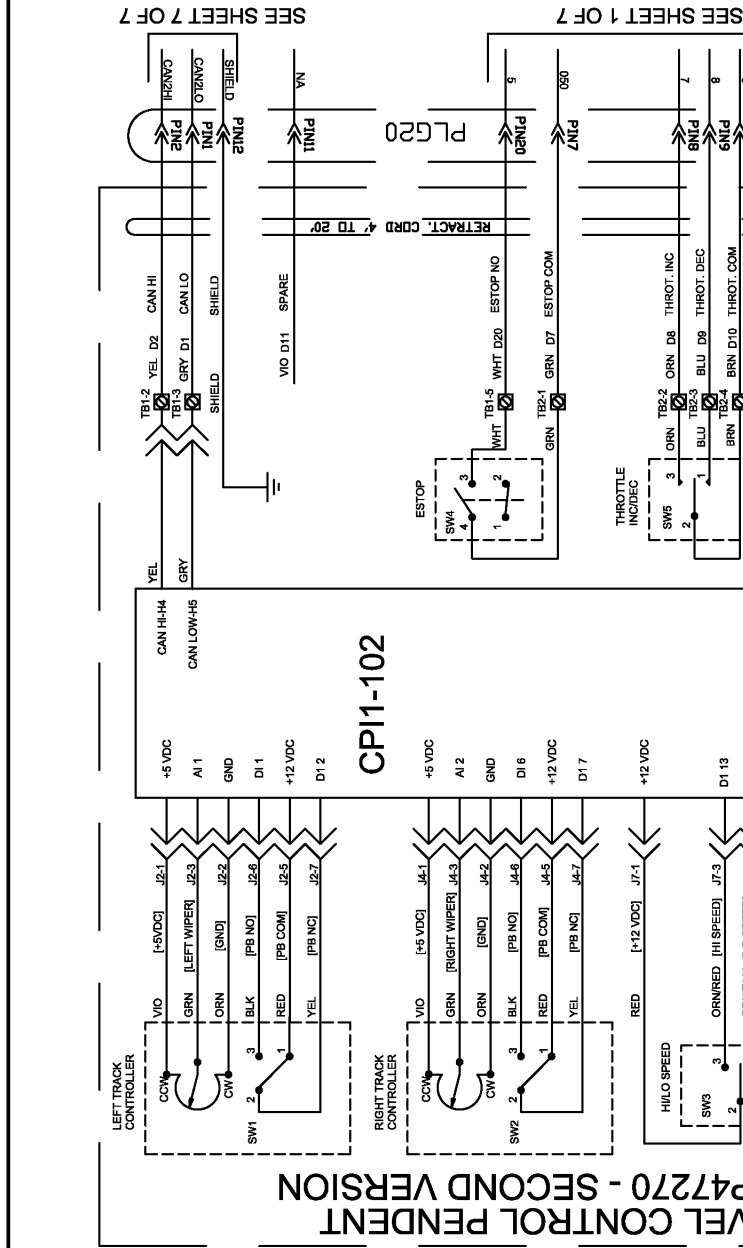
ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L
			UNLESS SPECIFIED OTHERWISE
			ANGLES 1/2"
			FRACTIONAL = 1/16
			X ± .010
			XXX ± .010
			MACH. FINISH = .002 RMS
			BURN FINISH = .002 RMS
			DO NOT SCALE
			DEBRAND REWORK ALL SWAG CODES
			PART NUMBER TO BE STAMPED ON ITEM

**AMERICAN AUGERS**  
 185 U.S. ROUTE 4, P.O. BOX 914 WEST BLEM, OHIO 44097  
 TEL: (419) 899-7197 FAX: (419) 899-4725  
 http://www.americanaugers.com

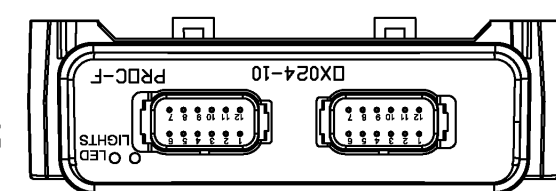
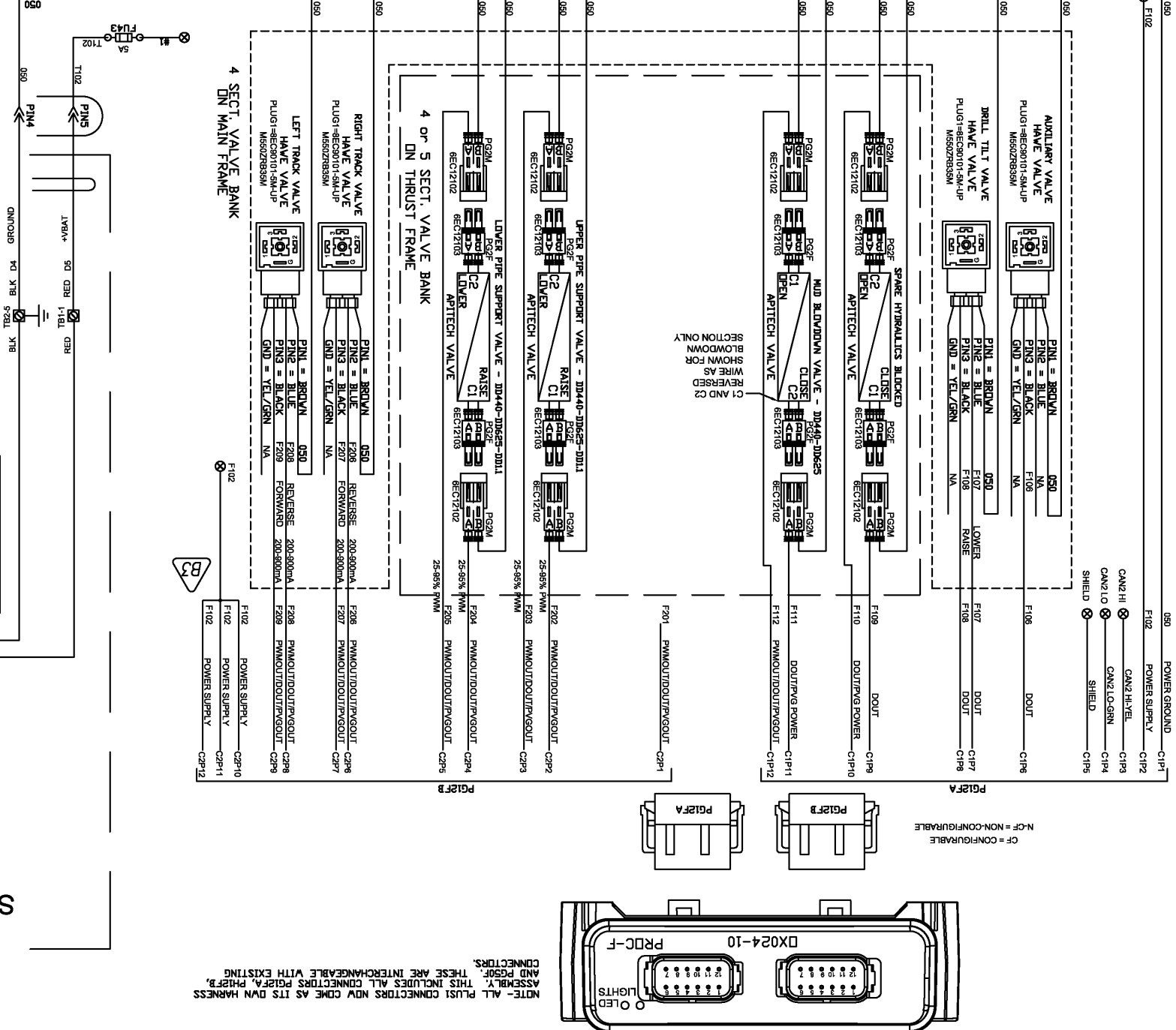
REV	DESCRIPTION	DATE	BY	CHKD
D	44DD9507			
	MEM			
	MEM			
	MEM			

DATE	REV	REVISION RECORD
1/17/11	A	NEW RELEASE
	NR	MEM
	ECN	DR

ITEM	PART/DESC	QTY
DESCRIPTION & SIZE OF MAT'L		
APPROVED		
DRAWN BY MEM		
SHEET NUMBER B 5 OF 10		
SCALE NA		
DRAWING NUMBER 44DD9507		



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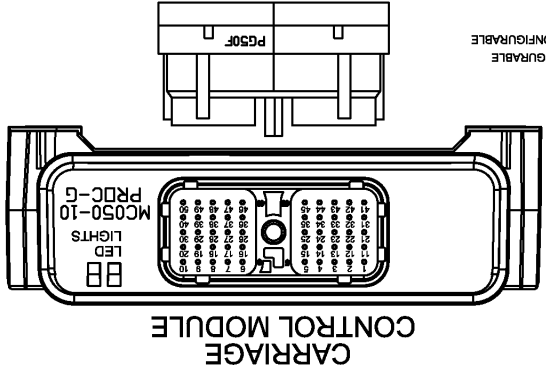
NOTE - ALL PLUGS CONNECTORS NOW COME AS ITS OWN HARNESS ASSEMBLY. THIS INCLUDES ALL CONNECTORS PG12FA, PG12FB, AND PG50F. THESE ARE INTERCHANGEABLE WITH EXISTING CONNECTORS.

ECN	DR	DATE	REV	DESCRIPTION
		1/17/11	A	NEW RELEASE
				SEE SHEET 1 FOR REVISIONS
				REVISION RECORD
				MEM
				MEM

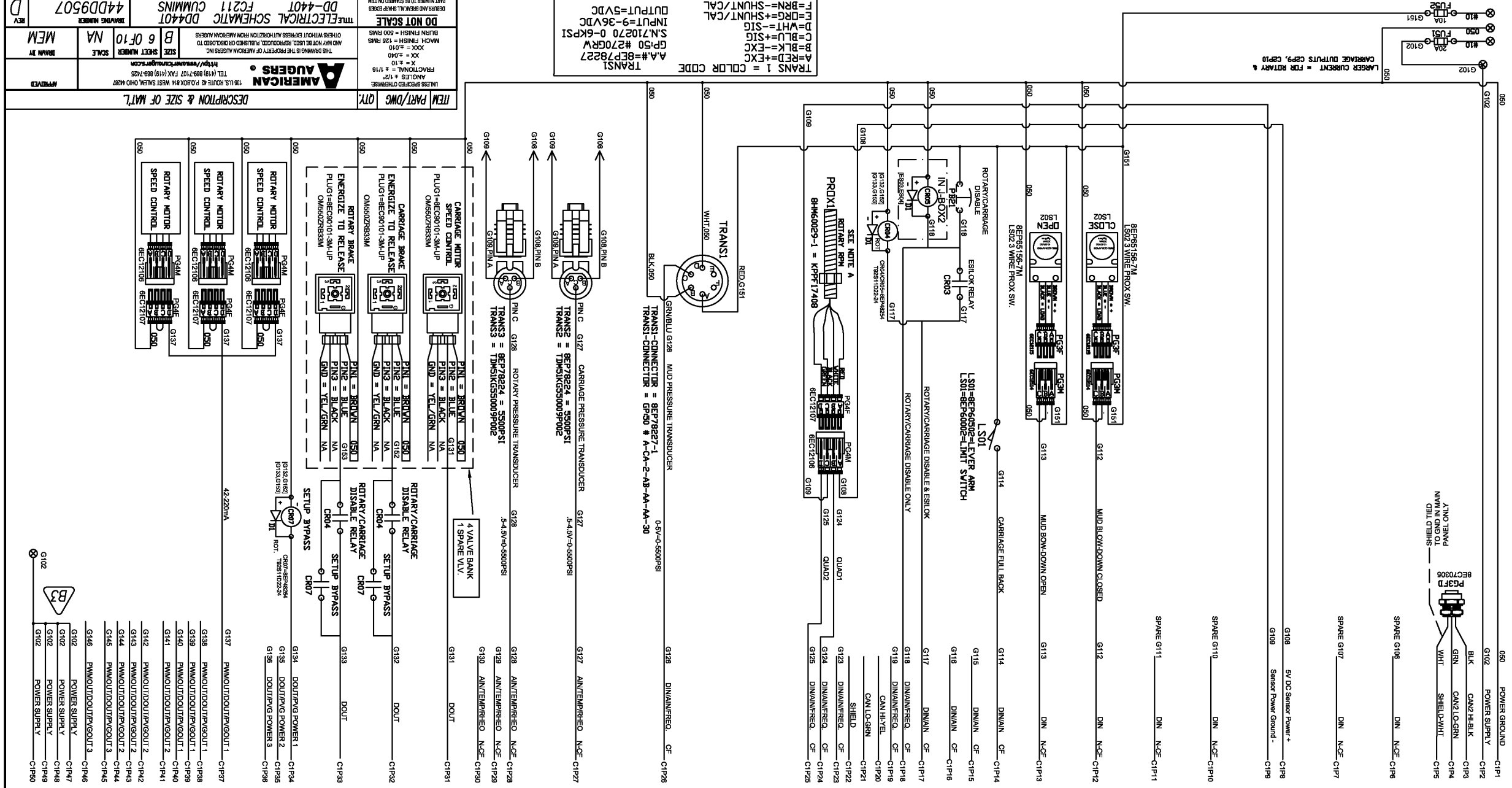
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NOTE - ALL PLS1 CONNECTORS NOW COME AS ITS DVM HARNESS ASSEMBLY. THIS INCLUDES ALL CONNECTORS WITH EXISTING AND PG50F. THESE ARE INTERCHANGEABLE WITH EXISTING CONNECTORS.

NOTE A  
 ROTARY MOTOR PICKUP  
 SAUER DANFOSS QUAD PULSE PICKUP  
 TO INSTALL KPFF17408 QUAD PULSE PICKUP  
 1. TURN IN BY HAND UNTIL BOTTOM END GENTLY TOUCHES SPEED RING.  
 2. BACK OUT (CCW) 1/4 TURN. CONTINUE BACKING OUT UNTIL FLATS ARE 22 DEGREES EITHER SIDE OF MOTOR SHAFT CENTERLINE. (20-30 DEGREES IS OK).  
 DO NOT BACK OUT MORE THAN 3/4 OF A TURN FROM TOUCHING.  
 3. USING A 1/2 INCH WRENCH TO HOLD THE KPFP, TORQUE THE LOCK NUT TO 13MM (10lb-ft) WITH AN 1 1/8 INCH WRENCH.  
 4. IF ROTARY READS IN OPPOSITE ROTATION DIRECTION CCW/CW MUST SWAP WIRES ON SENSOR PLUG PG4 PINS B & D TO CORRECT THE DIRECTION OF ROTATION. REQUIRED DUE TO THE SENSORS ROTATIONAL ANGLE (180 DEG) AND DISTANCE FROM THE PICKUP RING WHEN INSTALLED.  
 61 PULSES / REVOLUTION OF THE ROTARY MOTOR  
 61 X 40 = 2440 PPR OF THE SPINDLE  
 DD440-DD625-DD1.1



CF = CONFIGURABLE  
 N-CF = NON-CONFIGURABLE



REV	DESCRIPTION	DATE	BY	CHKD
D	44DD9507			

AMERICAN AUGERS  
 135 US ROUTE 62 BOX 814 WEST SALON OHIO 42271  
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ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL
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050	PG4E	1	ROTARY MOTOR SPEED CONTROL
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL
050	PG4M	1	ROTARY MOTOR SPEED CONTROL
050	PG4F	1	ROTARY MOTOR SPEED CONTROL
050	PG4E	1	ROTARY MOTOR SPEED CONTROL

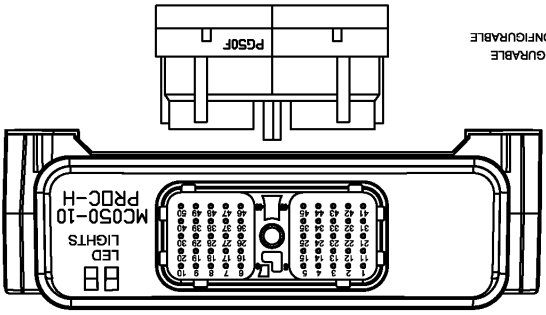
DO NOT SCALE  
 DIMENSIONS ARE TO UNLESS OTHERWISE SPECIFIED  
 MATCH FINISH = 128 RMS  
 FINISH = 500 RMS  
 DIMS FINISH = 500 RMS  
 XX = ±.010  
 XXX = ±.030  
 XXXX = ±.050  
 UNLESS SPECIFIED OTHERWISE  
 ANGLES = 12°  
 FRACTIONAL = 1/16

TRANS1 = COLDR CODE  
 A.#=BEP78227  
 GP50 #270GRV  
 S.N.10270 0-6KPSI  
 INPUT=9-36VDC  
 OUTPUT=5VDC  
 T=BRN=-SHUNT/CAL  
 U=BLU=-SIG  
 V=WHI=-SIG  
 W=BLK=-SIG  
 X=BLK=-SIG  
 Y=BLK=-SIG  
 Z=BLK=-SIG

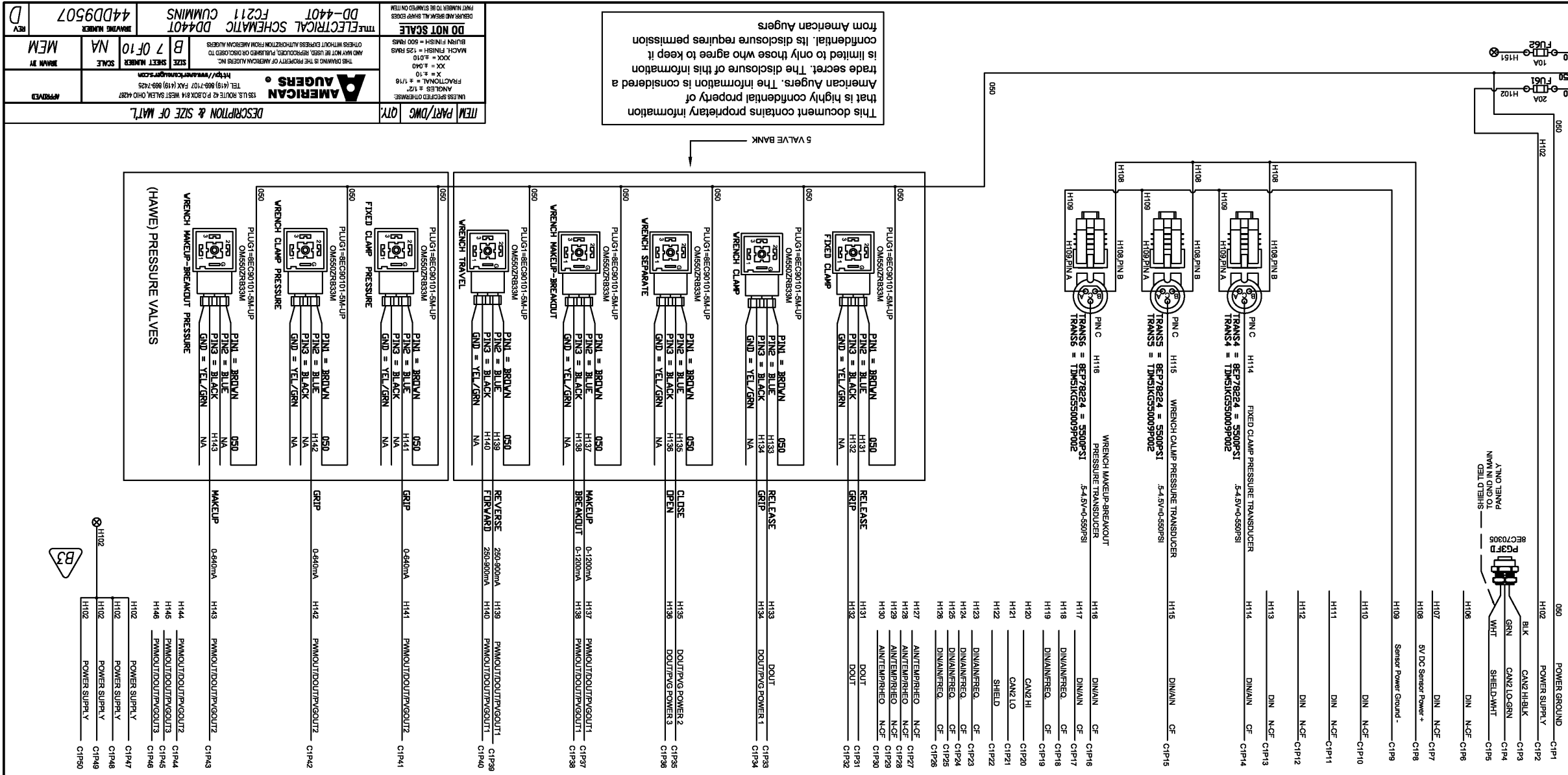
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 A.#=BEP78227  
 GP50 #270GRV  
 S.N.10270 0-6KPSI  
 INPUT=9-36VDC  
 OUTPUT=5VDC  
 T=BRN=-SHUNT/CAL  
 U=BLU=-SIG  
 V=WHI=-SIG  
 W=BLK=-SIG  
 X=BLK=-SIG  
 Y=BLK=-SIG  
 Z=BLK=-SIG

TRANS1  
 A.#=BEP78227  
 GP50 #270GRV  
 S.N.10270 0-6KPSI  
 INPUT=9-36VDC  
 OUTPUT=5VDC  
 T=BRN=-SHUNT/CAL  
 U=BLU=-SIG  
 V=WHI=-SIG  
 W=BLK=-SIG  
 X=BLK=-SIG  
 Y=BLK=-SIG  
 Z=BLK=-SIG

ECN	DR	REVISION RECORD	DATE	REV
		SEE SHEET 1 FOR REVISIONS	1/17/11	A
		NEW RELEASE		
				NR
				MEM



CF = CONFIGURABLE  
N-CF = NON-CONFIGURABLE



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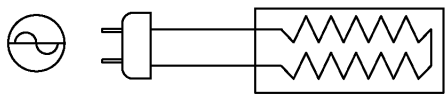
ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L
<p><b>DO NOT SCALE</b> MACH. FINISH = 300 RMS XX = .010 XX = .040 FRACT. DIM. = 1/16 ANGLES = 1/2"</p> <p><b>AMERICAN AUGERS</b> 133 U.S. ROUTE 42 P.O. BOX 814 WEST SALEM, OHIO 44387 TEL (419) 866-7107 FAX (419) 866-7425 http://www.americanaugers.com</p> <p>THIS DRAWING IS THE PROPERTY OF AMERICAN AUGERS INC. AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO OTHERS WITHOUT EXPRESS AUTHORIZATION FROM AMERICAN AUGERS.</p> <p>SIZE: B 7 OF 10 SCALE: NA DRAWN BY: MEM</p> <p>REV: D DRAWING NUMBER: 44DD9507</p>			



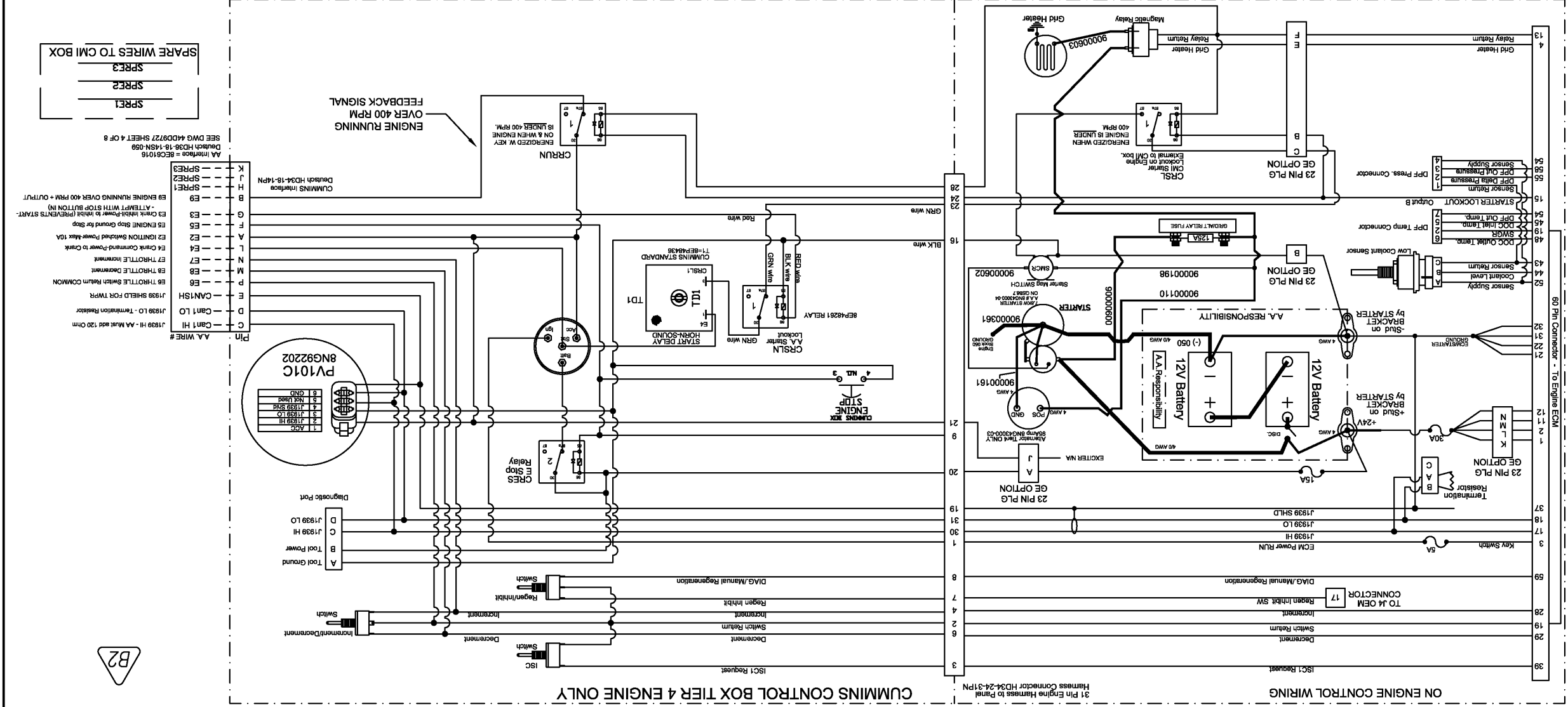


ECN	DR	REVISION RECORD	DATE	REV
		NEW RELEASE	1/17/11	A
		SEE SHEET 1 FOR REVISIONS		

STANDARD 208-240V QSX15 T-4!  
 CUMMINS BLOCK HEATER  
 208-240VAC SINGLE PHASE  
 8N660010-10B - 750 WATTS  
 OPTIONAL 120V QSX15 T-4!  
 120VAC SINGLE PHASE  
 8N660010-10A - 750 WATTS



CUMMINS QSX15 TIER-4 ENGINE ONLY



CUMMINS SUPPLIED TIER4 ENGINE CONTROL INTERFACE PANEL MOUNTED ON ENGINE ASSY. REQUIRES A.A. TO INSTALL "4AWG CABLES AND 4/0 BATTERY POWER CABLES" (WIDE LINES SHOWN ABOVE.)

NOTES:  
 1. CRXXX RELAYS HAVE INTERNAL DIODES FOR COIL SUPPRESSION  
 2. NON-PROPORTIONAL VALVES REQUIRE EXTERNAL VALVE COIL SUPPRESSION

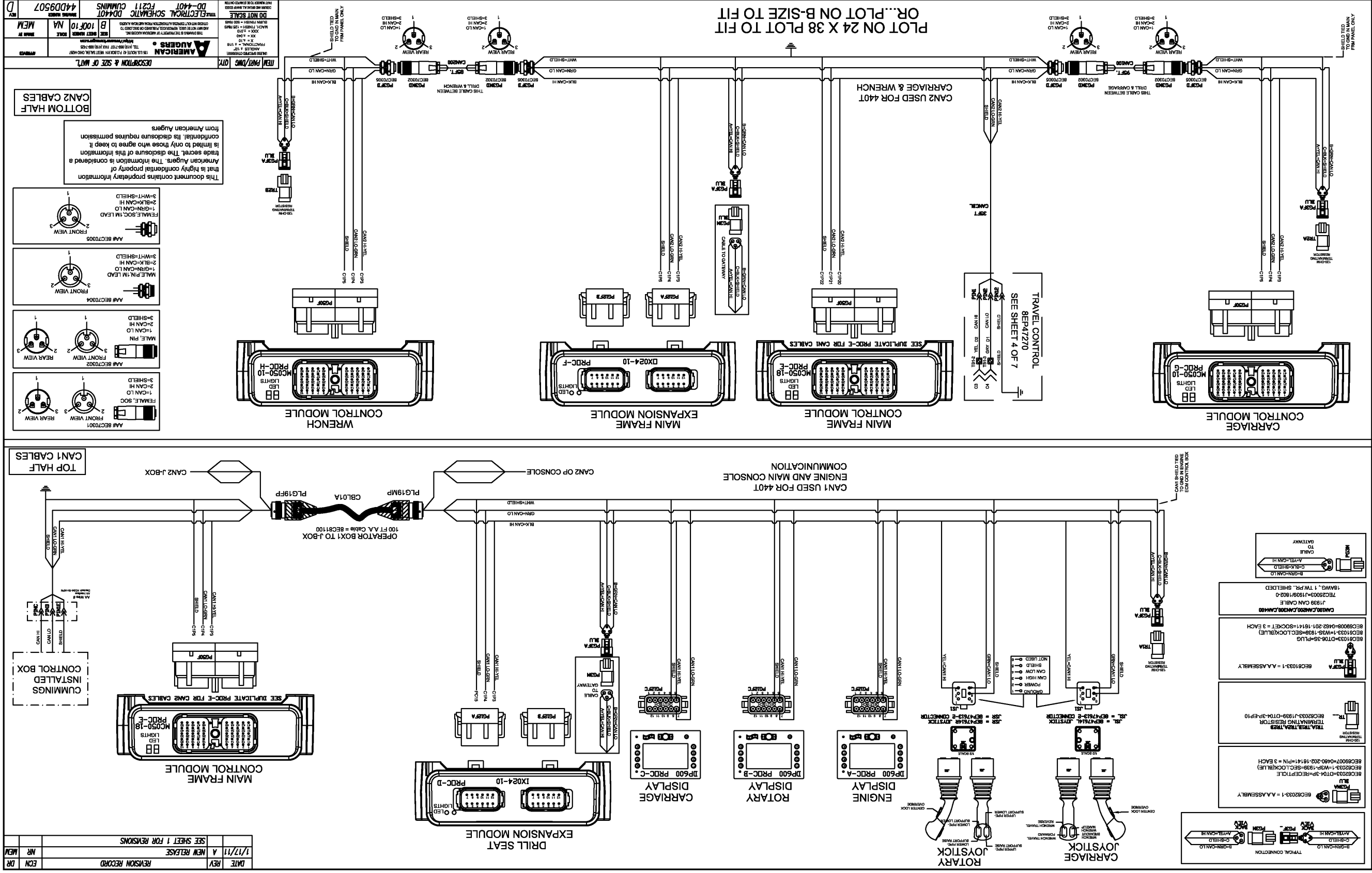
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ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L	APPROVED	ISSUED BY	SCALE	SHEET NUMBER	SIZE	DATE	MEM

AMERICAN AUGERS  
 183 U.S. ROUTE 42 P.O. BOX 814 WEST SALEM, OHIO 44387  
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SCALE: 9 OF 10  
 SHEET NUMBER: NA  
 DRAWING NUMBER: 44DD9507



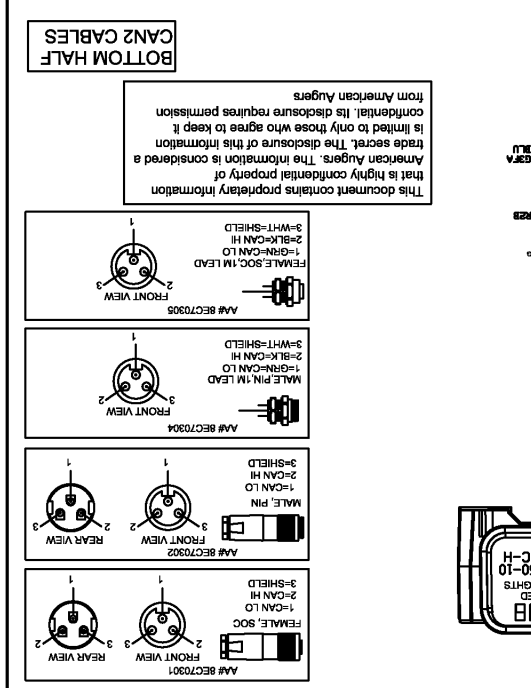
**DESCRIPTION & SIZE OF MAT'L**

**ITEM PART/DESC QTY**

**AMERICAN AUGERS**  
 100 FT. A.A. CABLE - REC81100  
 24 X 38 PLOT TO FIT OR... PLOT ON B-SIZE TO FIT  
 CAN2 USED FOR 440T CARRIAGE & WRENCH  
 TRAVEL CONTROL (SEE SHEET 4 OF 7)

**DO NOT SCALE**  
 DIMENSIONS ARE TO CENTER UNLESS NOTED  
 DIMENSIONS ARE TO CENTER UNLESS NOTED  
 DIMENSIONS ARE TO CENTER UNLESS NOTED

**ELECTRICAL SCHEMATIC DD440T**  
 FC211 CUMMINS  
 44DD9507



A large rectangular area with horizontal lines, intended for handwritten notes.

