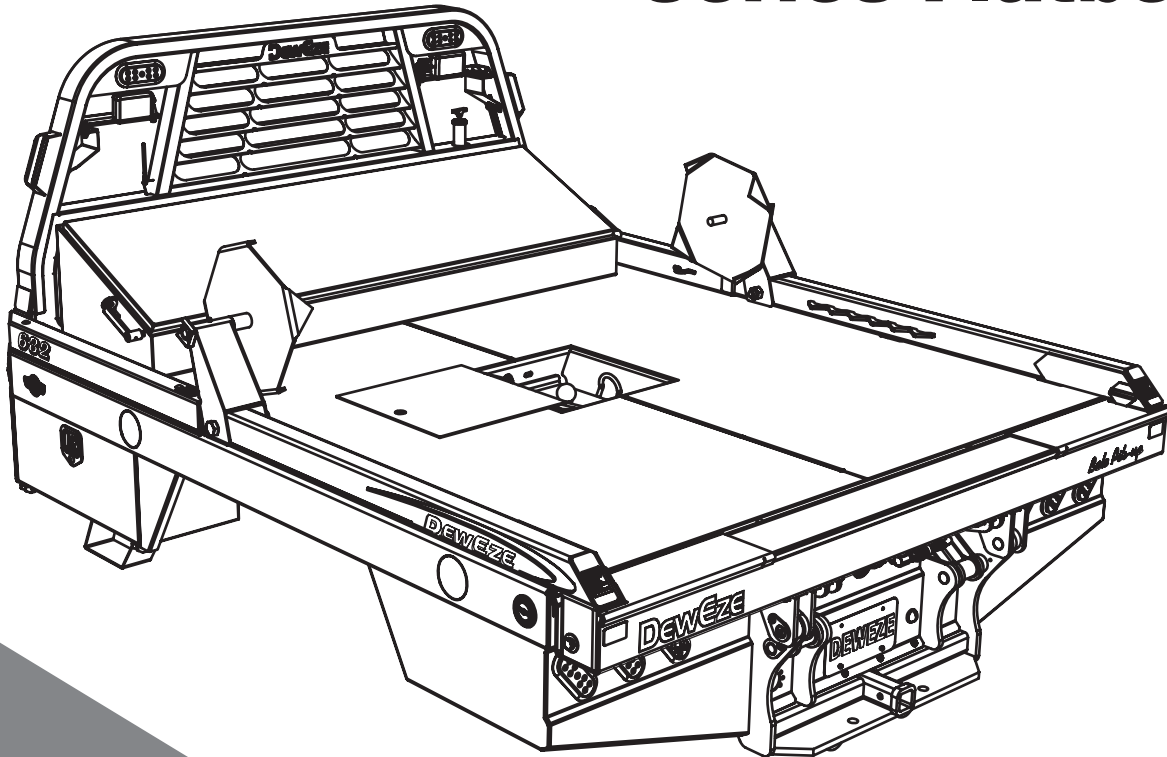




600 & 700 Series Flatbed



Round Bale Transporter & Feeder

Operator's Manual



Thank you for purchasing a DewEze Flatbed.

As with all Harper products, the 600 and 700 Series Flatbeds have been thoroughly tested and built to provide a sturdy, dependable product. The Flatbed is equipped with live hydraulics, which allows it to be used for a wide range of lifting and hauling tasks. This manual is written as an aid to operating and maintaining the DewEze Flatbed. Read and understand the manual thoroughly before operation to avoid damage to the unit or injury to the operator or bystanders.

A Flatbed can present hazards to an operator who follows unsafe procedures in either the operation or maintenance of the unit. Therefore, **SAFETY WARNINGS** are present at certain locations in the text. Harper Industries is not responsible for accidents or injuries that result from the misuse or lack of maintenance of the Flatbed.

SYMBOL:  **SAFETY WARNING!**

MEANING: The **SAFETY WARNING** symbol found throughout this manual is used to call attention to instructions involving personal safety and the safety of others. Failure to understand and obey these warnings can result in serious injury or death.

Harper Industries, Inc. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.

For any questions, please contact your local DewEze dealer or the factory directly.



151 E. HWY. 160 • HARPER, KS 67058

(620)896-7381 • FAX (620)896-7129

TOLL FREE 800-835-1042

EMAIL info@deweze.com

WEBSITE www.deweze.com

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Statement of Warranty

Harper Industries warrants to each purchaser of a new DewEze Flatbed from an authorized dealer or representative, that such equipment is free of manufacturer's defects which appear while in normal service for a period of **TWO YEARS** commencing with delivery to the original user. The Flatbed hydraulic and electrical systems are warranted for a period of one year.

The obligation of Harper Industries under this warranty is expressly limited, at our option, to replacement or repair at a service facility designated by Harper Industries or at the manufacturing plant in Harper, Kansas. A part will be replaced after inspection discloses it to have been defective. This warranty does not apply to defects caused by damage or unreasonable use (including failure to provide reasonable and necessary maintenance, or by performing functions without genuine DewEze accessories) while in the possession of the consumer.

Harper Industries shall not be liable for consequential damages of any kind, including but not limited to consequential labor costs or transportation charges in connection with replacement or repair of defective parts.

Harper Industries makes no warranty with respect to trade accessories. They are subject to the warranties of their respective manufacturers.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. Harper Industries makes no other express warranty, nor is anyone authorized to make any of behalf of Harper Industries.

For further information please contact your nearest DewEze dealer.

Product Information Record

Please locate the serial number plate on the front, left side of the flatbed and record the information in the space provided. This information will be necessary should you seek technical support. The initial purchaser should fill out the Warranty Card and return it to Harper Industries to insure proper handling of any warranty claims.	DATE OF PURCHASE	
	DEALER'S NAME	
	DEALER'S PHONE	
	MODEL NUMBER	
	SERIAL NUMBER	

Harper Industries, Inc. • 151 E. Hwy. 160 • Harper, KS 67058 • Toll Free 800-835-1042



Specifications

DewEze flatbeds are specifically designed to transport and feed round hay bales.

Model Specifications

MODEL	670	675	677	679	682	684	687	688
WIDTH	7' 1"	7' 1"	7' 1"	7' 1"	7' 9"	7' 9"	7' 9"	7' 9"
LENGTH	7' 2"	8' 6"	9' 4"	9' 8"	9' 4"	9' 8"	11' 6"	11' 10"
WEIGHT	2020#	2070#	2170#	2220#	2270#	2420#	2540#	2670#

MODEL	770	778	782	784	787	788
WIDTH	8'	8'	8'	8'	8'	8'
LENGTH	7' 2"	8' 6"	9' 4"	9' 8"	11' 6"	11' 10"
WEIGHT	2070#	2120#	2270#	2420#	2540#	2670#

* Length of all flatbeds includes 6" for crosstube.

** Add 250 lbs. for extendible arm option.

Hydraulic System Specifications

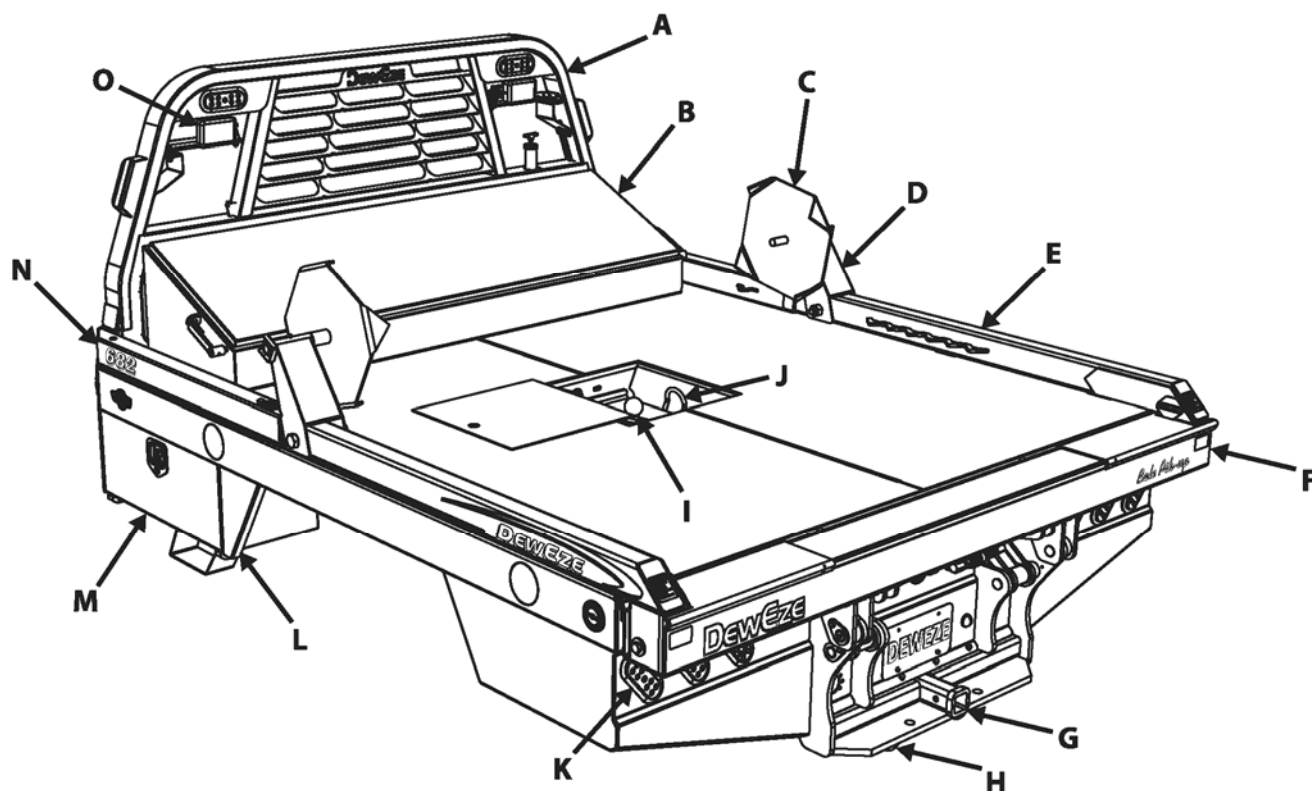
HYDRAULIC SYSTEM	Powered by engine driven pump or self-contained battery-powered electric/hydraulic unit
SYSTEM PRESSURE	2450 psi
OIL RESERVOIR CAPACITY	10 Gallons
OIL FILTER	DewEze 720043, WIX 51551 (10 micron)
CYLINDER, LIFT (2)	3.50" x 16.62"
CYLINDER, SQUEEZE	2.00" x 34.00" (670, 675, 677 & 679) 2.00" x 35.75 (682, 684, 687 & 688) 2.00" x 39.25" (770, 778, 782, 784, 787 & 788)
CYLINDER, EXTENDIBLE*	2.00" x 20.0" (left side)
CYLINDER, EXTENDIBLE*	2.50" x 20.0" (right side)

*Cylinders used for extendible arms are optional.

Protective Coating Specifications

PAINT	Heat-treated, polyurethane based paint
GATORHYDE	Long-lasting, textured polyurea surface

Feature Identification



A. Headache Rack – protects the rear pickup window. The hydraulic oil tank and valve are located in the headache rack.

B. Across-the-bed Toolbox (optional) – measures 78" wide, 15.5" tall and 21.5" deep and has a shelf mounted inside.

C & D. Spinners & Risers (optional) – used to unroll hay. The risers allow the hugger arms to lie flat on the bed with the spinners attached.

E. Hugger Arms – squeeze together to grip the bale and lift it onto the flatbed. When the arms are stored they serve as side rails for the flatbed.

F. Crosstube – houses the squeeze cylinder and guides the hugger arms.

G. Hitch Plate – allows for a 2" square receiver hitch and has holes for hitch pins.

H. Safety Chain Loops – always use safety chains when towing.

I. Gooseneck Hitch – located under a cover plate in the middle of the bed.

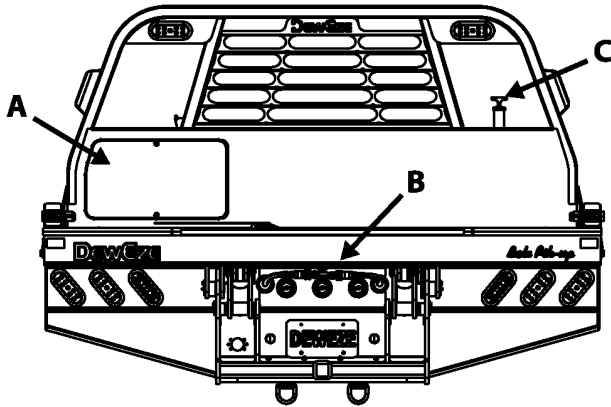
J. Safety Chain Loops – always use safety chains when towing.

K. Lights – LED lighting for stop-tail-turn has long life and low current draw.

L & M. Skirts & Toolboxes (optional) – mount under front of bed on both sides. The Electric/Hydraulic Power unit mounts inside the left toolbox.

N. Dummy Arms – serve as side rail along with hugger arms.

O. Swing Lights (optional) – lights can be pivoted out wider than the bale when working at night.



- A. Valve Compartment** – houses the hydraulic control valve, hydraulic oil filter and the radio frequency receiver.
- B. Pioneer Couplers** – connect hydraulic hoses to the squeeze cylinder – may also be used to connect to implements.
- C. Hydraulic Oil Fill & Dipstick** – check hydraulic oil level with dipstick – fill here when necessary.

Remote Control Transmitter – operates all functions of the flatbed – uses two AA batteries.



SAFETY WARNING!

Do not stand under the hugger arms when operating the bale pickup unit, even when arms are empty.

Safety Guidelines

Operator safety is of utmost concern when designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. Most accidents can be avoided by observing the precautions in this section. To avoid personal injury, study the safety warnings and cautions listed in this manual and follow them.

General Equipment Safety

- This equipment can be dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained for this unit.
- Do not attempt to operate equipment under the influence of drugs or alcohol.
- Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and how the unit works.
- Review the safety warnings and cautions with all users annually.

If you have any questions not answered in this manual or require additional copies, contact your dealer or Harper Industries.

Flatbed Operation Safety

- Replace any CAUTION, WARNING, DANGER or instruction decal that is not readable or is missing.
- Make sure all safety pins are in place and flatbed mounting bolts are secure to the truck frame.



- Make sure hinges, joints, and sliding parts are well greased, especially during off season to prevent rusting and binding.
- Check with truck dealer for any load limits, additional suspension or tire requirements. The flatbed's lifting capability may exceed the truck's load capacity in some instances.

Hydraulic Safety

- Do not operate the hydraulic system with the hood open.
- Do not activate the electric clutch unless the truck engine is at idle. Operating the clutch at road speeds can damage the hydraulic system.



SAFETY WARNING!

Hydraulic system operates under high pressure and escaping fluid can penetrate the skin.

Operating Instructions

Beginning Operation

- Turn the pump switch on the dash to the "ON" position. (Red light will indicate that pump is on).

CAUTION: In cold weather, let engine idle for 5-10 minutes with pump on before operating arms to warm oil. Neglecting to do so may cause hydraulic pump failure.

- Press and hold the power button on the transmitter until both LEDs turn on, then release.
- The green LED will flash rapidly when the communication has been established. If the receiver is off, the red LED will flash slowly.

- Press the corresponding buttons on the transmitter keypad to turn on and off each of the outputs.

Loading

- Back truck against bale with the arms wide apart and tilted slightly upward.
- Squeeze arms firmly against the bale.
- Lift the bale onto the truck.
- Release the bale and repeat the operation for the second bale.

CAUTION: When hauling one bale, make sure it is held tightly and rests on the bed. When hauling two bales make sure the second bale is as far forward as possible (Fig. 1). Carrying a bale behind the bed, as show in Fig 2, places excessive stress on the cylinder, linkage, and pins.

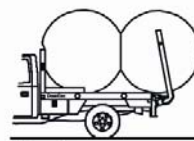


Fig. 1



Fig. 2

CAUTION: Do not exceed GVRW rating of truck when loading. Two bales can easily exceed the GVRW on a $\frac{3}{4}$ ton truck. A typical $\frac{3}{4}$ ton truck can haul 2,300 lbs. of payload in addition to the flatbed.

Extending (option)

- Always squeeze the bale with the arms in the retracted position.
- Extend the arms and release the bale.
- Fully retract the arms before laying them on the bed.

CAUTION: Squeezing the bale when the arms are extended puts excessive force on the arms and crosstube and may result in bending the unit.

Unloading

- To unload, do the reverse of the loading operation.
- Spinners may sometimes be needed to grip the front bale for unloading.

Unrolling (option)

- Use risers and spinners to unroll a bale.
- Position the arms over the bale so the spinners are at the center of the bale.
- To unroll, lower the bale to the ground.
- Turn the pump off and push the FLOAT switch on the remote control.
- Slowly drive STRAIGHT forward. The bale will gradually unroll.

CAUTION: Turning while unrolling a bale may cause hugger arms to bend.

CAUTION: Failure to use FLOAT while unrolling may damage flatbed frame or lift cylinder. The FLOAT switch on the remote transmitter stays on until it is pressed a second time or another switch is activated. To avoid power loss, always deactivate the FLOAT when not in use.

Storing the Arms

- Close the arms partially and lay them on the flatbed.
- Open the arms until they are flush with the side of the bed. They now function with the dummy arms as side rails.

Turning System Off

- Turn the pump off when it is not in use.
- The remote control turns itself off automatically after 10 minutes.

CAUTION: Operating truck at road speeds or above 2,000 RPM with pump engaged may cause hydraulic pump failure.

Maintenance

Check Daily or Before Use

- Check the hydraulic oil level. Keep the level to "FULL" on the dipstick.
- Check the belt, belt tensioner and idler pulleys on engine clutch pump system.
- Examine the hydraulic hoses for leaks with an object such as cardboard.



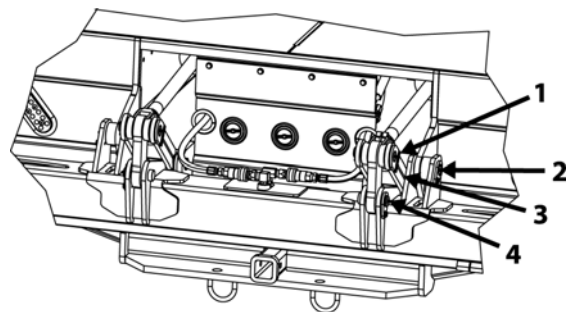
SAFETY WARNING!

Hydraulic fluid escaping under pressure can penetrate the skin and may cause death if not treated immediately.

Lubrication

Grease the locations indicated in the illustrations below once per week while the unit is in use and at the end of each season (same locations on right and left).

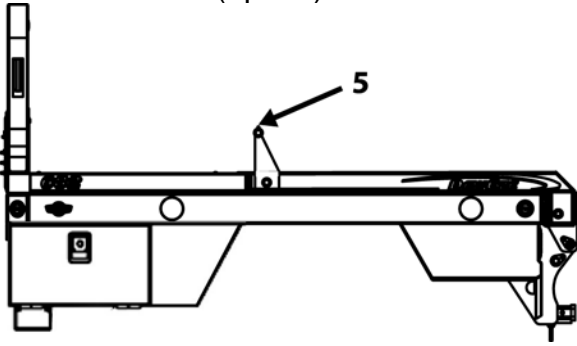
1. Lift cylinder – rod end
2. Crosstube hinge
3. Idler arm base
4. Idler link pin



SAFETY WARNING!

Use extreme caution when greasing the flatbed. Completely lower arms to expose rear zerks and turn off ignition.

5. Riser (option)



Hydraulic Oil

- Change the hydraulic oil filter after the first 40 hours of use and then every 250 hours, or annually thereafter.
- Change the hydraulic oil if it becomes contaminated or turns milky in appearance.
- In cold weather (below 10°F), use hydraulic oil that is specifically rated for cold weather.
- If other hydraulic equipment is attached to the bed, the oil will intermix and cold weather viscosity may be lost.

Hydraulic System

- If the quick-couplers leak, the o-rings may need to be replaced.
- High heat, 190° or greater, can be damaging to the hydraulic system. Feel various parts of the system to make sure there are no “hot spots” which may indicate a problem.
- In the off season, run the bed at least twice a month to prevent valve condensation.
- For easy hookup of the couplers, turn the pump switch off and activate the control valve switches with the ignition on. This will release pressure in the lines.

GatorHyde Protective Coating

- In the event that damage should occur to the GatorHyde protective coating, repair materials are available from your DewEze dealer to fix small areas. Follow the instructions provided in Appendix I.

Remote Control

- The remote control transmitter has two LED indicators, the green TRANSMIT indicator and the red BATTERY / DIAGNOSTIC indicator.
- The green TRANSMIT indicator flashes rapidly whenever there is communication between the transmitter and the receiver.
- The red BATTERY / DIAGNOSTIC indicator starts blinking once every second when the battery voltage is low and requires replacement. It also blinks when there is a problem with the system in the form of an error code. Refer to the ERROR CODE CHART in Appendix II.
- To synchronize a new transmitter and receiver together, refer to the TEACH ID CODE instructions in Appendix II.

Power Unit

- If the flatbed is powered with a DewEze Under-the-Hood hydraulic system, refer to the following chart when troubleshooting.
- See Appendix III if the flatbed is powered with the Electric/Hydraulic power unit.



Troubleshooting

Problem	Symptom	Possible Solutions
Hydraulic Pump	No Oil Flow	<ul style="list-style-type: none">CHECK OIL LEVEL IN RESERVOIR. If oil level is low, check for leaks in system then re-fill to FULL.CHECK BELT TENSION. Replace tensioner or tighten idlers if needed. Replace belt if worn.CHECK FOR SHEARED KEY ON PUMP SHAFT. Replace key.CHECK IF SUCTION HOSE COLLAPSES IN SUCTION. Locate and remove obstruction.CLUTCH NOT FUNCTIONING. See possible clutch solutions.INTERNAL PUMP DAMAGE. Seek assistance from dealer.
Hydraulic Pump	No Oil Pressure	<ul style="list-style-type: none">HYDRAULIC OIL LEAKS IN SYSTEM. <u>Take safety precautions</u> and check for leaks. Tighten fittings and replace damaged hoses.CHECK FOR MALFUNCTIONING SWITCH. Replace switches.BELT OR CLUTCH MAY BE SLIPPING. Replace tensioner or tighten idlers if needed. Replace belt if worn.VALVE NOT FUNCTIONING. Check for disconnected wires at solenoid or rusted ground wires. Seek assistance from dealer if valve continues to be unresponsive.PRESSURE RELIEF MAY BE SET TOO LOW OR BROKEN. Seek assistance from dealer. CAUTION: PRESSURE EXCEEDING 2,600 PSI CAN DAMAGE THE PUMP.PUMP IS WORN OR DAMAGED. Seek assistance from dealer.
Clutch	Does Not Engage	<ul style="list-style-type: none">CHECK FOR BLOWN FUSE. Replace fuse. CAUTION: FUSE SHOULD NOT EXCEED 30 AMPSCHECK WIRE TO CLUTCH. Insure there are no breaks or shorts.CHECK FOR BAD SWITCHES IN SYSTEM. Replace switches.CLUTCH IS WORN OUT. Seek assistance from dealer.
Belt(s)	Jumps Off Pulley	<ul style="list-style-type: none">BELT(S) TOO LOOSE. Replace tensioner or tighten idler pulleys.CHECK FOR EXCESSIVE BELT WEAR. Replace worn belt(s).CHECK FOR LOOSE PUMP BRACKET. Tighten loose bolts. Replace broken bolts.CHECK CRANKSHAFT PULLEY FOR LOOSE OR BROKEN BOLTS. Tighten loose bolts. Replace broken bolts.CHECK ALIGNMENT OF IDLER PULLEYS AND CONDITION OF BEARINGS. Re-align idler pulleys or replace worn idler pulleys.CHECK ALIGNMENT OF CLUTCH AND CRANKSHAFT PULLEY. If misalignment is visible, seek assistance from dealer.



SAFETY WARNING!

