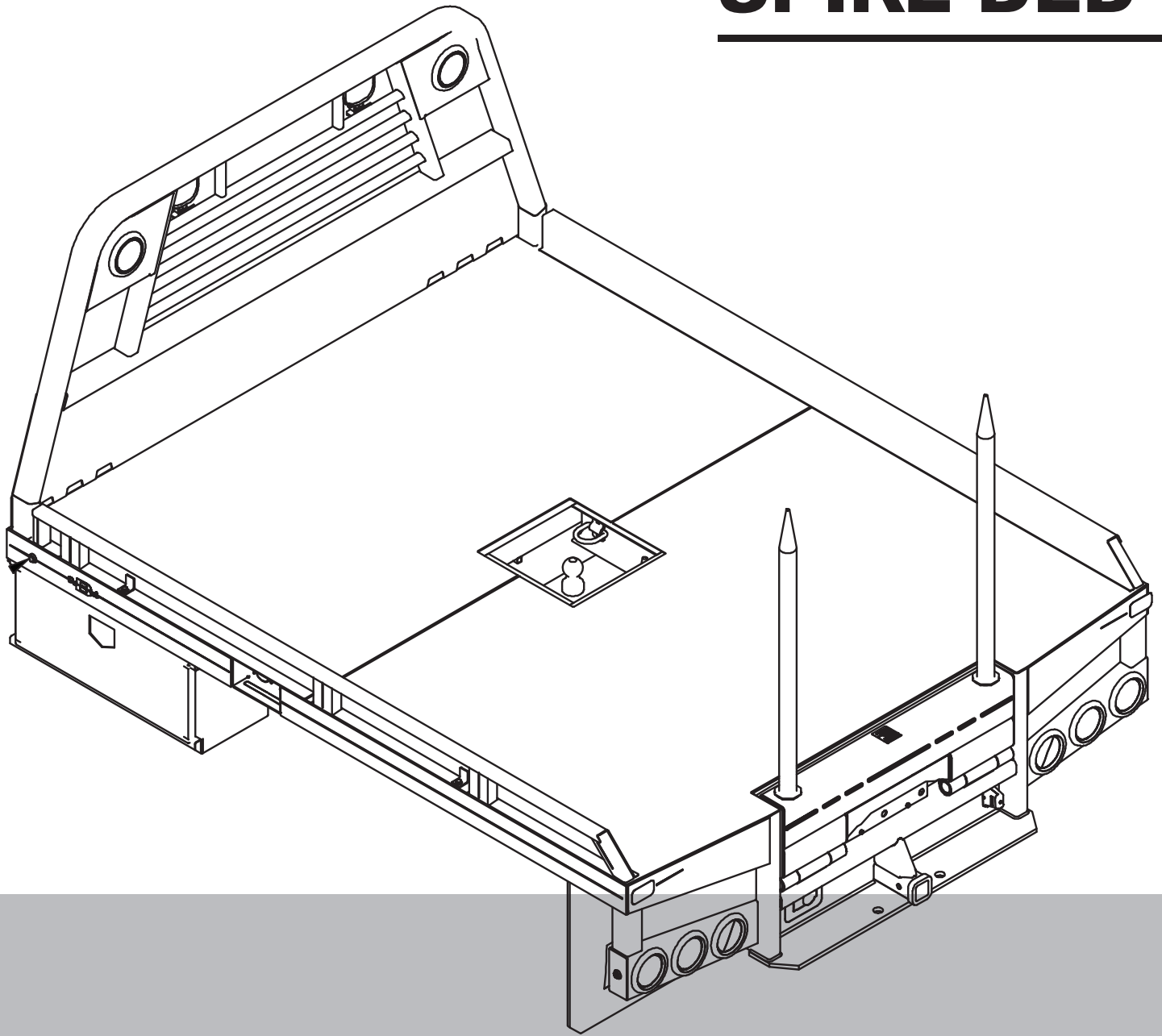


SPIKE BED



Butler Beds

Thank you for purchasing a Butler Spike Bed.

TO THE OWNER OR OPERATOR:

As with all Harper products, the Butler Beds have been thoroughly tested and built to provide a sturdy, dependable product. The Spike Bed 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 Butler Spike Bed. Read and understand the manual thoroughly before operation to avoid damage to the unit or injury to the operator or bystanders.

A Spike Bed 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: Failure to understand and obey this warning may result in injury to you or others. Whenever this symbol is used, please pay very close attention to the information presented, and make sure you fully understand. If you do not, contact your dealer or Harper Industries for clarification.

///HARPER INDUSTRIES, INC.

151 E. HWY. 160 Harper, KS 67058
(620) 896-7381 • **Fax** (620) 896-7129

Toll Free 800-596-2464

Email info@butlerbeds.com

Website www.butlerbeds.com

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Statement of Warranty

Harper Industries, Inc. (HII) warrants to each purchaser of a new Butler Bed from an authorized dealer or representative, that such equipment is free of manufacturer's defects in workmanship and materials which appear while in normal service for a period of ONE YEAR commencing with delivery to the original user.

The obligation of HII 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, KS. 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 Butler Bed accessories) while in the possession of the consumer.

Warranty is limited to parts, labor and ground freight delivery of replacement parts. Labor for repair to hydraulic and electrical power systems from HII installed with bed purchase/installation is covered under this warranty. HII shall not be liable for the 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.

This warranty does not apply to parts subjected to misuse, abuse, alteration, improper or inadequate maintenance, or normal wear.

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 OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. HII makes no other express warranty, nor is anyone authorized to make any on behalf of HII.

For further information please contact your nearest Butler Bed dealer.

RECORDS

Date of Purchase _____ / _____ / _____

Dealer's Name _____

Dealer's Phone _____

Serial Number Bed _____

Serial Number Pump _____

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Specifications

Butler Spike Beds are specifically designed to transport and feed round hay bales.

Model Specifications

MODEL	S80X86	S80X102	S80X110	S80X115	S84X86	S84X102	S84X110
WIDTH	6'8"	6'8"	6'8"	6'8"	7'0"	7'0"	7'0"
LENGTH	7'2"	8'6"	9'2"	9'7"	7'2"	8'6"	9'2"

S84X115	S94X102	S94X110	S94X115
7'0"	7'10"	7'10"	7'10"
9'7"	8'6"	9'2"	9'7"

S94X134	S94X139	S96X86	S96X102	S96X110	S96X11	S96X134
7'10"	7'10"	8'0"	8'0"	8'0"	8'0"	8'0"
11'2"	11'7"	7'2"	8'6"	9'2"	9'7"	11'2"

S96X139
8'0"
11'7"