NOTES





# DRILL CONSOLE

**DD-440T**
**Drill Console  
Bill of Material Number: 44DD9717**

REF. NO.	PART NO.	QTY	DESCRIPTION
BATXF	8EE07207	1	Converter, 24/12 VDC, 10 Amp
BATXF	6EC61035	1	Plug Assembly, 6 Socket
BOX1	8EN80061	1	Console, Control
CBD10X	8NG40010-3	2	Circuit Breaker, 15 Amp, Auto Reset
CBLGRP	8EH10401-02	1	Saddle Strap
CBLGRP	8EH10401-03	1	Carabine Clips
CBLGRP	8EH10401	25 in	Cable, Wire Rope, 1/8 Inch
CBLGRP	8EH10401-01	4	Crimp for Cable
D2	8EP51102	2	Diode, 40 V, 9 Amp
ES!LOK	8ER10054A	1	Connector, Flanged
ES!LOK	8ER10056A	1	Connector, Flanged
ES!LOK	8ER10054-3M	1	Cable, 18 Gauge, 3 Pin, 3 Socket, 3 Meter
ES!LOK	8ER10056-3M	1	Cable, 18 Gauge, 2 Pin, 2 Socket, 3 Meter
ES!LOK	8EC70012	2	Cap with #10 Eyelets; Mates to Female
HS01	8EP91122	1	Hole Seal
JSL	8EP47617L	1	Joystick
JSR	8EP47617R	1	Joystick
JSR&L	6EC61051	2	Plug Assembly, 6 Socket
PB06	8EO45111	1	Push Button, 1 N.O.
PB07	8EO45101	1	Push-TW-T-Rel, 1 N.O./1 N.C.
PB07	8EO45190	1	Contact Block, 1 N.O.
PB11	8EO45110	1	Push Button, 1 N.O.
PB12	8EO45112	1	Push Button, 1 N.C.
PB13	8EO73208	1	Switch, Rocker, (On)-OFF
PG12FA	6EC61052	1	Plug-Female, 12 Socket Gray, with 48 Inch Leads
PG12FB	6EC61052B	1	Plug-Female, 12 Socket Black, with 48 Inch Leads
PG12FC	8EC69012	15	Socket Contact, 20 AWG
PG12FC	8EC69118	21	Sealing Plug, 20-AWG
PG12FC	8EC61052	3	Plug, Female, 12 Socket
PG12FC	8EC61052-1	3	Wedgelock
PG12V	8EO24109	2	Outlet, Cigarette Lighter Type
PG19MR	8EC62009	1	Receptacle, Male With Clamp, 24-19
PG19MR	8EC63102	1	Protective Cap
PG19MR	8EC69502	1	Panel Nut
PG19MR	8EC69512	1	Lock Washer
PG19MR	8EC69005	13	Pin Contact, 14-12 AWG
PG19MR	8EC69117	2	Sealing Plug, 12-16 AWG
PG3FA	6EC61033-1	1	Plug Assembly, 3 Socket

**DD-440T**

**Drill Console (Continued)**  
**Bill of Material Number: 44DD9717**

PROC-A	8EA23002	1	Module, Display
PROC-B	8EA23002	1	Module, Display
PROC-C	8EA23002	1	Module, Display
PROC-D	8EA23102	1	Module, Expander, Input
SEAT	8EP47020	1	Seat, with Pods and Seat Switch
SEAT	8EP47020-01	1	Plate, Joystick Mounting
SEAT	8EP47020-01	1	Plate, Joystick Mounting
SEAT	33DD9210	1	Base, Weldment, Seat
SIGN	8NP41426	1	Decal, Read Operator's Manual
SIGN	44DD9917	1	Overlays, 1 Set of 8
SS	8EO73093	14	Gasket for V Series Switches
SS	8EO73911	42	Socket, 16-14 AWG
SS01A	8EO73206DP	1	Switch, Rocker, (On)-Off-(On)
SS11	8EO73204DP	1	Switch, Rocker, On-Off-(On)
SS12	8EO73204DP	1	Switch, Rocker, On-Off-(On)
SS13	8EO73206DP	1	Switch, Rocker, (On)-Off-(On)
SS14	8EO73201DP	1	Switch, Rocker, On-Off
SS15	8EO73201DP	1	Switch, Rocker, On-Off
SS16	8EO73201DP	1	Switch, Rocker, On-Off
SS19	8EO73203	1	Switch, Rocker, On-On
SSPLUG	8EO73091	4	Hole Plug
TERM-W	8ET03992	1	DIN Rail, 35 mm, WAGO Terminals
TERM-W	8ET03943	2	Jumper, Push-In, 3-Way
TERM-W	8ET03945	2	Jumper, Push-In, 5 Way
TERM-W	8ET03991-1	2	End Stop/Terminals 10 mm Wide
TERM-W	8ET03282	2	End Plate
TERM-W	8ET03492	2	End Plate
TERM-W	8ET03201	20	Terminal, 1 Inch X 1 Inch, Grey, 14 AWG Wire
TERM-W	8ET03401	30	Terminal, 2 X 2
TERM-W	8ET03942	5	Jumper, Push-In, 2 Way
TR1A	8EC62033-J1939	2	Resistor, Terminal, J1939, Receptacle

**NOTES**

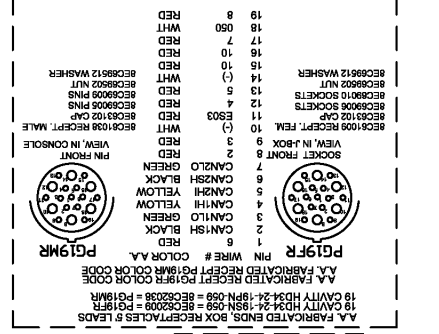
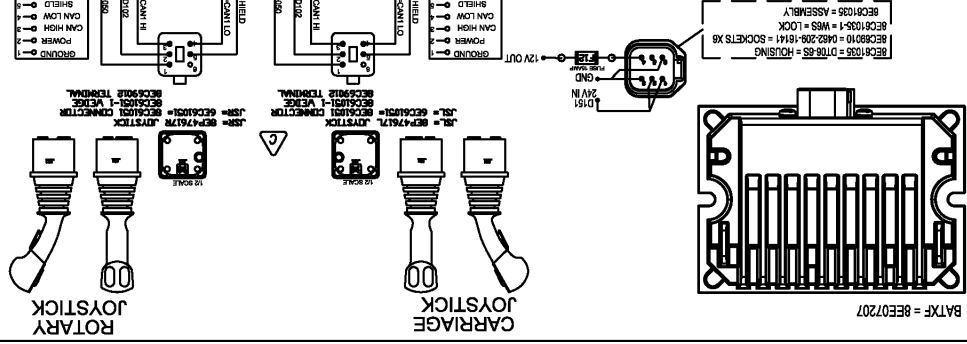
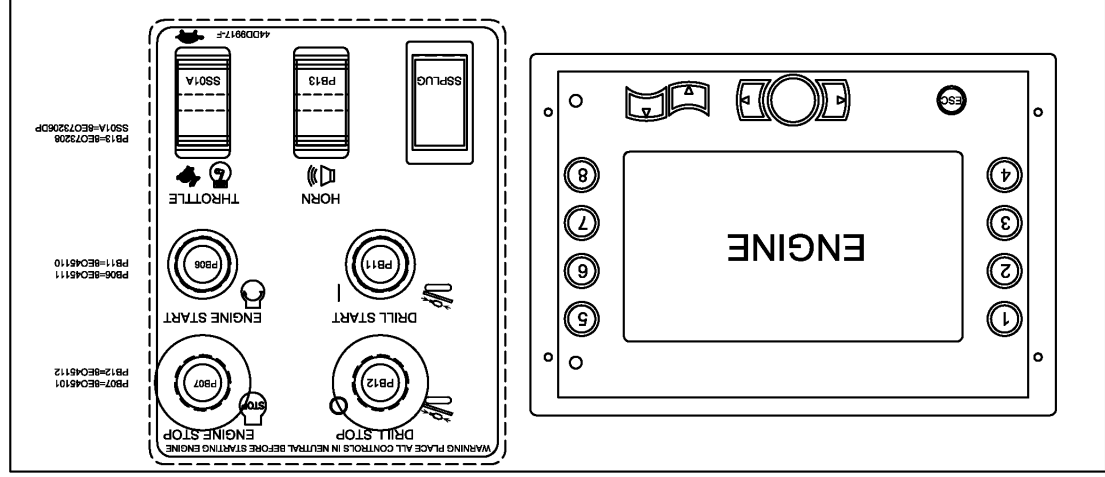
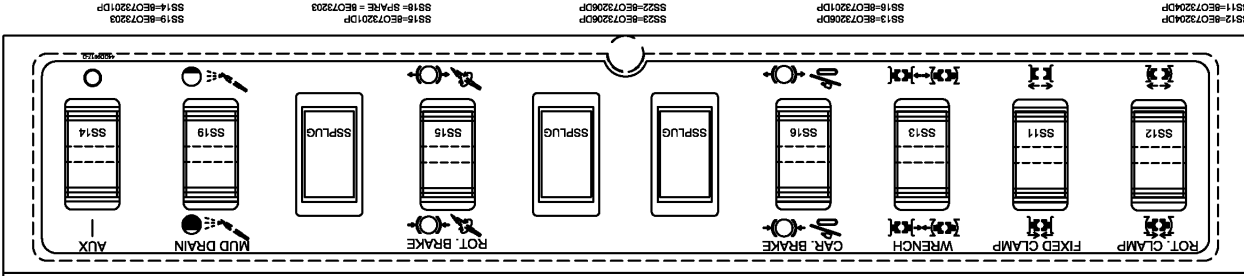
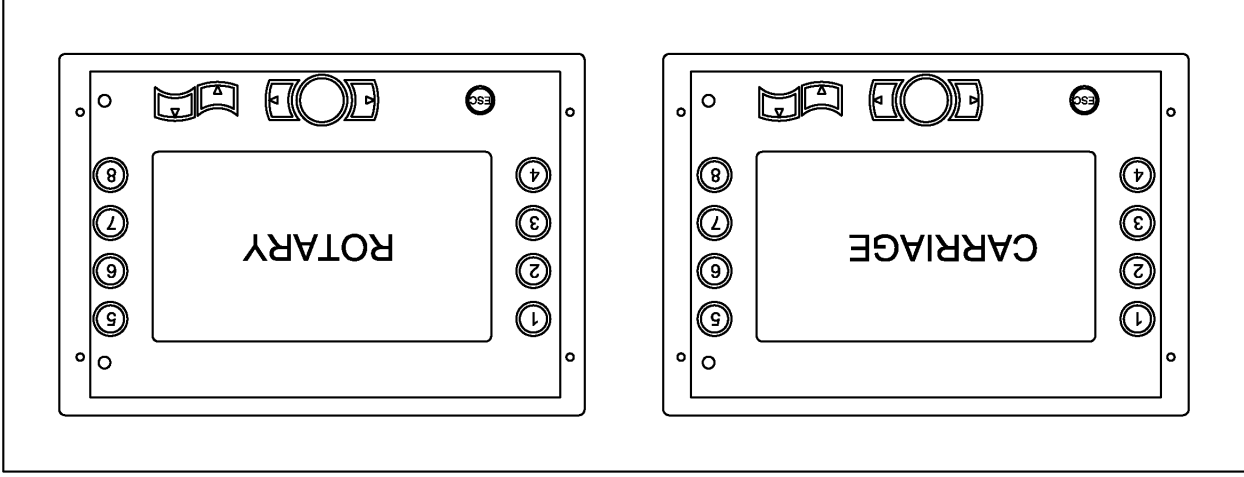
A large rectangular area containing 25 horizontal lines for taking notes.

**IMPORTANT**

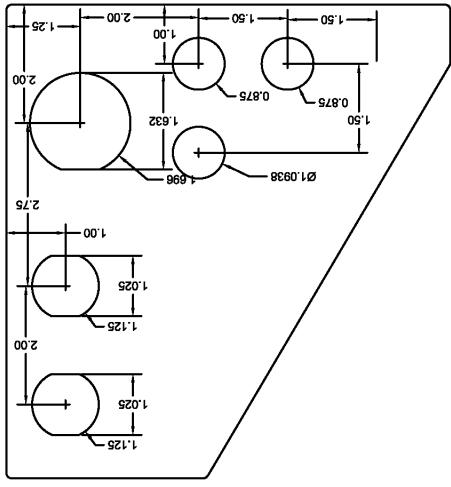
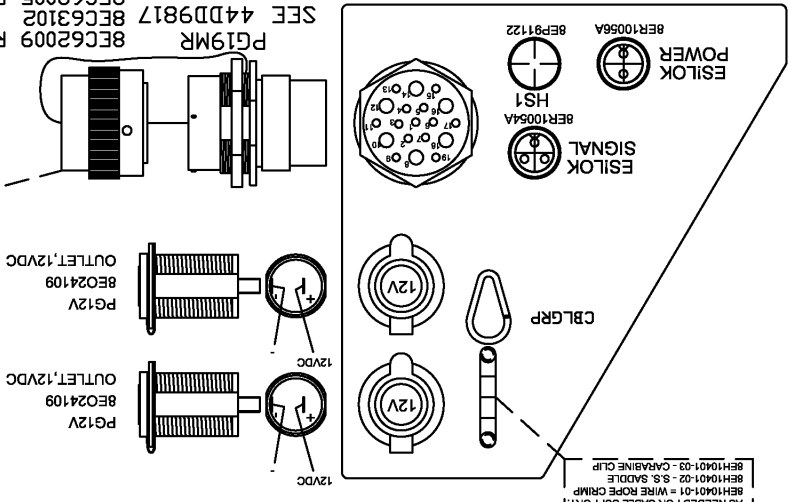
READ OPERATOR'S MANUAL  
before operating machine. When  
you see this sign on the  
machine or in the manual,  
read it and use caution.  
YOUR SAFETY IS AT STAKE.

8NP41426

DATE	REV	REVISION RECORD	ECN	DR
1/17/11	A	NEW RELEASE	NR	MEM
		SEE SHEET 1 FOR REVISIONS		



- 8EC62009 RECEPT. MALE
- 8EC63102 CAP
- 8EC69005 PINS
- 8EC69009 PINS
- 8EC69117 SEALING PLUGS
- 8EC69502 NUT
- 8EC69512 WASHER



ITEM	PART/DWG	QTY.	DESCRIPTION & SIZE OF MAT'L.
<p><b>DO NOT SCALE</b>                      DEBUR AND BREAK ALL SHARP EDGES                      PART NUMBER TO BE STAMPED ON ITEM</p> <p>UNLESS SPECIFIED OTHERWISE:                      FRACTIONAL = 1/2"                      ANGLES ± 1/2"                      X ± 0.10                      XX ± 0.40                      MACH. FINISH = 125 RMS                      BURN FINISH = 500 RMS</p> <p>THIS DRAWING IS THE PROPERTY OF AMERICAN AUGERS INC.                      AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO                      OTHERS WITHOUT EXPRESS AUTHORIZATION FROM AMERICAN AUGERS</p> <p>AMERICAN AUGERS                      136 U.S. ROUTE 42 P.O. BOX 814 WEST SALEM, OHIO 44287                      TEL. (419) 868-7107 FAX (419) 868-7425  <a href="http://www.americanaugers.com">http://www.americanaugers.com</a></p>			
REV	DRAWN BY	SHEET NUMBER	SCALE
C	MEM	2 OF 4	NA
		DRAWING NUMBER	
		44DD9717	









# MAIN JUNCTION BOX

**DD-440T**

**Main Junction Box  
Bill of Material Number: 44DD9727**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
BAT1	7EC51107	20 ft	Cable, Weld, 2/0, Excelene Only
BAT1	8EP01101	2	Battery, 12 Volt, 1450 CCA
BAT1	8EP02204	2	Battery Terminal, Straight, Positive
BAT1	8EP02205	2	Battery Terminal, Straight, Negative
BAT1	8ET20010	4	Lug, 2/0, Crimp, Copper, 1/2 Inch Hole
BATDSC	8EP02900	1	Switch, Disconnect, Battery, 2000 Amp
BATDSC	8EP02900-2	1	Lockout, Battery Disconnect
BATDSC	8ET90193	2	Insulator, 3/8 Inch Stud
BATDSC	8NP41160	1	Decal, WARNING Engine Must Be...
BX2	8EN10316	1	Enclosure
BX2	8EN10719	1	Panel, Back
BZ1	8EP29104	1	Horn, 12-24 Volt
CBA2	8EB02010	1	Circuit Breaker, 10 Amp
CBL02	7EC23110	75 ft	Cable, Type SDN, 16/2
CBL03	7EC23111	5 ft	Cable, Type SDN, 16/3
CBL04	7EC23112	175 ft	Cable, Type SDN, 16/4
CBL06	7EC23150	10 ft	Cable, Type SDN, 16/6
CBL07	7EC23108	30 ft	Cable, Type SDN, 18/10, 600 Volt
CBL10	7EC23151	20 ft	Cable, Type SDN, 16/10
CBL10A	7EC21197	25 ft	Cable, SOOW, 10/2, 30 Amp, 600 Volt
CBL14	7EC23151	30 ft	Cable, Type SDN, 16/10
CBL16A	7EC22136	55 ft	Cable, 14/16 SDN
CBL16B	44DD2011	1	Adapter
CBL16B	7EC22136	48 ft	Cable, 14/16 SDN
CBLCAN	7EC25003	125 ft	Cable, 1TW. PR., 18 AWG, Shielded
CBLGRP	8EH10401	25 in	Cable, Wire Rope, 1/8 Inch
CBLGRP	8EH10401-01	4	Crimp for Cable
CBLGRP	8EH10401-02	4	Saddle Strap
CBLGRP	8EH10401-03	4	Carabine Clips
CG02	8EP19002	17	Cord Grip
CG03	8EP19003	3	Cord Grip
CG04	8EP19004	1	Cord Grip
CG081	8EP19081	3	Cord Grip, 2-Hole
CG087	8EP19087	1	Cord Grip, 4-Hole
CG11	8EP19011	2	Cord Grip
CR_	8EP48254	4	Relay, 2 Pole, Panel Mounted
CRM	8EP48284	1	Relay, Power, with Diodes, 24 V
D1	8EP51101	4	Diode, 400 V, 1 Amp
EXTND	8NG60012-02	1	Extension Harness

**DD-440T**

**Main Junction Box (Continued)  
Bill of Material Number: 44DD9727**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
FU01	8EF19002	1	Fuse Holder, 30 Amp, 600 Volt
FU01	8EF10103	6	Fuse, 30 Amp, Time Delay
FU3~41	8EF41020	5	Fuse, ATO/ATC, 20 Amp Yellow
FU3~4X	8EF40001	4	Fuse Holder, Inline, 1 Circuit
FU32	8EF41010	3	Fuse, ATO/ATC, 10 Amp, Red
FU43	8EF41005	3	Fuse, ATO/ATC, 5 Amp Tan
FUEL3	8NG92118	1	Gauge, Fuel
LIGHT	8EP02745	4	Flood Light, LED, 12-36 V
PB02	8EO45006	1	Push-Pull, 1 N.O./1 N.C.
PB02	8EO90306	1	Contact Block, 2 N.O.
PG08FR	8EC62014RG	1	Receptacle, Female, Clamp
PG08FR	8EC63101	1	Protective Cap
PG08FR	8EC69006	1	Socket Contact, 14-16 AWG
PG08FR	8EC69501	1	Panel Nut
PG08FR	8EC69511	1	Lock Washer
PG12FA	6EC61052	1	Plug-Female, 12 Socket Gray, with 48 Inch Leads
PG12FB	6EC61052B	1	Plug-Female, 12 Socket Black, with 48 Inch Leads
PG14FP	8EC61016	1	Plug, Female, with Clamp, 18-14
PG14FP	8EC64010	1	Protective Cap
PG14FP	8EC69006	13	Socket Contact, 14-16 AWG
PG14FP	8EC69117	2	Sealing Plug, 12-16 AWG
PG14FR	8EC63101	1	Protective Cap
PG14FR	8EC69501	1	Panel Nut
PG14FR	8EC69511	1	Lock Washer
PG14FR	8EC62010	1	Receptacle, Female, 18-14
PG14FR	8EC69010	12	Socket Contact, 14-16 AWG
PG14FR	8EC69117	2	Sealing Plug, 12-16 AWG
PG16F	8EC62008	1	Plug, Female with Clamp
PG16F	8EC64011	1	Protective Cap
PG16F	8EC69006	16	Socket Contact, 14-16 AWG
PG16FR	8EC61008RG	1	Receptacle, Female, with Clamp
PG16FR	8EC63102	1	Protective Cap
PG16FR	8EC69502	1	Panel Nut
PG16FR	8EC69512	1	Lock Washer
PG16FR	8EC69006	16	Socket Contact, 14-16 AWG
PG16M	8EC61008	1	Receptacle, Male with Clamp, 24/16
PG16M	8EC63102	1	Protective Cap
PG16M	8EC69502	1	Panel Nut
PG16M	8EC69512	1	Lock Washer
PG16M	8EC69005	16	Pin Contact, 14-12 AWG

## DD-440T

**Main Junction Box (Continued)**  
**Bill of Material Number: 44DD9727**

REF. NO.	PART NO.	QTY	DESCRIPTION
PG19FR	8EC62038	1	Receptacle, Female, with Clamp, 24-19
PG19FR	8EC63102	1	Protective Cap
PG19FR	8EC69502	1	Panel Nut
PG19FR	8EC69512	1	Lock Washer
PG19FR	8EC69010	14	Socket Contact, 14-16 AWG
PG19FR	8EC69006	6	Socket Contact, 14-16 AWG
PG20FR	8EC62017	1	Receptacle, Female, with Clamp
PG20FR	8EC63101	1	Protective Cap
PG20FR	8EC69501	1	Panel Nut
PG20FR	8EC69511	1	Lock Washer
PG20FR	8EC69012	10	Socket Contact, 20 AWG
PG20FR	8EC69118	10	Sealing Plug, 20-AWG
PG2F	6EC12103	6	Connector, Packard, 2 Socket, 14/16 AWG
PG2M	6EC12102	8	Connector, Packard, 2 Pin, 14/17 AWG
PG3FA	6EC61033-1	2	Plug Assembly, 3 Socket
PG3FD	8EC70305	2	Receptacle, 3 Socket
PG3FD	8EC70012	2	Cap with #10 Eyelets; Mates to Female
PG4F	6EC12107	2	Connector, Packard, 4 Socket, 14/16 AWG
PG50F	6EC61023	1	Plug Female, 50 Socket with 48 Inch Leads
PG50F	8EC69118	11	Sealing Plug, 20-AWG
PG50F	8EC69012	39	Socket Contact, 20 AWG
PGLITF	6EC61031	2	Plug Assembly, 2 Socket
PLUG1	8EC90101-5M-UP	6	Hirschman Connector with 10 M Cord 4/W
PLUG2	8EC61031	4	Plug, 2 Socket
PLUG2	8EC61031-1	4	Secondary Lock
PLUG2	8EC69010	8	Socket Contact, 14-16 AWG
PLUG3	8EC48001	6	Plug, Straight, 3 Pin, Female
PLUG3	8EC49201	6	Clamp, Cable
PLUG3F	6EC61033-2	1	Plug Assembly, 3 Socket
PLUG4F	6EC61037	1	Plug Assembly, 4-Socket
PROC-E	8EA23014	1	Module, Control
PROC-F	8EA23101	1	Module, Expander, Output
R1	8EO51413	2	Resistor, 10K Ohm, 1/4 Watt
SIG-	8ET90320	1	Binding Post
SIG+	8ET90321	1	Binding Post
SLEEVE	7HB01012	600 in	Sleeve, Hose, Nylon, for -12 Hose
SS32	8EO12004	1	Select Switch, 2 Position, Maintain
SS32	8EO90404	1	Boot, Select Switch
SS33	8EO13005	1	Select Switch, 3 Position, Spring Return
SS33	8EO90404	1	Boot, Select Switch

**DD-440T****Main Junction Box (Continued)  
Bill of Material Number: 44DD9727**

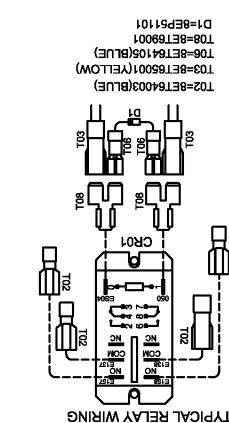
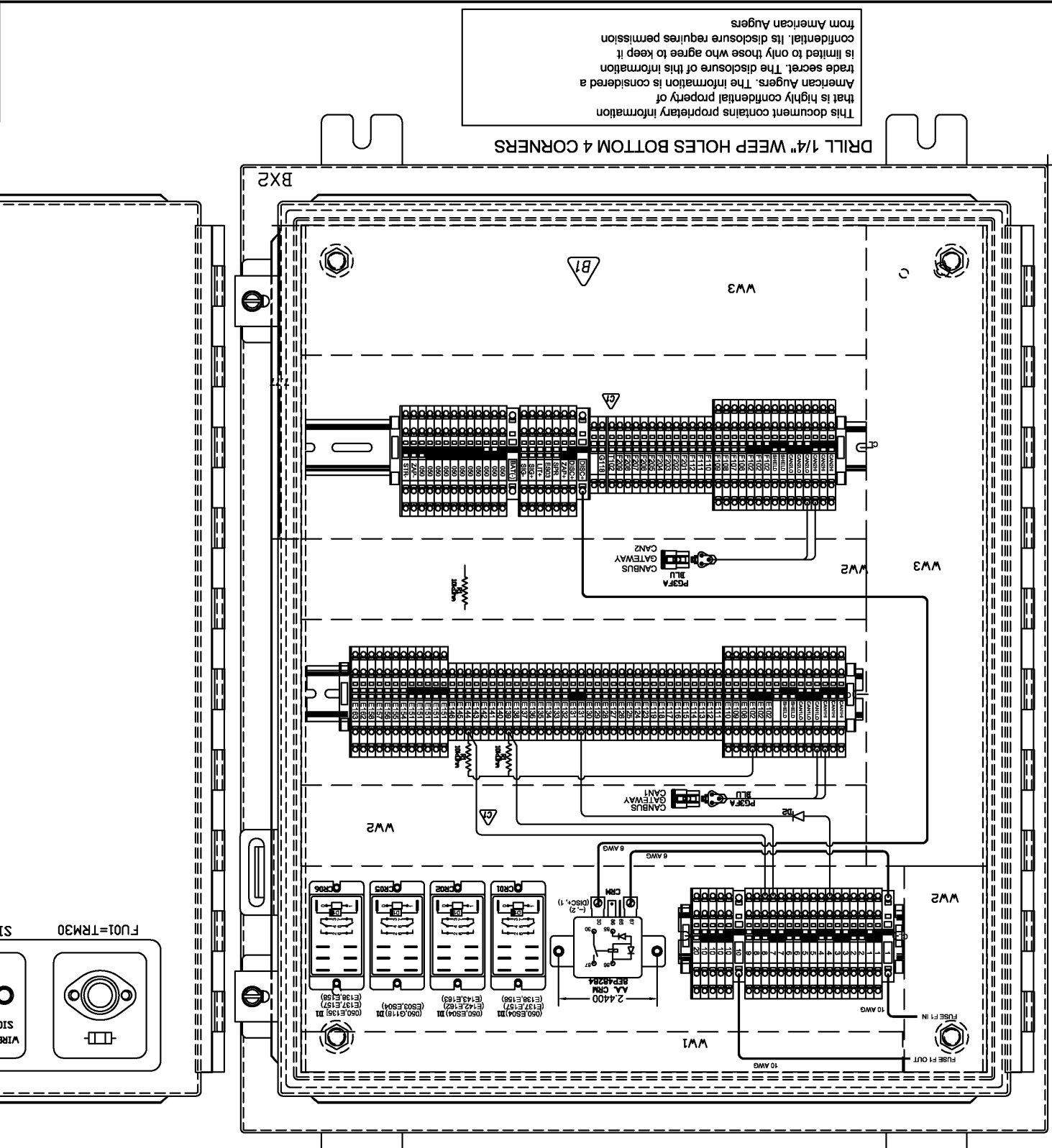
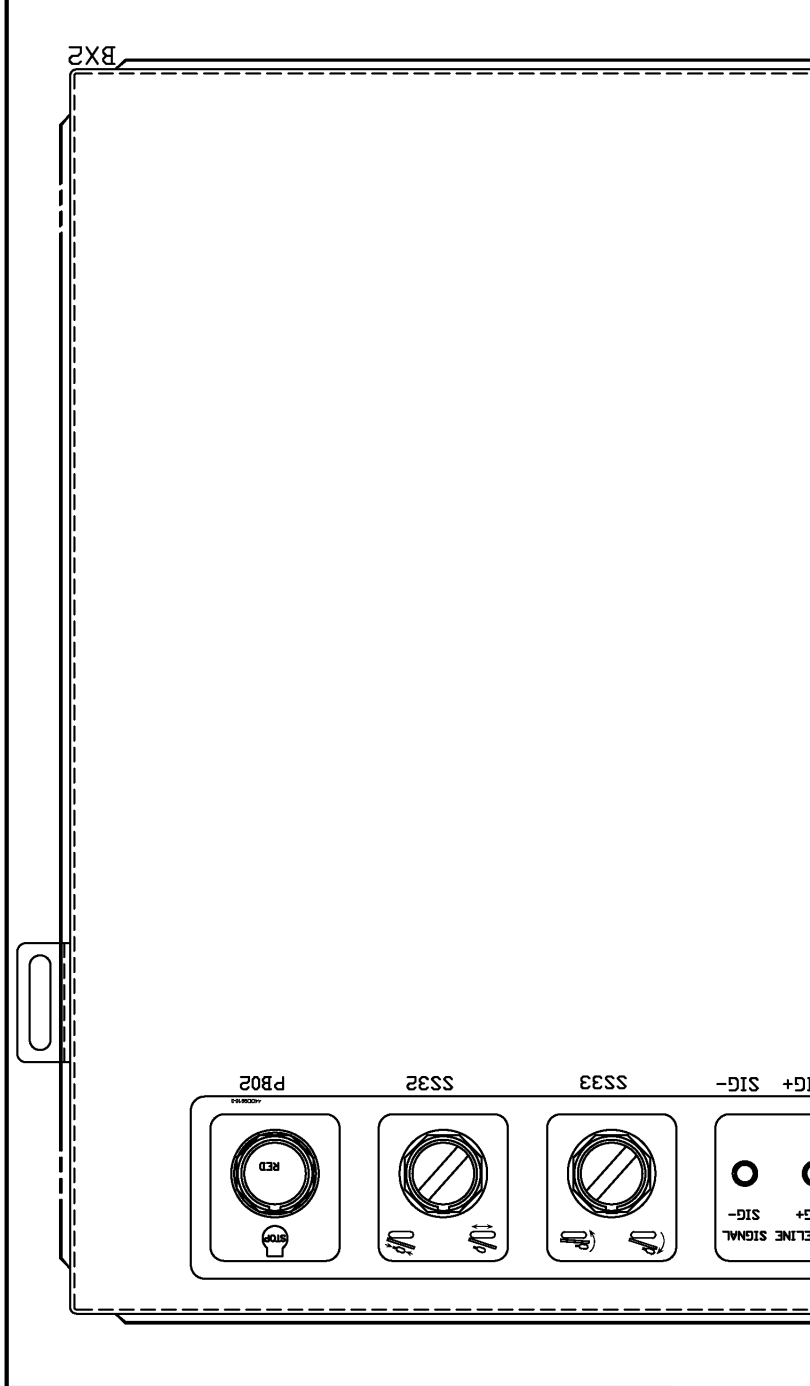
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
SSLT1	8EO72001	1	Switch, Toggle, SPST, On-Off
T02	8ET64003	10	Disconnect, 16-14
T03	8ET65001	10	Disconnect, 12-10 AWG
T06	8ET64105	10	Disconnect, Female, 16-14
T07	8ET45401	2	Terminal, Fork, Nylon Yellow
T08	8ET69001	5	Terminal, Adapter, "Y"
TERM-W	8ET03942	16	Jumper, Push-In, 2 Way
TERM-W	8ET03992	2	DIN Rail, 35 mm, WAGO Terminals
TERM-W	8ET03221	4	Terminal, 1 X 1, Grey, 8-AWG Wire
TERM-W	8ET03953	4	Jumper, Step-Down, 2-Way
TERM-W	8ET03943	5	Jumper, Push-In, 3-Way
TERM-W	8ET03945	5	Jumper, Push-In, 5 Way
TERM-W	8ET03492	5	End Plate
TERM-W	8ET03201	50	Terminal, 1 Inch X 1 Inch, Grey, 14 AWG Wire
TERM-W	8ET03991-1	6	End Stop/Terminals 10 mm Wide
TERM-W	8ET03401	85	Terminal, 2 X 2
TRAVEL	8EP47270	1	Travel Control with Cord
TRAVEL	8EH10150	2	Strap Harness with Clip





REV	DATE	DESCRIPTION
DR		REVISION RECORD
NR	1/17/11	A NEW RELEASE
MEM		SEE SHEET 1 FOR REVISIONS

REV	MEM	SCALE	SHEET NUMBER	DRAWING NUMBER	REV
D		NA	B 2 OF 8	44DD9727	



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 SIZE: B 2 OF 8  
 SCALE: NA  
 DRAWN BY: MEM  
 REV: D

ITEM	PART/DWG	QTY.	DESCRIPTION & SIZE OF MAT'L.
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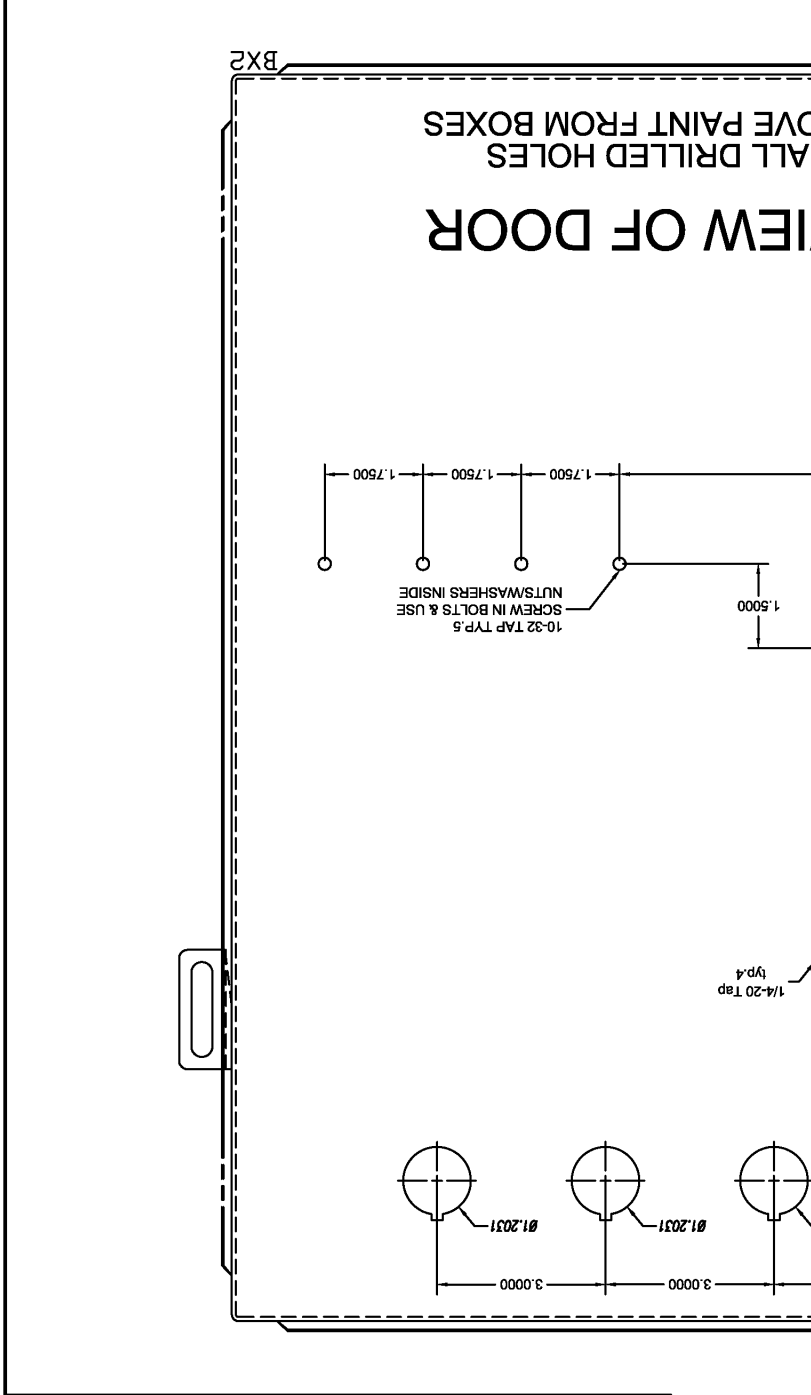




REV	DATE	REVISION RECORD
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NR		MEM
DR		ECN

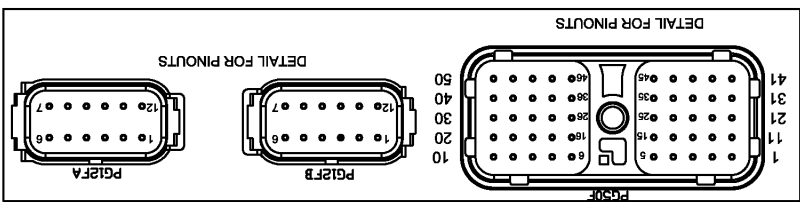
SEE SHEET 1 FOR REVISIONS

<b>REV D</b>		<b>ISSUING NUMBER</b> 44DD9727
<b>MEM</b>		<b>SCALE</b> NA
<b>MEM</b>		<b>SHEET NUMBER</b> 4 OF 8
<b>APPROVED</b>		<b>DESCRIPTION &amp; SIZE OF MAT'L</b>
<b>ITEM</b>	<b>PART/DWG</b>	<b>QTY.</b>

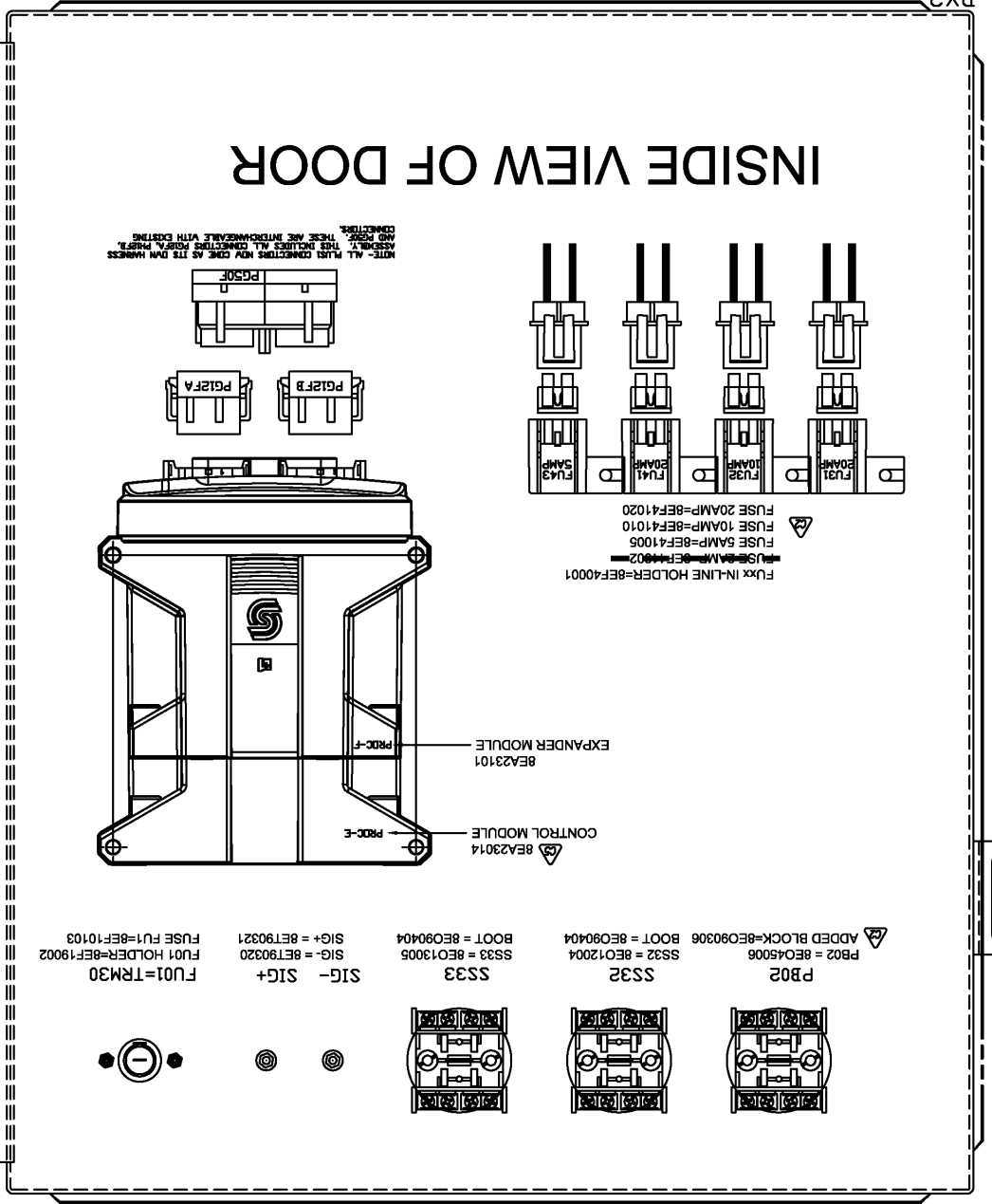


**TOUCH UP ALL DRILLED HOLES THAT REMOVE PAINT FROM BOXES**

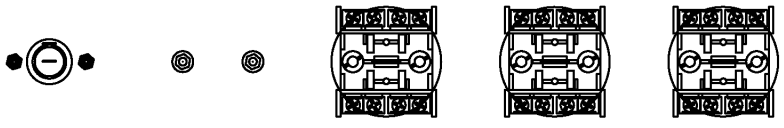
**OUTSIDE VIEW OF DOOR**



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**PB02** = BE045006  
**SS32** = BE012004  
**SS33** = BE013005  
**SS33** = BE090404  
**BOOT** = BE090404  
**BOOT** = BE090404  
**BOOT** = BE090404  
**BOOT** = BE090404  
**ADDED BLOCK**=BE090308  
**SIG-** = BE190321  
**SIG+** = BE190321  
**FU01** = TRM30  
**FU01** HOLDER=BEF1902  
**FUSE FU1**=BEF10103