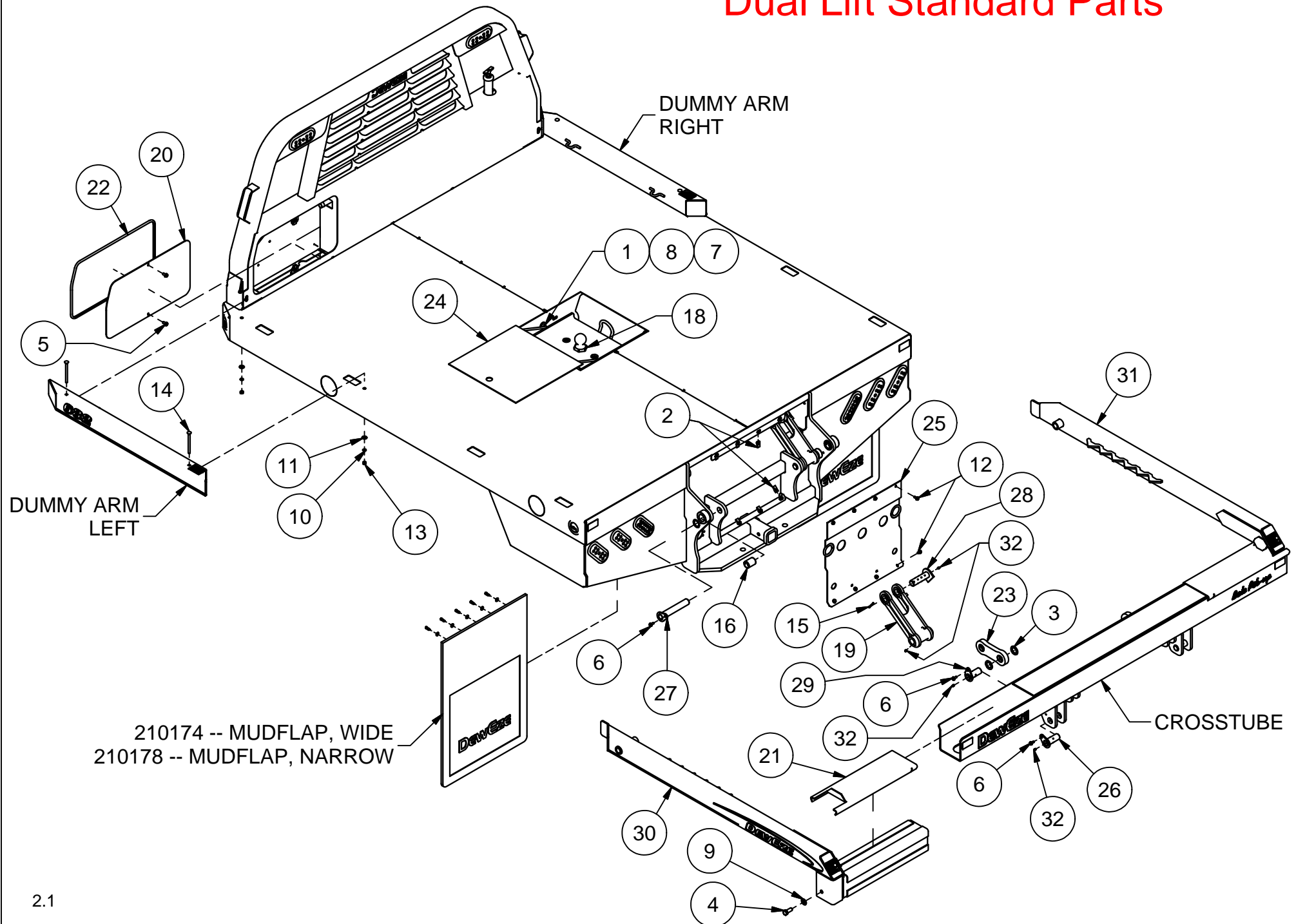
Use extreme caution when inspecting an engine. Serious injury or death could result from getting too close! Remove key from ignition when servicing.



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Dual Lift Standard Parts



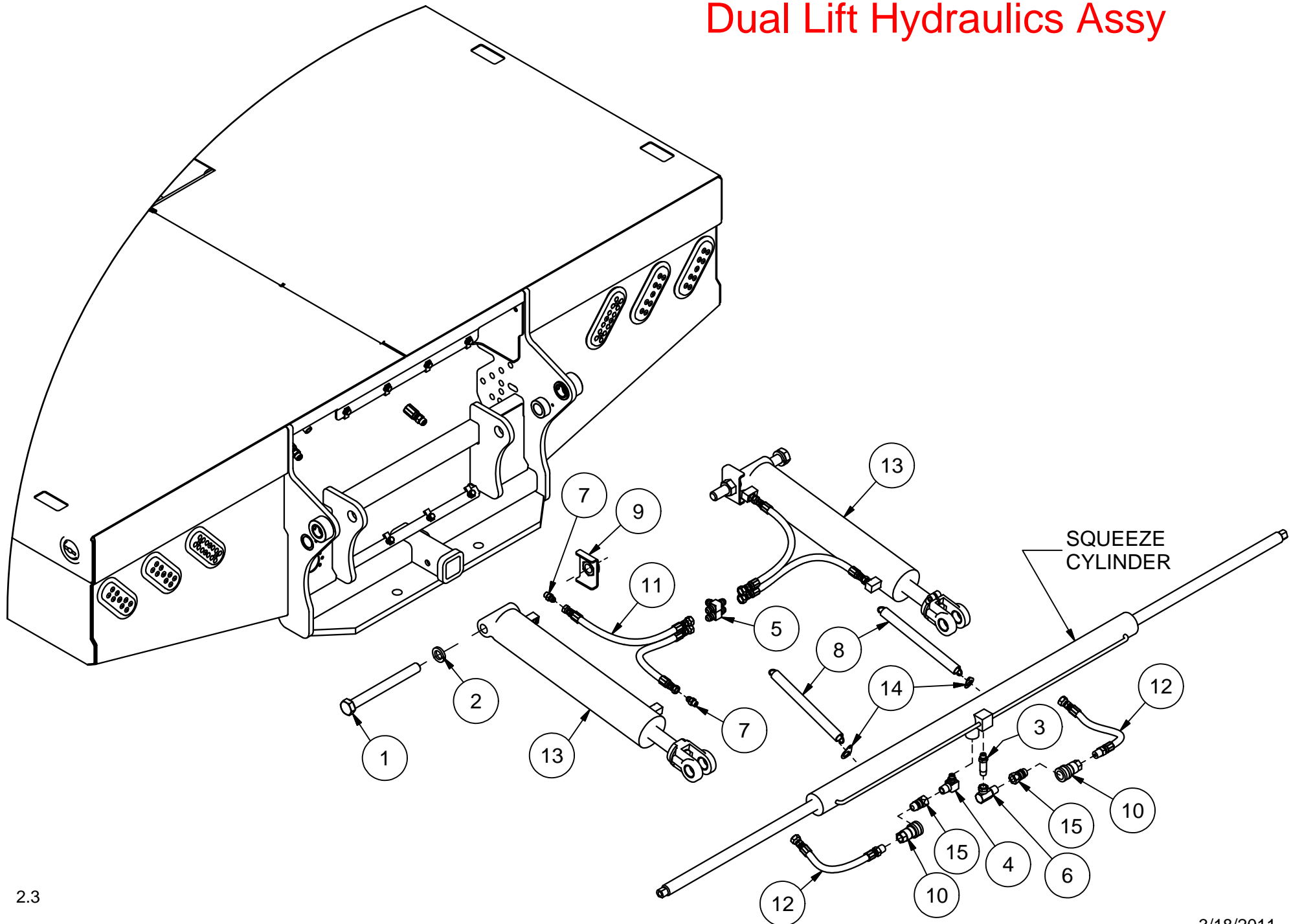
Dual Lift Standard Parts

Dummy Arms	
Left & Right	Part #
670	215189
675	215150
677	215191
679	215208
682	215145
684	215193
687	215198
688	215200
770	215210
778	215160
782	215158
784	215202
787	215204
788	215206

Crosstubes		
Bed Width	Bed #'s	Part #
85.375	670, 675, 677 & 679	215149
93.0	682, 684, 687 & 688	215162
96.5	770, 778, 782, 784, 787 & 788	215138

Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	2	110244	BOLT, 1/2-13 X 1.5 SHCS
2	8	110319	NUT, 5/16-18 U-TYPE .75L
3	4	110336	WASHER, 1-1/4" FLAT MACHINE
4	2	110365	BOLT, 5/8-18 X 1.5 GR 5
5	2	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
6	11	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
7	2	110588	NUT, 1/2-13 WIZ FLANGE
8	2	110658	WASHER, 1/2" FLAT STANDARD
9	2	110663	WASHER, 5/8" FLAT SAE
10	4	110672	WASHER, 3/8" LOCK
11	4	110676	WASHER, 3/8" FLAT STANDARD
12	8	110794	BOLT, 5/16-18 X 0.75, GR8 BLK HEX FLANGE
13	4	110826	NUT, 3/8-16 GR 5
14	4	110846	Bolt, 3/8-16 X 5 in Carriage
15	2	200150	ROLL PIN, 1/4 X 2
16	2	202023	BUSHING, 1.5 X 1.25 X 2.0 SPLIT CG/ID
17	1	205043	INSTALL HARDWARE
18	1	210459	HITCH BALL AND NUT
19	2	210935	IDLER ARM, MACHINE DWG.
20	1	211202	VALVE COVER
21	2	211292	SHIELD, CROSSARM
22	1	211481	EDGE TRIM, VALVE COVER
23	2	214002	PUSH ARM ASSY, DUAL LIFT
24	1	215128	BALL WELL DOOR WELDMENT
25	1	215139	CENTER TAILBOARD DOOR WELDMENT
26	2	215140	PIN WELDMENT, 1-1/4 X 3
27	2	215141	PIN WELDMENT, 1-1/4 X 7
28	2	215142	PIN WELDMENT, 1-1/4 X 4
29	2	215148	PIN WELDMENT, CROSSTUBE LINK
30	1	215167	WELDMENT, HUGGER ARM LEFT
31	1	215168	WELDMENT, HUGGER ARM RIGHT
32	8	510174	GREASE ZERK, 1/4-28 ST

Dual Lift Hydraulics Assy



Dual Lift Hydraulics Assy

Squeeze Cylinders		
Bed Width	Bed #'s	Part #
85.3.75	675	220002
93.0	682	223032
96.5	778	223001

Synchronized Squeeze Cylinder
Part # 223026

Squeeze Cyl Seal Kit
Part# 220056

Dual Lift Cylinders
Anniversary Part# 223030
Production Part# 223038
Seal Kit Part# 212012

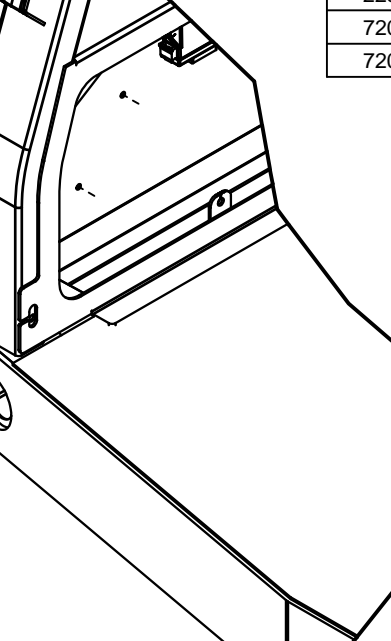
Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	2	110352	BOLT, 1-8 X 10, GR8
2	2	110649	WASHER, 1" LOCK
3	1	120078	ADAPTER, 6MB-6MP (3/8 X 2-1/2)
4	1	120147	ADAPTER, 6MB-8MP90
5	2	120242	ADAPTER, 8MJ-8MJ-8MJ
6	1	120311	ADAPTER, 8MP-6FPX90
7	4	120319	ADAPTER, 6MJ-6MB
8	2	202022	SPRING, 1" O.D. X 12" L X .105 WIRE
9	2	215144	KEEPER, 1 IN NUT, WELDMENT
10	2	220084	COUPLER, PIONEER FEMALE
11	4	220681	HOSE ASSY, FLATBED DUAL LIFT
12	2	220682	HOSE ASSY, FLATBED SQUEEZE SHORT
13	2	223038	LIFT CYLINDER 3.50 X 16.6
14	2	260111	MOUNT, HOSE SPRING
15	2	420005	COUPLER, PIONEER MALE

600 - 700 WITH GENERATION 2 VALVES

COMMON HOSES		SQUEEZE HOSES SHORT	LIFT HOSES SHORT	RESERVOIR RETURN	HYDRAULIC HOSE KIT #
		6MTF3 - 8FJX / 8MP	8M3K - 6FJX / 8FJX	12-10FJX / 12-12MPX90	
		2 ea.	4 ea.	1 ea.	
		220682 (17 in.)	220681 (17 in.)	220691 (12.25 in.)	223033
FLATBED LENGTH		SQUEEZE HOSES	LIFT HOSES		
		8M3K - 8FJX / 8MJ	8M3K - 6MB / 8FJX		
		2 ea.	2 ea.		
80 in.	_70	220683 (106 in.)	220687 (76 in.)		223034
96 in.	_75 & _78	220684 (122 in.)	220688 (99 in.)		223035
106-110 in.	_77 & _82, _79 & _84	220685 (132 in.)	220689 (111 in.)		223036
132-136 in.	_87 & _88	220686 (158 in.)	220690 (137 in.)		223037

Diagram illustrating the 1100 Series Hydraulic Valve Assembly. The assembly includes the following components and labels:

- SQUEEZE CYLINDER - OUT -**: Points to the top-left port.
- LIFT CYLINDER - BASE -**: Points to the top-right port.
- SQUEEZE CYLINDER - IN -**: Points to the bottom-left port.
- LIFT CYLINDER - ROD -**: Points to the bottom-right port.
- 11**: A large number indicating the model or series.
- 1-1433-1**: A part number label located near the bottom-right port.

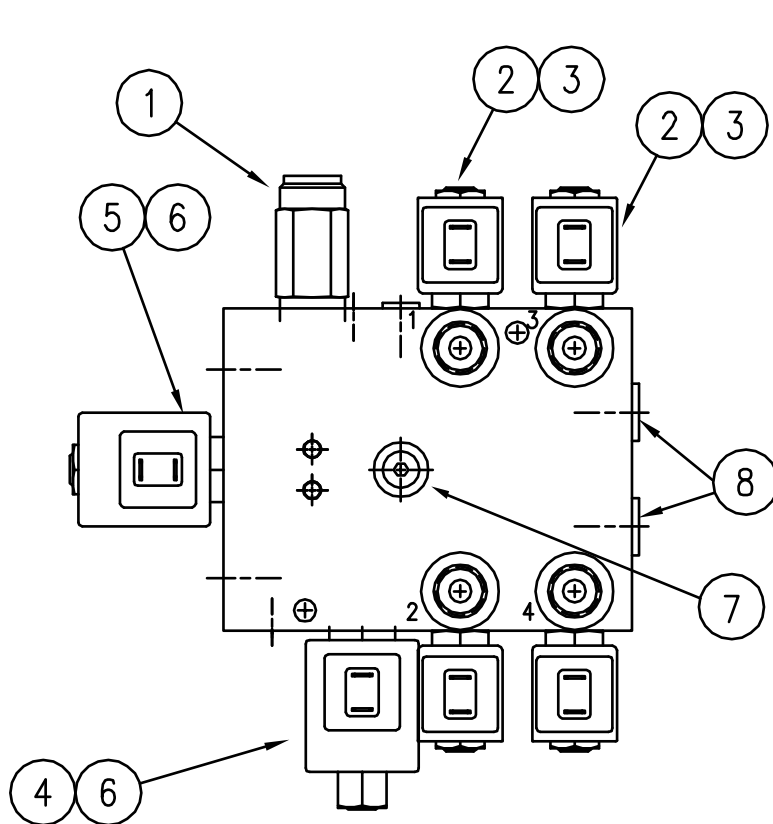


120493
220691
223016
720041
720043

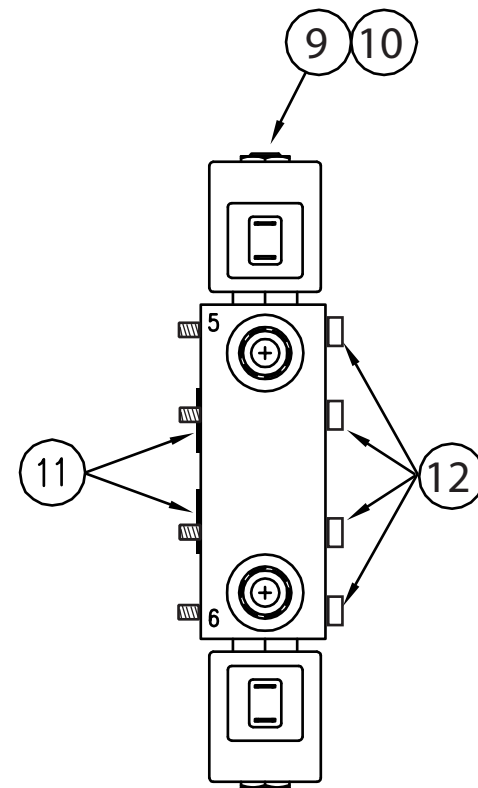
120174 -- ADAPTER, 8MB-12FPX



GEN 2 VALVE - SERVICE PARTS



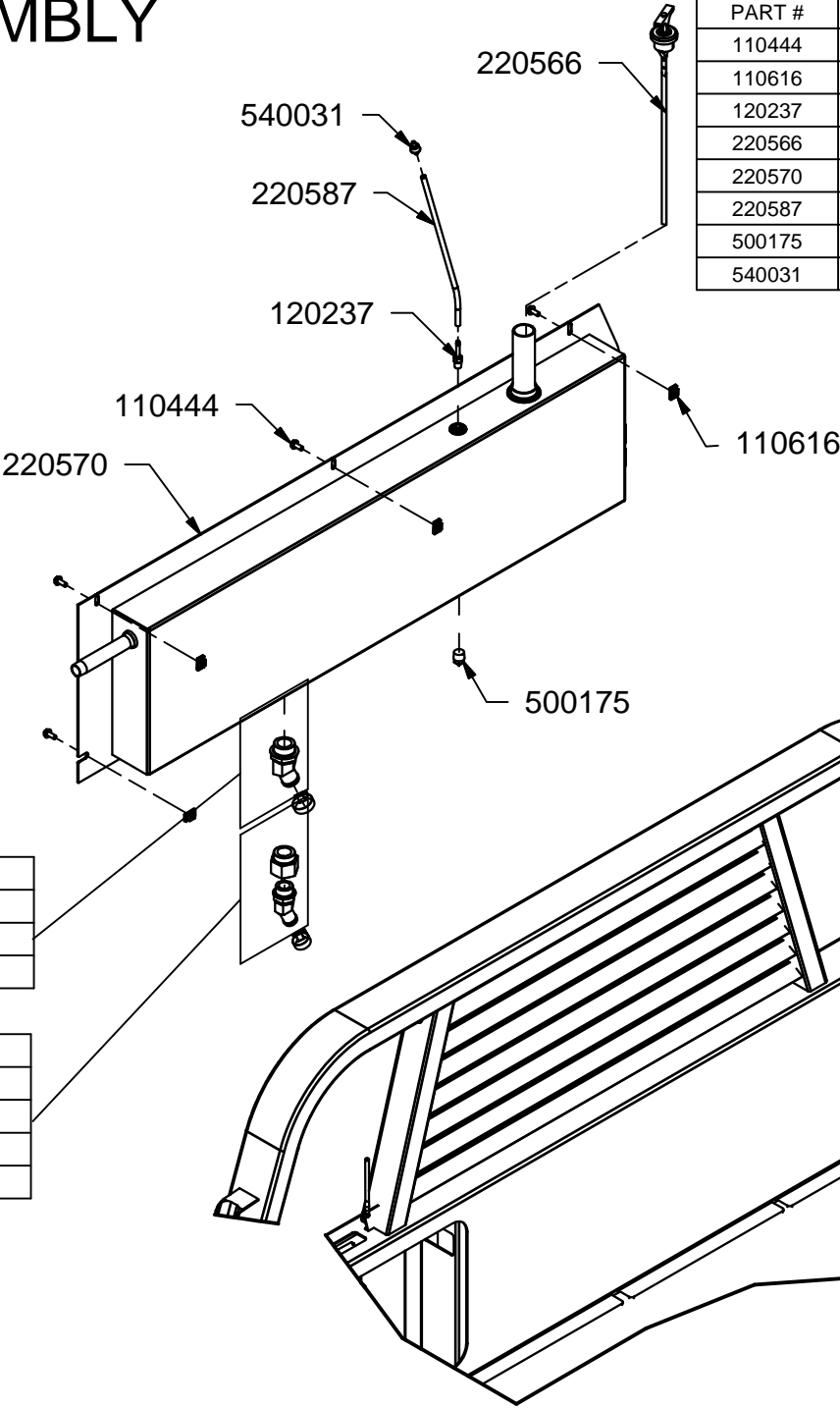
ITEM NO	DESCRIPTION	PART NO.	QUAN
1	VALVE, PRESSURE RELIEF	222004	1
2	CARTRIDGE, #8 VALVE, W/O COIL	720015	4
3	COIL, #8 VALVE, 12 VOLT	820143	4
4	SPOOL, #10 VALVE	820232	1
5	VALVE, DIRECTIONAL, 4-WAY	222002	1
6	COIL, #10 VALVE, 12 VOLT	820229	2
7	O-RING, ADAPTER #4 7/16-20	120062	2
8	O-RING, ADAPTER #8 3/4-16	720164	2
	VALVE, MONOBLOCK, COMPLETE	223016	1



VALVE FOR ADDITIONAL THIRD BANK

ITEM NO	DESCRIPTION	PART NO.	QUAN
9	VALVE, POPPET FOR 223017	222003	2
10	COIL, #10 VALVE, 12 VOLT	820229	2
11	O-RING, -219, 90 DURO	120376	2
12	BOLT, 5/16-18 X 2 SHCS	110168	4
	VALVE, 3RD BANK ADD ON (223016)	223017	1

HYDRAULIC ASSEMBLY RESERVOIR



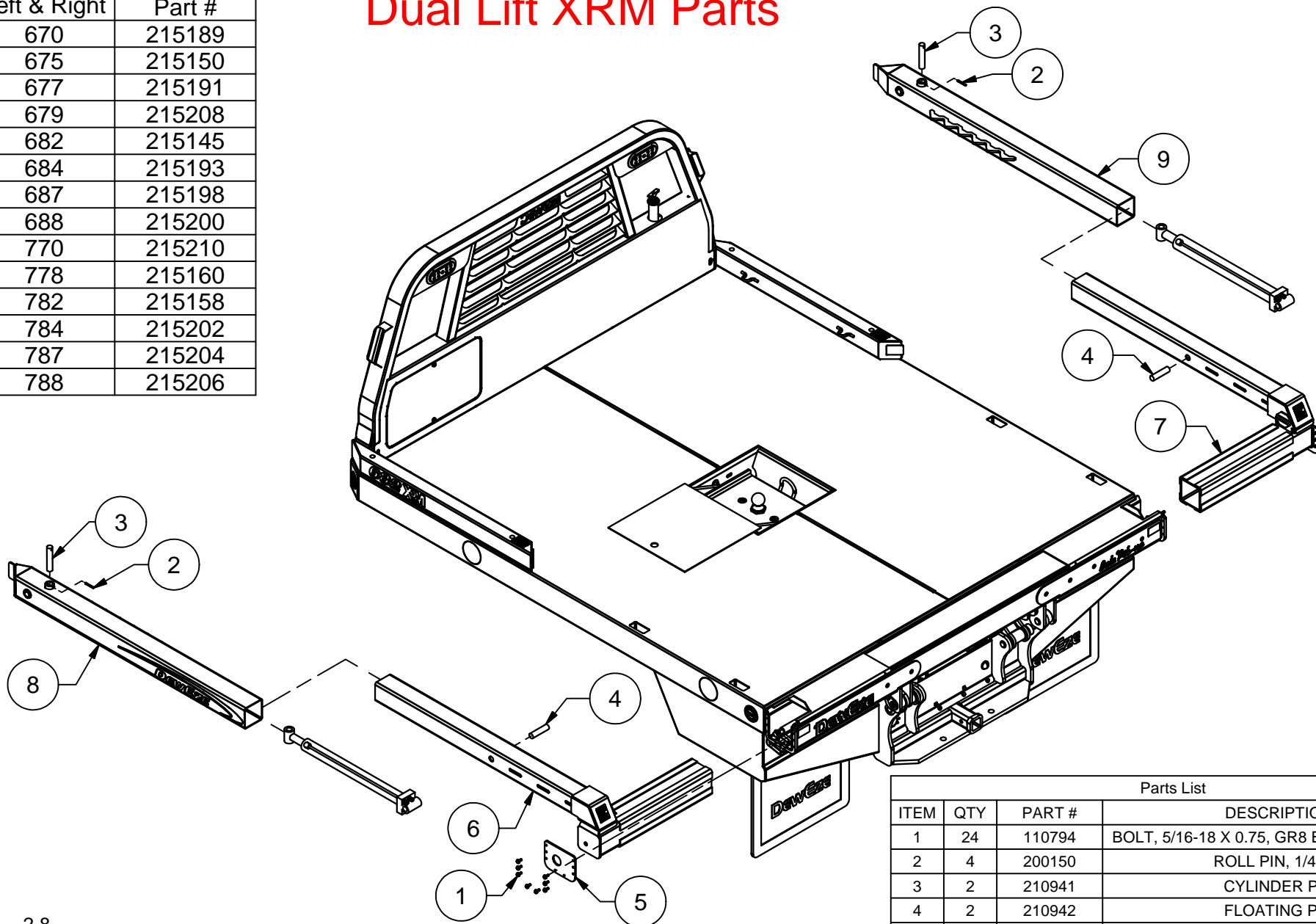
Parts List		
PART #	QTY	DESCRIPTION
110444	4	BOLT, 5/16-18 X 0.75, WIZ FLANGE
110616	4	NUT, 5/16", J-TYPE, CAGE, .5C
120237	1	ADAPTER, 4BH-4MP
220566	1	DIP STICK
220570	1	RESERVOIR WELDMENT
220587	1	VENT HOSE
500175	1	FITTING, PLUG 1/2" PIPE
540031	1	FUEL FILTER