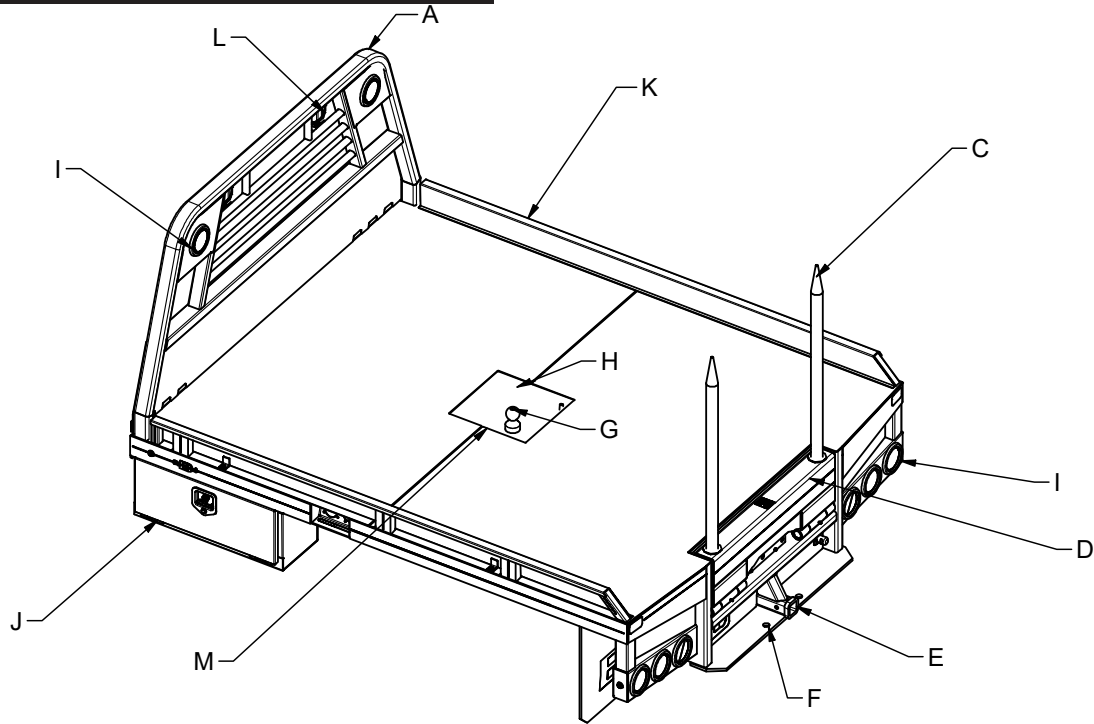
Hydraulic System Specifications

HYDRAULIC SYSTEM	Electric over hydraulic
SYSTEM PRESSURE	2500 psi
FLOW	2.41 gpm @ 500 psi: 1.06 gpm @ 2500 psi
OIL RESERVOIR CAPACITY	10 quarts ATF fluid (Dextron III)
CYLINDER, LIFT	1.25" X 3.5" X 12"
LIFT CAPACITY (centered)	2,500 lbs.

Protective Coating Specifications

PAINT	Heat-cured, polyurethane based paint
-------	--------------------------------------

Feature Identification



A. Headache Rack – protects the rear pickup window.

B. Across-the-bed Toolbox (not pictured) – mounted across the front of the bed.

C. Spikes – used to stick and lift bales.

D. Pivot or Tailgate – houses the spikes and pivots to lift the bale.

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

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

G. Gooseneck Hitch – located under a cover plate in the middle of the bed or as a pop up ball.

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

I. Lights – LED lighting for stop-tail-turn. (Optional lights in headache rack)

J. Toolboxes – mount under front of bed on both sides. The Electric/Hydraulic Power unit mounts inside the passenger side toolbox.

K. Side rails or Dummy Arms – serve as side rail.

L. Work Lights (optional) – lights can be when working at night.

SAFETY WARNING!
Do not stand near tailgate when operating the bale pickup, even when unit is empty.

Safety Guidelines

Operator safety is of upmost 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.

Spike Bed 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 Spike bed's lifting capability may exceed the truck's load capacity in some instances.

Hydraulic Safety



SAFETY WARNING!



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

Operating Instructions

Loading Instructions

- Center spikes as close as possible to the center of the bale.
- Back the truck up to the bale with the spikes down, pushing the spikes into the bale.
- Lift the bale by pushing the UP button on the controller.



CAUTION



Do not exceed the GVRW of the truck.

Unloading Instructions

NOTE: When hauling multiple bales short distances, motor will become hot. Allow motor to cool down in between loading cycles. General rule of thumb is 25% motor on, 75% motor off. This equals about 2 ½ minutes "motor on" in a 10 minute period. Opening the tool box lid may help with the cool down.

Unloading Instructions

- Lower the bale to the ground by pushing the DOWN button on the controller.
- Drive the truck forward.
- Once the spikes are clear of the bale, push the UP button to raise spikes to return to the home position.

Spikes

- Remove the spikes at least once a month. The spikes seat into the pivot very tightly. **Failure to remove the spikes monthly could cause them to seize up and become difficult to remove.**

Maintenance

Check Daily or Before Use

- Check the hydraulic oil level. Keep the level to "FULL" on the dipstick.
- 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.

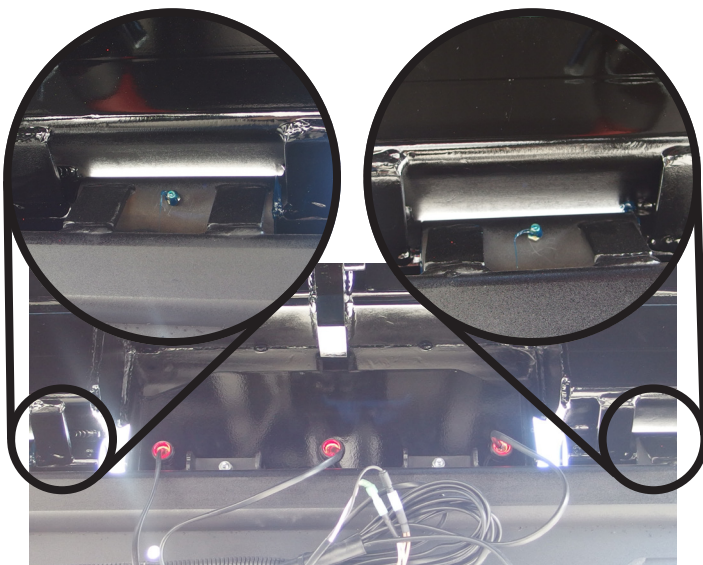
Lubrication

- Put rear pivot all the way in the down position.
- Locate the two pivot pins, and grease them both (2).



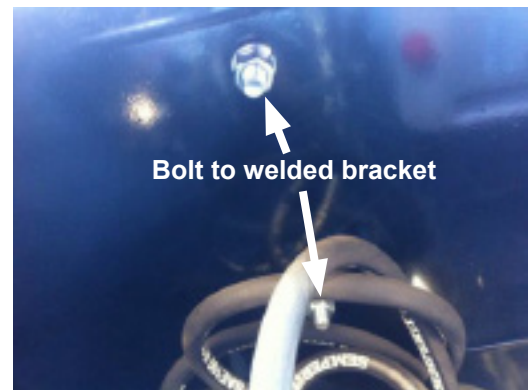
SAFETY WARNING!

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



Toolbox Mounting

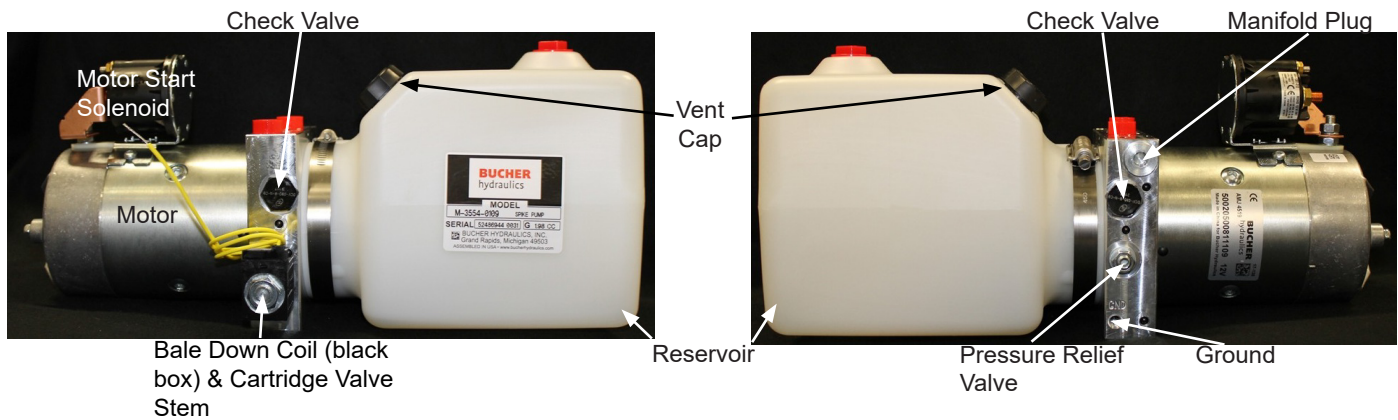
- Mount the box with the two bolt holes on the short end towards the front. Bolt the top of box to the welded bracket under the bed. All bolts are 3/8".