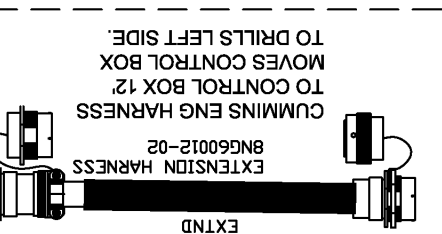


REV	DATE	DESCRIPTION
1/17/11	A	NEW RELEASE
ECN	NR	MEM
DR		

REV	DATE	DESCRIPTION
		SEE SHEET 1 FOR REVISIONS

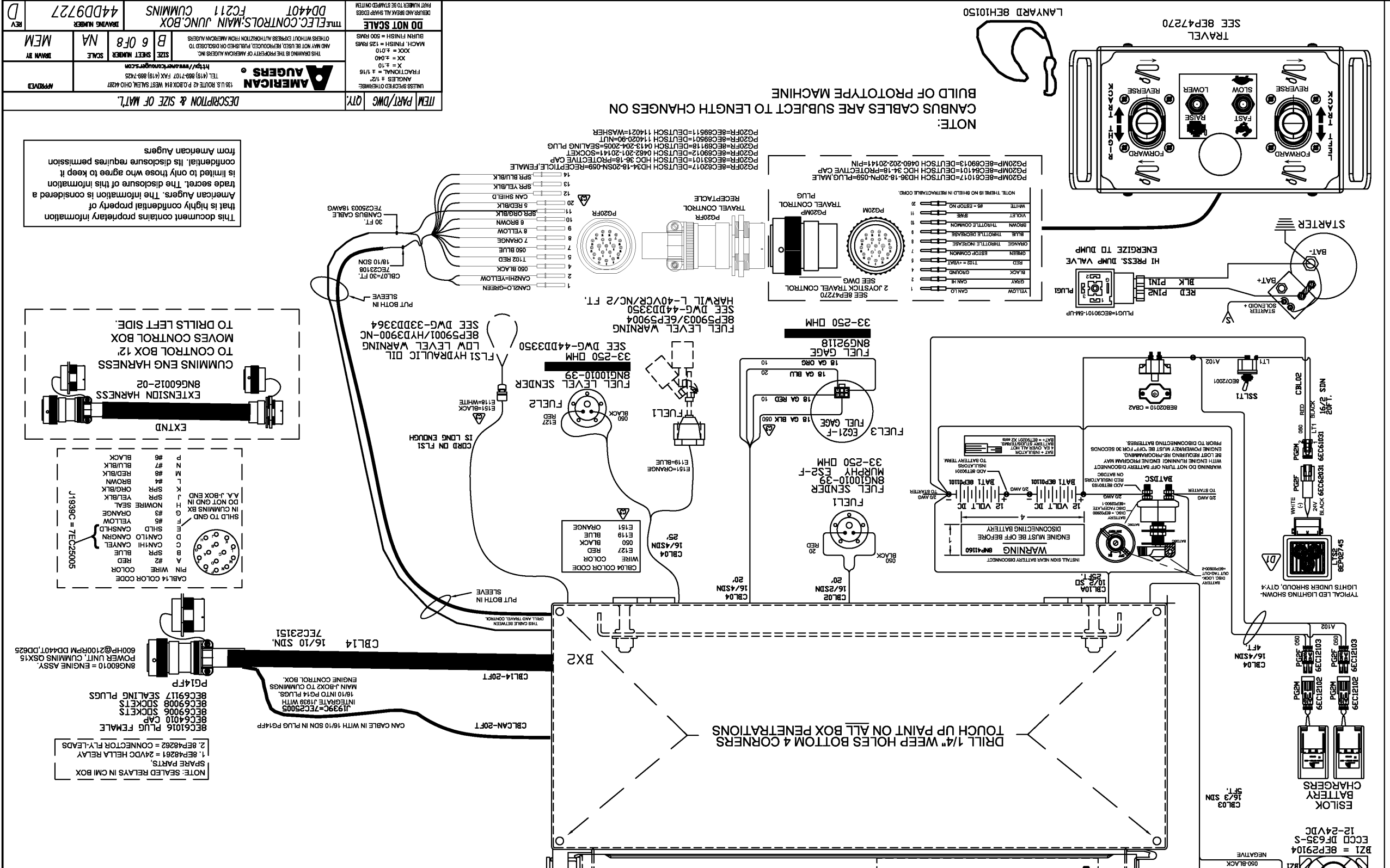
NOTE: SEALED RELAYS IN CMI BOX  
 1. 8EP48261 = 24VDC HELIX RELAY  
 2. 8EP48262 = CONNECTOR FLY-LEADS  
 8EC64010 CAP  
 8EC69006 SOCKETS  
 8EC69117 SEALING PLUGS  
 PG14FP  
 8NG60010 = ENGINE ASSY  
 POWER UNIT, CUMMINS QSX15  
 600HP@2100RPM DD440T,DD25

CABL 14 COLOR CODE	PIN WIRE COLOR
A	RED
B	BLUE
C	CANYNHI
D	CANYNLO
E	CANSHLD
F	YELLOW
G	ORANGE
H	NOMWRE
J	SPR YELBLK
K	SPR ORGBLK
L	BROWN
M	REDBLK
N	BLUBLK
P	BLACK

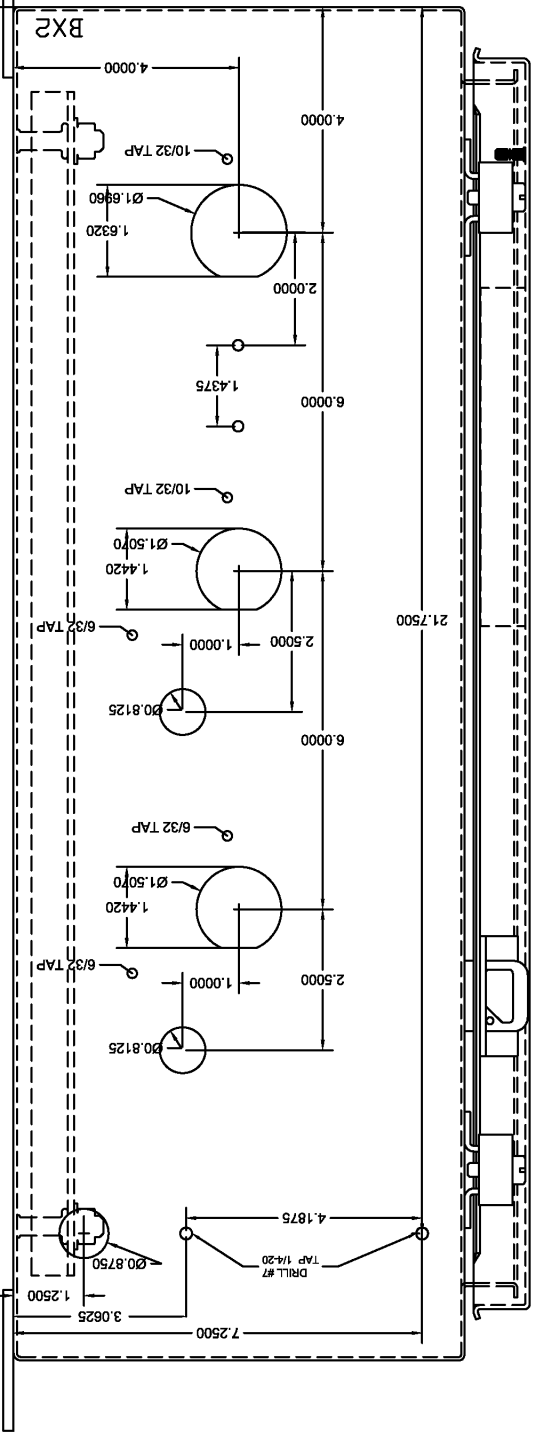


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ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L
<p>UNLESS SPECIFIED OTHERWISE: ANGLES: ±.127 FRACTIONAL: ±.116 X ±.10 MACH: FINISH: 125 RMS BURN FINISH: 500 RMS PART NUMBER TO BE STAMPED ON ITEM</p>			
	AMERICAN AUGERS		135 US ROUTE 42 P.O. BOX 84 WEST SHELTON, OHIO 44287 TEL: (419) 869-1707 FAX: (419) 869-7425 http://www.americanaugers.com
MEM	MEM	MEM	MEM
REV	REV	REV	REV

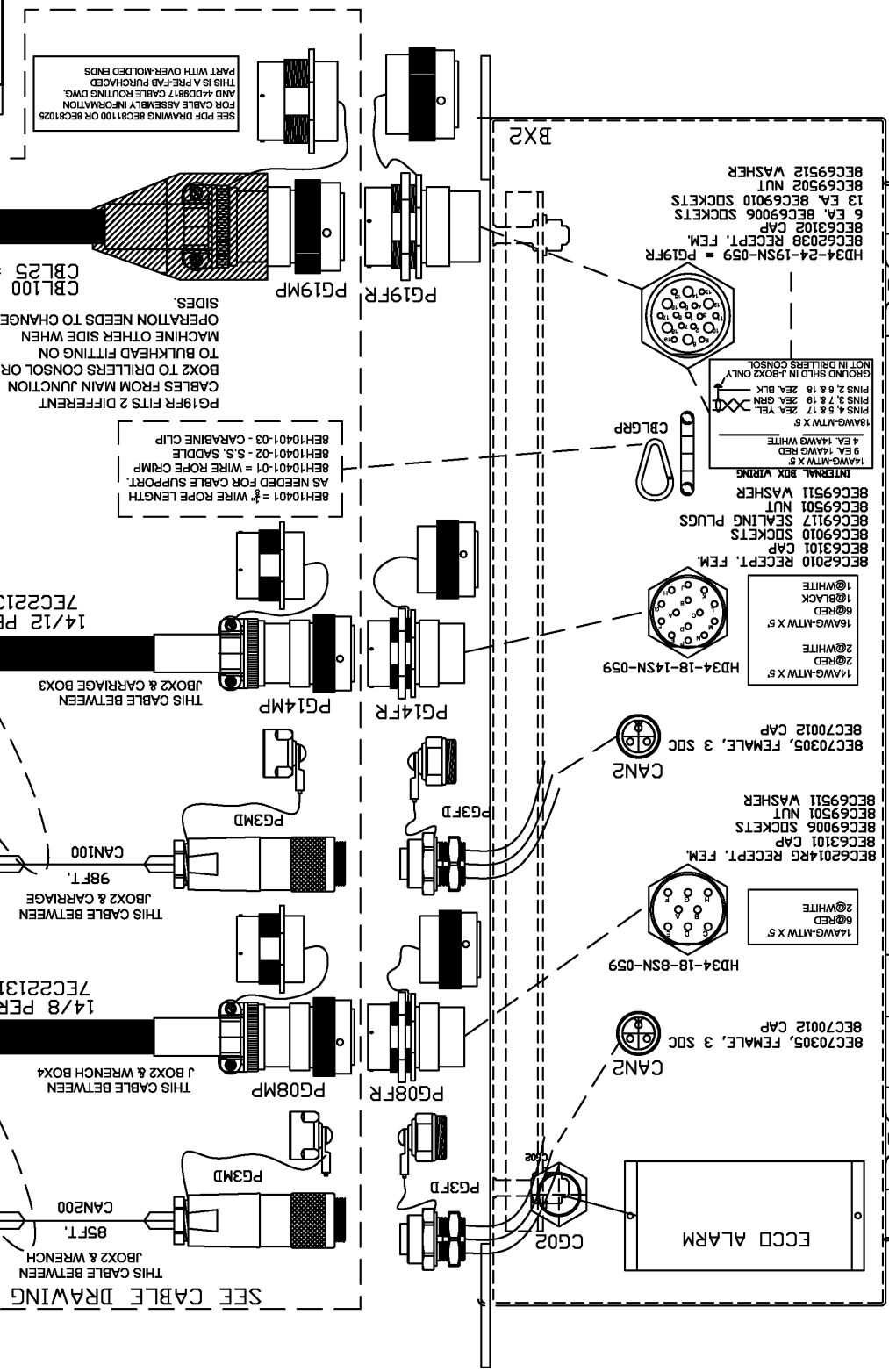






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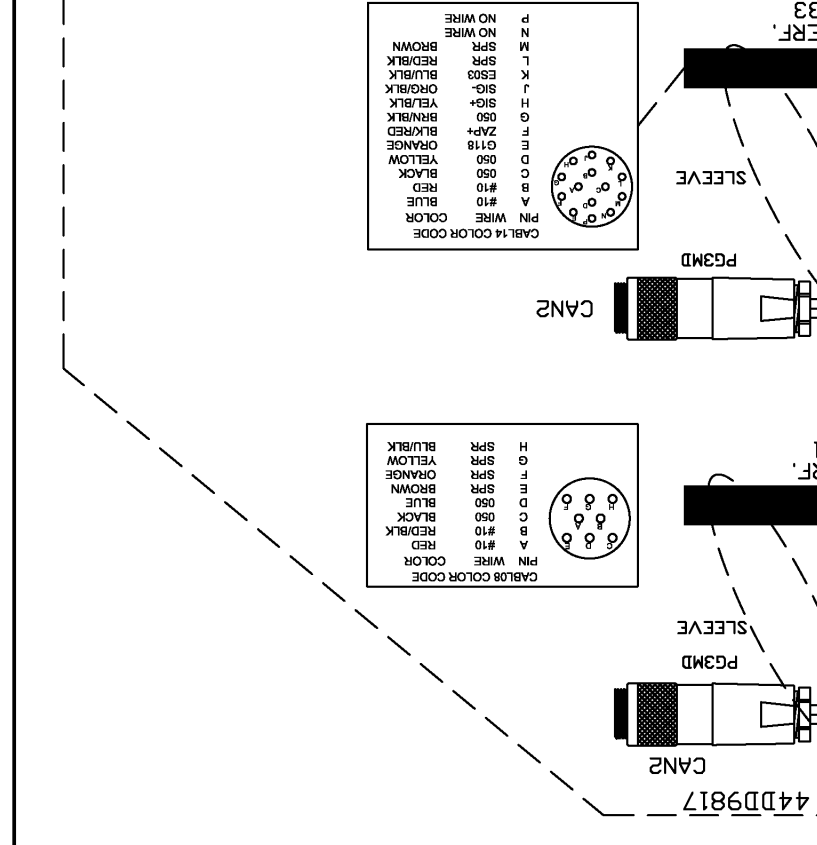
DRILL 1/4" WEEP HOLES BOTTOM 4 CORNERS



SEE PDF DRAWING REC81100 OR REC81025 FOR CABLE ASSEMBLY INFORMATION AND 44DD9817 CABLE ROUTING DWG. THIS IS A PRE-FAB PLUMBING PART WITH OVERMOLDED ENDS

REV	DESCRIPTION & SIZE OF MAT'L	APPROVED	MEM	SCALE	SHEET NUMBER	REV
D	DD-440T ELEC. CONTROL MAIN JUNC. BOX		MEM	NA	B 8 OF 8	44DD9727

ITEM	PART/DWG	QTY
1	WHT	6
2	SHLD1 BLACK	3
3	CAN1LO GREEN	2
4	CAN1HI YELLOW	4
5	CAN2HI YELLOW	5
6	SHLD2 BLACK	6
7	CAN2LO GREEN	7
8	PIN FRONT VIEW, IN CONSOLE	3
9	VIEW, IN CONSOLE	3
10	WHT	10
11	ES03	11
12	REC63102 CAP	4
13	REC69006 PINS	5
14	REC69502 NUT	13
15	REC69512 WASHER	15
16	PIN2 THRU 7 & 17 THRU 19	16
17	REC69502 NUT	7
18	WHT	18
19	REC69512 WASHER	8



REV	DATE	DESCRIPTION	MEM
1/17/11	A	NEW RELEASE	
		REVISION RECORD	
		SEE SHEET 1 FOR REVISIONS	



# CARRIAGE BOX

**DD-440T**

**Carriage Box  
Bill of Material Number: 44DD9737**

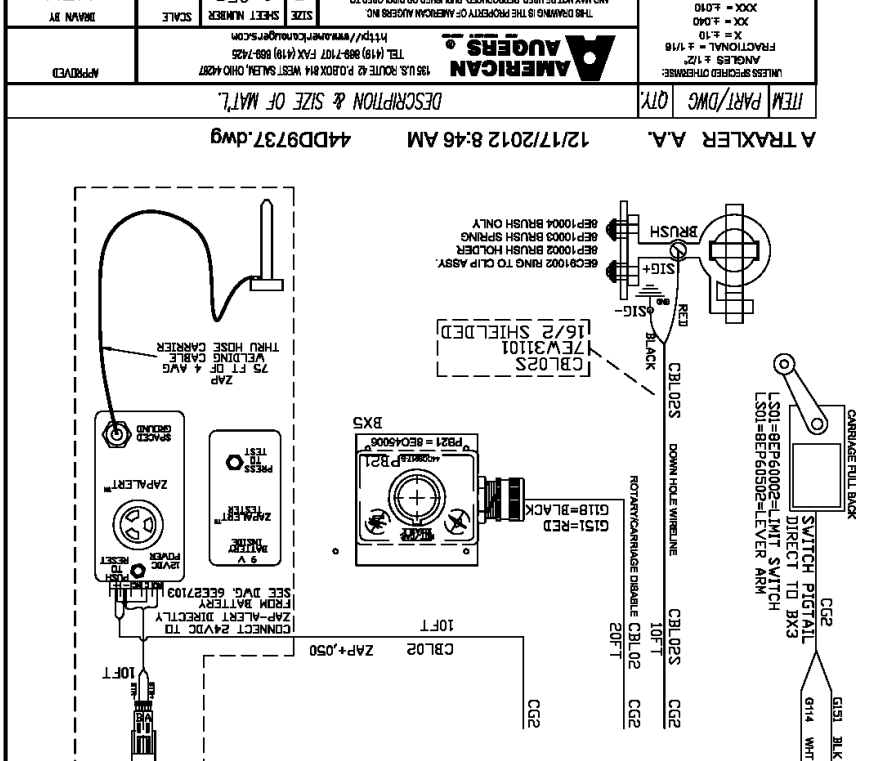
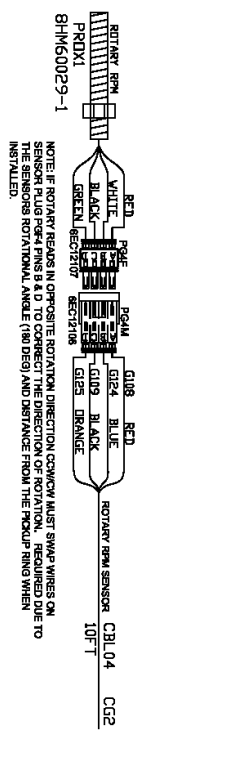
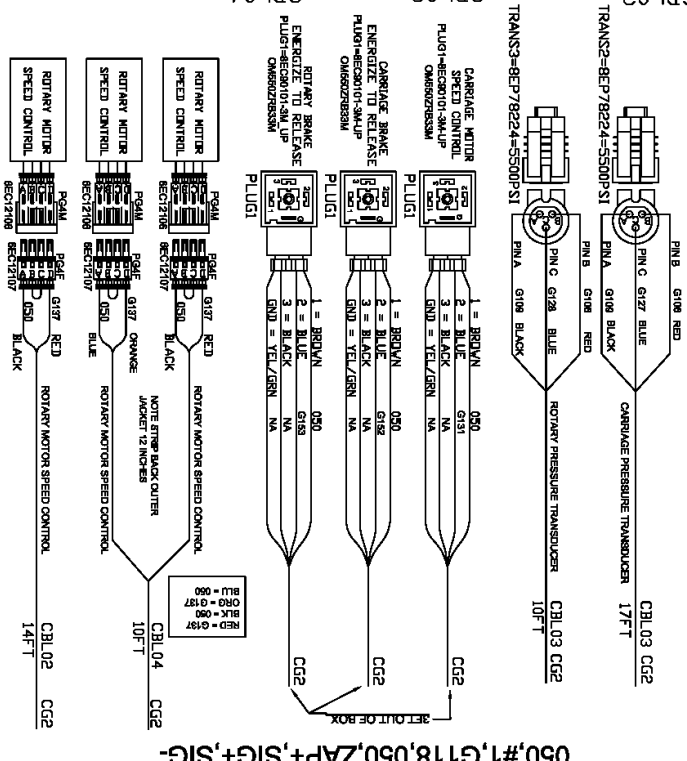
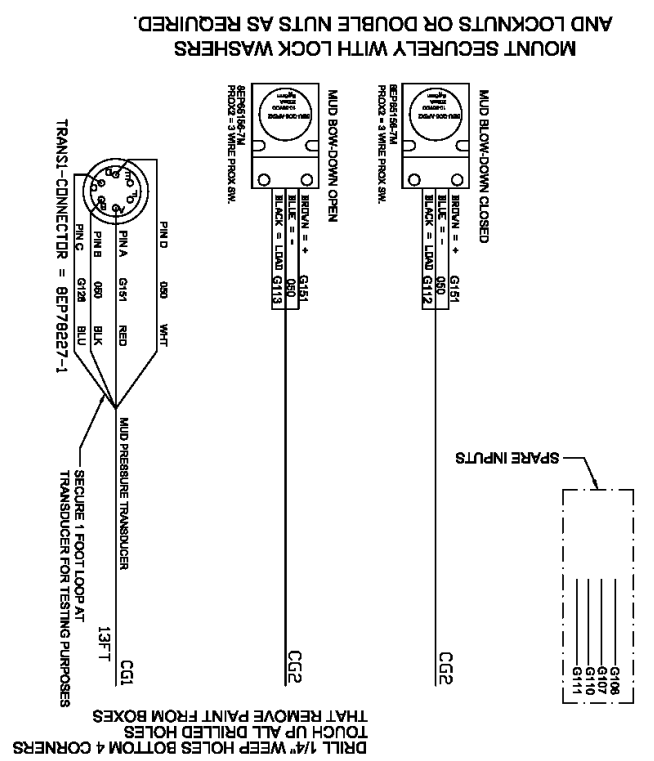
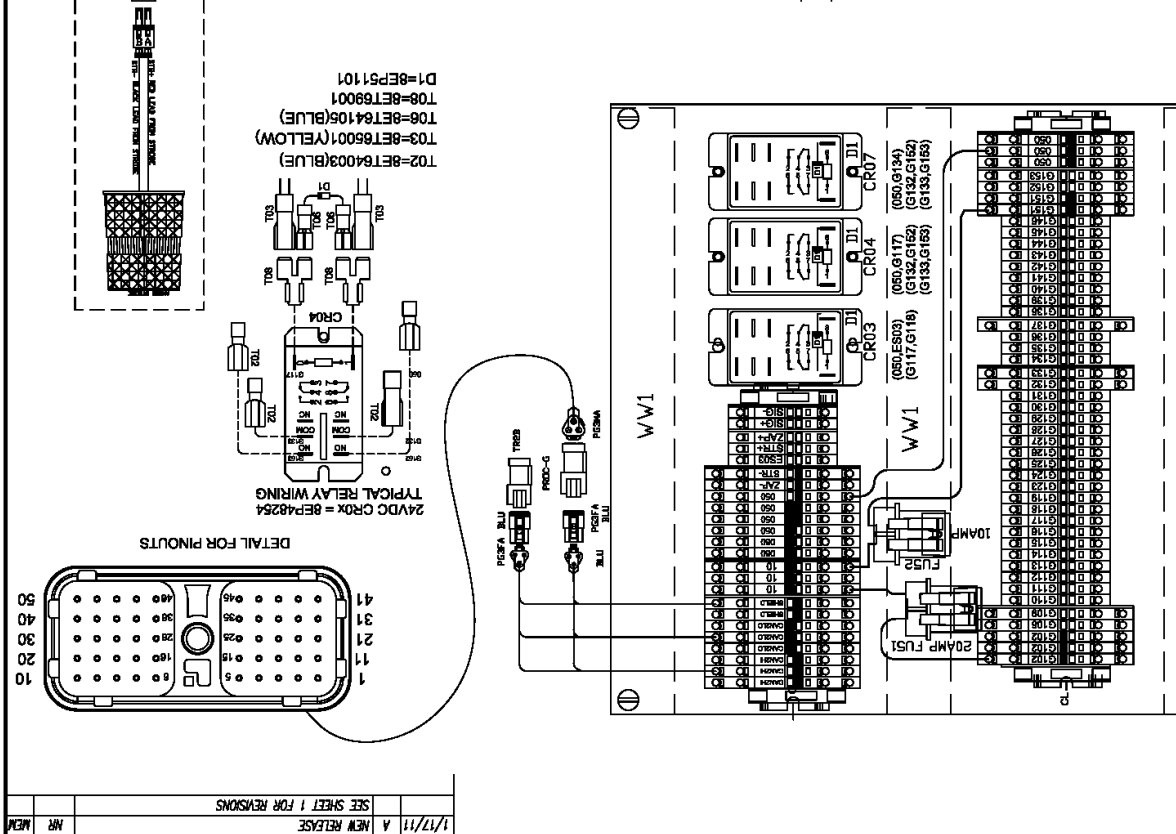
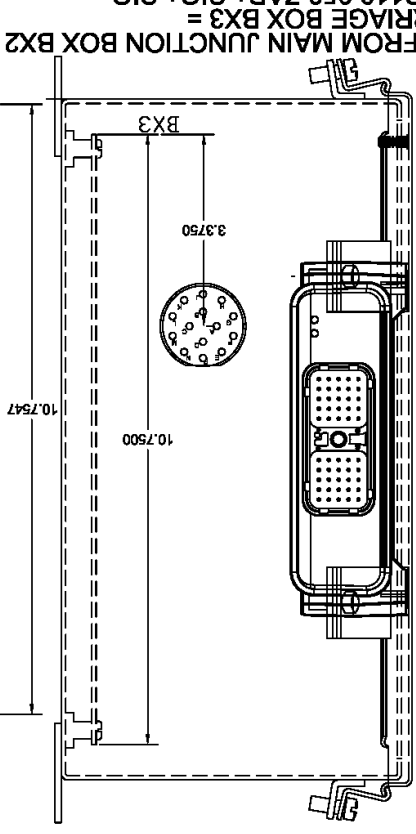
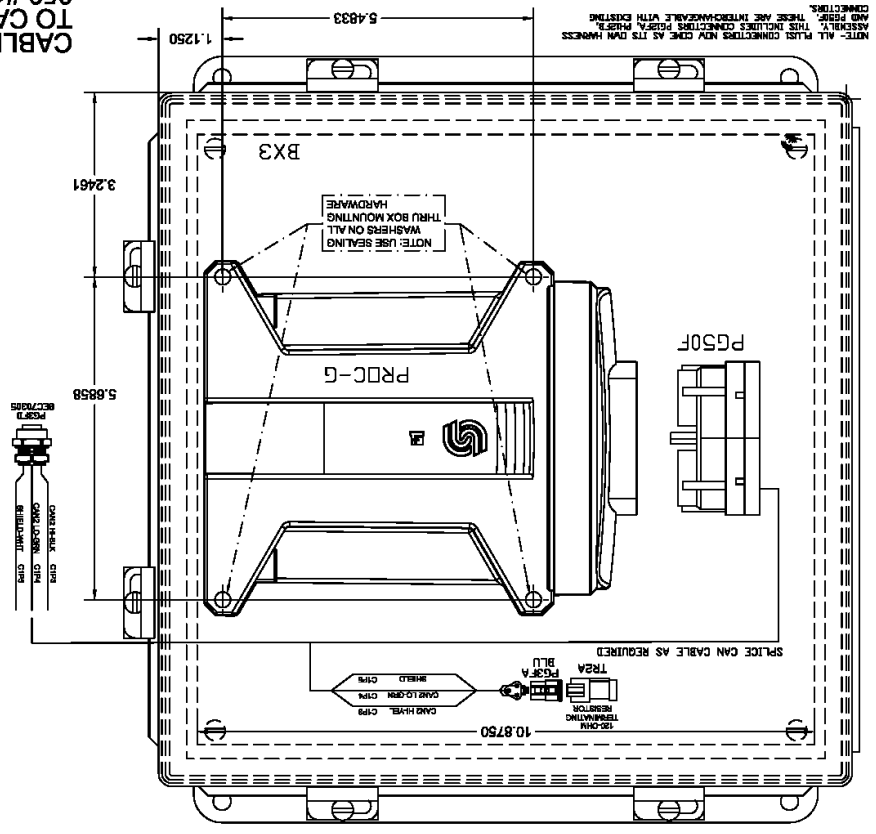
REF. NO.	PART NO.	QTY	DESCRIPTION
BRUSH	6EC91002	1	Wireline, Ring to Clip Assembly
BRUSH	8EP10002	3	Brush Holder
BRUSH	8EP10003	5	Spring for Brush Holder
BRUSH	8EP10004	5	Brush for Brush Holder
BX3	8EN10210	1	Enclosure
BX3	8EN10711	1	Panel, Junction Box
BX5	8EN10501	1	Enclosure, 1 Push Button
BX5	6EP19002	1	Cord Grip Assembly
CBL02	7EC23110	50 ft	Cable, Type SDN, 16/2
CBL02S	7EW31101	125 ft	Cable, Shielded, 16/2
CBL03	7EC23111	57 ft	Cable, Type SDN, 16/3
CBL04	7EC23112	8 ft	Cable, Type SDN, 16/4
CG1	8EP19001	1	Cord Grip
CG1	8EP20103	1	Lock Nut, 0.500
CG1	8EP21102	1	Seal Ring, Steel Backed
CG2	6EP19002	17	Cord Grip Assembly
CR__	8EP48254	3	Relay, 2 Pole, Panel Mounted
D1	8EP51101	3	Diode, 400 V, 1 Amp
FU51	8EF40001	1	Fuse Holder, Inline, 1 Circuit
FU51	8EF41020	3	Fuse, ATO/ATC, 20 Amp Yellow
FU52	8EF40001	1	Fuse Holder, Inline, 1 Circuit
FU52	8EF41010	3	Fuse, ATO/ATC, 10 Amp, Red
LS01	8EP60002	1	Limit Switch, 2 Circuit, Sealed
LS01	8EP60502	1	Limit Switch
PB21	8EO45006	1	Push-Pull, 1 N.O./1 N.C.
PG14MR	8EC62016	1	Receptacle, Male, 18-14
PG14MR	8EC63101	1	Protective Cap
PG14MR	8EC69501	1	Panel Nut
PG14MR	8EC69511	1	Lock Washer
PG14MR	8EC69009	12	Pin Contact, 14-16 AWG
PG14MR	8EC69117	2	Sealing Plug, 12-16 AWG
PG3FA	6EC61033-1	1	Plug Assembly, 3 Socket
PG3FD	8EC70305	1	Receptacle, 3 Socket
PG3FD	8EC70012	1	Cap with #10 Eyelets; Mates to Female
PG4M	6EC12106	1	Connector, Packard, 4 Pin, 14/16
PG4M	6EC12107	4	Connector, Packard, 4 Socket, 14/16 AWG
PG50F	6EC61023	1	Plug Female, 50 Socket with 48 Inch Leads
PLUG1	8EC90101-3M-UP	3	Hirschman Connector with 3 m Cord 4/W
PROC-G	8EA23001	1	Module, Control



**DD-440T****Carriage Box (Continued)  
Bill of Material Number: 44DD9737**

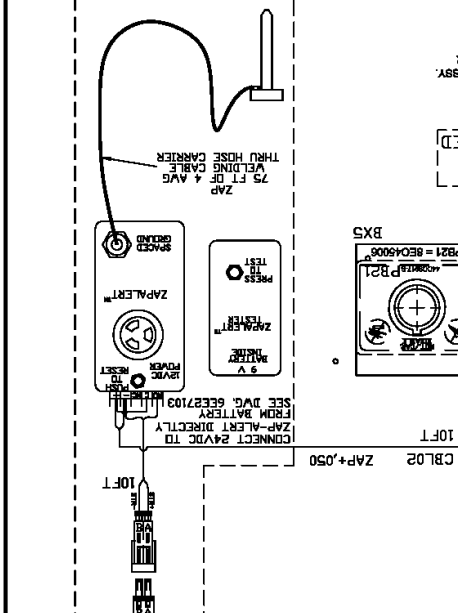
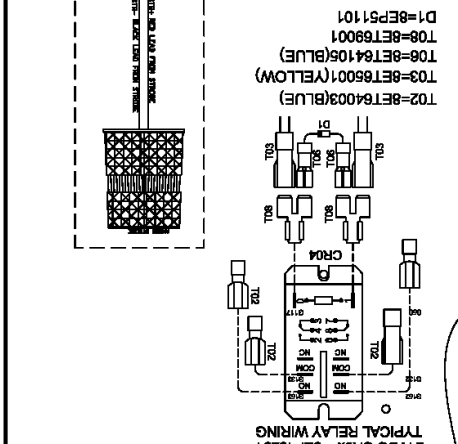
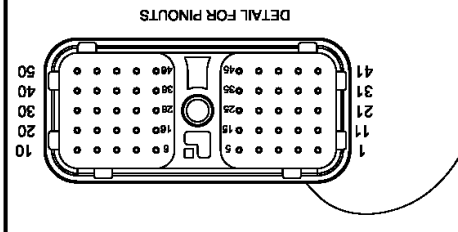
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
PROX2	8EP65156-7M	2	Switch, Proximity
TERM	8ET00101	56	Terminal Block, Rail Mounted, 300 V, 25 Amp
TERM-W	8ET03992	1	DIN Rail, 35 mm, WAGO Terminals
TERM-W	8ET03292	2	End Plate
TERM-W	8ET03492	2	End Plate
TERM-W	8ET03942	3	Jumper, Push-In, 2 Way
TERM-W	8ET03943	3	Jumper, Push-In, 3-Way
TERM-W	8ET03401	35	Terminal, 2 X 2
TERM-W	8ET03201	35	Terminal, 1 Inch X 1 Inch, Grey, 14 AWG Wire
TERM-W	8ET03991-1	4	End Stop/Terminals 10 mm Wide
TR2A	8EC62033-J1939	1	Resistor, Terminal, J1939, Receptacle
TRANS1	8EP78227	1	Transducer, Mud, 6000 PSI
TRANS1	8EP78227-1	1	Connector
TRANS2	8EP78224	1	Transducer, 5500 PSI
TRANS2	8EP78221-1	1	Mating Connector
TRANS3	8EP78224	1	Transducer, 5500 PSI
TRANS3	8EP78221-1	1	Mating Connector





REV	MEM	APPROVED
44DD9737	NA	
2 OF 3	SCALE	
B	SHEET NUMBER	
FC211 CUMMINS	DESCRIPTION & SIZE OF MATL.	
DD440T	ITEM PART/DWG	
ELEC. CONTROLS CARRIAGE BOX	QTY	
DO NOT SCALE		
UNLESS OTHERWISE SPECIFIED:		
ANGLES = 1/2"		
FRACTIONAL = 1/16"		
X = ±.10		
MAX. FINISH = .0005 RAS		
BURN FINISH = .0005 RAS		
REUR AND BREAK ALL SHOWN		
PART NUMBERS TO BE SHOWN ON THE		

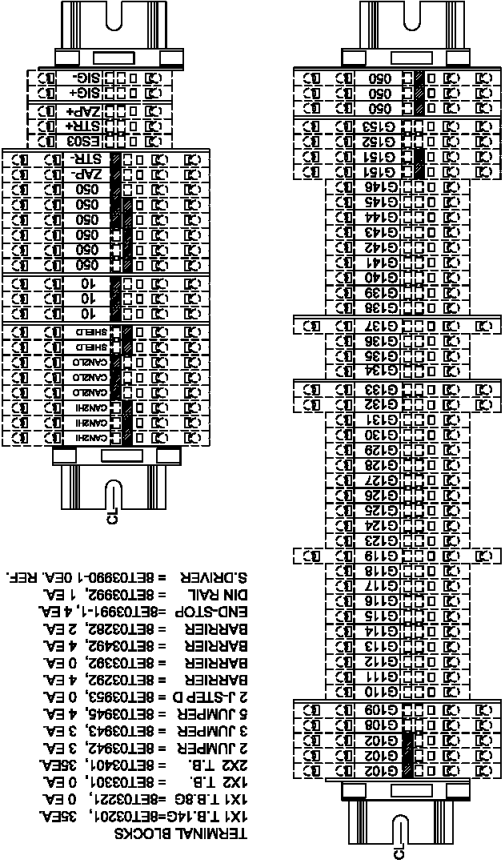
DATE	REV	REVISION RECORD
1/17/11	A	NEW RELEASE
		SEE SHEET 1 FOR REVISIONS
ECN	NR	MR



REV	MEM	APPROVED
44DD9737	NA	
2 OF 3	SCALE	
B	SHEET NUMBER	
FC211 CUMMINS	DESCRIPTION & SIZE OF MATL.	
DD440T	ITEM PART/DWG	
ELEC. CONTROLS CARRIAGE BOX	QTY	
DO NOT SCALE		
UNLESS OTHERWISE SPECIFIED:		
ANGLES = 1/2"		
FRACTIONAL = 1/16"		
X = ±.10		
MAX. FINISH = .0005 RAS		
BURN FINISH = .0005 RAS		
REUR AND BREAK ALL SHOWN		
PART NUMBERS TO BE SHOWN ON THE		

DATE	REV	REVISION RECORD	ECN	DR
1/17/11	A	NEW RELEASE		
		SEE SHEET 1 FOR REVISIONS		

- TERMINAL BLOCKS
- 1X1 T.B. 1A3G-8ET03201, 35EA
  - 1X1 T.B. 8G-8ET03221, 0EA
  - 1X2 T.B. = 8ET03301, 0EA
  - 2X2 T.B. = 8ET03401, 35EA
  - 2 JUMPER = 8ET03942, 3EA
  - 3 JUMPER = 8ET03943, 3EA
  - 6 JUMPER = 8ET03945, 4EA
  - 2 J-STEP D = 8ET03853, 0EA
  - BARRIER = 8ET03292, 4EA
  - BARRIER = 8ET03392, 0EA
  - BARRIER = 8ET03492, 4EA
  - BARRIER = 8ET03282, 2EA
  - END-STOP = 8ET03991-1, 4EA
  - DIN RAIL = 8ET03992, 1EA
  - S.DRIVER = 8ET03990-1 0EA REF.



