

DED LP DUMP BODY SCISSOR HOIST SERIES



Owner's Informa	ation:		
Owner's Name :		Dealer :	
Purchase Date :	1 1	Phone : () –	
Trailer Part # :		Weight # empty :	
Serial #		Rated capacity :	
Other:		Payload :	

OWNER'S & OPERATOR'S MANUAL

Contact your local dealer or distributor for replacement parts and technical

support or visit

www.downeastermfg.com

CONTENTS

Contents	Page		Page
Introduction	2	Operation	15
Check list	3	Pump Pressure	16
Safety	4	Trouble shooting	17
Warnings	5	Replacement Parts	18
Warning labels	6, 7	Materials chart	19
Electrical	8, 9	Warranty	20
Installation	10 thru 14		

Introduction

Thank you for purchasing a DownEaster Dump Body. This Owners Manual provides easy to follow instructions for installing, operating and servicing the unit. Read the entire manual carefully to learn the proper procedures for each operation. Follow all of the instructions described to keep the dumper in top condition and it will provide years of trouble-free performance. In the event that a problem should arise or if you have any questions about the unit, please contact your DownEaster dealer.

All information, illustrations and specifications in this manual are based on the latest DownEaster Dump Body information, available at the time of publication. The manufacturer reserves the right to make changes and improvements without notice.

*** NOTE: Read this manual and fully understand the information presented before starting or operating the equipment.

Foreword

The DownEaster Lo-Pro dump body is designed and intended for straight frame, 34" wide, Cab & chassis trucks only! DownEaster does not recommend mounting of such unit onto a standard pick up truck frame, (box delete). The unit bodies are solely designed for Cab to Axle (CA) dimensions of 60", 72" 84" and 96". All body lengths have a 95" wide deck width, to cover most track widths of all manufacturers. The body features a dual hinged tailgate that can pivot form the top for spreading material, or fold down 180 degrees for loading. The bottom latches are operated by the lever, at the front of the body and the top latches are of dual locking, quick pull down, on each side, for safety. Integral tarp hooks and mounting holes are integrated into the rear of the body and cab shield, which includes a slotted viewing window, standard. the body is designed to be of the 2 to 4 yard struck capacity type, with proper side board extensions.

Read and understand all sections of this manual prior to installing or operating the DownEaster hoist. This manual contains information for the installation, operation, and maintenance of the HD-512 & HD-515 Hoists, Sub-Frame and Dump Body. Proper care and operation of the unit will assure years of dependable service. Your local DownEaster Dealer will instruct you in its general operation.

Ordering Repair Parts

When service is necessary, your local DownEaster dealer can provide assistance. Always obtain original DownEaster replacement parts from your dealer. Substitute items could affect the performance and warranty of the unit. Dealers in your area can be found on the web at <u>www.downeastermfg.com</u>.

When ordering parts, the dumper assembly serial number and description or part number of parts needed are required. The dumper serial number is located on the drivers side of the front face (behind truck cab) of the dumper body.

CHECK LIST

Your DownEaster dump body will be shipped with the hoist and sub frame assembled to tub unit, with hydraulic pump and hoses installed and ready for electrical hook up.

-The Cab Shield will be shipped inside tub, unless otherwise specified.

-A box with all electrical components, wiring, lights, fasteners, and mounting hardware/brackets will also be supplied.

Use the parts list below to track your install.

Description	Qnty	Note:
DEDP368 Wire Harness for DownEaster dump body	1	
DEDP386 Light kit - dump body, 2015		
DEDP102 Reflector, Red 2 3/8" acrylic round	4	
DEDP222 Reflector, Amber, 2 3/8" acrylic round	2	
TPE112 LED 2" Red clearance lightPC RATED	2	
TPE104 LED Tail light, 6" oval grommet mount	2	
TPE161 Grommet for 2 " Marker Light	2	
TPE173A Grommet for Oval Taillight	2	
DEDP265 3/4" LED marker light, RED, round	3	
DEDP246 Circuit breaker kit - 250A		
HWE117 Cable Tie 8" x 2 Dia	8	
DEDP100 Littlefuse, Single Terminal Fuse holder	1	
DEDP100A 250 Amp MEGA Blade Fuse	1	
TPL170 .62" Natural Nylon Adhesive Cord Clip	6	
HWE132 Connector Butt Blue Shrink tube 16-14 GA	6	
DEDP248 Chain kit - dump body tailgate		
DEDP205 Expandable chain cover	2	
1/4' chain, grade 50, zinc @ 36"	3	
HWF699 5/16" quick link	2	
DEDM432 Sub frame Chassis brackets,	2	
DEDM460 Mud flap bracket, bolt on, for 2016 models only	y 2	
DEDP202 Hardware KIT, Scissor/Sub frame	1	
DEDP376 Hardware kit, sill plate to chassis	1	
DEDP378 Hardware kit for dump body rear frame	1	
DEDP380 Hardware kit, Cab Shield, 2016 models	1	
DEDP384 Hardware kit - Mud Flap Brackets, 2016 models	s 1	
DEDP390 Hardware kit - Ring Chain and bump stop	1	
N/A Rivet shims, 10GA HR , Bare finish	2	
TPE187 Dump body cable set (0/1 GA)	1	

SAFETY



THIS SIGN SHOULD ALERT YOU:

The Society of Automotive Engineers has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics that, if NOT carefully followed, can create a safety hazard. When you see this symbol in this manual or on the the machine itself, BE ALERT! Your personal safety and the safety of others is involved.