Mounting of Power Unit

Place power unit in passenger side box with the reservoir facing the cab of the truck. Position the holes in bottom of pump block over holes in bottom of box. Using 3/8" bolts, secure the pump to the box. Run the hydraulic hoses through the rubber grommet in the box. The power unit operates best with a two battery set up. If needed, the second battery can be mounted next to the power unit in the tool box.

Power Unit Identification



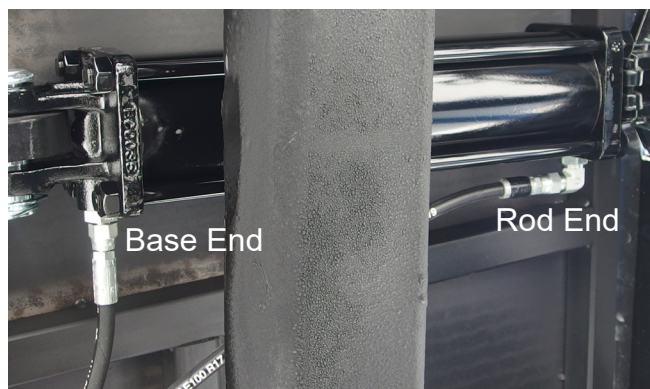
Hydraulics

Hydraulic System

- High heat, 190° or greater, can be damaging to the hydraulic system. Check 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.

Hydraulic Hose Connections

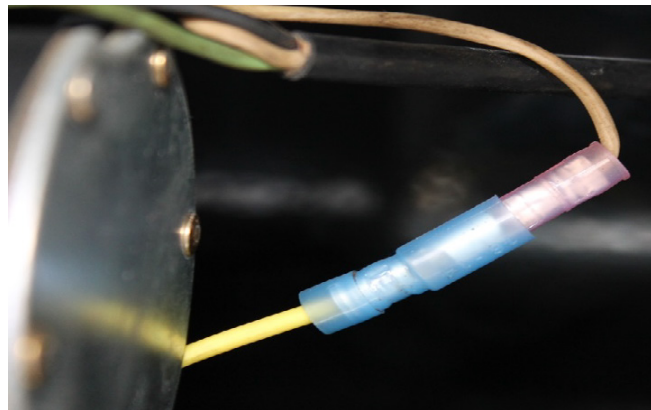
- Taped 1/4” hose (rod end) connects to C1.
- Un-taped 1/4” hose (base end) connects to C2.



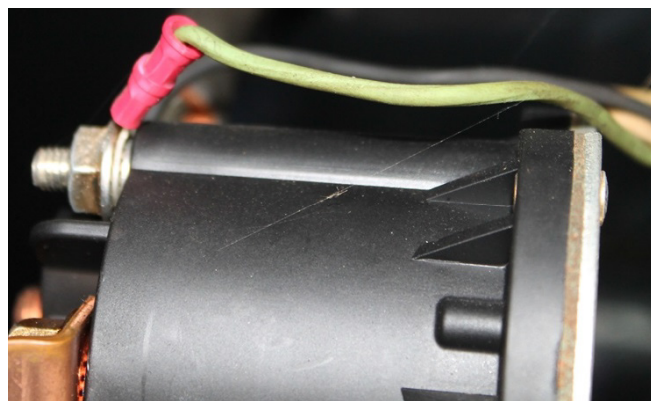
Corded/Wireless Remotes

Wiring Instructions/Corded Remote Spike Bed

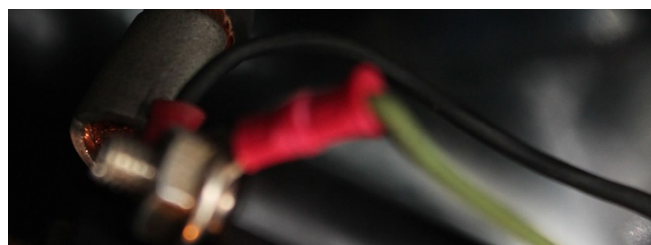
- See parts page 1.4 for more detail.
- White wire attaches to the yellow coil wire.
- Green wire attaches to the actuator on motor start solenoid.
- Black wire attaches to the input on motor start solenoid.



White wire attaches to yellow coil wire.



Green wire attaches to actuator on motor start solenoid.

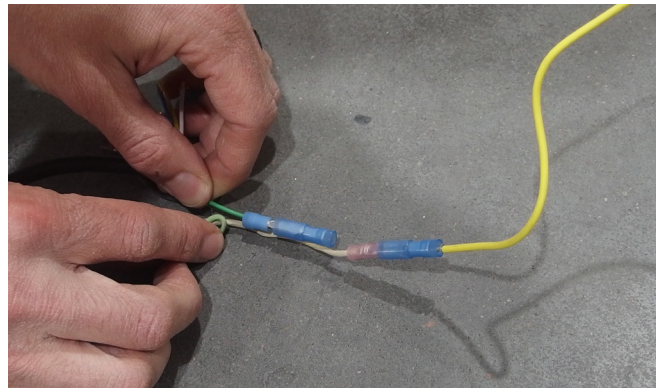


Black wire attaches to input on motor start solenoid.

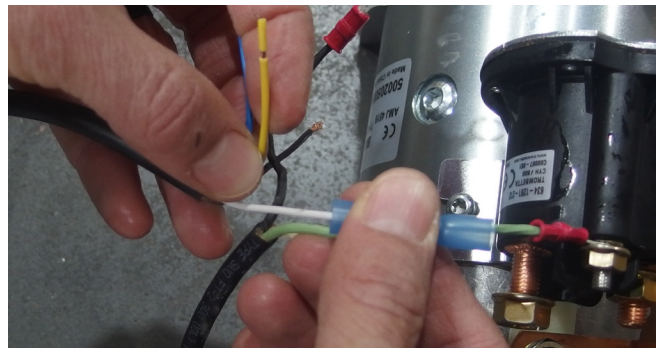
Wiring Instructions / Wireless Remote Spike Bed (optional)

- See *parts page 1.5* for more detail.
- Receiver mounts next to pump inside of tool box.
- Green wire (receiver) and the white wire (hand control) attach to the yellow coil wire.
- White wire (receiver) attaches to green wire (hand control) and connects to the actuator on motor start solenoid.
- Red wire (receiver) attaches to orange fuse wire.
- Orange fuse wire connects to black wire (hand control) that connects to the input on motor start solenoid.
- Black wire attaches to ground.
- Yellow, brown and blue wires are not used and can be bent over and taped to the cord.

Note: If you are tying this in with the corded remote (recommended), mate corded and wireless with a three way adapter as shown below.



Green and white wires attach to yellow coil wire.



White wire attaches to green wire that connects to the actuator on motor start solenoid.

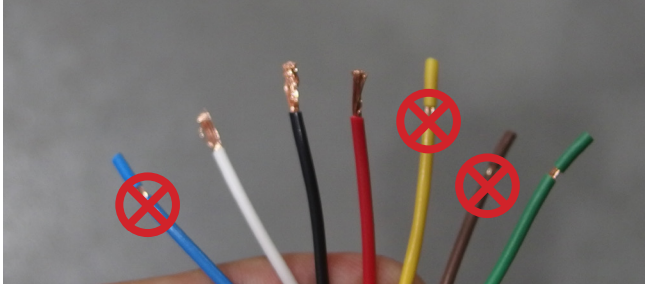


Red wire connects to the orange fuse wire.