DESCRIPTION & SIZE OF MAT'L. 44DD9737.dwg 12/17/2012 8:46 AM A TRAXLER A.A.

ITEM PART/DWG QTY.

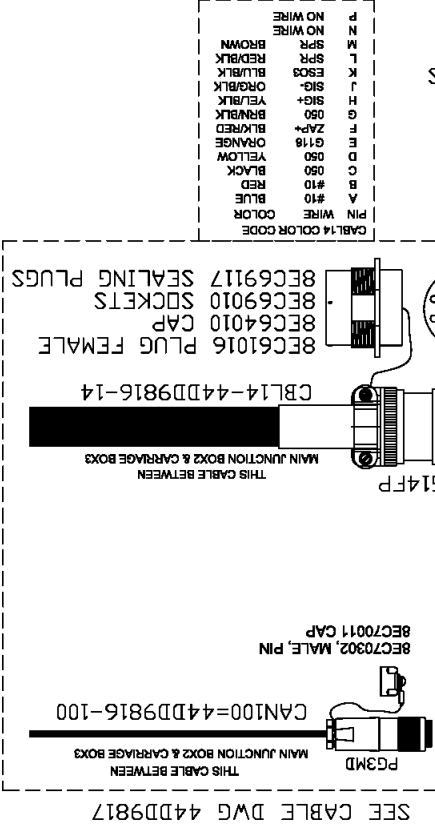
AMERICAN AUGERS  
132 U.S. ROUTE 42 P.O. BOX 84 WEST SALEM, OHIO 44887  
TEL (419) 899-7107 FAX (419) 899-7425  
http://www.americanaugers.com

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SIZE SHEET NUMBER SCALE B 3 OF 3 NA MEM

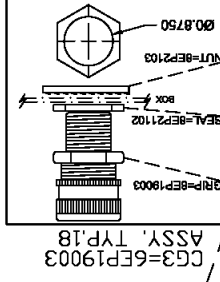
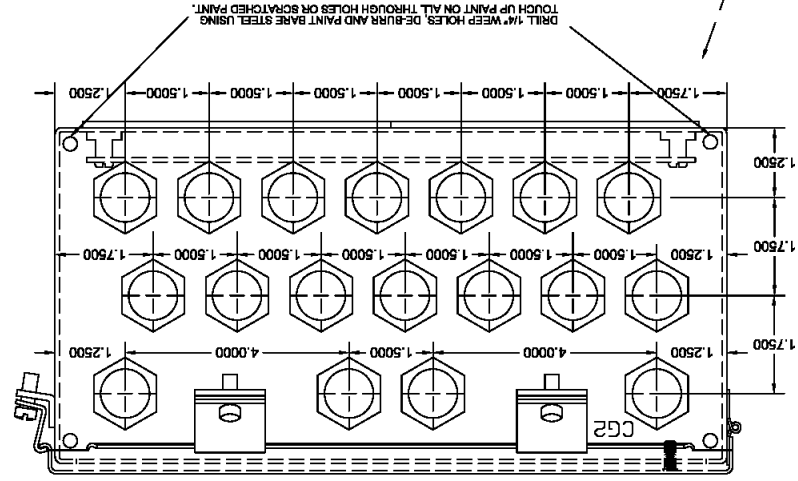
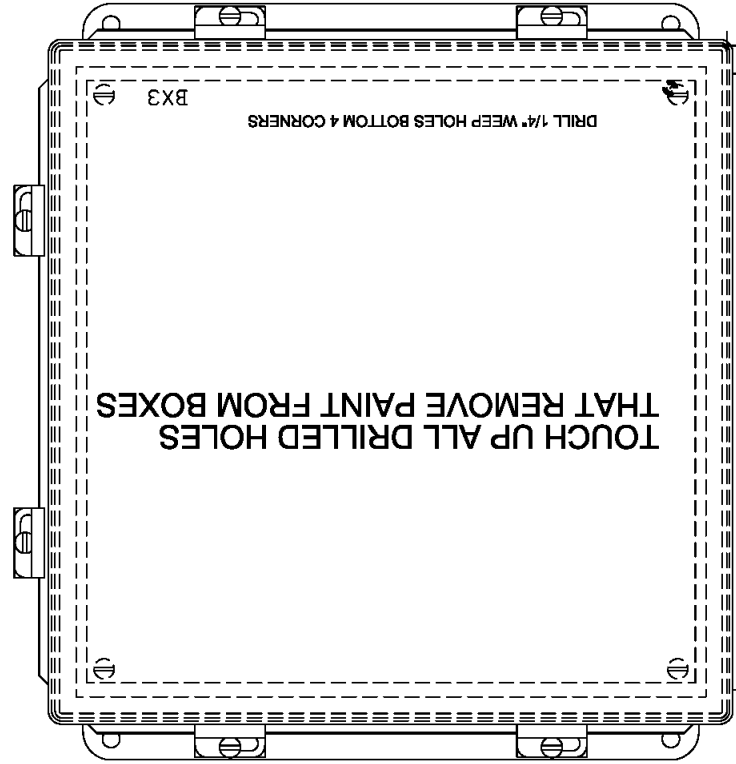
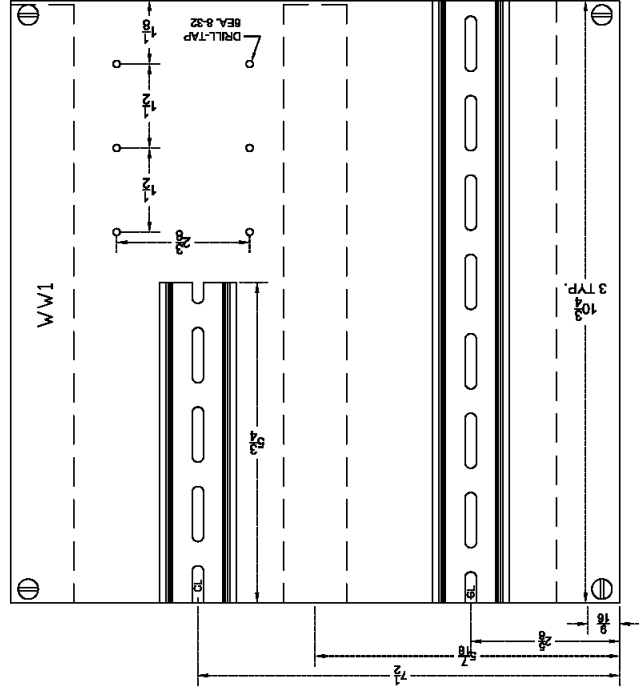
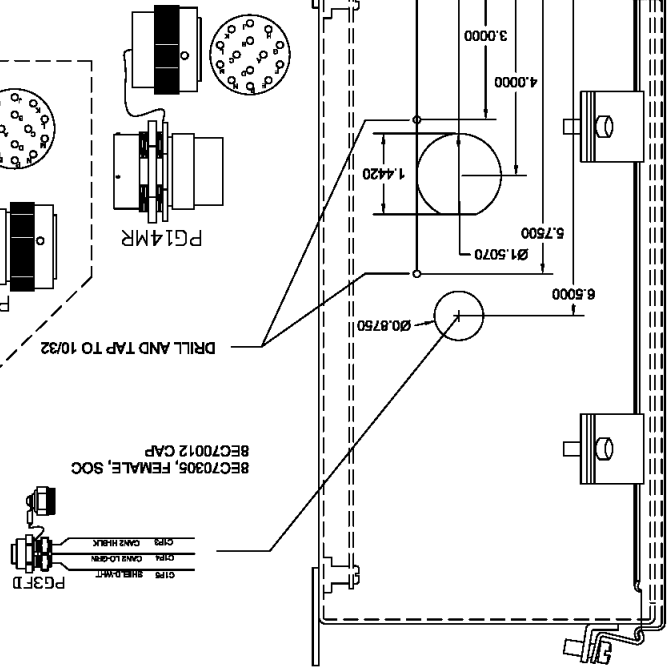
REV 44DD9737

REV C



- CABLE 14 COLOR CODE
- P NO WIRE
  - N NO WIRE
  - M SPR
  - L SPR
  - K ES03
  - J SIG-
  - H SIG+
  - G 050
  - F ZAP+
  - E G18
  - D 050
  - C 050
  - B #10
  - A #10
  - RED
  - BLUE
  - YELLOW
  - ORANGE
  - BLACK
  - GREEN
  - BROWN
  - RED/BLACK
  - SPR
  - NO WIRE

- 8EC62016 RECEPT. MALE
- 8EC63101 CAP
- 8EC69009 PINS
- 8EC69117 SEALING PLUGS
- 8EC69501 NUT
- 8EC69511 WASHER



SELECT CORD GRIPS PER SIZE OF CABLE USED, SUPPLIERS AND SIZE SUBJECT TO CHANGE WITHOUT NOTICE.

# WRENCH BOX

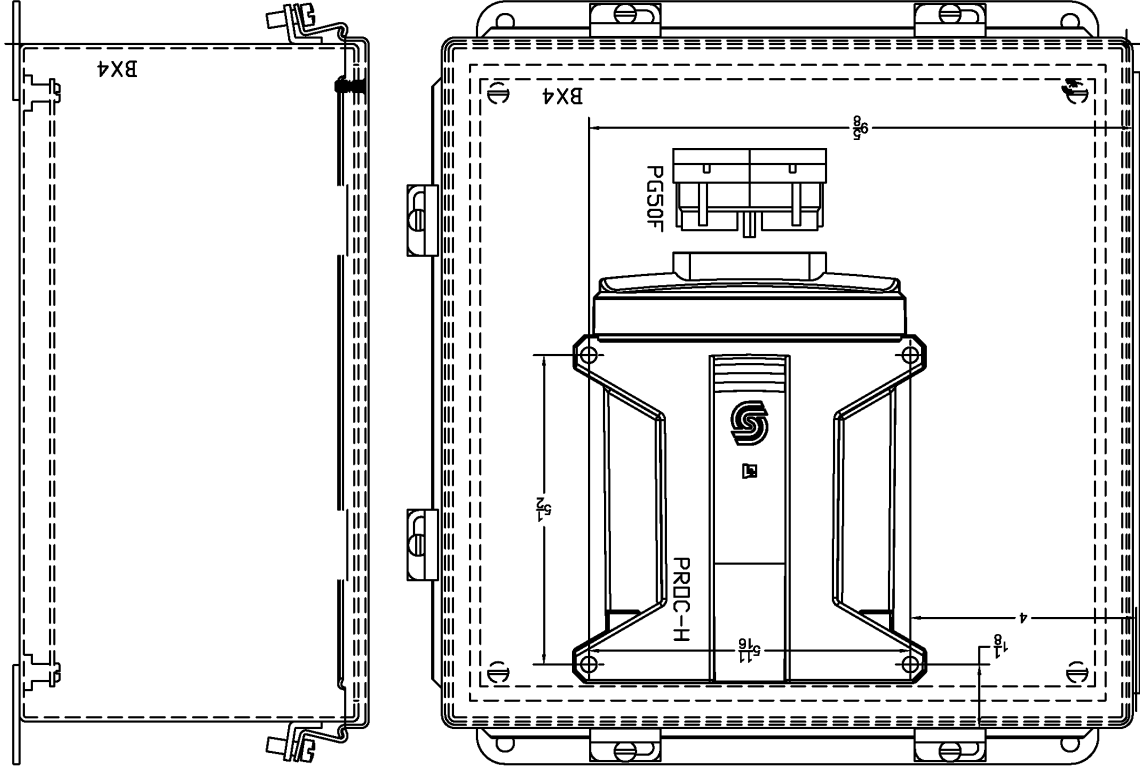
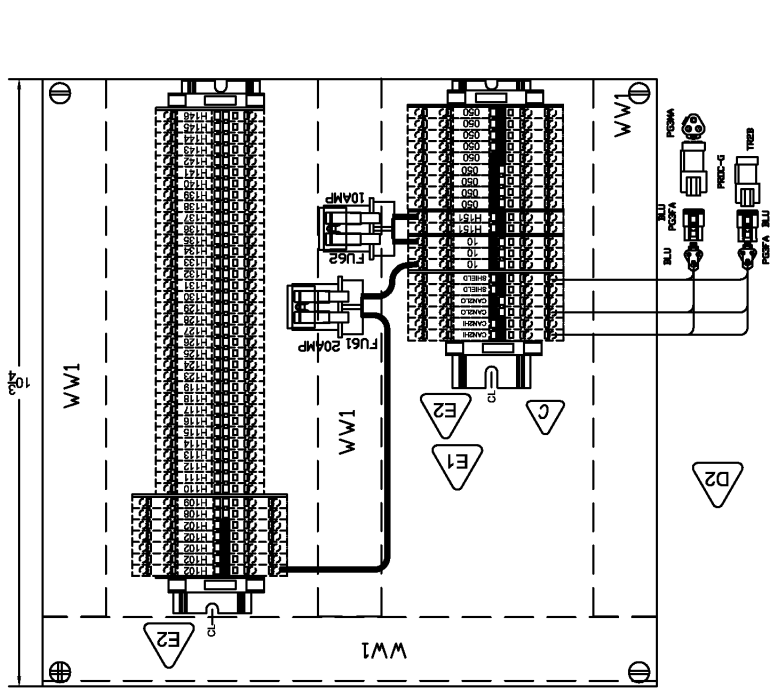
**DD-440T**
**Wrench Box**  
**Bill of Material Number: 44DD9747**

REF. NO.	PART NO.	QTY	DESCRIPTION
BX4	8EN10210	1	Enclosure
BX4	8EN10711	1	Panel, Junction Box
CBL10A	7EC23108	10 ft	Cable, Type SDN, 18/10, 600 Volt
CG1	8EP19001	8	Cord Grip
CG3	8EP19003	2	Cord Grip
FU61	8EF40001	1	Fuse Holder, Inline, 1 Circuit
FU61	8EF41020	3	Fuse, ATO/ATC, 20 Amp Yellow
FU62	8EF40001	1	Fuse Holder, Inline, 1 Circuit
FU62	8EF41010	3	Fuse, ATO/ATC, 10 Amp, Red
PG08MR	8EC62014	1	Receptacle, Male, Clamp, 18-8P
PG08MR	8EC63101	1	Protective Cap
PG08MR	8EC69501	1	Panel Nut
PG08MR	8EC69511	1	Lock Washer
PG08MR	8EC69005	8	Pin Contact, 14-12 AWG
PG3FA	6EC61033-1	1	Plug Assembly, 3 Socket
PG3FD	8EC70012	1	Cap with #10 Eyelets; Mates to Female
PG3FD	8EC70305	1	Receptacle, 3 Socket
PG50F	6EC61023	1	Plug Female, 50 Socket with 48 Inch Leads
PG50F	8EC69118	23	Sealing Plug, 20-AWG
PG50F	8EC69012	27	Socket Contact, 20 AWG
PLUG1	8EC90101-5M-UP	8	Hirschman Connector with 10 M Cord 4/W
PROC-H	8EA23001	1	Module, Control
TERM-W	8ET03992	1	DIN Rail, 35 mm, WAGO Terminals
TERM-W	8ET03943	2	Jumper, Push-In, 3-Way
TERM-W	8ET03945	2	Jumper, Push-In, 5 Way
TERM-W	8ET03282	2	End Plate
TERM-W	8ET03492	2	End Plate
TERM-W	8ET03401	26	Terminal, 2 X 2
TERM-W	8ET03201	35	Terminal, 1 Inch X 1 Inch, Grey, 14 AWG Wire
TERM-W	8ET03991-1	4	End Stop/Terminals 10 mm Wide
TERM-W	8ET03942	5	Jumper, Push-In, 2 Way
TR2B	8EC62033-J1939	1	Resistor, Terminal, J1939, Receptacle
TRANS4	8EP78224	1	Transducer, 5500 PSI
TRANS4	8EP78221-1	1	Mating Connector
TRANS5	8EP78224	1	Transducer, 5500 PSI
TRANS5	8EP78221-1	3	Mating Connector
TRANS6	8EP78221-1	1	Mating Connector
TRANS6	8EP78224	1	Transducer, 5500 PSI

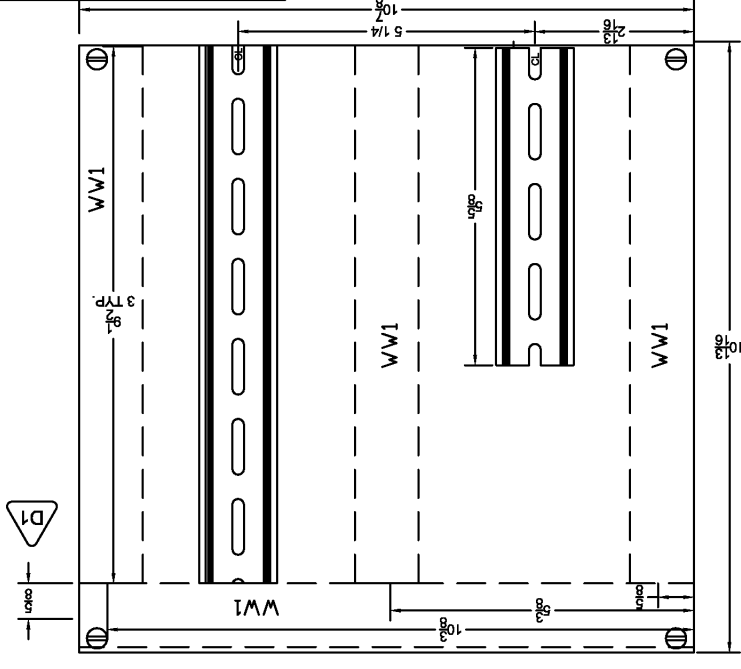
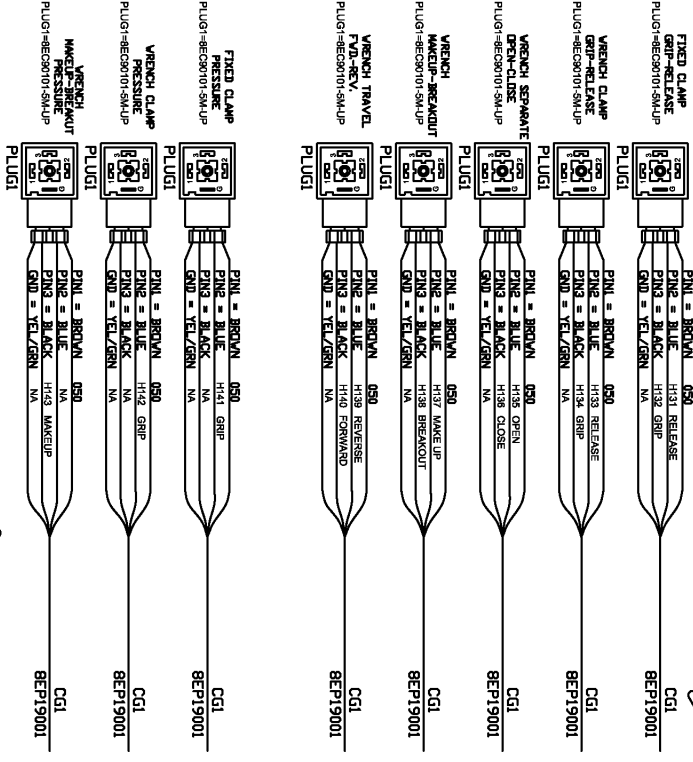
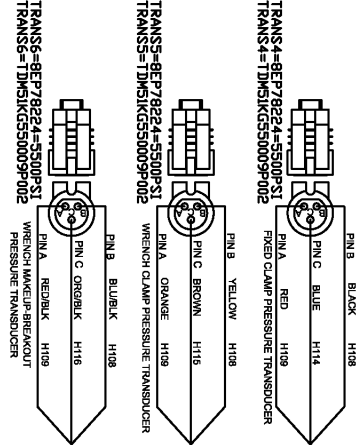


ECN	DR	REVISION RECORD
	REV	DATE
	A	7/2/10
		NEW RELEASE
		SEE SHEET 1 FOR REVISIONS
		NR
		MEM

NO TERM. FOR WIRES H106, H107,  
CAP AND LEAVE LOOSE IN BOX



WIRE COLOR	1810 SDN	CG3	BEFP19003
RED	H109	7EC23108	
BLACK	H108		
BLUE	H114		
ORANGE	H108		
YELLOW	H115		
BROWN	H109		
RED/BLK	H109		
RED/BLK	H108		
BLU/BLK	H108		
OR/BLK	H116		
YEL/BLK	SPR		



REV	MEM	APPROVED	DESCRIPTION & SIZE OF MAT'L
F			THE ELEC. CONTROLS WRENCH BOX FC211: DD440T CUMMINS DRAWING NUMBER 44DD9747

CABLE COLOR CODE	PIN WIRE COLOR
A	#10 RED
B	RED/BLK
C	BLACK
D	BLUE
E	BROWN
F	ORANGE
G	YELLOW
H	SPR BLU/BLK

**AMERICAN AUGERS**  
130 U.S. ROUTE 42 P.O. BOX 84 WEST SALKEN, OHIO 44287  
TEL: (419) 889-7107 FAX: (419) 869-7425  
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MACH. FINISH = 125 RMS  
XOC = ±0.10  
FRACTIONAL = ± 1/16  
ANGLES = 1/2°  
UNLESS SPECIFIED OTHERWISE

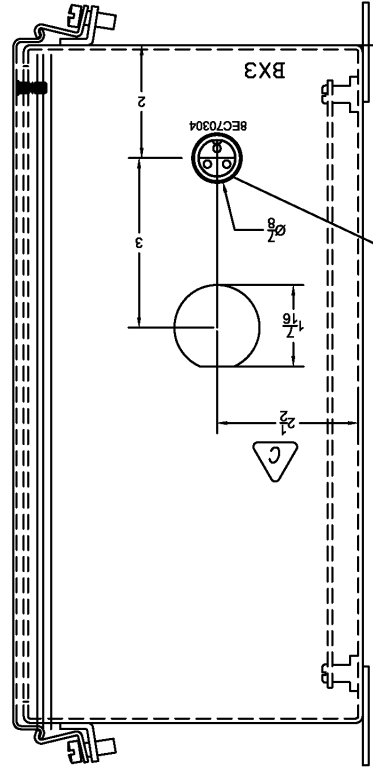
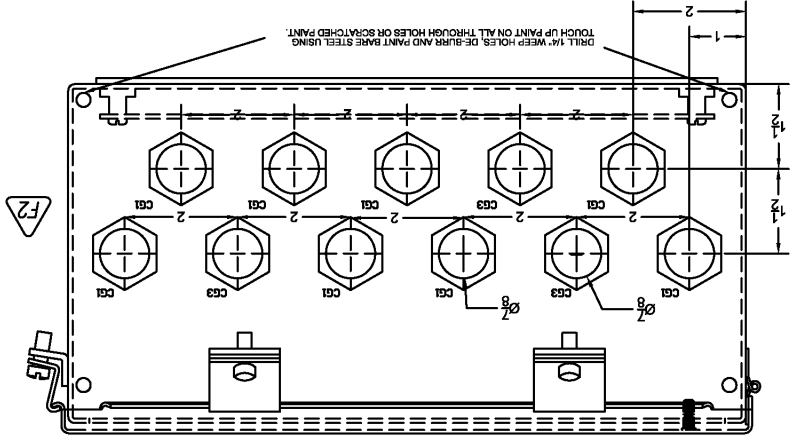
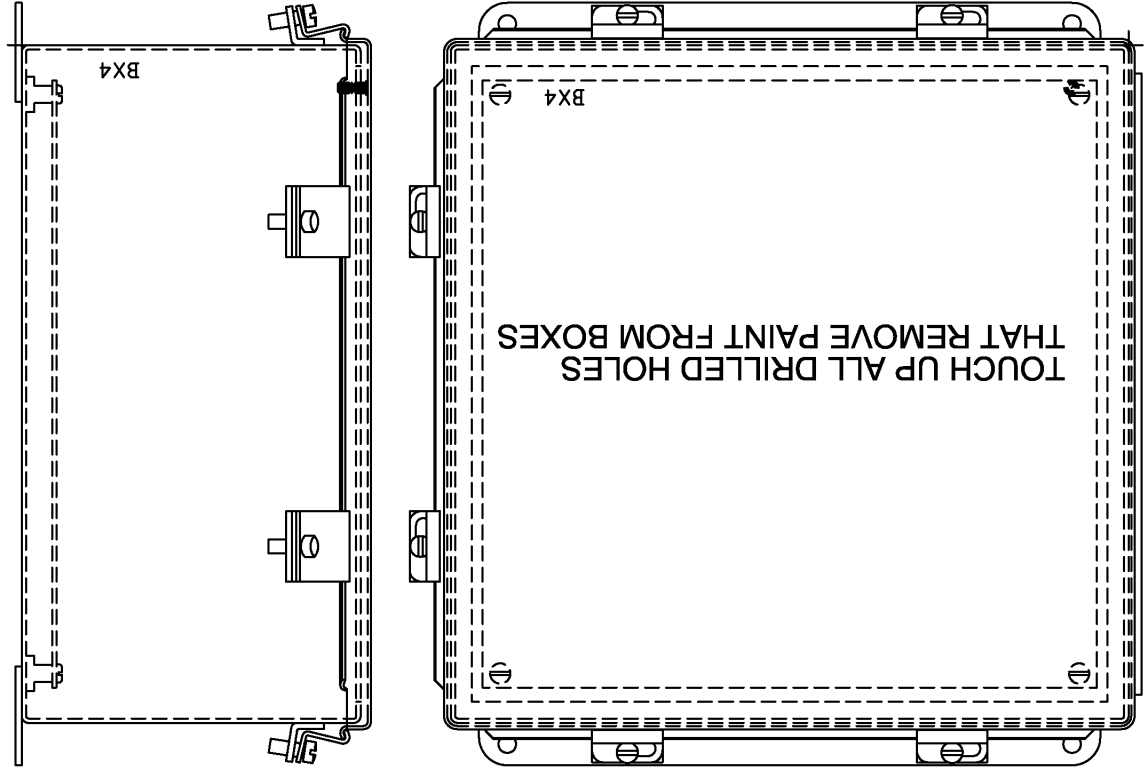
**DO NOT SCALE**  
DIMENSIONS ARE TO BE STAMPED ON ITEM  
DIMENSIONS ARE TO BE STAMPED ON ITEM



REV	DATE	DESCRIPTION
A	7/2/10	NEW RELEASE
MEM		

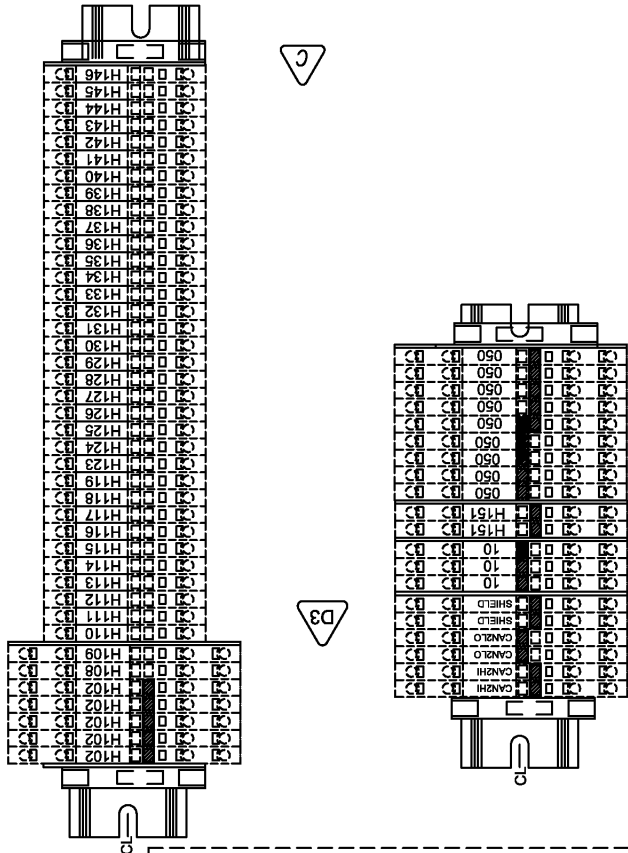
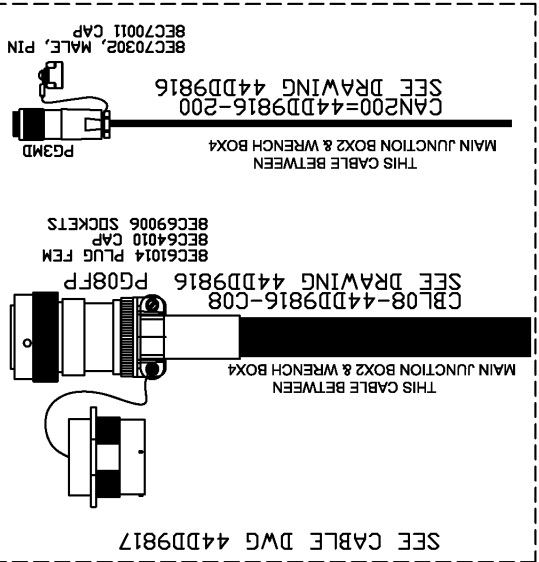
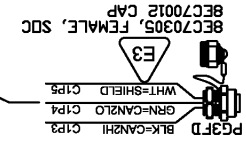
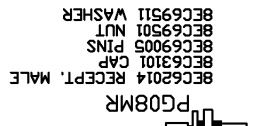
REVISION RECORD

SEE SHEET 1 FOR REVISIONS



CABLE COLOR CODE

PIN	WIRE COLOR
A	RED
B	#10 RED/BLK
C	BLACK
D	050 BLUE
E	BROWN
F	ORANGE
G	YELLOW
H	SPR BLU/BLK



SELECT CORD GRIPS PER SIZE OF CABLE USED,  
SUPPLIERS AND SIZE SUBJECT TO CHANGE WITHOUT NOTICE.