The purpose of safety symbols is to draw attention to possible dangers. The safety symbols and explanations with them deserve your careful attention. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention procedures.



Identifies the most serious hazards.



Failure to obey a safety warning can result in injury to yourself and others.



Indicate[s] a hazardous situation which, if not avoided, could result in minor or moderate injury.

Carefully read this manual. Learn how to safely operate the DownEaster body and how to use the controls properly. Do not allow anyone to operate the body without proper training and instruction. Unauthorized modification to the DownEaster body may impair the function and/or safety of the machine.

Follow safety instructions

Read all safety messages in the manual and on the DownEaster safety labels. Follow recommended precautions and safe operating practice. Maintain all safety labels on the DownEaster in good condition. Replace missing or damaged safety labels with new labels available through your DownEaster dealer.

- * Always wear safety glasses with side shields when servicing unit. Failure to do this could result in serious injury to the eyes.
- * ALWAYS disconnect vehicle's battery, prior to installation or repair of equipment.
- * Before attempting any procedure in this book, these safety instructions must be read and understood by all workers who have any part in the preparation or use of this equipment.
- * Maximum hydraulic pressure is factory set at 2800 PSI. Tampering with this setting can damage hydraulic components and result in system failure.
- * Use automatic transmission fluid only. (Dextron III) in the hydraulic reservoir. Check regularly and keep clean.

Never replace any hydraulic component, unless part is compatible with original manufacturer equipment or one that is approved by DownEaster, to not void warranty.

Any component not compatible may lead to failure of hoist, which may result in truck damage, property damage, injury or death.

WARNINGS



Never exceed the Gross Vehicle Weight Rating of truck. Failure to do so may limit the vehicle's handling characteristics. Make certain the load is evenly distributed.

Always inspect the area around the truck for safe dumping prior to operating the hoist.

Operate the hoist only when the truck is on a firm, level surface.

Always release the tailgate pins prior to raising the dump body when it is loaded. The tailgate pins should not be released with a load against the tailgate.

Do not move the truck with the body in a raised position.

Before raising the dumper, check for adequate overhead clearance. Be alert for overhead electrical wires.



Never attempt to work under the body while raised, with material in it.



Never attempt to work under the body, without the safety body prop, in upright position, resting on prop rest, under an UNLOADED body only!

Always inspect for defects: broken, worn, or bent parts or weakened areas

Always keep hands, feet, and clothing away from power-driven parts. Remember it is the owner's responsibility to communicate information on safe usage and proper maintenance of all equipment.



Always make sure personnel are clear of areas of danger when using equipment. Maintain 20' distance from all bystanders when operating.



Inspect the unit periodically for defects. Parts that are broken, missing, or worn out must be replaced immediately. The unit, or any part of it can not be altered without prior written permission from the manufacturer.



Never operate equipment when under the influence of alcohol, drugs, or medication that might alter your judgment and /or reaction time.



Keep hinge pins and bushings well greased-inspect regularly for proper operation during rotation.



Install electrical and hydraulic components AWAY from heat sources and vehicles exhaust system.

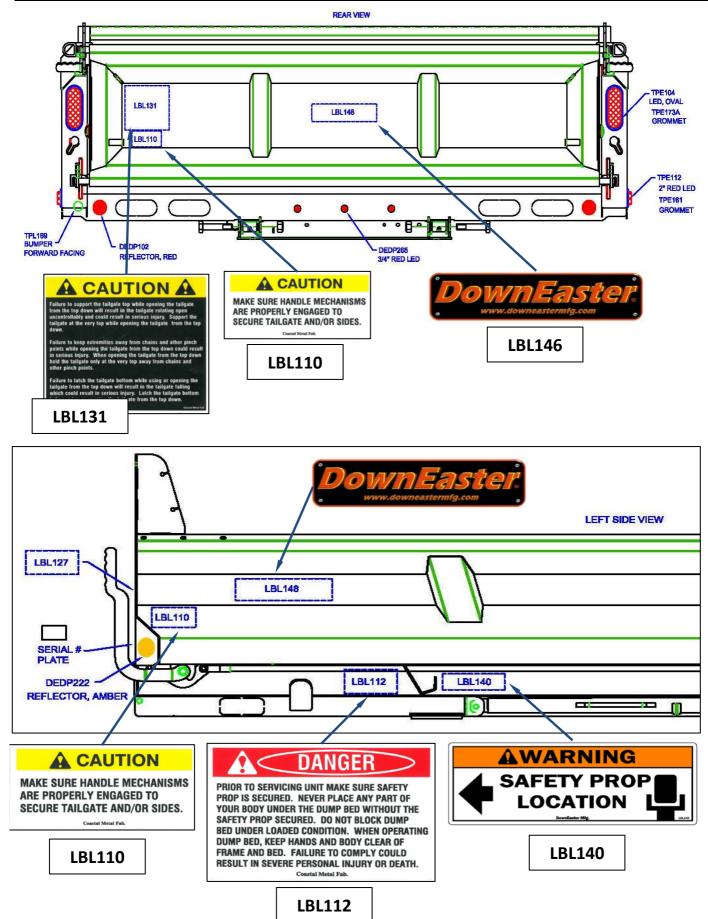


NEVER weld any component or bracket to frame of vehicle, before the rear leaf spring hanger. Chassis steel is made from Hi Tensile materials and welding to frame may result in voided warranty from manufacturer, increase stress at weld point, cracking do to material fatigue, and damage to other vehicle structure components.