12 & 17 GALLON SYSTEM		
PART #	QTY	DESCRIPTION
120189	1	ADAPTER, 20MB-20BH 45°
511002	1	HOSE CLAMP, #24

5, 7 & 9 GALLON SYSTEM		
PART #	QTY	DESCRIPTION
120188	1	ADAPTER, 16MB-16BH 45°
120511	1	ADAPTER, 20MB-16FOR
720107	1	HOSE CLAMP, #20

Dummy Arms	
Left & Right	Part #
670	215189
675	215150
677	215191
679	215208
682	215145
684	215193
687	215198
688	215200
770	215210
778	215160
782	215158
784	215202
787	215204
788	215206

Dual Lift XRM Parts



2.8

Crosstubes		
Bed Width	Bed #'s	Part #
85.375	670, 675, 677 & 679	215172
93.0	682, 685, 687 & 688	215176
96.5	770, 778, 782, 784, 787 & 788	215170

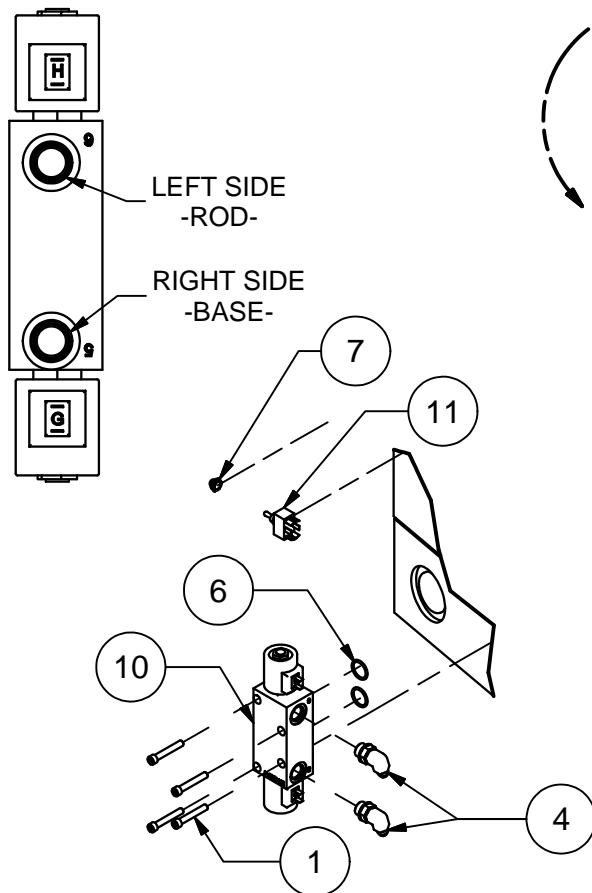
Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	24	110794	BOLT, 5/16-18 X 0.75, GR8 BLK HEX FLANGE
2	4	200150	ROLL PIN, 1/4 X 2
3	2	210941	CYLINDER PIN
4	2	210942	FLOATING PIN
5	2	211755	CROSTUBE ENDCAP
6	1	215085	SQUEEZE ARM XRM, LEFT
7	1	215086	SQUEEZE ARM XRM, RIGHT
8	1	215173	EXTENSION ARM WELDMENT, LEFT
9	1	215174	EXTENSION ARM WELDMENT, RIGHT

Parts List			
ITEM	PART #	QTY	DESCRIPTION
1	110168	4	BOLT, 5/16-18 X 2.0 SHCS
2	120102	4	ADAPTER, BULKHEAD, 6MJ-6MJ, W/LOCKNUT
3	120123	4	ADAPTER, 6FP-6FJX
4	120134	2	ADAPTER, 6MJ-8MB90
5	120186	4	ADAPTER, 4MB-4FPX
6	120376	2	O-RING, -119, 90 DURO
7	132035	1	SWITCH BOOT </td
8	220455	1	EXTENDABLE ARM CYLINDER, 2.5
9	220456	1	EXTENDABLE ARM CYLINDER, 2.0
10	223017	1	VALVE, 3rd BANK ADD ON
11	232086	1	SWITCH, DPDT, M, 6 PIN, PUSH ON

SEAL KITS

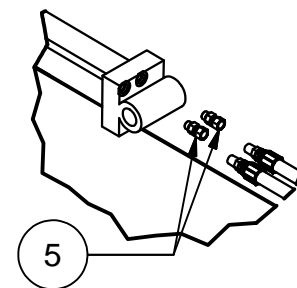
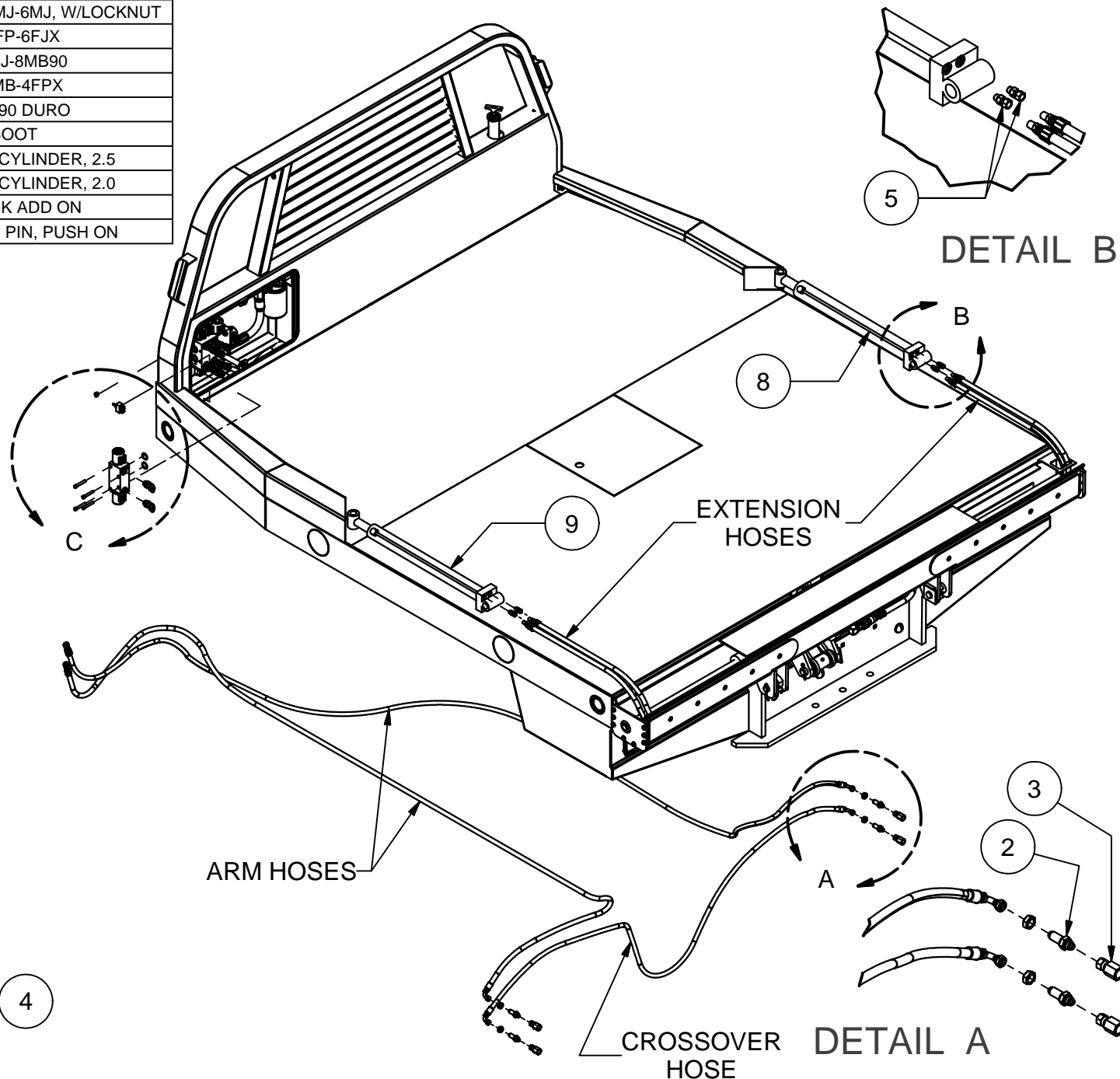
2.5 CYLINDER 220532

2.0 CYLINDER 220533

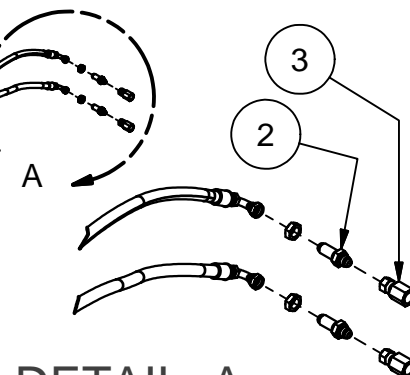


DETAIL C

XRM HYDRAULICS

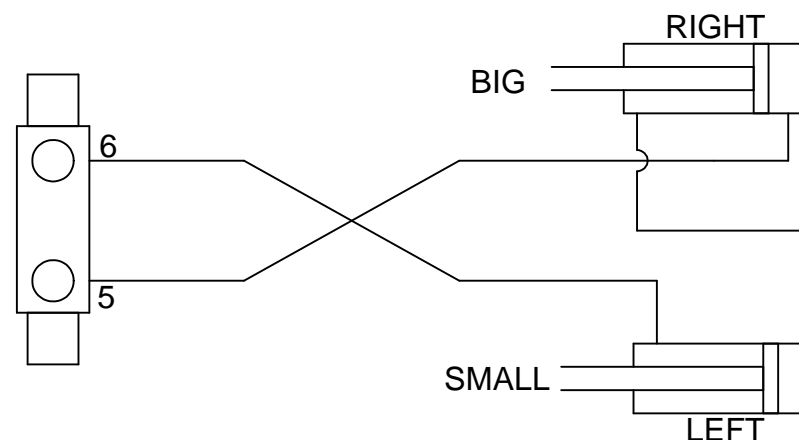


DETAIL B



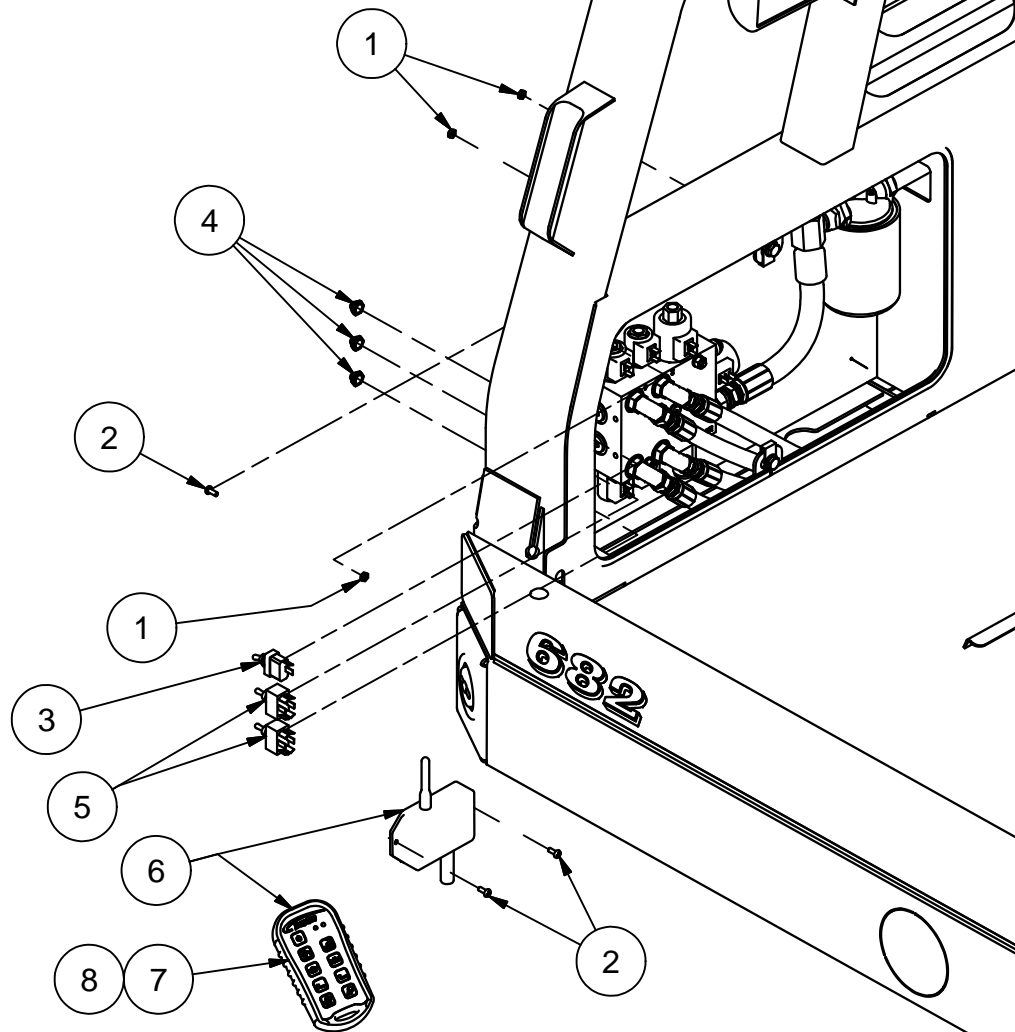
DETAIL A

XRM HYDRAULICS



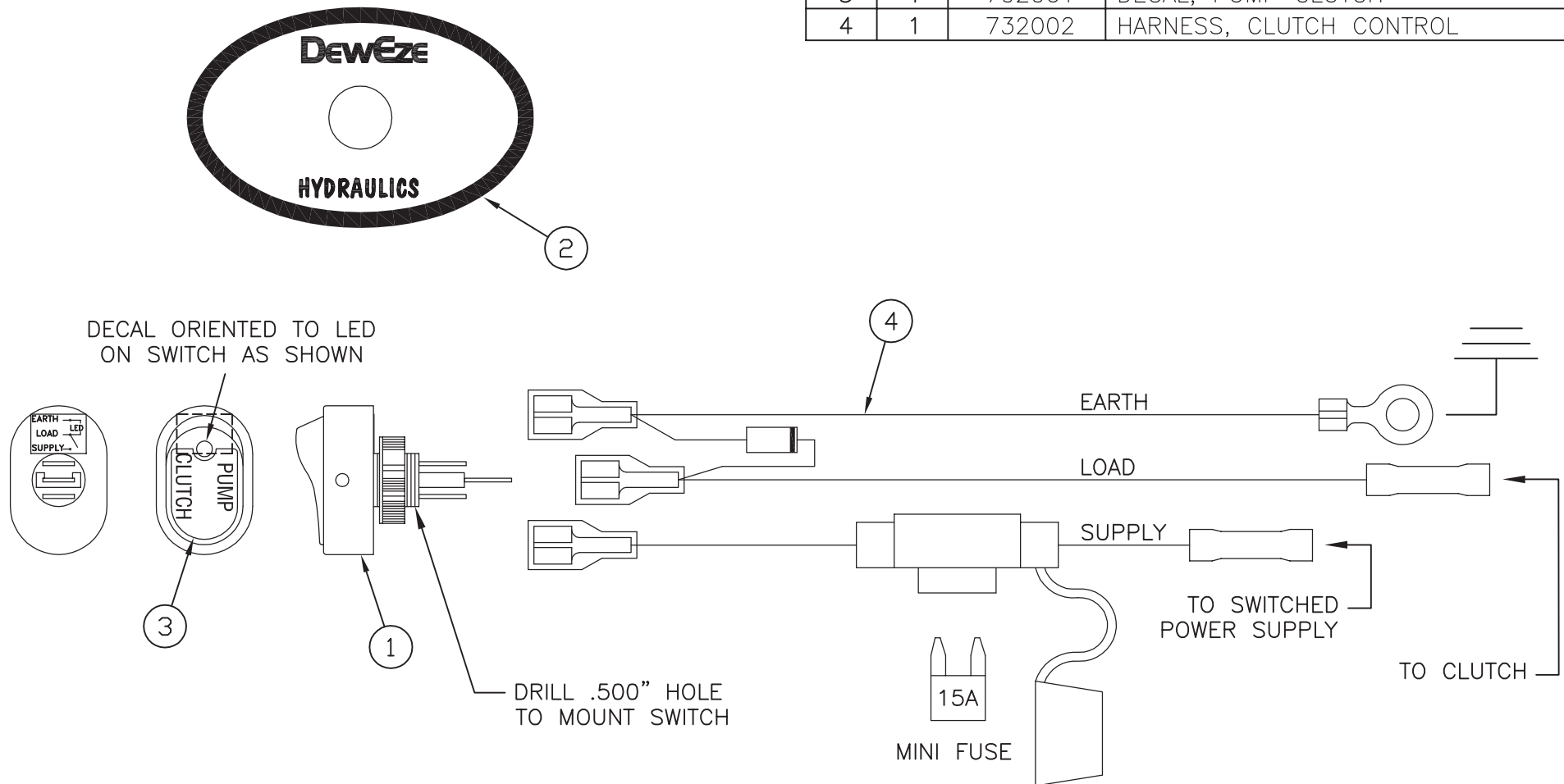
XRM SERIES	ARM HOSES 6M3K - 6FJX90M / 6FJX		EXTENSION HOSES 6M3K - 6-4MP / 6MPX		CROSSOVER HOSE 6M3K - 6FJX90M	HYDRAULIC HOSE KIT #
470, 670	220625 (165in)	220625 (165in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220601 (79.6in)	223011
475, 675	220626 (188in)	220626 (188in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220601 (79.6in)	223010
477, 479, 482, 484, 677, 679	220627 (200in)	220627 (200in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220601 (79.6in)	223009
487, 488	220629 (218in)	220629 (218in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220601 (79.6in)	223007
578, 770, 778	220626 (188in)	220626 (188in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220645 (94.0in)	223021
582, 682, 684, 782, 784	220627 (200in)	220627 (200in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220645 (94.0in)	223022
587, 687, 688, 787, 788	220629 (218in)	220629 (218in)	2ea 220605 (54.3in)	2ea 220605 (54.3in)	220645 (94.0in)	223023

RF Control & Manual Switches

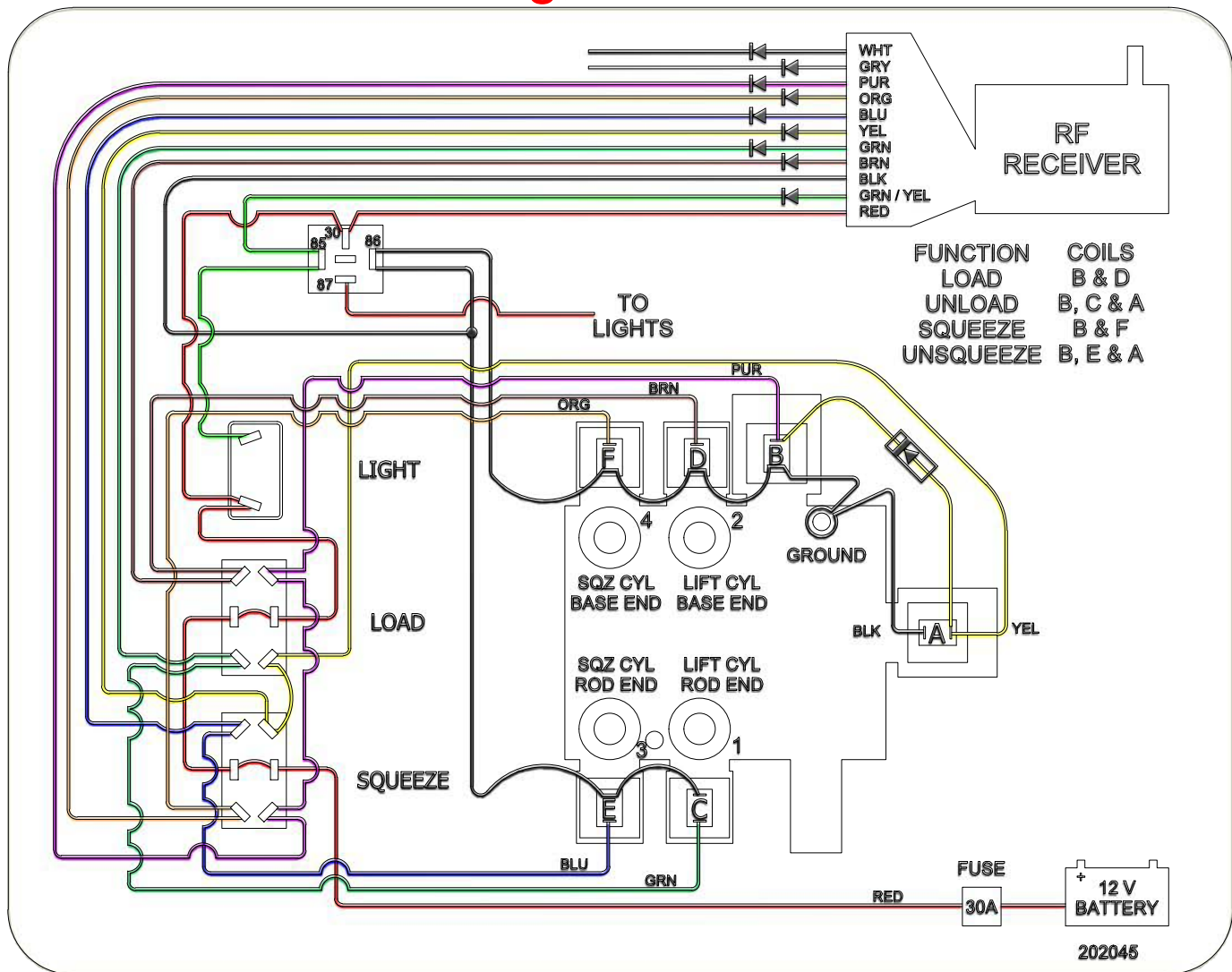


Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	3	110119	NUT, 10-24 LOCK
2	3	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	1	132027	Switch, Spst, Toggle .250 Tab
4	3	132035	SWITCH BOOT
5	2	232086	SWITCH, DPDT, M, 6 PIN, PUSH ON
6	1	233003	Transmitter & Receiver, Kar-Tech
7		233004	Transmitter, Kar-Tech
8			Two AA Batteries

ITEM	QUAN	PART #	NAME
1	1	132044	SWITCH, SPST ROCKER LED
2	1	702002	DECAL, DEWEZE HYDRAULICS
3	1	702061	DECAL, PUMP CLUTCH
4	1	732002	HARNESS, CLUTCH CONTROL