ITEM	PART/DWG	QTY	DESCRIPTION & SIZE OF MAT'L
<p>UNLESS SPECIFIED OTHERWISE:                      ANGLES = 1/16"                      PRACTICAL = 1/8"                      X = 1/10"                      XX = 1/40"                      FINISH = 500 RMS                      MACH. FINISH = 125 RMS                      DO NOT SCALE                      PART NUMBER TO BE STAMPED ON ITEM                      DEBUR AND BREAK ALL SWAP EXCES</p>			
<p>THIS DRAWING IS THE PROPERTY OF AMERICAN AUGERS INC.                      AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO                      OTHERS WITHOUT EXPRESS AUTHORIZATION FROM AMERICAN AUGERS</p>			
<p>AMERICAN AUGERS                      136 U.S. ROUTE 42 P.O. BOX 814 WEST SALEM, OHIO 44287                      TEL: (419) 888-7107 FAX: (419) 888-7425  <a href="http://www.amaugers.com">http://www.amaugers.com</a></p>			
APPROVED			
MEM	SCALE	SHEET NUMBER	BRANDING NUMBER
	N/A	B 3 OF 3	44DD9747
REV			F

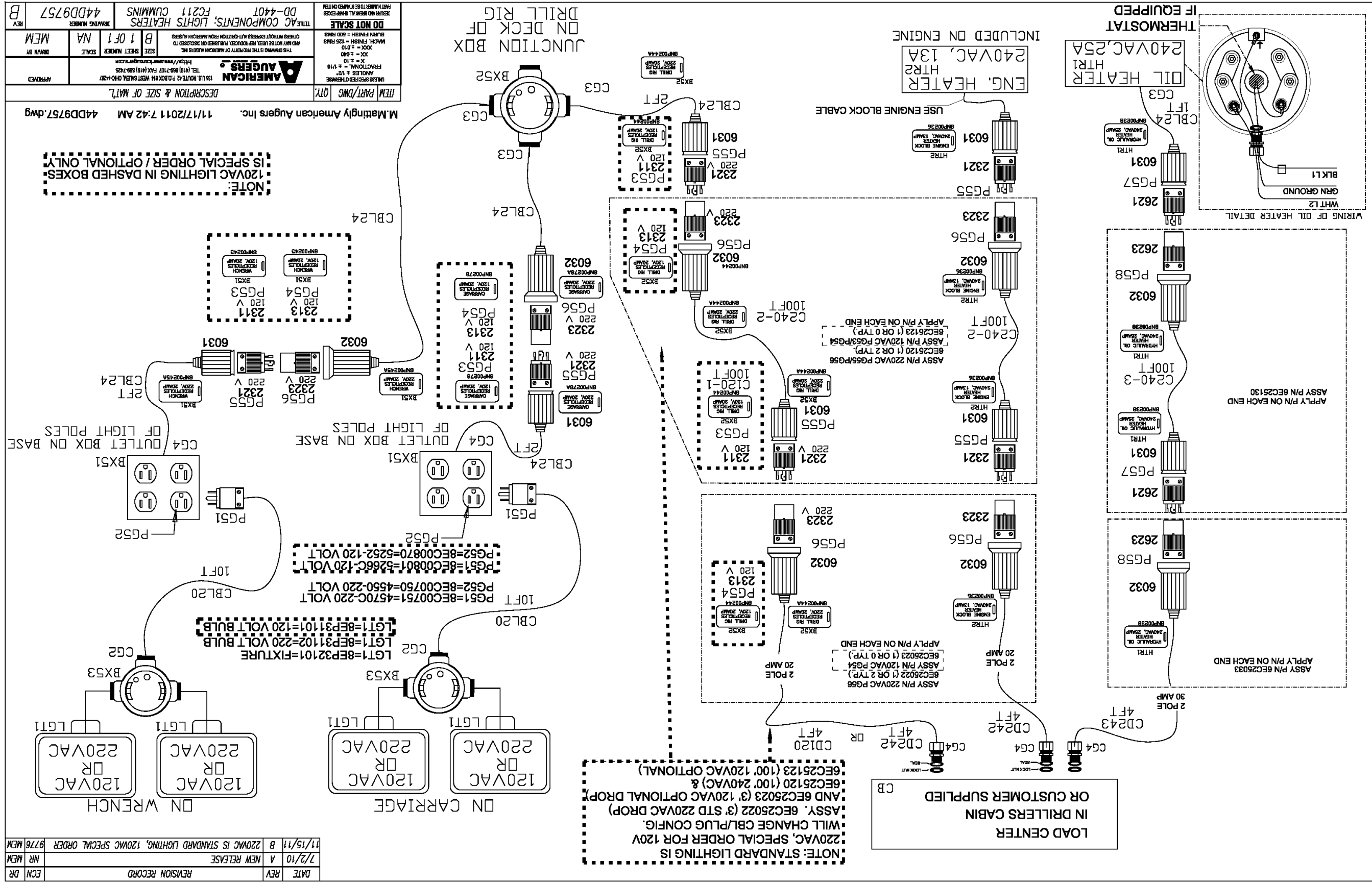


# AC COMPONENTS

**DD-440T**

**AC Components  
Bill of Material Number: 44DD9757**

REF. NO.	PART NO.	QTY	DESCRIPTION
BX52	8EP11302	1	Conduit Box, Explosion Proof
BX52	8NP00244A	1	Nameplate, Drill Rig Receptacle
C240-3	6EC25130	1	Cable
CD243	6EC25033	1	Cable
HTR1	8NP00238	1	Nameplate, Hydraulic Oil Heater
HTR2	8NP00236	1	Nameplate, Block Heater
PG57	8EC02001	1	Plug, Twist-Lock, 2 Pole, 3 Wire Grounded
PG57	8EC09816	1	Boot, Weatherproof
CG3	8EP19007	12	Cord Grip
BX51	8EP11201	2	Conduit Box, Double Gang, 1/2 NPT
BX51	8EP11812	2	Cover, Conduit Box, Double
BX51	8NP00245A	2	Nameplate, Wrench Receptacles
BX51	8NP00278A	2	Nameplate, Carriage Receptacle
BX53	8EP11301	2	Conduit Box, Explosion Proof
C240-2	6EC25120	2	Cable
CD242	6EC25022	2	Cable
CG2	8EP19003	2	Cord Grip
CG4	8EP19004	2	Cord Grip
PG51	8EC00751	2	Plug, Twist-Lock, 2 Pole, 3 Wire, Grounded
PG56	8EC01415	2	Connector, Twist-Lock, 2 Pole, 3 Wire Grounded
PG56	8EC09818	2	Boot, Weatherproof
PG56	8EC01415	2	Connector, Twist-Lock, 2 Pole, 3 Wire Grounded
CBL20	7EC21152	20 ft	Cable, SOOW, 14/3, 18 Amp, 600 Volt
LGT1	8EP32101	4	Light Fixture, 500 Watt Quartz
PG52	8EC00750	4	Duplex, Twist Lock, 2 Pole, 3 Wire, Grounded
PG55	8EC01405	4	Plug, Twist-Lock, 2 Pole, 3 Wire Grounded
PG55	8EC09816	4	Boot, Weatherproof
CBL24	7EC21198	400 ft	Cable, SOOW, 10/3, 30 Amp, 600 Volt
LGT1	8EP31102	8	Bulb, Quartz, 500 Watt, 220 Volt





# CABLES

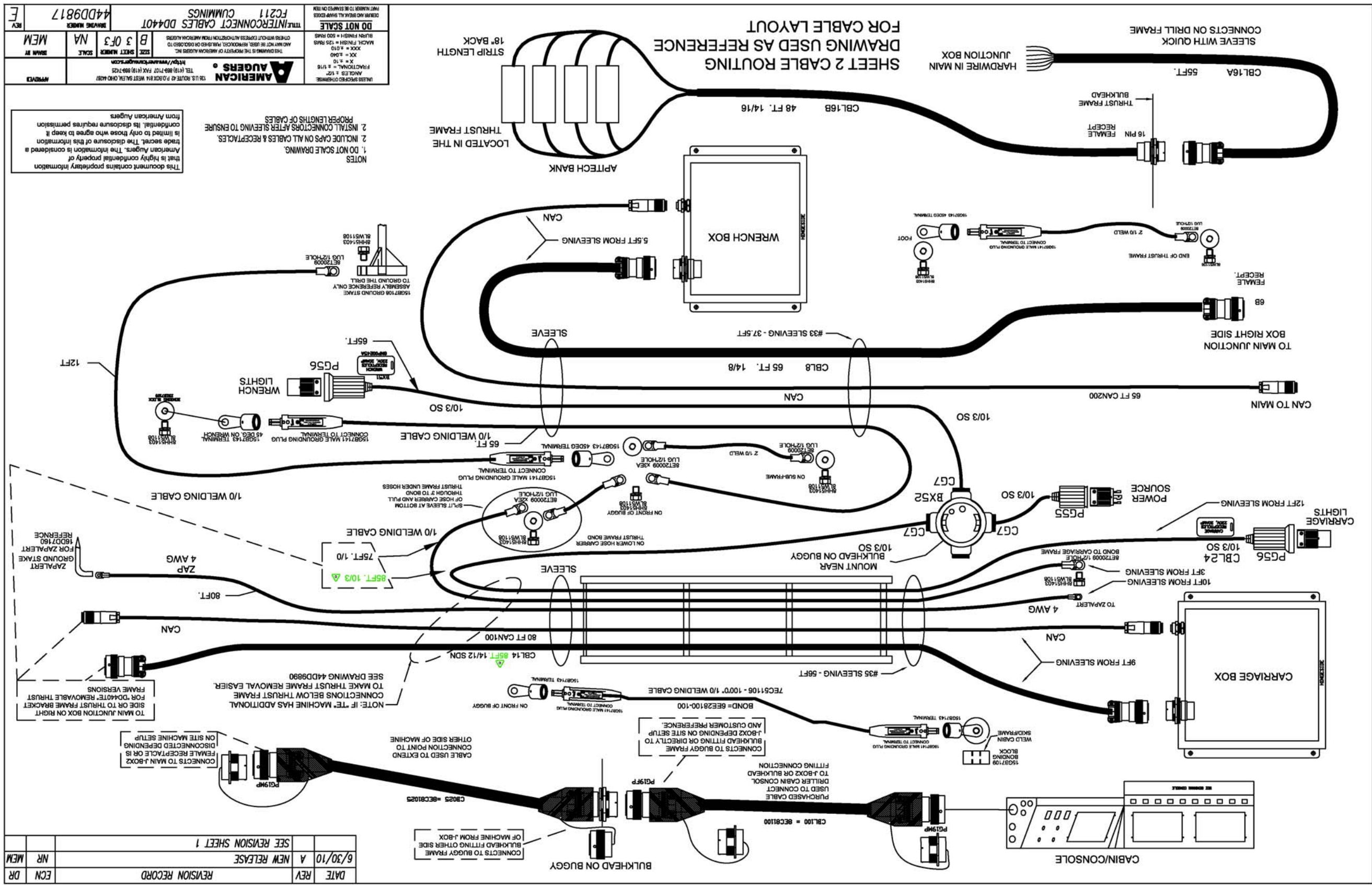
**DD-440T**

**Cables**

**Bill of Material Number: 44DD9817**

REF. NO.	PART NO.	QTY	DESCRIPTION
1/0LUG	8ET20009	6	Lug, 1/0, Crimp, Copper, 1/2 Inch Hole
1/0WLD	7EC51106	100 ft	Cable, Weld, 1/0, Excelene Only, 600 Volt
45LUG	15GB7143	3	Terminal, Bolt
CAN100	44DD9817-103	1	Canbus Cable
CAN200	44DD9817-204	1	Canbus Cable
CBL025	8EC81025	1	Cable Assembly
CBL08	44DD9817-C08	1	Cable, 8 Lead
CBL100	8EC81100	1	Cable Assembly
CBL14	44DD9817-C14	1	Cable, 14 Lead
SLV2	7HB01016	100 in	Sleeve, Hose, Nylon, for -16 Hose
SLV3	7HB01016	100 in	Sleeve, Hose, Nylon, for -16 Hose
TWDCO	15GB7141	2	Plug, Grounding, Male





ECN	DR	MEM	NR	DATE	REV	REVISION RECORD
				6/30/10	A	NEW RELEASE
						SEE REVISION SHEET 1

UNLESS SPECIFIED OTHERWISE  
FRACTIONAL = 1/16  
ANGLE = 15°  
X = 1.0  
X = 10

DO NOT SCALE  
DESIGN AND CHECK ALL DIMENSIONS  
AND MAKE ALL DIMENSIONS  
MATCH FINISH = 325 MILS  
BLIND FINISH = 500 MILS  
OTHERS WITHOUT DIMENSIONS MATCH AMERICAN AUGERS  
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FC211 CUMMINGS  
44DD9817

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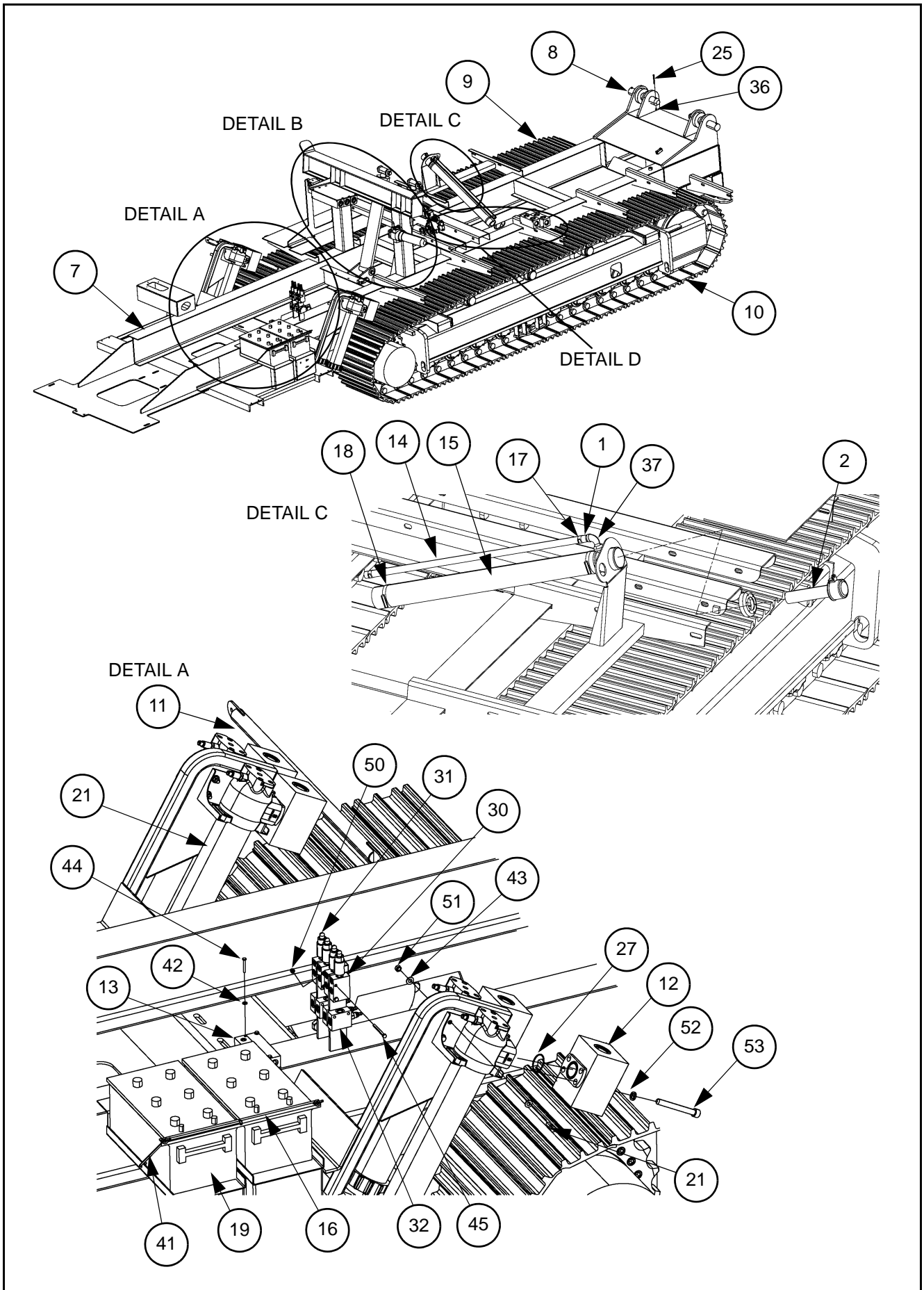
REV: MEM NA  
SCALE: 3 OF 3  
SHEET NUMBER: B

NOTES  
1. DO NOT SCALE DRAWING.  
2. INCLUDE CAPS ON ALL CABLES & RECEPTACLES.  
3. INSTALL CONNECTORS AFTER SLEEVING TO ENSURE  
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# **SUBSTRUCTURE SECTION**

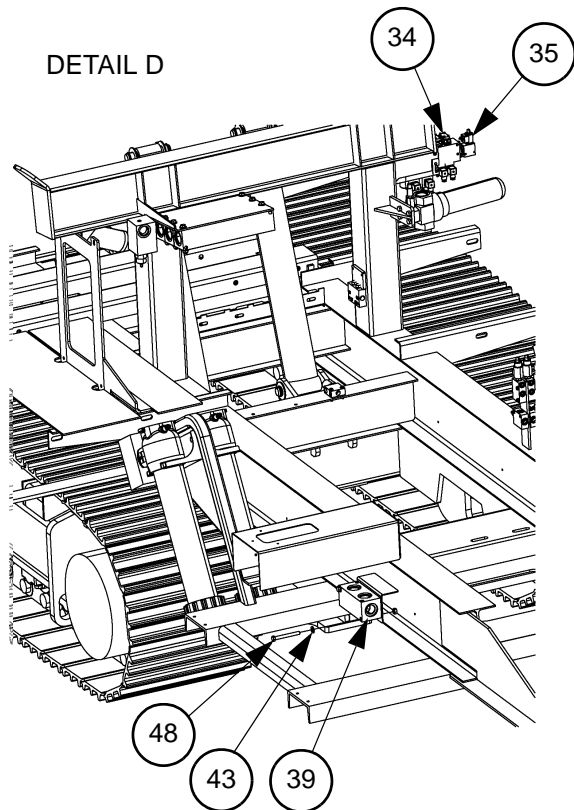
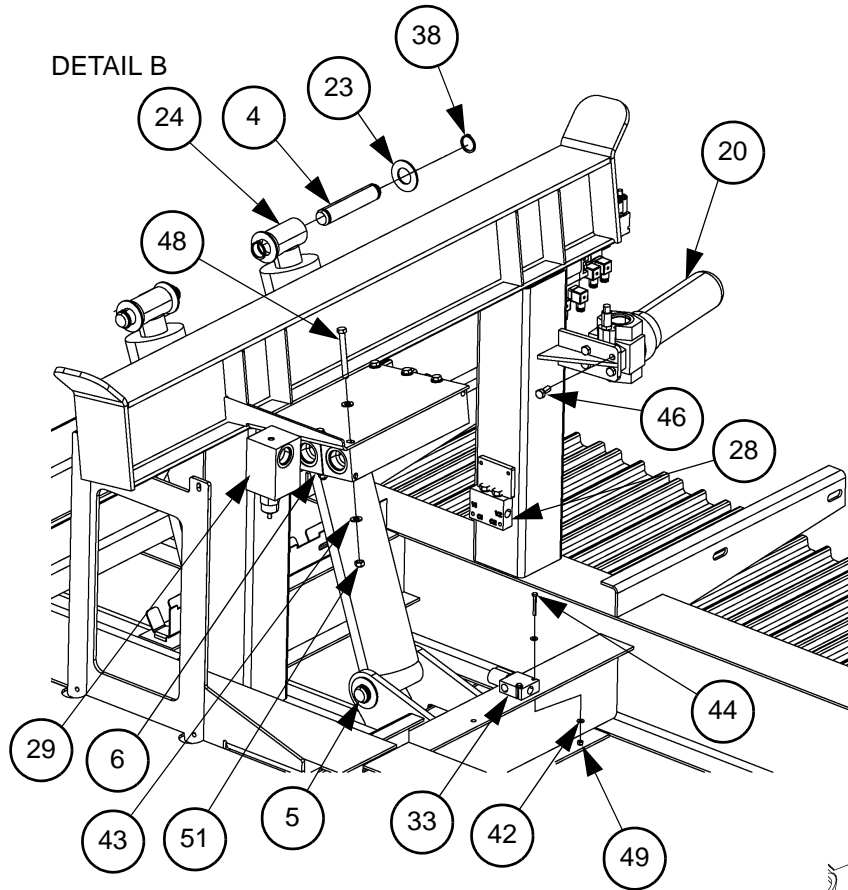
## **UNDERCARRIAGE ASSEMBLY**



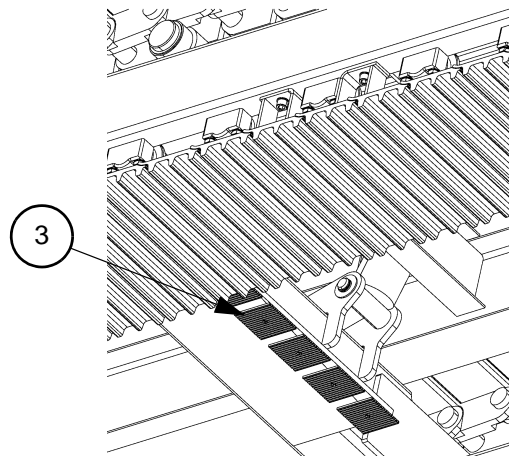
**DD-440T**

**Undercarriage Assembly  
Bill of Material Number: 44DD1203**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	0HP00012	1	Nipple, Combination, 1/2 Inch Male NPT X 3/4 Inch Hose Barb
2	14DD3302	1	Cap, Filter, Pressurized, Vented
7	44DD1205	1	Undercarriage, Weldment
8	44DD1274	2	Pin, Thrust Frame Support
9	44DD1325	1	Crawler, Assembly, Track, Left Hand
10	44DD1326	1	Crawler, Assembly, Track, Right Hand
11	44DD2260	1	Strut, Support Between Frame, Ear and Shroud Ear
12	44DD3216	4	Manifold, Hydraulic, Header, 2 Ports
13	55DD3236	2	Manifold, Header, 0 Degree, 4 Outlet, 2 Inlets
14	7HB13012	40 in	Hose, Hydraulic, 3/4 Inch Suction
15	7HB13148	40 in	Hose, Hydraulic, 3 Inch Suction
16	44DD1204	1	Bracket, Battery Hold Down
17	8CL11011	2	Clamp, Hose
18	8CL15048	2	Clamp, Maxi, 3.39-3.58 Inch Single Bolt
19	8EP01101	-	Battery
21	8FL51003	2	Filter, Hydraulic, 6 Micron Absolute, 6 KPSI
25	8HH51316	4	Screw, Cap, Hex Head, 3/8-16 X 3-3/8 Inch Long
27	8HS52228	4	Seal, O-Ring, Buna-N, -228 Size
30	8HV61107	4	Valve, Pressure Relief, Pilot Operated
31	8HV61303	4	Valve, Relief, Proportional, Solenoid Operated
32	8HV62002	4	Valve, Sequence, Internal Pilot, External Drain
36	8LN51106	4	Nut, Hex Lock, 3/8-16 UNC2B
37	8PE18008	1	Elbow, Pipe, Street, 90 Degree, 1/2 Inch, 150 PSI
41	50MP1559	2	Bolt, Battery Hold Down
42	8FW21104	8	Washer, Flat, 1/4N
43	8FW21108	30	Washer, Flat, 1/2N
44	8HH51209	6	Screw, Cap, Hex Head, 1/4-20 X 2 Inch Long
45	8HH51264	4	Screw, Cap, Hex Head, 5/16-18 X 3-1/4 Inch Long
47	8HH51407	8	Screw, Cap, Hex Head, 1/2-13 X 1-1/2 Inch Long
50	8LN51105	4	Nut, Hex Lock, 5/16-18 UNC2B
51	8LN51108	14	Nut, Hex Lock, 1/2-13 UNC2B
52	8LW81112	16	Washer, Lock, Split, 3/4 Inch High Collar
53	8SH81571	16	Screw, Cap, Socket Head, 3/4-10 X 6 Inch Long



Underside of Undercarriage



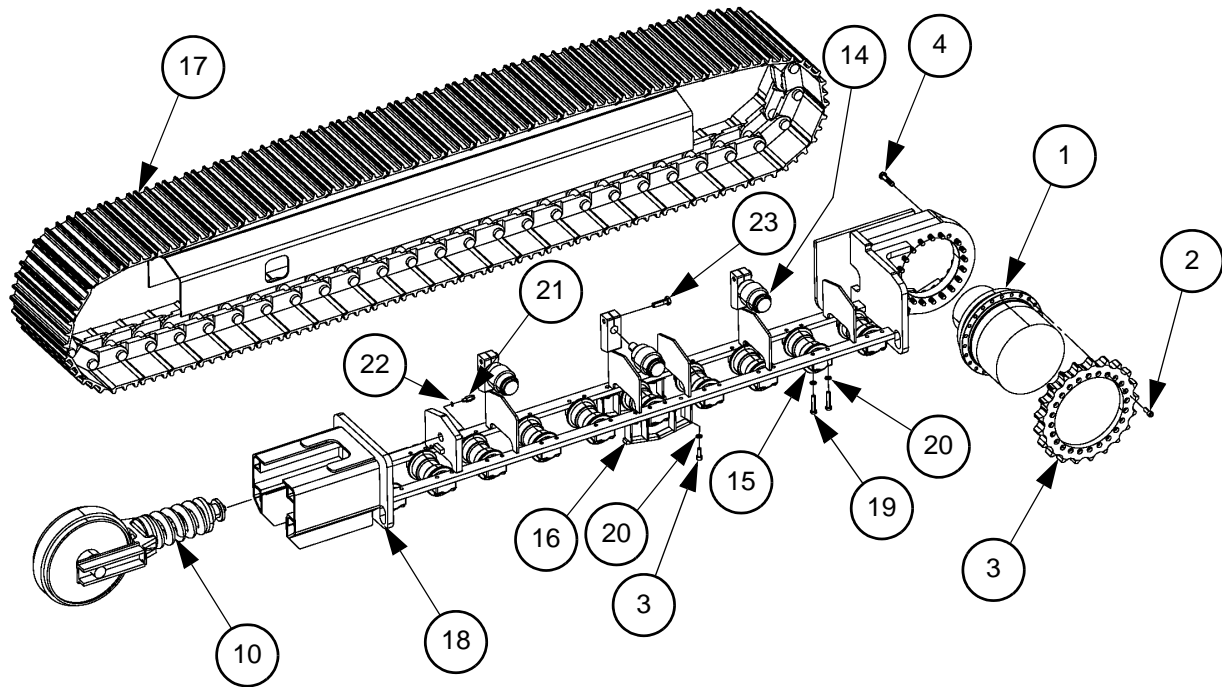
## DD-440T

**Undercarriage Assembly (Continued)**  
**Bill of Material Number: 44DD1203**

REF. NO.	PART NO.	QTY	DESCRIPTION
3	24DD1230	10	Pad, Anti-Vibration
4	24DD1279	2	Pin, Upper, Lift Cylinder
5	24DD1294	2	Pin, Lift Cylinder, Lower
6	33DD3215	3	Manifold, Header, 0 Degree, 4 Outlet, Dual Inlet
20	8FL20015	1	Filter, Hydraulic, 600 PSI, 6 Micron
23	8FW22124	8	Washer, Flat, 1-1/2W
24	8HC50030	2	Cylinder, Hydraulic, 5 Inch Bore X 30 Inch SAE Ports
28	8HV32002	1	Valve, Check, Dual
29	8HV61015	1	Valve, Pressure Relief, 25-400 PSI, 200 GPM
33	8HV80181	1	Valve, Directional, Cartridge, 3-Way, 2-Position, Solenoid
34	8HV80182	1	Valve, Directional, Electric/Hydraulic, Prop, 4-Spool
35	8HV80288	1	Valve, Poppet, 2-Way, N.C., Solenoid Operated
38	8SR30024	8	Snap Ring, External
39	DD1032010	2	Manifold, Header, 0 Degree, 2 Outlet, Dual Inlet
42	8FW21104	8	Washer, Flat, 1/4N
43	8FW21108	30	Washer, Flat, 1/2N
44	8HH51209	6	Screw, Cap, Hex Head, 1/4-20 X 2 Inch Long
46	8HH51406	4	Screw, Cap, Hex Head, 1/2-13 X 1-1/4 Inch Long
48	8HH51418	8	Screw, Cap, Hex Head, 1/2-13 X 4-1/2 Inch Long
49	8LN51104	2	Nut, Hex Lock, 1/4-20 UNC2B
51	8LN51108	14	Nut, Hex Lock, 1/2-13 UNC2B



# CRAWLER ASSEMBLY





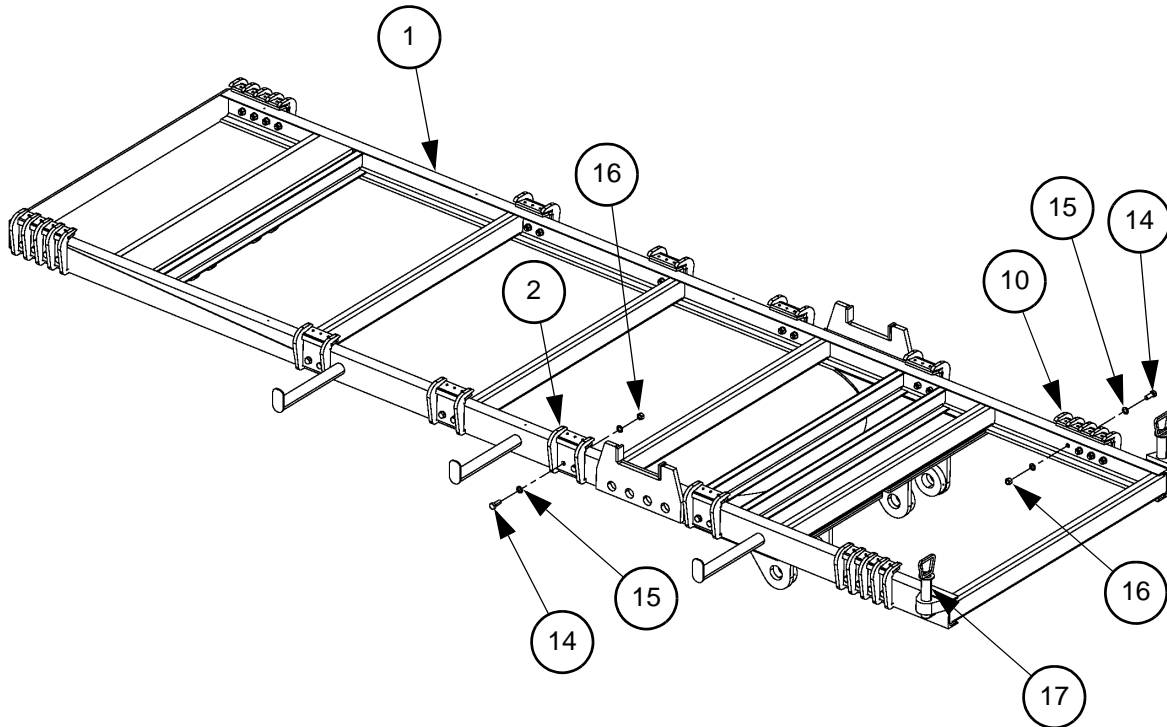
**DD-440T**

**Track Crawler Assembly - Left and Right  
Bill of Material Number: 44DD1325 and 44DD1326**

REF. NO.	PART NO.	QTY	DESCRIPTION
1	8GB85023	1	Gearbox, Planetary with Motor and Load Valve
2	8GB85023-1	1	Sprocket, Track Drive
3	8SH95527	28	Screw, Socket Head, M20 X 2.5 X 50 mm
4	8HH95625	20	Screw, Cap, Hex Head, M24 X 3 X 100 mm
10	22DD1140	1	Idler, Front, Spring and Adjuster
14	24DD1257	3	Top Carrier Roller Assembly
15	24DD1255	10	Roller Group
16	24DD1305	2	Center Guide
17	24DD1247	1	Link Chain and Grouzer Assembly
18	44DD1321	1	Crawler, Weldment, Track, Left Hand
	44DD1322	1	Crawler, Weldment, Track, Right Hand
19	8HH65583	40	Screw, Cap, Hex Head, M20 X 2.5 X 100 mm
20	8FW21112	44	Washer, Flat, 3/4N
21	30GB2412-1	1	Fitting, Grease, Giant Button
22	30GB2412-2	1	Washer, Copper Seal
23	8HH51665	3	Screw, Cap, Hex Head, 1-8 X 3-1/2 Inch Long



# SUBFRAME ASSEMBLY



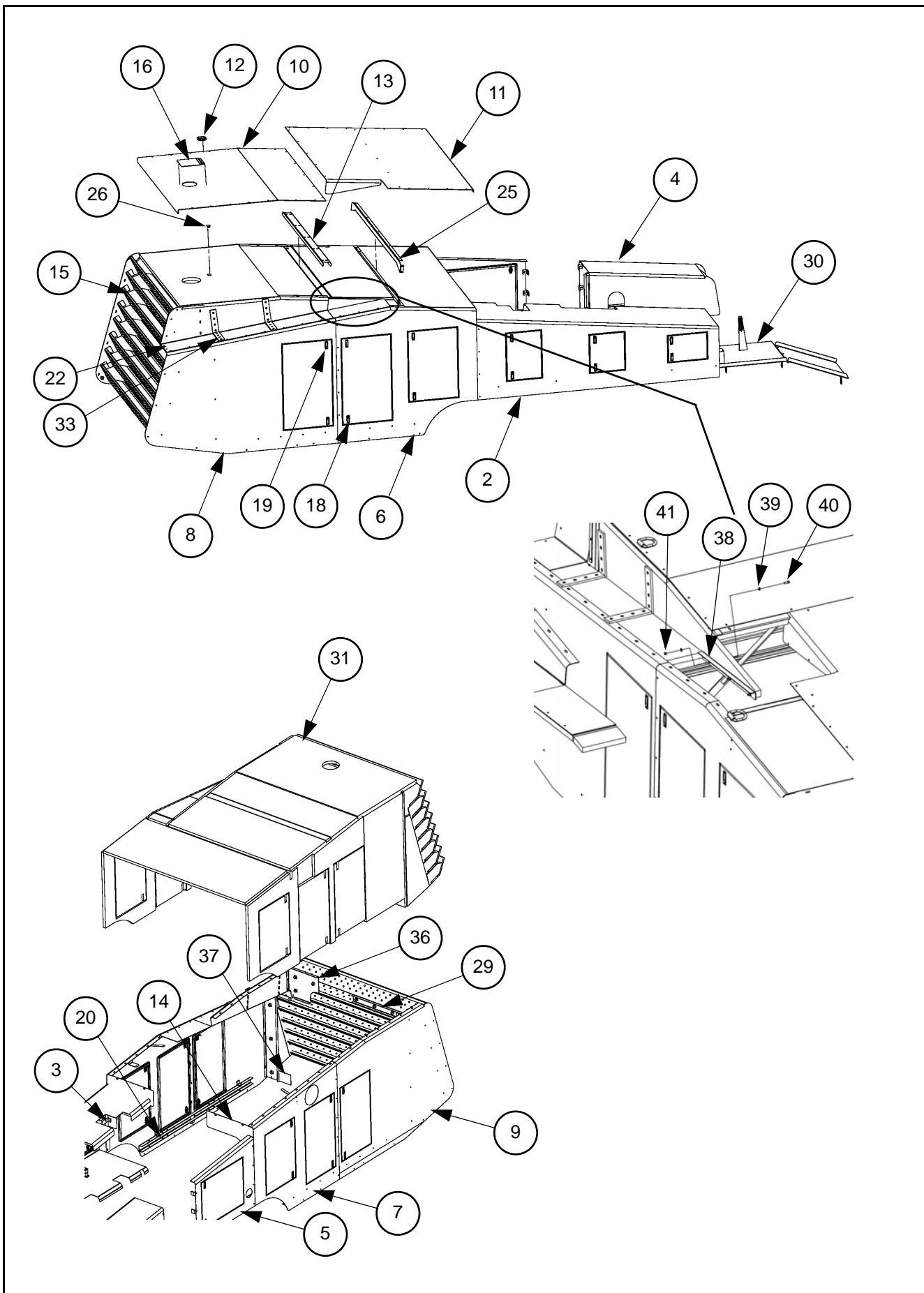
**DD-440T**

**Subframe Assembly  
Bill of Material Number: 33DD2246**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	33DD2245	1	Weldment, Subframe
2	44DD2250	8	Hookpad, UHMW, Short
10	44DD2251	4	Hookpad, UHMW, Long
14	8HH51559	32	Screw, Cap, Hex Head, 3/4-10 X 2 Inch Long
15	8FW21112	60	Washer, Flat, 3/4N
16	8LN51112	28	Nut, Hex Lock, 3/4-10 UNC2B
17	44DD2203	2	Pin, Subframe to Frame, Side



# ENCLOSURE ASSEMBLY





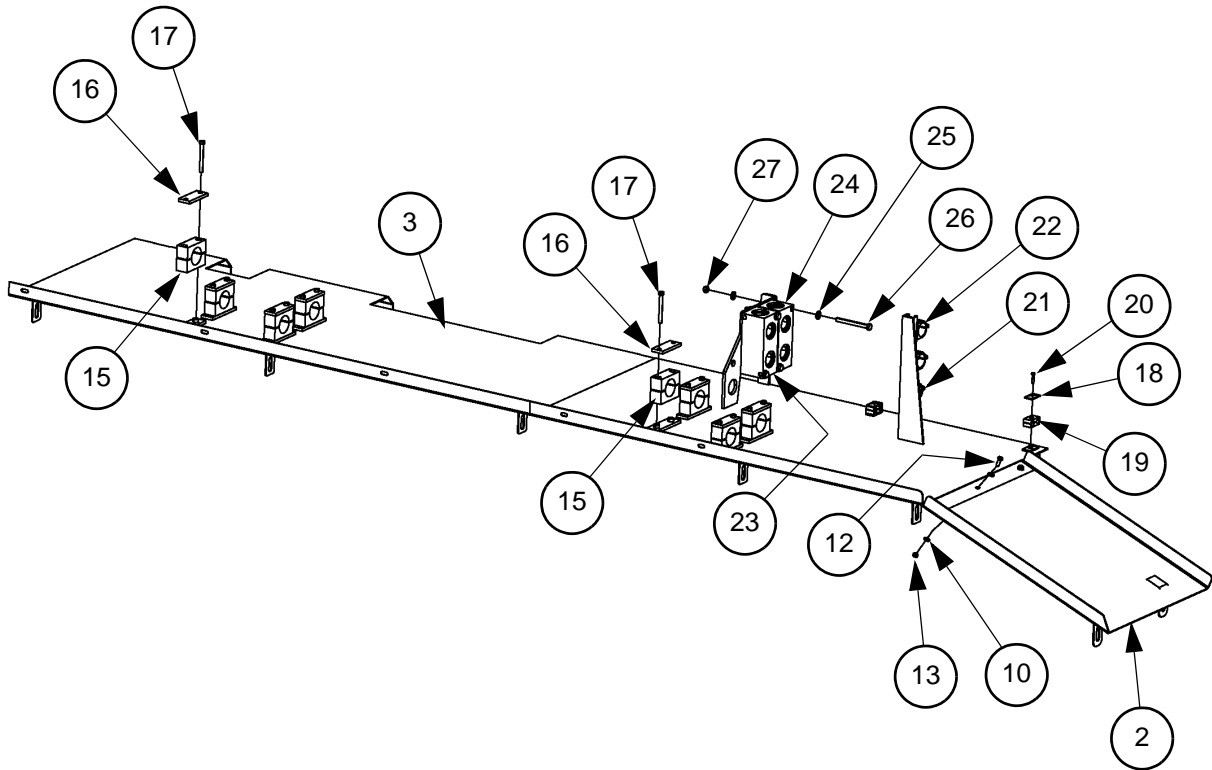
**DD-440T**

**Enclosure Assembly  
Bill of Material Number: 44DD5383**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
2	33DD5385	1	Shroud, Weldment, Hose Cover
3	9173265	2	Angle
4	33DD5331	1	Compartment, Assembly, Forward
5	33DD5324	1	Panel, Filler
6	44DD5344	1	Side, Right Hand, Engine Enclosure
7	44DD5323	1	Side, Left Hand, Engine Enclosure
8	44DD5374	1	Side, Right Hand, Rear, Weldment
9	44DD5373	1	Side, Left Hand, Rear, Weldment
10	44DD5378	1	Top, Engine Enclosure
11	33DD5339	1	Top, Front, Engine Enclosure
12	25GB380001-1	4	D-Ring for Trailer
13	33DD5342	1	Channel, Top
14	33DD5347	2	Panel, Shroud, Front
15	33DD5376	1	Grill Weldment
16	44DD5347	1	Door, Radiator Fill
18	14DD2302	7	Latch, Raised Trigger with Lock
19	14DD2303	7	Latch, Raised Trigger without Lock
20	24DD5336	1	Channel, Support, Shroud
22	33DD5375	1	Side Step, Engine Enclosure
24	44DD5377	1	Bottom, Engine Shroud (not visible)
25	24DD5340	1	Support, Enclosure, Weldment
26	24DD5361	75	Anchor, Acoustical, Foam
28	44DD5343	1	Panel, Filler, Right Hand
29	44DD5348	1	Panel, Filler
30	44DD5307	1	Tray, Hose, Assembly
31	44DD5400	1	Foam Installation
33	66DD2273	4	Pad, UHMW, Hookpad, Subframe
34	44DD5302	1	Support Assembly, Shroud (not visible)
35	7ES07401	1	Tape, Acrylic, Foam, 45 Mil Thick
36	44DD5350	1	Panel, Filler, Top Right
37	44DD5349	2	Panel, Filler, Lower
38	44DD5322	1	Angle for Top Front Enclosure [from DD440TD0301114]
39	8FW21106	6	Washer, Flat, 3/8N [from DD440TD0301114]
40	8HH51305	3	Screw, Cap, Hex Head, 3/8-16 X 1" [from DD440TD0301114]
41	8HN51106	3	Nut, Hex, 3/8-16 UNC [from DD440TD0301114]