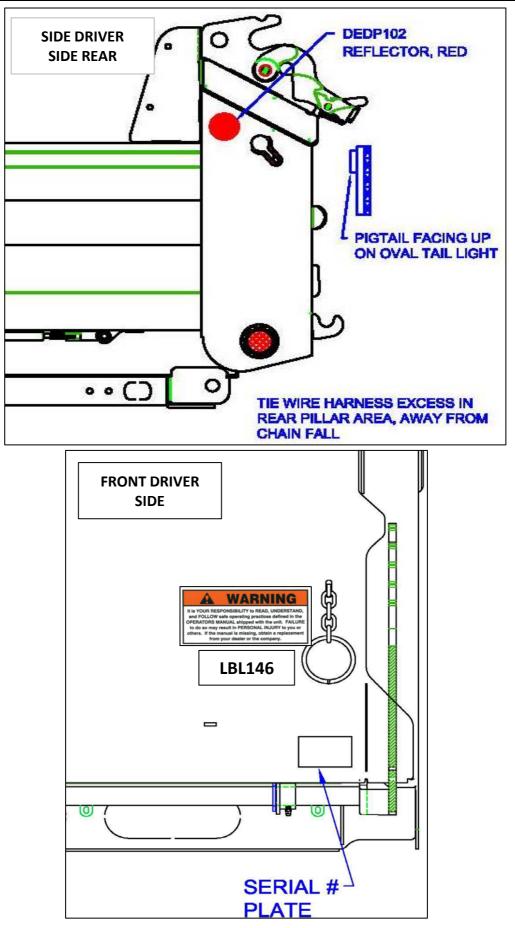


If welding is required, for rear of sub frame, or vehicle chassis, insure all gasoline lines, tanks, fittings, and electrical components are protected from damage, heat and sparks. Failure to fuel system may result in gasoline being ignited, which may result in unit, property or vehicle damage, serious injury or death.

WARNING LABEL & LIGHTING LOCATIONS

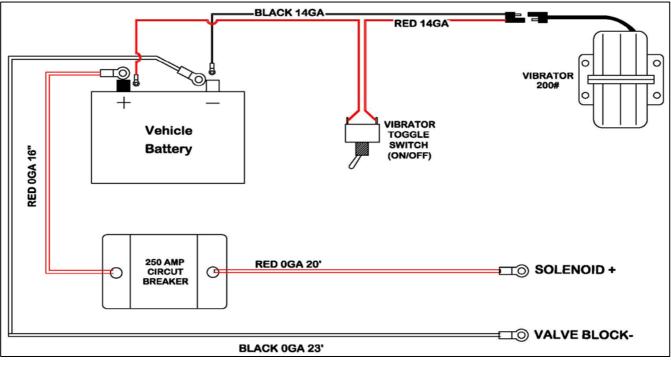


WARNING LABEL & LIGHTING LOCATIONS

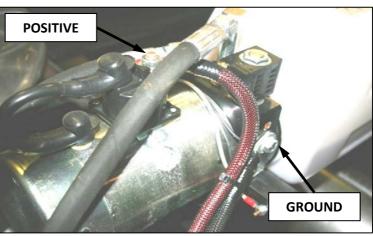


ELECTRICAL

Pump & optional vibrator



<u>DO NOT USE</u> <u>VEHICLE CHASSIS</u> <u>OR SUBFRAME AS</u> <u>GROUND</u>



For rated performance, the voltage at the power unit must be a minimum of 12VDC. This should be measured between the large terminal of the start solenoid (where the battery cable is connected) and the power unit base.

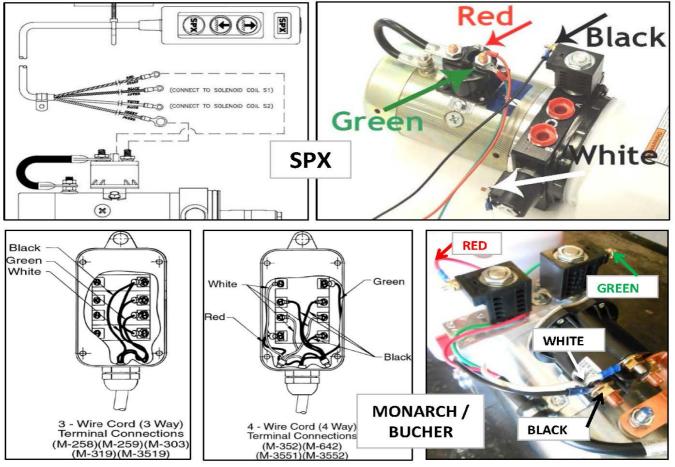
NOTE: Grounding of the power unit is just as important as the installation of the positive battery cable. Do not connect to battery terminals, unless cables are connected at the pump side first.

Connect the large terminal on the motor start solenoid to one terminal, on the 250 amp fuse breaker, with a #0 gauge battery cable at 20'. Connect the 16" #0 gauge cable to the other side terminal of the fuse breaker to the Positive side terminal of the battery. Grounding of the power unit can be completed only through a second battery cable. *If a vehicle chassis ground is used, or inline circuit breaker provided is not installed, warranty will be voided!* Connect the negative terminal on the battery to the grounding hole on the power unit base using an #0 size battery cable. Check the voltage between the large terminal on the start solenoid and the power unit base.