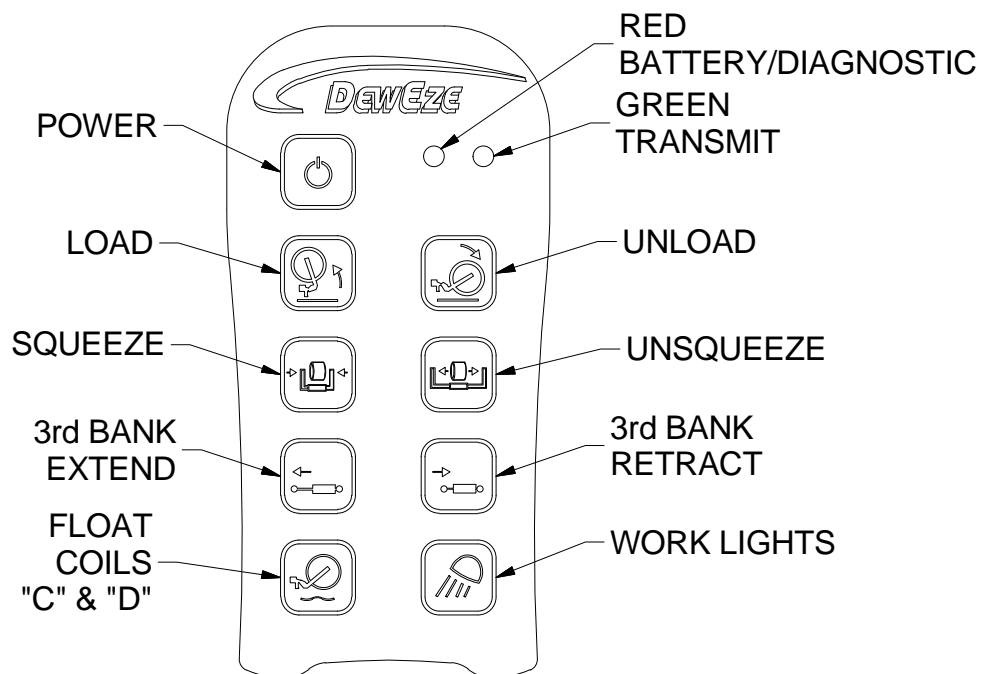


2 Bank Wiring, Kar-Tech Remote



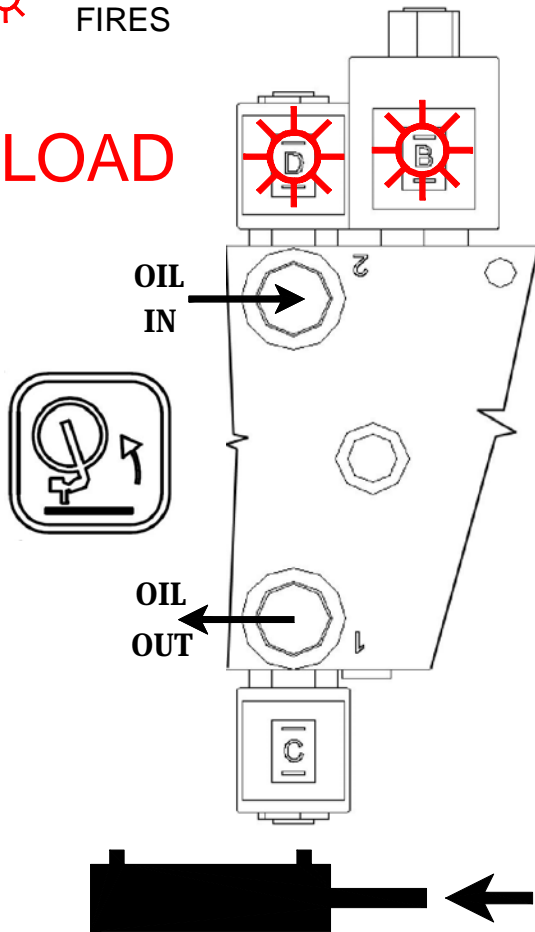
Decal Part# 202045

Harness Part# 232087

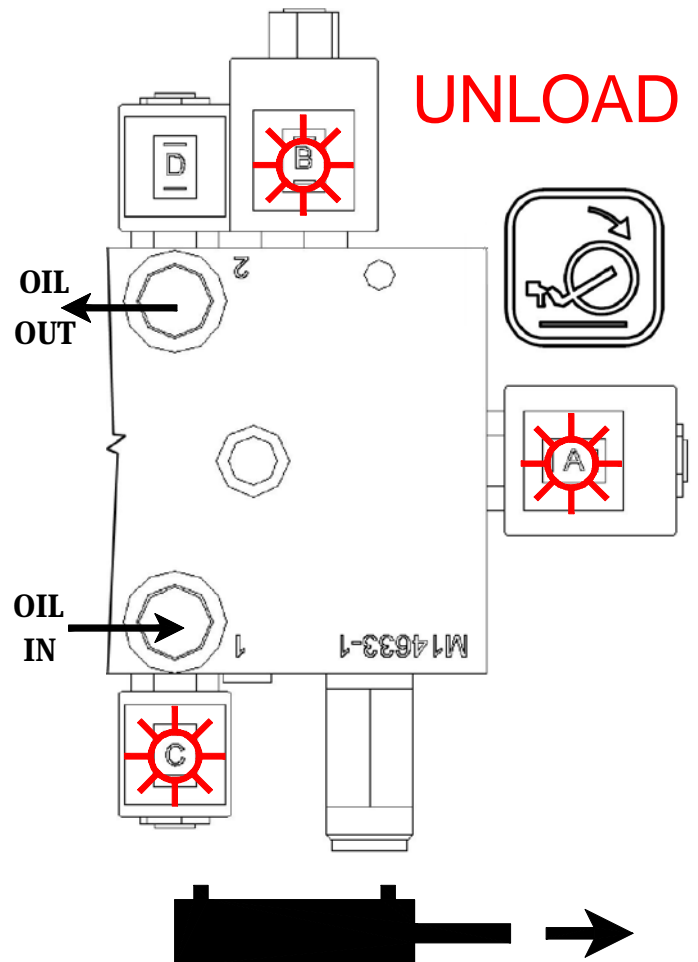


☀ SOLENOID FIRES

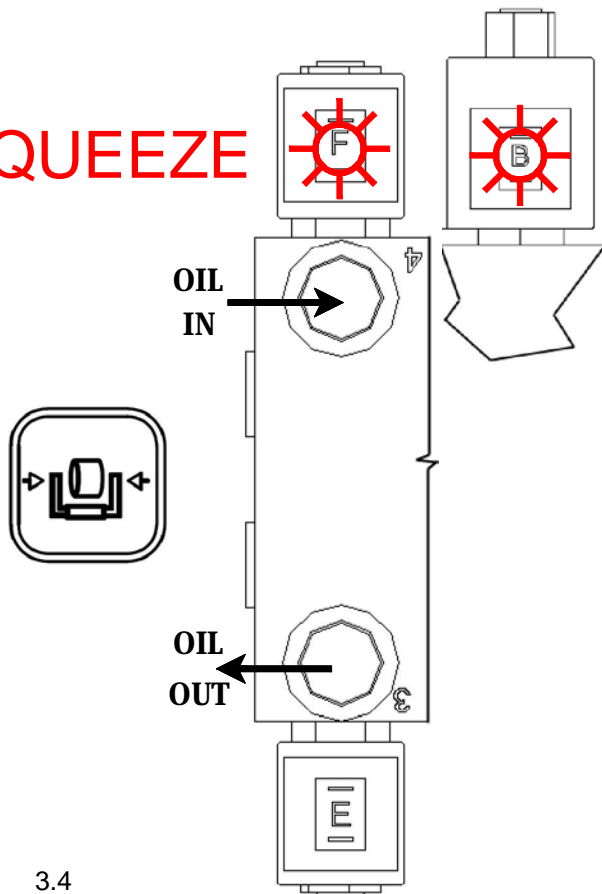
LOAD



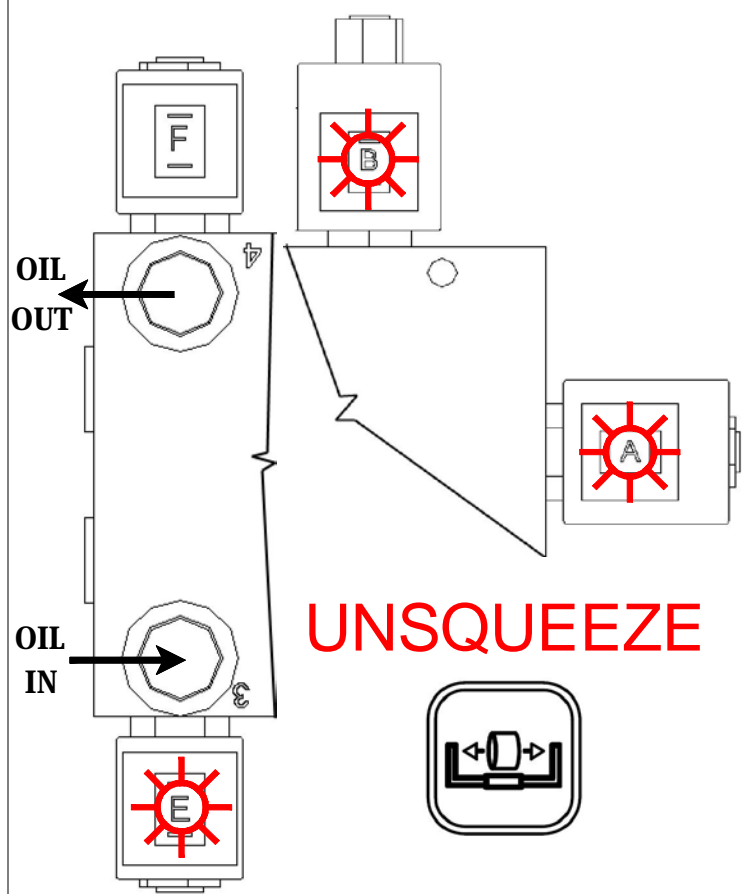
UNLOAD



SQUEEZE

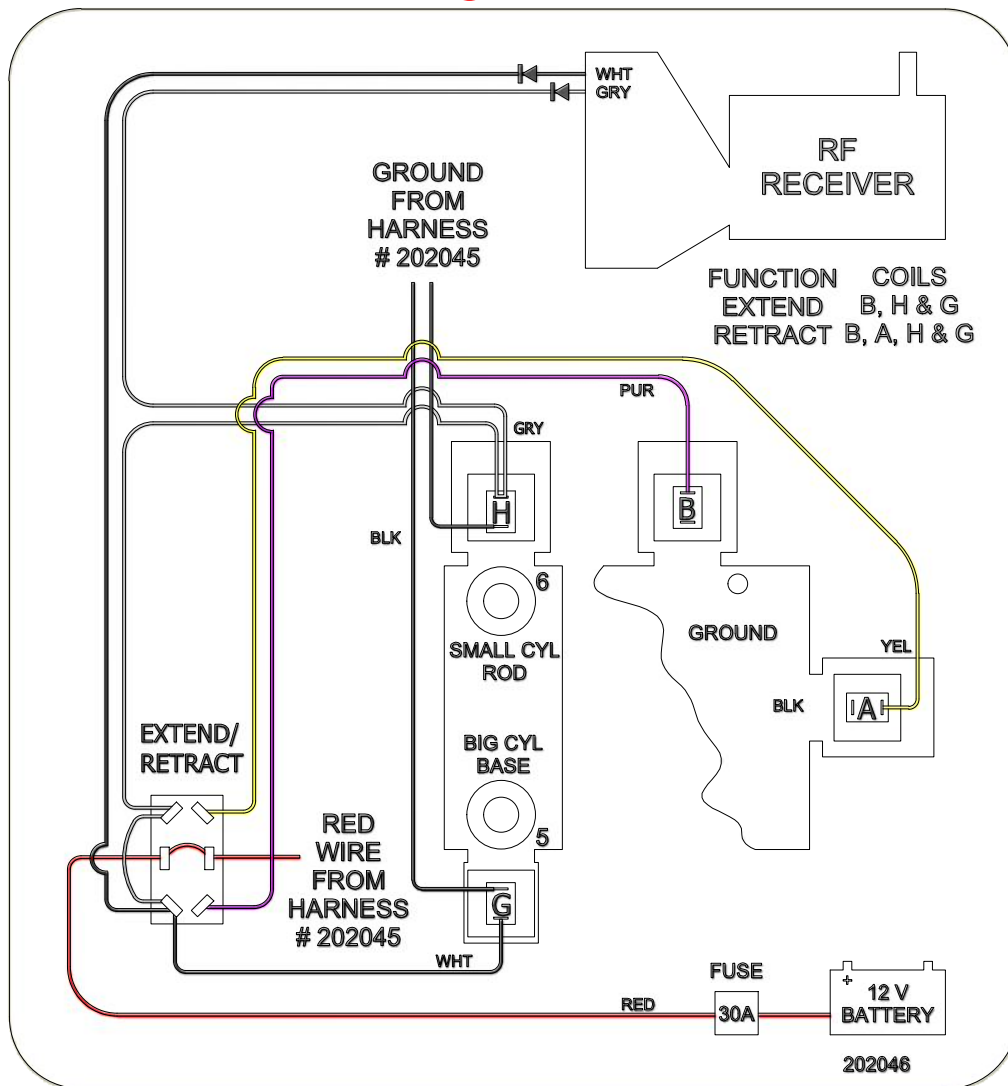


UNSQUEEZE



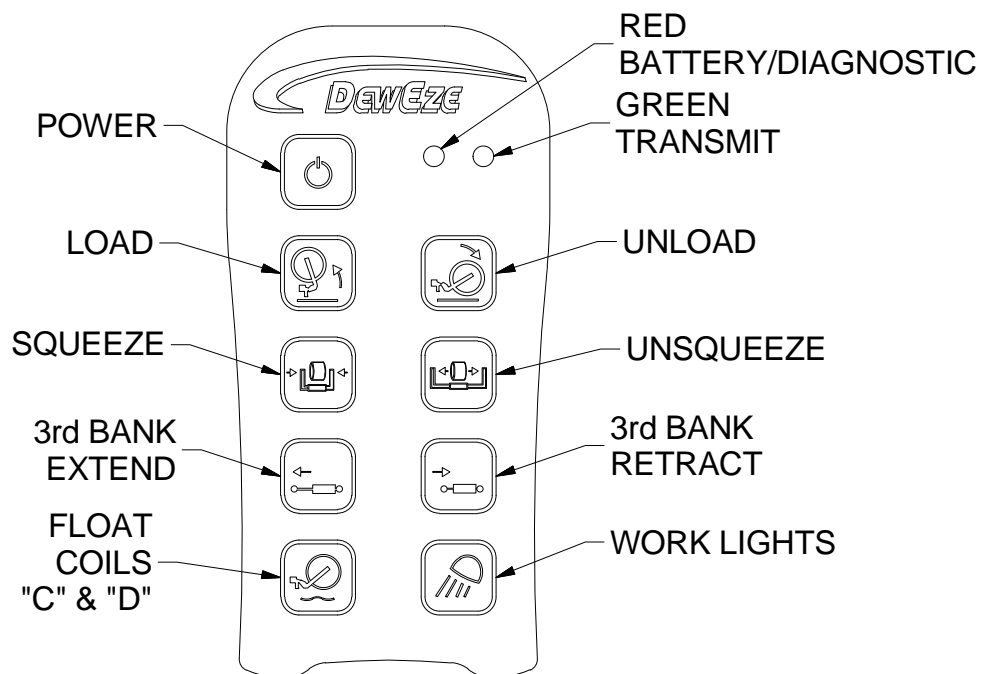
3.4

3rd Bank Wiring, Kar-Tech Remote



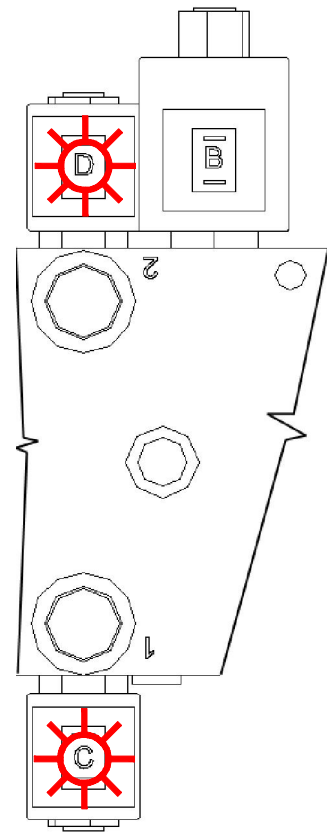
Decal Part# 202046

Harness Part# 232088

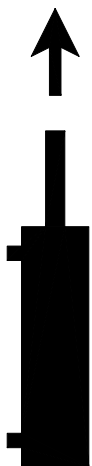
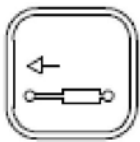


 SOLENOID FIRES

FLOAT



EXTEND



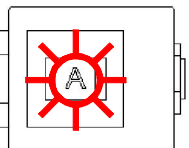
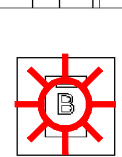
OIL IN

OIL OUT

OIL OUT

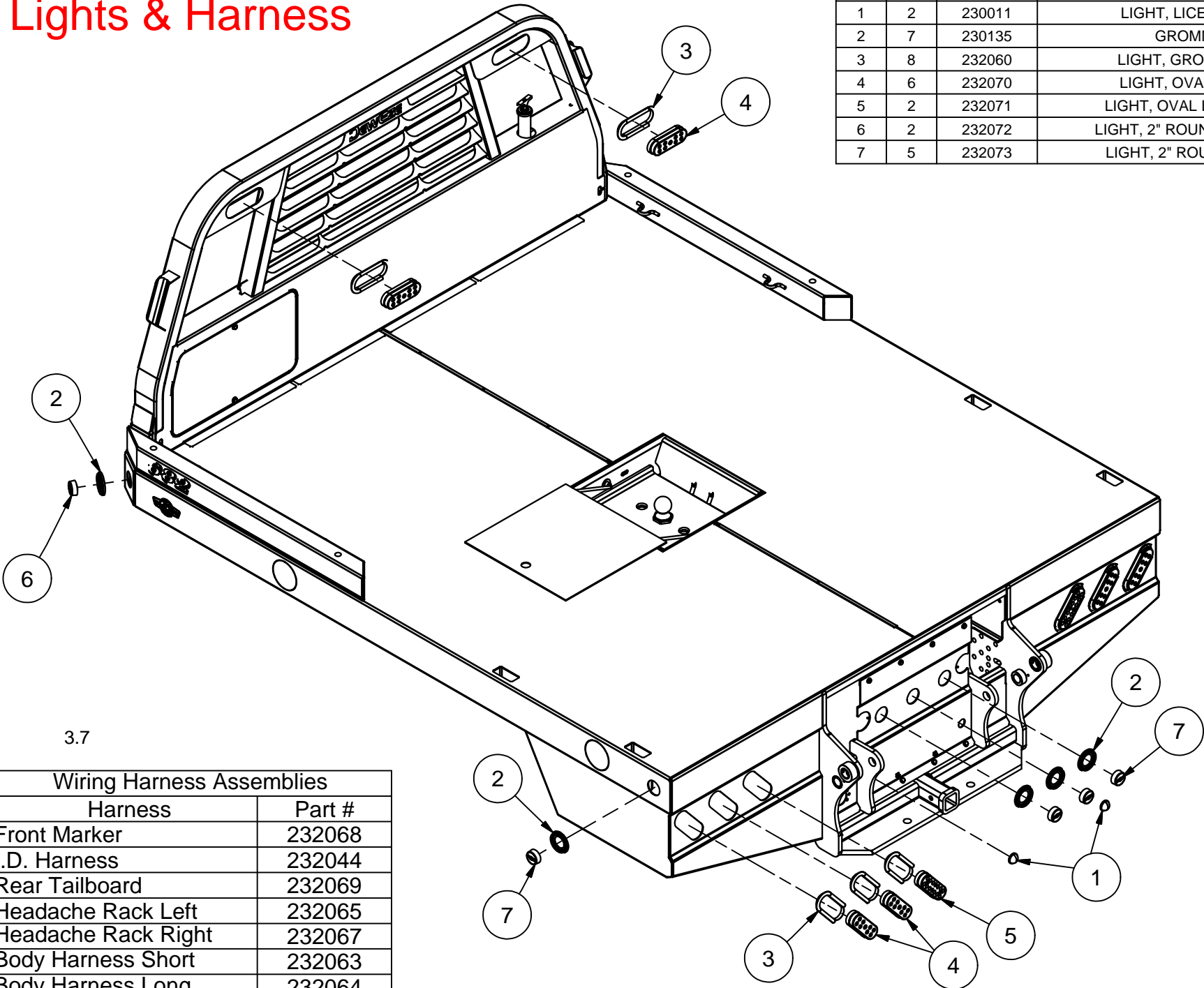
OIL IN

RETRACT



Lights & Harness

Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	2	230011	LIGHT, LICENSE PLATE
2	7	230135	GROMMET, 2"
3	8	232060	LIGHT, GROMMET OVAL
4	6	232070	LIGHT, OVAL LED, S/T/T
5	2	232071	LIGHT, OVAL LED, BACK-UP
6	2	232072	LIGHT, 2" ROUND LED, AMBER
7	5	232073	LIGHT, 2" ROUND LED, RED

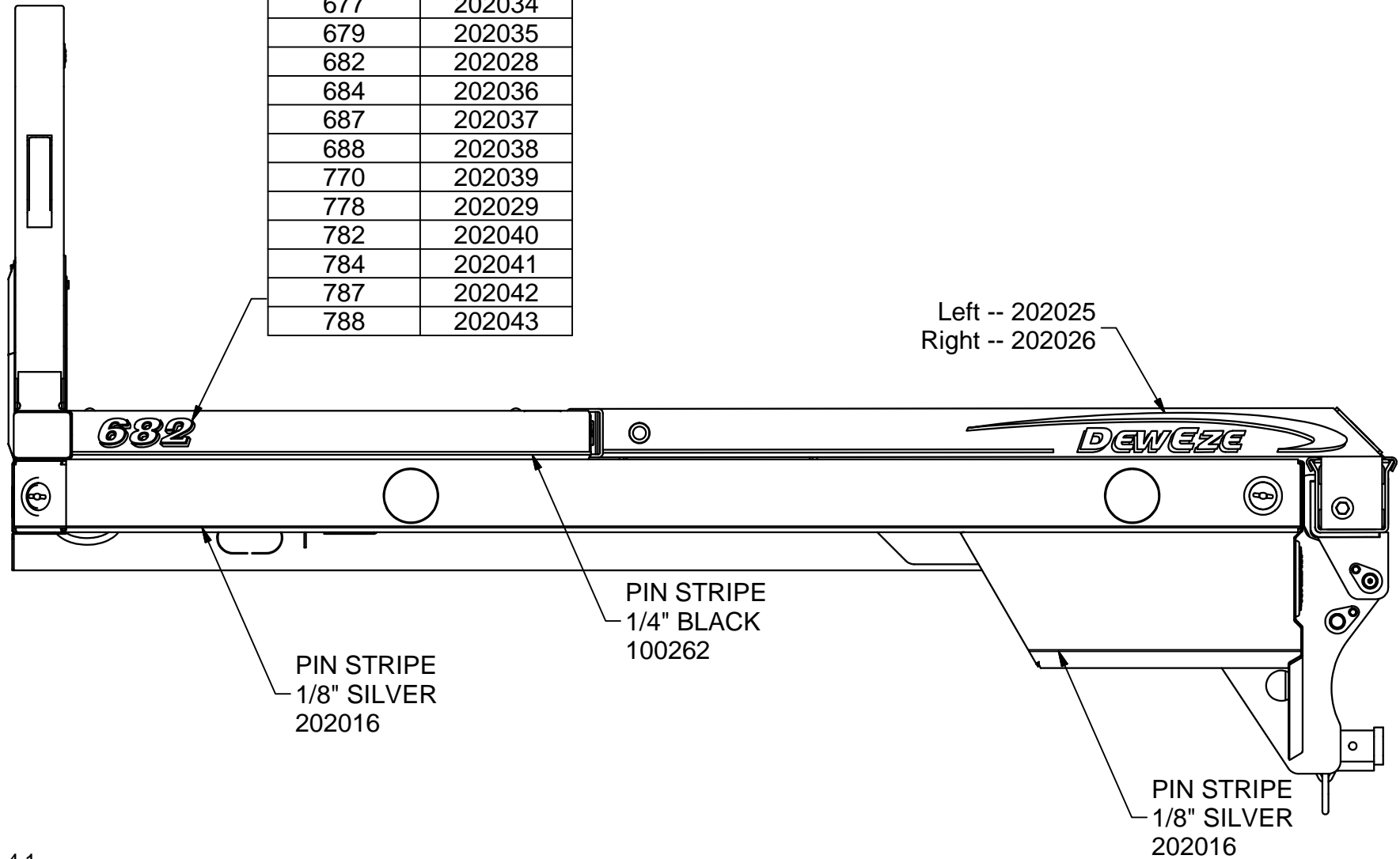


3.7

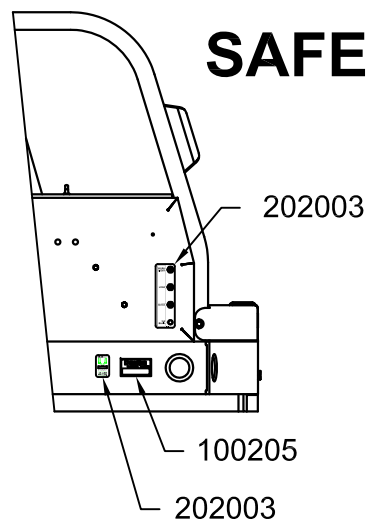
Wiring Harness Assemblies	
Harness	Part #
Front Marker	232068
I.D. Harness	232044
Rear Tailboard	232069
Headache Rack Left	232065
Headache Rack Right	232067
Body Harness Short	232063
Body Harness Long	232064

600 & 700 Series Decals

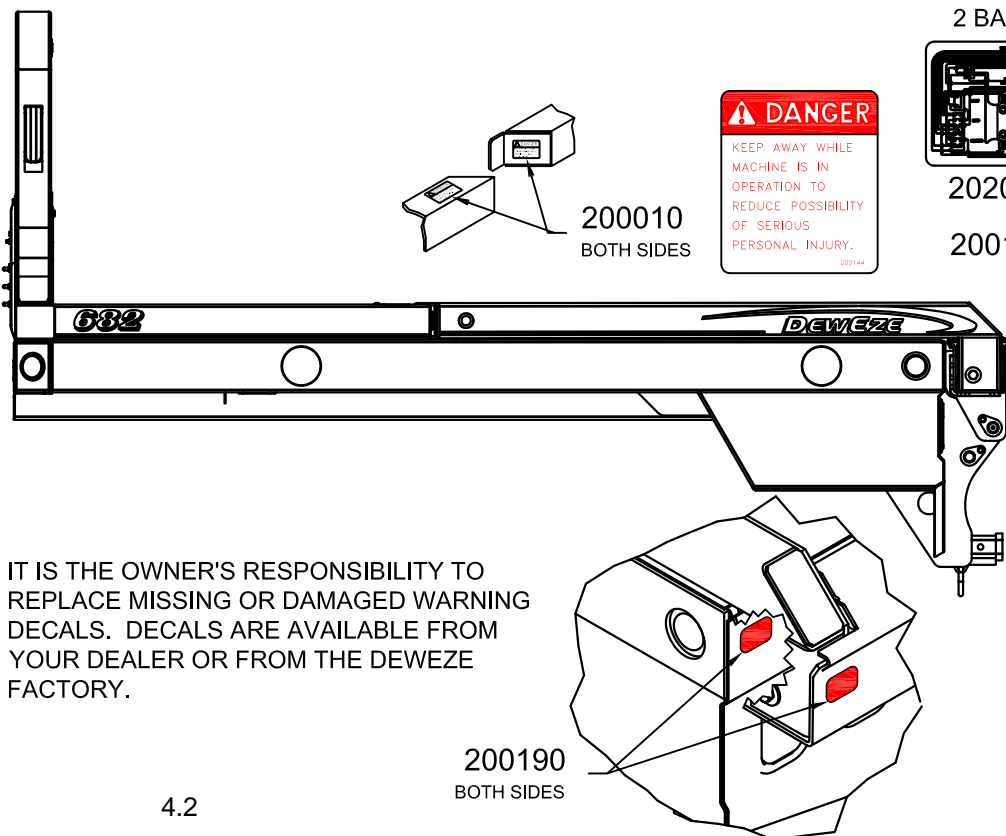
Model # Decals	
Left & Right	Part #
670	202033
675	202027
677	202034
679	202035
682	202028
684	202036
687	202037
688	202038
770	202039
778	202029
782	202040
784	202041
787	202042
788	202043



