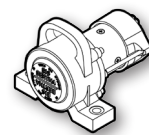




# VIBCO INSTRUCTION MANUAL

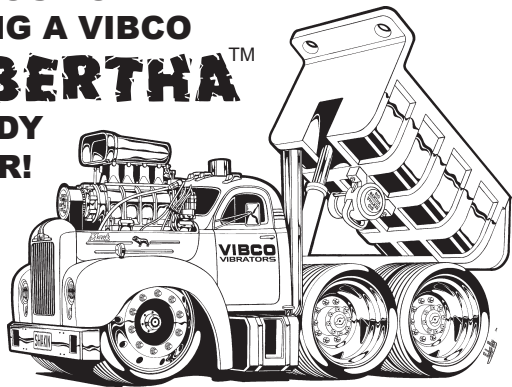


# BIG BERTHA DUMP BODY VIBRATORS

**WARNING:** Failure to read and follow these installation instructions and safety precautions could result in personal injury, equipment damage, shortened service life or unsatisfactory equipment performance. All information in this document is vital to the proper installation and operation of the equipment. It is important that all personnel who will be coming in contact with this product thoroughly read and understand this manual.

## 1 START

THANK YOU FOR CHOOSING A VIBCO **BIG BERTHA™** DUMPBODY VIBRATOR!



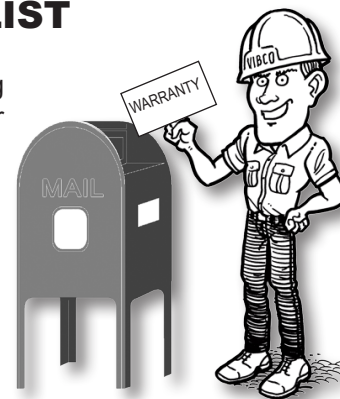
## 2 MOUNTING INSTRUCTIONS CHECKLIST



The warranty is void if vibrator is not properly installed. During installation follow and check off the following steps and your vibrator should provide you with years of trouble-free service.

**BIG BERTHA** comes with a mounting plate!

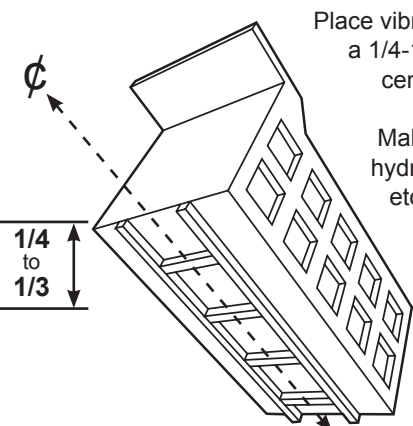
- Determine vibrator placement on dump body.
- Select thickness of mounting plate.
- Determine length of channel iron
- **STITCH** weld mounting plate to channel iron.
- **STITCH** weld channel iron to dump body.
- Place vibrator on mounting plate.
- Check the mounting plate for warping.** Secure firmly.
- Install safety chain or wire.
- Connect electrical wiring.
- **FILL OUT WARRANTY CARD!!!!**



**DON'T FORGET TO MAIL IN YOUR WARRANTY CARD!**

ADDITIONAL DETAILS AVAILABLE ONLINE AT [www.vibco.com](http://www.vibco.com)

## 3 VIBRATOR PLACEMENT & FORCE SETTINGS



Place vibrator underneath body a 1/4-1/3 length from front & centered between sills or main beams\*. Make sure vibrator clears hydraulic tanks, gas tanks etc., when the body is in down position\*\*.

CUBIC YARDAGE	BODY LENGTH	BIG BERTHA
2 - 8	10 - 12	DC-3500-1500
5 - 10	13 - 14	DC-3500-2500
8 - 16	15 - 16	DC-3500-2700
15 - 30	17 - 40	DC-3500

Reduced force kits available from VIBCO.

\* Vibrator CAN be mounted on the side of dump body. Call or go online for proper side mount specifications.

