ODP 200 PPS

Parts Manual

HOGG & DAVIS, Inc.

The information, specifications, and illustrations in this manual are on the basis of information available at the time it was written. The specifications, torque values, pressures of operation, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service of the given product. For the complete and most current information, contact:

Hogg & Davis, Inc
P.O. Box 405 / 3800 Eagle Loop
Odell, OR 97044-0405
541-354-1001
541-354-1080 Fax

For most recent manual version please visit:
www.hoggdavis.com

ver. 1.0

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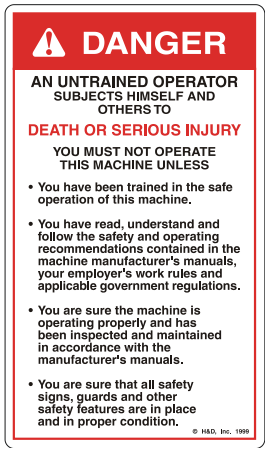
Product Warnings

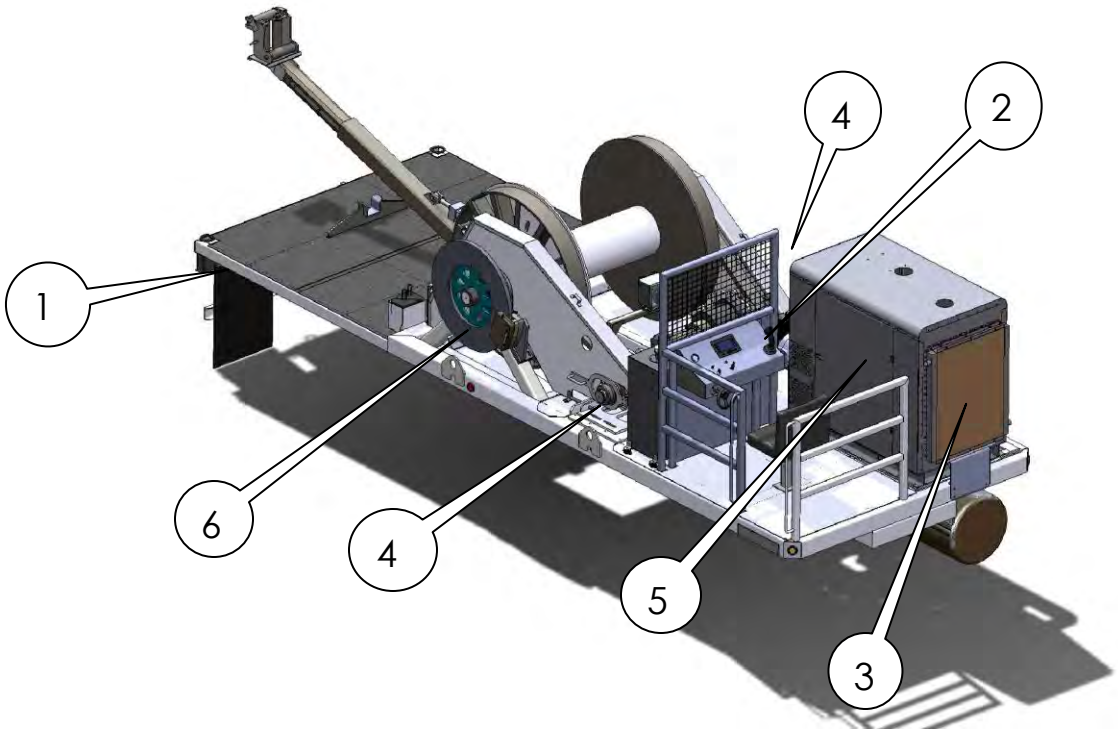


These warning labels and others like it are placed in critical areas of the machine. The warnings are to be read and fully understood prior to operation of the unit.

General Specifications

This unit is designed to install / tension overhead cable/conductor.

- Single Reel Puller
- Pulling Computer
- Constant Line Pull System
- 20,000 lbs Maximum Line Pull
- 275 hp Tier III Diesel
- 22,000 5/8 swaged wire rope capacity
- Four Way Post Style Level wind
- Dual Drive System
- Fuel Capacity – 60 Gallons
- Hydraulic Oil Capacity – 50 Gallons



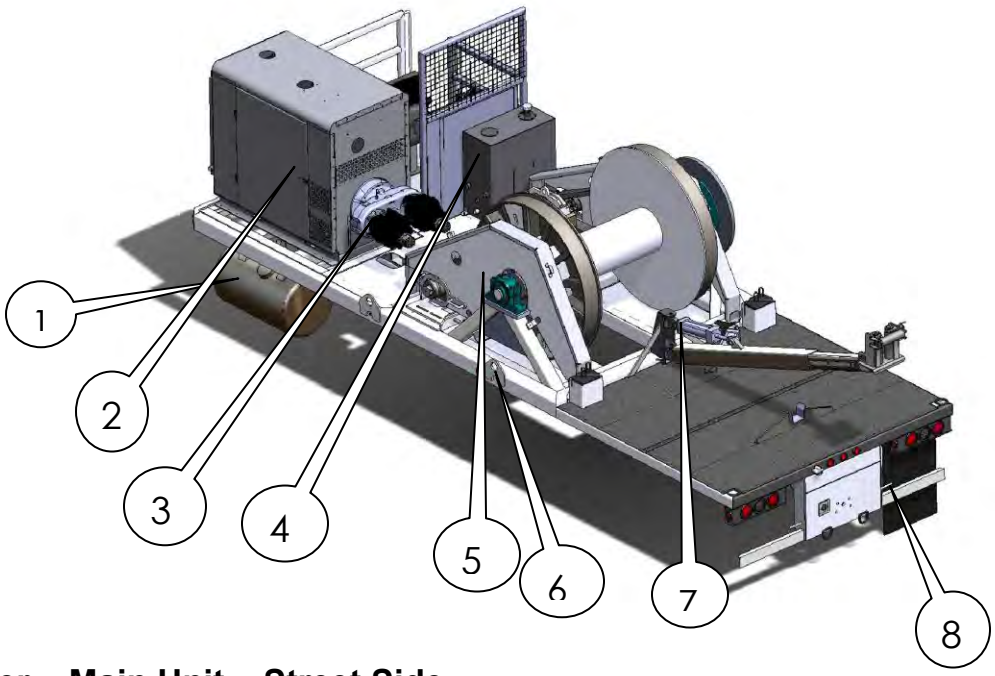
Operating Instructions

All persons operating this machine must read and understand this manual as well as the operating, danger, and warning decals placed on the machine. Failure to read and understand these items subjects the operator and others to **DEATH or SERIOUS INJURY**.

Operators shall make themselves familiar with the placement of the following operating and safety features of the machine.

Puller – Main Unit Curb Side

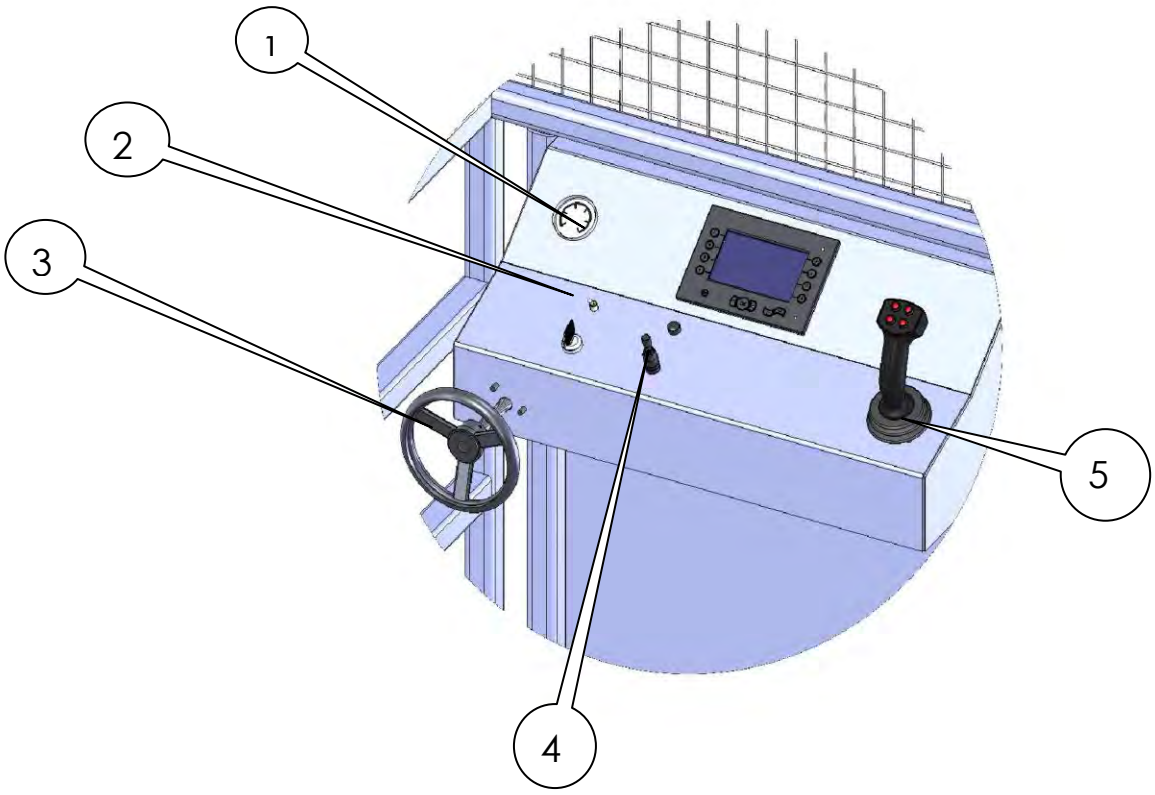
1. Grounding Lugs. There are two lugs welded to the rear of the unit on the hitch plate section. They are to be used for grounding only.
2. Operators Station
3. Hydraulic Oil Cooler. This unit transfers the heat from the hydraulic oil during use. It is to be kept clean and clear of dust and debris. Failure to do so may increase hydraulic system operating temperature and may also damage the components in the system.
4. Drive Dog Clutches. There is a unit located on both sides. These are the primary drives for the pulling operation. They are able to be engaged and disengaged by removing the drive pin and pulling or pushing on the lever provided. **DO NOT OPERATE THE UNIT WITHOUT BOTH DRIVES ENGAGED.** It may be necessary for the operator to rotate the reel to allow for the drive dogs to be engaged. Placing pressure on the lever while rotating the reel allows for this to happen. **NEVER OPERATE THE UNIT WITHOUT THE CLUTCHES AND PINS ENGAGED.**
5. Engine Access. This door allows for access to the engine from the operators station. Do not operate the unit with this door open. The enclosure has been designed to minimize sound and heat during operation.
6. Brake Rotor and Caliper. This brake system is for use during the free wheel payout of the installation rope. During the free wheel operation of the unit, this rotor will become extremely hot. **DO NOT OPERATE THE PULLING FUNCTION OF THIS UNIT WHILE THE BRAKE SYSTEM IS APPLIED.**



Puller – Main Unit – Street Side

1. Fuel Tank. **DIESEL FUEL ONLY.** 60 Gallon capacity
2. Engine access cover
3. Hydrostatic Pumps
4. Hydraulic Tank. 50 Gallon Capacity. ISO 46 or equivalent.
5. Chain Guards. Located on both sides of large secondary sprocket. There are access panels on both guards on the secondary sprocket. Lubricate chain daily. **DO NOT OPERATE PULLER WITHOUT GUARDS IN PLACE.**
6. Lifting Points. ***DO NOT USE D RINGS ON REAR DECK***
7. Level Wind
8. Grounding lug location

Control Panel



1. Over spin Brake Pressure. This gauge displays the pressure at which the Over spin Brake is operating. **DO NOT EXCEED 600 PSI.**

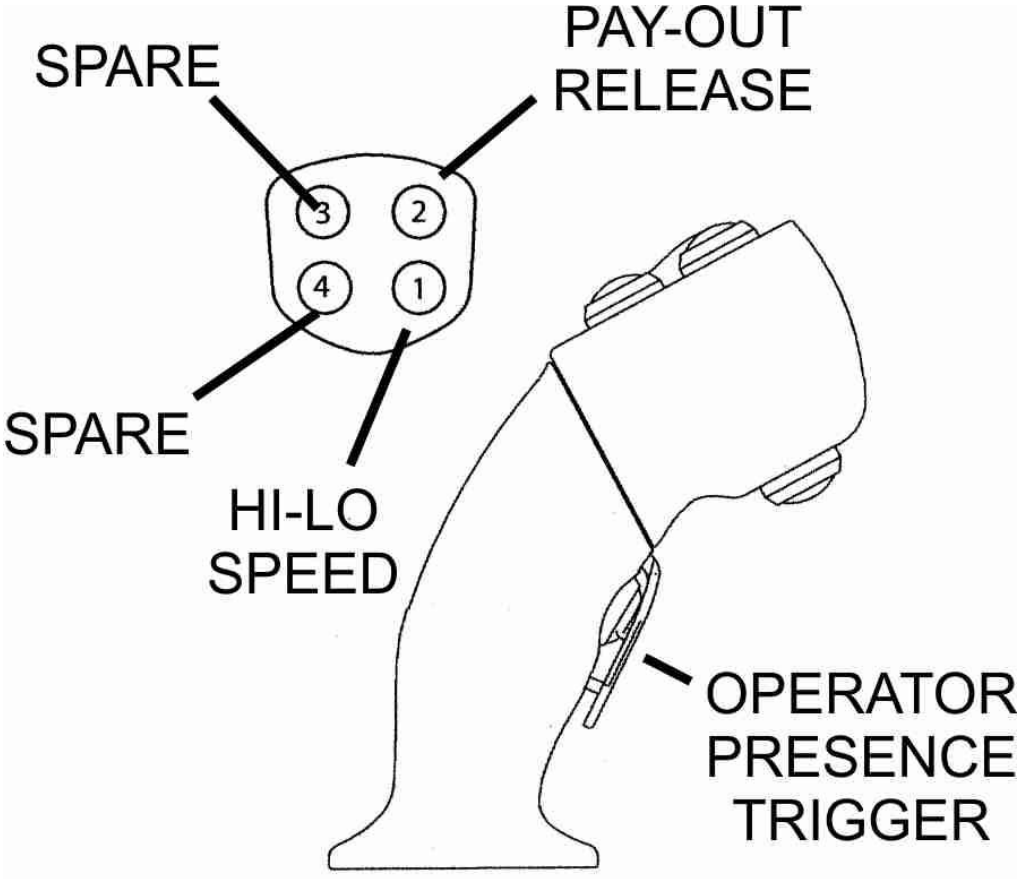
2. Sensor Heat. In cold conditions, it may be necessary to heat the pulling sensor for a few minutes prior to operation

3. Over spin Brake. This controls the over spin brake and at what pressure you apply. Clockwise to apply and counter clockwise to release. **DO NOT OPERATE PULLER WITH BRAKE APPLIED**. Damage to the brake caliper and rotor may occur as well as providing false pressure readings.

4. Level wind control.

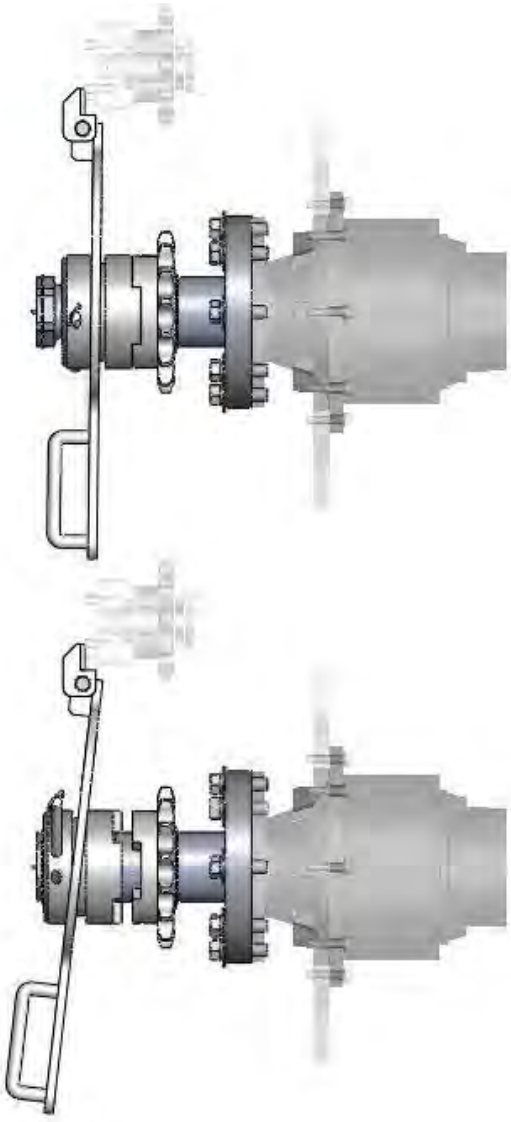
5. Joystick. This joystick is a friction style control. It has a positive stop but releasing control will NOT return control to neutral. In order to stop pull, operator must return joystick to neutral.

Joystick Functions



- Pay Out Release. This button must be pressed while attempting to pay out under power. By pressing the Operator Presence Trigger while pressing the Pay Out Release, moving the Joystick towards the Pay Out position will allow the reel to pay out under power. Once the reel begins to pay out, these buttons may be released. The Pay Out Lockout will automatically reset when the Joystick is returned to neutral.
- Hi-Lo Speed. Pressing this button during take up or payout will manually shift the pull speed. Although the computer is still in control of the maximum line speed and line pull and it will not be exceeded.
- Operator Presence Trigger. This but be pressed during the beginning of all Joystick functions. Once the unit is working, it may be released. The trigger will reset when the Joystick is returned to neutral.

Warning: ***These functions are present to protect the operator and the crews on the ground. If any of these are not functioning properly, contact vendor immediately. These are not to be circumvented in any way. Creating shortcuts to control machines of this nature can cause <u>SERIOUS INJURY or DEATH</u> to those operating this machine and those that are working with it.***



Engaged

Disengaged

Drive Engagement

Above is a top view of the drive dog couplers in their engaged and disengaged state. Please be sure all clutch pins are installed when engaged and disengaged, or damage may occur.

Setup on the Job

Setup of the unit

Hogg & Davis, Inc. recommends following the methods described in the following publications:

IEEE Std 524-1992
IEEE Guide to the Installation of Overhead Transmission Line Conductors

IEEE Std 542a-1993
IEEE Guide to Grounding During the Installation of Overhead Transmission Line Conductors

Position of unit

Position the unit with the centerline of the truck in line with the pull. Place the unit at a minimum of two times the height of the first block. Positioning the unit this way decreases the stress on the level wind system.

Tie Down/ Brake/ Chock

Chock all wheels and set brakes (if applicable). It should be noted that the fully loaded puller weight may exceed the tension desired during the pull. As the pull progresses, the weight of the puller may increase or decrease, therefore proper securing procedures should be followed during operation.

Rope Payout Procedure (Free Wheel)

When beginning the rope payout feature, be sure that the engine is turned off. Ensure that all tension is removed from the pulling rope before attempting to remove drive pin.

Adjust reel brake to provide tension to the reel of rope. Disengage the drive dog(s) from the sprocket drive(s). Begin to pull rope through the blocks while continuing to adjust the over spin brake. When the rope install is completed, engage the sprocket drive(s). Manual rotation of the reel may be needed to properly install drive dog(s). It may be necessary to engage one drive dog at a time with an operator at the control and one at the drive clutch. Be sure that the hydraulic drive brakes are not set during this "bump" process.

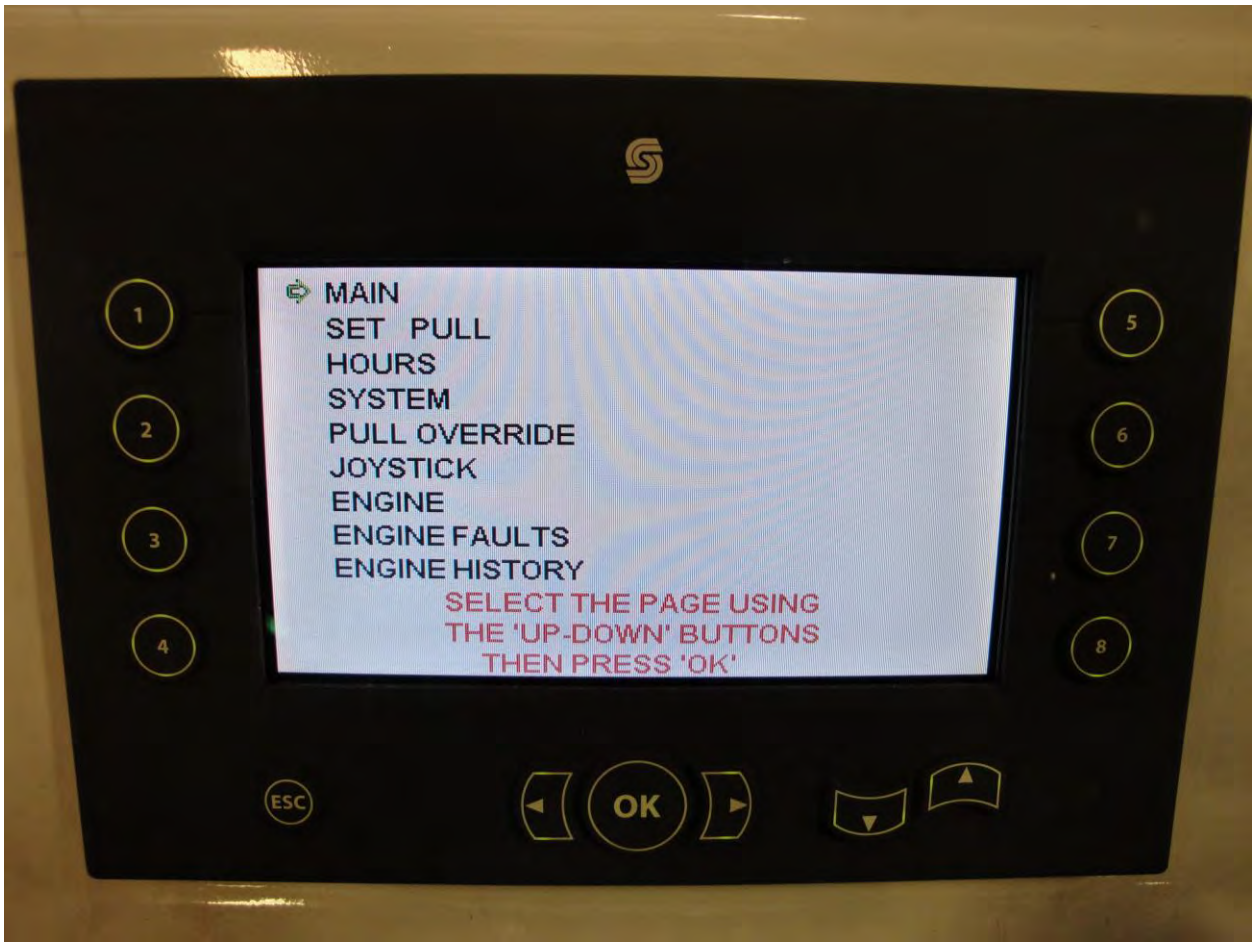
Pulling Computer

This unit is equipped with a computer control that allows the operator to preset the Maximum Line Pull as well as the Maximum Line Speed. During the pull, no matter the length of cable in the air, the computer calculates the drum diameter and adjusts the hydraulic system to provide a constant pulling control. Throughout the pull, the Line Pull and the Line Speed will be maintained at a constant set by the operator. This type of system allows for greater control of the overall pull, as well as eliminating the "estimation process" and constant adjustment of hydraulic system to maintain the maximum preset.

Operation

Setup Screen. Select the page using the "up-down" buttons and then press enter.

ODP 200 PPS
20,000 Lb Drum Puller



Set Pull

There can be up to four preset "Pulls" in the computer at one time. They are labeled, Pull 1-4 and utilize the corresponding buttons on the left hand side of the pulling computer control.

Select the pull you wish to modify and increase the Maximum Pull by using the "up-down" buttons. When the desired Line Pull Max is set, press enter.