# HOSE TRAY ASSEMBLY

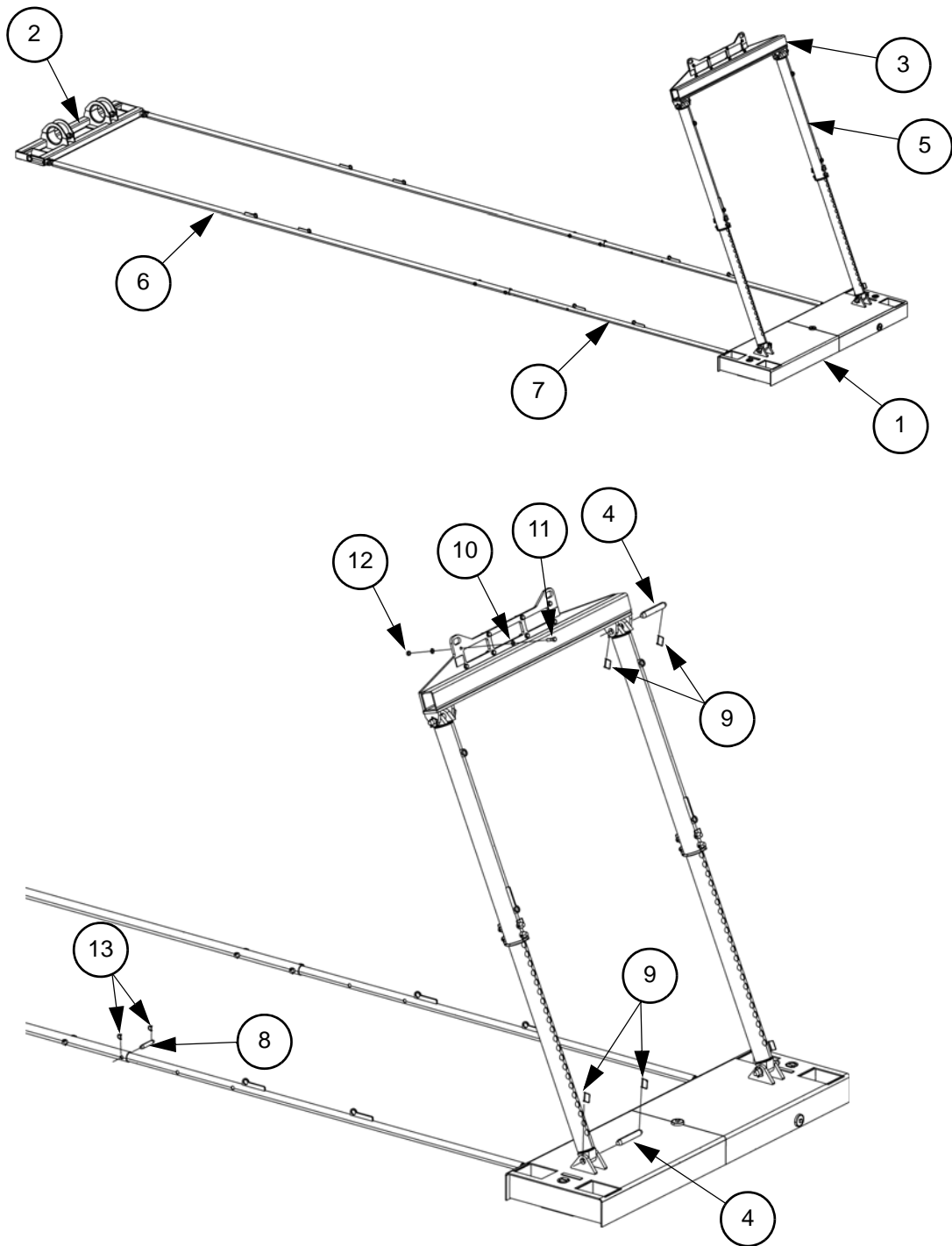


**DD-440T****Hose Tray Assembly  
Bill of Material Number: 44DD5307**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
2	33DD5335	1	Tray, Weldment, Hose, Extension
3	44DD5305	1	Tray Weldment
10	8FW21106	6	Washer, Flat, 3/8N
12	8HH51305	3	Screw, Cap, Hex Head, 3/8-16 X 1 Inch Long
13	8LN51106	3	Nut, Hex Lock, 3/8-16 UNC2B
15	8CL21640	8	Clamp Half, Set of 2, 2 Inch Pipe
16	8CL21104	8	Single Cover Plate
17	8HH51367	16	Screw, Cap, Hex Head, 7/16-14 X 4 Inch Long
18	8CL21201	2	Twin Cover Plate
19	8CL21704	2	Clamp Half, Set of 2, 2-5/8 Inch Tubes
20	8HH51206	2	Screw, Cap, Hex Head, 1/4-20 X 1-1/4 Inch Long
21	8CL25016	1	Clamp, Assembly, Cushion, 1-1/2 Inch Inside Diameter
22	8CL25020	2	Clamp, Assembly, Cushion, 1.875 Inch Inside Diameter
23	DD1032010	1	Manifold, Header, 0 Degree, 2 Outlet, Dual Inlet
24	DD1032011	1	Manifold, Header, 0 Degree, 2 Outlets, Dual Inlets
25	8FW21108	8	Washer, Flat, 1/2N
26	8HH51419	4	Screw, Cap, Hex Head, 1/2-13 X 5 Inch Long
27	8LN51108	4	Nut, Hex Lock, 1/2-13 UNC2B



# SET UP ASSEMBLY





**DD-440T**

**Set Up Assembly  
Bill of Material Number: 44DD1700**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	33DD1701	1	Foot, Rear, Weldment
2	33DD1702	1	Foot, Front, Weldment
3	33DD1703	1	End Plate Assembly
4	33DD1704	4	Pin, Front-Rear Strut
5	44DD1705	2	Strut, Lock, Assembly, Long
6	DD1M3870	2	Strut Weldment, Front
7	DD1M3871	2	Strut Weldment, Rear
8	DD1M3872	8	Pin, Strut, Short
9	8CP50803	8	Pin, Safety, Snap, 5/16 Diameter X 3 Inch Usable
10	8FW21116	16	Washer, Flat, 1N
11	8HH81665	8	Screw, Cap, Hex Head, 1-8 X 3-1/2 Inch Long
12	8LN51116	8	Nut, Hex Lock, 1-8 UNC2B
13	8CP50801	16	Pin, Lynch, 1/4 Inch Diameter X 4 Inch Usable Length

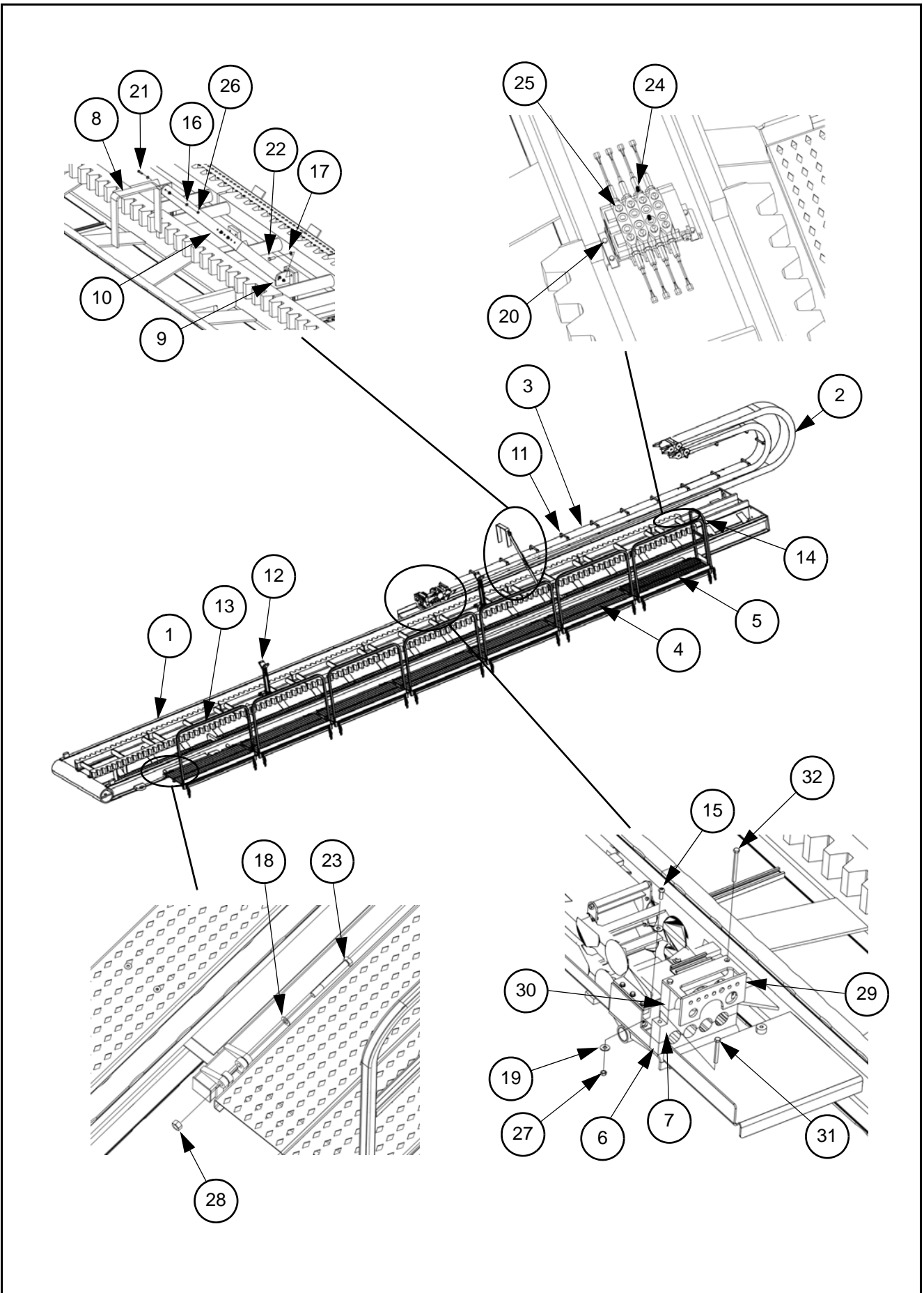


**NOTES**

A large rectangular area containing 25 horizontal lines for taking notes.

# DRILL FRAME SECTION

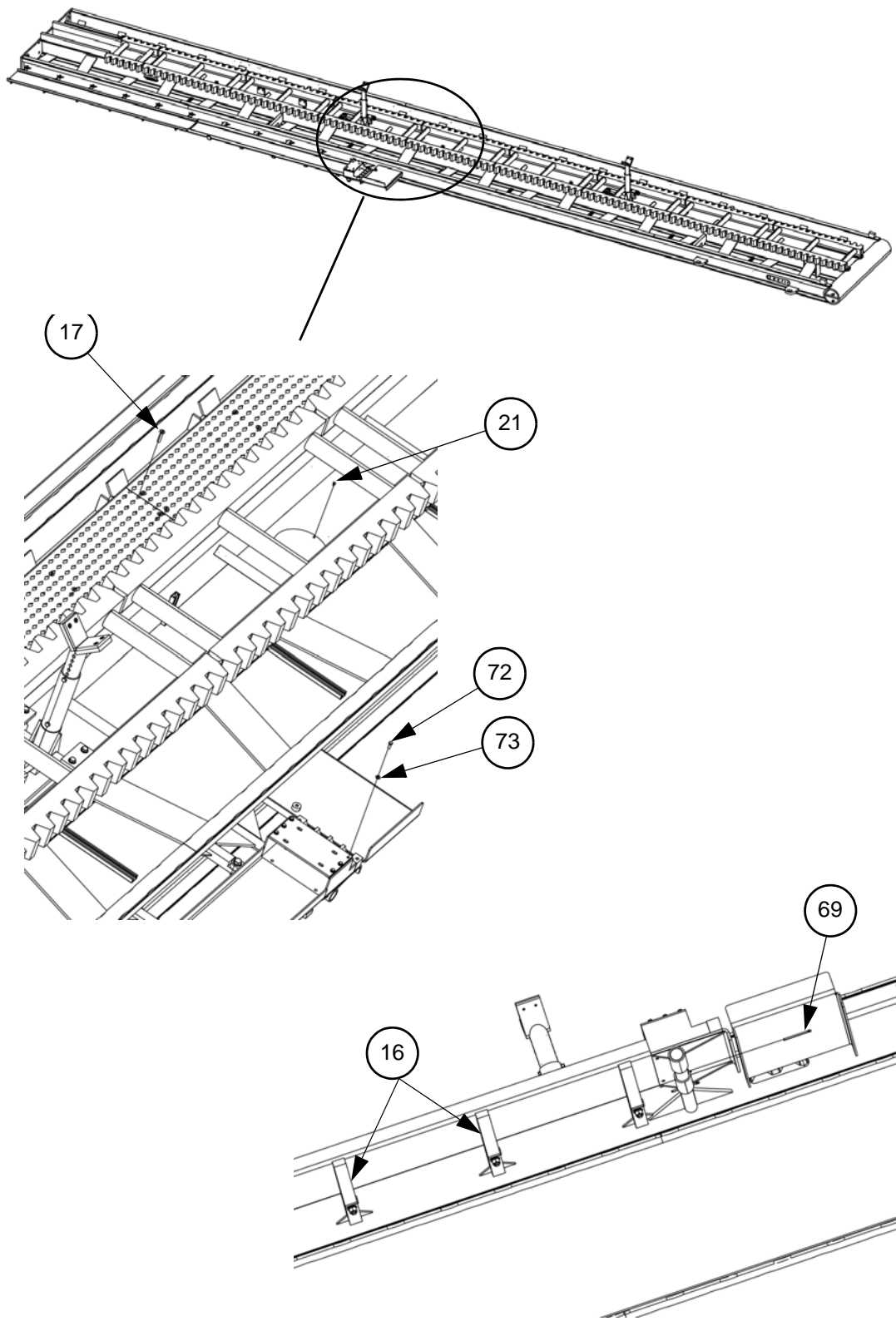
## THRUST FRAME ASSEMBLY



**DD-440T**

**Thrust Frame Assembly  
Bill of Material Number: 44DD2017**

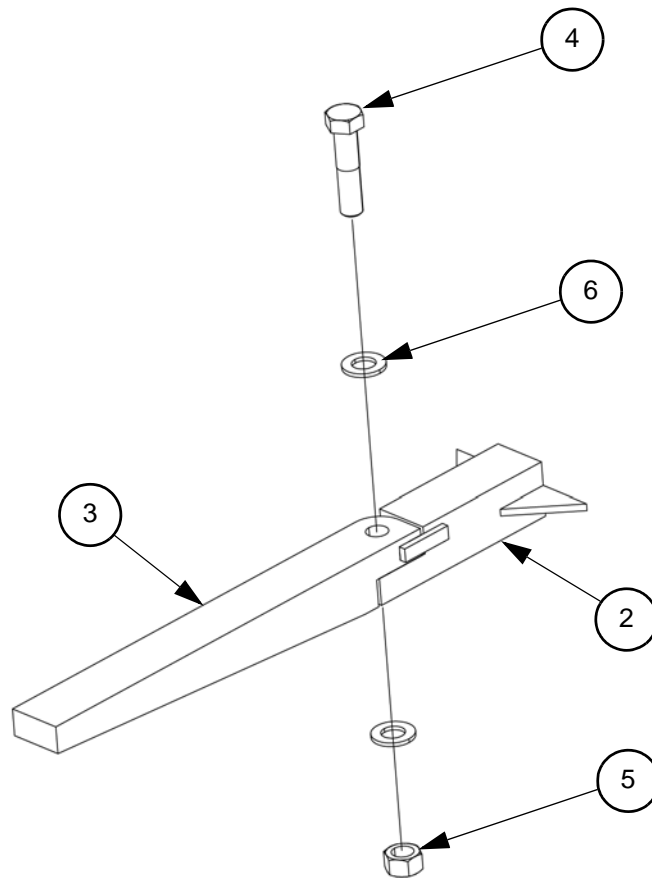
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	44DD2018	1	Thrustframe, Weldment
2	44DD2019	1	Hose Carrier, 52 Links
3	44DD2020	1	Hose Carrier, 47 Links
4	44DD2022	6	Walkway
5	44DD2023	1	Walkway, End
6	44DD2403	1	Clamp, Hose Carrier, Lower
7	44DD2404	1	Clamp, Hose Carrier, Upper
8	33DD2495	1	Support, Hose Carrier
9	33DD2496	1	Support, Lower Hose Carrier
10	33DD2497	2	Adjust, Support, Hose Carrier
11	33DD4810	15	U-Bracket Assembly
12	66DD2030	2	Installation, Drill Rod Support
13	DD1M2058	7	Railing, Walkway Weldment
14	DD1M2064	1	Railing, Walkway Support
15	8BH81407	8	Screw, Button Head 1/2-13 X 1-1/2 Inch Long
16	8FW21106	16	Washer, Flat, 3/8N
17	8FW21109	2	Washer, Flat, 9/16N
18	8FW21112	42	Washer, Flat, 3/4N
19	8FW22108	16	Washer, Flat, 1/2W
20	8HH51305	4	Screw, Cap, Hex Head, 3/8-16 X 1 Inch Long
21	8HH51308	6	Screw, Cap, Hex Head, 3/8-16 X 1-3/4 Inch Long
22	8HH51457	2	Screw, Cap, Hex Head, 9/16-12 X 1-1/2 Inch Long
23	8HH81573	14	Screw, Cap, Hex Head, 3/4-10 X 6-1/2 Inch Long
24	8HV80020-1	2	Port, Relief, 1150 PSI
25	8HV80148	1	Valve, Directional, Electric/Hydraulic, Prop, 4-Spool
26	8LN51106	10	Nut, Hex Lock, 3/8-16 UNC2B
27	8LN51108	8	Nut, Hex Lock, 1/2-13 UNC2B
28	8LN51112	14	Nut, Hex Lock, 3/4-10 UNC2B
29	44DD2016	1	Hose Clamp, Top Assembly
30	44DD2405	1	Plate, Hose Clamp
31	8HH51417	2	Screw, Cap, Hex Head, 1/2-13 X 4 Inch Long
32	8HH51420	2	Screw, Cap, Hex Head, 1/2-13 X 5-1/2 Inch Long



**DD-440T**

**Thrust Frame Weldment  
Bill of Material Number: 44DD2018**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
16	33DD2441	5	Assembly, Swing-Away Hose Carrier
17	8FS81412	46	Screw, Flat Head, Socket Head, 1/2-13 X 2-1/2 Inch Long
21	8HH51201	6	Screw, Cap, Hex Head, 1/4-20 X 1/2 Inch Long
69	8CP10811	2	Pin, Cotter, 1/4 Inch Diameter X 4 Inch Long
72	8HH51306	6	Screw, Cap, Hex Head, 3/8-16 X 1-1/4 Inch Long
73	8FW21106	6	Washer, Flat, 3/8N

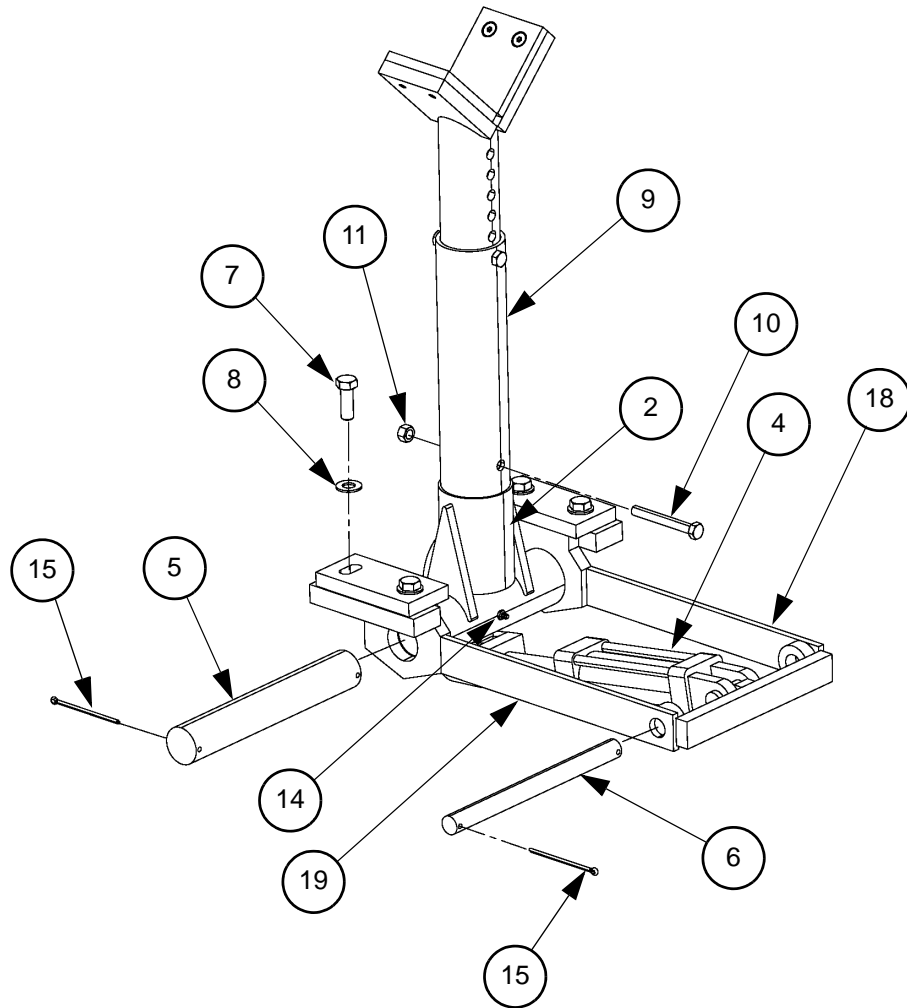




**DD-440T**

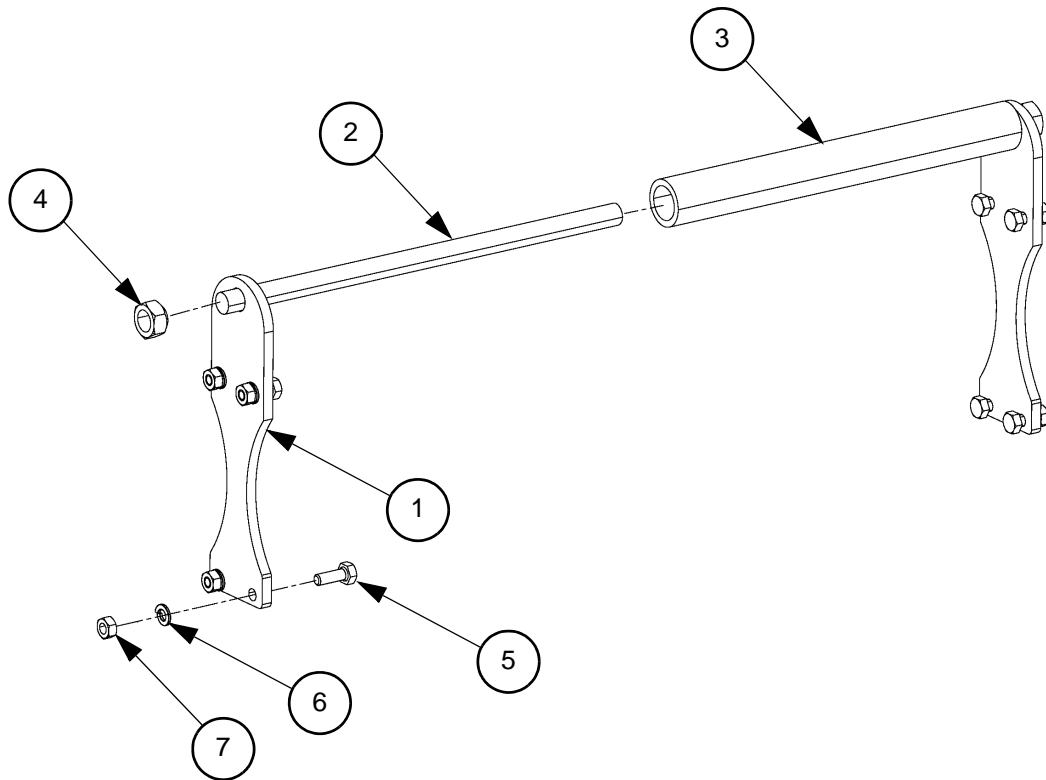
**Swingaway Hose Carrier Assembly**  
**Bill of Material Number: 33DD2441**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
2	33DD2442	1	Inner, Hose Carrier Bracket
3	33DD2443	1	Outer, Hose Carrier Bracket
4	8HH81564	1	Screw, Cap, Hex Head, 3/4-10 X 3-1/4 Inch Long
5	8LN51112	1	Nut, Hex Lock, 3/4-10 UNC2B
6	8FW21112	2	Washer, Flat, 3/4N



**DD-440T****Pipe Support Assembly  
Bill of Material Number: 66DD2030**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
2	9172140	1	Weldment, Support Arm
4	242032	1	Cylinder, Hydraulic, 2 Inch Bore X 4 Inch Stroke, 2500 PSI
5	55DD2036	1	Pivot Pin, Support Arm
6	55DD2037	1	Bar
7	8HH51508	4	Screw, Cap, Hex Head, 5/8-11 X 1-3/4 Inch Long
8	8FW21110	4	Washer, Flat, 5/8N
9	66DD2032	1	Adjustable, Rod Support
10	8HH51417	1	Screw, Cap, Hex Head, 1/2-13 X 4 Inch Long
11	8HN51108	1	Nut, Hex, 1/2-13 UNC
14	8PP00100	1	Fitting, Lube, 1/8 NPT X 11/16 Inch Long
15	8CP10612	4	Pin, Cotter, 3/16 Inch Diameter X 4 Inch Long
18	66DD2035	1	Weldment, Support Hanger, Left Hand
19	66DD2036	1	Weldment, Support Hanger, Right



**DD-440T**

**Top U-Bracket Assembly**  
**Bill of Material Number: 33DD4810**

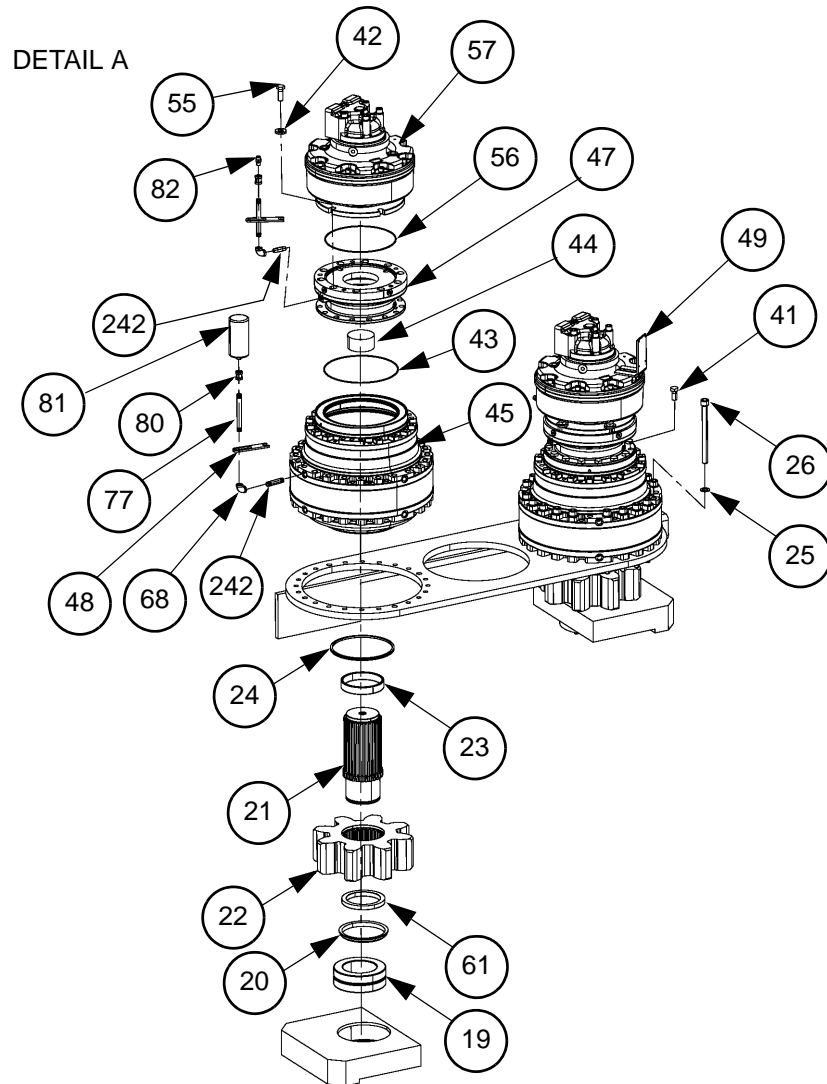
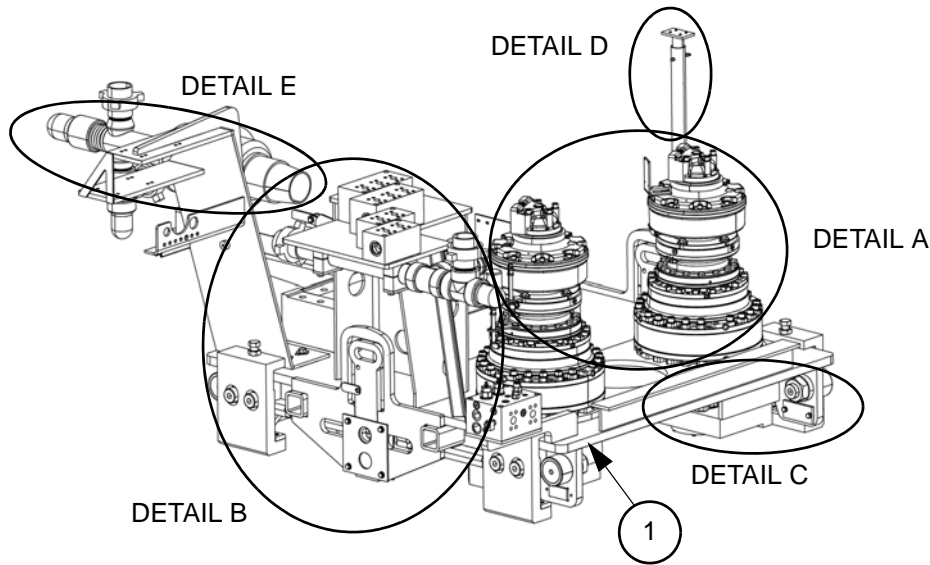
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	33DD4811	2	Extension Bar
2	55DD4805-2	1	Rod, Roller
3	55DD4805-3	1	Roller, Top Hose Carrier
4	8LN51108	2	Nut, Hex Lock, 1/2-13 UNC2B
5	8HH51203	8	Screw, Cap, Hex Head, 1/4-20 X 3/4 Inch Long
6	8LW51104	8	Washer, Lock, Split, 1/4 Inch Regular
7	8HN41104	8	Nut, Hex, 1/4-20 UNC



NOTES

A large rectangular box with a black border, containing 25 horizontal lines for writing notes.

# CARRIAGE ASSEMBLY



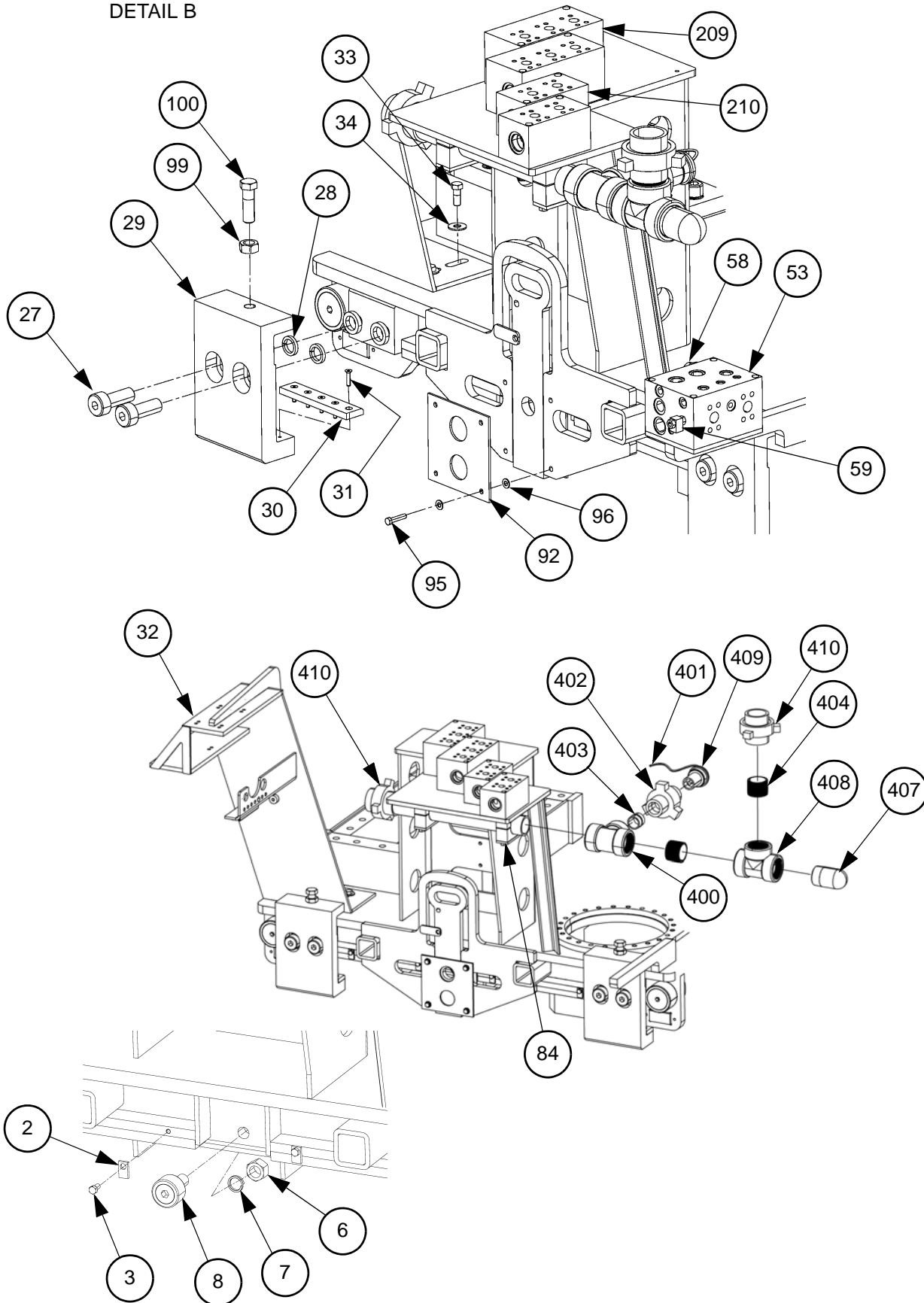


**DD-440T**

**Carriage Assembly  
Bill of Material Number: 44DD4111**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	33DD4110	1	Carriage, Weldment
19	8CF40014	2	Bearing, Spherical Roller
20	88DD4052	2	Seal, Lip, Lower Pinion
21	88DD4057	2	Bar, Spline, Pinion Drive, 350 mm
22	44DD4020	2	Pinion, Drive, Carriage
23	88DD4051	2	Spacer, Spline, Pinion, Upper
24	88DD4050	2	Seal, V-Ring, Upper Pinion
25	8FW21112	40	Washer, Flat, 3/4N
26	8SH95534	40	Screw, Socket Head, M20 X 2.5 X 220 mm Long
41	8HH65740	30	Screw, Cap, Hex Head, M18 X 2.5 X 40 mm Long
42	8FW25518	10	Washer, Flat, 18 mm, 43 mm OD X 19 mm ID X 7.5 mm Thick
43	8HS51276	2	Seal, O-Ring, Buna-N, -276 Size
44	8GB80096-2	2	Kit, Brake, Adaptor
45	8GB80096	2	Gearbox, Planetary
47	8GB90029	2	Brake, Spring Apply, Hydraulic Release
48	58DD4058	4	Bracket, Over Flow Tube
49	58DD4059	1	Bracket, E-Stop
55	8HH65750	10	Screw, Cap, Hex Head, M18 X 2.5 X 50 mm Long
56	8HS51275	2	Seal, O-Ring, Buna-N, -275 Size
57	8HM60031	2	Motor, Hydraulic, 1017 cc, Variable Displacement
61	88DD4054	2	Spacer, Spline, Pinion, Lower
68	8PE19006	4	Elbow, Pipe, 90 Degree, 3/8 Inch, 150 PSI
77	8PN20606	4	Nipple, Pipe, 3/8 NPT X 6 Inch Long
80	8PC21006	4	Coupling, Pipe, 3/8 NPT
81	8GB85006-1	2	Tank, Expansion
82	8GB85009-04	2	Breather, 3/8 Inch
242	8PN20601	4	Nipple, Steel, 3/8 NPT X 2 Inch Long