Orange fuse wire connects to the black wire and is connected to the input on the motor start solenoid.

Black wire attached to ground on lower side of unit



All 7 wires - Blue, Yellow, and Brown are not used.

If the transmitter does not function when turned on for the first time, disconnect the power to the receiver that's mounted in the tool box. Next press the red button on the transmitter and release. Now PRESS and HOLD both the red and green buttons until the LED light starts to flash. This takes about 5 seconds. Now release both buttons. You should see a flash and pause pattern in the LED light now. Reconnect the power to the receiver and a 10 second window opens. Within the 10 seconds, PRESS and HOLD the green button for 5 seconds or until the light on the receiver is on solid (not flashing).

Mega Fuse & Fuse Box (not included)

The 200 amp (spike bed), Mega Fuse and fuse box should be installed on the power cable.



Troubleshooting

The most common problems with a power unit are due to low voltage from a battery, fuse failure, faulty wire or a failing ground connection. To narrow down the problem, connect jumper cables to the pump (positive to input side of solenoid & negative to the ground on pump base). Use a separate good battery (from another vehicle or a new battery). If the pump and bed operate properly, then have the battery tested, check in line fuse and power cord, and/or run ground cable directly to the battery instead of inside the tool box or frame. If the pump does not operate properly with jumper cables, then check solenoid and/or motor.

PROBLEM	SOLUTION
Power unit not responding to remote when toggle is activated	Use test light on remote connections to solenoid. If any connections are not working, the problem is in the remote. If all connections are working, check solenoid. If solenoid is working properly, the problem is in the pump motor.
Motor is humming or bed is operating slowly	Pump motor is failing.
Bale drops on its own when suspended in the air or will not maintain a tight squeeze	Turn the counter-balance valve ¼ turn clockwise until bale suspends normally. Do not tighten screw all the way in.
Spike pivot are not moving fast / pressurizing but not moving	Check for debris in the check valve. Make sure spring plunger is not broken.
Lift is not working	Check wire on cartridge valve coil for a short or take coil off and activate remote while putting a screwdriver inside coil. If screwdriver does not magnetize to coil, the coil is failing. If coil is magnetizing, then failure is in cartridge valve.
Fluid leaking under bed or in tool box	Check hose connection at leak. Tighten or replace if needed. Leaks in tool box are best diagnosed by activating the remote while watching the power unit. Determine where the leak is coming from and replace O-ring / plug / valve if needed. Some leaks are fixed by tightening the plug/valve. Make sure the plastic reservoir is not cracked.

How to Check

Solenoid	Check the two posts. If posts show voltage, then the solenoid is good.
Pump	Make sure there is good voltage to the motor. If motor checks out good check for broken or worn gear. If there is a grinding or metallic noise, the pump needs to be replaced.
Motor	Check amp range using chart below. Arm & spike beds draw different amps at different pressures.

Amp Draw

PSI	Spike Amps Draw
50	82
250	96
500	112
750	128
1000	144
1250	160
1500	175
1750	190
2000	204
2250	219
2500	233
2750	246
3000	260



SPIKE BED

PARTS

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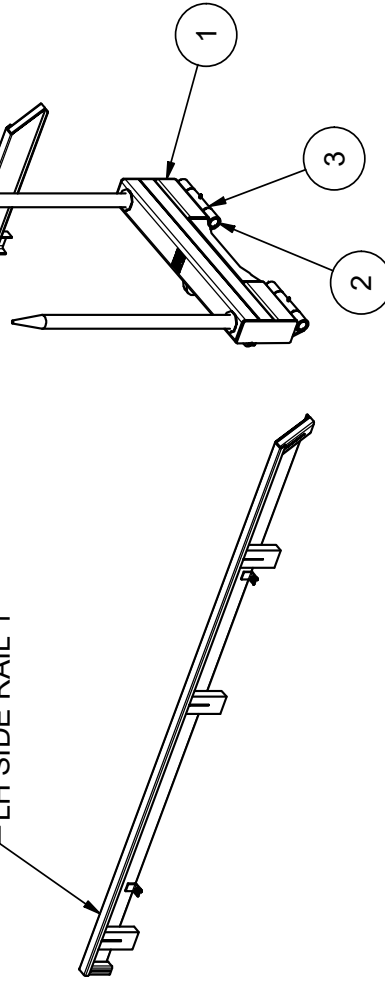
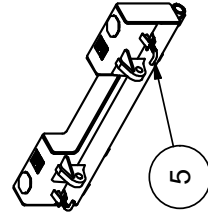
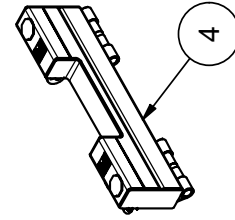
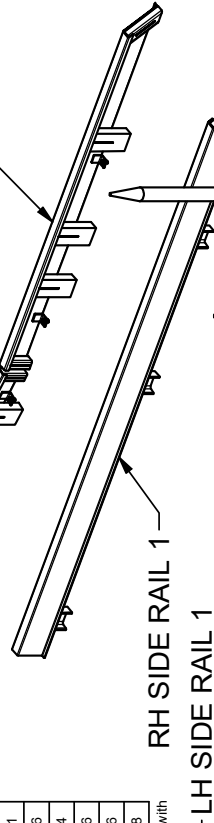
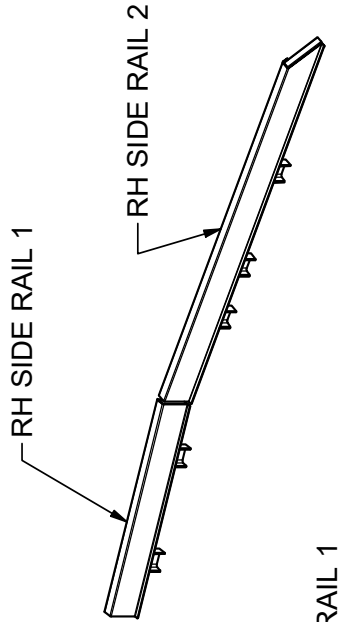
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Electrical Harness & Lights.....	1.7
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SPIKES	
TYPE	PART #
Black (Bar)	280221
Red (Forged)	212030
Spike Plugs	285072

SIDE RAILS				
BED SIZE	BED SHAPE	LH SIDE RAIL 1	RH SIDE RAIL 1	RH SIDE RAIL 2
S90X86	Straight	205209	205208	NA
S90X102	Straight	205199	205200	NA
S90X110	Straight	205213	205214	NA
S90X115	Straight	205255	205256	NA
S94X86	Straight	205209	205208	NA
S94X102	Straight	205199	205200	NA
S94X110	Straight	205213	205214	NA
S94X115	Straight	205255	205256	NA
S90X110	Tapered	205218	205218	205275
S90X115	Tapered	205218	205218	205245
S90X139	Tapered	205218	205218	205277
S94X102	Tapered	205218	205218	205217
S94X110	Tapered	205218	205218	205275
S94X115	Tapered	205218	205218	205245
S94X134	Tapered	205218	205218	205295
S94X139	Tapered	205218	205218	205277
S96X86	Tapered	205299	205299	205300
S96X102	Tapered	205218	205218	205217
S96X110	Tapered	205218	205218	205275
S96X115	Tapered	205218	205218	205245
S96X134	Tapered	205218	205218	205295
S96X139	Tapered	205218	205218	205277