The computer can also control the line speed for that set pull. The buttons on the right side of the pulling computer 5-8 correspond with the pulls set 1-4. Pressing the 5-8 buttons will allow the operator to set the maximum Line Speed for the pull. FPM and MPH are both displayed. They are set relevant to the other. Example 352 FPM = 4.0 MPH

When the Maximum Line Pull and Line Speed are set, press the ESC key and return to Pull Screen

Pull Screen - MAIN

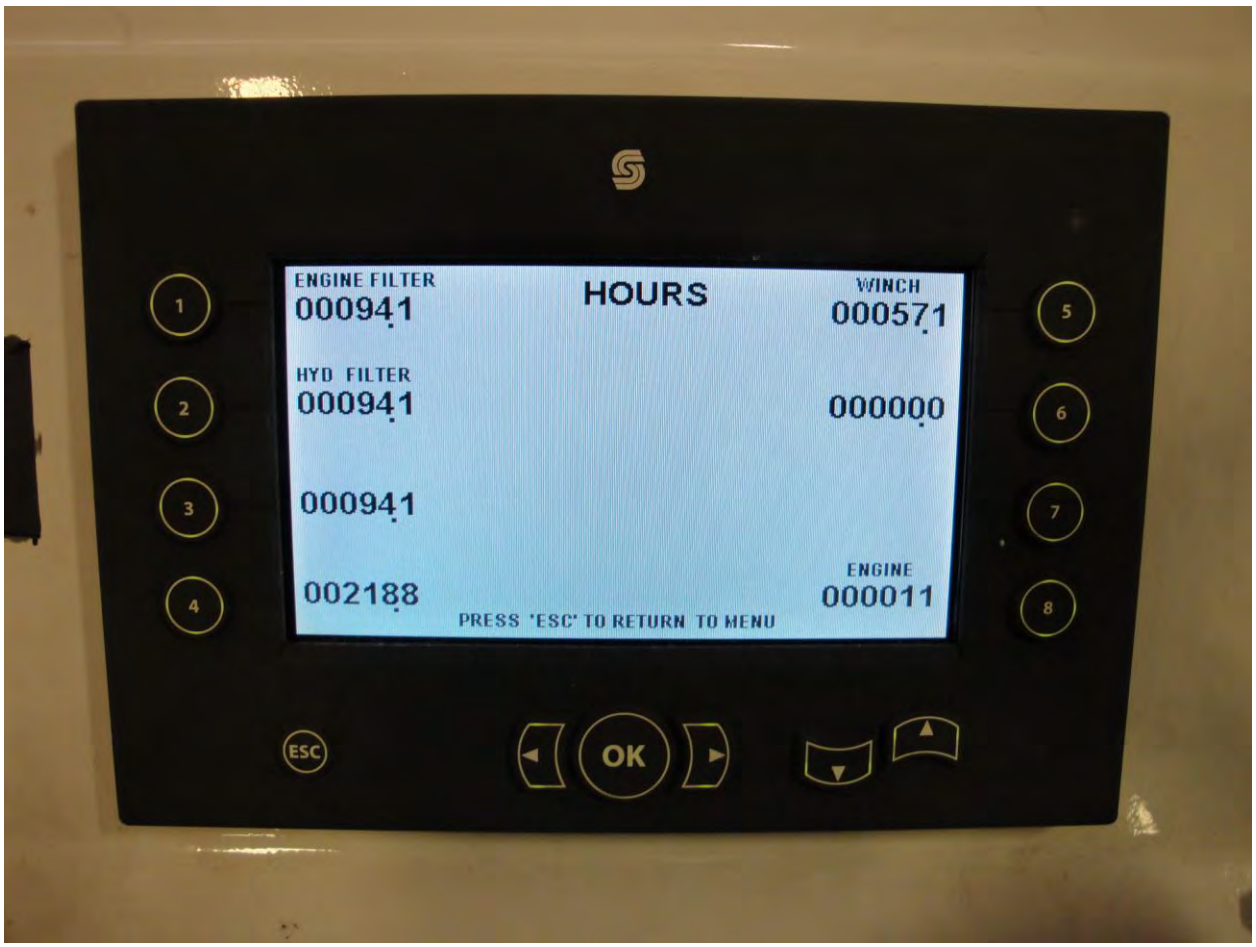
The pull screen displays the most needed displays for the pull.

- Pull – This displays the Current Line Pull in lbs. NOT THE MAXIMUM
- Fuel – Fuel Level in the Puller tank
- Drum Diameter – Current diameter of the drum
- FPM – Current FPM
- MPH – Current MPH
- Engine Gauges – This display's the engine temp, oil pressure, RPM PCT of Load and battery voltage
- Throttle – The engine throttle is increased or decreased by using the Left-Right buttons on each side of the OK button

- Menu – Returns to the Main Menu Screen
- Pull and Speed – Below the Menu label on the screen, the PRESET Maximum Line Pull and Speed are displayed
- Select Pull – This button brings up the Select Pull Screen
- Camera – If the unit is equipped, this will allow for remote viewing

Hours Screen

This screen displays the current hours on the engine oil filters, hydraulic oil filters, the time the winch has been activated (pay in and pay out time) and engine hours.

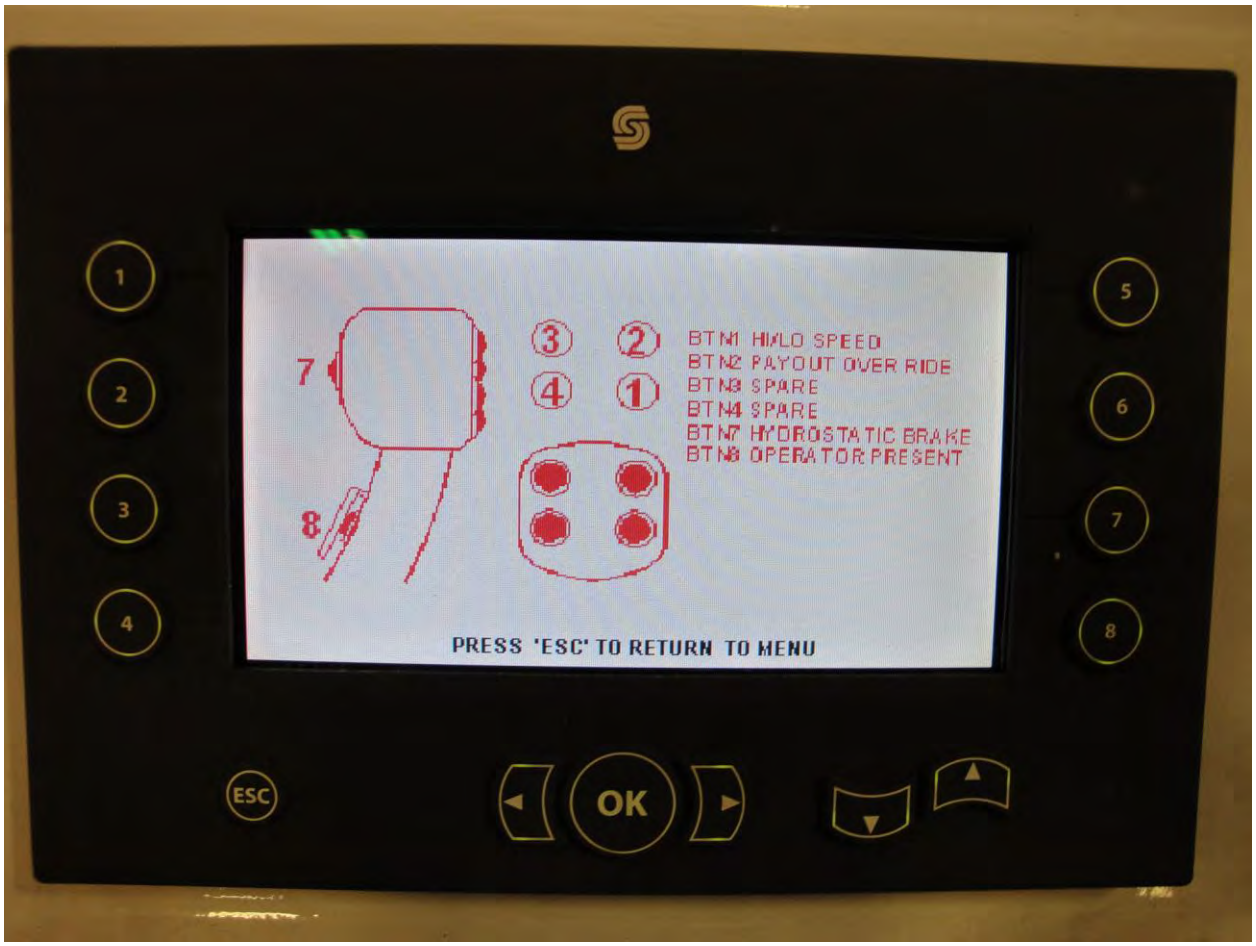


System Screen

This screen displays the current System Pressure, Charge Pressure, Motor RPM, and the Drum Diameter. This screen is primarily used for troubleshooting.

Joystick

This screen gives a graphic display of the Joystick and its functions.



Engine

This screen displays all current information regarding the engine on the puller.

******These instructions assume that the operator has set the proper drive dog(s) for the reel to be pulled in.***

Pulling Control

The Following instructions explain how to properly set up the unit.

1. Release the hydraulic over spin brake.
2. Set Job Pull Settings on the Pull Computer.
3. Return computer to Main Screen.
4. Increase Throttle to 1500 RPM or desired setting.
5. Squeeze trigger and move Joystick to take up.
6. Adjust line speed with joystick.
7. Return joystick to neutral to stop pull and set holding brake.

System Brakes

The internal braking system is spring applied / hydraulic release on the drive motors. When the joystick is in neutral, the brakes are automatically applied.

Level wind

This unit is equipped with post style four way level wind. Please ensure that it is properly greased at all times. The Level wind must be stowed in the cradle during transport

Lubrication of the level wind and its components is critical. Please grease all zerks as well as covering the shafts.

LUBRICATION AND MAINTENANCE

This unit has no set PM schedule beyond that of the engine manufacturers suggested maintenance schedule. This unit should be visually inspected prior to each use while repairing any and all discrepancies prior to use.

Items to be inspected prior to use are:

- Drive Chains and sprockets for wear and slack
- All welds and seams
- Loose or missing fasteners (bolts, nuts, set screws)
- Loose or leaking hydraulic hoses
- Damaged or worn hydraulic hoses
- Brake calipers (loose fittings, hoses, worn linings)
- Brake Pads (over spin brake)
- Brake rotors
- Tires and brakes
- Engine and hydraulic system fluid levels.
- Set screws (see set screw section)

Lubrication Schedule

- Drive chain and sprockets (daily)
- Reel Shaft Bearings (as needed)
- Reel Bearings (as needed)
- Engine oil as per manufacturers recommendation
- Idler sprocket (daily)
- Axle Bearings (as needed)
- Level wind grease fittings (as needed)

Set Screws

Due to the rugged nature of this machine, all set screws on the shafts, reels and bearings have a thread locker and may be double set screwed. Please do not assume that screws are tight when performing maintenance. When checking or tightening these set screws, remove the first and then tighten the first.

15-15 Warranty

Hogg and Davis, Inc. warrants its trailers against defects in material or workmanship for period of 15 months from the date of shipment from Hogg and Davis, Inc. (see General Conditions & Exceptions). Hogg and Davis, Inc. will replace, free of charge, F.O.B. Hogg and Davis, Inc. factory, such parts or parts thereof, that in their judgement have proven defective. Additionally, Hogg and Davis, Inc. will pay reasonable and customary labor charges when defective part is replaced, installed or repaired by a fully authorized Hogg and Davis, Inc. trailer dealer at his facility.

Warranty credit will be issued only upon receipt and inspection of defective parts of at the Hogg and Davis, Inc. factory.

Hogg and Davis, Inc. warrants it's trailer main frame assemblies (except pintle eyes or other towing attachments, spindles and axles) against defects in material or workmanship for a period of **15 years** from the date of shipment from Hogg and Davis, Inc. (see General Conditions & Exceptions). Hogg and Davis, Inc. shall replace or repair, in a manner as it shall determine, free of charge, F.O.B. factory, any parts or parts thereof, that in its judgement have proven defective. Additionally, Hogg and Davis, Inc. will pay reasonable and customary labor charges when defective part is replaces, installed or repaired by a fully authorized Hogg and Davis, Inc. trailer dealer at his facility

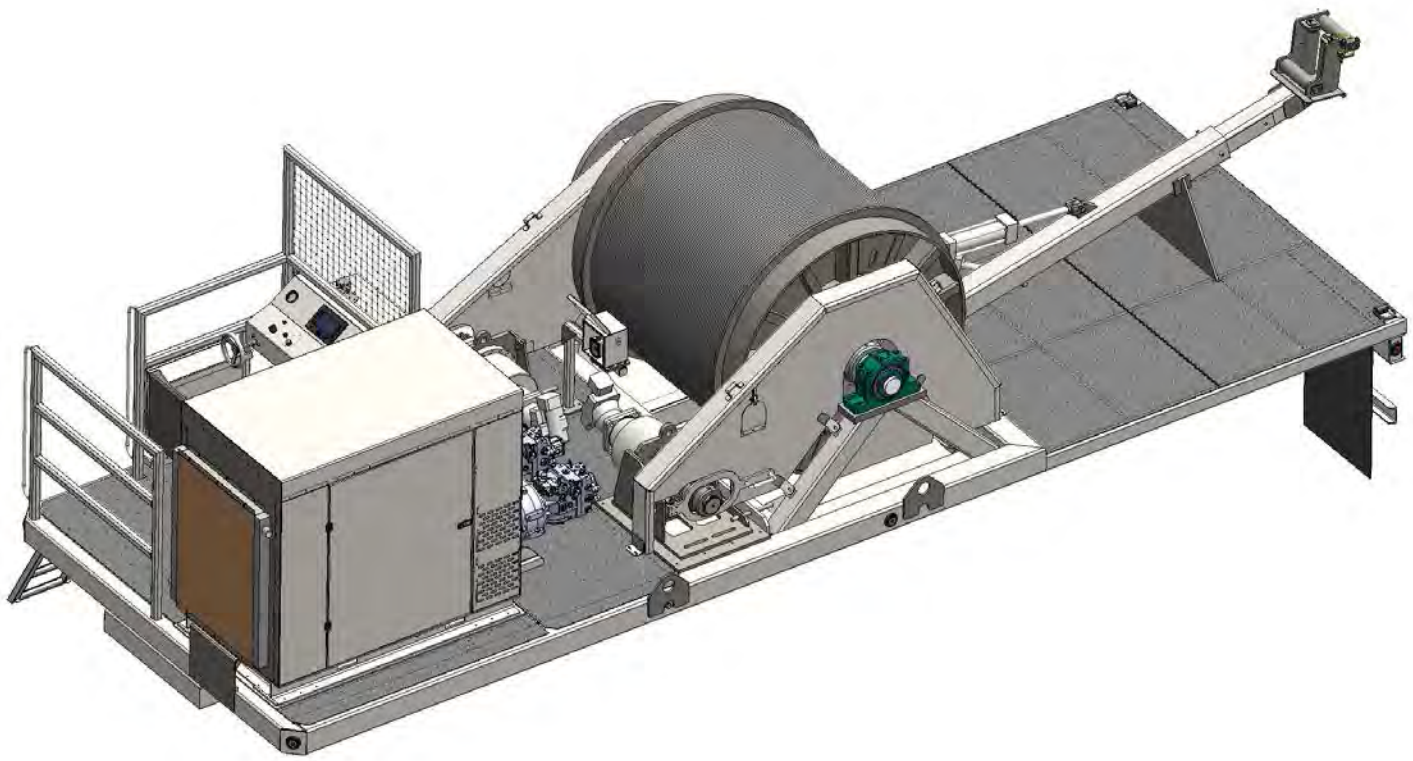
General Conditions & Exceptions

All warranties, options and representations made herein shall apply only provide such equipment shall not have been subject to misuse, negligence or accident and has been operated in accordance with factory approved procedures. This warranty does not obligate Hogg and Davis, Inc. or its authorized dealers to bear the cost of parts obtained from or labor performed by unauthorized sources. Nor does it obligate Hogg and Davis, Inc. **or its** authorized dealers to bear the cost of transportation of parts or equipment for repair or **replacement purposes.** This warranty is in lieu of any other warranty, expressed **or implied,** or any other obligation or liability on the part of Hogg and Davis, Inc and no persons or entity is authorized to make any representation beyond those stated herein.

Hogg and Davis, Inc. shall not be held liable for consequential damage of any kind. Hogg and Davis, Inc. also reserves the right to make changes and improvements in its products without incurring any obligation to install any such changes or improvements upon its products previously manufactured.

The above warranty shall not be misconstrued to mean warranty of tires, clutch, transmission assemblies or customer requested accessory equipment other than the warranty extended by their respective manufactures to Hogg and Davis, Inc. In addition, friction, drive rollers are warranted only to extent of bonding failure. All warranties, options and representations made herein are applicable to the original end-user of the product and are not sellable or transferable in any manner.

ODP200 PPST



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"Rugged Dependability."

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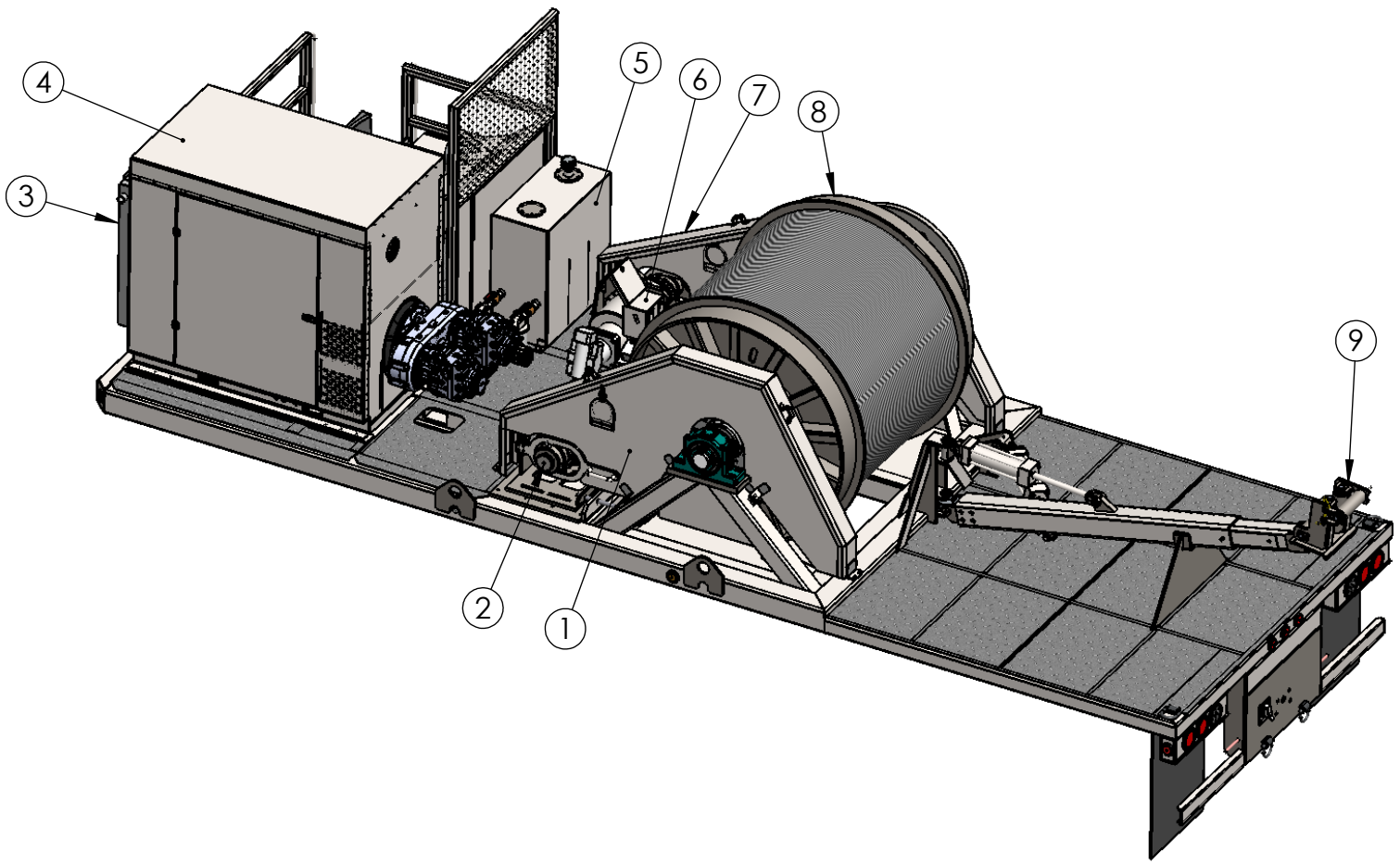
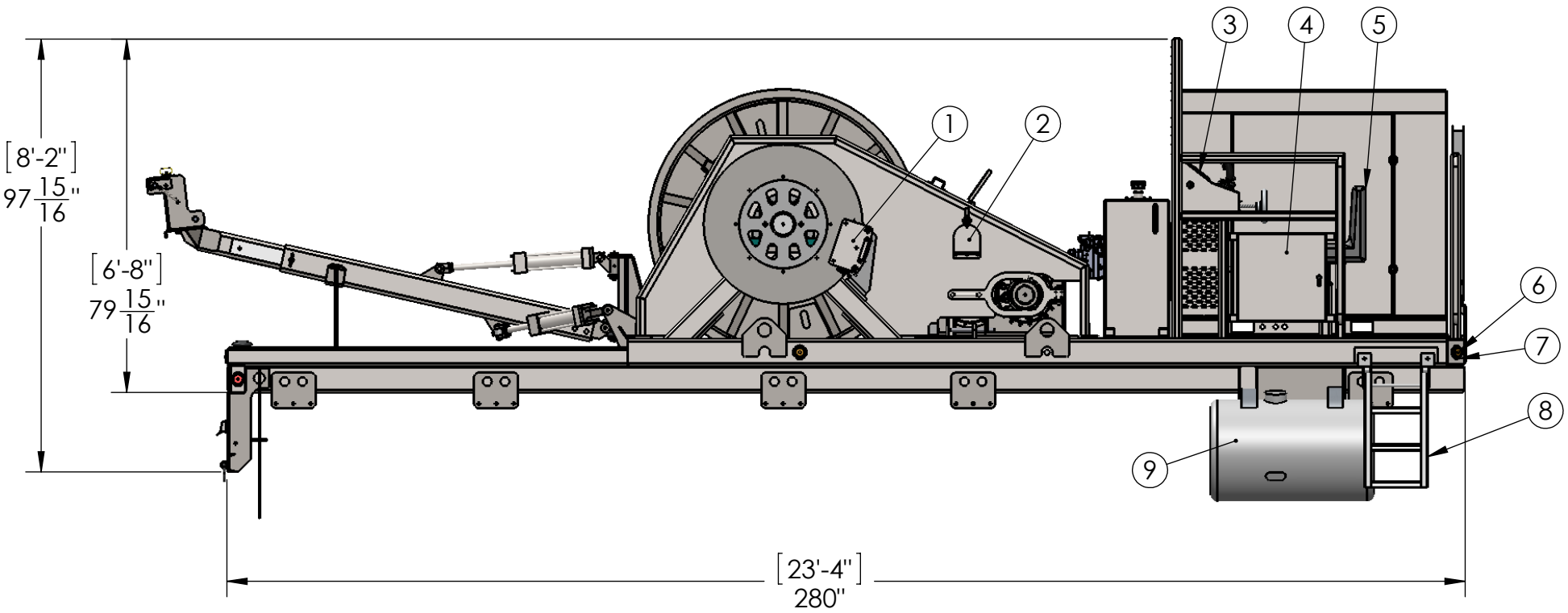
If items look different from the parts breakdown please call for assistance. (541)354-1001



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	G09218	Guard, Chain Streetside	1
2	Planetary	See Planetary Sheet	1
3	C35120	MA-120 oil cooler	1
4	Engine Assembly	See Engine/Pump Sheet	1
5	Hydraulic Tank	See Hydraulic Tank Sheet	1
6	Sensor Enclosure	See Sensor Enclosure Sheet	1
7	G09219	Guard, Chain Curbside	1
8	Reel Assembly	See Reel Assembly Sheet	1
9	Boom Levelwind	See Levelwind Sheet	1