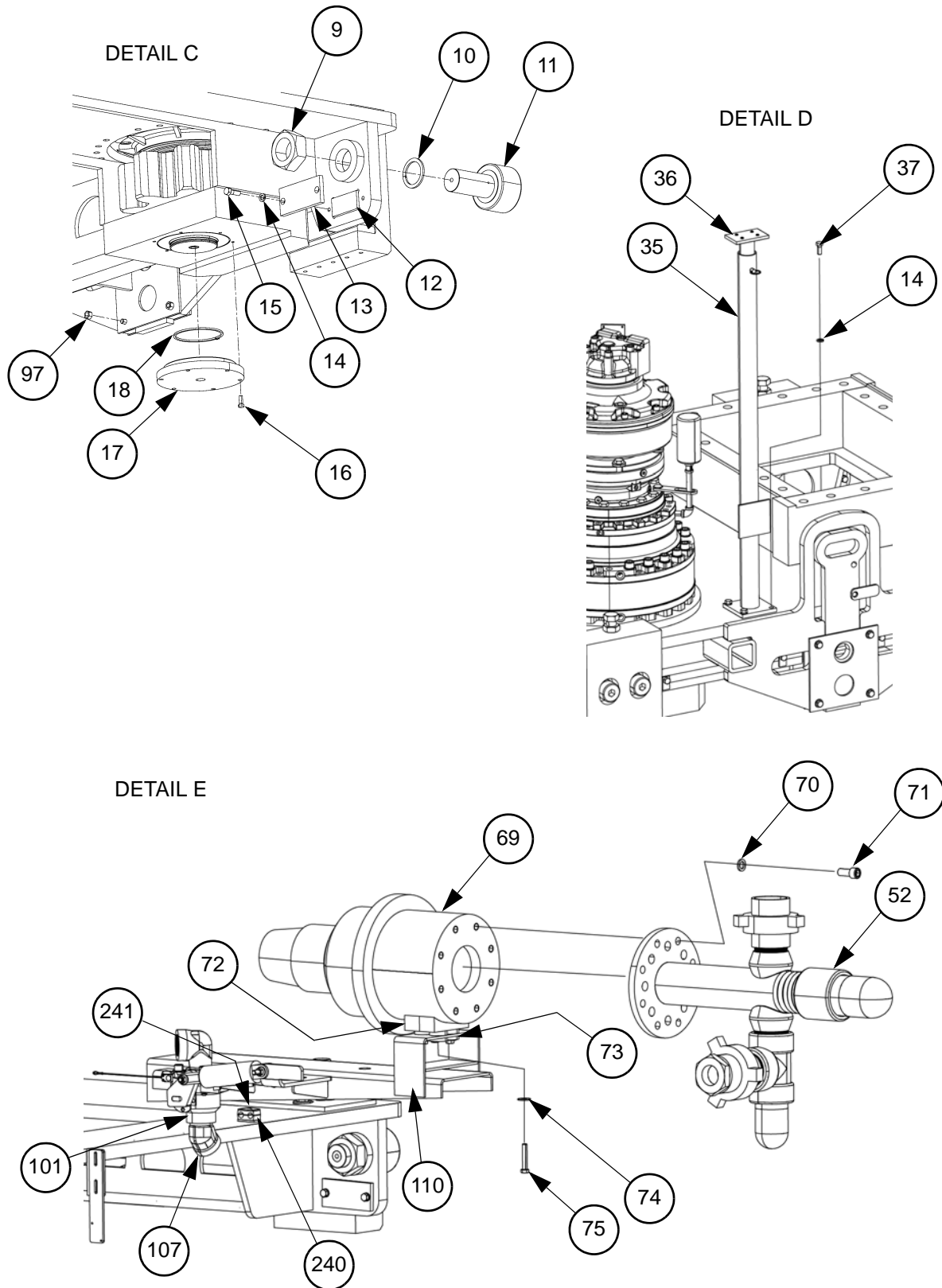
DETAIL B



**DD-440T**

**Carriage Assembly (Continued)**  
**Bill of Material Number: 44DD4111**

REF. NO.	PART NO.	QTY	DESCRIPTION
2	33DD4046	8	Tab, UHMW, Holder
3	8HH51405	8	Screw, Cap, Hex Head, 1/2-13 X 1 Inch Long
6	8HN52120	2	Nut, Hex, 1-1/4-12 UNF
7	8LW51120	2	Washer, Lock, Split, 1-1/4 Inch
8	8CF30048	2	Bearing, Cam Follower, 3 Inch Diameter
27	8SH81792	8	Screw, Cap, Socket Head, 1-1/2-6 X 4 Inch Long
28	8LW81124	8	Washer, Lock, Split, 1-1/2 Inch
29	44DD4023	4	Hookpad, Carriage, Weldment
30	9158143	4	UHMW, Stop, Hook Pads
31	8FS81308	20	Screw, Flat Head, Socket, 3/8-16 X 1-3/4 Inch Long
32	44DD4025	1	Hose Carrier Mounting Bracket Weldment
33	8HH81559	4	Screw, Cap, Hex Head, 3/4-10 X 2 Inch Long
34	8FW22112	4	Washer, Flat, 3/4W
53	8HV00026	1	Manifold, Hot Oil Shuttle, Pressure Reducing
58	8HV34120	2	Valve, Check, Inline, SAE X ORFS, 5 PSI
59	270083	1	Valve, Shuttle, Load, -06 SAE
84	473053	2	Clamp Assembly, 3.5 Inch Inside Diameter
92	44DD2352	4	Plate, Retainer, Lock
95	8HH51410	8	Screw, Cap, Hex Head, 1/2-13 X 2-1/4 Inch Long
96	8FW21108	24	Washer, Flat, 1/2N
99	8HN86120	4	Nut, Hex Jam, 1-1/2-12 UNF
100	8HH52767	4	Screw, Cap, Hex Head, 1-1/4-12 X 4 Inch Long
209	33DD3213	2	Manifold, Hydraulic, Header, 3 Ports
210	33DD3214	2	Manifold, Hydraulic, Header, 2 Ports
400	8PB64832	-	Bushing, Pipe, Reducing 3 Inch X 2 Inch, 6000 PSI
401	8EP78227-1	-	Connector with 30 foot Cable
402	27MP8114	-	Hammer Union
403	8PN53200	-	Nipple, Pipe, 2 Inch NPT
404	8PN54800	-	Nipple, Pipe, 3 Inch NPT
407	8BP50048	-	Plug, Bull, Extra Strong, 3 Inch NPT
408	8PT20048	-	Tee, Pipe
409	8EP78227	-	Transducer, Mud, 6000 PSI
410	8PU41048	-	Union, Hammer Type, 3 Inch Assembly, 2000 PSI



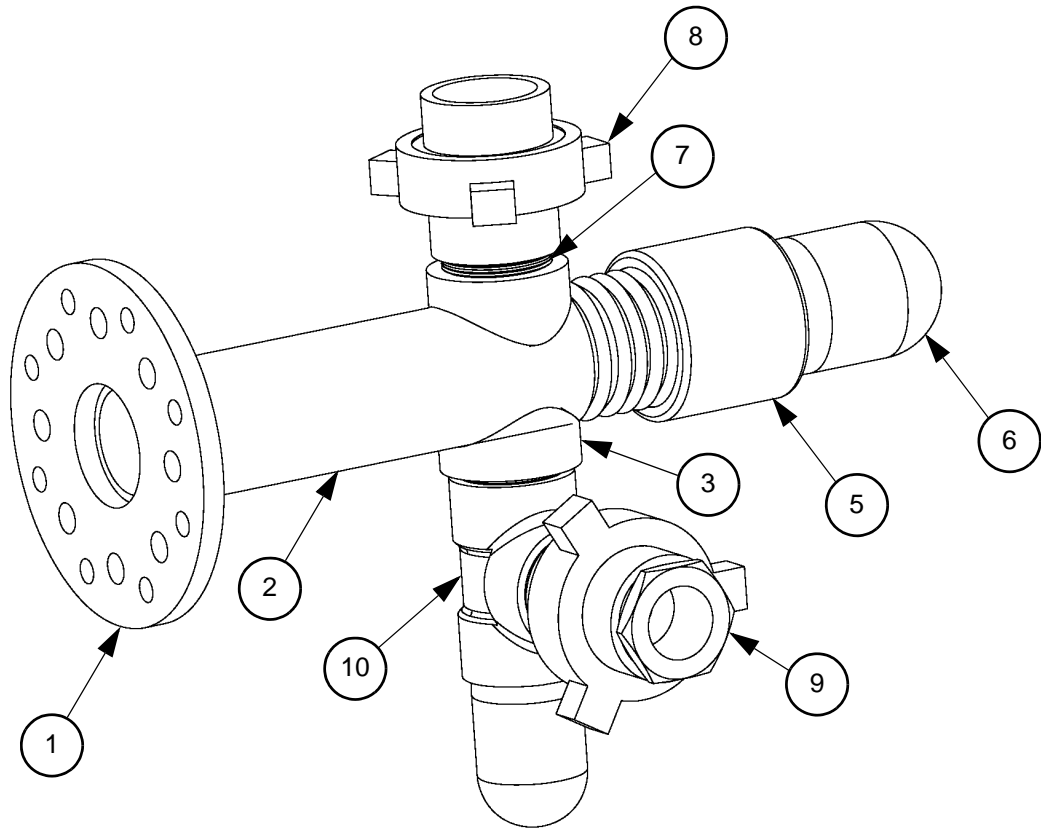
**DD-440T**

**Carriage Assembly (Continued)**  
**Bill of Material Number: 44DD4111**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
9	8HN55140	4	Nut, Hex Jam, 2-1/2-12 UNF
10	8LW51140	4	Washer, Lock, 2-1/2 Inch
11	8CF30080	4	Bearing, Cam Follower, 5 Inch Diameter
12	99DD4015	4	Side Wear Pad
13	9173070	4	Plate, Pad
14	8LW51108	12	Washer, Lock, Split, 1/2 Inch
15	8HH51407	8	Screw, Cap, Hex Head, 1/2-13 X 1-1/2 Inch Long
16	8HH81305	12	Screw, Cap, Hex Head, 3/8-16 X 1 Inch Long
17	88DD4039	2	Retainer, Pinion Bearing
18	88DD4053	2	Snap Ring
35	9173273	1	Weldment, Bottom Light Mounting Bracket
36	9173270	1	Weldment, Top Light Bracket
37	8HH81406	4	Screw, Cap, Hex Head, 1/2-13 X 1-1/4 Inch Long
52	44DD4118	1	Mud Manifold/Swivel Assembly
69	44DD4250	1	Swivel, 5 Inch I.D., 2500 PSI
70	8LW51112	8	Washer, Lock, Split, 3/4 Inch Regular
71	8SH81558	8	Screw, Cap, Socket Head, 3/4-10 X 1-3/4 Inch Long
72	DD1M4075	2	Plate, Mounting, Swivel
73	8NG28103	4	Mount, Pad, Ring and Bushing
74	8FW22108	4	Washer, Flat, 1/2W
75	8HH51412	4	Screw, Cap, Hex Head, 1/2-13 X 2-3/4 Inch Long
97	8HN51108	8	Nut, Hex, 1/2-13 UNC
101	58DD2700	1	Mud Blowdown Assembly
107	8PE15032	1	Elbow, Pipe, Street, 45 Degree, 2 Inch, 150 PSI
110	44DD4121	1	Support, Swivel
240	8CL21704	1	Clamp Half, Set of 2, 2-5/8 Inch Tubes
241	8CL21201	1	Twin Cover Plate



# MUD PIPING

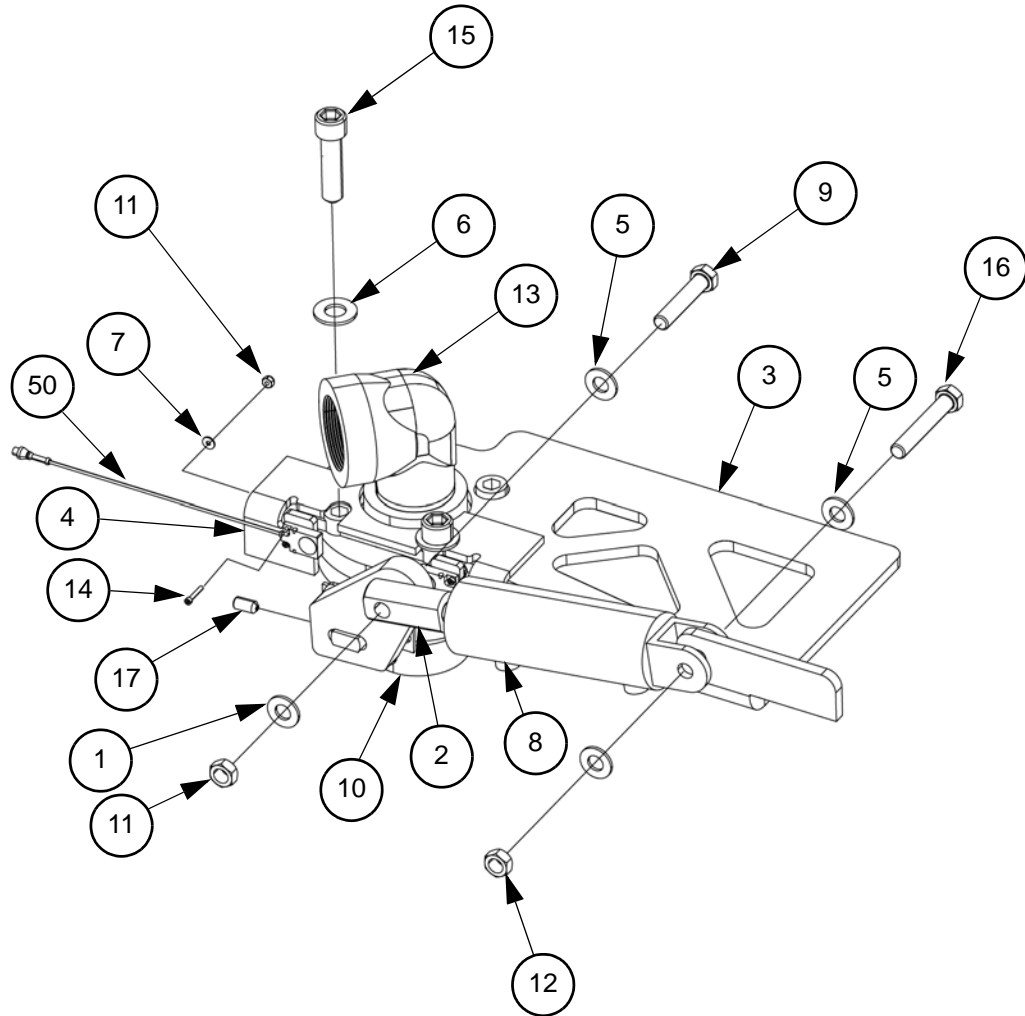




**DD-440T**

**Mud Manifold Swivel  
Bill of Material Number: 44DD4118**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	66DD4050	1	Mounting Plate for Rear Mud Swivel
2	7BP80064	20 in	Pipe, Steel
3	8PC91148	2	Coupling, Saddle Weld, 3 Inch NPT, 3000 PSI
4	8BP50048	1	Plug, Bull, Extra Strong, 3 Inch NPT
5	8PC51064	1	Coupling, Pipe, 4 Inch NPT, 3000 PSI
6	8BP80064	1	Plug, Bull, 4 Inch NPT
7	8PN54800	3	Nipple, Pipe
8	8PU41048	2	Union, Hammer Type, 3 Inch Assembly, 2000 PSI
9	8PB64832	1	Bushing, Pipe, Reducing 3 Inch X 2 Inch, 6000 PSI
10	8PT20048	1	Tee, Pipe

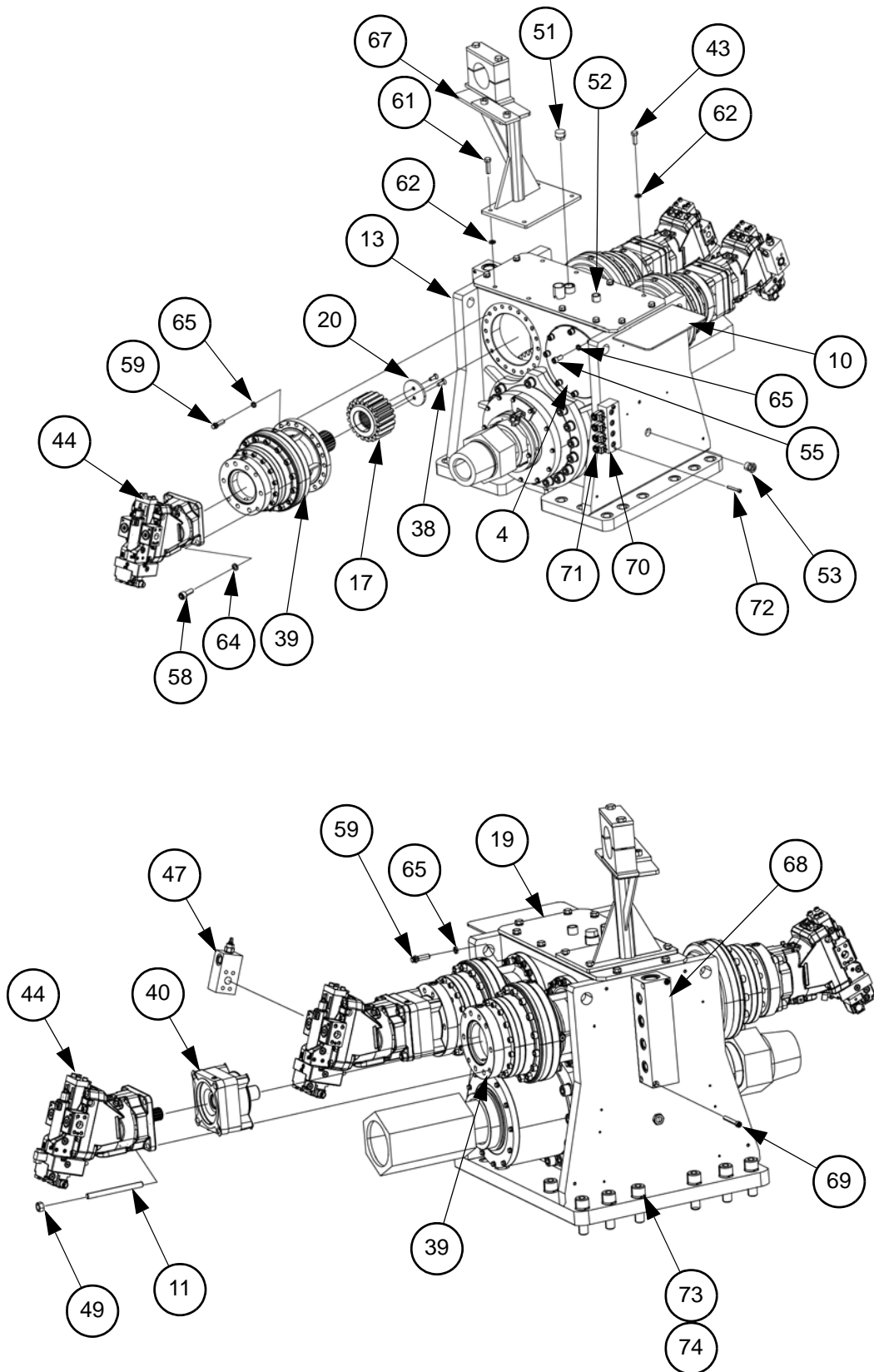


**DD-440T****Mud Blow Down Assembly  
Bill of Material Number: 58DD2700**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	50GB2546	1	Lever for Mud Shut Off Valve
2	55DD2086	1	Connector, Rod End Mud Cylinder Shut Off to Lever Arm
3	58DD2701	1	Bracket, Mounting
4	58DD2702	1	Bracket, Switch, Proximity
5	8FW21108	4	Washer, Flat, 1/2N
6	8FW21110	2	Washer, Flat, 5/8N
7	8FW31001	4	Washer, Flat
8	8HC20005	1	Cylinder, Hydraulic, 2 Inch Bore X 4 Inch Stroke
9	8HH51411	1	Screw, Cap, Hex Head, 1/2-13 X 2-1/2 Inch Long
10	8HV22033	1	Valve, Ball, 2 Inch, 1500 PSI
11	8LN51008	4	Nut, Hex Lock
12	8LN51108	2	Nut, Hex Lock, 1/2-13 UNC2B
13	8PE59132	1	Elbow, Pipe, Street, 90 Degree, 2 Inch NPT, 3000 PSI
14	8SH81196	4	Screw, Cap, Socket Head, 5-40 X 3/4 Inch Long
15	8HH81511	2	Screw, Cap, Hex Head, 5/8-11 X 2-1/2 Inch Long
16	8HH51413	1	Screw, Cap, Hex Head, 1/2-13 X 3 Inch Long
17	8SS00612	2	Screw, Set, Socket Head, 3/8-16 X 3/4 Inch Long
50	8EP65156-7M	-	Switch, Proximity



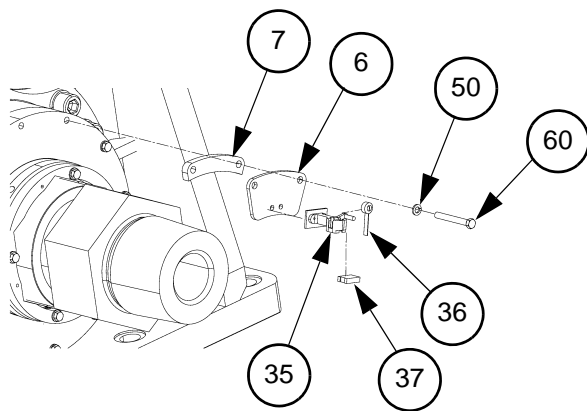
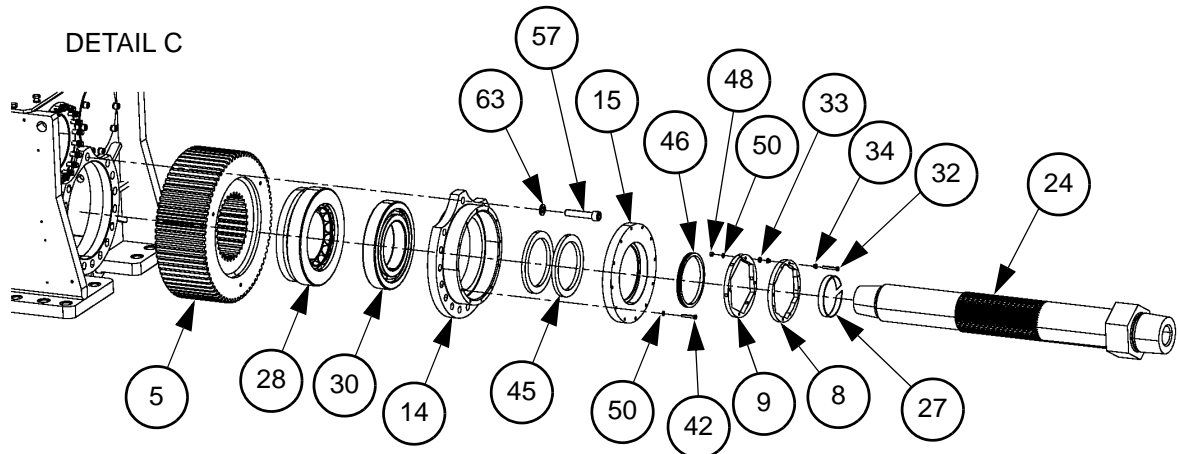
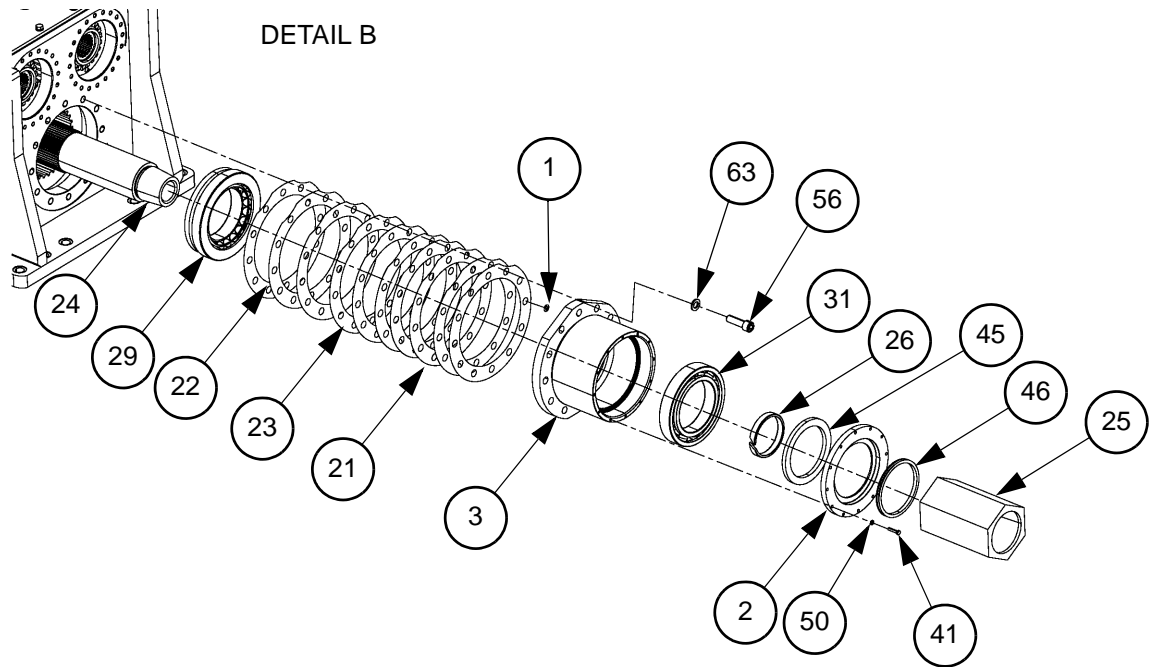
# ROTARY ASSEMBLY



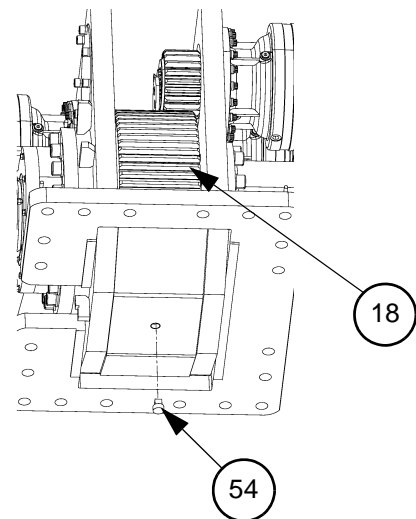
**DD-440T**

**Rotary Assembly  
Bill of Material Number: 33DD4292**

REF. NO.	PART NO.	QTY	DESCRIPTION
4	24DD4224	1	Plate, Cover
10	7PL10017	10 lb	Plate, Steel
11	44VR4212	8	Bar, Steel, Threaded, M18 X 2.5 X 8-1/2 Inch Long
13	58DD4201	1	Rotary Weldment / Machining
17	58DD4211	3	Pinion, Rotary Input
19	58DD4217	1	Cover, Rotary
20	58DD4224	3	Retainer, Pinion
38	8FS82407	6	Screw, Flat Head, Socket, 1/2-20 X 1-1/2 Inch Long
39	8GB80097	3	Gearbox, Planetary, Double
40	8GB90017	2	Brake, Spring Apply, Hydraulic Release
43	8HH51508	8	Screw, Cap, Hex Head, 5/8-11 X 1-3/4 Inch Long
44	8HM60046	3	Motor, 160 cc, Variable Displacement
47	8HV61009	1	Valve, Relief, 1 Inch
49	8LN82198	8	Nut, Hex Lock, M18 X 2.5 mm
51	8PP10020	1	Plug, Pipe, Square Head, 1-1/4 Inch, 150 PSI
52	8PP70006	1	Plug, Vent, with Filter
53	8PP71016	2	Plug, Oil Site, 1 Inch NPT
55	8SH81507	8	Screw, Cap, Socket Head, 5/8-11 X 1-1/2 Inch Long
58	8SH95520	4	Screw, Cap, Socket Head, M18 X 2.5 X 50 mm Long
59	8TH81509	60	Screw, Cap, 12 Point, 5/8-11 X 2 Inch Long
61	8HH51510	4	Screw, Cap, Hex Head, 5/8-11 X 2-1/4 Inch Long
62	8LW51110	12	Washer, Lock, Split, 5/8 Inch Regular
64	8LW81112	4	Washer, Lock, Split, 3/4 Inch High Collar
65	8LW81110	68	Washer, Lock, Split, 5/8 Inch High Collar
67	44DD4112	1	Bracket, Hose, Mud
68	66DD3214	1	Manifold, Hydraulic, Header, 8 Ports
69	8SH81417	2	Screw, Cap, Socket Head, 1/2-13 X 4 Inch Long
70	8HV00007	1	Manifold, Pilot, 4 Section
71	8HV80102	4	Valve, Directional, Cartridge
72	8SH81311	2	Screw, Cap, Socket Head, 3/8-16 X 2-1/2 Inch Long
73	8LW81120	20	Washer, Lock, Split, 1-1/4 Inch High Collar
74	8SH81770	20	Screw, Cap, Socket Head, 1-1/4-7 X 4 Inch Long



Underside & Inside



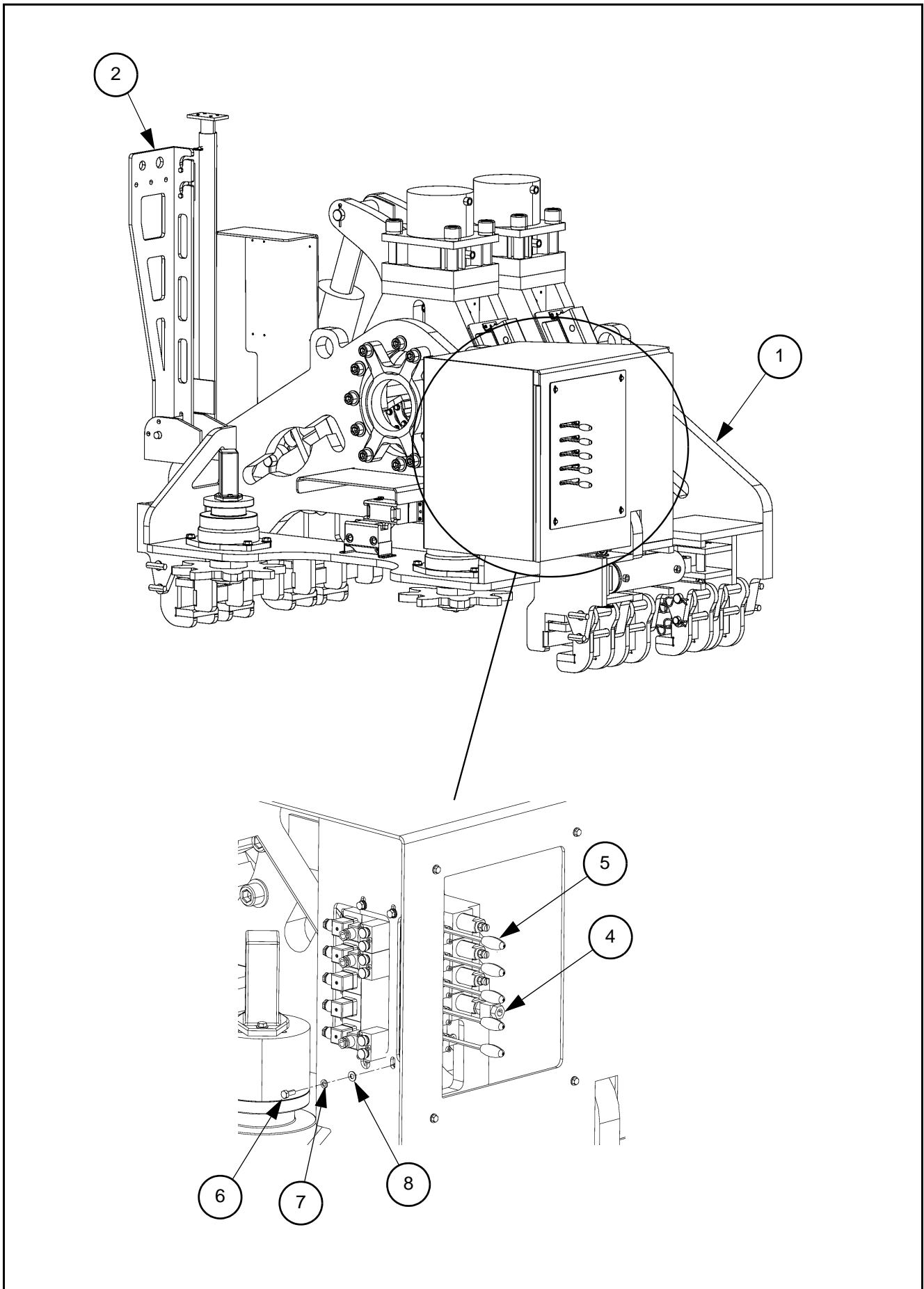


**DD-440T**
**Rotary Assembly (Continued)**  
**Bill of Material Number: 33DD4292**

REF. NO.	PART NO.	QTY	DESCRIPTION
1	22DD4214	12	Belleville Washer, Disc Spring, 1/2 Inch
2	24DD4204	1	Carrier, Seal, Rear
3	24DD4213	1	Rotary, Rear Cover
5	24DD4230	1	Spindle Weldment and Machining
6	24DD4244	1	Mount, Brush
7	24DD4245	1	Spacer, Brush Mount
8	24DD4246	1	Ring, Commutator Support
9	24DD4247	1	Ring, Brass Commutator
14	58DD4202	1	Cover, Rotary, Front
15	58DD4204	1	Carrier, Seal, Front
18	58DD4212	1	Gear, Rotary Output
21	58DD4228	5	Shim, Rear Bearing, .010 Thick
22	58DD4229	1	Shim, Rear Bearing, .005 Thick
23	58DD4230	4	Shim, Rear Bearing, .003 Thick
24	58DD4251	1	Spindle, Inner, Floating
25	58DD4252	1	Sub, Stop, Spindle
26	58DD4253	1	Bushing, Guide, Spindle
27	58DD4254	1	Bushing, Guide, Spindle
28	8CF69003	1	Bearing, Spherical Roller Thrust
29	8CF69008	1	Bearing, Spherical Roller Thrust
30	8CF69012	1	Bearing, Ball, Deep Groove
31	8CF69014	1	Bearing, Ball, Deep Groove
32	8EH50102	4	Bolt, .38-16 X 2.5 Inch Long
33	8EH50201	4	Spacer, Nylon
34	8EH50301	8	Washer, Shoulder
35	8EP10002	1	Brush Holder
36	8EP10003	1	Spring for Brush Holder
37	8EP10004	1	Brush for Brush Holder
41	8HH51308	12	Screw, Cap, Hex Head, 3/8-16 X 1-3/4 Inch Long
42	8HH51310	10	Screw, Cap, Hex Head, 3/8-16 X 2-1/4 Inch Long
45	8HS18012	3	Seal, Shaft, Oil, 10 Inch Outside Diameter
46	8HS99042	2	Seal, V-Ring, Buna-N
48	8LN51106	4	Nut, Hex Lock, 3/8-16 UNC2B
50	8LW51106	28	Washer, Lock, Split, 3/8 Inch Regular
54	8PP75012	1	Plug, Magnetic, Hex, Recessed, 3/4 Inch NPT
56	8SH81665	12	Screw, Cap, Socket Head, 1-8 X 3-1/2 Inch Long
57	8SH81669	16	Screw, Cap, Socket Head, 1-8 X 5 Inch Long
60	8HH51313	2	Screw, Cap, Hex Head, 3/8-16 X 3 Inch Long
63	8LW81116	28	Washer, Lock, Split, 1 Inch