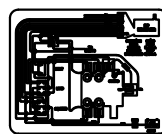
DECALS SAFETY & OPERATION



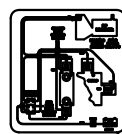
PART #	QTY	DESCRIPTION
100205	1	SERIAL NUMBER PLATE
200010	4	DANGER DECAL, HORIZONTAL
200137	1	BALE PIK-UP, SILVER SCRIPT
200144	2	DANGER DECAL, VERTICAL
200181	1	DEWEZE, SILVER
200190	4	REFLECTIVE DECAL
202003	1	DECAL, SWITCH IDENTIFICATION
202045	1	DECAL, WIRING DIAGRAM, KAR-TECH REMOTE
202046	1	DECAL, 3rd BANK OPTION, KAR-TECH REMOTE



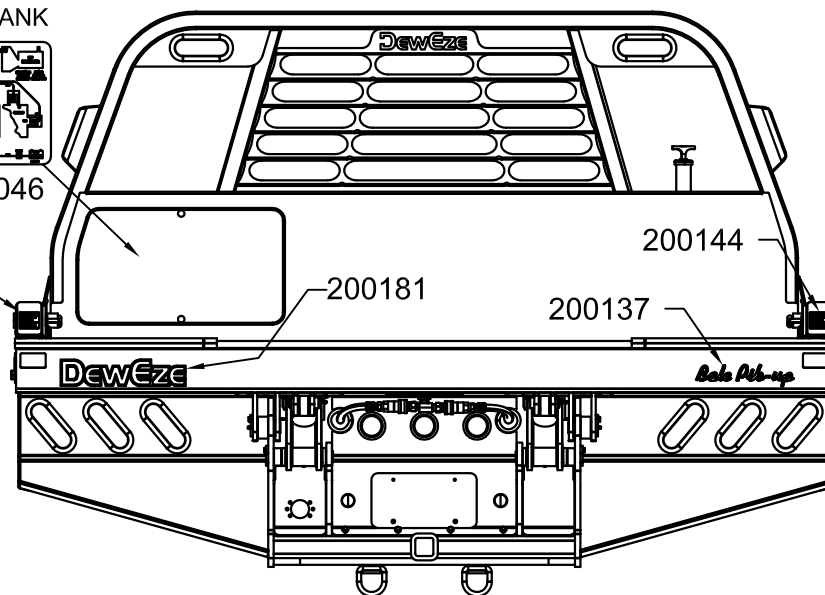
INSIDE OF VALVE COVER
2 BANK 3rd BANK



202045

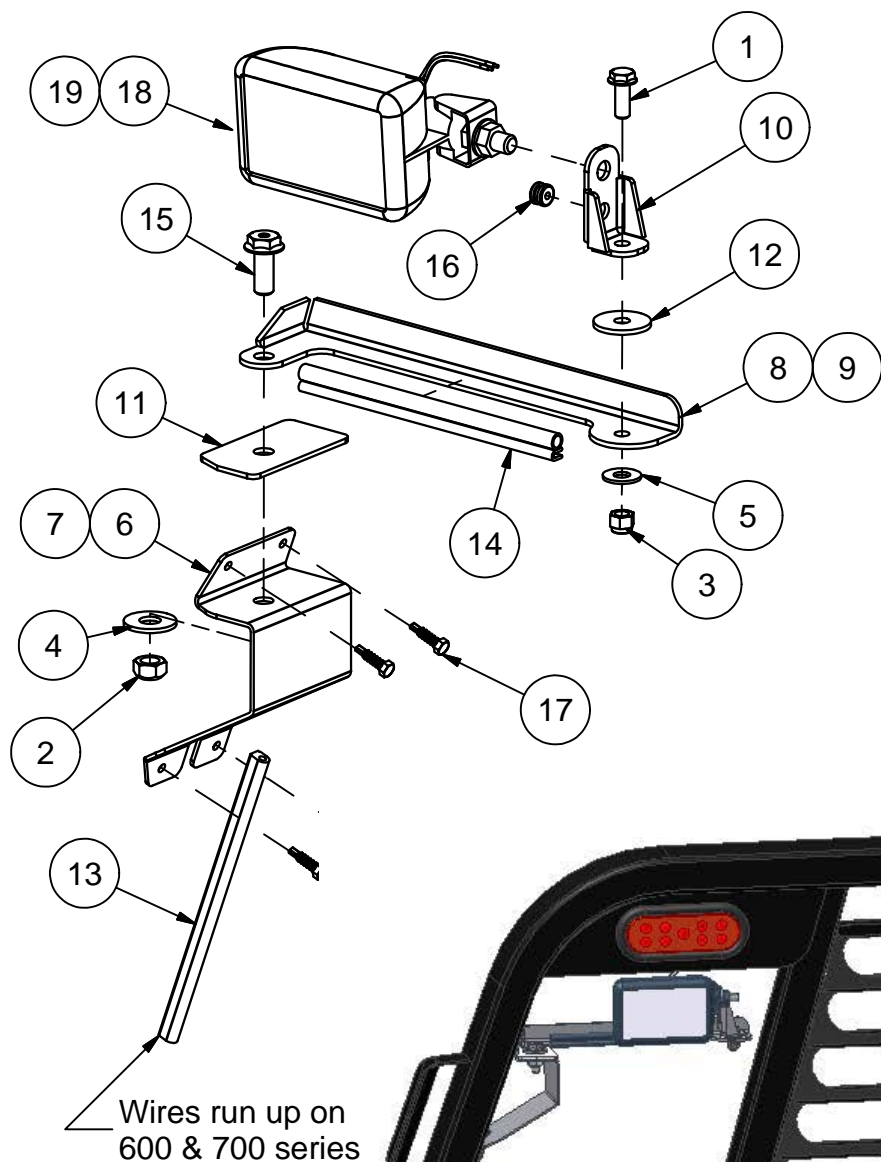


202046



IT IS THE OWNER'S RESPONSIBILITY TO REPLACE MISSING OR DAMAGED WARNING DECALS. DECALS ARE AVAILABLE FROM YOUR DEALER OR FROM THE DEWEZE FACTORY.

Flatbed Accessories Swingout Lights



Swing Light Kit, Part# 205013

ITEM	QTY	PART #	DESCRIPTION
1	2	110440	BOLT, 3/8-16 X 1, WIZ FLANGE
2	2	110615	NUT, 1/2-13, UNITORQUE LOCK
3	2	110618	NUT, 3/8-16 LOCK NYLON INSERT
4	2	110658	WASHER, 1/2" FLAT STANDARD
5	2	110676	WASHER, 3/8" FLAT STANDARD
6	1	211741	SWING LIGHT MOUNT, LEFT
7	1	211742	SWING LIGHT MOUNT, RIGHT
8	1	211743	SWING LIGHT ARM, LEFT
9	1	211744	SWING LIGHT ARM, RIGHT
10	2	211745	LIGHT MOUNT
11	2	211746	FRICTION MOUNTING PLATE
12	2	211747	FRICTION WASHER 1.5"
13	2	211748	SWING LIGHT, RUBBER SEAL
14	2	211749	SWINGLIGHT EDGE TRIM
15	2	211880	BOLT, 1/2-13 X 1/25, HOLLOW
16	2	230146	GROMMET, 3/16 ID X 9/16 OD
17	8	710586	SCREW, 1/4 X 1 TEK SELF-TAP
18	1	830031	HEADLIGHT, RIGHT
19	1	830035	HEADLIGHT, LEFT
			NOT SHOWN
20'		130004	WIRE, 14GA BLACK
2		130023	TERMINAL, RING, 14-16GA 3/8"
1		132027	Switch, Spst, Toggle .250 Tab
1		132035	Boot, 1/2 Toogle Switch Seal
2		730008	TERMINAL, BUTT CONNECTOR, 14-16
2		730010	TERMINAL, RING, 14-16GA. 10-32



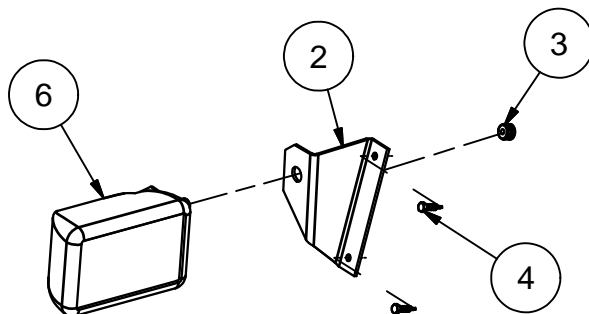
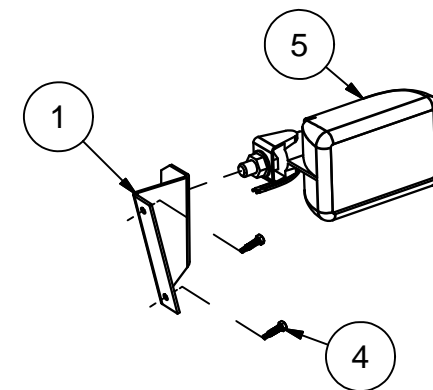
Cargo Light Assy, Part# 211391

ITEM	QTY	PART #	DESCRIPTION
1	1	211389	LIGHT BRACKET, RIGHT
2	1	211390	LIGHT BRACKET, LEFT
3	1	230146	GROMMET, 3/16 ID X 9/16 OD
4	4	710587	SCREW, 3/16 X .75 TEK SELF-TAP
5	1	830031	HEADLIGHT, RIGHT
6	1	830035	HEADLIGHT, LEFT

NOT SHOWN

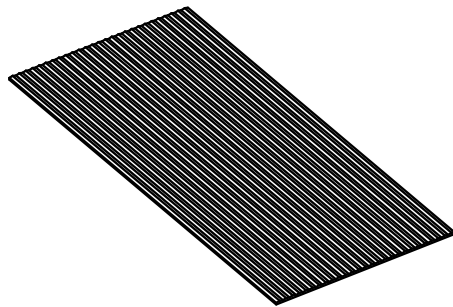
20	130004	Wire, 14ga, Black
1	130010	Terminal, Scotch Lock
1	132027	Switch, Spst, Toggle .250 Tab
1	132035	Boot, 1/2 Toogle Switch Seal
3	530071	Terminal, Ring, 10-12 Ga, 5/16
3	730008	Terminal, Butt Connector, 14-16
2	730010	Terminal, Ring, 14-16ga, 10-32

Flatbed Accessories Cargo Lights

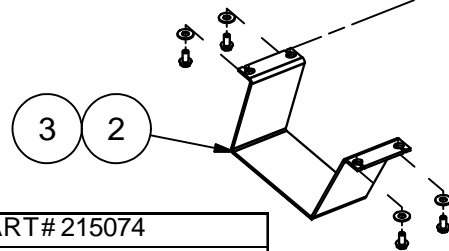


Toolbox Complete W/Step, Part# 205011

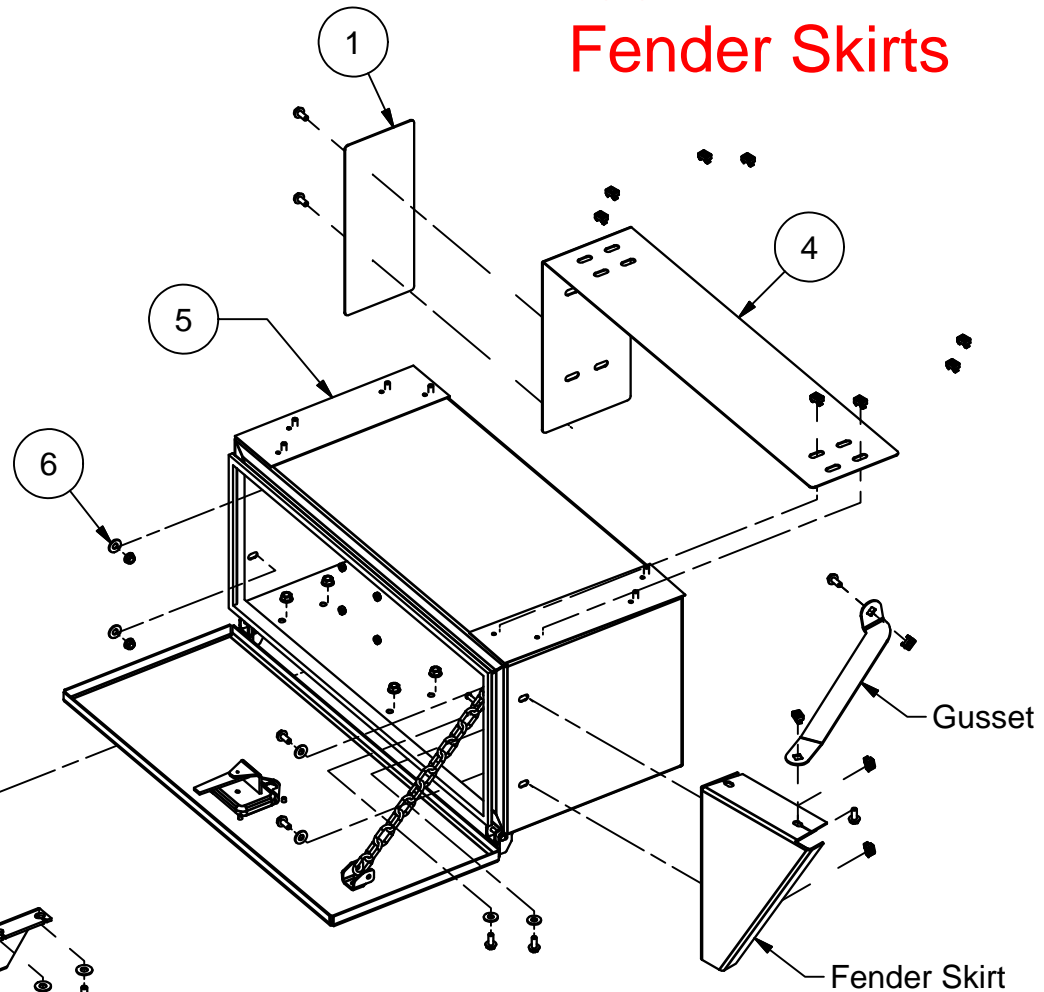
ITEM	QTY	PART #	DESCRIPTION
1	1	202001	DECAL, CHIP GUARD
2	1	211109	STEP, TOOLBOX
3	1	540082	Traction Pad
4	1	211684	SHIELD, TOP & SIDE
5	1	215074	TOOLBOX ASSEMBLY, FLATBED
6	1	205012	BOLT PACKAGE
		110258	12 NUT, 5/16-18, CAGE TINNEMAN
		110437	4 BOLT, 3/8-16 X 0.75, WIZ FLANGE
		110444	14 BOLT, 5/16-18 X 0.75, WIZ FLANGE
		110606	2 NUT, 5/16-18 WIZ FLANGE
		110665	12 WASHER, 5/16" FLAT STANDARD
		110676	4 WASHER, 3/8" FLAT STANDARD



4.5



Flatbed Accessories 30" Toolbox Fender Skirts



TOOLBOX COMPLETE, PART# 215074

PART #	QTY	DESCRIPTION
110174	4	NUT, 1/4-20 LOCK 2-WAY
110300	3	COTTER PIN, 3/32 X 0.75
112011	3	PUSH NUT, WASHER CAP STYLE
200184	1	SEAL, LATCH
202010	1	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
211119	1	TOOL BOX MAT
212003	2	GASKET, TOOLBOX MOUNT
212007	1	LATCH W/STUDS
215072	1	TOOL BOX DOOR AND HINGE WLDMT
215073	1	TOOL BOX AND HINGE WLDMT

FENDER SKIRT KIT 205034

600 SERIES	LEFT	Gusset	RIGHT	Gusset
SHORT	211116	260037	211115	260036

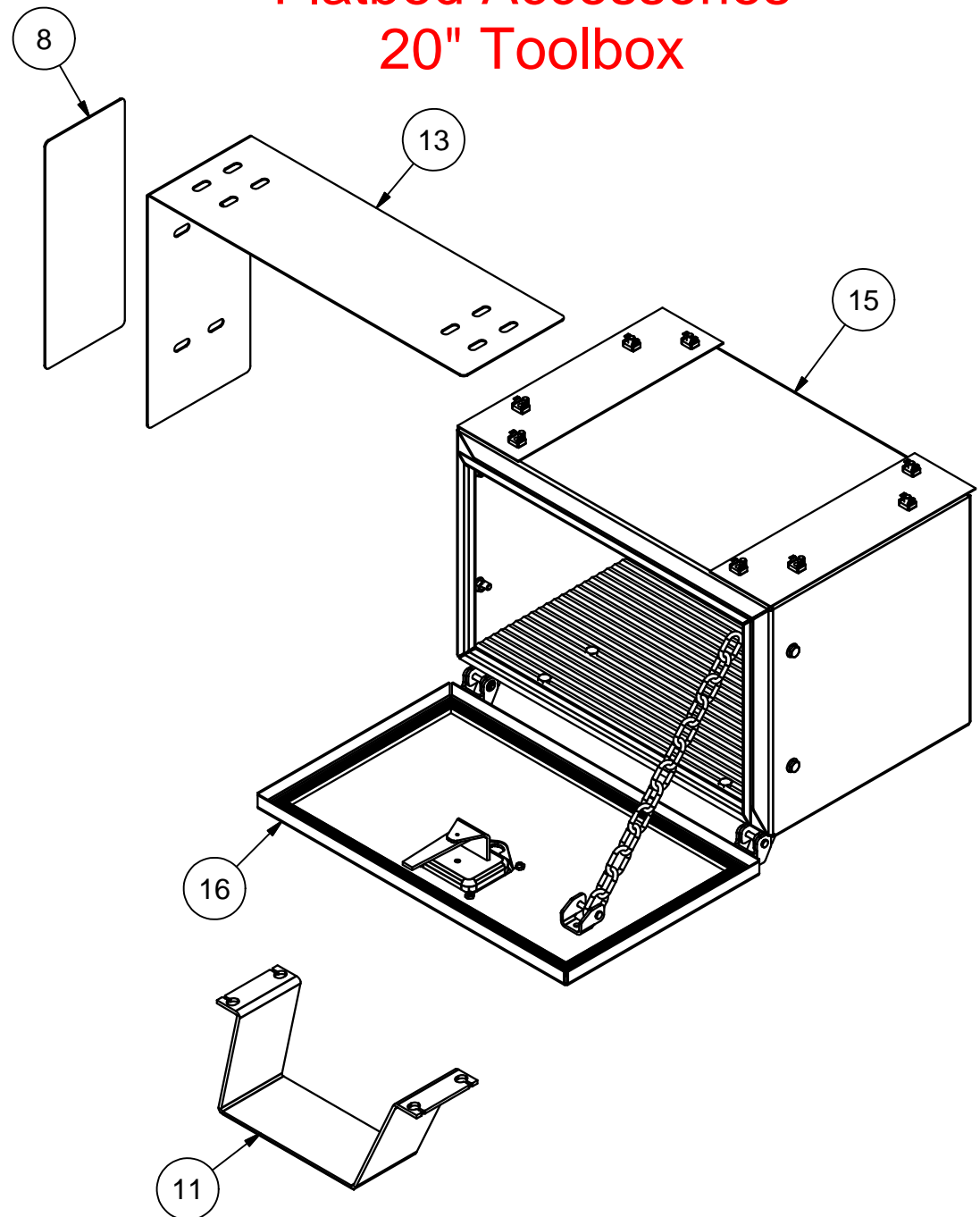
FENDER SKIRT KIT 205035

700 SERIES	LEFT	Gusset	RIGHT	Gusset
SHORT	211569	260037	211568	260036

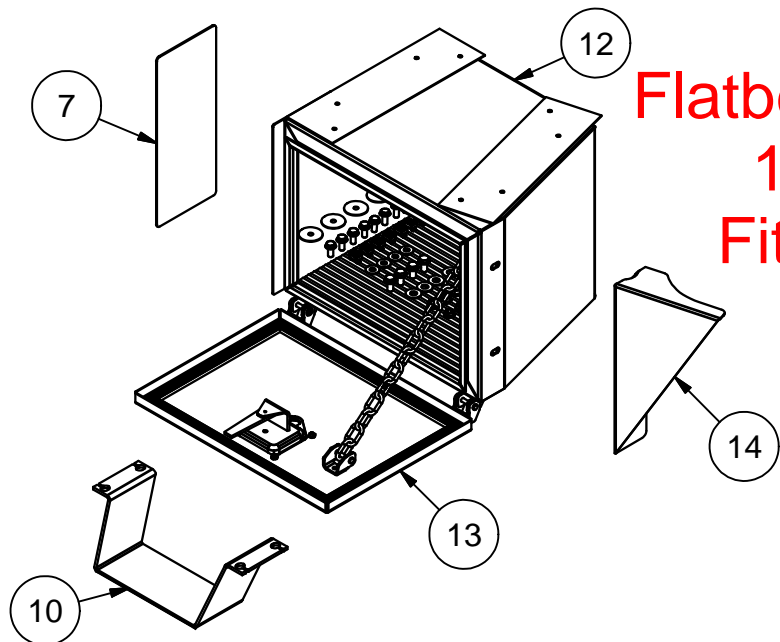
Toolbox Components W/Step, 20" Part# 205030

ITEM	QTY	PART #	DESCRIPTION
1	4	110119	NUT, 10-24 LOCK
2	4	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	2	110606	NUT, 5/16-18 WIZ FLANGE
4	3	110778	CLEVIS PIN, STD ZP 1/4 X 1 1/2
5	3	112011	PUSH NUT, WASHER CAP STYLE
6	1	200183	LATCH
7	1	200184	SEAL, LATCH
8	1	202001	DECAL, CHIP GUARD
9	1	202010	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
10	1	205012	BOLT PACKAGE
	8	110049	WASHER, 5/16 X 1.50 FENDER
	12	110258	NUT, 5/16-18, CAGE TINNERMAN
	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
	14	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
	2	110606	NUT, 5/16-18 WIZ FLANGE
	4	110645	NUT, 3/8-16 WIZ FLANGE
	4	110665	WASHER, 5/16" FLAT STANDARD
	4	110676	WASHER, 3/8" FLAT STANDARD
11	1	211109	STEP, TOOLBOX
	1	540082	Traction Pad
12	1	211248	TOOLBOX MAT 20"
13	1	211593	TOOLBOX CHIP GUARD 20"
14	2	212003	GASKET, TOOLBOX MOUNT
15	1	215131	TOOLBOX & HINGE WELDMENT 20"
16	1	215133	TOOLBOX DOOR & HINGE WELDMENT 20"