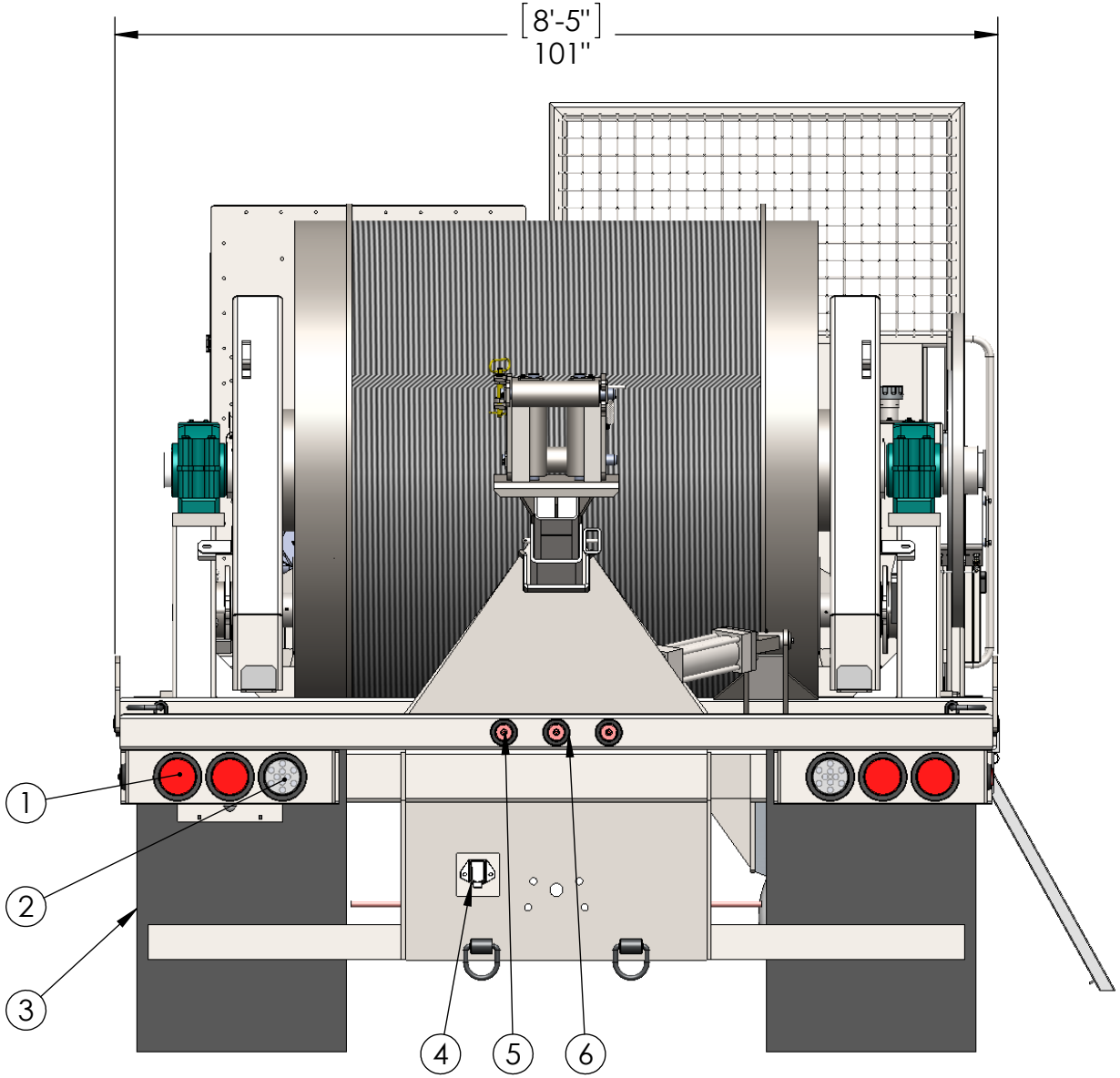
ODP200PPST



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C04030A	10" HD Brake Caliper w/ spacer	1
2	C29083	Cover, Driveshaft Capstan	2
3	Control Assembly	See Controls Sheet	1
4	B13104	20x20 HOFF Box	1
5	Seat Assembly	See Seat Assembly SHeet	1
6	L04311	Light Amber 2" LED	4
7	G08005	Grommet 2" Light	9
8	S33010	Step Ladder	1
9	T01055	Tank, 60gal	1

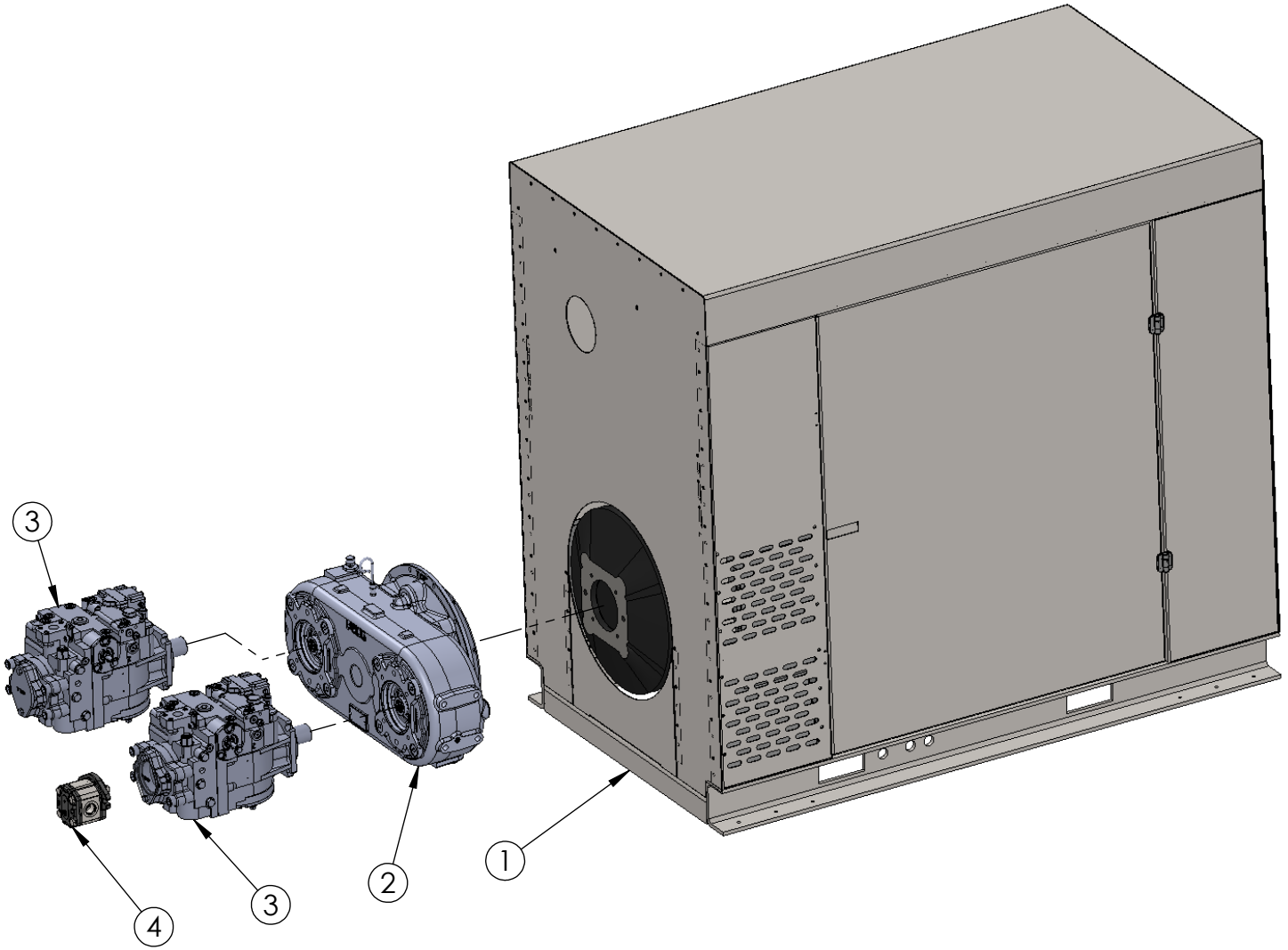
HD

Curbside View



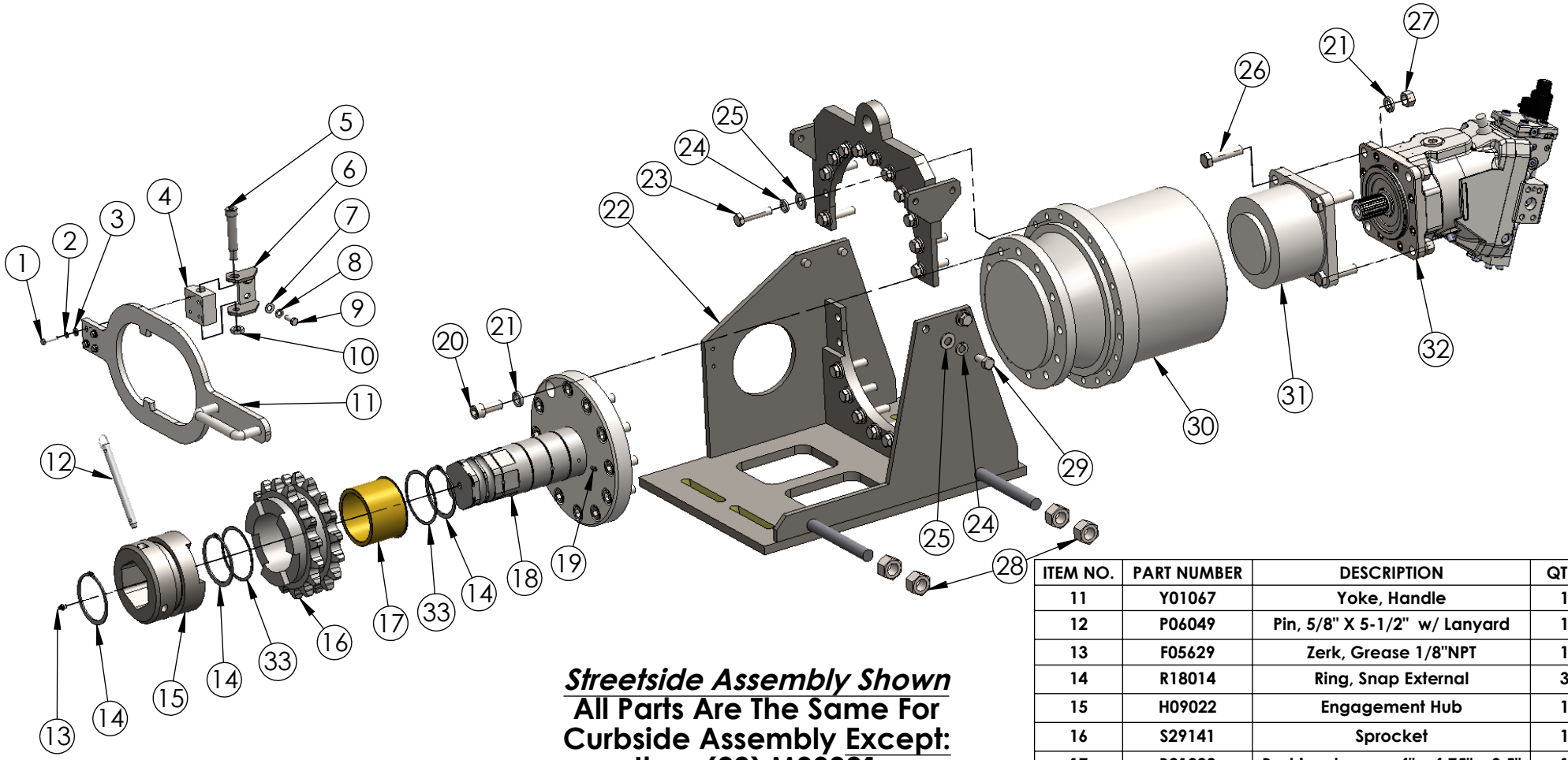
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L04032	Light, 4" Tail/Stop/Turn Kit LED	4
2	L04011	Light, 4" Clear Kit LED	2
3	F10005	Flap Mud 24x30	2
4	S21035	Socket 7-wire Pollak	1
5	L04310	Light Red 2" LED	5
6	G08005	Grommet 2" Light	9

Rear View



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	E02276	Engine with Enclosure	1
2	A02975	Adaptor, Pump	1
3	P20050	Pump, Hydraulic	2
4	P20107	Pump, 10 gal, Left Hand rotation	1

Engine/Pump Assembly



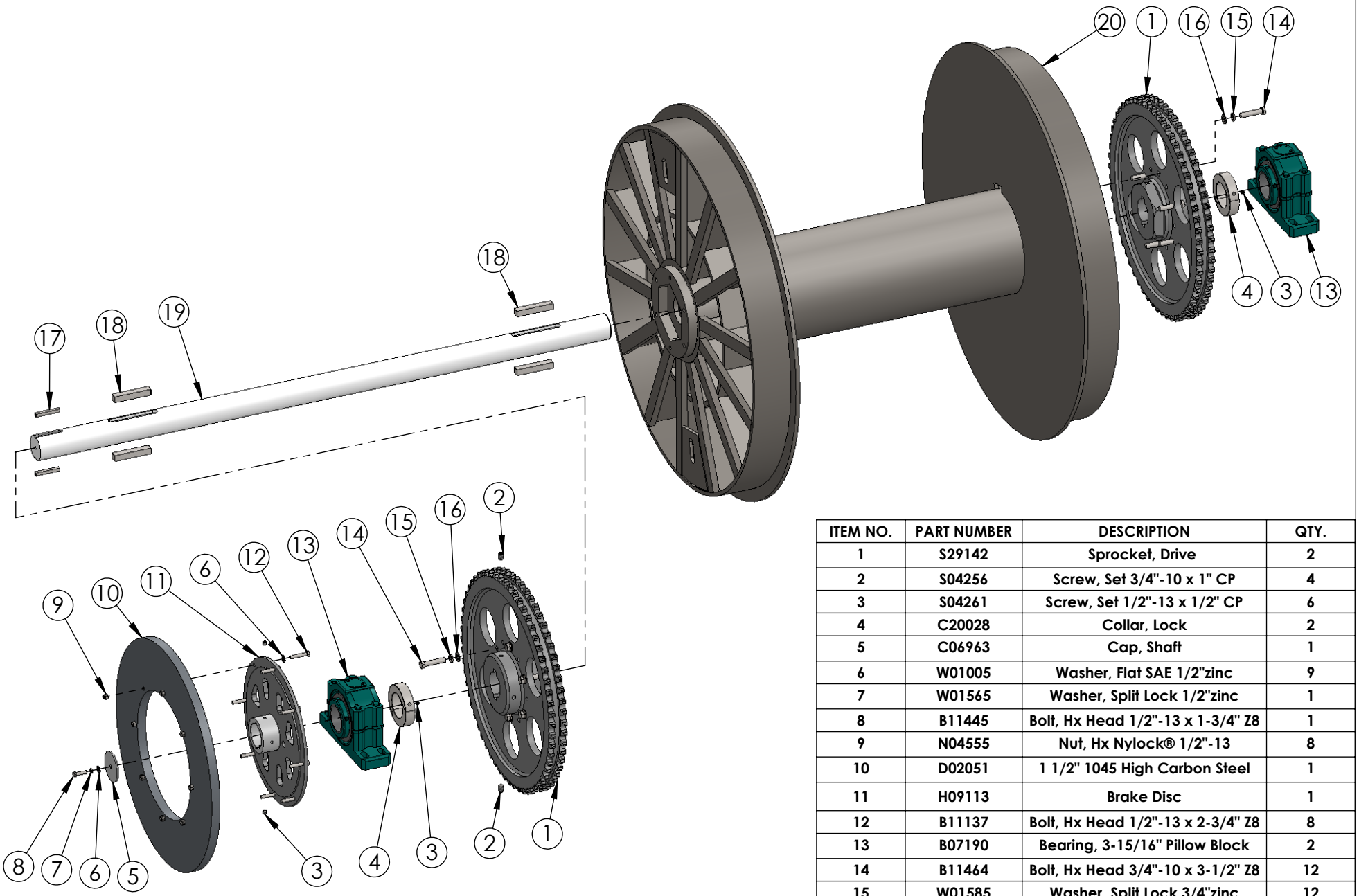
Streetside Assembly Shown

All Parts Are The Same For Curbside Assembly Except:
Item (22) M09021
Curbside Use M09020
&
Item (6) B15089
Curbside Use B15080

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	B11325	Bolt, Hx Head 1/4"-20 x 1-1/4"	4
2	W01525	Washer, Split Lock 1/4"	4
3	W01205	Washer, Flat SAE 1/4"	4
4	B15100	Block, Pivot	1
5	B11180	Bolt, shoulder 3/4" x 3"	1
6	B15089	Yoke Pivot - Street Side	1
7	W01002	Washer, Flat SAE 3/8"	2
8	W01545	Washer, Split Lock 3/8"	2
9	B11342	Bolt, Hx Head 3/8"-16 x 1"	2
10	N04474	Nut, Hex Jam 5/8"-11	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
11	Y01067	Yoke, Handle	1
12	P06049	Pin, 5/8" X 5-1/2" w/ Lanyard	1
13	F05629	Zerk, Grease 1/8"NPT	1
14	R18014	Ring, Snap External	3
15	H09022	Engagement Hub	1
16	S29141	Sprocket	1
17	B21022	Bushing, bronze, 4" x 4.75" x 3.5"	1
18	S43032	Shaft, Hex Drive	1
19	F05630	Zerk, Grease 1/4"-28	2
20	S04245	Screw, SHCS 3/4"-16 x 1-3/4"	12
21	W01585	Washer, Split Lock 3/4"	16
22	M09021	Mount, Planetary, Street Side	1
23	B11477	Bolt, Hx Head 5/8"-11 x 2-3/4" Z8	20
24	W01040	Washer, Split Lock 5/8"	24
25	W01053	Washer, Flat 5/8"	24
26	B11465	Bolt, Hx head 3/4"-10 x 3" Z8	4
27	N04284	Nut, Hex 3/4"-10	4
28	N04267	Nut, 1"-8 Z8	4
29	B11380	Bolt, Hx Head 5/8"-11 x 1-1/4"	4
30	G12004	Planetary	1
31	B16200	Brake, planetary	1
32	M08200	Motor, Hydraulic	1
33	W01014	Washer, Thrust	2

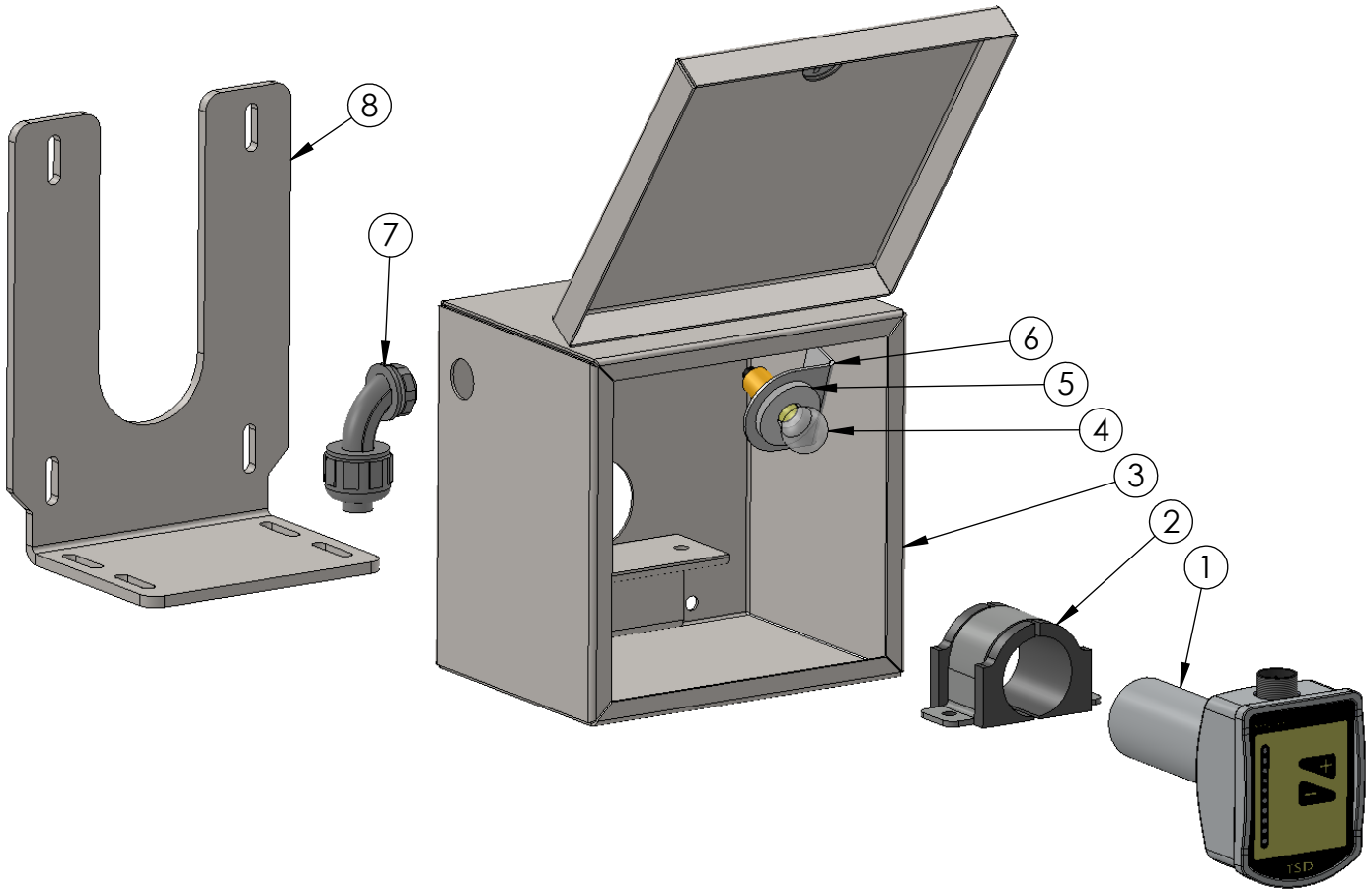
Planetary Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S29142	Sprocket, Drive	2
2	S04256	Screw, Set 3/4"-10 x 1" CP	4
3	S04261	Screw, Set 1/2"-13 x 1/2" CP	6
4	C20028	Collar, Lock	2
5	C06963	Cap, Shaft	1
6	W01005	Washer, Flat SAE 1/2"zinc	9
7	W01565	Washer, Split Lock 1/2"zinc	1
8	B11445	Bolt, Hx Head 1/2"-13 x 1-3/4" Z8	1
9	N04555	Nut, Hx Nylock® 1/2"-13	8
10	D02051	1 1/2" 1045 High Carbon Steel	1
11	H09113	Brake Disc	1
12	B11137	Bolt, Hx Head 1/2"-13 x 2-3/4" Z8	8
13	B07190	Bearing, 3-15/16" Pillow Block	2
14	B11464	Bolt, Hx Head 3/4"-10 x 3-1/2" Z8	12
15	W01585	Washer, Split Lock 3/4"zinc	12
16	W01287	Washer, Flat SAE 3/4"zinc Z8	12
17	K01021	Keystock, 1/2" x 4"	2
18	K01024	Keystock, Sqr 1" x 6"	4
19	S43046	Shaft, 3-15/16 stress-proof	1
20	R07022	Reel	1

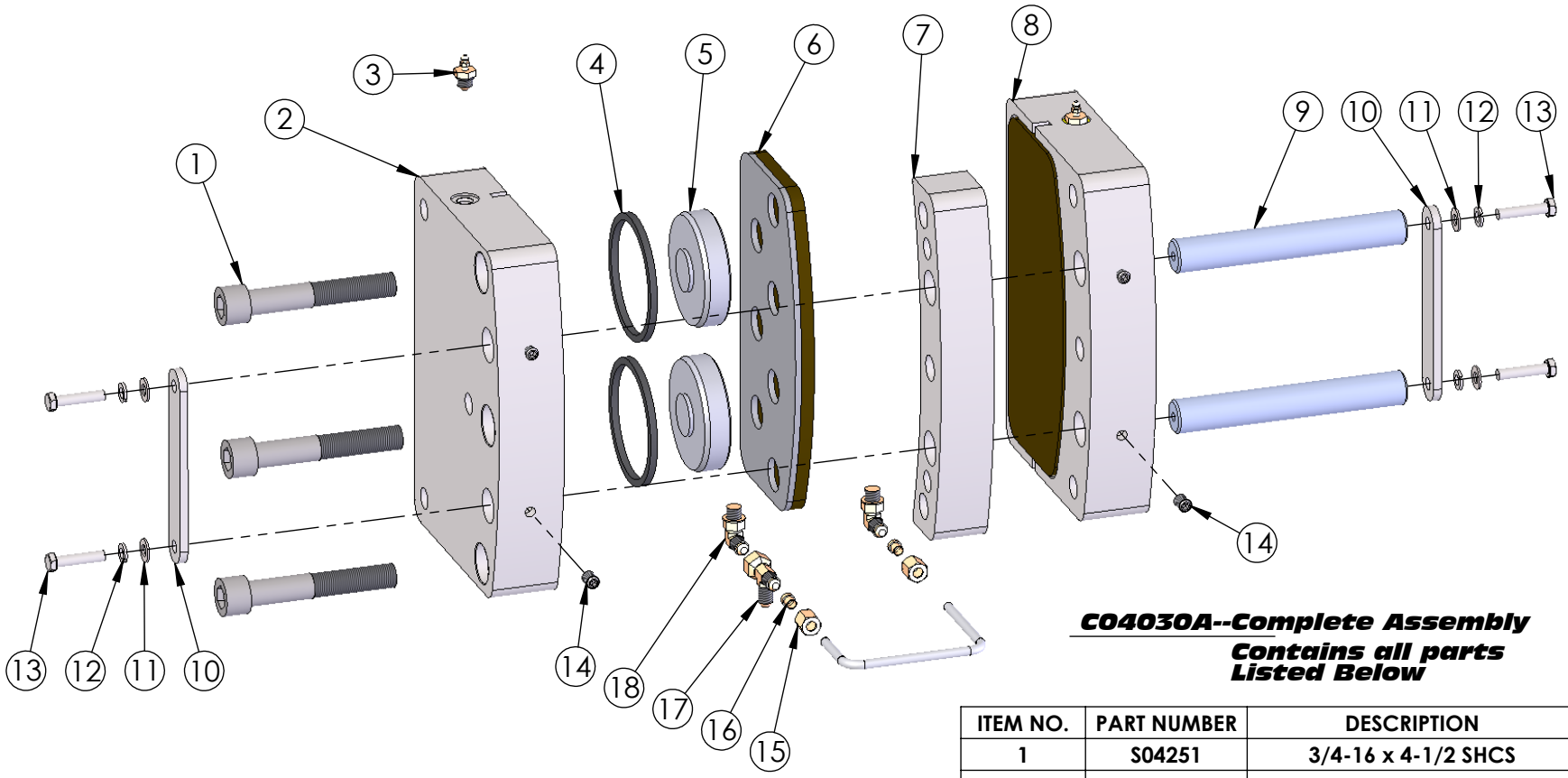
 D02051: min. thickness - 1.1875"