ELECTRICAL

Locate the push-button control, in the cab and route the cable out of the back side of cab, through a hole in the back of the cab. Connect the push-button control to the electric power unit using the 3-pin or 4 pin connector set, or manually tie in each terminal, depending on pump model series. See the pump reference on the next page for pendant wiring.

Typical Pendant control wiring



Body lighting

Install the wiring harness on the body. Anchor the wiring harness to the wire hangers on the body and the sub frame. Be sure to leave a _____ inch long loop between the anchor point on the body and the anchor point on the sub frame to allow for the body to be dumped, without damaging the wiring harness. There should be some slack in the _____ inch loop when the body is fully raised.

Insert marker lights into rubber grommets, connect the plugs on the wiring harness to the marker lights and mount the rubber grommets in the holes provided in the rear pillars and the rear rub rail.

Mount the amber reflectors on the 45 deg. front corner. Mount the red reflectors near the rear on the side posts and on the rear valance near the side ends. MOUNT DECALS IN THE PROPER PLACES. See Figure _____ for decal identification and placement.



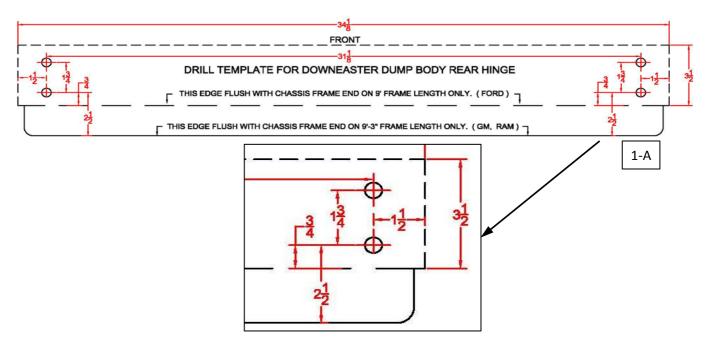
Your DownEaster dump body will come fully assembled to the SUB frame and hoist attached. (unless ordered otherwise).

This body was designed for Cab & Chassis trucks with a frame width of 34" only. Any other frame width will require custom mounting, responsible by the installer.

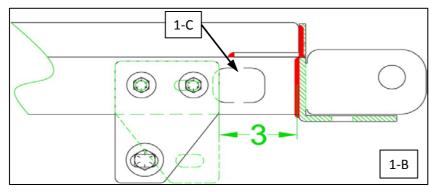
WARNING DO NOT ATTEMPT TO INSTALL ON A PICK UP BOX REMOVAL OR ANY OTHER VEHICLE NOT DESIGNED FOR 34" FRAME WIDTH

Preparation

Measure the truck frame length. For 60" CA (Cab to axle), maximum frame length from cab should not exceed 111". If frame is longer, or has been modified, or extended previously, frame will have to be shortened. (See your brands Upfitter's Guide for frame cutting and modification procedures.) The body comes with optional rear bolt kit, if welding is not desired, applicable or an option. See the drill layout below (Fig. 1-A) for drilling template. Grade 8, 1/2" hardware is utilized. Requires a 1/2" or 17/32 drill.



If an obstruction prevents the drilling of both holes, the provided sill plates must be used as close as to the rear of the sub frame as possible, within 3" of the front of the rear hinge angle. Sill plate may be reversed to accommodate obstructions. Use hardware kit DEDP376 provided. Some manufactures recommend sub frame be attached to chassis in 3 places. If so, a second set of sill plates will be needed for installation, unless welding of rear hinge has been utilized.



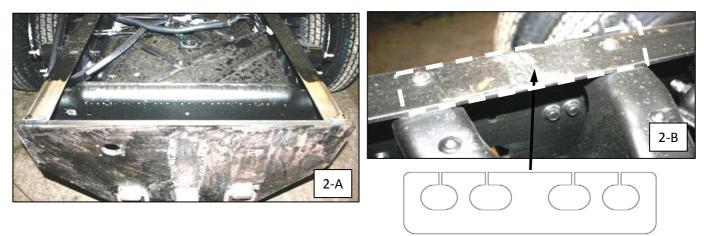
Blank cut outs have been provided (1-C), for wiring and fuel filler tubes.

Prepping Frame

Prep rear of chassis frame, ensuring all fuel lines, wiring, hoses and brake lines are protected or covered from flames or sparks.

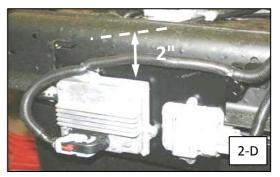
NOTE: If the truck frame has rivets in the top flange, where the hoist saddle brackets will be mounted, add spacers provided (rivet shims) between the truck frame and hoist mounting pads. Do not countersink the hoist mounting plate that extends out from the sub frame. Do not remove the rivet heads! If rivets are the round style, they may be ground flush with the rivet shim.