Flatbed Accessories 20" Toolbox



Flatbed Accessories 17" Toolbox Fits "770" only

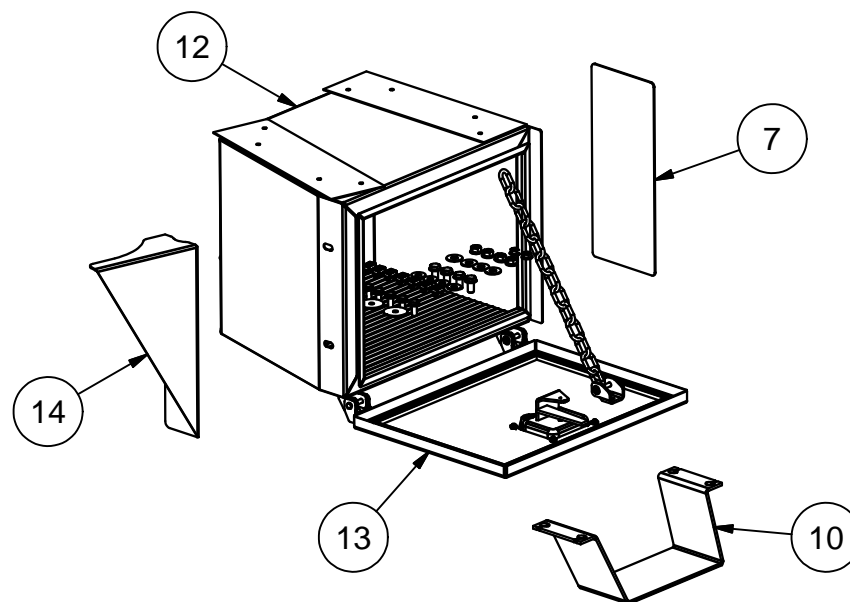


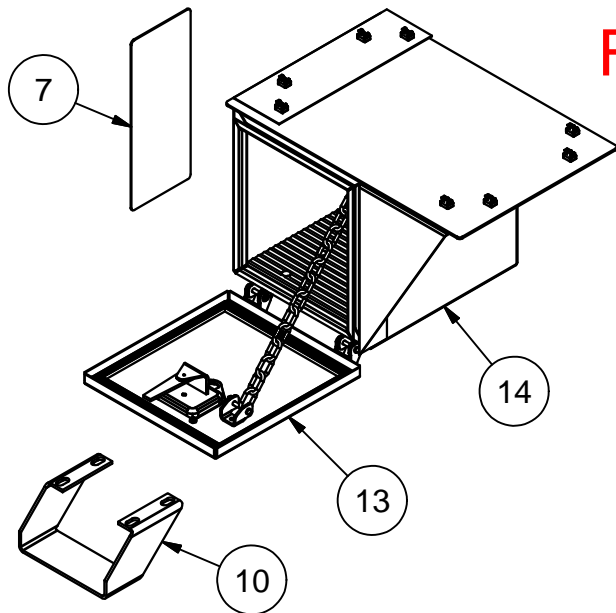
Toolbox Complete W/Step, 17" Right

ITEM	QTY	PART #	DESCRIPTION
1	4	110119	NUT, 10-24 LOCK
2	4	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	3	110778	CLEVIS PIN, STD ZP 1/4 X 1 1/2
4	3	112011	PUSH NUT, WASHER CAP STYLE
5	1	200183	LATCH
6	1	200184	SEAL, LATCH
7	1	202001	DECAL, CHIP GUARD
8	1	202010	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
9	1	205012	BOLT PACKAGE
	8	110049	WASHER, 5/16 X 1.50 FENDER
	12	110258	NUT, 5/16-18, CAGE TINNEMAN
	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
	14	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
	2	110606	NUT, 5/16-18 WIZ FLANGE
	4	110645	NUT, 3/8-16 WIZ FLANGE
	4	110665	WASHER, 5/16" FLAT STANDARD
	4	110676	WASHER, 3/8" FLAT STANDARD
10	1	211109	STEP, TOOLBOX
	1	540082	Traction Pad
11	2	212003	GASKET, TOOLBOX MOUNT
12	1	215211	WELDMENT, TOOLBOX & HINGE, 17" LEFT
13	1	215213	WELDMENT, TOOLBOX DOOR & HINGE, 17"
14	1	260203	TOOLBOX SKIRT, 770, LEFT
15	1	260205	TOOLBOX MAT 17", LEFT

Toolbox Complete W/Step, 17" Left

ITEM	QTY	PART #	DESCRIPTION
1	4	110119	NUT, 10-24 LOCK
2	4	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	3	110778	CLEVIS PIN, STD ZP 1/4 X 1 1/2
4	3	112011	PUSH NUT, WASHER CAP STYLE
5	1	200183	LATCH
6	1	200184	SEAL, LATCH
7	1	202001	DECAL, CHIP GUARD
8	1	202010	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
9	1	205012	BOLT PACKAGE
	8	110049	WASHER, 5/16 X 1.50 FENDER
	12	110258	NUT, 5/16-18, CAGE TINNEMAN
	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
	14	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
	2	110606	NUT, 5/16-18 WIZ FLANGE
	4	110645	NUT, 3/8-16 WIZ FLANGE
	4	110665	WASHER, 5/16" FLAT STANDARD
	4	110676	WASHER, 3/8" FLAT STANDARD
10	1	211109	STEP, TOOLBOX
	1	540082	Traction Pad
11	2	212003	GASKET, TOOLBOX MOUNT
12	1	215212	WELDMENT, TOOLBOX & HINGE, 17" RIGHT
13	1	215213	WELDMENT, TOOLBOX DOOR & HINGE, 17"
14	1	260204	TOOLBOX SKIRT, 770, RIGHT
15	1	260206	TOOLBOX MAT 17", RIGHT





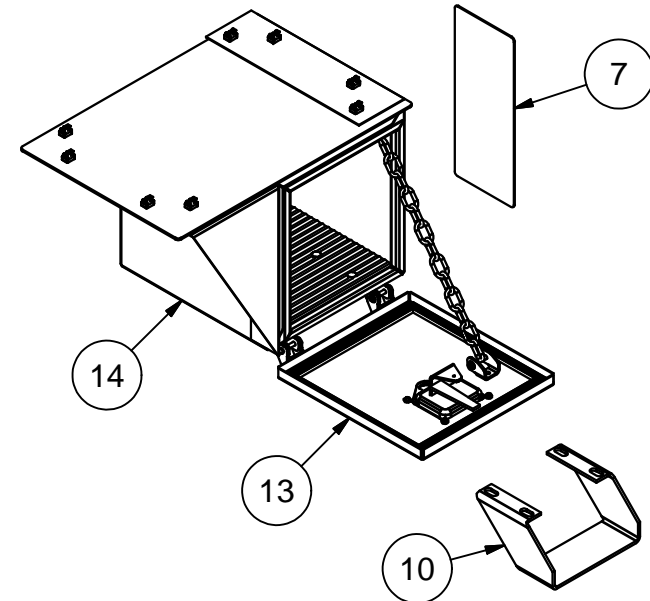
Flatbed Accessories 12\"/>

Toolbox Complete W/Step, 12\"/>

ITEM	QTY	PART #	DESCRIPTION
1	4	110119	NUT, 10-24 LOCK
2	4	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	3	110778	CLEVIS PIN, STD ZP 1/4 X 1 1/2
4	3	112011	PUSH NUT, WASHER CAP STYLE
5	1	200183	LATCH
6	1	200184	SEAL, LATCH
7	1	202001	DECAL, CHIP GUARD
8	1	202010	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
9	1	205012	BOLT PACKAGE
	8	110049	WASHER, 5/16 X 1.50 FENDER
	12	110258	NUT, 5/16-18, CAGE TINNEMAN
	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
	14	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
	2	110606	NUT, 5/16-18 WIZ FLANGE
	4	110645	NUT, 3/8-16 WIZ FLANGE
	4	110665	WASHER, 5/16\"/>
	4	110676	WASHER, 3/8\"/>
10	1	210697	STEP TOOL BOX
	1	540082	Traction Pad
11	1	211871	TOOLBOX MAT 12\"/>
12	1	212003	GASKET, TOOLBOX MOUNT
13	1	215136	TOOLBOX DOOR & HINGE WELDMENT 12\"/>
14	1	215151	WELDMENT, TOOLBOX 12\"/>

Toolbox Complete W/Step, 12\"/>

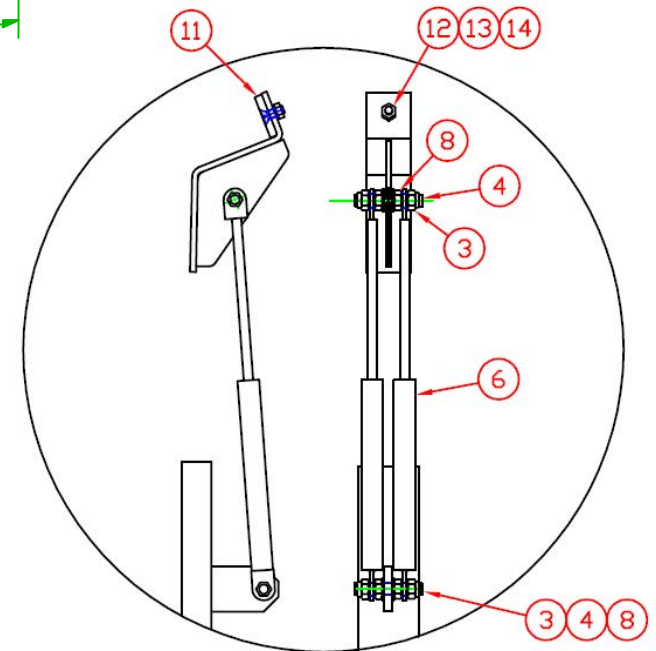
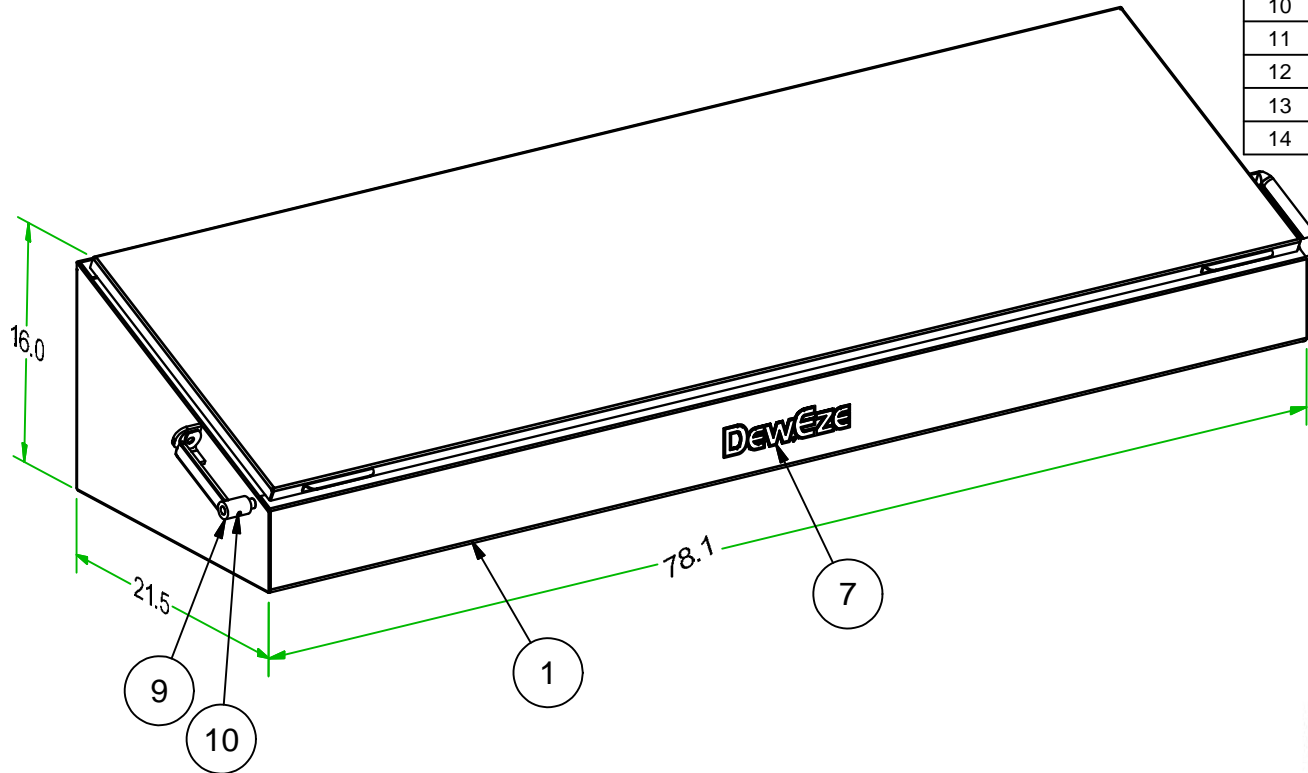
ITEM	QTY	PART #	DESCRIPTION
1	4	110119	NUT, 10-24 LOCK
2	4	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
3	3	110778	CLEVIS PIN, STD ZP 1/4 X 1 1/2
4	3	112011	PUSH NUT, WASHER CAP STYLE
5	1	200183	LATCH
6	1	200184	SEAL, LATCH
7	1	202001	DECAL, CHIP GUARD
8	1	202010	SEAL, TOOLBOX LID (TRIM-LOK X-2897)
9	1	205012	BOLT PACKAGE
	8	110049	WASHER, 5/16 X 1.50 FENDER
	12	110258	NUT, 5/16-18, CAGE TINNEMAN
	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
	14	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
	2	110606	NUT, 5/16-18 WIZ FLANGE
	4	110645	NUT, 3/8-16 WIZ FLANGE
	4	110665	WASHER, 5/16\"/>
	4	110676	WASHER, 3/8\"/>
10	1	210697	STEP TOOL BOX
	1	540082	Traction Pad
11	1	211871	TOOLBOX MAT 12\"/>
12	1	212003	GASKET, TOOLBOX MOUNT
13	1	215136	TOOLBOX DOOR & HINGE WELDMENT 12\"/>
14	1	215152	WELDMENT, TOOLBOX 12\"/>



Flatbed Accessories Across the Bed Toolbox

Across the Bed Toolbox, Part# 2109125

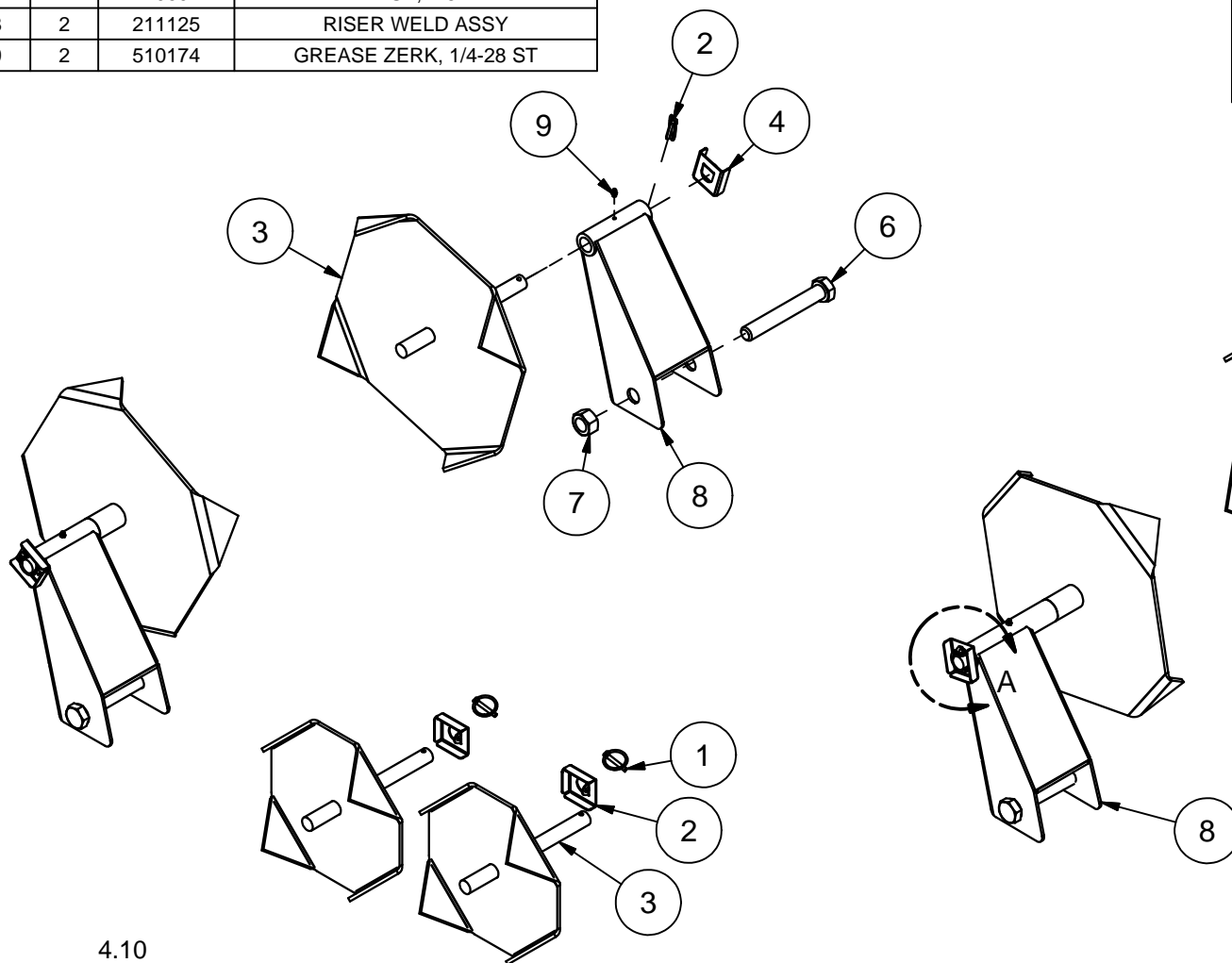
ITEM	QTY	PART #	DESCRIPTION
1	1	210914	TOOLBOX WELD ASSEMBLY
2	2	211132	BUSHING, .625 X .5 X .062 FNG
3	4	110618	NUT, 3/8-16 LOCK NYLON INSERT
4	1	210908	ALL THREAD
5	2	211134	SPRING/LATCH
6	2	500078	Shock, Gas Filled
7	1	400010	DECAL, DEWEZE BLACK OUTLINE
8	4	110645	NUT, 3/8-16 WIZ FLANGE
9	1	211143	HANDLE WELD ASSY
10	2	110239	SetScrew, 5/16-18 X 0.3125
11	1	211138	WEAR PAD, PLASTIC TOOLBOX
12	1	110238	1/4-20 X .75 FLAT C'SUNK SCREW
13	1	110667	WASHER, 1/4" LOCK
14	1	110609	NUT, 1/4-20



Spinner & Riser Assemblies

ITEM	QTY	PART #	DESCRIPTION
1	1	210008	Spinner Assy 16", Pair
2	2	210006	Pin, Lynch 1/4 x 1 1/2
3	2	210007	SPINNER ASSEMBLY
4	2	211513	LYNCH PIN GUARD
5	1	211145	Riser, Offset Pair
6	2	110364	BOLT, 1-8 X 7.0
7	2	110601	NUT, 1-8
8	2	211125	RISER WELD ASSY
9	2	510174	GREASE ZERK, 1/4-28 ST

Flatbed Accessories Spinners & Risers



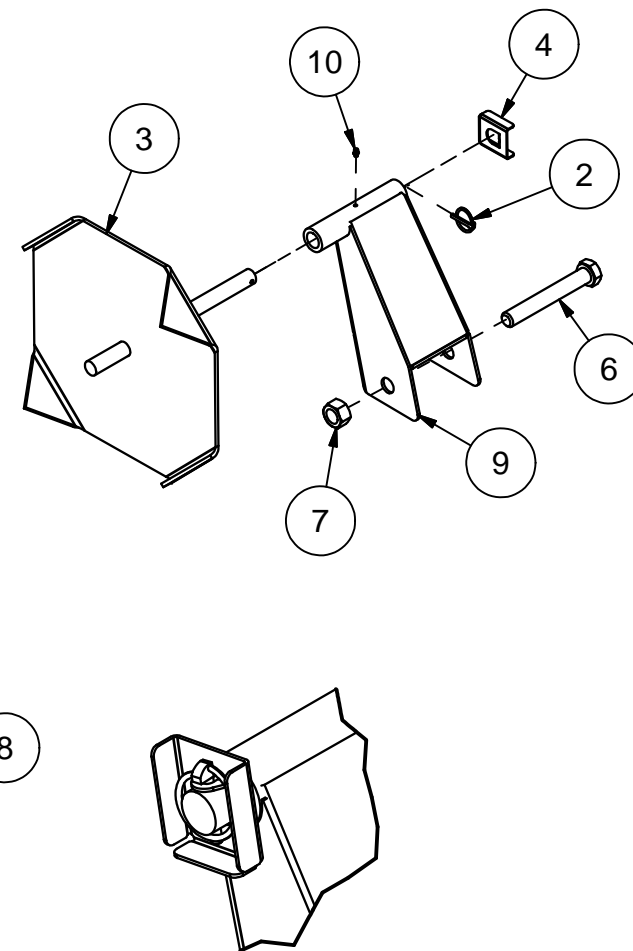
4.10

Spinner Assy 12" Pair, Part# 215081

ITEM	QTY	PART #	DESCRIPTION
1	2	210006	Pin, Lynch 1/4 x 1 1/2
2	2	211513	LYNCH PIN GUARD
3	2	215080	SPINNER WELDMENT 12"

XRM Spinner & Riser Assemblies

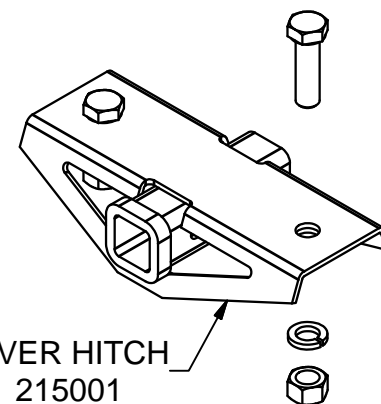
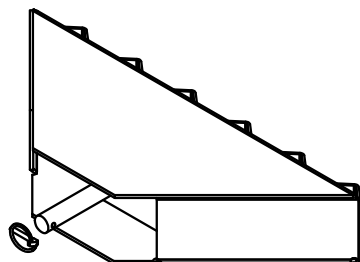
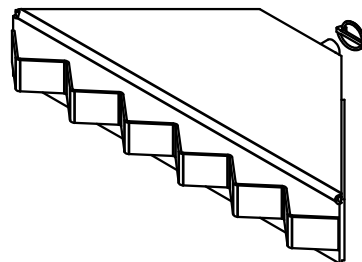
ITEM	QTY	PART #	DESCRIPTION
1	1	215007	Spinner Assy Xrm / Pair
2	2	210006	Pin, Lynch 1/4 x 1 1/2
3	2	211509	SPINNER ASSEMBLY
4	2	211513	LYNCH PIN GUARD
5	1	215006	Riser, Offset Xrm / Set
6	2	110364	BOLT, 1-8 X 7.0
7	2	110601	NUT, 1-8
8	1	211507	LEFT RISER WELD ASSY
9	1	211508	RIGHT RISER WELD ASSY
10	2	510174	GREASE ZERK, 1/4-28 ST



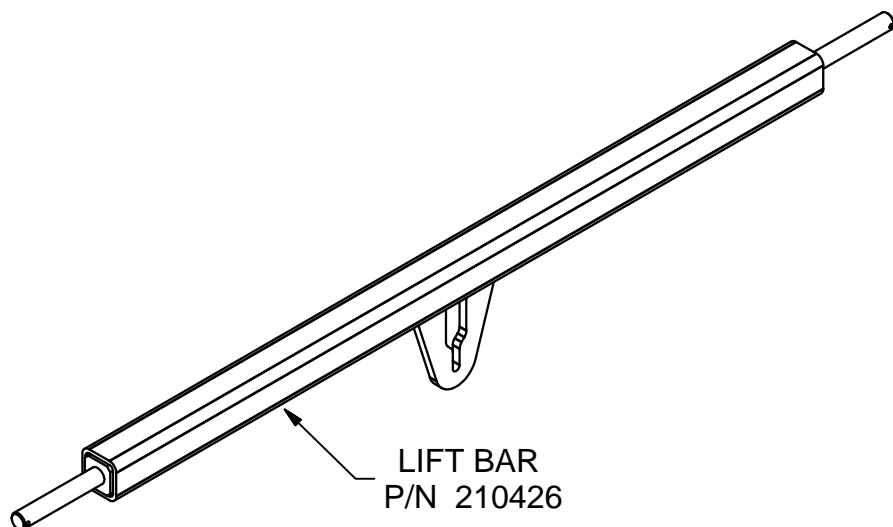
DETAIL A
Lynch Pin Guard

OTHER ACCESSORIES

Adapter Assy, 4' Bale, Part# 210933			
ITEM	QTY	PART #	DESCRIPTION
1	2	210929	4' BALE ADAPTER
2	2	210006	Pin, Lynch 1/4 x 1 1/2



RECEIVER HITCH
P/N 215001



LIFT BAR
P/N 210426

NOTES

Appendix I

GatorHyde Repair Instructions



Required items:

- 1 – 25 x 25 ml caulking gun (202030)
- 1 – 25 x 25 ml cartridge set of GatorHyde Repair Material (202031)
- 1 – ¼" x 6" mixing wand (202032)
- 1 – pair of rubber gloves
- 1 – wooden stick
- 1 – Instruction sheet and MSDS sheet
- 1 – MEK – methyl ethyl ketone solvent (available at most hardware stores)
- 1 – small paint brush
- 2 – plastic cups



SAFETY WARNING!

Read the Master Safety Data Sheets (MSDS) on all chemicals before handling any chemical.

See: <http://www.msds.com>

Note:

This repair is designed to easily fix small, damaged areas fast and with limited amount of effort. However this product is fast reacting so make sure to thoroughly read this instruction sheet before proceeding with repairs.