HD Reel Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S06020	Sensor, Ultrasonic	1
2	C14036	Clamp, Sensor Mount	1
3	B13105	Box, Sonic Sensor	1
4	L04021	Light, bulb 1157	1
5	S21021	LIght, socket 1157	1
6	B15272	Bracket, heat lamp	1
7	C26165	Liquidtite 90°	1
8	M09036	Mount, Sensor Box	1

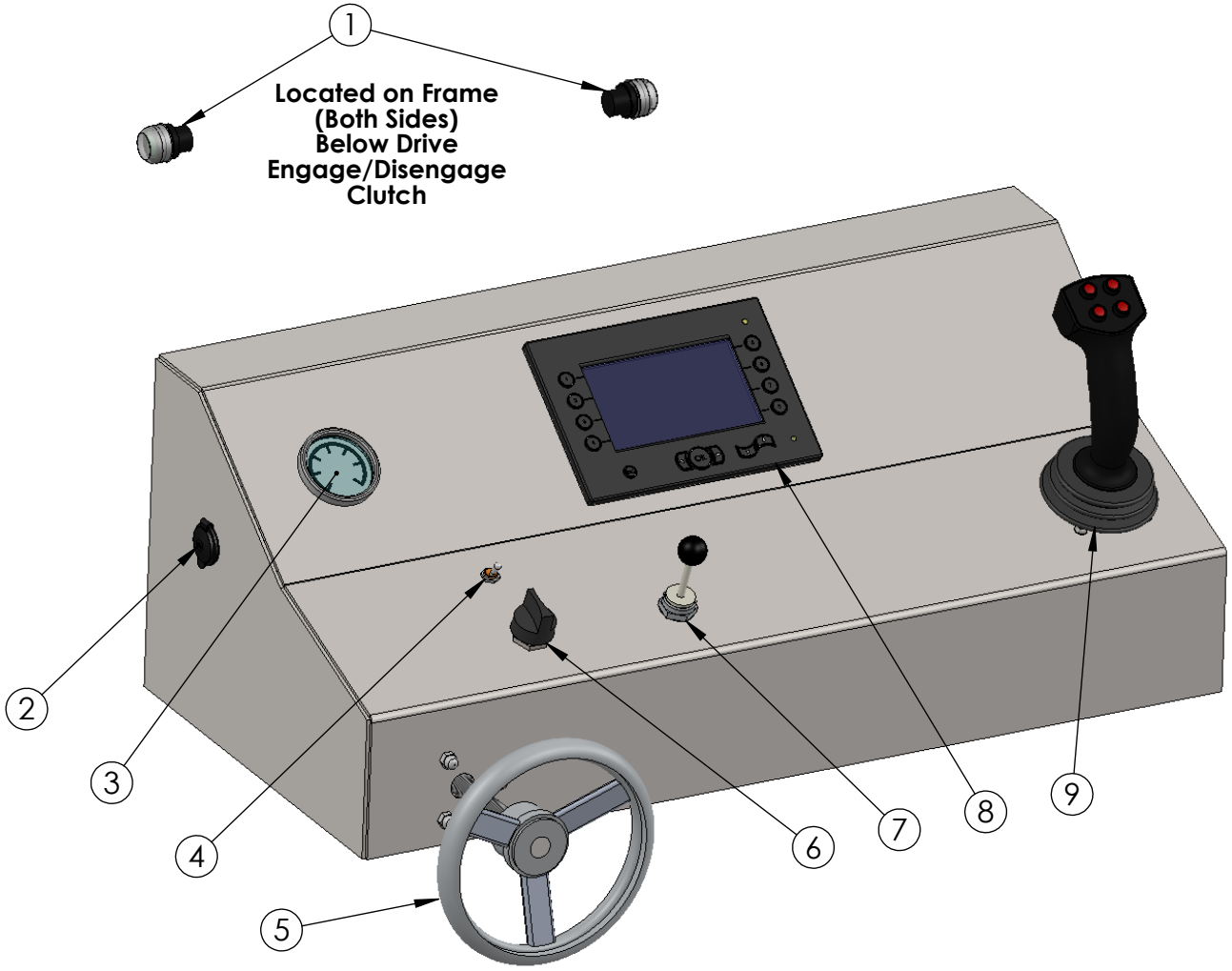
Sensor Box



C04030A--Complete Assembly
Contains all parts Listed Below

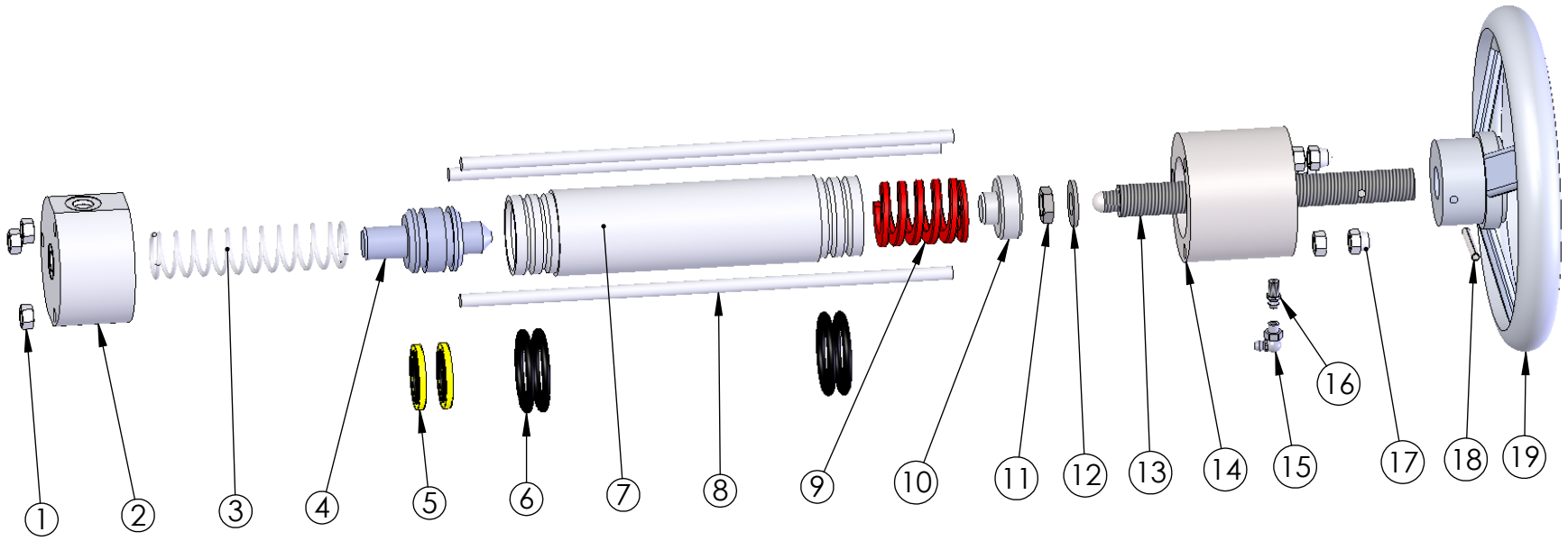
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S04251	3/4-16 x 4-1/2 SHCS	3
2	C04035	Caliper Half, Countersink	1
3	B18005	Bleader, -4 o-ring	2
4	O01225	O-Ring, Piston	4
5	P08004	3-3/8" Piston	4
6	P01011	10" HD Brake Pad	2
7	S24017	Spacer, 10" Hd caliper	1
8	C04036	Caliper Half, Threaded	1
9	P06057	Pin, Caliper	2
10	L07050	Link, Caliper Pin	2
11	W01235	Washer, Flat SAE 5/16"	4
12	W01048	Washer, Split Lock 5/16"	4
13	B11332	Bolt Hx Head 5/16"-18 x 1-1/2"	4
14	S04037	Screw, Set 3/8"-24x 1/2" CP	4
15	F05300	Fitting, -4 nut	2
16	F05113	Fitting, Sleeve -4	2
17	F05067	-4 Swivel Nut Run T	1
18	F05725	4 JIC to -4 SAE	2

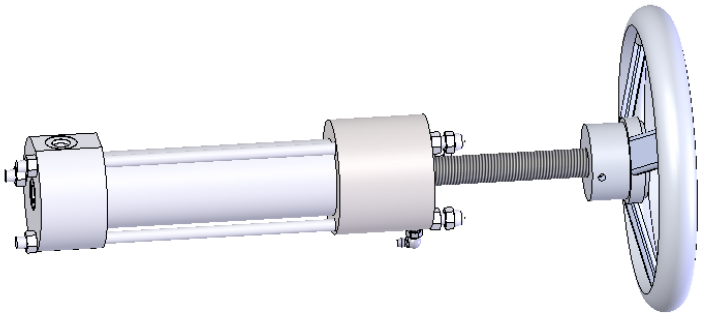
10 HD Brake Caliper Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S40169	Switch, Drive Bump	2
2	S21020	12v Socket	1
3	G02008	3" 600PSI GAUGE	1
4	S40035	Switch, SP/ST Toggle	1
5	C32004	Brake Cylinder	1
6	S40070	Switch, Key Cole Hersee	1
7	C34042	Controller, Levelwind Joystick	1
8	D09020	Display, Color DP600 TFT	1
9	C34033	Controller Joystick JS6000	1

HD Control Panel

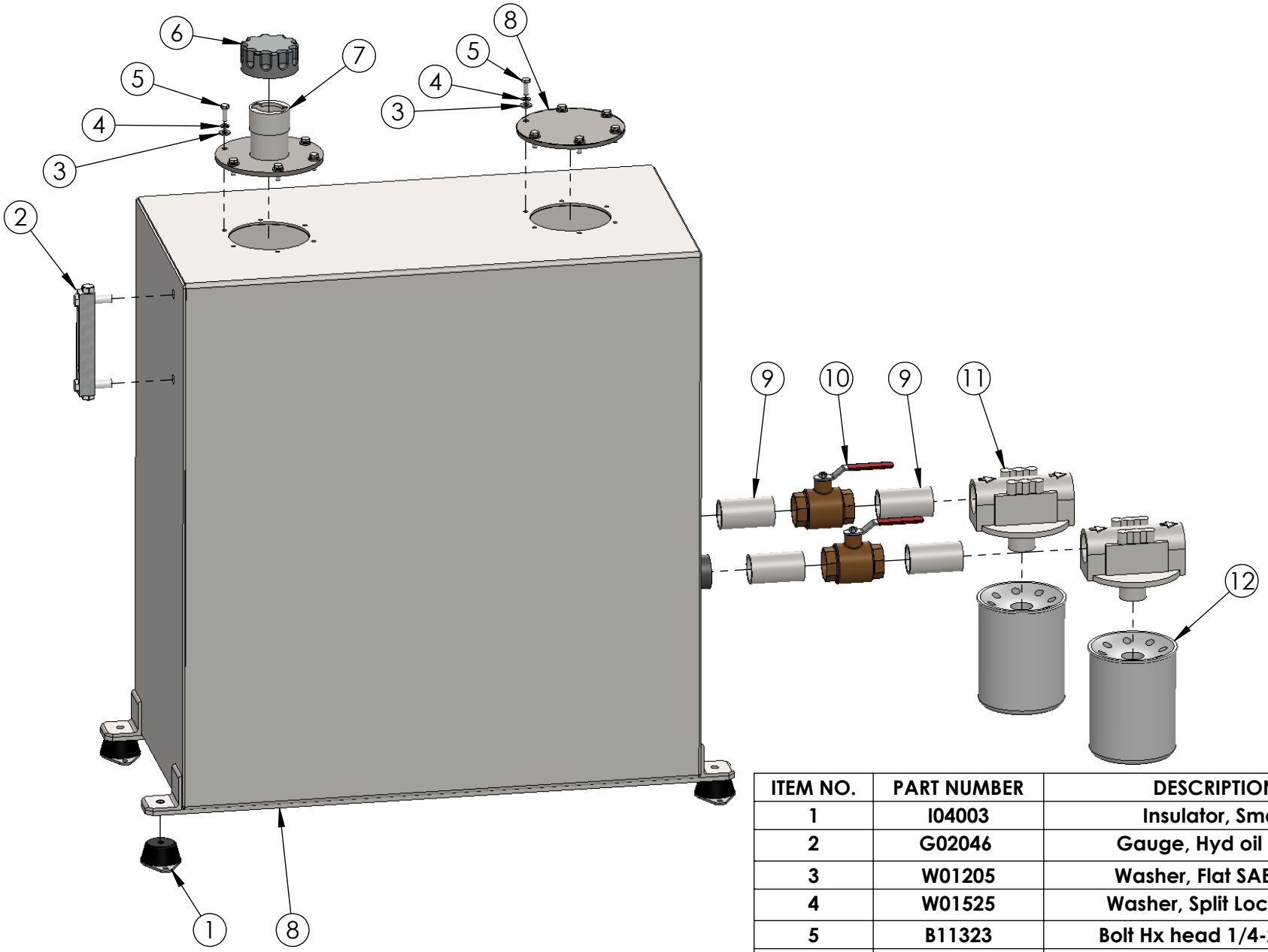




Depending on installation: use either 15 or 16

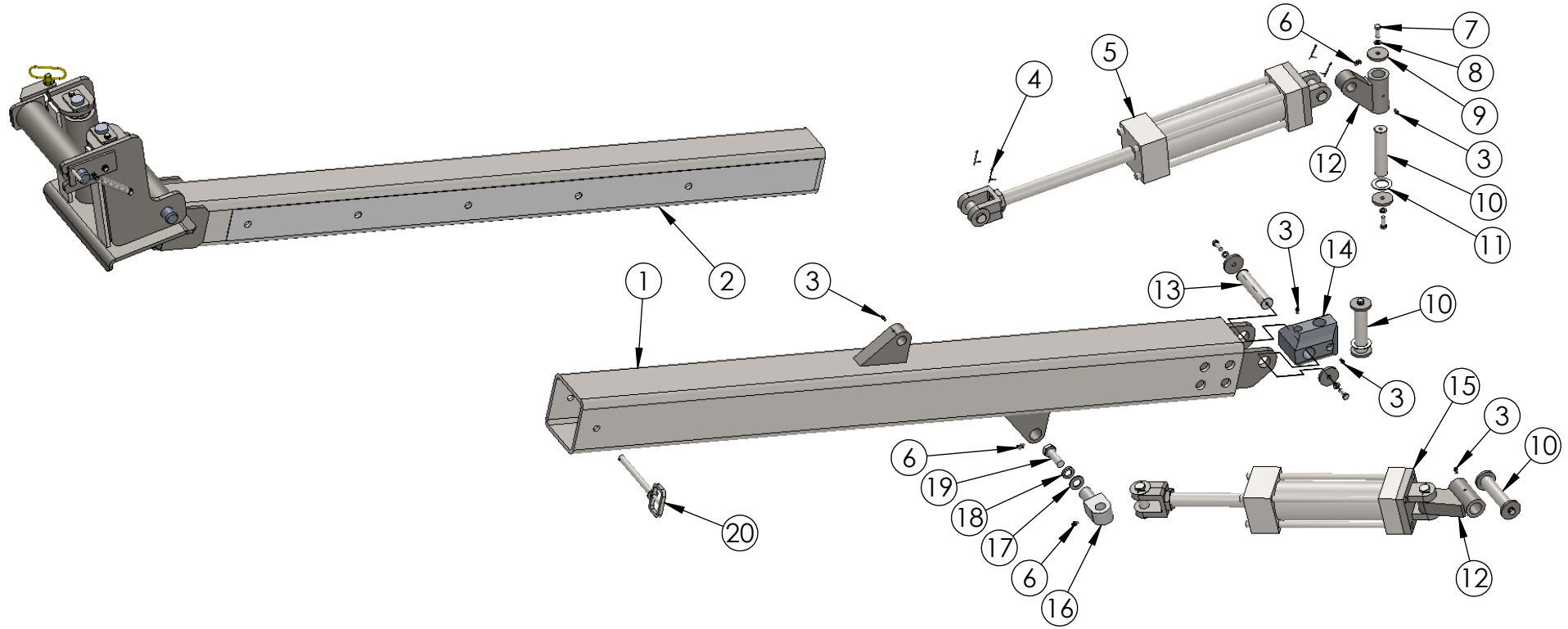
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	N04107	Nut, Hex 5/16"-18	6
2	C06009	Bar round 3" 1018	1
3	S28022	Return Spring	1
4	P08017	ALUM PISTON two groove	1
5	O01061	1 1/2" X 1 1/4" SEAL	2
6	O01060	1 7/8 X 1 5/8 O-RING	4
7	H08003	1.500" I.D. honed tube	1
8	R19007	Bar round 5/16" 1018	3
9	S28021	1080 lb/in Red Spring	1
10	P08016	2" Aluminum RB	1
11	N04039	Nut Hex Jam 1/2-20	1
12	W01005	Washer, Flat SAE 1/2"	1
13	S04006	Bar 3/4-8 acme thread	1
14	C06012	Bar round 3" 1018	1
15	F05785	Fitting, Zerk 1/4-28 90°	1
16	F05630	Fitting, 1/4-28 Zerk	1
17	N04103	Nut Hex 5/16-18 Acorn	3
18	P06189	Pin, Roll 3/16 x 1-1/2 Spring	1
19	H02060	Handle, 8" Dia	1

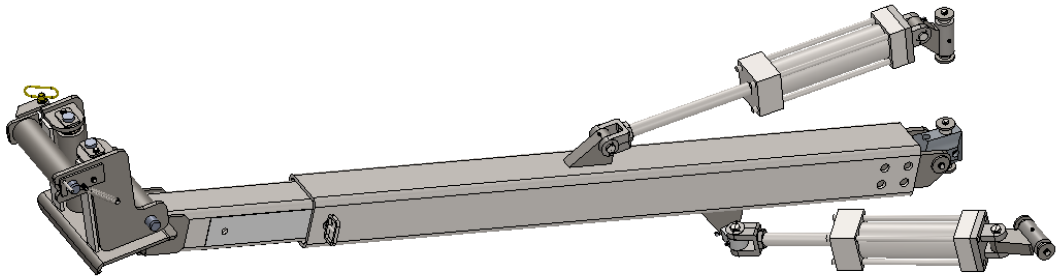
C32004
HD Brake Cylinder



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	I04003	Insulator, Small	4
2	G02046	Gauge, Hyd oil level	1
3	W01205	Washer, Flat SAE 1/4"	12
4	W01525	Washer, Split Lock 1/4"	12
5	B11323	Bolt Hx head 1/4-20x3/4	12
6	C06155A	Cap, Hydraulic	1
7	N07002	Neck, Hydraulic fill	1
8	T01957	Tank, Hyd 60 gal, 20k	1
9	N02001	Nipple, 1-1/4" x 3"LG	4
10	V02001	Valve, Ball 1-1/4" NPT	2
11	F04021	Filter Head	2
12	F04020	Filter 10 micron	2

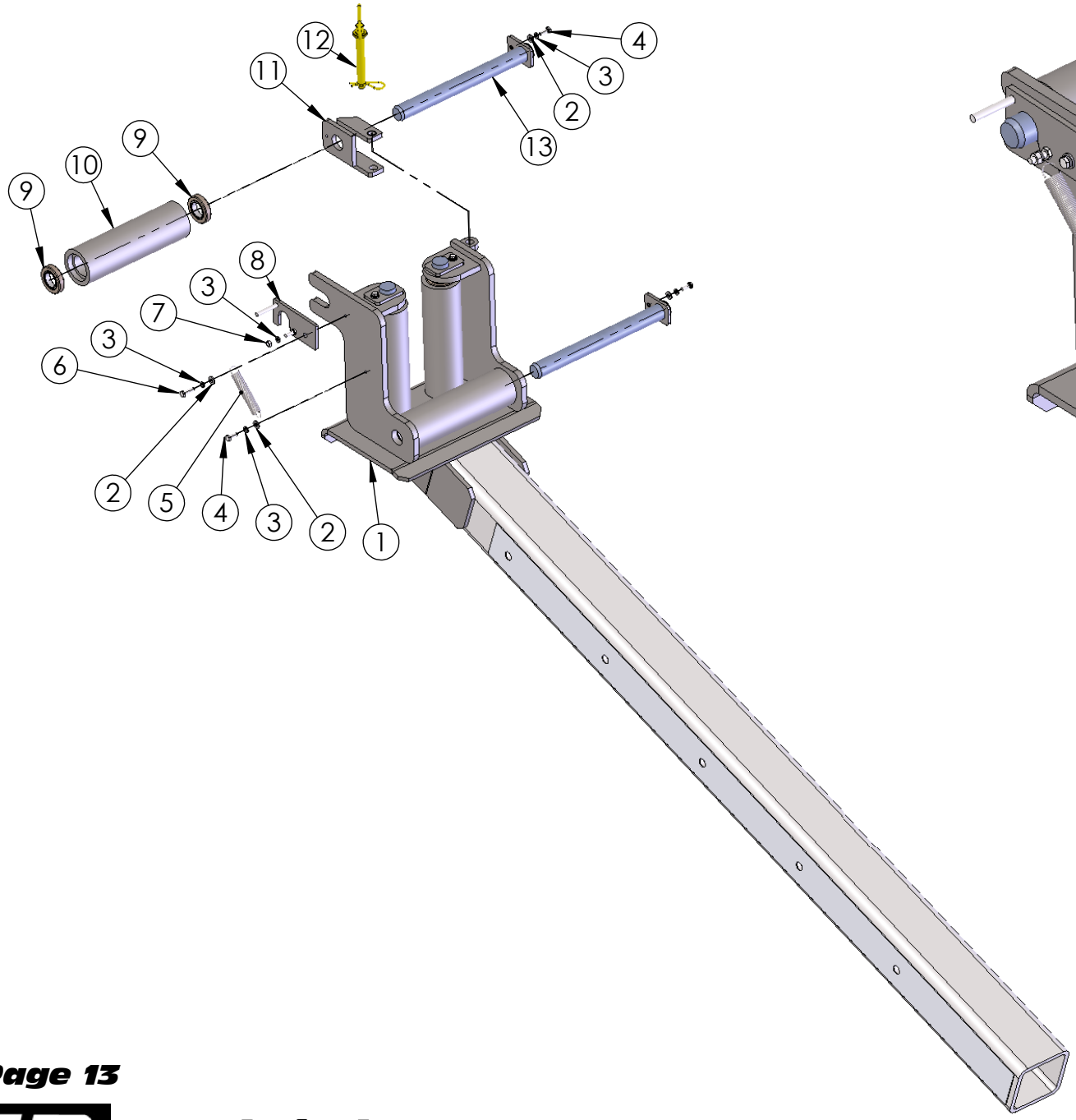
Hydraulic Tank

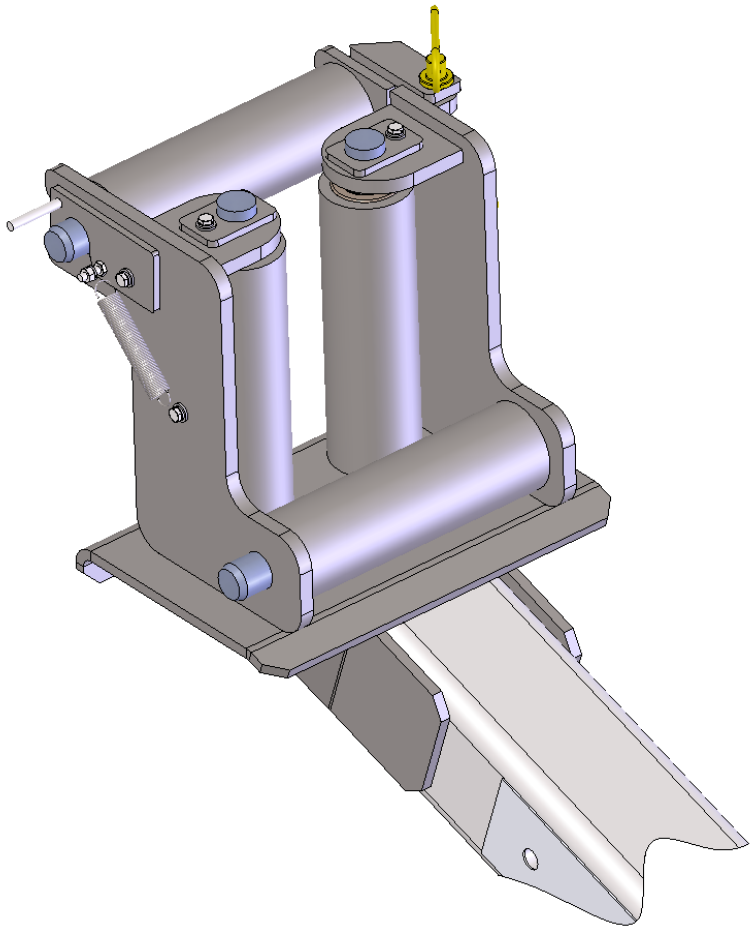




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S17006	Boom Sleeve	1
2	A08093	Boom Arm	1
3	F05630	Fitting, 1/4-28 Zerk	5
4	P06940	Pin, Cotter 1/8x1-1/2 Z	8
5	C32023A	Cylinder, Vertical	1
6	F05785	Fitting, Zerk 1/4-28 90°	4
7	B11342	Bolt Hx head 3/8-16x1	8
8	W01545	Washer, Split Lock 3/8"	8
9	C06041	Cap, End	8
10	P06081	Pin, 1 1/4" x 5 3/16"	3
11	W01594	Washer, Thrust Brass	2
12	P25007	Pivot, Cylinder	2
13	P06082	Pin, 1 1/4" x 5 3/8"	1
14	P25004	Pivot Joint	1
15	C32022A	Cylinder, Horizontal	1
16	P25005	Pivot, Shaft	1
17	W01286	Washer Flat SAE 3/4 plain	1
18	W01585	Washer Split Lock 3/4	1
19	B11075	Bolt Hx head 3/4-10x2-1/4 Z8	1
20	P06076	Pin, Adjusting	1