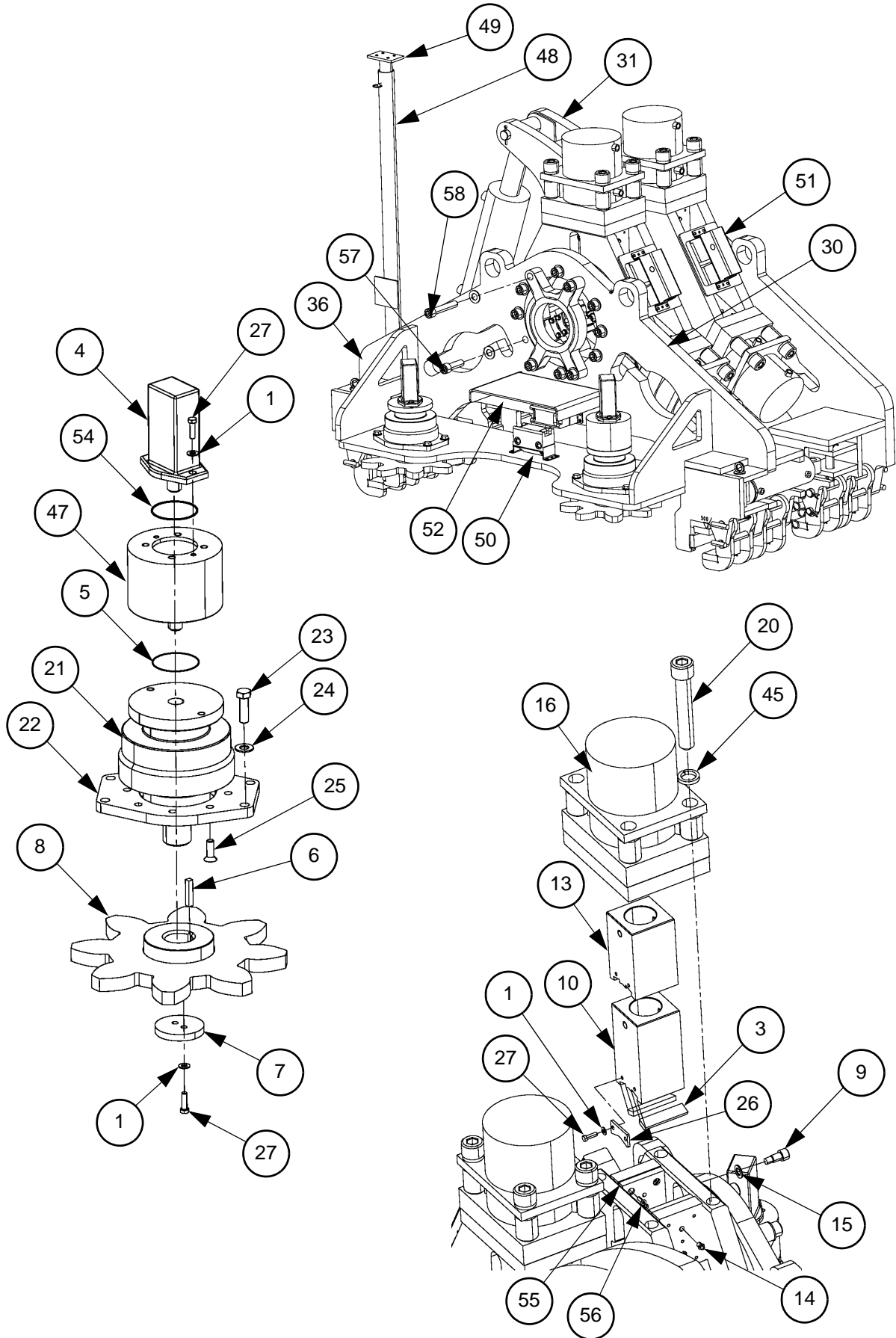
# WRENCH ASSEMBLY



**DD-440T**

**Wrench Assembly**  
**Bill of Material Number: 44DD6006**

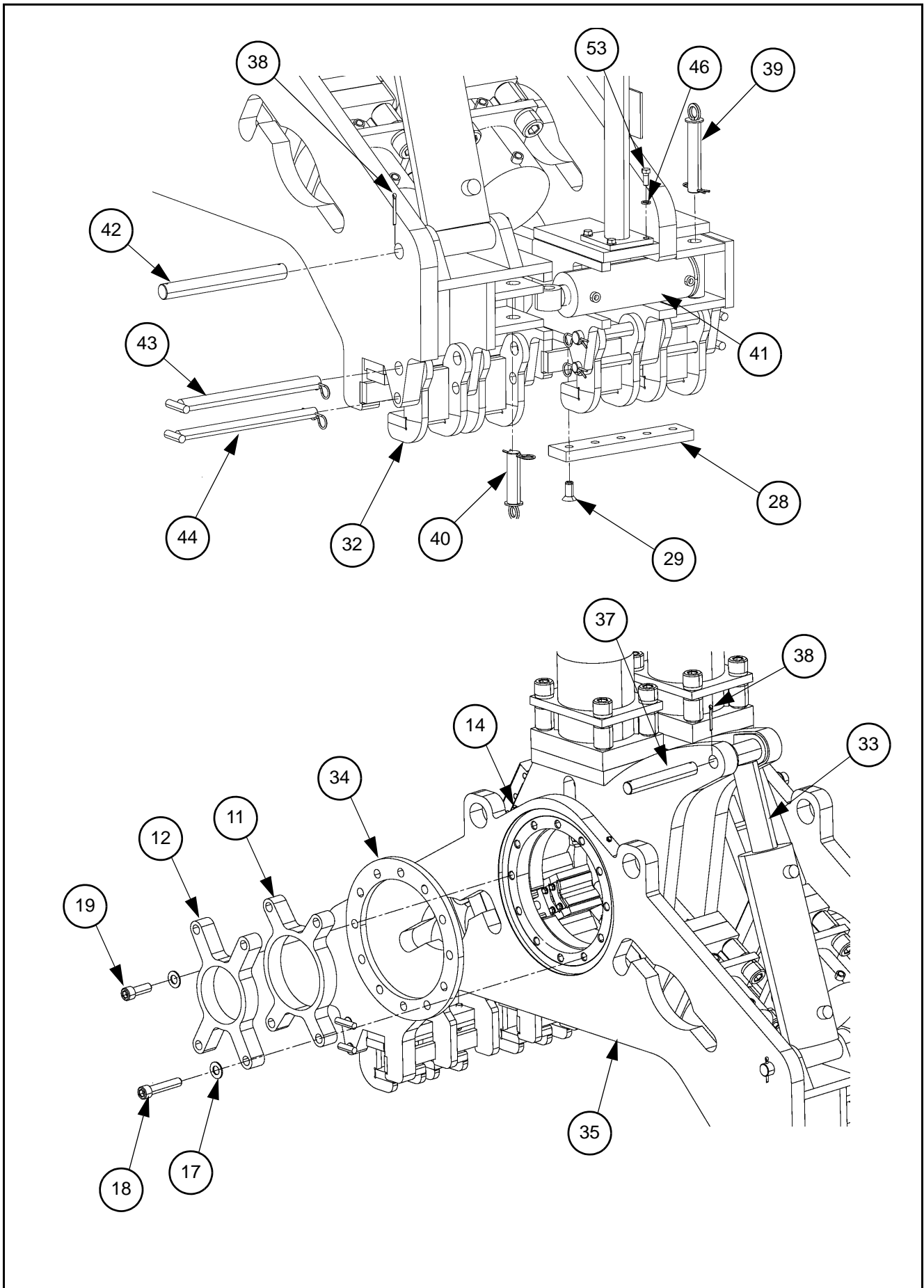
<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	44DD6005	1	Wrench Assembly
2	44DD6011	1	Bracketry and Swing Arm Weldment
4	270083	2	Valve, Shuttle, Load, -06 SAE
5	8HV80177	1	Valve, Directional, Electric/Hydraulic, Prop, 5-Spool
6	8HH95225	3	Screw, Cap, Hex Head, M8 X 1.25 X 20 mm Long
7	8LW51105	3	Washer, Lock, Split, 5/16 Inch
8	8FW21105	3	Washer, Flat, 5/16N



**DD-440T**

**Wrench Assembly  
Bill of Material Number: 44DD6005**

REF. NO.	PART NO.	QTY	DESCRIPTION
1	8FW21106	56	Washer, Flat, 3/8N
2	305651	12	Die, Tong (not visible)
3	33DD6151	12	Die, Tong, Diamond Tooth
4	8HM24001	2	Motor, Hydraulic, Low Speed, High Torque
5	8HS51042	2	Seal, O-Ring, Buna-N, -042 Size
6	7SB20006	4 in	Bar, Steel, Square, 3/8 Inch
7	33DD6143	1	Disk, Pinion Retainer
8	33DD6142	1	Pinion, Wrench, Drive
9	50DD6077	24	Retainer, Holder, Die Clamp
10	50DD6276	6	Holder, Die Clamp, Long
13	50DD6076	6	Holder, Die Clamp, Middle, 8-1/2 Inch Diameter
14	8PP00120	26	Fitting, Lube, 1/4 NPT X 7/8 Inch Long
15	8FW21112	6	Washer, Flat, 3/4N
16	8HC80007	6	Cylinder, Hydraulic, 8 Inch Bore X 3 Inch Stroke, 6000 PSI
20	8SH81796	24	Screw, Cap, Socket Head, 1-1/2-6 X 9 Inch Long
21	8GB80010	2	Gearbox, Planetary
22	33DD6141	1	Adapter
23	8HH51509	8	Screw, Cap, Hex Head, 5/8-11 X 2 Inch Long
24	8FW21110	8	Washer, Flat, 5/8N
25	8FS81407	16	Screw, Flat Head, Socket, 1/2-13 X 1-1/2 Inch Long
26	33DD6283	1	Retainer, Die
27	8HH51306	56	Screw, Cap, Hex Head, 3/8-16 X 1-1/4 Inch Long
30	33DD6291	1	Clamp, Stationary
31	33DD6292	1	Clamp, Rotating
36	44DD6269	1	Fixed Wrench Base Weldment
45	8LW81124	24	Washer, Lock, Split, 1-1/2 Inch
47	8GB90013	1	Brake, Spring Applied, Hydraulic Release
48	9173273	1	Weldment, Bottom Light Mounting Bracket
49	9173270	1	Weldment, Top Light Bracket
50	296002	2	Flow Divider with Reliefs
51	296003	2	Flow Divider with Reliefs
52	33DD6054	1	Guard, Flow Divider
54	8HS51152	2	Seal, O-Ring, Buna-N, -152 Size
55	DD1M6017	1	Pad, Wear, Die Holder, Wrench
56	8FS81255	60	Screw, Flat Head Socket, 5/16-18 X 1 Inch Long
57	8SH81665	8	Screw, Cap, Socket Head, 1-8 X 3-1/2 Inch Long
58	8SH81671	4	Screw, Cap, Socket Head, 1-8 X 5-1/2 Inch Long





**DD-440T****Wrench Assembly (Continued)  
Bill of Material Number: 44DD6005**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
11	33DD6278	1	Guide, Bushing
12	33DD6279	1	Guide, Bushing
14	8PP00120	26	Fitting, Lube, 1/4 NPT X 7/8 Inch Long
17	8FW21116	24	Washer, Flat, 1N
18	8SH81669	4	Screw, Cap, Socket Head, 1-8 X 5 Inch Long
19	8SH81663	8	Screw, Cap, Socket Head, 1-8 X 3 Inch Long
28	33DD6277	1	Pad, Wear, UHMW
29	8FS81608	20	Screw, Flat Head Socket, 3/4-10 X 1-3/4 Inch Long
32	33DD6260	1	Hookpad Weldment
33	8HC60017	1	Cylinder, Hydraulic, 6 Inch Bore X 16 Inch Stroke
34	33DD6254	1	Keeper, Ring
35	44DD6268	1	Rotating Wrench Base Weldment
37	33DD6282	1	Pin, Rotating Cylinder, Top
38	8CP10808	4	Pin, Cotter, 1/4 Inch Diameter X 2-1/2 Inch Long
39	33DD6034	1	Pin Weldment, Cylinder Mounting
40	18DD2114	1	Pin, Clevis, 1-1/4" Diameter X 4-1/4 Inch Long
41	8HC40001	2	Cylinder, Hydraulic, 4 Inch Bore X 8 Inch Stroke
42	DD1M6037	1	Pin, Wrench
43	33DD6280	1	Pin Weldment, Top Wrench Hook
44	33DD6281	1	Pin Weldment, Lower Wrench Hook
46	8LW51108	4	Washer, Lock, Split, 1/2 Inch
53	8HH81406	4	Screw, Cap, Hex Head, 1/2-13 X 1-1/4 Inch Long



# HYDRAULIC SECTION

## HYDRAULIC SCHEMATIC

**DD-440T**

**Hydraulic Schematic  
Bill of Material Number: 44DD3513**

REF. NO.	PART NO.	QTY	DESCRIPTION
1	8FL10008	1	Strainer, Suction, 100 Mesh, 3 Inch FNPT
2	8FL10006	4	Strainer, Suction, 100 Mesh, 1-1/4 Inch FNPT
3	8PH50045	1	Pump, Piston
4	8PH60056	2	Pump, Piston
5	8PH60038	2	Pump, Piston
6	33DD3215	3	Manifold, Header, 0 Degree, 4 Outlet, Dual Inlet
7	8QD61504	4	Nipple, Quick Disconnect, Diagnostic, 1/4 Inch NPT Female
8	8HV61015	1	Valve, Pressure Relief, 25-400 PSI, 200 GPM
9	8FL20015	1	Filter, Hydraulic, 600 PSI, 6 Micron
10	8FL20015-1	1	Element, Filter, 6 Micron Absolute
11	8QD11504	5	Nipple, Quick Disconnect, Diagnostic, -04 ORFS Female Swivel
13	DD1032010	1	Manifold, Header, 0 Degree, 2 Outlet, Dual Inlet
14	8FL20019	1	Filter, Hydraulic, Return, 6 Micron Absolute
15	8FL20019-1	1	Element, Filter, 6 Micron Absolute
16	55DD3236	2	Manifold, Header, 0 Degree, 4 Outlet, 2 Inlets
17	8HV62002	4	Valve, Sequence, Internal Pilot, External Drain
18	8HV61107	4	Valve, Pressure Relief, Pilot Operated
19	8HV61303	4	Valve, Relief, Proportional, Solenoid Operated
20	8HV34006	8	Valve, Check, Inline, 5 PSI, ORFS X SAE
22	8FL51003	4	Filter, Hydraulic, 6 Micron Absolute, 6 KPSI
23	8FL51003-1	4	Element, Filter, 6 Micron Absolute
24	8HV32005	1	Valve, Check, 50 PSI, Cartridge/Manifold, 80 GPM
25	44DD3207	4	Assembly, Orifice Fitting, .0625 Diameter
29	44DD3216	4	Manifold, Hydraulic, Header, 2 Ports
30	8HV32005-02	1	Valve, Check, 50 PSI, Cartridge, 80 GPM
40	33DD3213	2	Manifold, Hydraulic, Header, 3 Ports
41	8HV61009	1	Valve, Relief, 1 Inch
42	8HM60046	3	Motor, 160 cc, Variable Displacement
43	8QD63502	8	Nipple, Quick Disconnect, Diagnostic, 3/8 SAE
44	8GB90017	2	Brake, Spring Apply, Hydraulic Release
45	8QD14506	4	Nipple, Quick Disconnect, Diagnostic, -06 ORFS Female Swivel
46	66DD3214	1	Manifold, Hydraulic, Header, 8 Ports
48	8HM60031	2	Motor, Hydraulic, 1017 cc, Variable Displacement
49	50DD3201	1	Assembly, Orifice Fitting, .030 Diameter
50	8GB90029	2	Brake, Spring Apply, Hydraulic Release
51	8HV00007	1	Manifold, Pilot, 4 Section
52	8HV80102	4	Valve, Directional, Cartridge
53	33DD3214	2	Manifold, Hydraulic, Header, 2 Ports

**DD-440T**

**Hydraulic Schematic (Continued)**  
**Bill of Material Number: 44DD3513**

REF. NO.	PART NO.	QTY	DESCRIPTION
54	8HV00013	1	Manifold, Hot Oil Shuttle, Pressure Reducing
55	8HV68080	2	Valve, Cartridge, Pressure Reducing, 60-800 PSI
56	8HV40024	1	Valve, Pressure Compensated, Adjustable, 0.2-25 GPM, 5 KPSI
57	8HV00012	1	Valve, Cartridge, Hot Oil Shuttle
58	8HV34120	2	Valve, Check, Inline, SAE X ORFS, 5 PSI
59	270083	2	Valve, Shuttle, Load, -06 SAE
60	8EP78224	2	Transducer, 5500 PSI
68	8HV80288	1	Valve, Poppet, 2-Way, N.C., Solenoid Operated
69	8HV80181	1	Valve, Directional, Cartridge, 3-Way, 2-Position, Solenoid
70	8QD63501	1	Nipple, Quick Disconnect, Diagnostic, 1/4 SAE with Cap
71	8HV80182	1	Valve, Directional, Electric/Hydraulic, Prop, 4-Spool
72	8QD81208	1	Hydraulic, Quick Disconnect, Nipple, 4 KPSI
73	8QD08108	1	Cap, Dust
74	8QD82208	1	Hydraulic, Quick Disconnect, Coupler, 4 KPSI
75	8QD08108	1	Cap, Dust
76	8HV32002	1	Valve, Check, Dual
77	8HC50030	2	Cylinder, Hydraulic, 5 Inch Bore X 30 Inch SAE Ports
78	8GB85023	2	Gearbox, Planetary with Motor and Load Valve
79	66DD3220	4	Assembly, Orifice Fitting
81	8HV34106	1	Valve, Check, Inline, 3 PSI, SAE X ORFS
82	DD1032011	1	Manifold, Header, 0 Degree, 2 Outlets, Dual Inlets
83	DD1032010	1	Manifold, Header, 0 Degree, 2 Outlet, Dual Inlet
84	8QD93116	1	Coupling, Hydraulic, Quick Disconnect, Male, 7250 PSI
85	8QD07116	1	Cap, Dust
86	8QD94116	1	Coupling, Hydraulic, Quick Disconnect, Female, 7250 PSI
87	8QD00116	1	Plug, Dust
88	8HV80148	1	Valve, Directional, Electric/Hydraulic, Prop, 4-Spool
89	8HV34206	1	Valve, Check, Inline, ORFS X ORFS, 5 PSI
90	242032	2	Cylinder, Hydraulic, 2 Inch Bore X 4 Inch Stroke, 2500 PSI
91	8HC20005	1	Cylinder, Hydraulic, 2 Inch Bore X 4 Inch Stroke
92	8HV34020	1	Valve, Check, Inline, 5 PSI, ORFS X SAE
93	8QD63501	2	Nipple, Quick Disconnect, Diagnostic, 1/4 SAE with Cap
94	8QD91216	1	Hydraulic, Quick Disconnect, Nipple, Flush Face, 6 KPSI
95	8QD08916	1	Cap, Dust
96	8QD92216	1	Hydraulic, Quick Disconnect, Coupler, Flush Face, 6 KPSI
97	8QD09916	1	Plug, Dust
98	8QD71616	1	Hydraulic, Quick Disconnect, Nipple, 3 KSI
99	8QD08616	1	Dust Cap

**DD-440T**

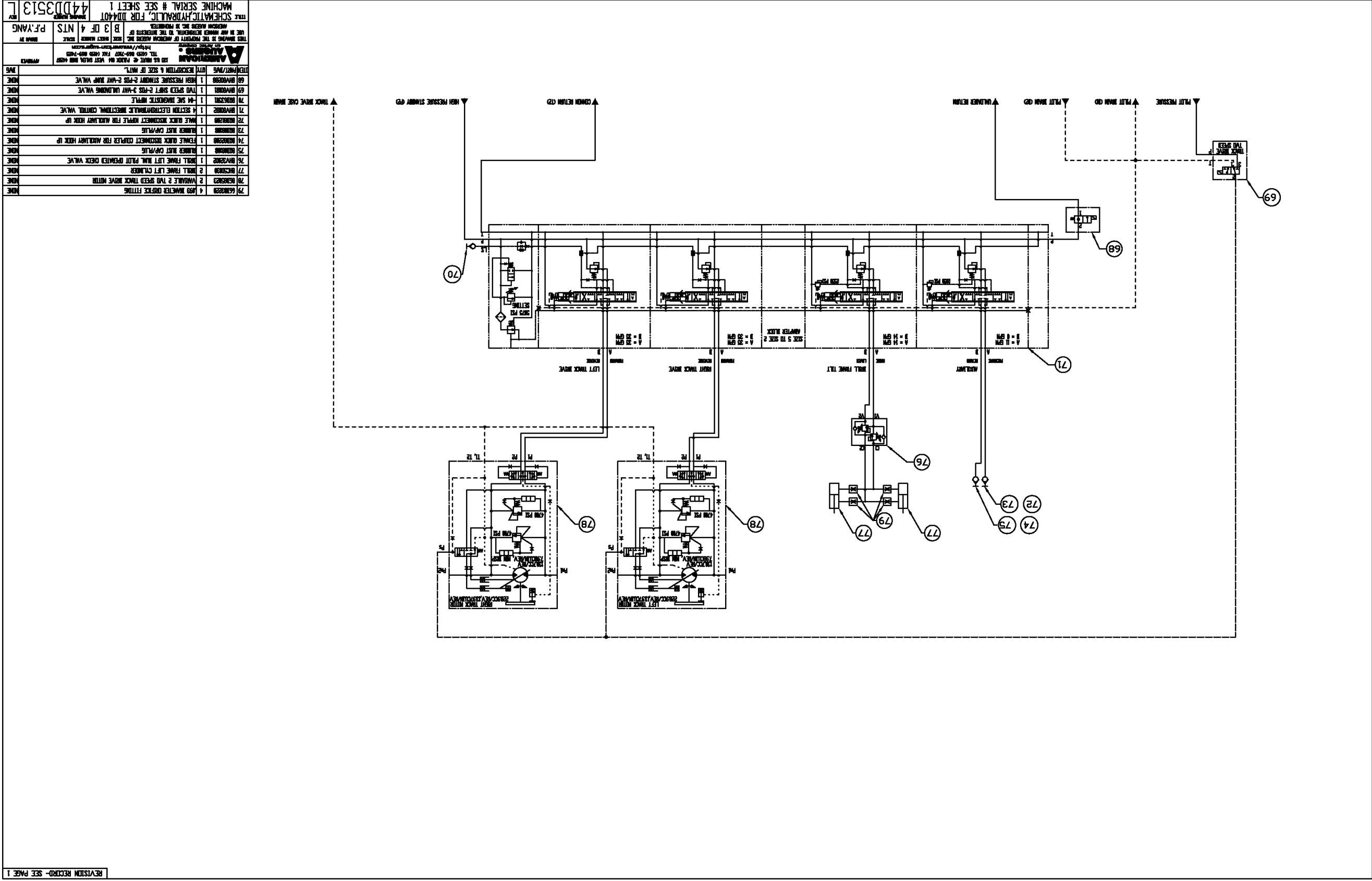
**Hydraulic Schematic (Continued)**  
**Bill of Material Number: 44DD3513**

<b>REF. NO.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
100	8QD72616	1	Hydraulic, Quick Disconnect, Coupler, 3 KSI
101	8QD09616	1	Dust Plug
102	8QD91604	1	Hydraulic, Quick Disconnect, Nipple, 5 KSI
103	8QD08604	1	Dust Cap
104	8QD92604	1	Hydraulic, Quick Disconnect, Coupler, 5 KSI
105	8QD09604	1	Dust Plug
110	8HV80177	1	Valve, Directional, Electric/Hydraulic, Prop, 5-Spool
111	8QD11508	6	Nipple, Quick Disconnect, Diagnostic, -08 ORFS Female Swivel
112	8HC60017	1	Cylinder, Hydraulic, 6 Inch Bore X 16 Inch Stroke
113	270083	2	Valve, Shuttle, Load, -06 SAE
114	8EP78224	3	Transducer, 5500 PSI
115	296002	2	Flow Divider with Reliefs
116	8HM24001	2	Wrench Travel Motor
117	8GB90013	1	Brake, Spring Apply, Hydraulic Release
118	8HC40001	2	Cylinder, Hydraulic, 4 Inch Bore X 8 Inch Stroke
119	296003	2	Flow Divider with Reliefs
120	8HC80007	6	Cylinder, Hydraulic, 8 Inch Bore X 3 Inch Stroke, 6000 PSI
121	8QD71612	1	Hydraulic, Quick Disconnect, Nipple, 3 KSI
122	8QD08612	1	Dust Cap, Steel
123	8QD72612	1	Hydraulic, Quick Disconnect, Coupler, 3 KSI
124	8QD09612	1	Dust Plug
125	8HV80020-1	2	Port, Relief, 1150 PSI
126	50VR3280	2	Assembly, Orifice Fitting, 0.031 Diameter









79	6480229	4	90° ANGLE BRACK FITTING
78	6480223	2	VARIBLE 2 THRD SPEED THICK DRIVE MOTOR
77	6480208	2	ROCK THICK LEFT CYLINDER
76	6480208	1	ROCK THICK LEFT INTL PALET OPERATOR CHECK VALVE
75	6480208	1	ROCKER FIRST C/W/VALVE
74	6480208	1	ROCKER FIRST C/W/VALVE
73	6480208	1	ROCKER FIRST C/W/VALVE
72	6480208	1	ROCKER FIRST C/W/VALVE
71	6480208	1	ROCKER FIRST C/W/VALVE
70	6480208	1	ROCKER FIRST C/W/VALVE
69	6480208	1	ROCKER FIRST C/W/VALVE
68	6480208	1	ROCKER FIRST C/W/VALVE

REVISION RECORD - SEE PAGE 1

44DD3513

SCHEMATIC, HYDRAULIC, FOR DD440T

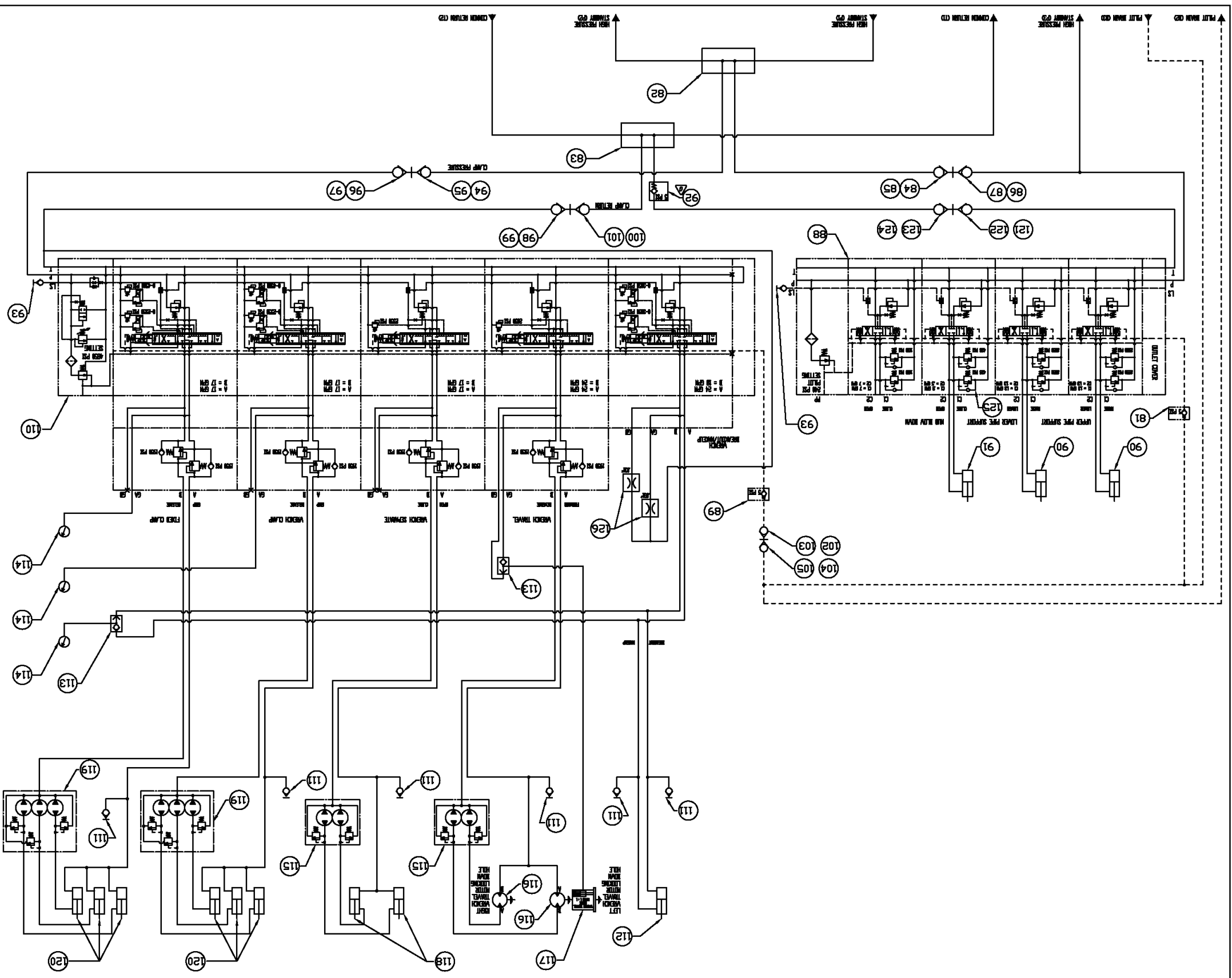
MACHINE SERIAL # SEE SHEET 1

PF:YANG

4 NTS

3 OF 4

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REV	DESCRIPTION	DATE	BY
155	SWITCHES		
154	REPAIR RELIEF, FOR PSI SETTING		
153	STEEL BUSH PLUG		
152	STEEL BUSH PLUG		
151	FEWAL QUICK DISCONNECT COUPLER FOR HIGH PRESSURE STANDBY MESSAGE		
150	FEWAL QUICK DISCONNECT COUPLER FOR HIGH PRESSURE STANDBY RETURN		
149	FEWAL QUICK DISCONNECT COUPLER FOR HIGH PRESSURE STANDBY RETURN		
148	CLAMP CHANGES		
147	THREE WAY CLAMP CHANGES FLOW MINDER VALVE WITH INTERNAL RELIEF		
146	MACHINERY SEPARATE		
145	MACHINERY SEPARATE		
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1	MACHINERY SEPARATE		

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DATE: 04/04/15  
 DRAWN BY: P.F. YANG  
 CHECKED BY: 44DD3513

SEE THE BORE OF PUMP OR VALVE BODY FOR IDENTIFICATION OF THIS DRAWING.

REVISION RECORD - SEE PAGE 1

# APPENDIX

## Torque Specifications - Fractional Hardware

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers dry or when lubricated with engine oil. They are not applicable if special graphites, molydisulfide greases or other extreme pressure lubricants are used.

Grade 5 Bolts, Nuts and Studs				
Size	Newton meters		Pound-Inches	
	Lubricated	Dry	Lubricated	Dry
1/4 inch	10	12	91	103
5/16 inch	21	24	188	212
3/8 inch	38	43	336	378
			Pound-Feet	
7/16 inch	61	69	45	51
1/2 inch	94	104	68	76
9/16 inch	132	149	98	110
5/8 inch	183	210	138	155
3/4 inch	325	370	242	270
7/8 inch	530	595	390	435
1.0 inch	790	890	585	655
1-1/8 inch	980	1100	725	805
1-1/4 inch	1385	1555	1020	1145
1-3/8 inch	1810	2030	1335	1495
1-1/2 inch	2400	2700	1770	1990

Grade 8 Bolts, Nuts and Studs				
Size	Newton meters		Pound-Inches	
	Lubricated	Dry	Lubricated	Dry
1/4 inch	15	16	130	145
5/16 inch	30	34	268	301
3/8 inch	54	68	474	534
			Pound-Feet	
7/16 inch	86	97	63	71
1/2 inch	132	149	96	110
9/16 inch	191	213	140	155
5/8 inch	260	293	190	215
3/4 inch	480	515	340	380
7/8 inch	745	835	550	615
1.0 inch	1120	1280	825	925
1-1/8 inch	1585	1785	1170	1315
1-1/4 inch	2215	2235	1650	1855
1-3/8 inch	2930	3295	2160	2430
1-1/2 inch	3895	4375	2870	3225

Note: Use thick nuts with Grade 8 bolts

## Torque Specifications - Metric Hardware

Use the following torques when specifications are not given. These values apply to fasteners with both coarse and fine threads as received from supplier, plated or unplated, or when lubricated with engine oil. These values do not apply if graphite, molydisulfide grease or oil is used. Use a click type torque wrench or better.

Grade 8.8 Bolts, Nuts and Studs				
Size	Newton meters		Pound-Inches	
	Lubricated	Dry	Lubricated	Dry
M4	3	4	31	35
M5	5	6	49	55
M6	10	11	84	94
M8	23	26	229	277
M10	46	51	408	460
			Pound-Feet	
M12	80	90	59	66
M14	128	145	94	106
M16	200	220	149	161
M20	400	450	293	330
M24	690	780	510	575
M30	1375	1545	1010	1140
M36	2400	2700	1770	1990

Grade 10.9 Bolts, Nuts and Studs				
Size	Newton meters		Pound-Inches	
	Lubricated	Dry	Lubricated	Dry
M4	5	6	44	49
M5	8	9	71	79
M6	14	15	120	136
M8	33	37	293	329
			Pound-Feet	
M10	65	74	48	54
M12	114	128	85	94
M14	183	205	136	153
M16	285	320	208	235
M20	555	620	406	460
M24	955	1075	705	790
M30	1900	2140	400	1580
M36	3315	3730	2445	2750

### Grade 12.9 Bolts, Nuts and Studs

Usually the torque values specified for grade 10.9 fasteners can be used satisfactorily on grade 12.9 fasteners.

## Torque Specifications - Steel Hydraulic Fittings

<b>37 Degree Flare Fitting</b>				
<b>Nom. SAE Dash Size</b>	<b>Tube OD/Hose ID</b>	<b>Thread Size</b>	<b>Newton metres</b>	<b>Pound-Inches</b>
-2		5/16 - 24	8 to 9	72 to 84
-3		3/8 - 24	11 to 12	96 to 108
-4	6.4 mm (1/4 inch)	7/16 - 20	14 to 16	120 to 144
-5	7.9 mm (5/16 inch)	1/2 - 20	18 to 21	156 to 192
-6	9.5 mm (3/8 inch)	9/16 - 18	27 to 33	240 to 300
-8	12.7 mm (1/2 inch)	3/4 - 16	46 to 56	408 to 504
-10	15.9 mm (5/8 inch)	7/8 - 14	77 to 85	684 to 756
				<b>Pound-Feet</b>
-12	19.0 mm (3/4 inch)	1-1/16 - 12	107 to 119	79 to 88
-14	22.2 mm (7/8 inch)	1-3/16-12	127 to 140	94 to 103
-16	25.4 mm (1.0 inch)	1-5/16 - 12	131 to 156	97 to 117
-20	31.8 mm (1-1/4 inch)	1-5/8 - 12	197 to 223	145 to 165
-24	38.1 mm (1-1/2 inch)	1-7/8 - 12	312 to 338	230 to 250

<b>Straight Threads with O-Ring</b>				
<b>Nom. SAE Dash Size</b>	<b>Tube OD/Hose ID</b>	<b>Thread Size</b>	<b>Newton metres</b>	<b>Pound-Inches</b>
-2		5/16 - 24	8 to 9	72 to 84
-3		3/8 - 24	11 to 12	96 to 108
-4	6.4 mm (1/4 inch)	7/16 - 20	20 to 25	180 to 228
-5	7.9 mm (5/16 inch)	1/2 - 20	27 to 33	240 to 300
-6	9.5 mm (3/8 inch)	9/16 - 18	43 to 54	384 to 480
-8	12.7 mm (1/2 inch)	3/4 - 16	73 to 90	648 to 804
				<b>Pound-Feet</b>
-10	15.9 mm (5/8 inch)	7/8 - 14	100 to 124	74 to 92
-12	19.0 mm (3/4 inch)	1-1/16 - 12	138 to 173	102 to 128
-14	22.2 mm (7/8 inch)	1-3/16-12	173 to 216	128 to 160
-16	25.4 mm (1.0 inch)	1-5/16 - 12	203 to 253	150 to 187
-20	31.8 mm (1-1/4 inch)	1-5/8 - 12	308 to 357	227 to 264
-24	38.1 mm (1-1/2 inch)	1-7/8 - 12	492 to 542	363 to 400

<b>Split Flange Mounting Bolts</b>		
<b>Size</b>	<b>Newton metres</b>	<b>Pound-Inches</b>
5/16 - 18	20 to 27	180 to 240
3/8 - 16	27 to 34	240 to 300
7/16 - 14	47 to 61	420 to 540
		<b>Pound-Feet</b>
1/2 - 13	74 to 88	55 to 65
5/8 - 11	190 to 203	140 to 150

<b>O-Ring Face Seal End</b>					<b>O-Ring Boss End Fitting or Lock Nut</b>		
<b>Nom SAE Dash Size</b>	<b>Tube OD</b>	<b>Thread Size</b>	<b>Newton metres</b>	<b>Pound-Inches</b>	<b>Thread Size</b>	<b>Newton metres</b>	<b>Pound-Inches</b>
-4	6.4 mm (1/4 inch)	9/16 - 18	23 to 26	204 to 228			
-6	9.5 mm (3/8 inch)	11/16-16	34 to 40	300 to 348	9/16-18	48 to 54	432 to 480
-8	12.7 mm (1/2 inch)	13/16-16	52 to 57	456 to 504	3/4-16	70 to 78	612 to 684
							<b>Pound-Feet</b>
-10	15.9 mm (5/8 inch)	1-14	81 to 90	720 to 792	7/8-14	102 to 114	75 to 84
				<b>Pound-Feet</b>			
-12	19.0 mm (3/4 inch)	1-3/16-12	117 to 128	86 to 94	1-1/16-12	142 to 160	105 to 117
-16	25.4 mm (1.0 inch)	1-7/16-12	152 to 174	112 to 128	1-5/16-12	237 to 254	175 to 187
-20	31.8 mm (1-1/4 inch)	1-11/16-12	179 to 201	132 to 148			
-24	38.1 mm (1-1/2 inch)	2-12	213 to 235	157 to 173			

<b>Pipe Fittings</b>			
<b>Nom. SAE Dash Size</b>	<b>Fractional Size</b>	<b>Threads per Inch</b>	<b>Turns from Finger Tight</b>
2	1/8 inch	27	2 - 3
4	1/4 inch	18	2 - 3
6	3/8 inch	18	2 - 3
8	1/2 inch	14	2 - 3
12	3/4 inch	14	2 - 3
16	1 inch	11-1/2	1.5 - 2.5
20	1-1/4 inch	11-1/2	1.5 - 2.5
24	1-1/2 inch	11-1/2	1.5 - 2.5
32	2 inch	11-1/2	1.5 - 2.5

NOTE: Apply sealant/lubricant to male pipe threads. The first two threads should be left uncovered to avoid system contamination. Screw pipe fitting into female pipe port to the finger tight position. Wrench tighten fitting to the appropriate turns from finger tight (TFFT) shown in table above, making sure the tube end of an elbow or tee fitting is aligned to receive incoming tube or hose fitting.







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FAX: 491-869-7425

Always include machine serial number when ordering parts  
Due to our continuing product improvement, machine specifications are subject to change without notice.

Manual Part Number 44DD20100T  
Released March 2015 Revision 02