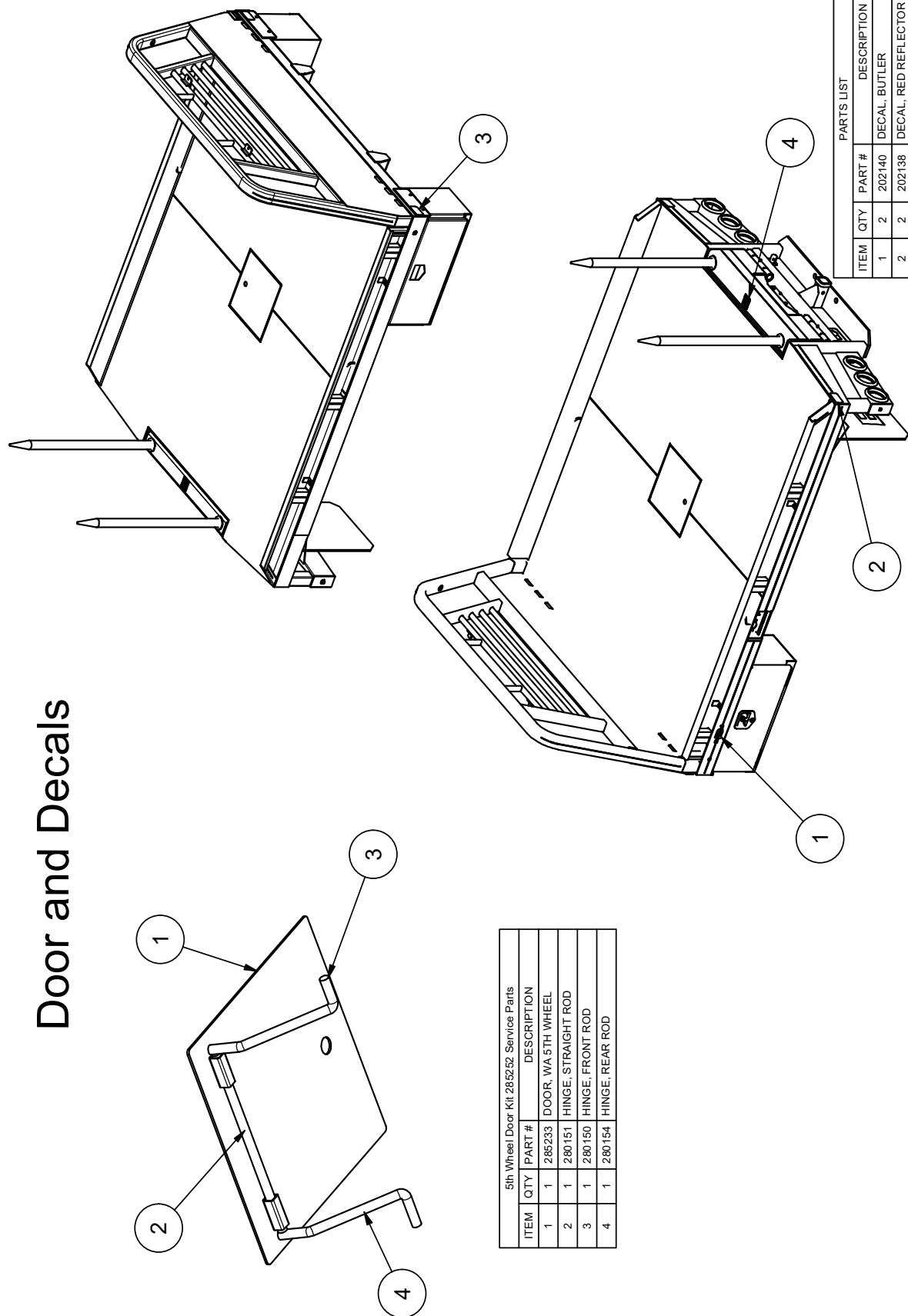
NOTE: This table only contains standard bed side rails. If wide beds with straight shape PN's not listed.

Spikes, Pivot, and Side Rails



PARTS LIST			
ITEM	QTY	PART #	DESCRIPTION
1	1	205204	PIVOT, WELDMENT
2	1	280220	HINGE, PIN
3	1	215418	HINGE, KIT (SET OF PINS AND TUBES)
4	1	205370	PIVOT, TROUGH WELDMENT
5	2	205174	KIT, SPRING PIN KIT

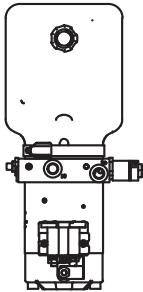
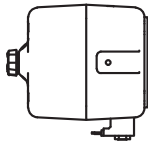
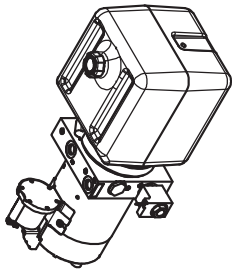
Door and Decals



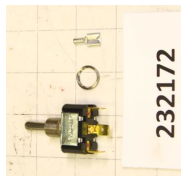
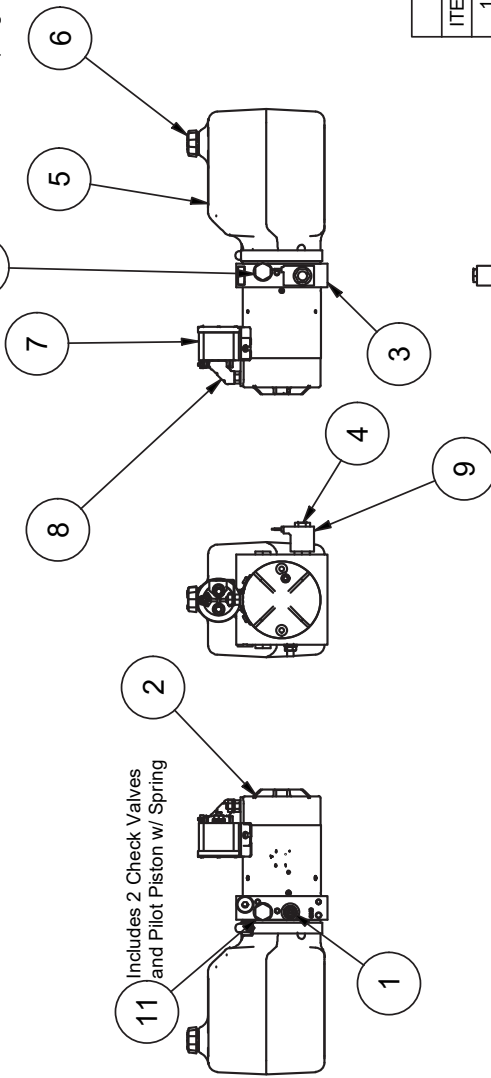
5th Wheel Door Kit 285252 Service Parts		
ITEM	QTY	DESCRIPTION
1	1	DOOR, WA 5TH WHEEL
2	1	HINGE, STRAIGHT ROD
3	1	HINGE, FRONT ROD
4	1	HINGE, REAR ROD

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	2	DECAL, BUTLER
2	2	DECAL, RED REFLECTOR 2X3.5
3	2	DECAL, AMBER REFLECTOR 2X3.5
4	1	DECAL, DANGER

E/H Unit, Pump, Valves, Tank, Power Cable,
Wireless Transmitter/Receiver,
Wired Hand Control, and Hand Control