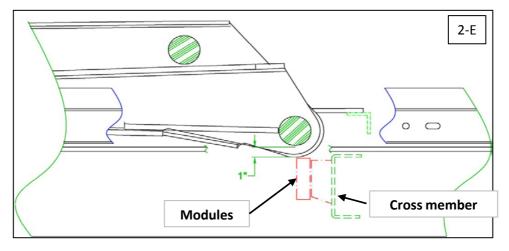
These plates are to be placed over the rivet heads for proper weight distribution. Failure to install Rivet Shim Plate will result in improper load distribution and will "*VOID WARRANTY* "



On certain brands of trucks, some electronic modules, located on cross members, may need to be relocated, as to not interfere with the scissor hoist mounting location. (example: GM modules shown





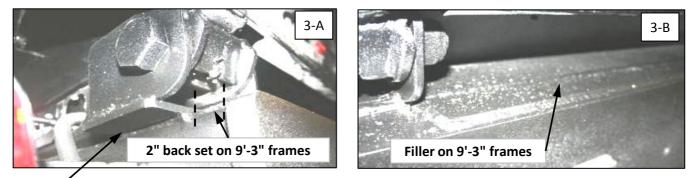


Place the body/hoist/sub frame on the truck with a minimum of 2.5" inches of cab clearance.

Note: Installing temporary jumper cables to the pump, will ease installation of 0/1 cables, as to lift the body up to better access the pump solenoid.

If rear bolt on option was chosen, align holes in rear hinge with holes drilled in chassis. 1/2' grade 8 bolts MUST be installed head up, as to not interfere with dump hinge operation. Temporary clamp sub frame in place, and remove the 1" hinge bolts and lift up the body tub rear enough to put hardware in place. Lower body back onto sub frame and loosely reinstall 1' hinge bolts

If welding rear, center hinge angle on chassis, making sure there is proper cab clearance and entire sub frame is centered on chassis. Tack weld hinge to rear of chassis frame and continue to next step. Note: If installing on a 9' frame, there may be an overhang from the filler bar coming off the hinge angle. You may cut this off, or leave in place as an overhang to protect hitch plate.



1/4" fillet weld required on both sides or chassis frame to hinge angle.

WARNING: DO NOT WELD TO CHASSIS FRAME ANYWHERE IN FRONT OF THE REAR SPRING HANGERS!

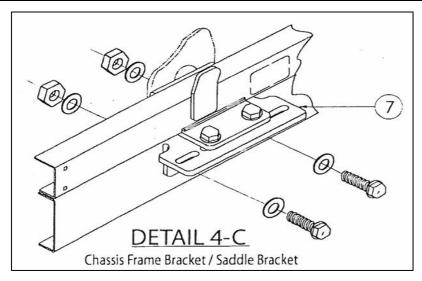
Front brackets

When Sub Frame and Hoist are positioned correctly, position Sub Frame Chassis brackets to hoist saddle pads protruding out from sub frame. The chassis brackets have 3 tabs for multiple brands, and one may have to be cut off for clearance. Example: Most GM and Ford applications will require the center tab to be removed, and Ram trucks may need to have the forward tab removed on both sides to clear front spring perch hanger. Install 2 - 1/2" x 1 - 1/2" Grade 8 Bolts, washers and nuts on both sides. Tighten bolts just enough to hold brackets in place, making sure that they are tight against frame for drilling (Slight repositioning may be required in later step)

NOTE: Prior to any drilling through frame, make sure any wiring, gas or brake lines are clear of drill path.

Drill (2) 17/32" Dia holes into truck frame using the Chassis Frame Bracket holes as guides and repeat on opposite side. This can also be done by center punching, removing brackets and then drilling. (1/4" pilot hole recommended) Next, install (2) ea 1/2"x 2" hex cap screws, washers and nuts provided on each side. Torque all hardware from and rear accordingly.

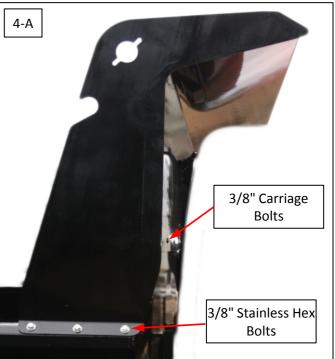
See Detail 4-C.



Cab Shield

Using the hardware kit provided, loosely mount the cab shield, starting with the outer bolts to the side plates, with the 3/8-16 stainless hex head bolts, lock washers and flat washers.

Loosely install the 3/8-16 carriage bolts through the front facing back, so just the head is protruding out. Install the washers and locknuts, making sure cab shield is parallel to body and close all gaps. Tighten accordingly.



Torque values

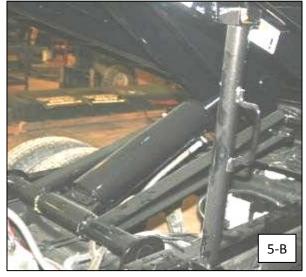
Size	Grade 2 Torque	Grade 5 Torque	Grade 8 Torque	
	\bigcirc	$\langle \rangle$	$\langle \dot{\gamma} \rangle$	
1/4-20	3-4 lb-ft	6-7 lb-ft	10-11 lb-ft	
1/4-28	4-5 lb-ft	8-9 lb-ft	11-12 lb-ft	
5/16-18	8-9 lb-ft	14-15 lb-ft	21-22 lb-ft	
5/16-24	9-10 lb-ft	15-16 lb-ft	21-22 lb-ft	
3/8-16	17-18 lb-ft	24-26 lb-ft	37-40 lb-ft	
3/8-24	19-20 lb-ft	28-30 lb-ft	40-43 lb-ft	
1/2-13	38-42 lb-ft	60-65 lb-ft	90-100 lb-ft	
1/2-20	43-47 lb-ft	70-75 lb-ft	95-105 lb-ft	
5/8-11	75-80 lb-ft	122-130 lb-ft	180-190 lb-ft	
5/8-18	85-90 lb-ft	145-150 lb-ft	200-210 lb-ft	
3/4-10	132-140 lb-ft	220-230 lb-ft	315-330 lb-ft	4-B
3/4-16	152-160 lb-ft	250-260 lb-ft	355-370 lb-ft	4-D

Once body is installed and bolted/welded to chassis, use the jumper cables to lift body to position the safety prop.