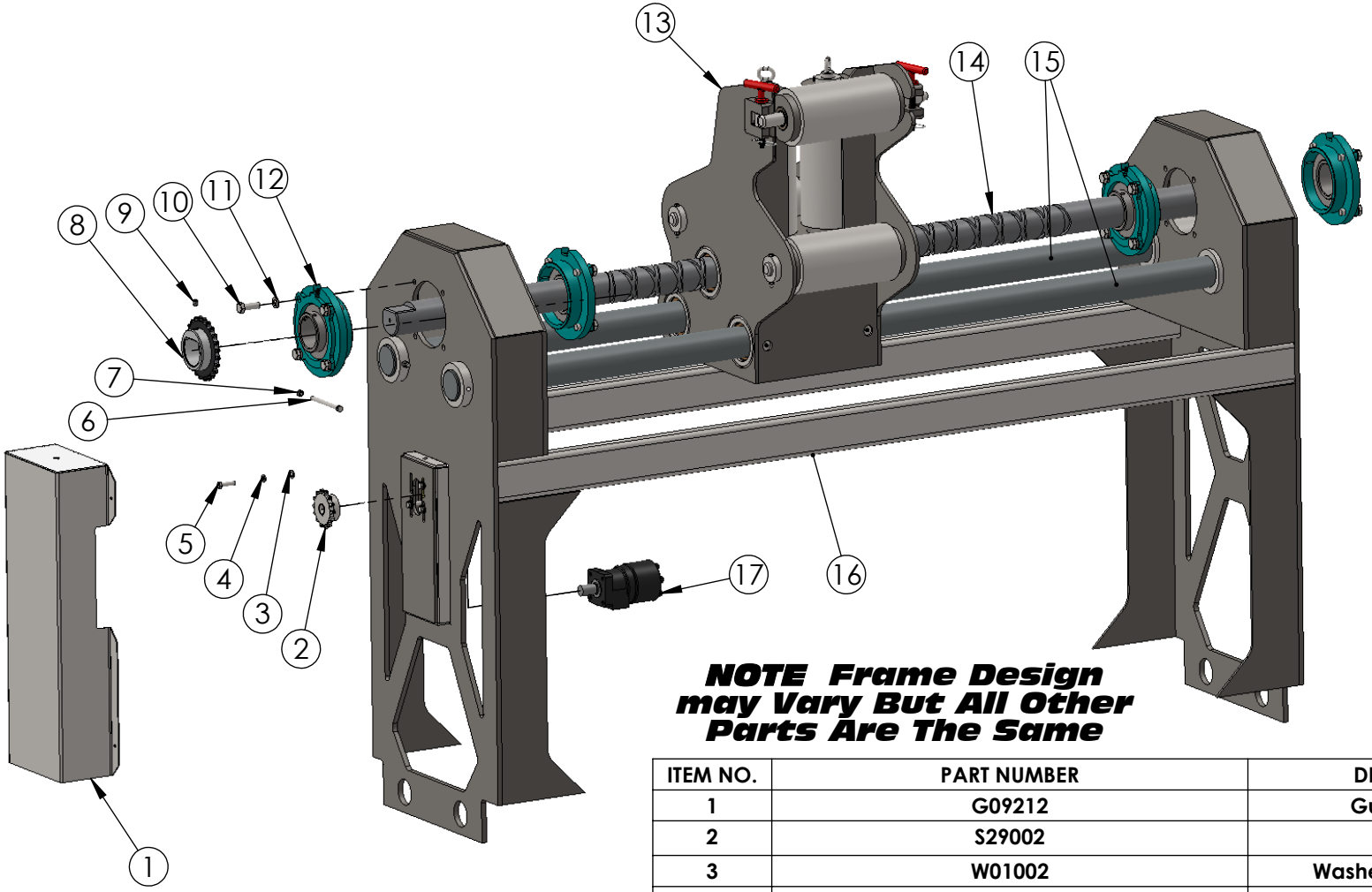
HD Levelwind Assembly





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	A08093	Upper Arm	1
2	W01205	Washer, Flat SAE 1/4"	6
3	W01525	Washer, Split Lock 1/4"	7
4	B11323	Bolt Hx head 1/4-20x3/4	5
5	S28155	Spring	1
6	B11324	Bolt Hx head 1/4-20x1	1
7	N04105	Nut Hex 1/4-20	1
8	L01004	Latch, Roller Shaft	1
9	B07137	Bearing, Roller	8
10	R20031	Roller, 10" Steel	4
11	B15985	Bracket, Roller Shaft	1
12	P06074	Pin, 5/8 x 6"	1
13	S43073	Shaft, Roller	4

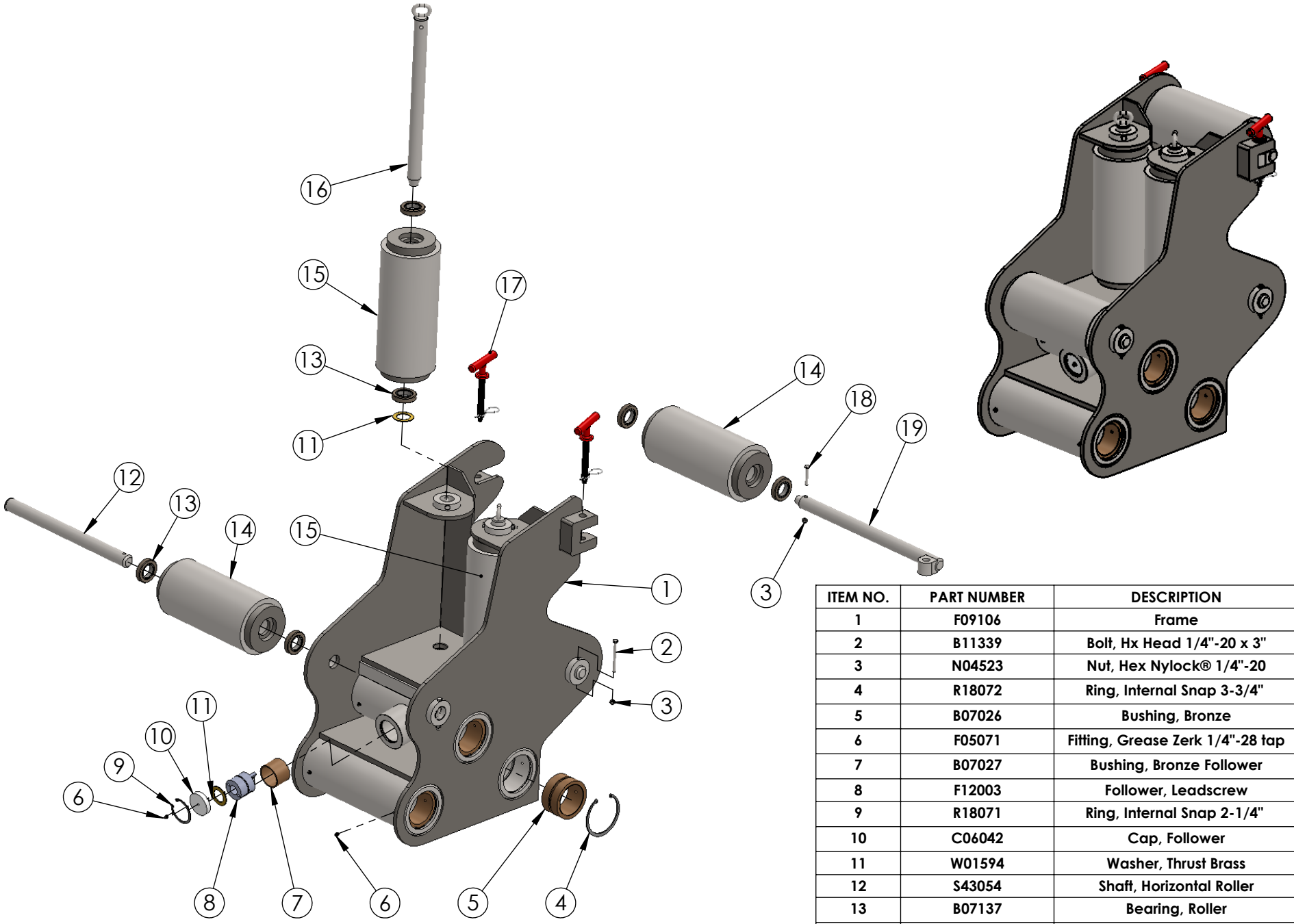
Levelwind Upper Arm



NOTE Frame Design may Vary But All Other Parts Are The Same

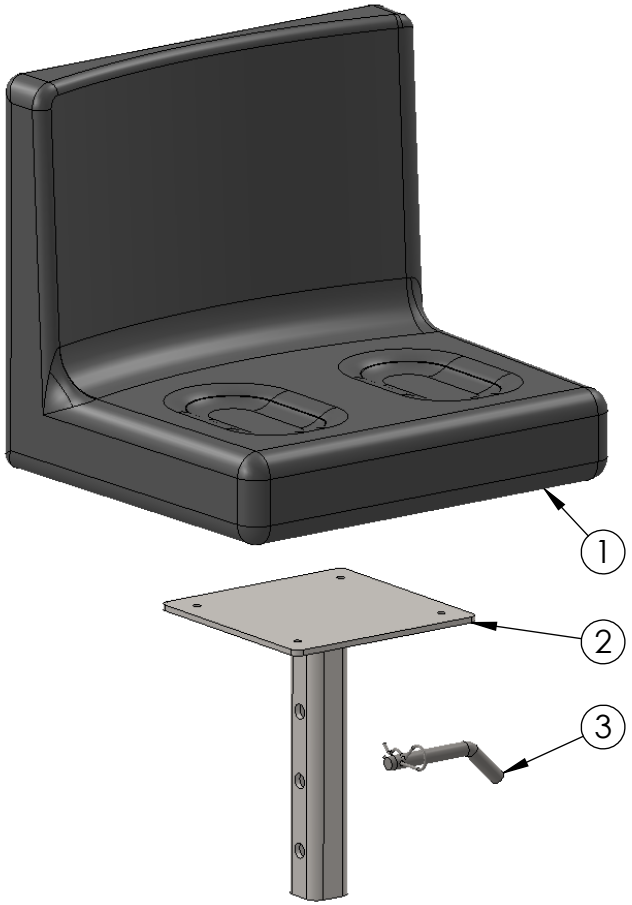
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	G09212	Guard, Chain	1
2	S29002	Sprocket	1
3	W01002	Washer, Flat SAE 3/8"	4
4	W01545	Washer, Split Lock 3/8"	4
5	B11344	Bolt, Hx Head 3/8"-16 x 1-1/2"	4
6	B11017	Bolt, Hx Head 3/8"-16 x 5"	2
7	N04553	Nut Hex Nylock 3/8-24	2
8	S29120	Sprocket	1
9	S04032	Screw, Set 1/2-13x1/2	1
10	B11375	Bolt Hx Head 5/8"-11 x 1-3/4"	16
11	W01040	Washer, Split Lock 5/8"	16
12	B07006	Bearing, Flange 3"	4
13	20k Levelwind Head	See Levelwind Head Sheet	1
14	S43047	Leadscrew	1
15	S43048	Shaft, Chrome 3"	2
16	F09032	Levelwind Frame	1
17	M08050	Motor, Hydraulic Drive	1

HD **Screw Levelwind**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F09106	Frame	1
2	B11339	Bolt, Hx Head 1/4"-20 x 3"	4
3	N04523	Nut, Hex Nylock® 1/4"-20	5
4	R18072	Ring, Internal Snap 3-3/4"	6
5	B07026	Bushing, Bronze	6
6	F05071	Fitting, Grease Zerk 1/4"-28 tap	7
7	B07027	Bushing, Bronze Follower	1
8	F12003	Follower, Leadscrew	1
9	R18071	Ring, Internal Snap 2-1/4"	1
10	C06042	Cap, Follower	1
11	W01594	Washer, Thrust Brass	3
12	S43054	Shaft, Horizontal Roller	2
13	B07137	Bearing, Roller	10
14	R20030	Roller, Horizontal	3
15	R20027	Roller, Vertical	2
16	S43056	Shaft, Vertical Roller	2
17	P06026	Pin, Roller Lock	2
18	B11326	Bolt, Hx Head 1/4"-20 x 1-3/4"	1
19	S43067	Shaft, Upper Horizontal Roller	1

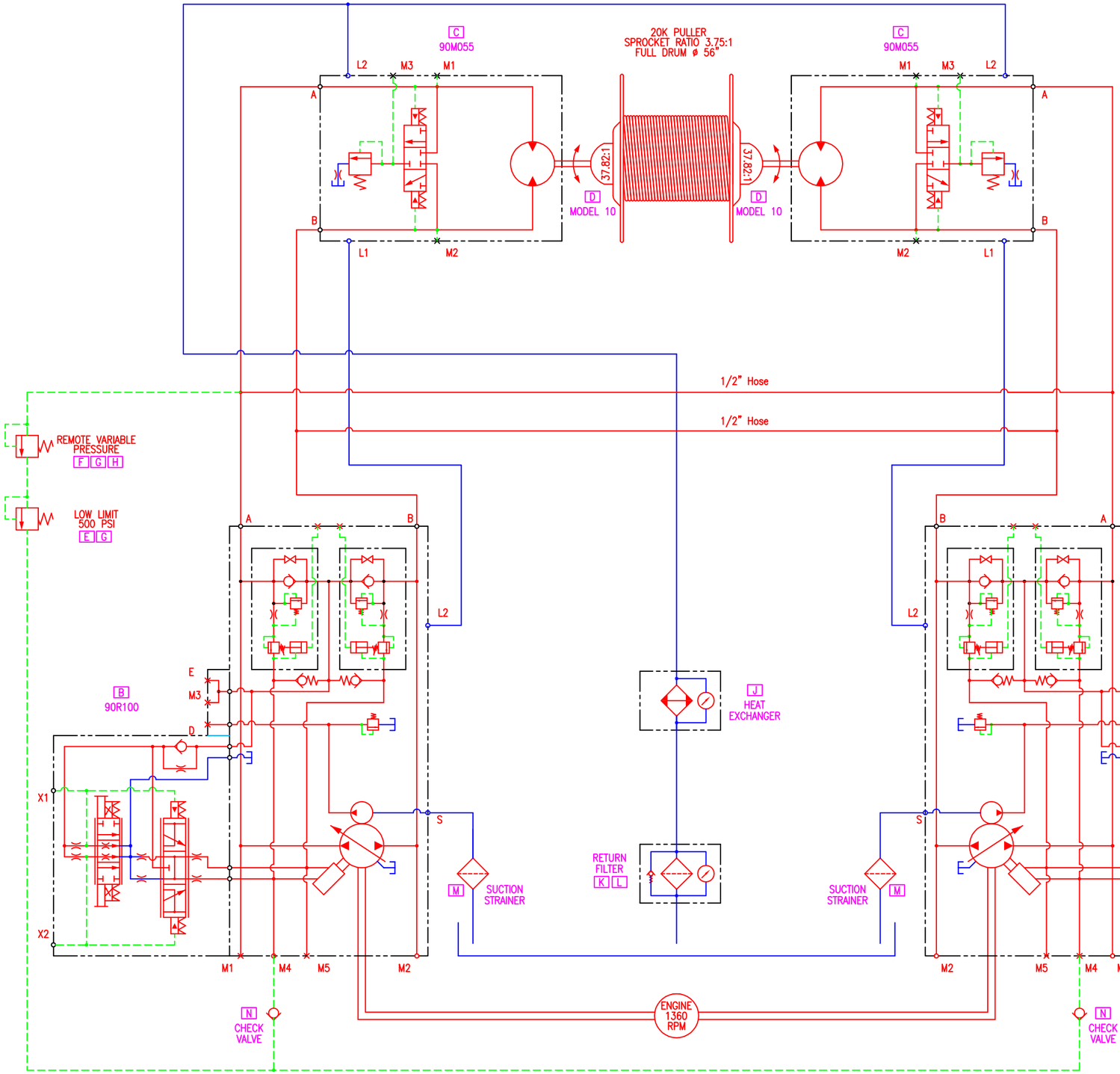
HD Levelwind Head



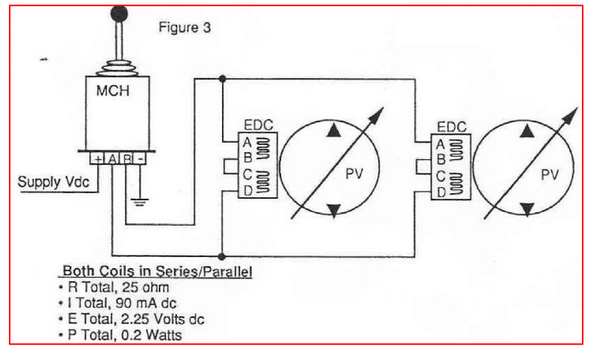
Seat Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S03040	Seat, Operator JD	1
2	P14051	Post, Seat Mount	1
3	P06999	Pin, 5/8" X 3-1/4"	1

REVISIONS		
DESCRIPTION	DATE	REV
X	X	X



I
JOYSTICK



For Trucks 1-6

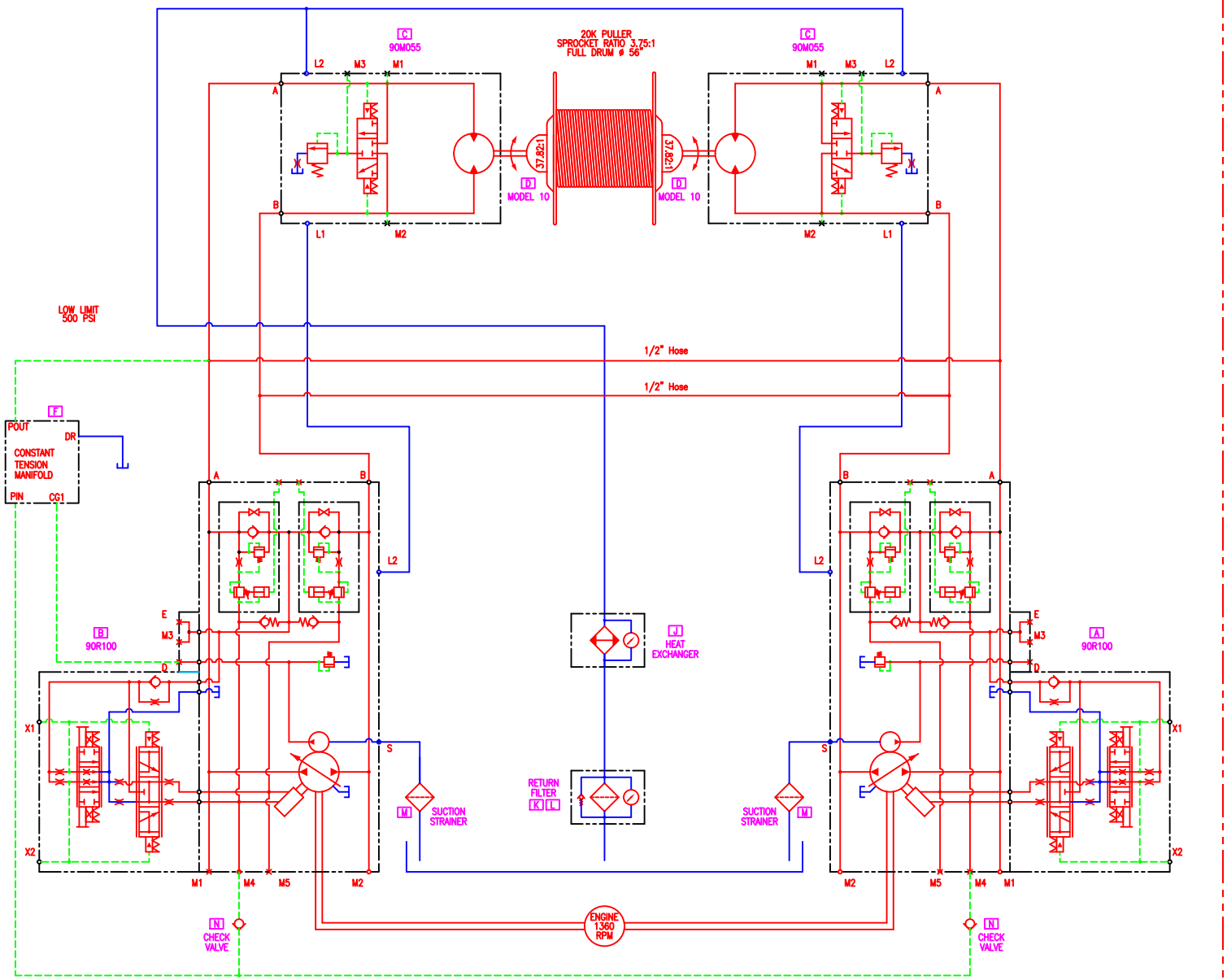
ITEM	QTY	P/N	DESCRIPTION
N	2	X	CHECK VALVE
M	1	X	X
L	1	X	X
K	1	X	X
J	2	MA120	HEAT EXCHANGER
I	1	MCH22AB1032	JOYSTICK
H	1	21743	KNOB
G	2	02-175100	STEEL LINE BODY
F	1	RV5-10-S-0-50	HIGH PRESSURE LIMITER
E	1	RV5-10-S-0-20	LOW PRESSURE LIMITER
D	2	OS3C1437F1A1T	PLANETARY W/BRAKE & SPINDLE
C	2	90M055NC0C8C0S1W00NNN000024	HYDROSTATIC MOTOR
B	1	90R100KP1AB60S4S1E03GBA292924	REAR HYDROSTATIC PUMP
A	1	90R100KP1CD60S4F1E03GBA292924	FRONT HYDROSTATIC PUMP

LOC	REV	DESCRIPTION	CHK'D	INT	9-05-07
		Berendsen Fluid Power	SHEET 1 OF 1		
			DRAWN BY: LUTZ		
			FILE NAME: N/A		
			CHECKED: N/A		

TITLE: HOGG & DAVIS 20K PULLER

DATE: 9-05-07	TOLERANCE UNLESS NOTED	DRAWING NUMBER:	REV
SCALE: N/A SIZE: D	INCH: FRACTIONS ±1/32; 2 PLACE (.00) ±.010; 3 PLACE (.000) ±.005 — METRIC: 0 PLACES ±1mm; 1 PLACE ±.25mm; 2 PLACE ±.12mm	20K	P1

ACAD



For Trucks 7 on

ITEM	QTY	P/N	DESCRIPTION
N	2	X	CHECK VALVE
M	1	X	X
L	1	X	X
K	1	X	X
J	2		HEAT EXCHANGER
I	1		JOYSTICK
H	1		
G	2		
F	1		CONSTANT TENSION MANIFOLD
E	1		
D	2		PLANETARY W/BRAKE & SPINDLE
C	2		HYDROSTATIC MOTOR
B	1		REAR HYDROSTATIC PUMP
A	1		FRONT HYDROSTATIC PUMP

REVISIONS		
DESCRIPTION	DATE	REV
X	X	X

LOC	REV	DESCRIPTION	CHK'D	INT	9-05-07

Berendsen Fluid Power

SHEET 1 OF 1
DRAWN BY: LUTZ
FILE NAME: N/A
CHECKED: N/A

TITLE:
HOGG & DAVIS
20K PULLER

DATE:	SCALE	SIZE	TOLERANCE UNLESS NOTED	DRAWING NUMBER:	REV
9-05-07	N/A	D	INCH: FRACTIONS ±1/32; 2 PLACE (.00) ±.010; 3 PLACE (.000) ±.005 — METRIC: 0 PLACES ±1mm; 1 PLACE ±.25mm; 2 PLACE ±.13mm	20K	P1