11 Includes 2 Check Valves
and Pilot Piston w/ Spring



232172



233007



233009

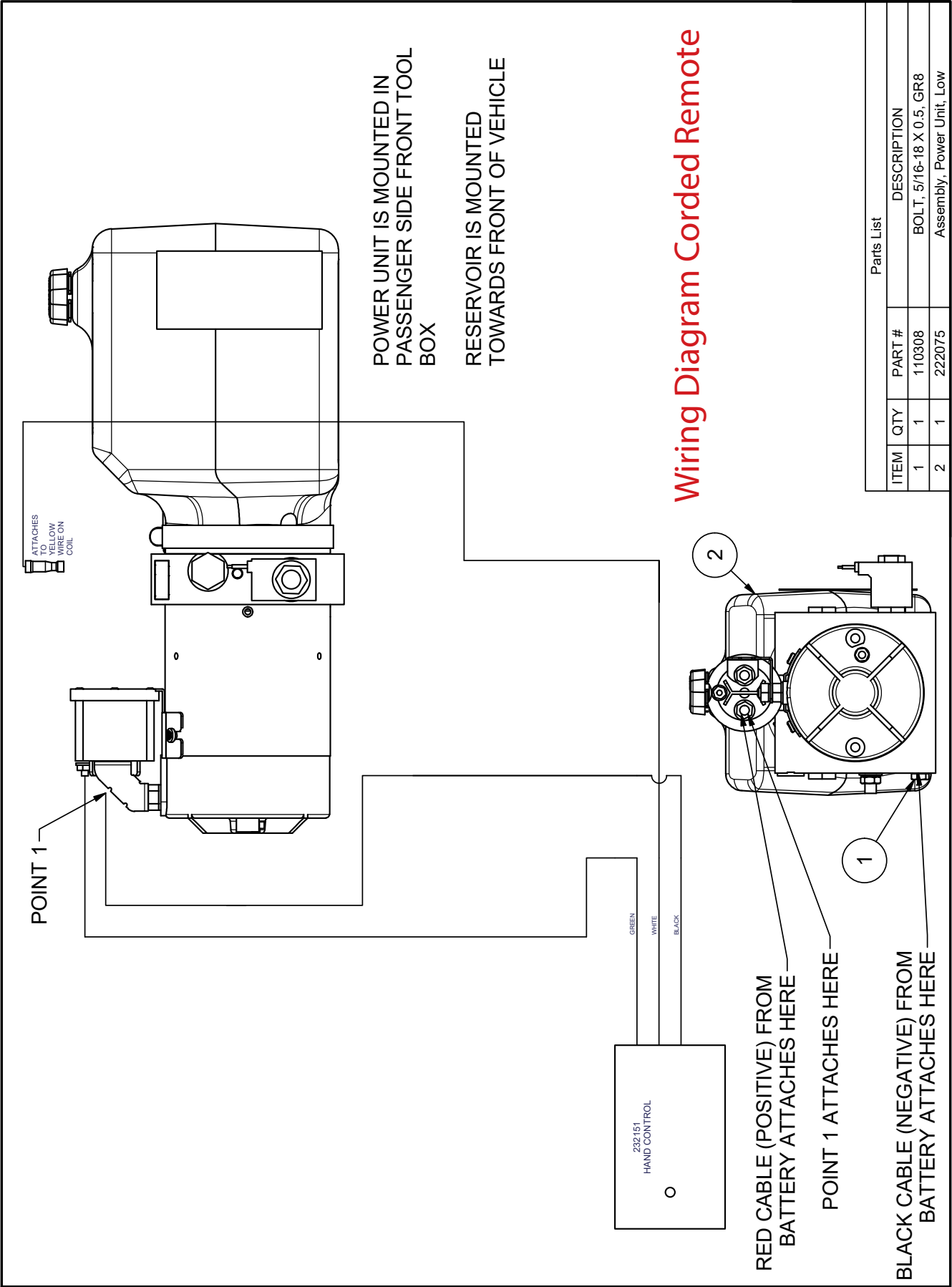


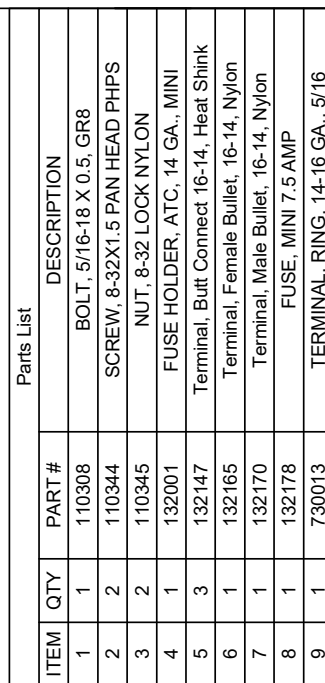
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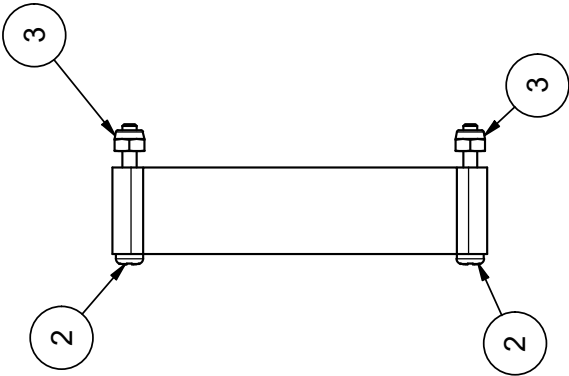
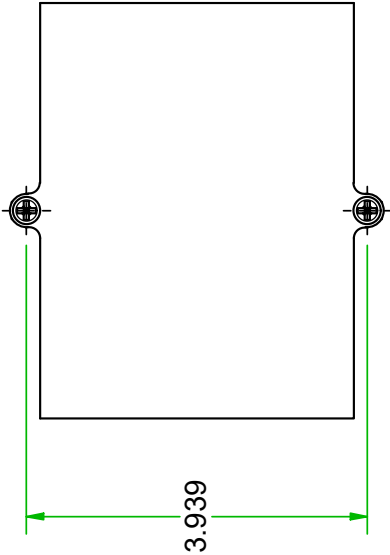
232151

Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	1	222069	E/H unit, spike bed, Butler, Bucher 3554-0109
2	1	222073	MOTOR, ELECTIC SB 12V
3	1	222092	PUMP, HYDRAULIC SB
4	1	222093	VALVE, CARTRIDGE SB
5	1	212034	TANK, HYDRAULIC BUCHER
6	1	212044	CAP, HYDRAULIC TANK BUCHER
7	1	232089	Solenoid, 3 Pole, Heavy Duty
8	1	232180	STRAP, SOLENOID CONNECTING
9	1	212033	VALVE, COIL BUTLER
10	1	222107	VALVE, SB RELIEF
11	1	222106	KIT, SB CHECK VALVE
12	1	232172	SWITCH, SB HAND CONTROL
13	1	233007	CABLE, POWER 195"
14	1	233009	WIRELESS, TRANSMITTER AND RECEIVER
15	1	232165	WIRELESS, TRANSMITTER
16	1	232151	WIRED, HAND CONTROL ONE SWITCH





Wiring Diagram Wireless Remote



DETAIL FOR MOUNTING WIRELESS TRANSMITTER IN TOOLBOX

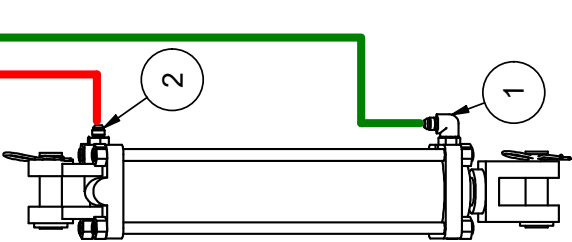
- MOUNT TRANSMITTER AS FAR AS FEASIBLE IN UPPER RH CORNER OF PASSENGER SIDE TOOLBOX
- DRILL Ø0.20 HOLES PER DIMENSIONS NOTED
- USE NOTED HARDWARE TO MOUNT

Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	1	110308	BOLT, 5/16-18 X 0.5, GR8
2	2	110344	SCREW, 8-32X1.5 PAN HEAD PHPS
3	2	110345	NUT, 8-32 LOCK NYLON
4	1	132001	FUSE HOLDER, ATC, 14 GA., MINI
5	3	132147	Terminal, Butt Connect 16-14, Heat Shink
6	1	132165	Terminal, Female Bullet, 16-14, Nylon
7	1	132170	Terminal, Male Bullet, 16-14, Nylon
8	1	132178	FUSE, MINI 7.5 AMP
9	1	730013	TERMINAL, RING, 14-16 GA., 5/16