WARNING: DO NOT POWER DOWN ON SAFETY PROP!





Connect cables as shown in the electrical section of this manual.

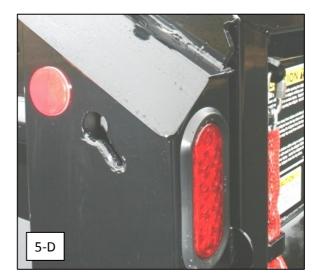
Cycle body up and down and check for leaks and any clearance issues pertaining to wiring or components on vehicle.

Tailgate

Slide the 1/4" chain through the expanded sleeving and mount with the 5/16" quick links provided. Feed chain through bottom angle keeper of the gate and into the rearward facing banjo hole for spreading. (5-C)

For lowering the gate in the down position. Remove chain from bottom keeper and insert end into the side facing banjo slot on top, and adjust accordingly. (5-D)





PRE CHECKS & OPERATIONS

WARNING! NEVER PLACE ARMS, HANDS, OR OTHER BODY PARTS UNDER THE BODY WHILE RUNNING.

Never go under a raised body without the safety prop in the raised position, failure to do so may result in a serious injury or even death. Operate the hoist from a safe location away from traffic or danger from the load! Check that body will not contact overhead obstacles while operating hoist.

Pre Operation

Thoroughly inspect the dump body for loose or damaged parts before each use. Do not use until adjustments or repairs are made.

Keep all bystanders, especially children and pets, well away from the area where the machine will be operated.

Operation

Keep hands, face, and feet away from all moving parts. Do not attempt to stop the machinery when it is moving or rotating.

Always remain alert. To prevent serious injury to yourself and to others, do not operate this equipment if you are fatigued.

There are two buttons on the hoist pendent control. The "UP" button can be pressed to raise the hoist and the "DOWN" button can be pressed to lower the hoist. If equipped with a tarp system, always retract tarp to stored position before dumping.

The level of the pump reservoir should be checked periodically and fluid added when required.

Always operate the hoist on a solid level surface and check that there are no obstacles to prevent the hoist

Always release the tailgate pins prior to raising the dump body when it is loaded. The tailgate pins should not be released with a load against the tailgate.





Move latch handle up and lock latch into stored vertical position. DO NOT STAND DIRECTLY BEHIND GATE WHEN LOADED.

PUMP PRESSURE BULLETIN

WARNING! Before any adjustments or access to pump, secure body using factory safety prop. A secondary safety lock/support prop is also recommended. Failure to support the body while accessing pump may result in personal injury or death!



The two hexagonal caps <u>must be removed</u> to access pressure screw.

Approximately 1/4 turn CLOCKWISE will turn up pressure by 400-500 PSI.

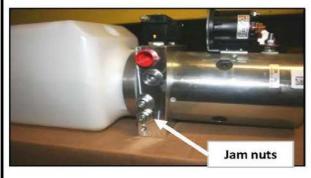
DO NOT go past 1/4 turn! Failure to pump, hoses and seals may occur.



Down pressure set @ 1,200 PSI

Up pressure set @ 2,800 to 3,200 PSI

Bucher models



The two 9/16" wrench size jam nuts, <u>must be loosened</u> to access the 3/16" Allen head pressure screw. Approximately 1/4 turn *CLOCKWISE* will turn up pressure by 400-500 PSI. DO NOT go past 1/4 turn! Failure to pump, hoses and seals may occur.



Up pressure set @ 2,800 to 3,200 PSI

Down pressure set @ 1,200 PSI

	PRESSURE RATING CHART	
	MAXIMUM FLOW RATE	6 GPM
3	MAXIMUM PREESURE RATING	2200.051
	FOR DUMP (UP) CYCLE	3200 PSI
	MAXIMUM PRESSURE RATING	1000.001
	FOR LOWERING (DOWN) CYCLE	1000 PSI

ORBM	O-Ring Boss - Male Thread
NPTM	Pipe - Male Thread
NPTF	Pipe - Female Thread
ЛСМ	JIC 37° - Male Thread
ЛCF	JIC 37° - Female Thread

TROUBLE SHOOTING

If malfunction of the power unit should occur, inspect all hydraulic lines and electrical connections, and check for a good ground. Many malfunctions are caused by loose connections. Check the reservoir for proper fluid level (approximately 1/2" from top of tank when dumper is down). If fluid must be added, use clean Dextron III. Please keep in mind when servicing this unit that the most common cause of system failure is dirt!!! Keep service area clean.

In most cases a leaking relief valve is caused by dirt. Unscrewing relief valve and cleaning thoroughly can often correct this.