ACAD

Levelwind controls

Light / Heater

PPSV 1 2

Brake V 1 2

V G 1 2

L/W flow 1 2

L/W A 1 2

L/W B 1 2

L/W D 1 2

L/W U 1 2

12 VDC POWER SOCKET

Keyed IGN

87 30 87A 85 86

US Sensor

M2 EDC 1 2

M1 EDC 1 2

Fuel level G S

bump 2 1 2

bump 1 1 2

pump 1 EDC A B C D

pump 2 EDC A B C D

sys psi 1 2 3 4

1 9 10 11 18 19 20 22 23 30 31

to controller

Start Relay

87 30 87A 85 86

from Battery

30A
BREAKER-
AUTO RESET

1 2 3 4 5 6

KEY SWITCH

1 2 3 4 5 6 7 8 9 10 11 12
Display

1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19 23 24 30 31 37 38 39 42 43 44 45
controler

1 2 3 4
charge 1 psi

1 2 3 4
charge 2 psi

A B C D
M2 sensor

A B C D
M1 sensor

1 2 3 4 5 6
joystick

	NAME
DRAWN BY	SCOTT M
CHECKED	
DATE	10/14/2009

HOGG & DAVIS, Inc.
PO BOX 405, 3800 EAGLE LOOP
ODELL, OR 97044 (541)354-1001

TITLE: ODP200 PPS WIRING DIAGRAM

DRAWING #: 20k + 1

SCALE: NONE | SHEET 1 OF 1

Levelwind controls

Light / Heater

PPSV 1 2

Brake V 1 2

V G 1 2

1 2 3 4 | 1 2 3 4

L/W flow 1 2

L/W A 1 2

L/W B 1 2

L/W D 1 2

L/W U 1 2

12 VDC POWER SOCKET

Keyed IGN

87 30 87A 85 86

US Sensor

M2 EDC 1 2

M1 EDC 1 2

Fuel level G S

bump 2 1 2

bump 1 1 2

pump 1 EDC A B C D

pump 2 EDC A B C D

sys psi 1 2 3 4

1 9 10 11 18 19 20 22 23 30 31

to controller

Start Relay

87 30 87A 85 86

from Battery

30A BREAKER- AUTO RESET

1 2 3 4 5 6

KEY SWITCH

1 2 3 4 5 6 7 8 9 10 11 12

Display

1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19 23 24 30 31 37 38 39 42 43 44 45

controler

1 2 3 4

charge 1 psi

1 2 3 4

charge 2 psi

A B C D

M2 sensor

A B C D

M1 sensor

1 2 3 4 5 6

joystick

Levelwind controls

Light / Heater

PPSV 1 2

Brake V 1 2

V G 1 2

1 2 3 4

1 2 3 4

L/W flow 1 2

L/W A 1 2

L/W B 1 2

L/W D 1 2

L/W U 1 2

12 VDC POWER SOCKET

Keyed IGN

87 30 87A 85 86

US Sensor

M2 EDC 1 2

M1 EDC 1 2

Fuel level

bump 2 1 2

bump 1 1 2

pump 1 EDC A B C D

pump 2 EDC A B C D

sys psi 1 2 3 4

1 9 10 11 18 19 20 22 23 30 31

to controller

Start Relay

87 30 87A 85 86

from Battery

30A BREAKER- AUTO RESET

1 2 3 4 5 6

KEY SWITCH

1 2 3 4 5 6 7 8 9 10 11 12

Display

1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19 23 24 30 31 37 38 39 42 43 44 45

controler

1 2 3 4

charge 1 psi

1 2 3 4

charge 2 psi

A B C D

M2 sensor

A B C D

M1 sensor

1 2 3 4 5 6

joystick

Levelwind controls

Light / Heater

PPSV 1 2

Brake V 1 2

V G 1 2

1 2 3 4

1 2 3 4

L/W flow 1 2

L/W A 1 2

L/W B 1 2

L/W D 1 2

L/W U 1 2

12 VDC POWER SOCKET

Keyed IGN

87 30 87A 85 86

US Sensor

M2 EDC 1 2

M1 EDC 1 2

Fuel level

bump 2 1 2

bump 1 1 2

pump 1 EDC A B C D

pump 2 EDC A B C D

sys psi 1 2 3 4

1 9 10 11 18 19 20 22 23 30 31

to controller

Start Relay

87 30 87A 85 86

from Battery

30A
BREAKER-
AUTO RESET

1 2 3 4 5 6

KEY SWITCH

1 2 3 4 5 6 7 8 9 10 11 12

Display

1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19 23 24 30 31 37 38 39 42 43 44 45

controler

1 2 3 4

charge 1 psi

1 2 3 4

charge 2 psi

A B C D

M2 sensor

A B C D

M1 sensor

1 2 3 4 5 6

joystick

Levelwind controls

Light / Heater

PPSV (1 2)

Brake V (1 2)

V G 1 2

1 2 3 4 / 1 2 3 4

L/W flow (1 2)

L/W A (1 2)

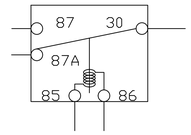
L/W B (1 2)

L/W D (1 2)

L/W U (1 2)

12 VDC POWER SOCKET

Keyed IGN



US Sensor (c b a)

M2 EDC (1 2)

M1 EDC (1 2)

Fuel level (G S)

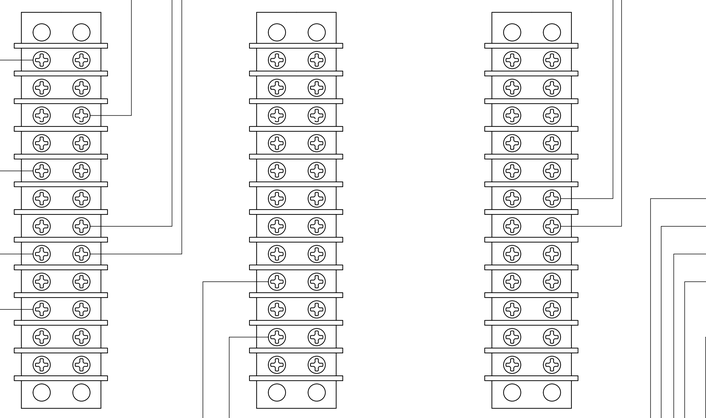
bump 2 (1 2)

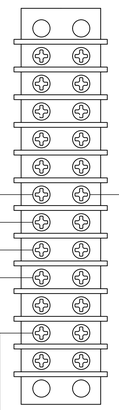
bump 1 (1 2)

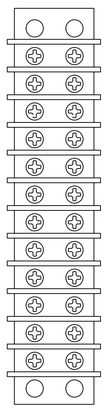
pump 1 EDC (A B C D)

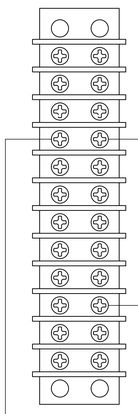
pump 2 EDC (A B C D)

sys psi (1 2 3 4)



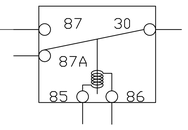






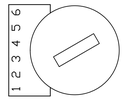
to controller

Start Relay



from Battery

30A
BREAKER-
AUTO RESET



KEY SWITCH

Display (1 2 3 4 5 6 7 8 9 10 11 12)

controler (1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19 23 24 30 31 37 38 39 42 43 44 45)

charge 1 psi (1 2 3 4)

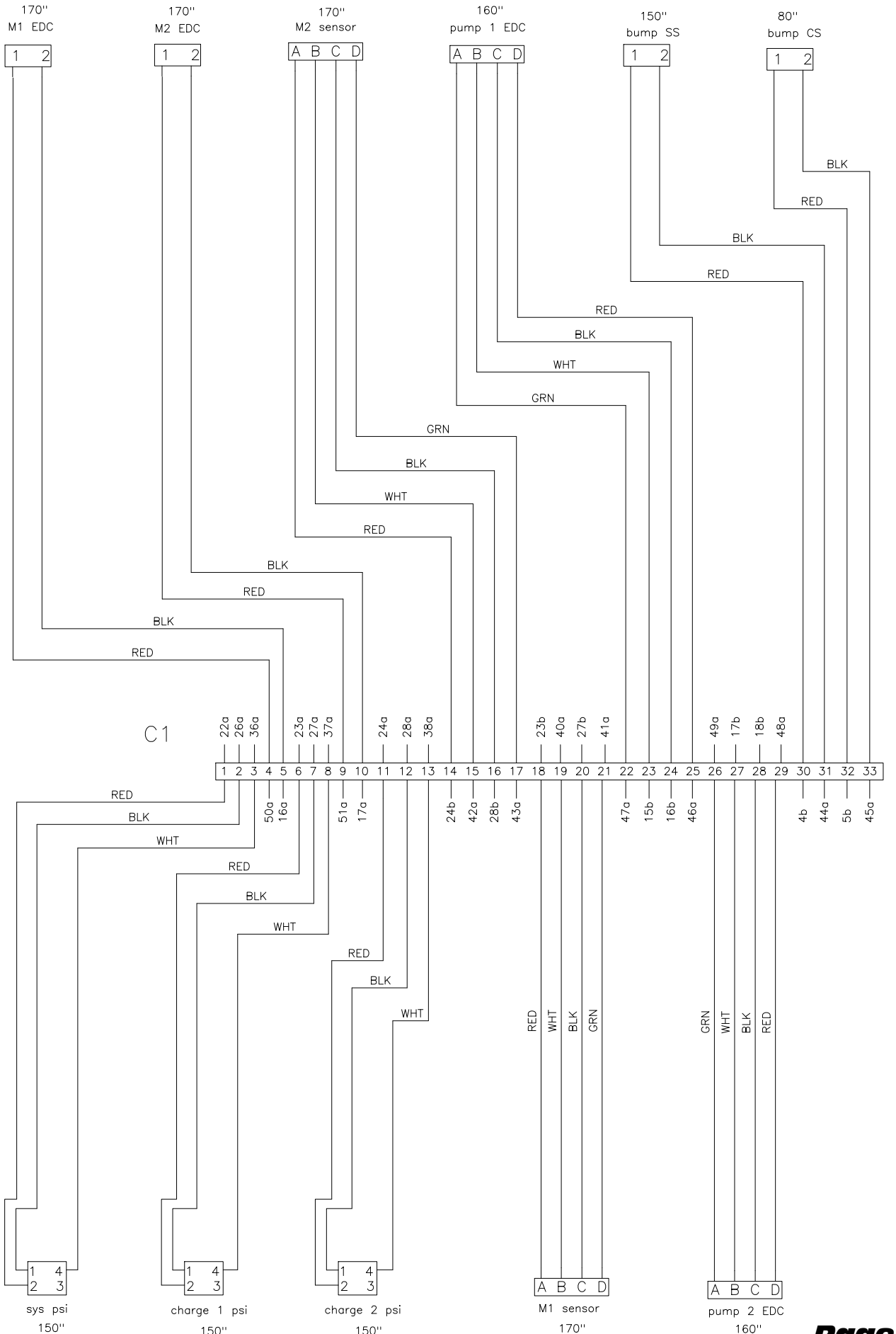
charge 2 psi (1 2 3 4)

M2 sensor (A B C D)

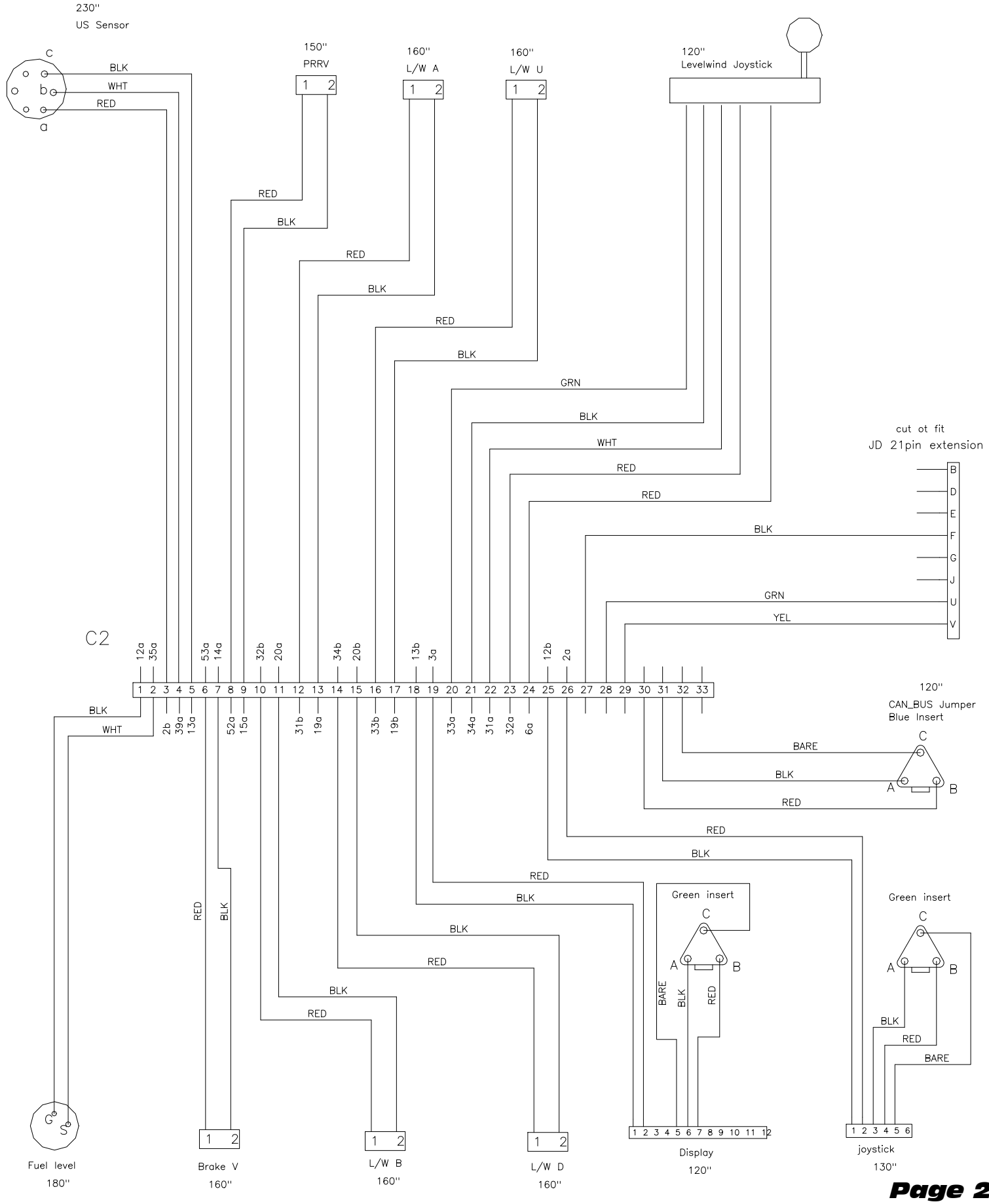
M1 sensor (A B C D)

joystick (1 2 3 4 5 6)

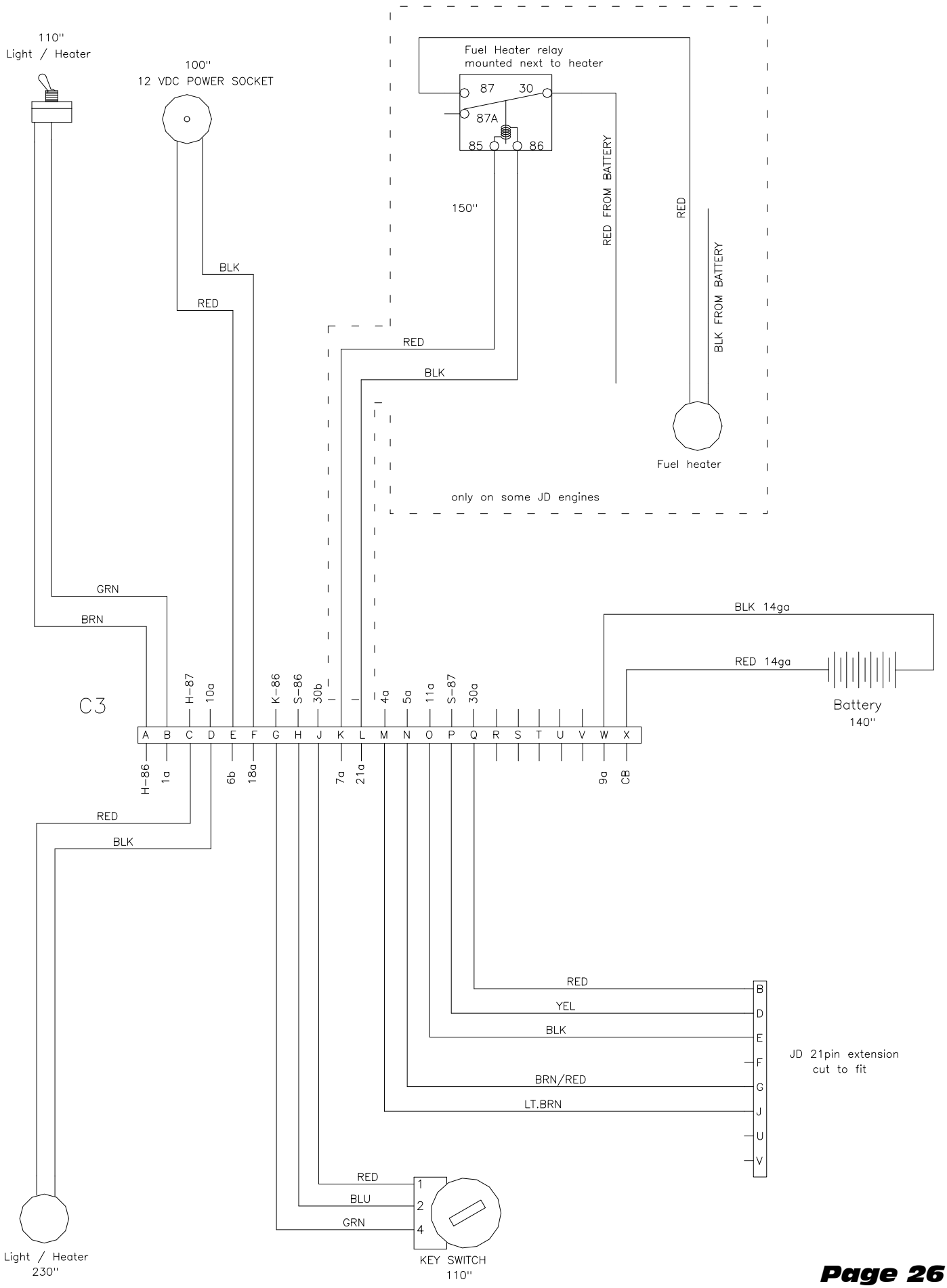
Connector 1 (18ga wire)



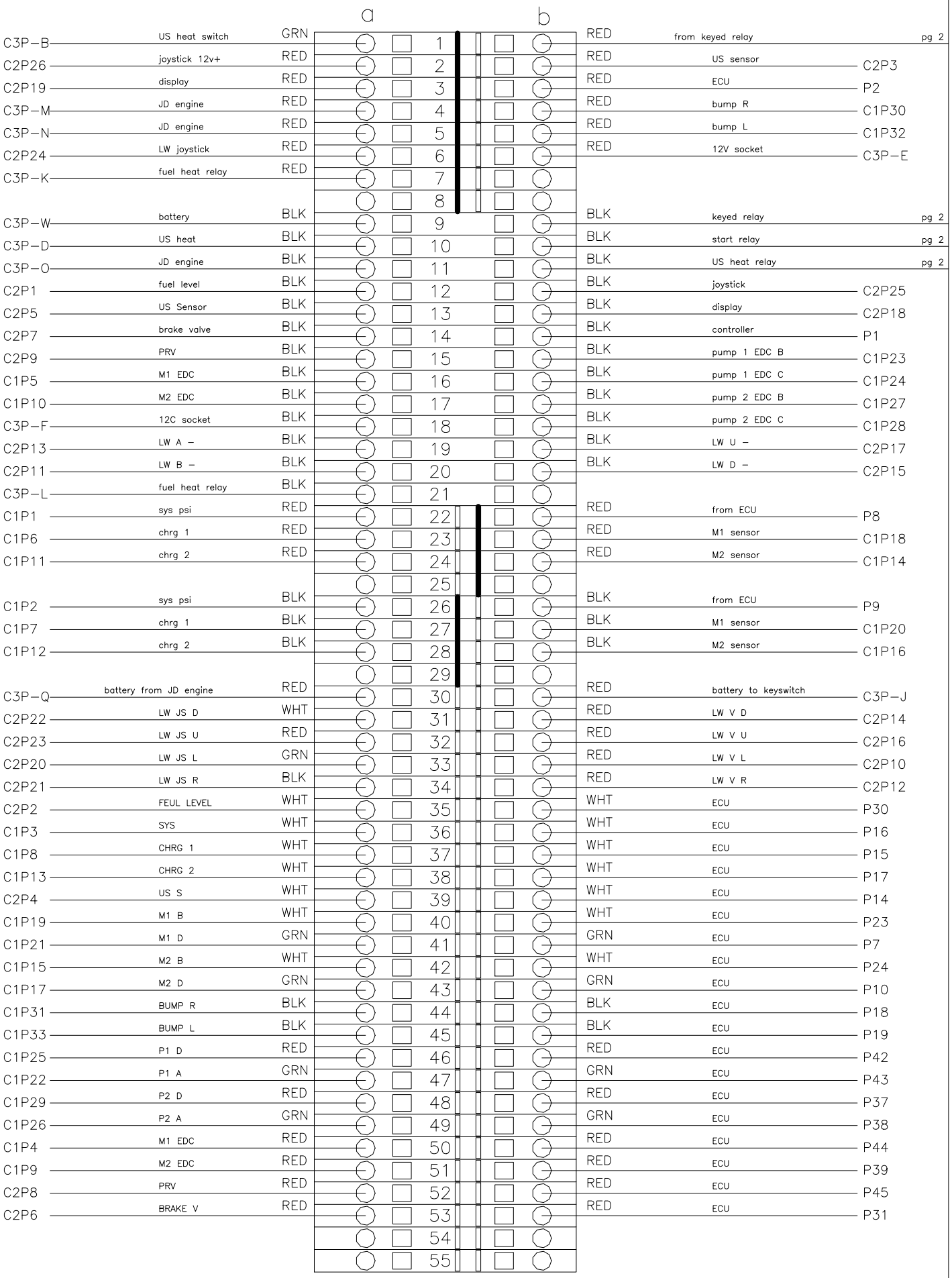
Connector 2 (18ga wire)



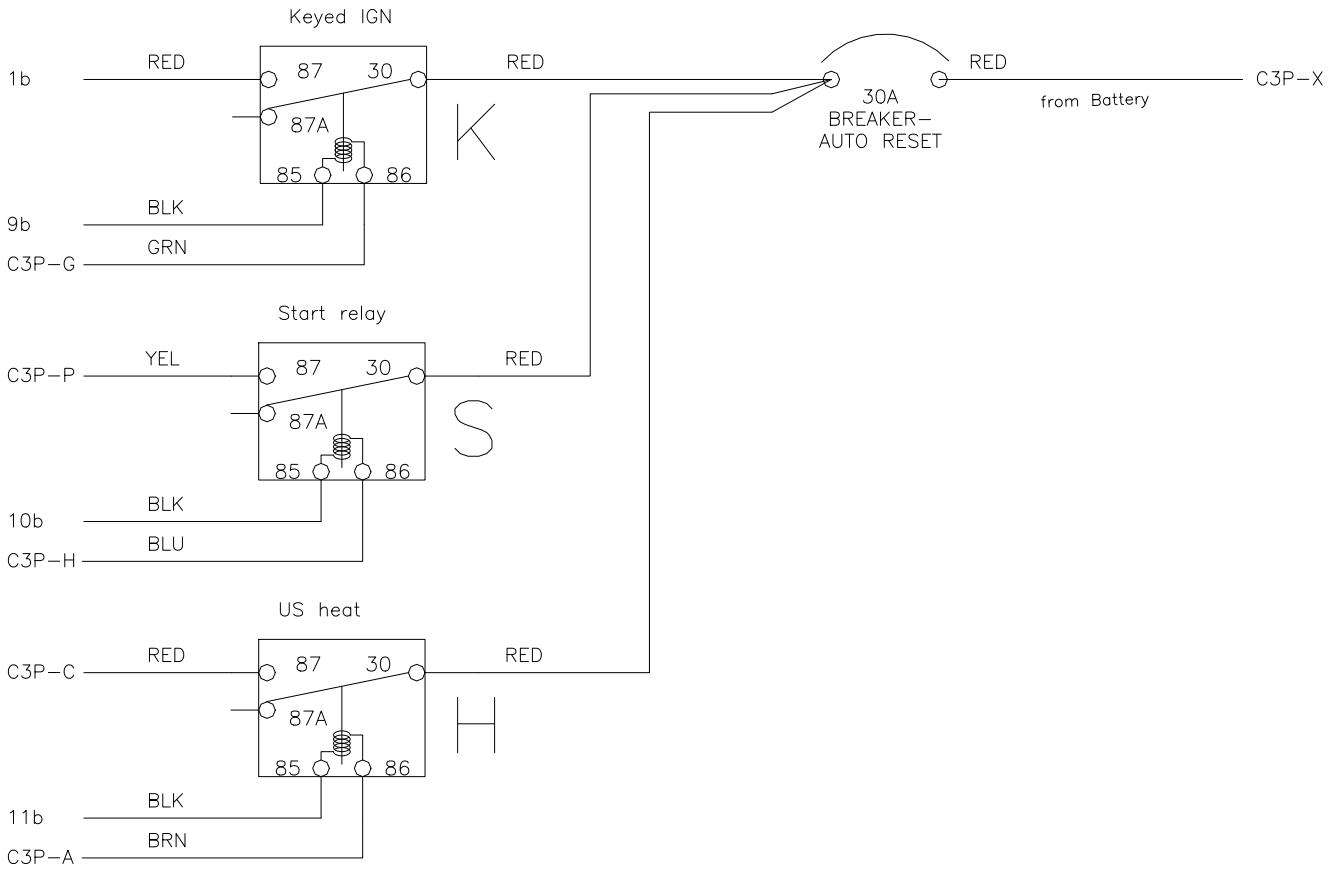
Connector 3 (16–14ga wire)