Hydraulic Hoses and Lift Cylinder
Non Trough Bed

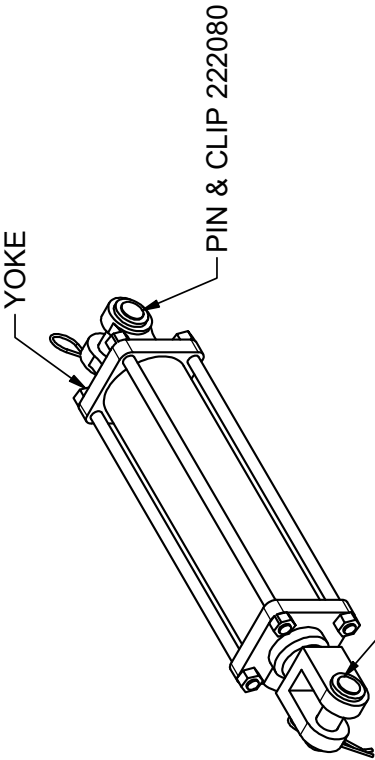
C2 1/4" HOSE
C1 1/4" HOSE BLACK TAPE

ALL HOSES CONNECT
TO FITTING 3 IN VALVE



HOSE TABLE		
BED	HOSE 1 (RED)	HOSE 2 (GREEN)
S80X86	220757	220758
S80X102	220757	220758
S80X110	220757	220758
S80X115	220757	220758
S84X86	220757	220758
S84X102	220757	220758
S84X110	220757	220758
S84X115	220757	220758
S90X110	220757	220758
S90X115	220757	220758
S90X139	220764	220792
S94X102	220757	220758
S94X110	220757	220758
S94X115	220757	220758
S94X134	220764	220792
S94X139	220764	220792
S96X86	220757	220758
S96X102	220757	220758
S96X110	220757	220758
S96X115	220757	220758
S96X134	220764	220792
S96X139	220764	220792

FITTING TABLE		
ITEM	QTY	DESCRIPTION
1	1	ADAPTER 6MJ-8MB90
2	1	ADAPTER 6MJ-8MB
3	2	ADAPTER 6MJ-6MB

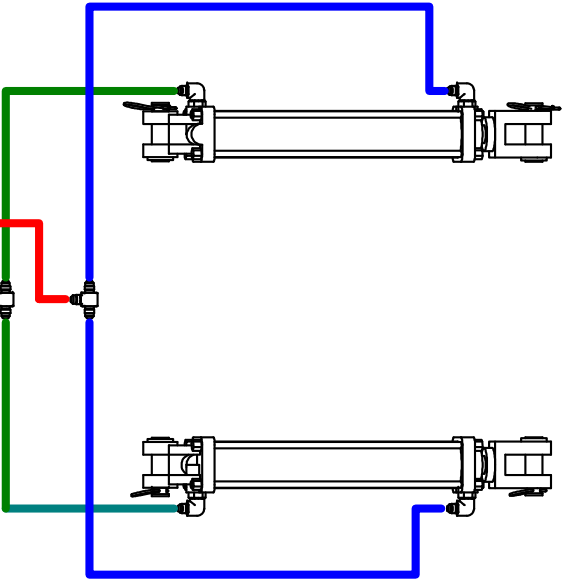


222071 Cylinder, Hydraulic, 3.50 X 1.25 X 12

222071 SERVICE PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	KIT, YOKE 3.5
2	1	KIT, PIN & CLIP DIA 1.0X2.75
3	1	KIT, PIN & CLIP DIA 1.0X3.125
4	1	KIT, SEAL 1.25X3.5

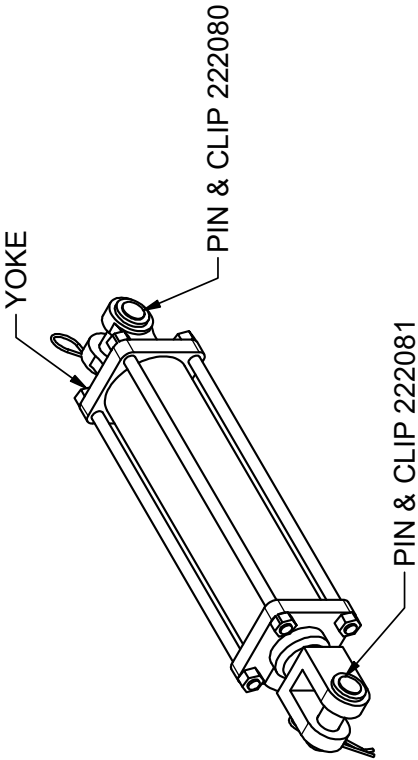
Hydraulic Hoses and Lift Cylinder
Trough Bed

C2 1/4" HOSE
C1 1/4" HOSE BLACK TAPE
ALL HOSES CONNECT
TO FITTING 3 IN VALVE



FITTING TABLE			DESCRIPTION
ITEM	QTY	PART#	
1	4	120134	ADAPTER 6MJ-6MB90
2	2	120214	ADAPTER 6MJ-6MJ
3	2	120319	ADAPTER 6MJ-6MB

HOSE TABLE			
BED	HOSE 1 (RED)	HOSE 2 (GREEN)	HOSE 3 (BLUE)
S80X86	220757	220808	220809
S80X102	220757	220808	220809
S80X110	220757	220808	220809
S80X115	220757	220808	220809
S84X86	220757	220808	220809
S84X102	220757	220808	220809
S84X110	220757	220808	220809
S84X115	220757	220808	220809
S90X110	220757	220808	220809
S90X115	220757	220808	220809
S90X139	220764	220808	220809
S94X102	220757	220808	220809
S94X110	220757	220808	220809
S94X115	220757	220808	220809
S94X134	220764	220808	220809
S94X139	220764	220808	220809
S96X86	220757	220808	220809
S96X102	220757	220808	220809
S96X110	220757	220808	220809
S96X115	220757	220808	220809
S96X134	220764	220808	220809
S96X139	220764	220808	220809



222108 Cylinder, Hydraulic, 2.50 X 1.06 X 12

222108 SERVICE PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	KIT, YOKE 2.5
2	1	KIT, PIN & CLIP DIA 1.0X2.75
3	1	KIT, PIN & CLIP DIA 1.0X3.125
4	1	KIT, SEAL 2.5X1.06

WHEN USING COUPLERS CARE MUST BE TAKEN TO NOT MIX OILS WITH ATTACHMENTS. ISO 46 IS RECOMENDED. PUMP SHOULD ONLY BE RAN CONTINUOUSLY 2 MINUTES OUT OF EVERY 10 MINUTES.

SPIKE BEDS WITH OUTLETS REQUIRES ARM BED PUMP. THE LIFT CIRCUIT WILL CONNECT TO THE LIFT CYLINDER. THE SQUEEZE CIRCUIT WILL CONNECT TO THE OUTLETS.