1. If unit does not operate at all: Malfunction is due to switch, solenoid, motor, dead battery, corroded terminals, or bad connections at the pump motor package.

2. If unit operates slowly and/or with low pressure: Malfunction is due to a leaking relief valve, clogged filter, worn pump, corroded or bad battery terminals, or hydraulic fluid that is too heavy.

3. If unit is unable to hold pressure: Malfunction is due to a leaking relief valve.

Unit does not lift but pump runs.

- 1. Fluid low
- 2. System is hydra locked and needs be bled.
- 3. Pump pressure is set too low.

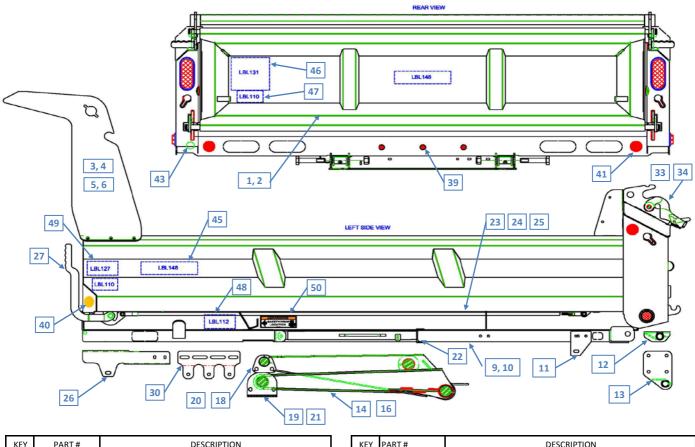
Unit does not go down.

- 1. Down coil is bad and needs replaced.
- 2. Down valve cartridge needs to be replaced.
- 3. Connection to the down coil is bad.

Pump motor does not run.

- 1. Motor solenoid is bad.
- 2. Connections from the battery are loose or dirty.
- 3. Ground connection is loose or not grounded properly.
- 4. Battery needs to be charged.

REPLACEMENT PARTS



KEY	PART #	DESCRIPTION		KEY	PART #
1	DEDT2096	Tailgate, 20" high, for 13" side wall		N/A	DEDM62
2	DEDT2096S	Tailgate, 20" high, for 13" side wall STAINLESS		27	DEDM62
3	DEDM300	Cab shield, 12" overhang		28	DEDM62
4	DEDM310	Cab shield, 24" overhang		29	DEDP210
5	DEDM312S	Cab shield, 12" overhang, STAINLESS		30	DEDM43
6	DEDM314S	Cab shield, 24" overhang, STAINLESS		N/A	DEDM44
N/A	DEDM460	Mud flap bracket, painted black		N/A	DEDM44
N/A	DEDM460S	Mud flap bracket, Stainless		33	DEDM60
9	DEDM522	9' sub frame, no hoist		34	DEDM60
10	DEDM524	10' sub frame, no hoist		N/A	TPH108
11	DEDP376	Sill plate x 1		N/A	TPH186
12	HP112	Dump hinge, weld on		N/A	TPH187
13	HP116	Dump hinge, Bolt on, stainless bodies		N/A	DEDP502
14	HD-512B	Hoist, 9' body, 5" x 16" stroke, no cylinder		39	DEDP265
N/A	DEDP217	Cylinder, 5" x 16" stroke		40	DEDP222
16	HD-515B	Hoist, 10' & 11' body, 5.5" x 20" stroke, no cylinder		41	DEDP102
N/A	DEDP218	Cylinder, 5.5" x 20" stroke		N/A	DEDP100
18	DEDM511	Upper lift shaft, hd-512 only		43	TPL169
19	DEDM512	Lower lift shaft and pad, HD512 only			
20	DEDM517	Upper lift shaft, HD-515 only		KEY	PART #
21	DEDM518	Lower lift shaft and pad HD515 only		45	LBL148
22	DEDM640	Prop Rod, 25", round style	LABELS	46	LBL131
23	DEDM630	Linkage Rod, 9' body	LAB	47	LBL110
24	DEDM632	Linkage Rod, 10' body		48	LBL112
25	DEDM634	Linkage Rod, 11' body		49	LBL127
				50	LBL140

KEY	PART #	DESCRIPTION
N/A	DEDM620	Latch assembly rear, bolt on style w/ bearings
27	DEDM621	Latch assembly front, bolt on style w/ bearings
28	DEDM626	Bent anchor bolt x 1
29	DEDP210	Adjustable yoke end, zinc, x 1
30	DEDM436	Chassis brackets, x 2
N/A	DEDM442	Fuel filler neck bracket, x 1, painted
N/A	DEDM442S	Fuel filler neck bracket, x 1, stainless
33	DEDM604	Upper latch handle and lock, Painted x1 (specify L or R)
34	DEDM604S	Upper latch handle and lock, Stainless x1 (specify L or R)
N/A	TPH108	Hydraulic pump, power down
N/A	TPH186	Hose, 27"
N/A	TPH187	Hose, 45"
N/A	DEDP502	Battery cable set, 0/1 Gauge.
39	DEDP265	3/4" LED marker light, RED, round, w/ grommet
40	DEDP222	Reflector, 2 3/8" round, Amber
41	DEDP102	Reflector, 2 3/8" round, Red
N/A	DEDP100A	250 Amp MEGA Blade Fuse
43	TPL169	Rubber bumper, 1 1/2" OD
KEY	PART #	DESCRIPTION
45	LBL148	DownEaster logo
46	LBL131	Label, failure to support the tailgate top

Label Caution make sure handle mechanisms.