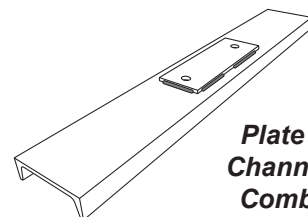
\*\* Handle can be removed if needed. Removing it will not effect performance. Or exchange for handleless model DC-3500-S.

## 4 PLATES & CHANNEL SELECTION



The success of Big Bertha™ relies on proper mounting with a plate & channel combo.

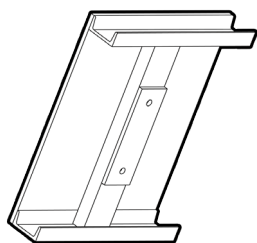
Channel iron should be 6" wide with custom lengths to fit the specific dump body style. Reference panel 5 to identify which mounting style you have to determine channel length.



## 5 MOUNTING STYLE

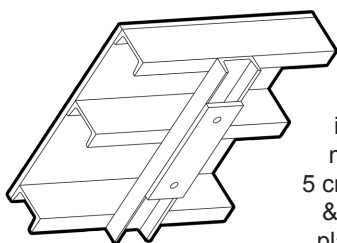
For aluminum or heated bodies and other types of mounts call VIBCO 401-539-2392

### FOR SMALLER DUMP BODIES



**STITCH** weld a 6 in. channel between cross members & to body (skip weld to body) & weld mounting plate to middle of channel iron.

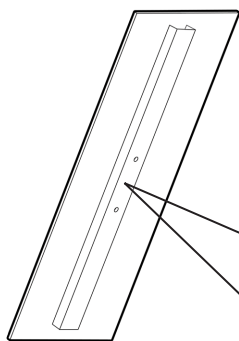
### FOR DUMP BODIES WITH CROSS MEMBERS



Be sure unit is directly over intersection of stiffener & channel iron.

(unheated) Stitch weld a 4 in. channel iron, inverted, over a minimum of 3 to 5 cross members & weld mounting plate to middle of channel iron.

### FOR CROSS MEMBER LESS DUMP BODIES

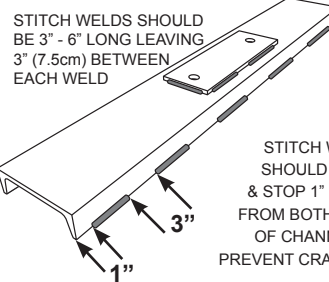


Drill 13/16" holes in channel aligned with tapped holes in mounting plate. Stitch weld mounting plate to underside of channel iron starting 1/2" in from the ends leaving approximately 2" between welds. **STITCH** weld 6 in. channel 4' to 6' long centered on the dumpbody 1/4 of the body length from the front of the dump body.

END VIEW

## 6 STITCH WELD

**DO NOT MOUNT VIBRATOR DIRECTLY TO SURFACE OF DUMP BODY!!!** Always use mounting plate & channel



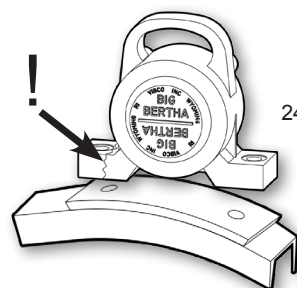
800-633-0032 for Mounting Plates & Brackets, Spare & Replacement Parts and 24/7 Technical Support

## 7 BOLTING PROCEDURE

Use channel iron, NOT angle iron to mount!

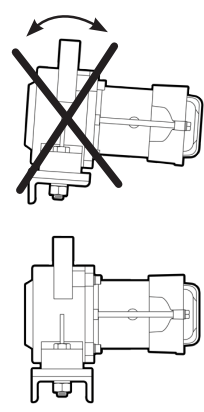
### CAUTION:

A warped mounting plate can cause damage to the vibrator housing. When mounting, secure vibrator with one bolt (use Loctite 242 or equal) & lock washer. Shim opposite foot (overshim slightly), then tighten the other bolt.