HOSE TABLE	
BED	HOSE 1 (RED) HOSE 2 (GREEN)
S80X86	220810 220810
S80X102	220810 220810
S80X110	220810 220810
S80X115	220810 220810
S84X86	220810 220810
S84X102	220810 220810
S84X110	220810 220810
S84X115	220810 220810
S90X110	220810 220810
S90X115	220810 220810
S90X139	220811 220811
S94X102	220810 220810
S94X110	220810 220810
S94X115	220810 220810
S94X134	220811 220811
S94X139	220811 220811
S96X86	220810 220810
S96X102	220810 220810
S96X110	220810 220810
S96X115	220810 220810
S96X134	220811 220811
S96X139	220811 220811

FITTING TABLE		
ITEM	QTY	PART # DESCRIPTION
1	2	120218 ADAPTER 6MJ-6FJB90
2	2	120743 ADAPTER 8MB-6MJ BULKHEAD
3	2	120581 COUPLER, FEMALE ORB
4	4	120139 ADAPTER 6MJ-6MB

DUST CAPS 420051 QTY 2

Harness ights

1 6 12

7

11 4

1 6 1 6 2 6 5 15 16 8 9 3

Plate for Standard Outlets-Trough-

OPTIONAL FACTORY HARNESS

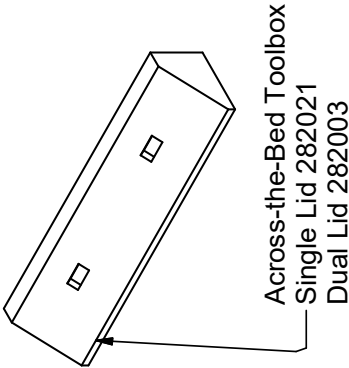
MAKE	TYPE	START YR	END YR

SERVICE PART LIST

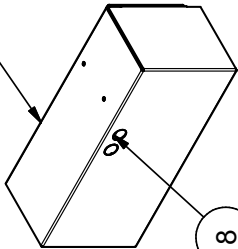
OPTIONAL FACTORY HARNESS						
PART #	DESCRIPTION	MAKE	TYPE	START YR	END YR	
232162	Harness Adapter, Generic	ALL	ALL	1989	2019	
232155	Harness, Front	ALL	ALL	ALL	ALL	
232157	Harness, Rear	ALL	ALL	ALL	ALL	
232156	Harness, Headache Rack	ALL	ALL	ALL	ALL	
232164	Harness Adapter, Ram CC	Dodge	CC	1989	2020	
232176	Harness Adapter, FD Box Delete, 2008-10	Ford	BTO	2008	2010	
232160	Harness Adapter, FD Box Delete, 2011-16	Ford	BTO	2011	2016	
232177	Harness Adapter, FD Box Delete, 2017-19	Ford	BTO	2017	2019	
232185	Harness Adapter, FD Box Delete, 2020+	Ford	BTO	2020	2020	
232161	Harness Adapter, FD CC	Ford	CC	1989	2020	
232174	Harness Adapter, GM CC 02-14 w/3rd Brake	GM	ALL	2002	2014	
232163	Harness Adapter, GMCC 02-14 No 3rd Brake	GM	ALL	2002	2014	
232158	Harness Adapter, GM 2015 ONLY	GM	ALL	2015	2015	
232159	Harness Adapter, GM 2016-Current	GM	ALL	2016	2019	
232178	Harness Adapter, 2020 GM 2500-3500	GM	ALL	2020	2020	
232179	Harness Adapter, 2019 MID Div 4500-4500	GM	ALL	2019	2020	

SERVICE PART LIST			
ITEM	QTY	PART #	DESCRIPTION
1	6	232144	LIGHT, LED 4" RED
2	2	232145	LIGHT, LED 4" CLEAR
3	2	232147	LIGHT, LED 3/4" RED
4	2	232148	LIGHT, LED 3/4" AMBER
5	1	232154	LIGHT, TAG CLEAR
6	8	232146	GROMMET, LIGHT
7	2	232167	LIGHT, WORK
8	1	232170	LIGHT, LED 3/4" RED 3PC HARNESS
9	1	232152	HARNESS, LEFT REAR LIGHTS (TUBE)
10	1	232153	HARNESS, RIGHT REAR LIGHTS (TUBE)
11	2	232149	PIGTAIL, AMBER MARKER LIGHT
12	2	232169	PIGTAIL, STT LIGHT
13	1	225034	KIT, STT LIGHT BRACKETS
14	1	232169	RESISTOR
15	1	280637	PLATE, INDICATOR LIGHT STANDARD
16	1	281059	PLATE, INDICATOR LIGHT TROUGH BEDS

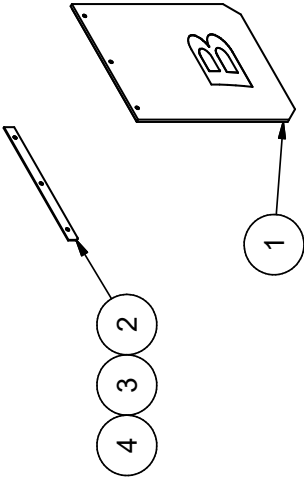
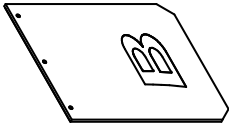
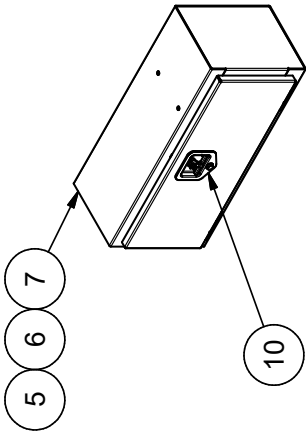
TOOLBOX SEAL 102030	
Size (inches)	Seal (feet)
18	5
20	5.5
24	6
30	7
36	8



TOOLBOX



*Alternate Ball
W/ Short Threads
281080



FRONT TOOLBOXES		
SIZE (IN)	LH PART #	RH PART #
18	282004	282004
20	282005	282006
24	282007	282007
30	282001	282002
36	282008	282008

REAR TOOLBOXES		
SIZE (IN)	LH PART #	RH PART #
20	282017	282018
24	282019	282020

Parts List		
ITEM	QTY	PART # DESCRIPTION
1	2	202137 Mudflap, Butler
2	2	280112 Plate, Mudflap, 19 X 1.5, 3 Holes
3	6	110423 BOLT, 5/16-18 x 1 GR5 ZINC
4	6	110608 NUT, 5/16-18 GR5 ZINC
5	8	110420 BOLT, 3/8-16 X 1 GR5 ZINC
6	8	110672 WASHER, 3/8 LOCK ZINC
7	8	110826 NUT, 3/8-16 GR5 ZINC
8	2	112123 GROMMET, RUBBER 1 1/2 ID
9	1	212032 Hitch Ball, 2 5/16 X 1 3/8 X 1 with hardware
10	2	282011 Latch, Toolbox
11	1	202148 Decal, Pin Stripe, White 150 FT Roll

MOUNT KITS					
PART #	DESCRIPTION	MAKE	TYPE	START YR	END YR
205162	Mounting Kit, Butler, Chevy BD 1990-2010	Chevy	Bed	1990	2010
205356	Mounting Kit, Butler, Chevy BD 2011+	Chevy	Bed	2011	Current
205365	Mounting Kit, Butler, Chevy C&C 1990-2010	Chevy	C&C	1990	2010
205366	Mounting Kit, Butler, Chevy C&C 2011+	Chevy	C&C	2011	Current
205165	Mounting Kit, Butler, Dodge BD 1994-2002	Dodge	Bed	1994	2002
205362	Mounting Kit, Butler, Dodge BD 2003-2013 BD	Dodge	Bed	2003	2013
205360	Mounting Kit, Butler, Dodge 2500 BD 2014+	Dodge	Bed	2014	Current
205359	Mounting Kit, Butler, Dodge 3500 BD 2014+	Dodge	Bed	2014	Current
205361	Mounting Kit, Butler, Dodge Short BD 2014+	Dodge	Bed	2014	Current
205175	Mounting Kit, Butler, Dodge C&C 20011+	Dodge	C&C	2011	Current
205363	Mounting Kit, Butler, Ford Long BD, 1998-2016	Ford	Bed	1998	2016
205364	Mounting Kit, Butler, Ford Short BD, 1998-2016	Ford	Bed	1998	2016
205355	Mounting Kit, Butler, Ford BD, 2017+	Ford	Bed	2017	Current
205357	Mounting Kit, Butler, Ford C&C 1999-2016	Ford	C&C	1999	2016
205358	Mounting Kit, Butler, Ford C&C 2017+	Ford	C&C	2017	Current

NOTES

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Butler Beds

Spike Bed