Label, Safety prop location

Label Danger prior to servicing make sure safety prop is.

Label Warning it is your responsibility to read, understand ...

MATERIAL CHART

Material Weight – Pounds per Cubic Yard					
AGGREGATE TYPE	WEIGHT IN LBS.	2 Yards	3 Yards	4 Yards	5 Yards
Asphalt	2,700	5400	8100	10800	13500
Concrete (gravel or stone mix)	4,050	8100	12150	16200	20250
Concrete (average wet mix)	3,730	7460	11190	14920	18650
Clay (dry)	2,300	4600	6900	9200	11500
Clay (wet)	2,970	5940	8910	11880	14850
Crushed Stone	2,700	5400	8100	10800	13500
Topsoil (loose)	2,050	4100	6150	8200	10250
Topsoil (packed)	2,565	5130	7695	10260	12825
Topsoil (wet)	3,375	6750	10125	13500	16875
Gravel (dry) 3/4	2,565	5130	7695	10260	12825
Gravel (wet) 3/4	3,375	6750	10125	13500	16875
Limestone (solid)	4,480	8960	13440	17920	22400
Limestone (crushed)	2,565	5130	7695	10260	12825
Pebbles (3/8 pea)	2,700	5400	8100	10800	13500
Rock (2-6")	3,200	6400	9600	12800	16000
Rip Rap (1-4")	4,000	8000	12000	16000	20000
Sand (dry)	2,750	5500	8250	11000	13750
Sand (wet)	3,300	6600	9900	13200	16500
Salt (bulk)	2,160	4320	6480	8640	10800
Salt/Sand Mix	2,320	4640	6960	9280	11600
Snow (packed)	1,350	2700	4050	5400	6750
Stone (crushed - average)	2,700	5400	8100	10800	13500
Water	1,700	3400	5100	6800	8500

All posted weights were gathered from the EPA & NTEA.

Coastal Metal Fab, Inc. Warranty

General Provisions: Coastal Metal Fab, Inc. warrants its products to be free from manufacturing defects under <u>normal use and ser</u>vice conditions and will repair or replace, at its option, any products or components thereof that are proven to be defective during the warranty period as specified below. This warranty extends to the original retail purchaser only and commences on the date of original purchase. Coastal Metal Fab's maximum liability under this warranty is limited to the cost of the repair or replacement of any defective products or components, and excludes any incidental or consequential damages. The warranty period is as follows:

DownEaster brand Dump Trailers and Dump Inserts -- 2 years from date of purchase

DownEaster brand Salt and Sand spreaders -- 1 year from date of purchase

DownEaster brand Dump Bodies -- 2 year from date of purchase or 24,000 miles

<u>Items Warranted Separately:</u> This warranty does not apply to certain components that are warranted separately by the original equipment manufacturers including, but not limited to, electric or gasoline motors, hydraulic pumps, hydraulic cylinders, tires, wheels, and axles.

Items not Covered: Coastal Metal Fab, Inc. is not responsible for the following:

- Premiums charged for overtime labor requested by the purchaser.
- Transportation to and from the dealership or service calls made by the dealer.
- Products purchased used.
- Products that have been altered or modified in ways not approved by Coastal Metal Fab.
- Depreciation or damage caused by normal wear and tear, lack of reasonable and proper maintenance, failure to follow operating or installation instructions, misuse, lack of proper protection during storage or accidents.
- Normal maintenance costs.

<u>Parts Replaced under Warranty:</u> If Coastal Metal Fab, Inc. elects to repair a defective product or component thereof, Coastal metal Fab will, at its discretion, utilize either new or remanufactured parts or components. If any such part or component proves to be defective within 12 months of installation or before expiration of this warranty, whichever is later, Coastal Metal Fab, Inc. will repair or replace, as it elects, such defective part or component.

<u>Securing Warranty Services</u>: To obtain service under this warranty, the original retail purchaser must request warranty service during the applicable period of warranty from a dealer authorized to sell the product being serviced. When making such a request, the purchaser must present evidence of the product's original purchase date, and make the product available for service at the dealer's place of business.

<u>Limitations</u>: The selling dealer has no authority to make any representation or promise on behalf of Coastal Metal Fab or to modify the terms or limitations of this warranty in any way. Coastal Metal Fab shall have sole discretion to determine whether a product or component is defective. Coastal Metal Fab reserves the right to discontinue or modify any of its products and, if Coastal Metal Fab elects to replace a defective product under this warranty which has been discontinued or modified, it may do so with a product deemed by Coastal Metal Fab to be of comparable quality and function.

THIS WARRANTY IS GRANTED IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCE SHALL COASTAL METAL FAB BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY NATURE RESULTING FROM ANY DEFECT IN THE PRODUCT OR ITS COMPONENT PARTS. SOME STATES DO NOT ALLOW LIMITATIONS ON OR EXCLUSION OF IMPLIED WARRANTIES OR INCIDENTAL AND CONSEQUENTIAL DAMAGES SO THE ABOVE EXCLUSIONS MAY NOT APPLY TO YOU.

Contact your local dealer or distributer for replacement parts and technical

support or visit

www.downeastermfg.com

2016