



VENCO®

HOISTS



VC6628

INSTALLATION & OWNER'S MANUAL



Sold and Serviced by:

TABLE OF CONTENTS
VC6628 OWNER'S MANUAL

<u>SECTION 100</u>	<u>DESCRIPTION & SPECIFICATIONS</u>
662851	VC6628 CAPACITIES
628021	VC628 / 6628 MOUNTING DIMENSIONS
662864	HOIST LIFTING HOLE LOCATIONS
<u>SECTION 150</u>	<u>SAFETY</u>
416756	READ THIS FIRST
416086	IMPORTANT WARNING
416128	DECAL LOCATIONS
416644	BODY PROP OPERATION GUIDE - GENERAL INFORMATION
416645	BODY PROP OPERATION GUIDE - ILLUSTRATIONS & INSTRUCTIONS
628820	DECAL DRAWING & LIST
<u>SECTION 200</u>	<u>INSTALLATION</u>
520072	MOUNTING INSTRUCTIONS
662861	REAR HINGE TO BED MOUNTING INSTRUCTIONS
520074	MOUNTING INSTRUCTIONS
520075	MOUNTING INSTRUCTIONS
520076	MOUNTING INSTRUCTIONS
520077	MOUNTING INSTRUCTIONS
520093	LIFT ANGLE INSTALLATION
620246	CABLE / HANDLE ASSEMBLY INSTRUCTIONS
416755	PTO PUMP CABLE INSTALLATION
416763	DIRECT MOUNT ("SPLIT") PUMP CONFIG. DIAGRAM
416812	BI-ROTATIONAL PUMP INSTALLATION
552004	SPDG HOSE CONNECTION DIAGRAM; VC5520 - VC6628
▲ 416640	HYDRAULIC POWER UNIT GROUND CABLE INSTALLATION
▲ 6368	HYDRAULIC POWER UNIT GROUNDING
416287	WILLIAMS PTO WARNING
<u>SECTION 300</u>	<u>MAINTENANCE & SERVICE</u>
520079	HOIST MAINTENANCE AND OPERATION
520054	GREASE POINTS
520081	BODY PROP USE AND WARNINGS
<u>SECTION 400</u>	<u>REPLACEMENT PARTS</u>
662853	VC6628 REPLACEMENT PARTS DRAWING
662854	VC6628 REPLACEMENT PARTS LIST
620245	PTO PUMP CABLE REPLACEMENT PARTS
▲ USER NOTES #1	
▲ USER NOTES #2	
▲ WARRANTY POLICY	

SECTION 100

DESCRIPTION

&

SPECIFICATIONS

VENCO HOIST MODEL VC6628

CAPACITIES ARE BASED ON WATER LEVELS AND NON-DIMINISHING LOADS. DUE TO THE VARIATIONS IN TRUCK EQUIPMENT AND CAB-AXLE LENGTHS (CA), *THE DATA PROVIDED ON THIS PAGE IS TO BE USED AS A GUIDELINE ONLY.*

DUMP CLASS: 90

CONVERSION CLASS: J

WEIGHT: 1200 LBS.

POWER SOURCE:

ES - ELECTRIC SINGLE CTING

ED - ELECTRIC DOUBLE ACTING

PD - POWER TAKE OFF DOUBLE ACTING

ADDITIONAL DATA:

DUAL CYLINDERS, 6" BORE x 28" STROKE

CA: 138"-252"

CT: 126"-240"

DUMP ANGLE: 40° - 50°

MOUNTING HEIGHT REQ'D: 10-1/2"

C O N V E R S I O N A P P L I C A T I O N S V C 6 6 2 8					
B O D Y	C A	C T	O . H .	4 5 ° (T O N)	5 0 ° (T O N)
18'	138"	126"	48"	35.7	32.4
18'	144"	132"	42"	32.4	29.4
18'	150"	138"	36"	29.7	27.0
18'	156"	144"	30"	27.4	24.9
18'	162"	150"	24"	25.5	23.1
18'	168"	156"	18"	23.8	21.6
18'	174"	162"	12"	22.3	20.2
18'	180"	168"	6"	21.0	19.0
20'	162"	150"	48"	29.7	27.0
20'	168"	156"	42"	27.4	24.9
20'	174"	162"	36"	25.5	23.1
20'	180"	168"	30"	23.8	21.6
20'	186"	174"	24"	22.3	20.2
20'	192"	180"	18"	21.0	19.0
20'	198"	186"	12"	19.8	18.0
20'	204"	192"	6"	18.8	17.0
22'	186"	174"	48"	25.5	23.1
22'	192"	180"	42"	23.8	21.6
22'	198"	186"	36"	22.3	20.2
22'	204"	192"	30"	21.0	19.0
22'	210"	198"	24"	19.8	18.0
22'	216"	204"	18"	18.8	17.0
22'	222"	210"	12"	17.8	16.2
22'	228"	216"	6"	17.0	15.4
24'	210"	198"	48"	22.3	20.2
24'	216"	204"	42"	21.0	19.0
24'	222"	210"	36"	19.8	18.0
24'	228"	216"	30"	18.8	17.0
24'	234"	222"	24"	17.8	16.2
24'	240"	228"	18"	17.0	15.4
24'	246"	234"	12"	16.2	14.7
24'	252"	240"	6"	15.5	14.1