Application Instruction:

- Step 1.** Before you start, put on rubber gloves and safety glasses.
 - Step 2.** Place a piece of cardboard or newspaper next to the repair area prior to opening and mixing the material.
 - Step 3.** Cut back damaged area with a razor knife to make a square.
 - Step 4.** Sand area and feather edges with 40 grit sandpaper. Blow out sanded area to get rid of dust.
 - Step 5.** Clean area well with MEK solvent and allow to dry for 30 minutes.
 - Step 6.** Attach static mixing wand to 25 x 25 ml cartridge set, twist and lock in place. Insert cartridge into caulking gun.
 - Step 7.** Hold the caulking gun in an upright position in one hand, then set the two plastic cups on a flat surface side by side. Next point the static mixing wand into a cup and squeeze the trigger of the gun two times so a small amount of material is discharged into the cup. (Note! This material is to be discarded.) Immediately move the static mixing wand over and point it into the next cup and continue to discharge the remaining amount of material into this cup.
 - Step 8.** Allow the material to set in cup and gently stir with wooden stick for a period of 1 to 1 ½ minutes or until the GatorHyde becomes thicker and will stick to either a finger or wooden stick.
 - Step 9.** Once material has begun to gel, apply enough product to finger or a stick and immediately dab onto damaged area. Use the paint brush to dab the area in a vertical manner to make a textured surface.
- Cure time.** Allow repaired area to cure for a period of 1 hour prior to heavy impact loading.
- Clean-up.** In order to clean up the area take a paper sack or plastic trash bag and place all the empty jars and remaining contents of the repair kit and dispose into a standard trash can or simply put everything back in the box and throw away.

GatorHyde Protective Coatings, Inc., 2210 South Highway 69, Wagoner, OK 74467 * (918) 485-2835 *
www.gatorhyde.com

Appendix II

Remote Control

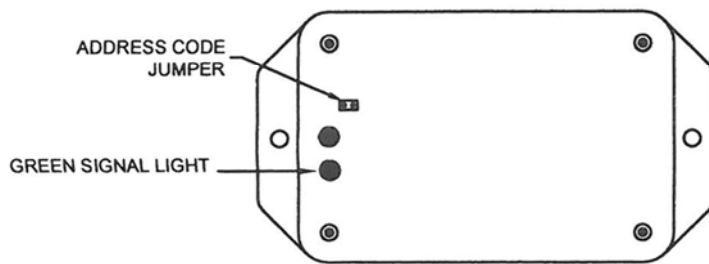
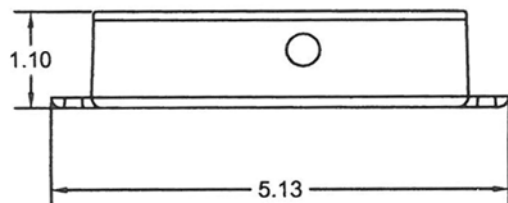
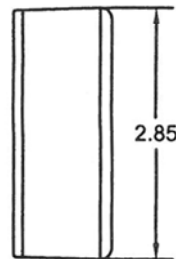
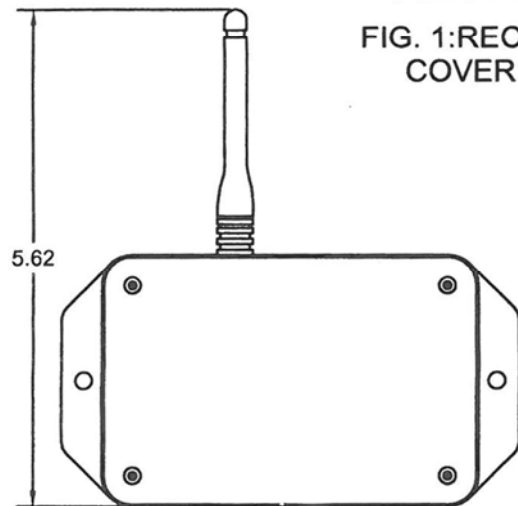


FIG. 1: RECEIVER WITH COVER REMOVED

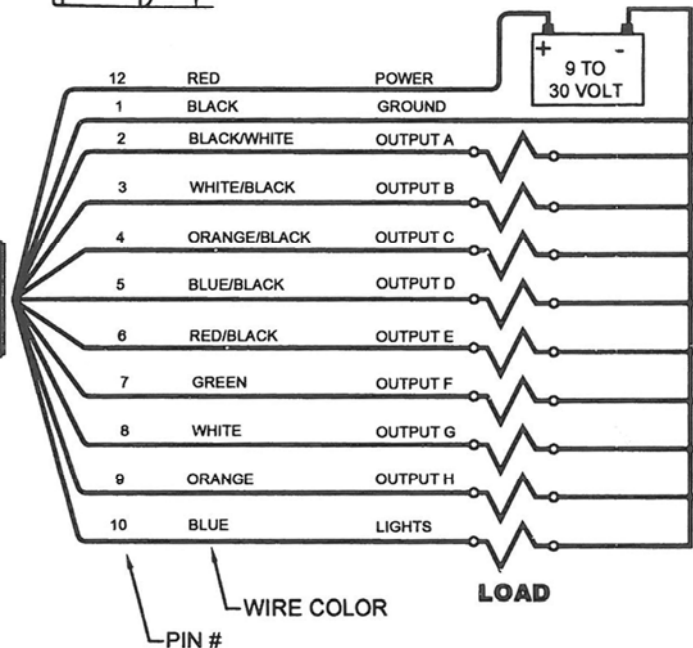


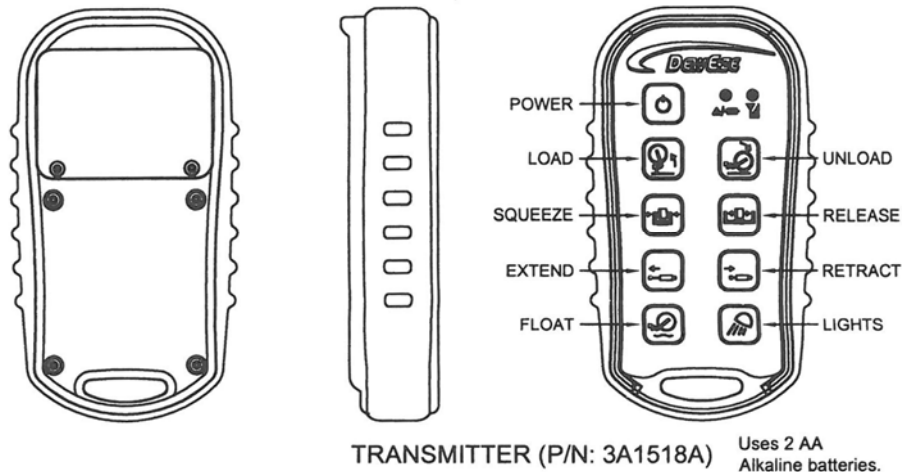
RECEIVER (P/N: 3A1513B)

TRANSMITTER ERROR CODE CHART

ERROR CODE	PROBABLE CAUSE
1	LOW BATTERY
2	FAULTY CIRCUIT TO OUTPUT A
3	FAULTY CIRCUIT TO OUTPUT B
4	FAULTY CIRCUIT TO OUTPUT C
5	FAULTY CIRCUIT TO OUTPUT D
6	FAULTY CIRCUIT TO OUTPUT E
7	FAULTY CIRCUIT TO OUTPUT F
8	FAULTY CIRCUIT TO OUTPUT G
9	FAULTY CIRCUIT TO OUTPUT H
10	FAULTY CIRCUIT TO LIGHT OUTPUT

ERROR CODE NUMBER IS THE NUMBER OF RED LIGHT BLINKS BETWEEN EVERY PAUSE.





SYSTEM OPERATION:

Press and hold the power button on the transmitter until both LEDs turn on, then release. The green LED will flash rapidly when communication has been established. When the receiver is off, the red LED will flash slowly indicating this. With the receiver on, press the corresponding buttons on the transmitter keypad to turn on and off each of the outputs.

INDICATOR LIGHTS:

The transmitter has two LED indicators, the red **BATTERY/DIAGNOSTIC** indicator and the green **TRANSMIT** indicator.

The green **TRANSMIT** indicator flashes rapidly whenever there is communication between the transmitter and the receiver.

The red **BATTERY/DIAGNOSTIC** indicator starts blinking once every second when the battery voltage is low and requires replacement. It also blinks when there is a problem with the system in the form of an error code. Refer to the **ERROR CODE CHART** tables for more information.

Note: To check for low battery, turn the receiver off and leave the transmitter on. If the transmitter red LED continues to blink, the battery is low and requires replacement. If the red LED blinks only when the receiver is on, count the number of blinks and refer to ERROR CODE CHART tables for additional information.

TEACH ID CODE:

To synchronize a new transmitter and receiver together, refer to Fig. 1 and use the following procedure:

1. Remove receiver cover
2. Apply power to the receiver
3. Place a jumper across the TEACH ID jumper inside the receiver. green LED will go steady inside the receiver. Remove the jumper and store it on one pin
4. To get the transmitter into TEACH ID mode, press and hold the POWER button, UNLOAD and FLOAT
5. Release the POWER button and wait for 1 second or until the green LED goes from steady to blinking in the receiver. Release the other buttons
6. Teach complete
7. Replace the cover on the receiver

SPECIFICATIONS:

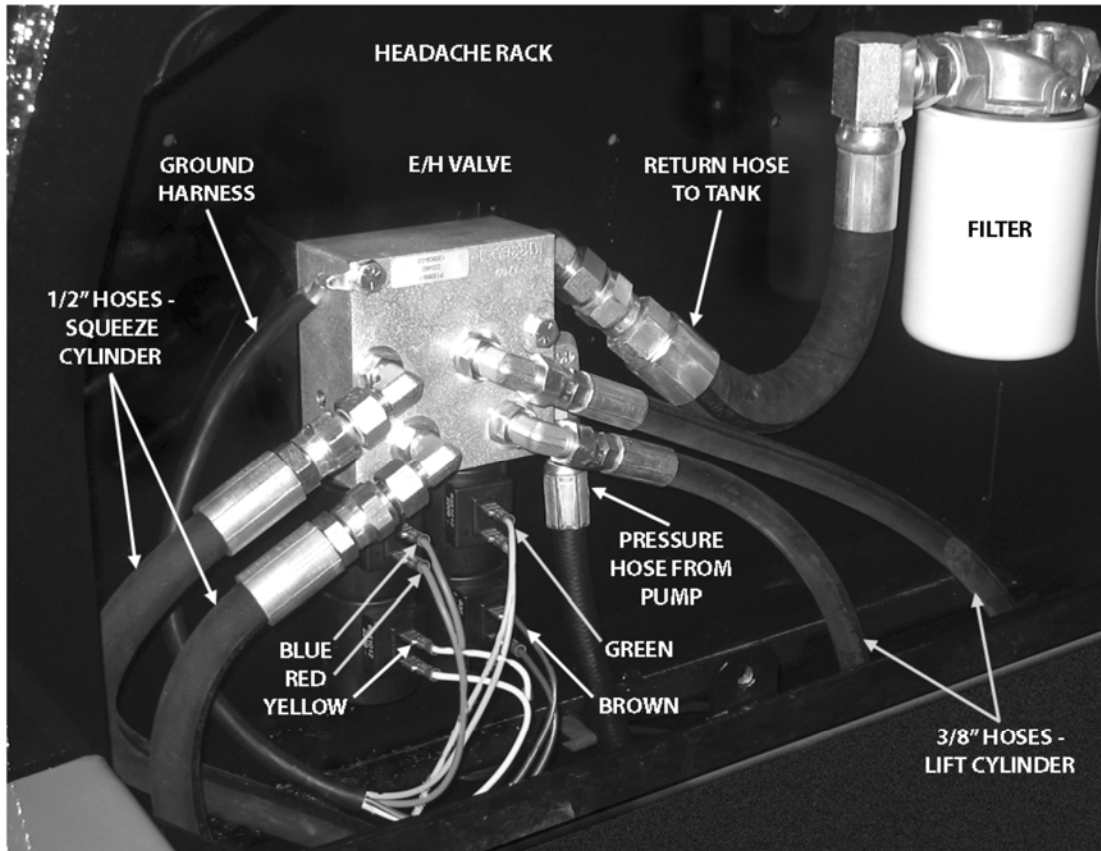
RF Transmit power (EIRP): 10 mW
 RF Frequency: 902-928 MHz
 Operating temperature - Radio: -40C to +85C
 Battery life (min): 30 hours continuous.
 Vibration: 3G to 200Hz
 Outputs: 5A max each (20A system max)

Courtesy of KAR-TECH Delafield, WI

Appendix III

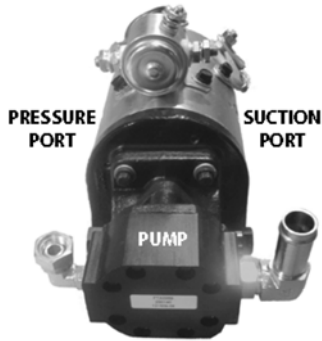
Electric/Hydraulic Power Unit

E / H KIT INSTALLATION INSTRUCTIONS

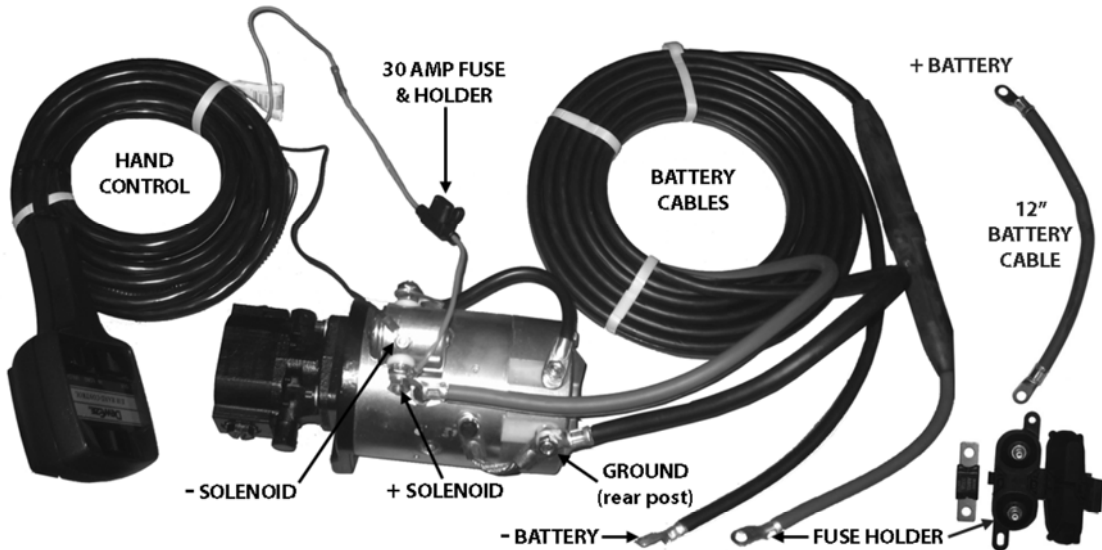
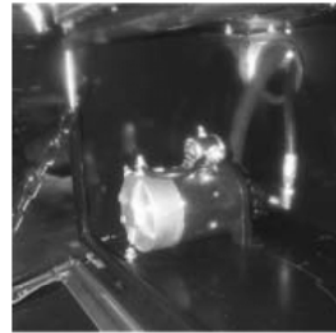
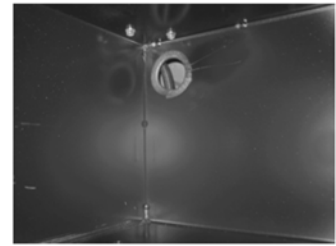


- 1) Attach adapters to E/H valve and install inside cavity on headache rack.
- 2) Attach return hose to valve and filter housing. Attach pressure hose from pump.
- 3) Attach blue and yellow wires from hand control to valve cartridge that controls squeeze cylinder as indicated.
- 4) Attach green and brown wires from hand control to valve cartridge that controls lift cylinder as indicated.
- 5) Attach ground harness to valve coils with similar color wires (yellow, brown and green). Blue and red wires are on same coil.
- 6) Attach 1/2" hoses from squeeze cylinder to side of valve controlled by blue and yellow wires. If hand control does not respond as desired, pioneer couples on rear of bed may be reversed or blue and yellow wires may be reversed.
- 7) Attach 3/8" hoses from lift cylinder side of valve controlled by green and brown wires. If hand control does not respond as desired, green and brown wires may be reversed.

- 8) Use diagram to locate holes in driver's side toolbox.
- 9) Drill 2.5" hole with hole saw and use molding to protect hoses from rough edges.
- 10) Drill 3/8" holes for pump as indicated and bolt pump to inside of toolbox.



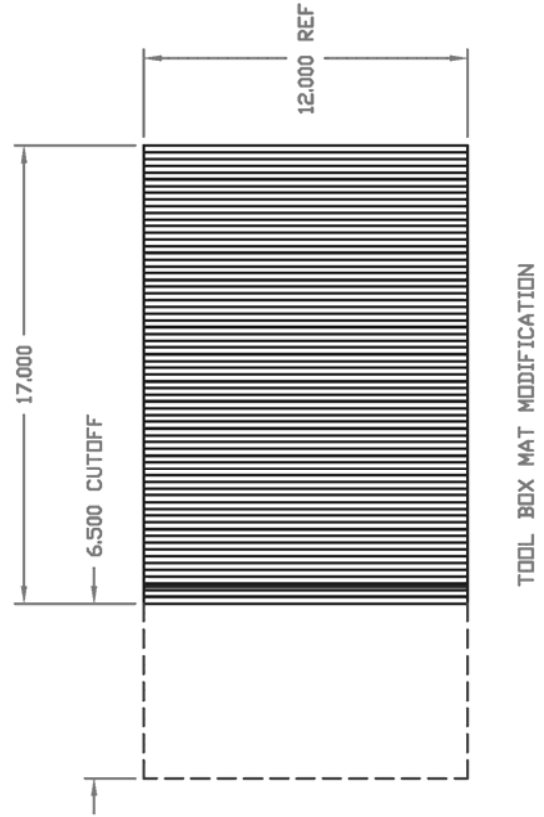
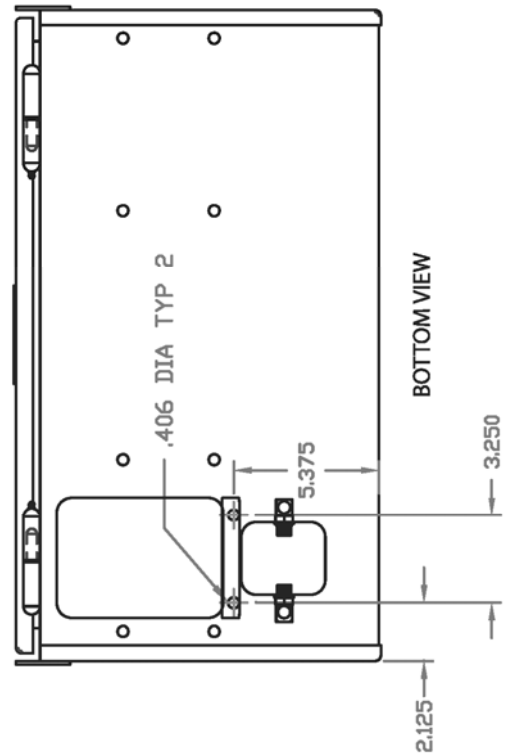
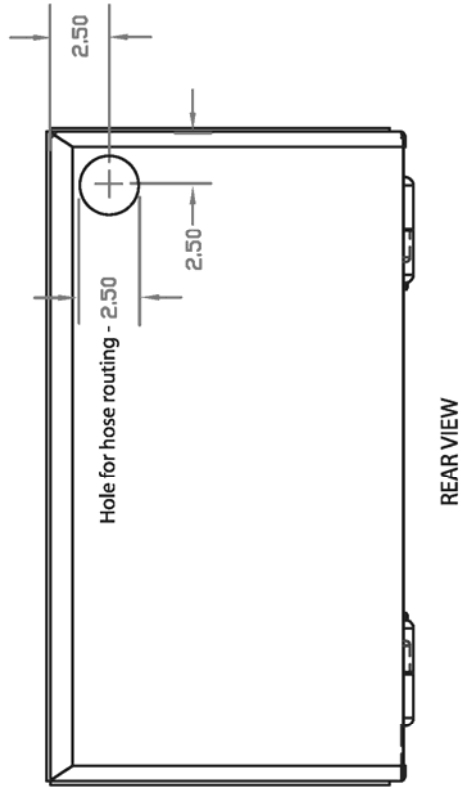
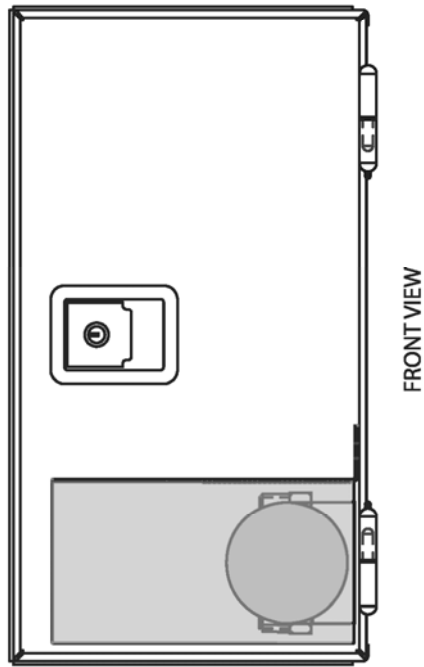
- 11) Attach suction hose and pressure hose to pump with adapters provided.
- 12) Attach suction hose to bottom of reservoir as indicated in diagram.
- 13) Attach black wire from hand control to negative terminal on solenoid.



- 14) Attach 30-amp fuse holder to positive terminal on solenoid and then to red wire from hand control.
- 15) Run battery cables through hole in toolbox and attach to E/H motor as indicated (black cable to rear post).
- 16) Run battery cables along frame rail and attach black cable to negative terminal on battery.
- 17) Attach 200-amp fuse holder to 12" battery cable on one end and red battery cable on other end.
- 18) Insert 200-amp fuse and attach 12" battery cable to positive terminal on battery.
- 19) Test unit to ensure that all functions operate correctly and check for oil leaks.