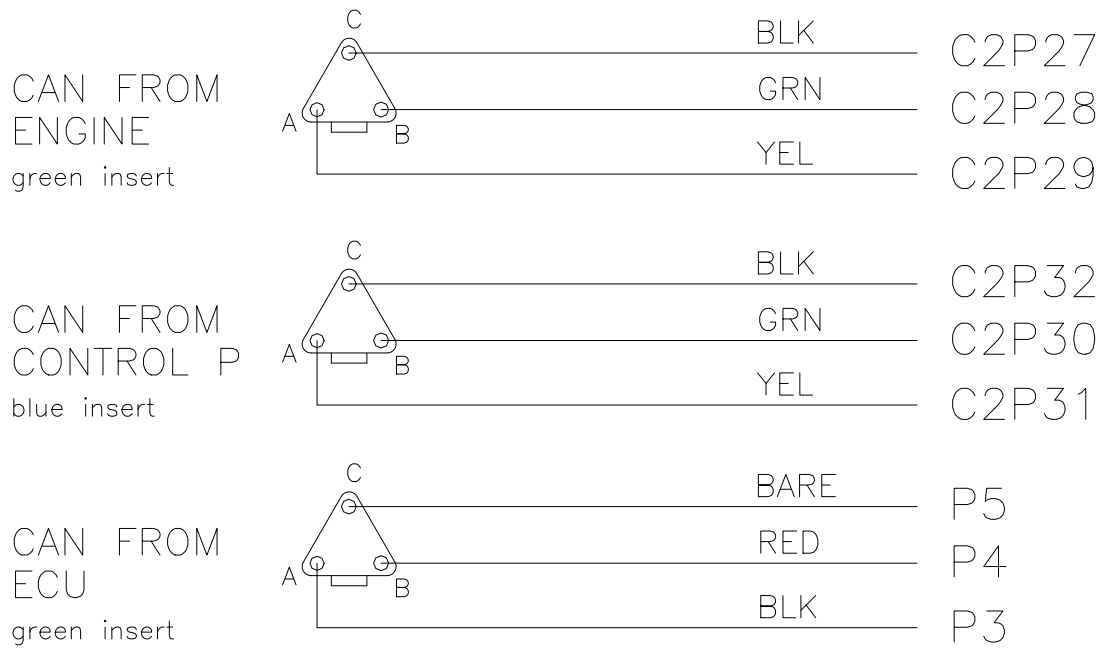


Terminal Box page 1



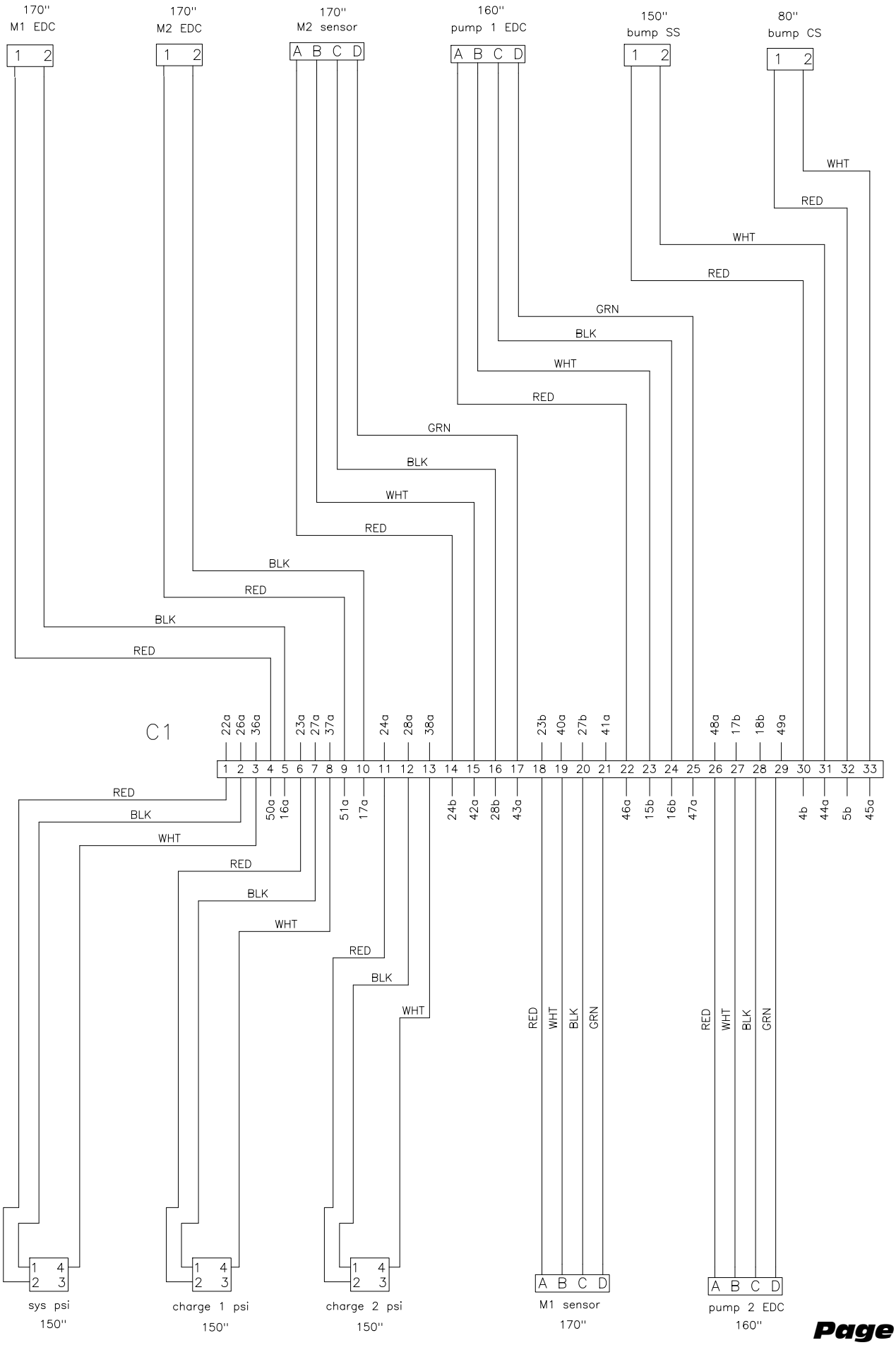
Terminal Box page 2



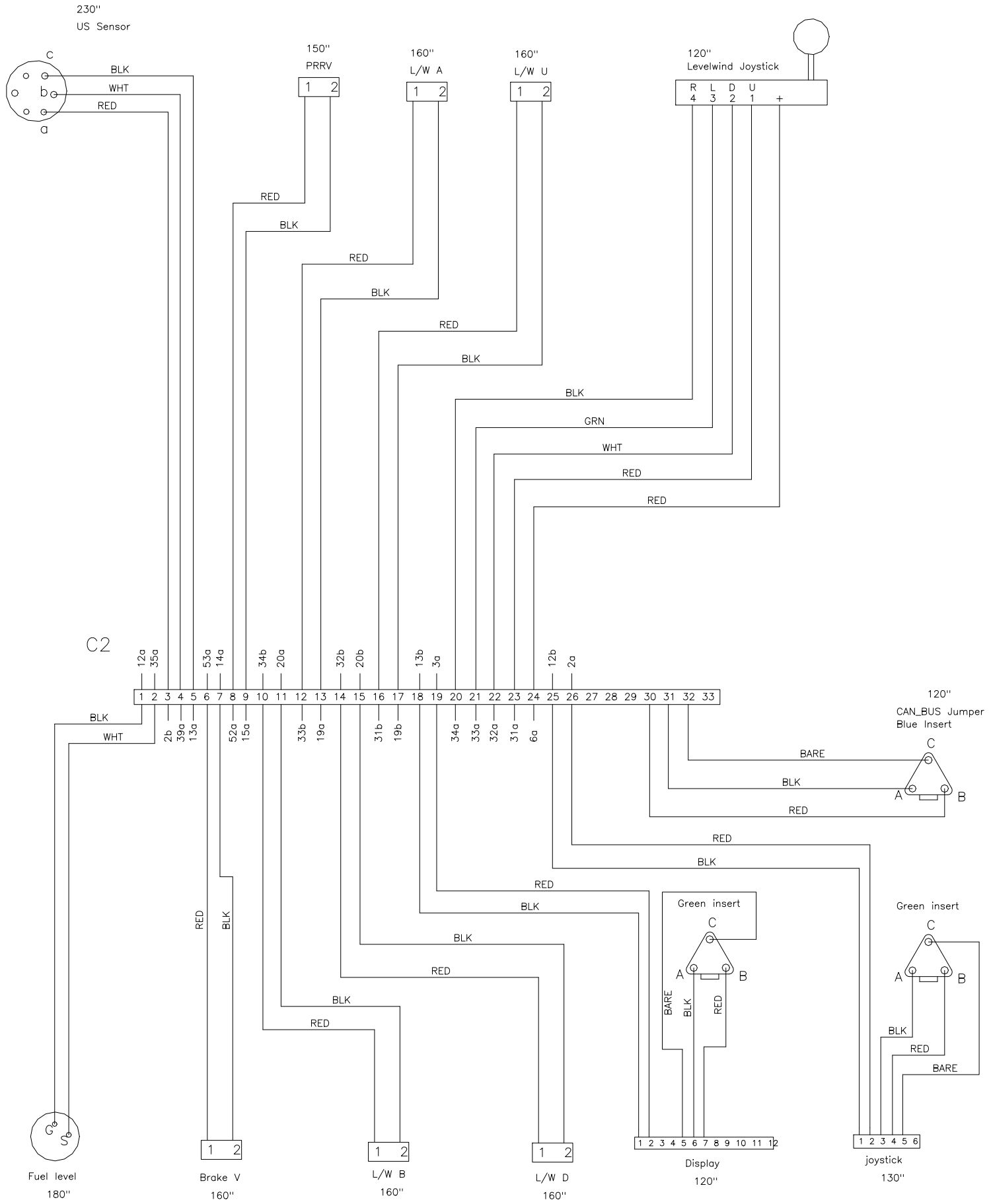


a is CAN HI+
b is CAN LO–
c is CAN SHIELD

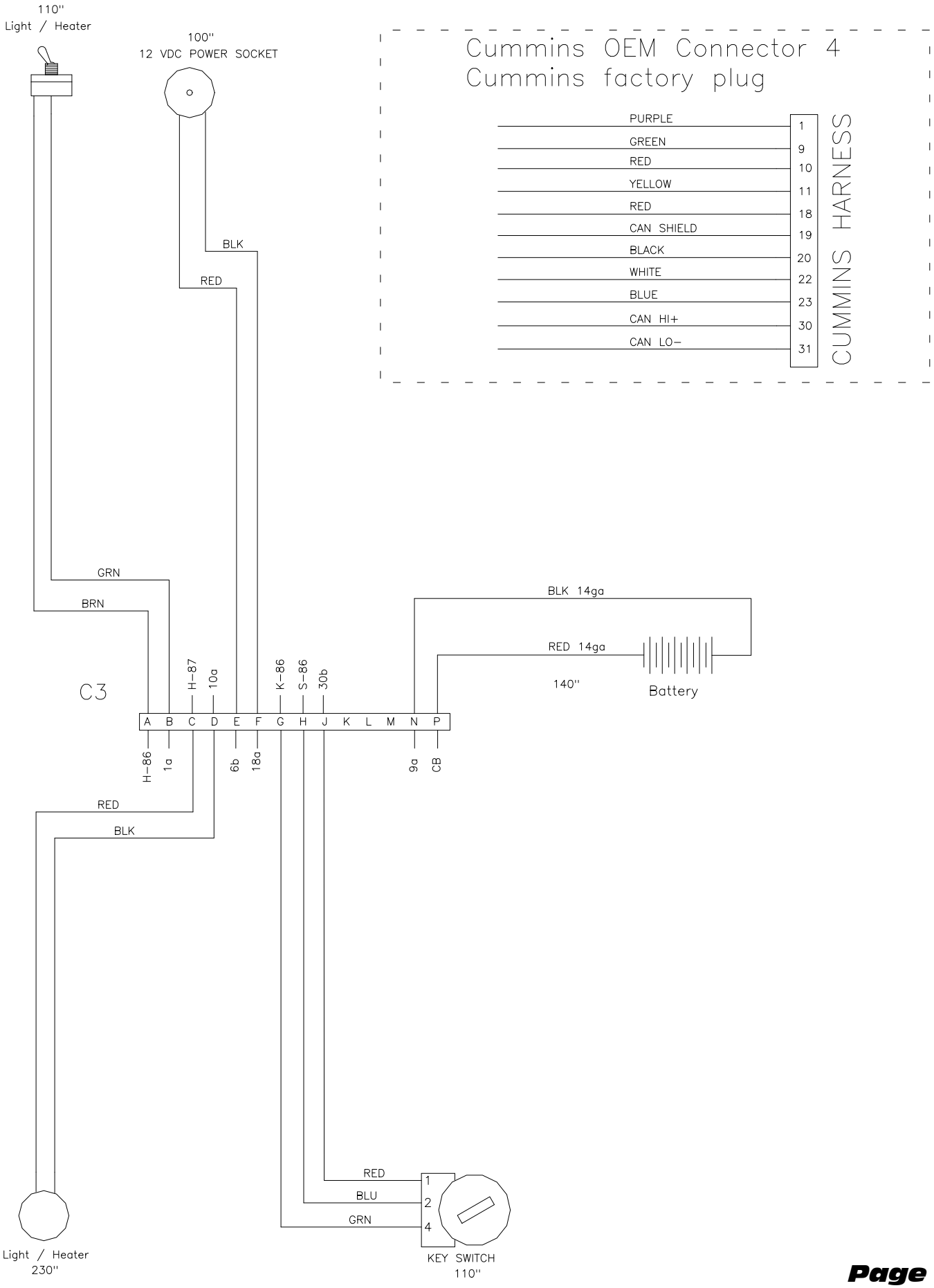
Connector 1 (18ga wire)



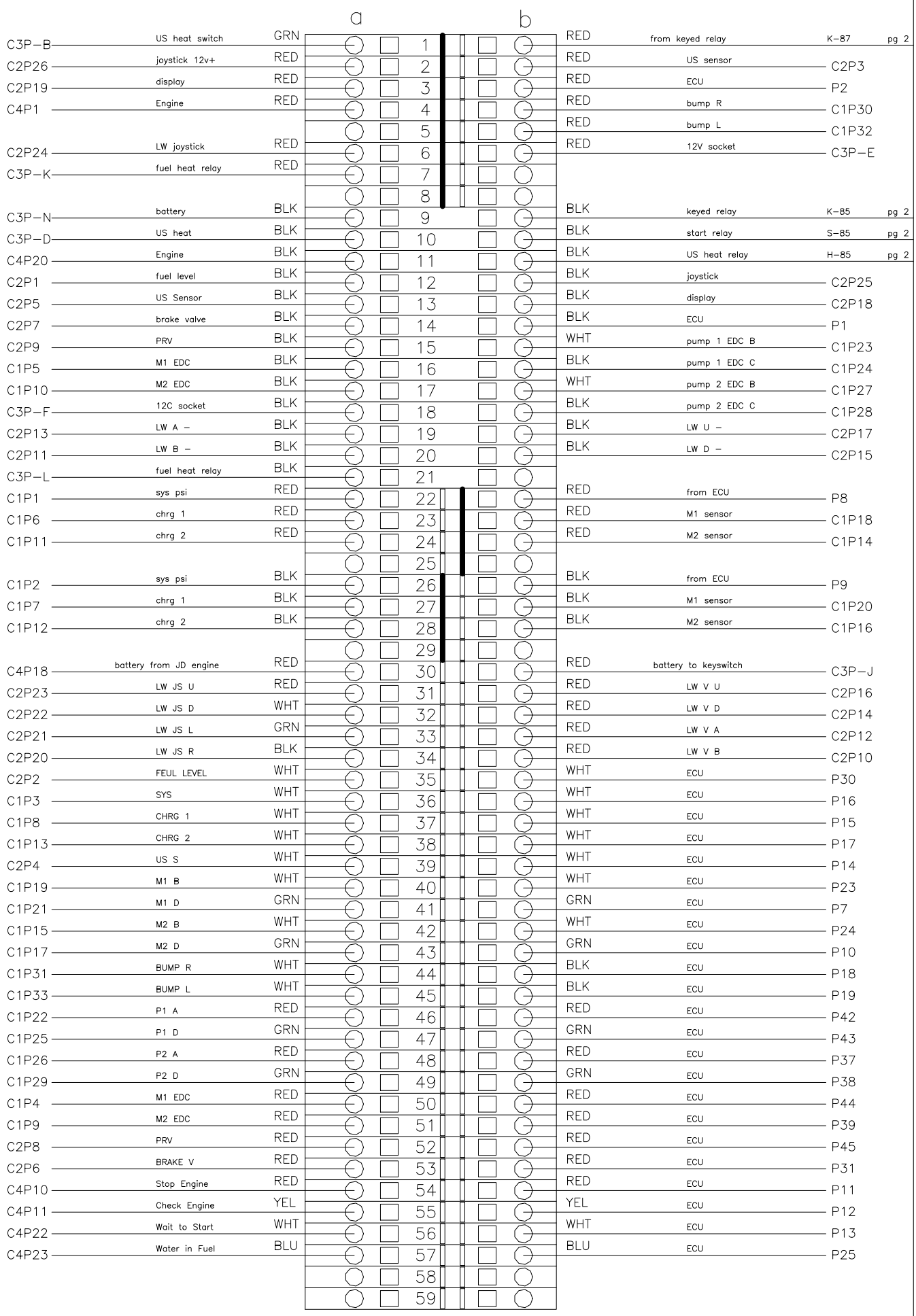
Connector 2 (18ga wire)



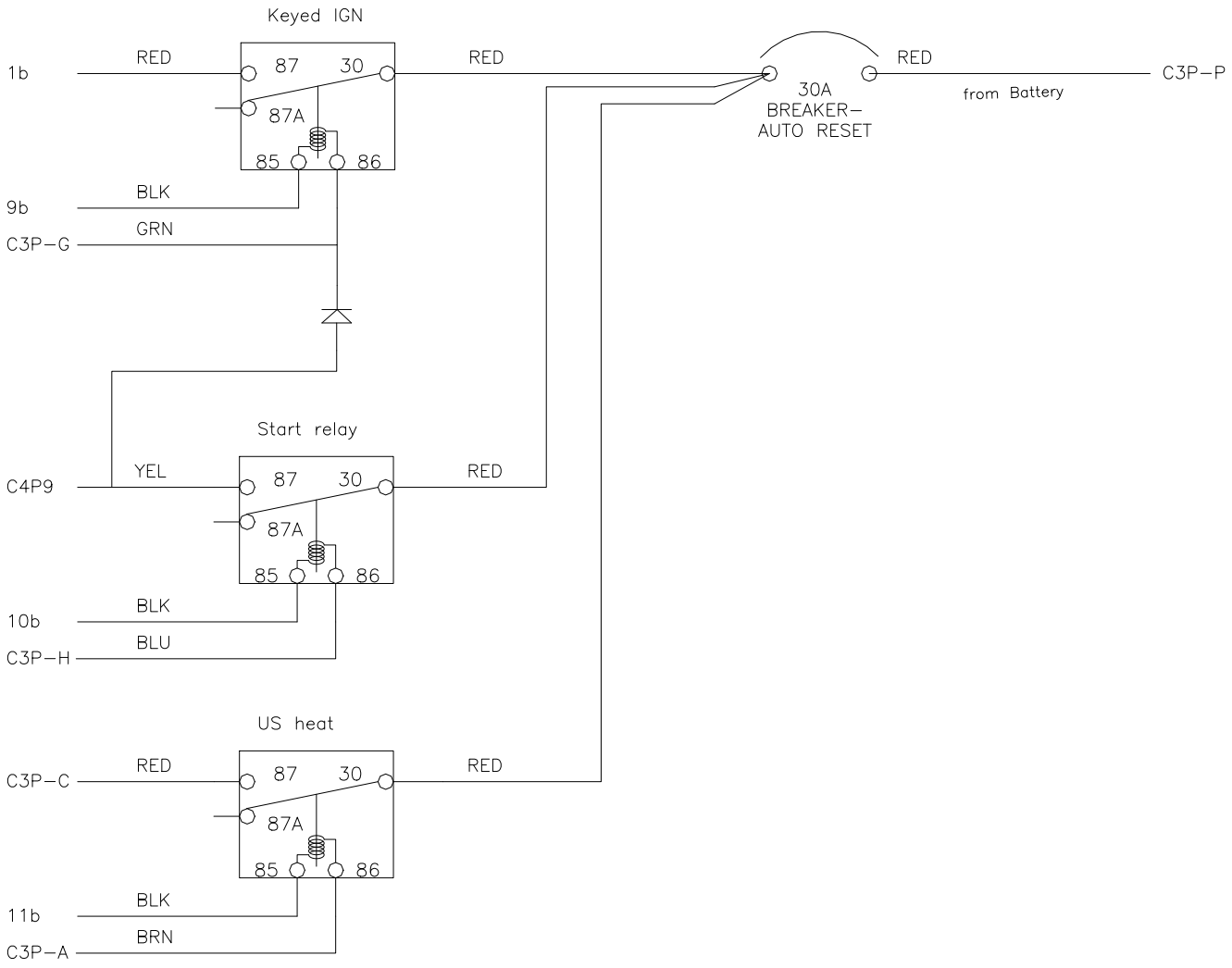
Connector 3 (16–14ga wire)