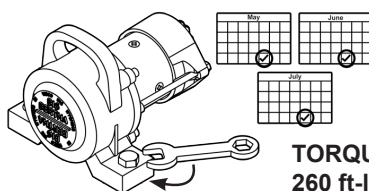


**DO NOT** run unit unless bolted down!

Be sure surface is smooth, flat & free of any debris.



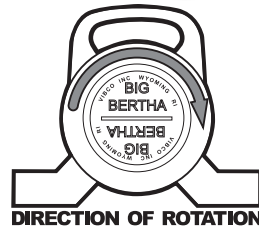
A loose vibrator can cause damage to the truck body & may also get electrically overloaded, which could cause motor burnout.



TORQUE = 260 ft.-lbs.

Make sure the vibrator is secured tightly. Retighten after the first 10 - 15 minutes of operation & check them periodically to maintain proper tightness.

Check those bolts for tightness!



DIRECTION OF ROTATION

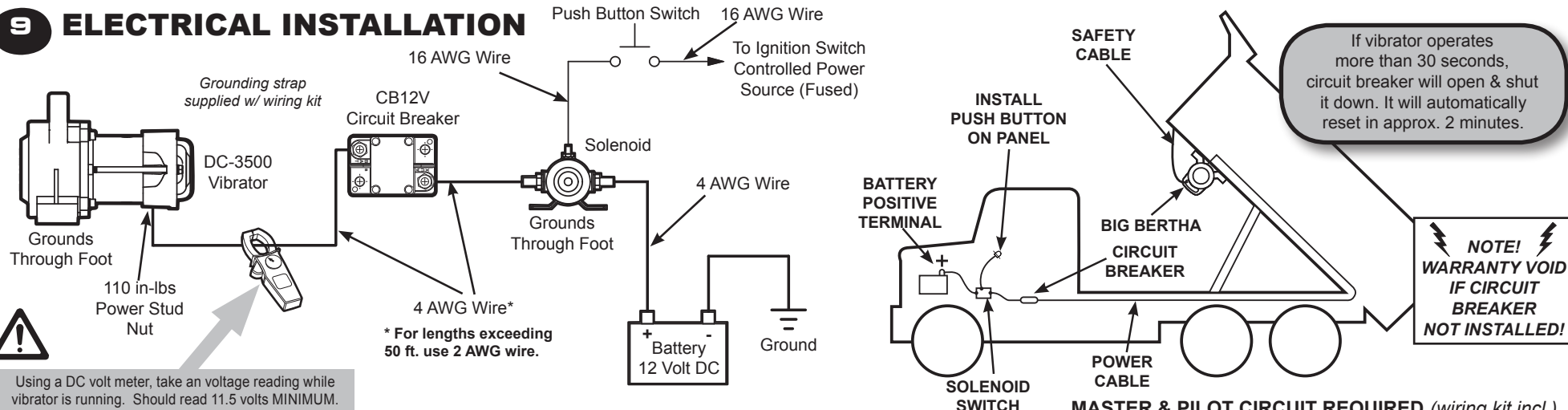
## 8 RESTRAINT



**ALWAYS INSTALL SAFETY CABLE or CHAIN**

Mount one end to the vibrator and the other to the hopper or bin **above** the vibrator **NEVER ATTACH TO THE MOUNTING PLATE!**

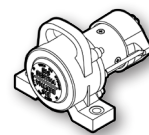
## 9 ELECTRICAL INSTALLATION



Using a DC volt meter, take an voltage reading while vibrator is running. Should read 11.5 volts MINIMUM.



# VIBCO INSTRUCTION MANUAL



# BIG BERTHA DUMP BODY VIBRATORS

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## 10 DUTY CYCLE & OPERATION

Model DC-3500 is rated for:

**INTERMITTENT DUTY ONLY**



**MAXIMUM RUN TIME = 30 sec.**  
(with MINIMUM one (1) minute off time)

**⚠ DO NOT EXCEED ⚠  
20 MIN RUN TIME IN ANY 60 MIN PERIOD**



Best operation is short 3-5 second ON cycles allowing the unit to spin down and go through a range of frequency. Cycling the ON/OFF times will aid in faster clean out of the dumpbody. Timers are available thru VIBCO to automate this system.