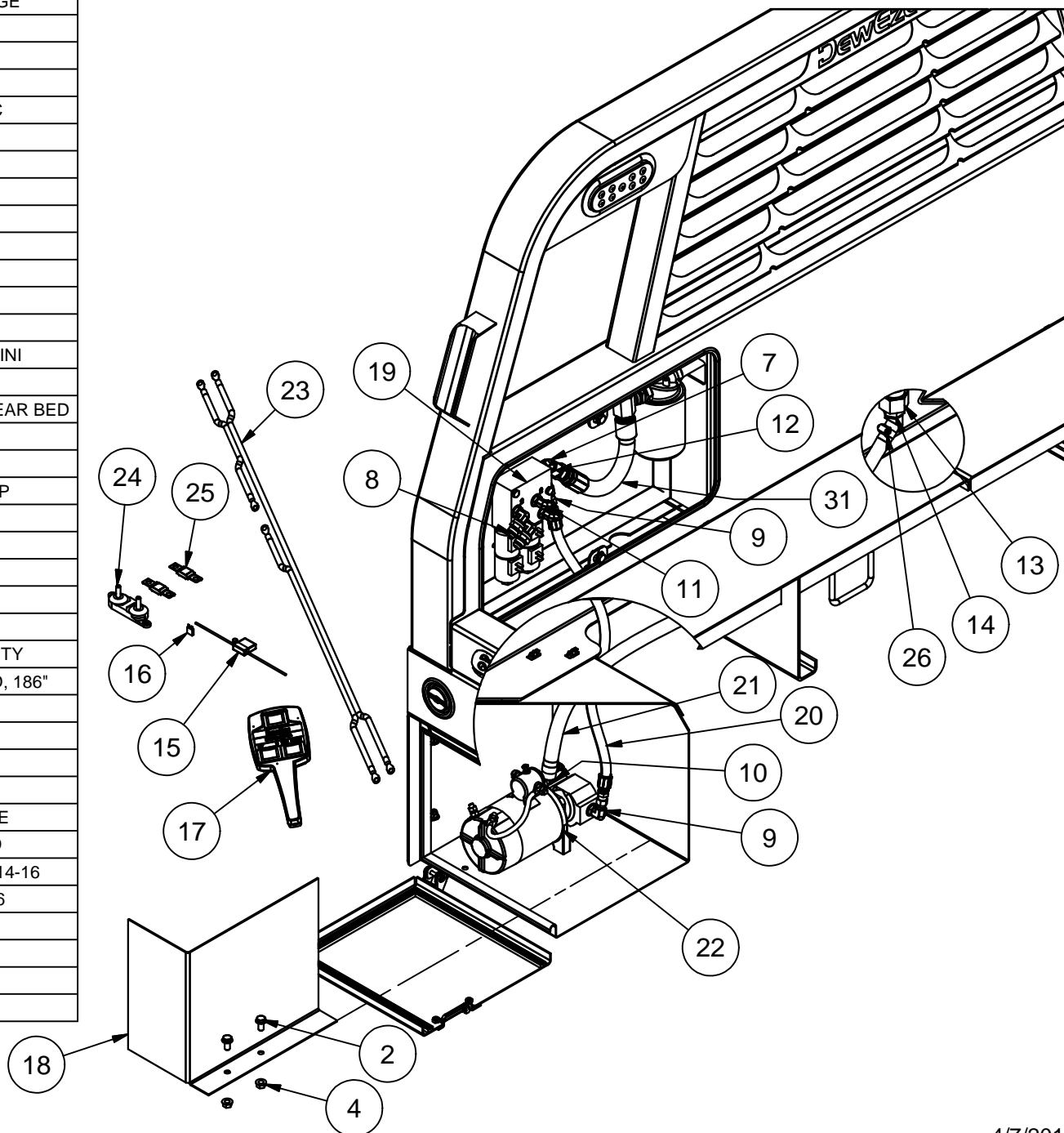
DEWEZE E/H KIT - 30" TOOLBOX MODIFICATION



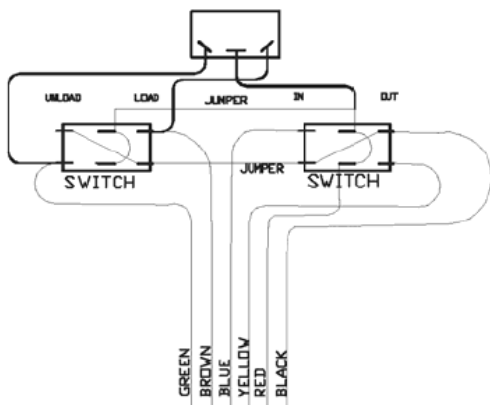
Kit E/H Power, Part# 215005

ITEM	QTY	PART #	DESCRIPTION
1	2	110396	BOLT, 5/16-18 X 2.5
2	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
3	2	110608	NUT, 5/16-18
4	2	110645	NUT, 3/8-16 WIZ FLANGE
5	2	110674	WASHER, 5/16" LOCK
6	4	110753	PLUG, 1/2" BUTTON PLASTIC
7	1	120087	ADAPTER, 6MB-8MJ45
8	2	120142	ADAPTER, 8MJ-6FJ
9	2	120149	ADAPTER, 6MB-6FPX90
10	1	120187	ADAPTER, 12BH-8MB90
11	4	120222	ADAPTER, 6MJ-6MB90
12	1	120457	ADAPTER, 8FJ-10MJ
13	1	120544	ADAPTER, 20MB-12FOR
14	1	120545	ADAPTER, 12BH-12MB 45°
15	1	132001	FUSE HOLDER, ATC, 14 GA., MINI
16	1	132002	FUSE, MINI 30 AMP
17	1	150027	HAND CONTROL & CABLE ASSY SPEAR BED
18	1	211353	E/H SHIELD
19	1	220492	VALVE, E/H FLATBED
20	1	220508	HOSE, .375 X 50.44, 6MP - 6MP
21	1	220603	HOSE, SUCTION, .75 X 54
22	1	230140	E/H MOTOR PUMP/UNIT
	1	210884	MOTOR
	1	220651	PUMP
	1	222006	SEAL KIT, PUMP
	1	232089	SOLENOID, 3 POLE, HEAVY DUTY
23	1	230153	BATTERY CABLE, 2GA TWIN LEAD, 186"
24	1	232001	FUSE BLOCK, AMG
25	2	232002	FUSE, 200 AMP
26	2	520099	CLAMP, HOSE #12 .75"
			NOT SHOWN
27	1	211387	EDGE MOLDING, REAR PLATE
28	1	230119	CABLE, SOLENOID GROUND
29	1	730008	TERMINAL, BUTT CONNECTOR, 14-16
30	1	730013	TERMINAL, RING, 5/16", 14-16
			NOT IN KIT
31	1	220691	RESERVOIR RETURN
	1	720041	FILTER HEAD
	1	720043	FILTER (WIX 51551)

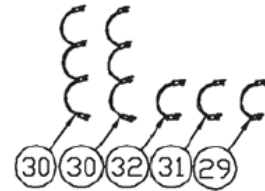
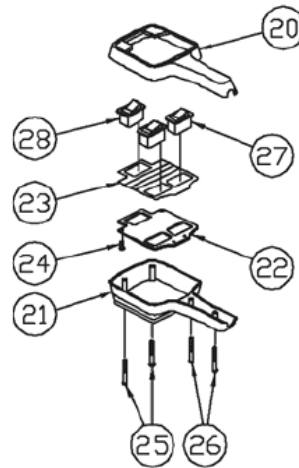
E/H Power Kit



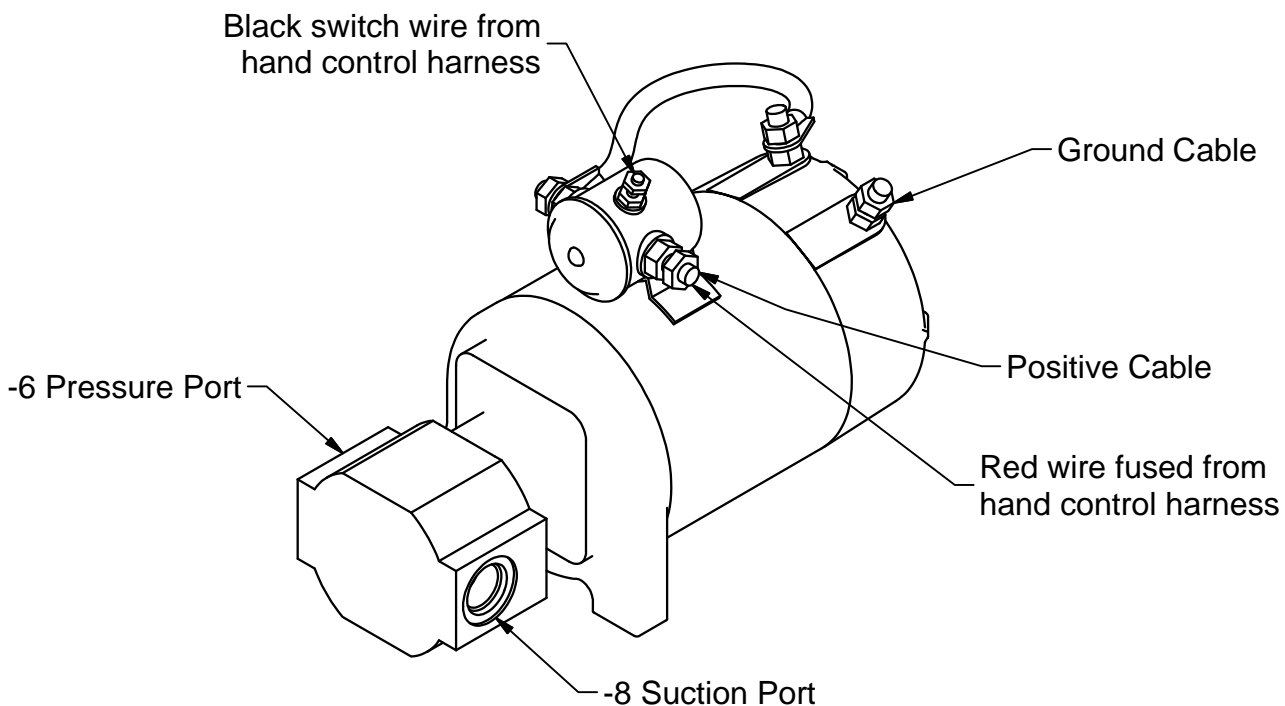
E/H Power Kit



WIRING DIAGRAM
SWITCHES SHOWN FROM BOTTOM



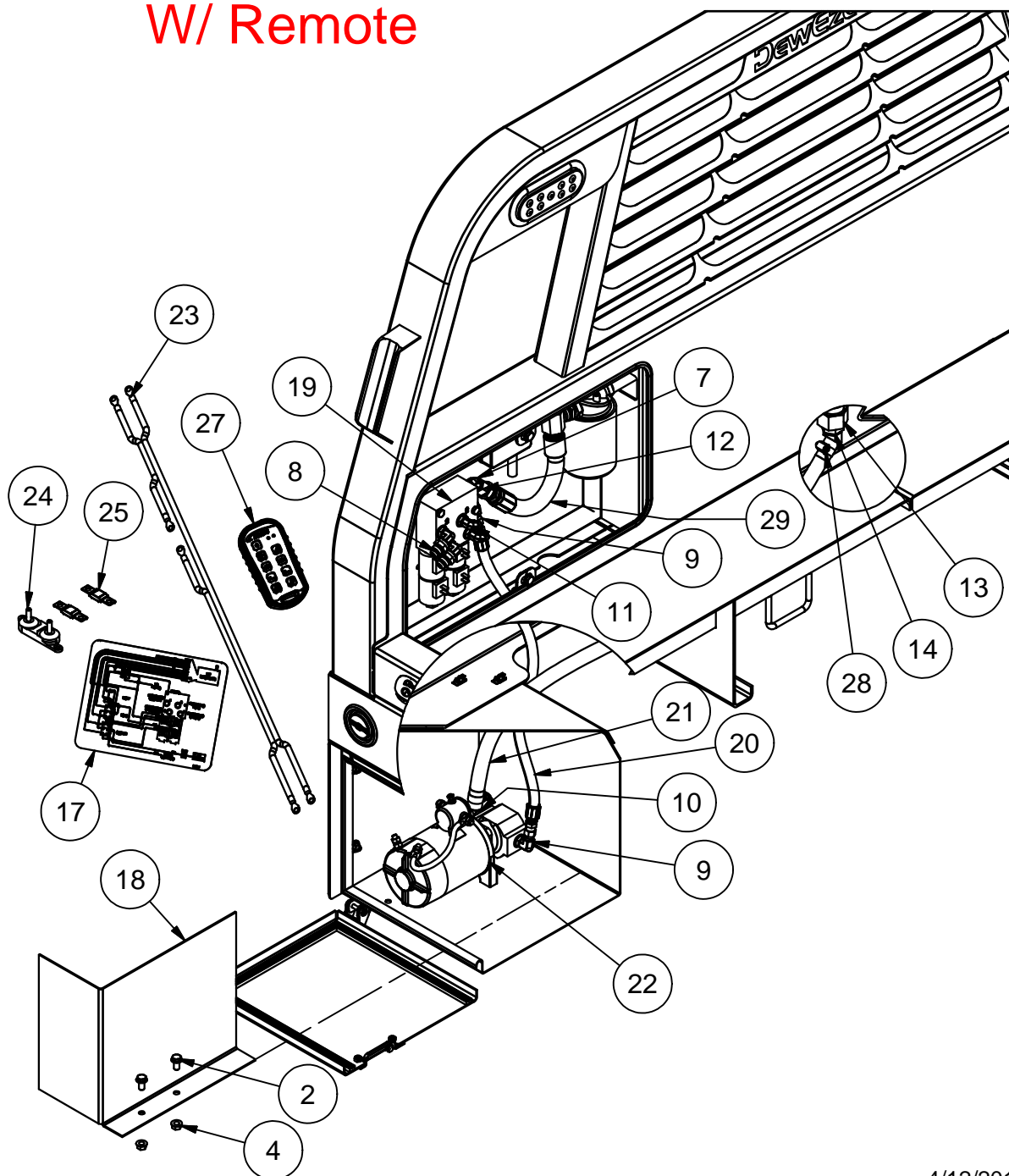
20	150001	TOP HOUSING (1)
21	150003	BOTTOM HOUSING (1)
22	150002	SWITCH PLATE (1)
23	150004	DECAL (1)
24	150013	SCREW (4)
25	150015	SCREW (2)
26	150014	SCREW (2)
27	130029	SWITCH DPDT (2)
28	130002	MOMENTARY SWITCH (1)
29	150029	JUMPER WIRE/HOT (1)
30	150030	JUMPER WIRE/HOT (2)
31	150031	JUMPER WIRE/GRN. (1)
32	150032	JUMPER WIRE/BRN. (1)



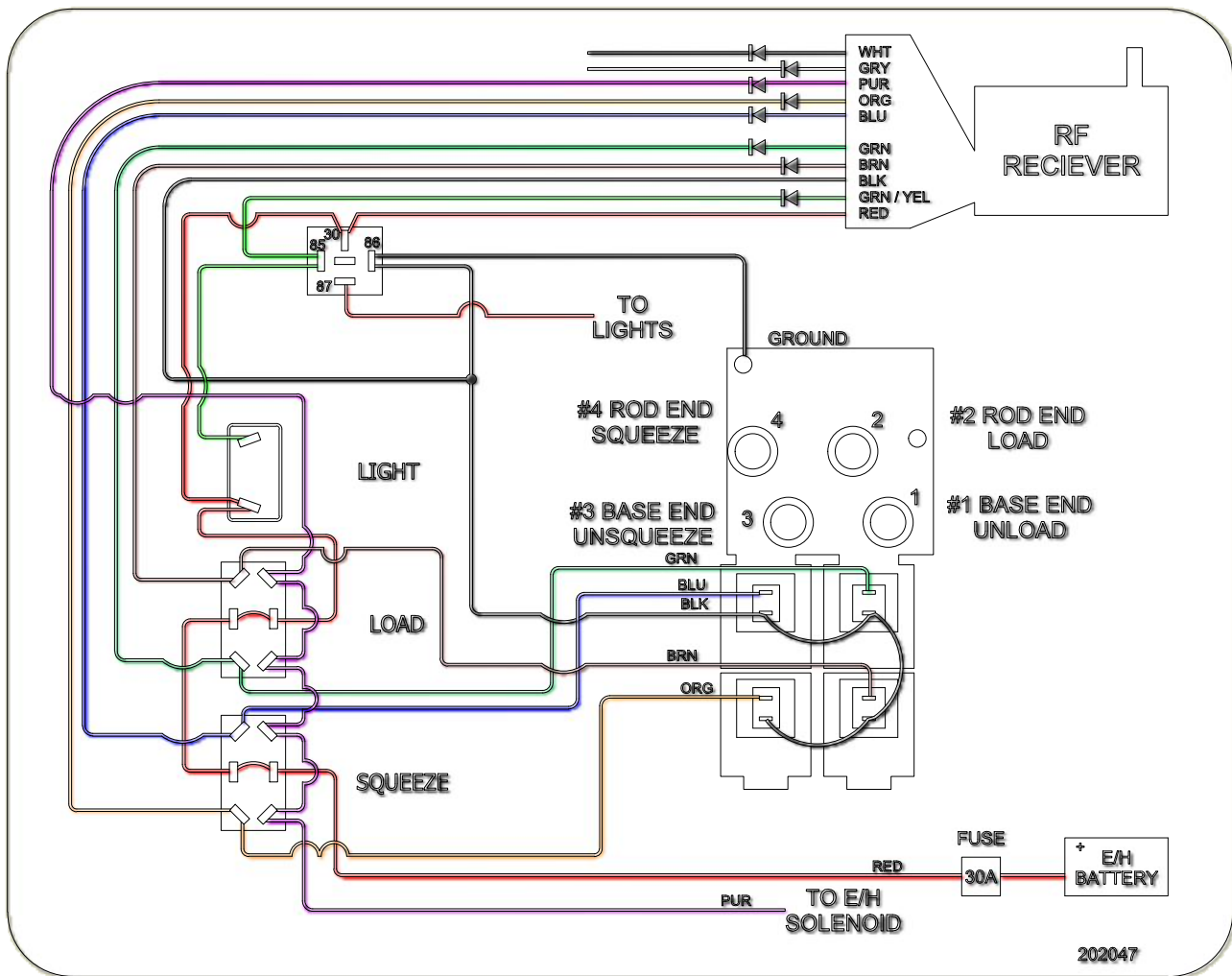
Kit E/H Power, W/Remote Part# 205053

ITEM	QTY	PART #	DESCRIPTION
1	2	110396	BOLT, 5/16-18 X 2.5
2	4	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
3	2	110608	NUT, 5/16-18
4	2	110645	NUT, 3/8-16 WIZ FLANGE
5	2	110674	WASHER, 5/16" LOCK
6	2	110753	PLUG, 1/2" BUTTON PLASTIC
7	1	120087	ADAPTER, 6MB-8MJ45
8	2	120142	ADAPTER, 8MJ-6FJ
9	2	120149	ADAPTER, 6MB-6FPX90
10	1	120187	ADAPTER, 12BH-8MB90
11	4	120222	ADAPTER, 6MJ-6MB90
12	1	120457	ADAPTER, 8FJ-10MJ
13	1	120544	ADAPTER, 20MB-12FOR
14	1	120545	ADAPTER, 12BH-12MB 45°
15	2	132035	SWITCH BOOT
16	1	202003	DECAL, SWITCH IDENTIFICATION
17	1	202047	DECAL, E/H WIRING DIAGRAM, KAR-TECH
18	1	211353	E/H SHIELD
19	1	220492	VALVE, E/H FLATBED
20	1	220508	HOSE, .375 X 50.44, 6MP - 6MP
21	1	220603	HOSE, SUCTION, .75 X 54
22	1	230140	E/H MOTOR PUMP/UNIT
	1	210884	MOTOR
	1	220651	PUMP
	1	222006	SEAL KIT, PUMP
	1	232089	SOLENOID, 3 POLE, HEAVY DUTY
23	1	230153	BATTERY CABLE, 2GA TWIN LEAD, 186"
24	1	232001	FUSE BLOCK, AMG
25	2	232002	FUSE, 200 AMP
26	2	232086	SWITCH, DPDT, M, 6 PIN, PUSH ON
27	1	233003	Transmitter & Receiver, Kar-Tech
28	2	520099	CLAMP, HOSE #12 .75"
			NOT SHOWN
	3	110119	NUT, 10-24 LOCK
	3	110264	BOLT, 10-24 X .5 STAINLESS, PHILLIPS
	1	211387	EDGE MOLDING, REAR PLATE
	1	232090	HARNESS, E/H WIRELESS, KAR-TECH
			NOT IN KIT
29	1	220691	RESERVOIR RETURN
	1	720041	FILTER HEAD
	1	720043	FILTER (WIX 51551)

E/H Power Kit W/ Remote

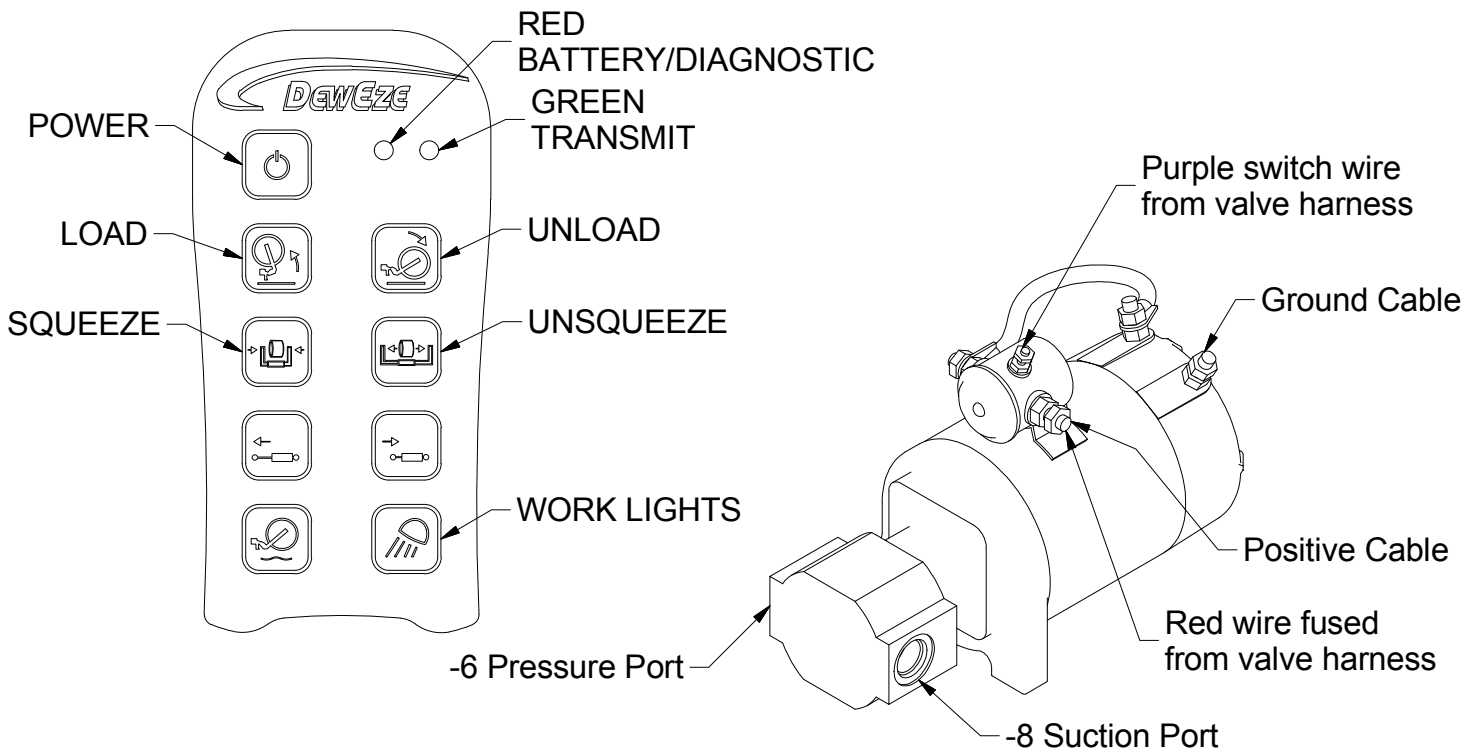


E/H Wiring, Kar-Tech Remote



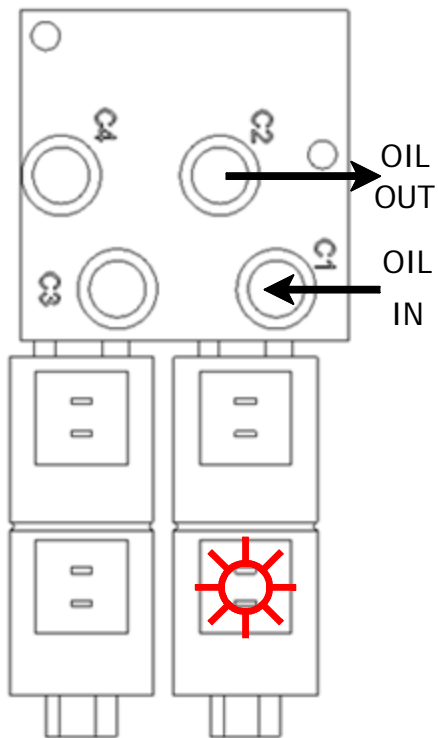
Decal Part# 202047

Harness Part# 232090

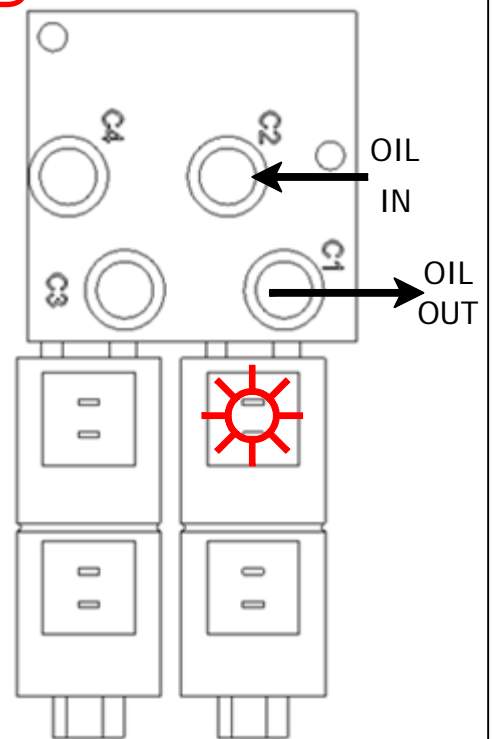


 SOLENOID FIRES

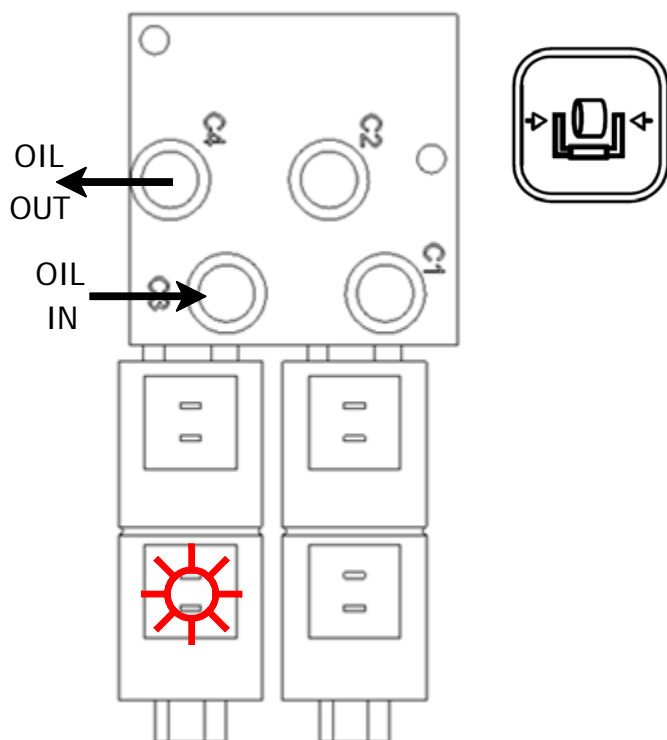
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