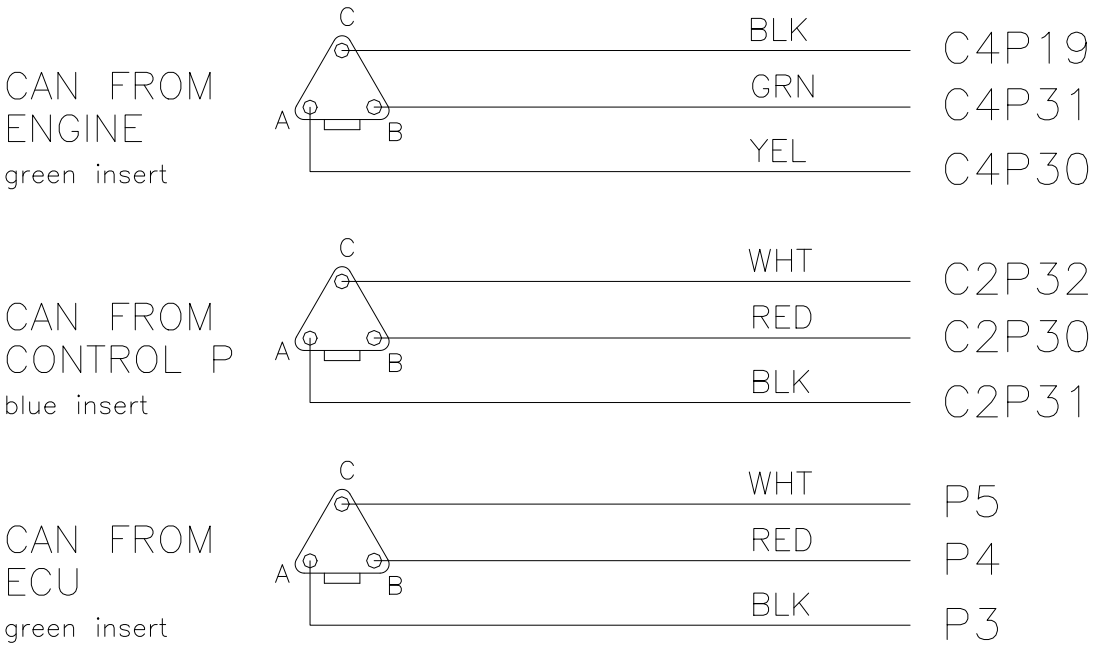


Terminal Box page 1



Terminal Box page 2





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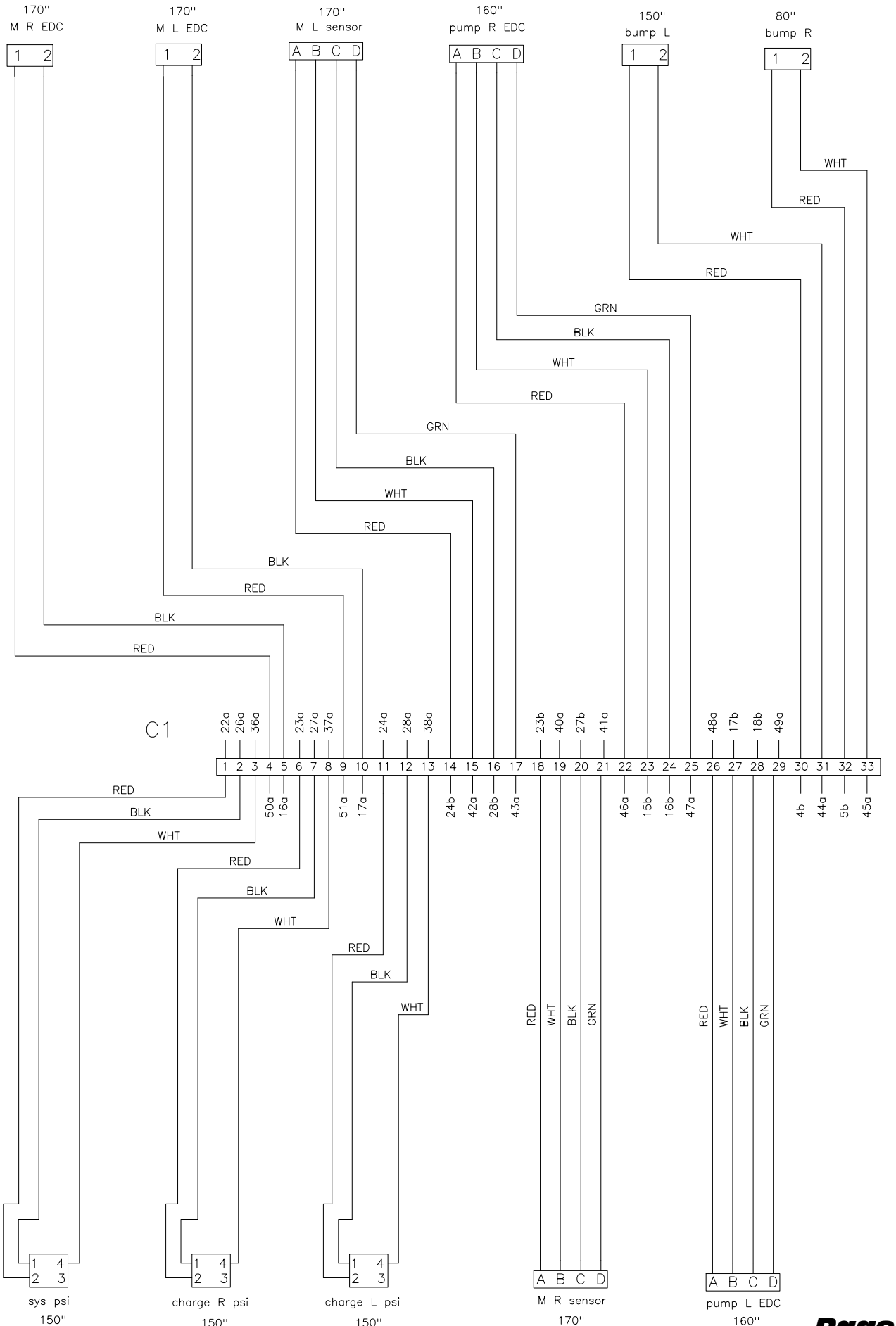
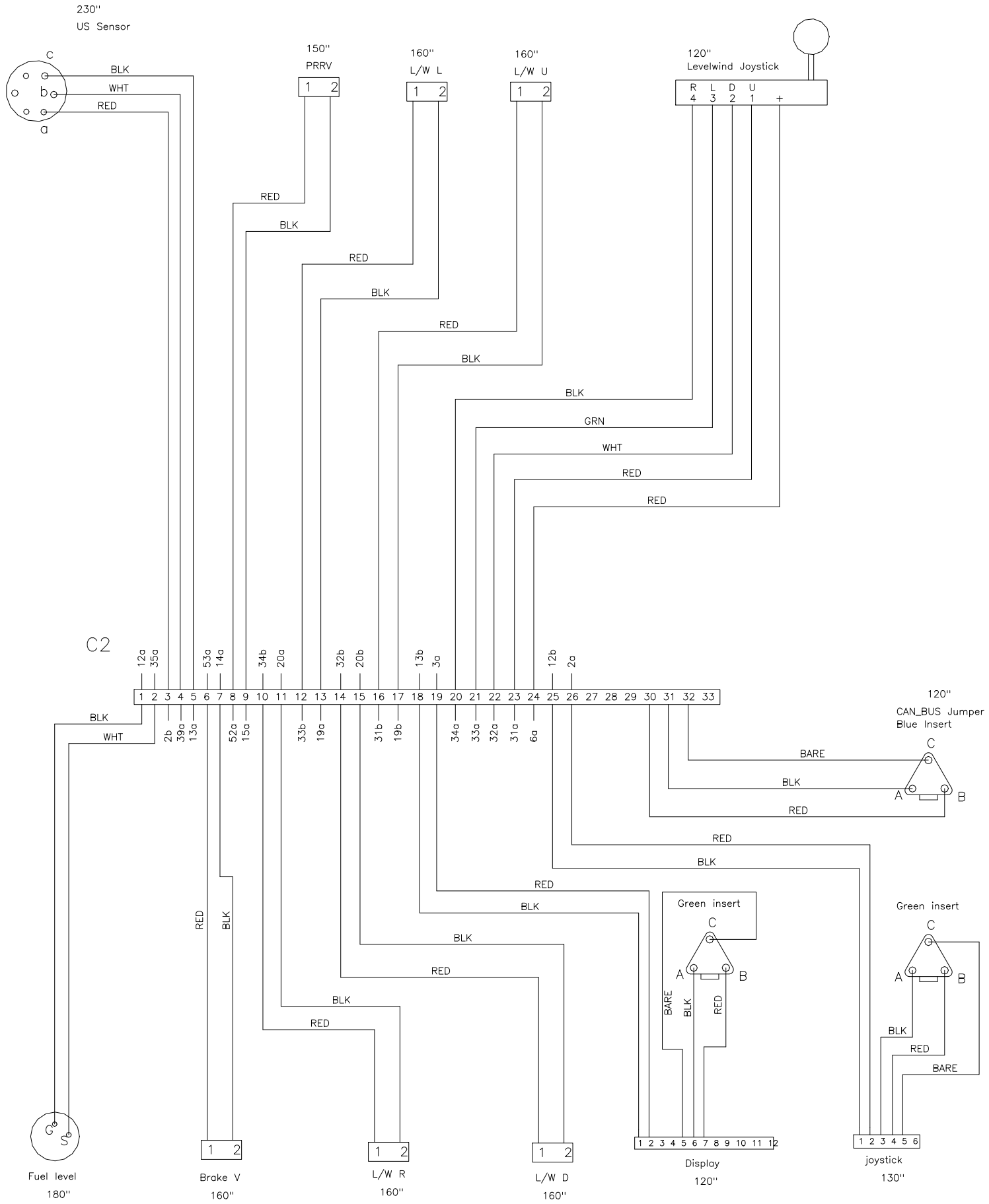
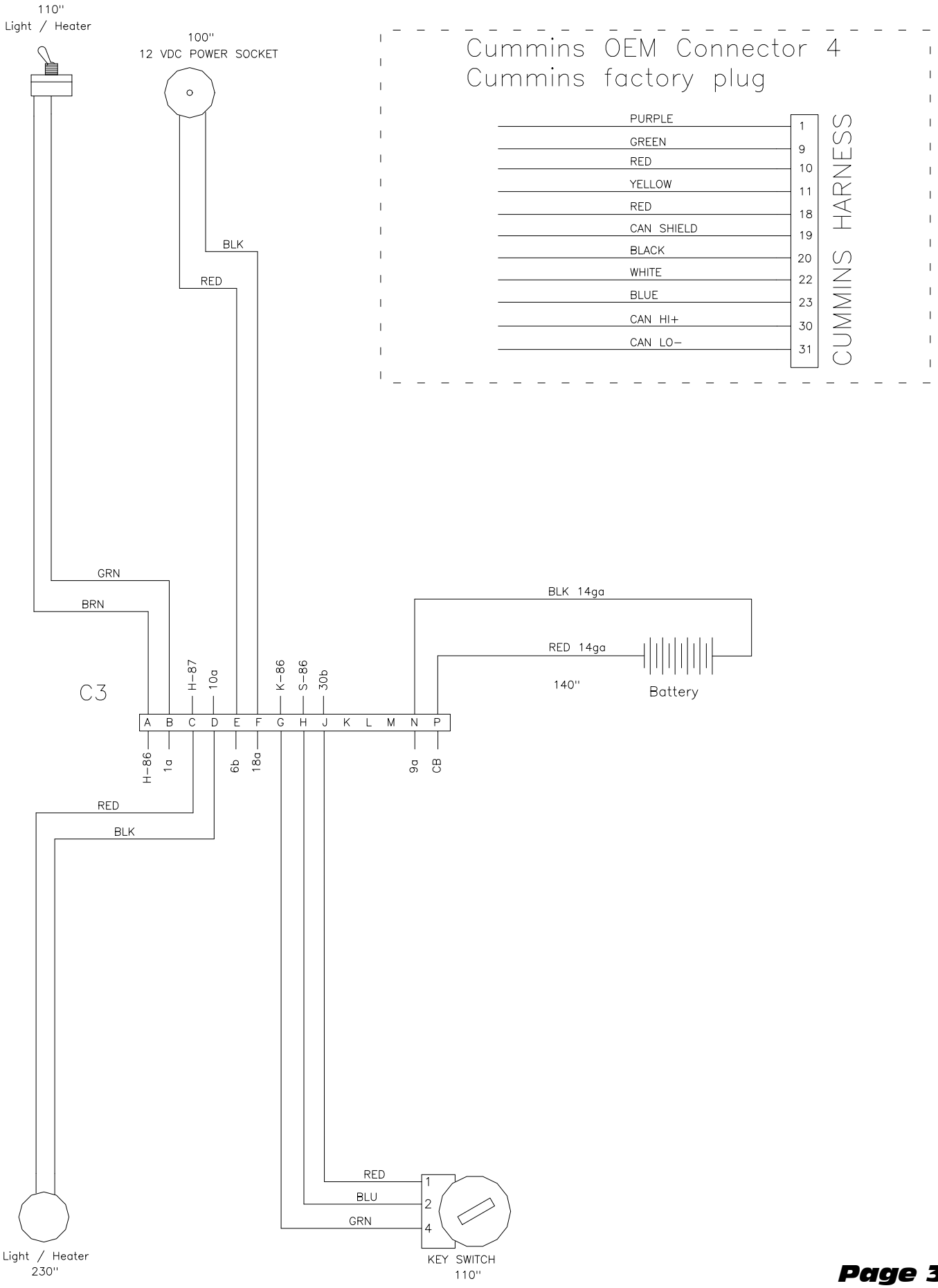


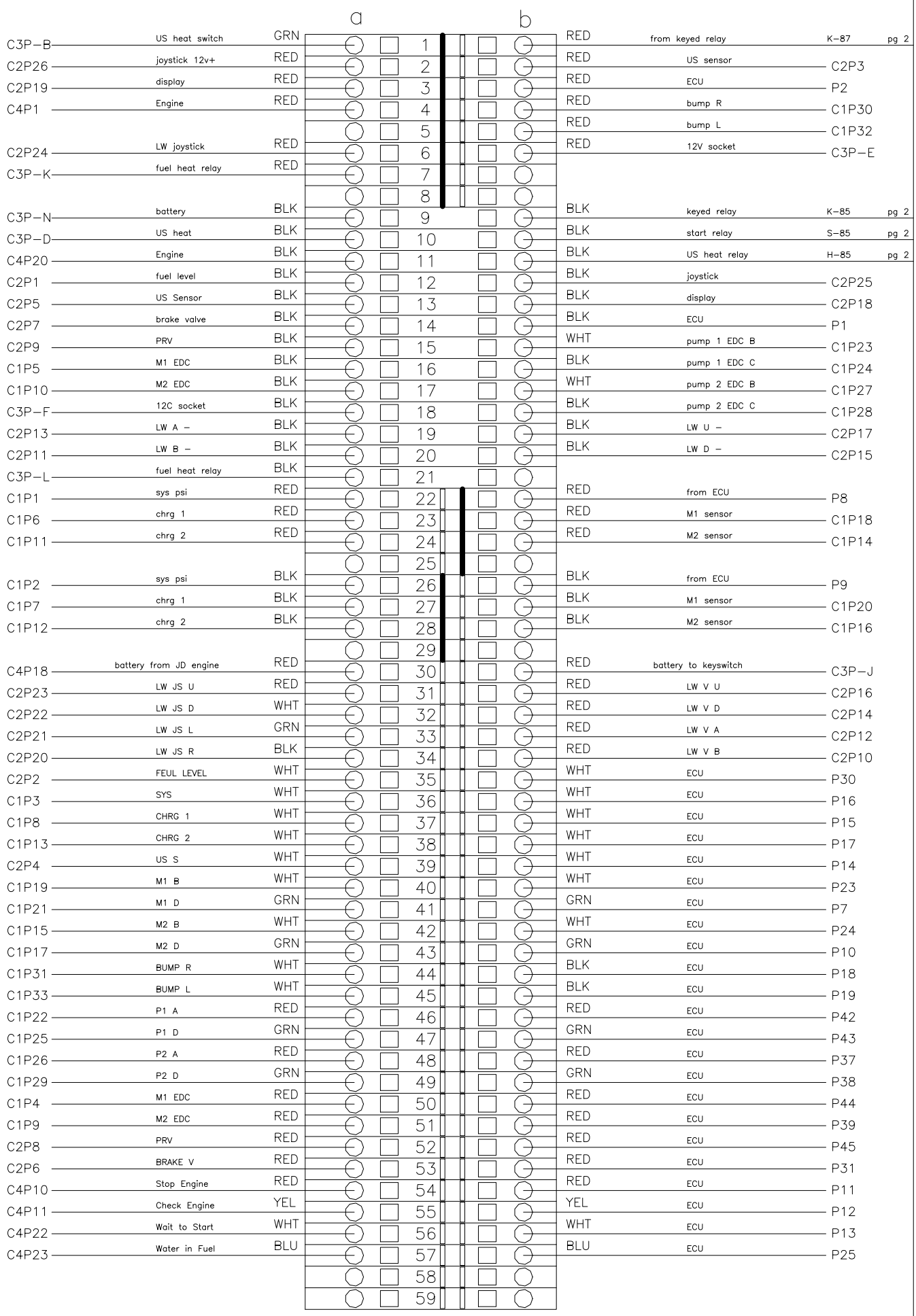
Connector 2 (18ga wire)



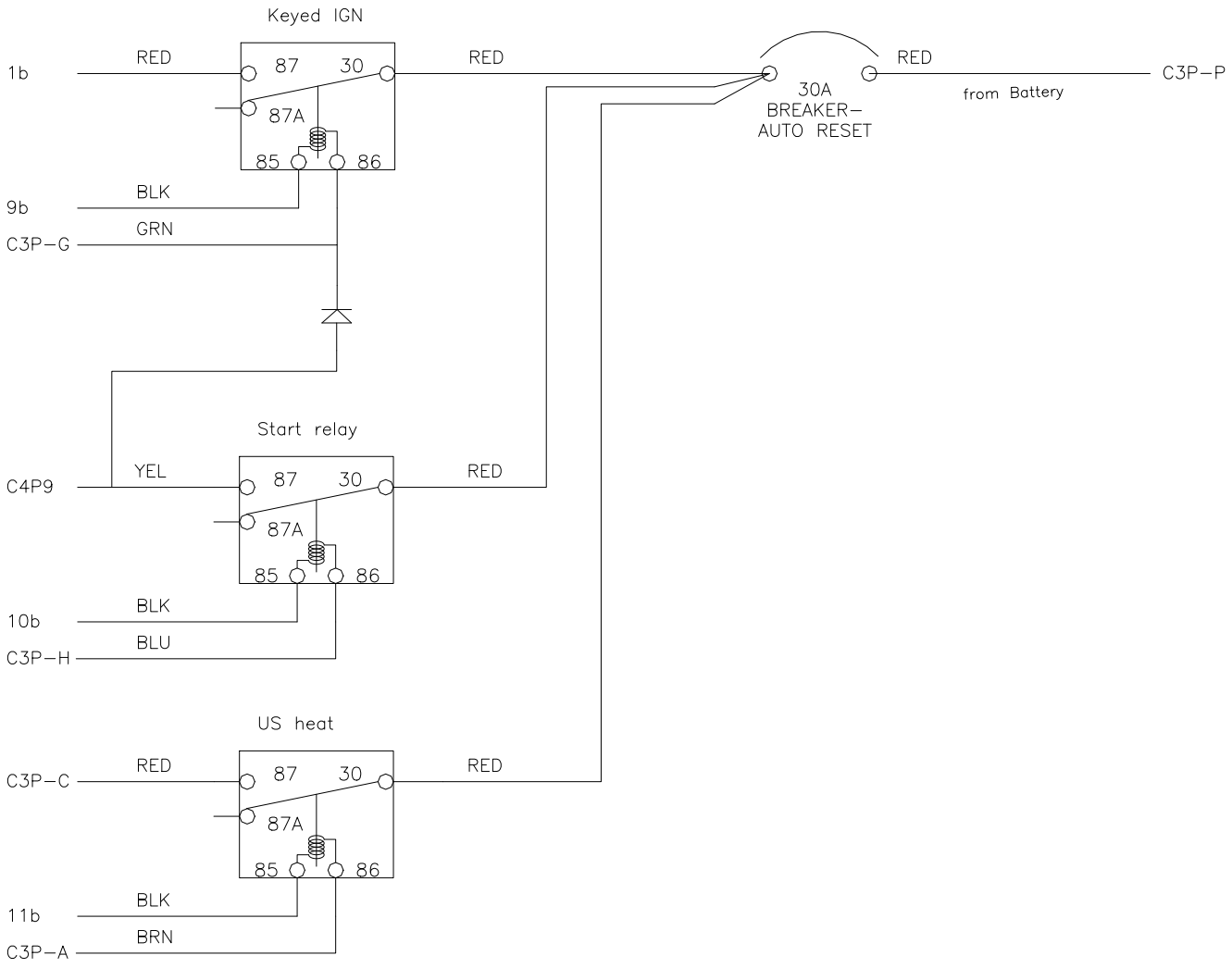
Connector 3 (16–14ga wire)

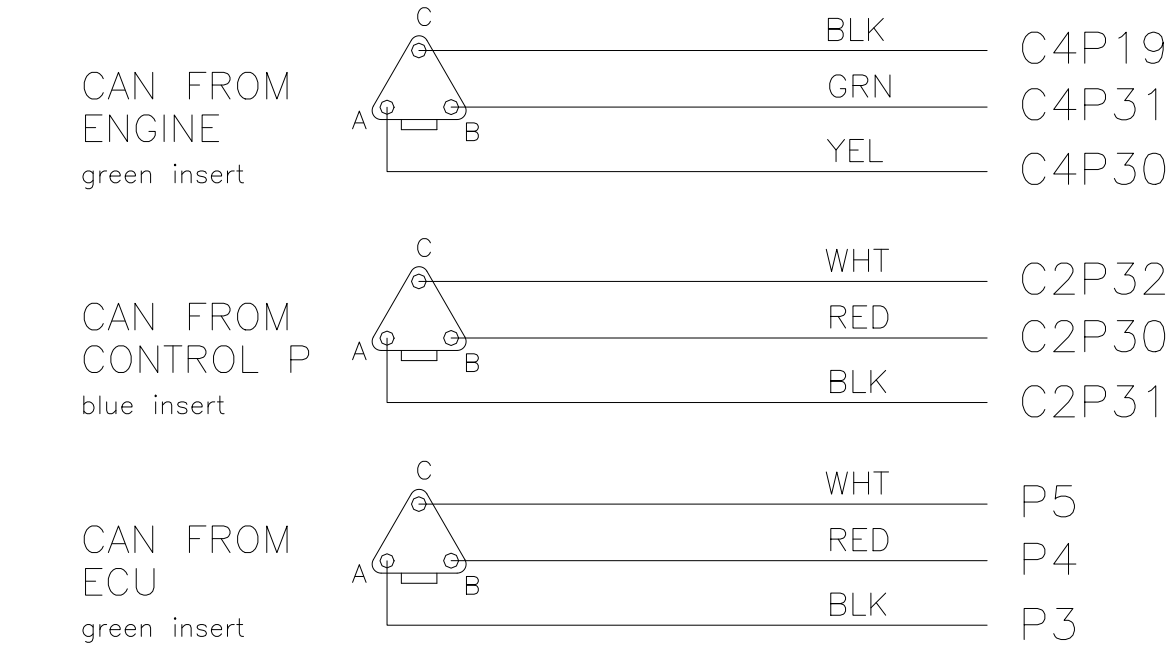


Terminal Box page 1



Terminal Box page 2





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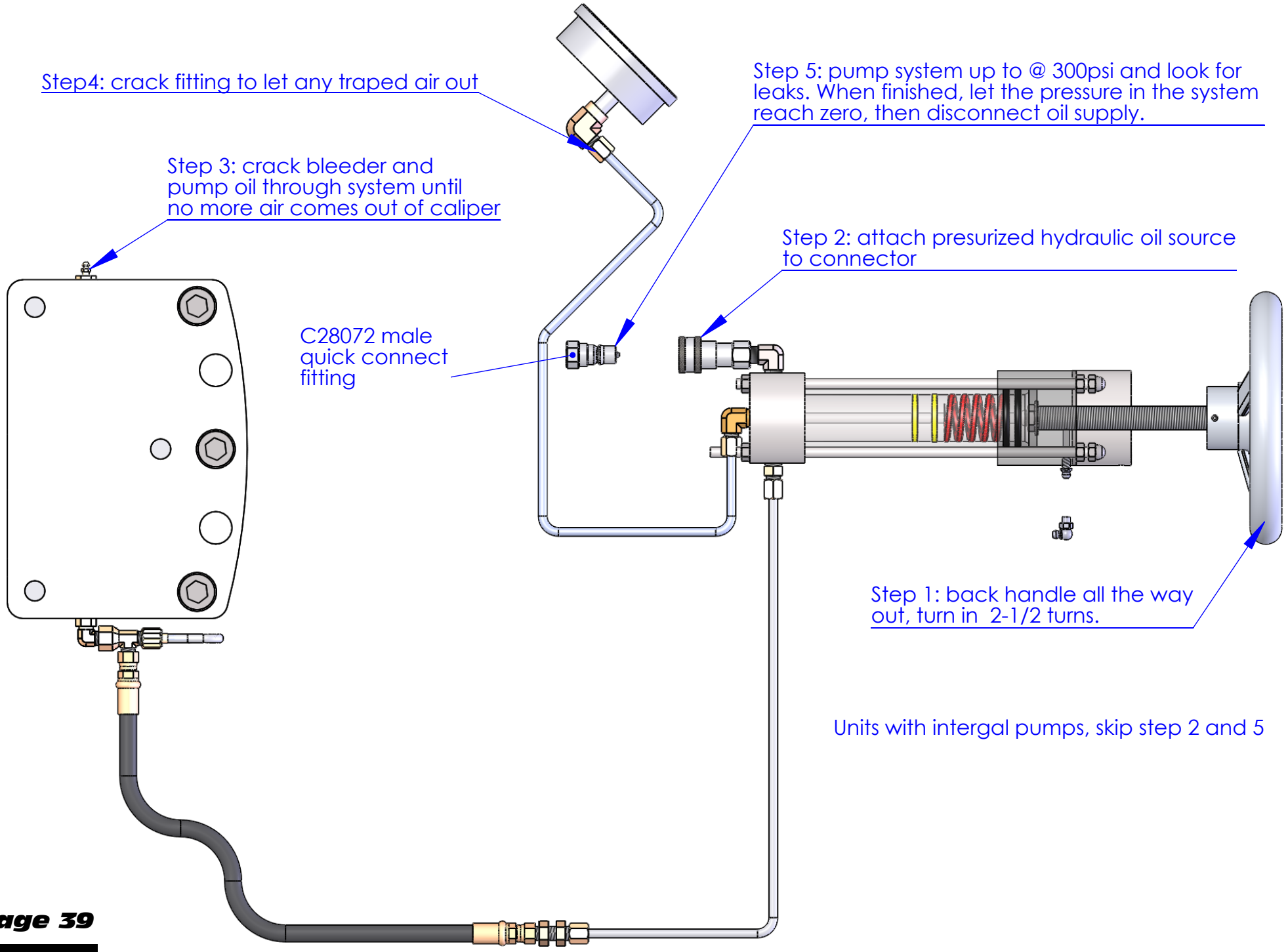

Note: Used for reference only, parts may vary.