## 13 TROUBLESHOOTING

### 1) Vibrator doesn't start or runs and stops.

- Make sure vibrator is getting power. Check fuses and make sure all connections are properly secured.
- Make sure the vibrator is properly grounded to the frame. If vibrator is not mounted to main frame, such as on a pivoted truck body, make sure body is grounded to main frame.
- The vibrator is designed to ground through the foot. For more positive grounding, use the grounding strap provided in the wiring kit.
- Make sure push button or on/off switch and solenoid are working. If damaged or non functioning, replace.
- Some newer trucks have additional circuit breakers wired in for accessories. Check for hidden circuit breakers and make sure your power is direct to the battery terminal.

### 2) Vibrator is running slow (loss of RPM). I did a voltage test on the vibrator and it reads less than 11.5 volts:

- Was test done with truck engine running? If not, test again with engine running. If voltage is now above 11.5 volts, vibrator should be operated only when engine is running (or have truck's electrical system checked).
- If voltage is still below 11.5 volts, test voltage at battery. Battery voltage should be a minimum of 13 volts. If less than 13 volts, have truck's electrical system checked.
- If battery voltage is 13 volts or higher, check power wire to vibrator. Wire gauge should be minimum of 4 AWG for lengths up to 50 ft.; 2 AWG for lengths of 51 ft. to 100 ft. NOTE: power cables can deteriorate over time, losing their current carrying capacity.
- Check ground connection of vibrator — grounds through foot to dump body. A good ground is critical to proper vibrator operation. Make sure that bottom of vibrator feet and mounting plate are clean bare metal, and corrosion free. If an adequate ground connection cannot be achieved through the foot, a separate grounding strap may need to be installed.
- Check the brushes and change if necessary. The life of brushes is approximately 1,000 hours. Brush life is dependent on the duty cycle.

### 3) An unusual sound (banging) coming from the vibrator.

- Check the vibrator mounting bolts for tightness. The vibrator could be loose.
- New installations may be too weak. Reinforce mount area immediately by adding stiffeners-angle iron or channel iron.
- Look for cracks in the housing, mounting angle iron or plates. Also look for fatigued or cracked welds. Repair and reinforce immediately.

**ADDITIONAL DETAILS AVAILABLE ONLINE AT [www.vibco.com](http://www.vibco.com)**

## ADJUSTING ECCENTRICS ON DC-3500ADJ\*

### To change eccentric settings:

1. Unscrew (2) 3/8-16 x 6-1/2 hex head bolts.
2. Remove dust cover.
3. Pull motor field away from armature assembly.
4. Unscrew 3/8-16 x 1-1/4 socket head bolts.
5. Remove cover by unscrewing (3) 10-24 x 3/8" screws & using longer screws in (3) threaded holes in mounting cover, turn screws to draw motor assembly out of housing
6. Loosen (2) 3/8-16 x 1/2 set screws on outer most eccentric and adjust to desired output according to chart at right.

### To reassemble:

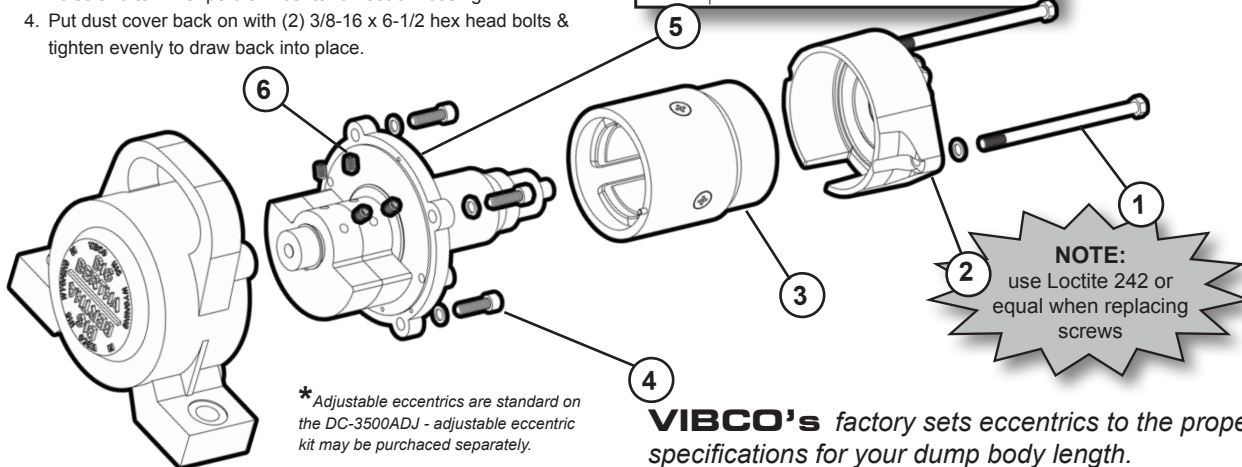
1. Put eccentric & armature assembly back onto housing using 3/8-16 x 1-1/4 socket head bolts with disk locks.
2. Make sure motor shaft spins freely before reassembling. If it doesn't, tap front of the mounting cover until it does.
3. Put motor field back on armature, spreading brushes over commutator. NOTE: be sure field pin lines up with of mounting cover holes and terminal port is in center of feet of housing!
4. Put dust cover back on with (2) 3/8-16 x 6-1/2 hex head bolts & tighten evenly to draw back into place.

### ECCENTRIC SETTINGS

		Standard Factory Setting 3500 lbs. of force for Dump Body Lengths 17 - 40 ft.
		2700 lbs. of force for Dump Body Lengths 15 - 16 ft.
		2500 lbs. of force for Dump Body Lengths 13 - 14 ft.
		1500 lbs. of force for Dump Body Lengths up to 10 - 12 ft.

**Adjustable  
Eccentric  
Kit available**

**Gasket seals  
and rubber  
washers should  
be used  
for operation  
in a wet  
environment**



\*Adjustable eccentrics are standard on the DC-3500ADJ - adjustable eccentric kit may be purchased separately.

**VIBCO's factory sets eccentrics to the proper specifications for your dump body length.**

### Warranty

All warranty claims must be submitted to VIBCO for approval prior to any repairs being done. Failure to do so will void any and all warranty coverage. All repairs will be done at the VIBCO factory.

### Errors, Shortages & Complaints

Complaints concerning goods received or errors should be made at once. Claims must be made within five days after receipt of goods. Clerical errors are subject to correction. Damage during shipping must be reported to the carrier, not VIBCO.

### Returning Parts \*\*

Parts should not be returned to VIBCO without prior authorization. Call VIBCO's customer service department at 800-633-0032 (800-465-9709 in Canada) for a Return Goods Authorization (RGA) number. A return authorization will be emailed or faxed to you. Use this as your packing slip. Return shipping must be prepaid. Material returned may be subject to a 10% restocking fee. All returned shipments should clearly display your name, address and original invoice number to ensure proper credit.

\*\* Orders for custom equipment built to customer's specifications are not returnable.

### Product Changes

VIBCO reserves the right to make changes in pattern, design or materials when deemed necessary, without prior notice or obligation to make corresponding changes in previous models. To be sure of exact mounting dimensions, it is recommended that you obtain a certified dimensional drawing from the factory.

### Ordering Spare Parts

Parts can be ordered through authorized distributors or from VIBCO's Spare Parts Department. The following data should be provided when placing your spare parts order:  
From label: Model number of unit.  
From spare parts list: Reference number, part number, description & quantity required.  
Shipping instructions: Specify shipping point and method of shipping.

**For custom mounting applications or any other questions:**

**800-633-0032**

or

**[vibrators@vibco.com](mailto:vibrators@vibco.com)**