D U M P B O D Y A P P L I C A T I O N S V C 6 6 2 8 *					
B O D Y	C A	C T	O . H .	4 5 ° (T O N)	5 0 ° (T O N)
12'	102"	90"	12"	35.7	32.4
13'	114"	102"	12"	32.4	29.4
14'	126"	114"	12"	29.7	27.0
15'	138"	126"	12"	27.4	24.9
16'	150"	138"	12"	25.5	23.1
18'	174"	162"	12"	22.3	20.2

* VENCO hoists are designed for and intended to be used on stationary trucks dumping on firm and level ground. Spreading applications and/or shock unloading are strictly prohibited and will void this warranty.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
CAPACITY CHART

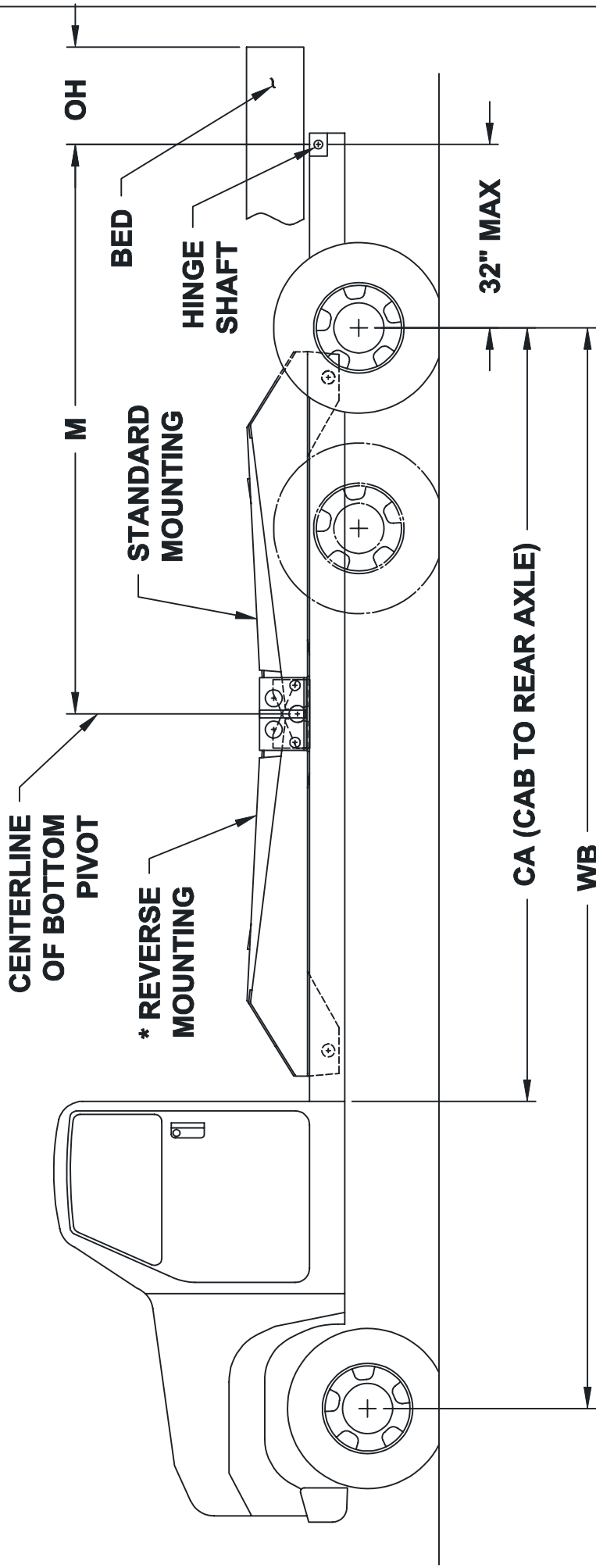
VC 6628 HOIST

DATE
01-23-15D

SUPERSEDES
03-10-05C

SECTION
H100

662851



VC 628 AND VC 6628 HOISTS

STANDARD MOUNTING

DUMP ANGLE	M
40°	146"
45°	130-1/2"
50°	118-1/4"

*REVERSE MOUNTING

DUMP ANGLE	M
40°	140"
45°	129"
50°	115"

FIGURE 1.B



TITLE
MOUNTING DIMENSIONS

VC 628 / VC 6628 HOIST

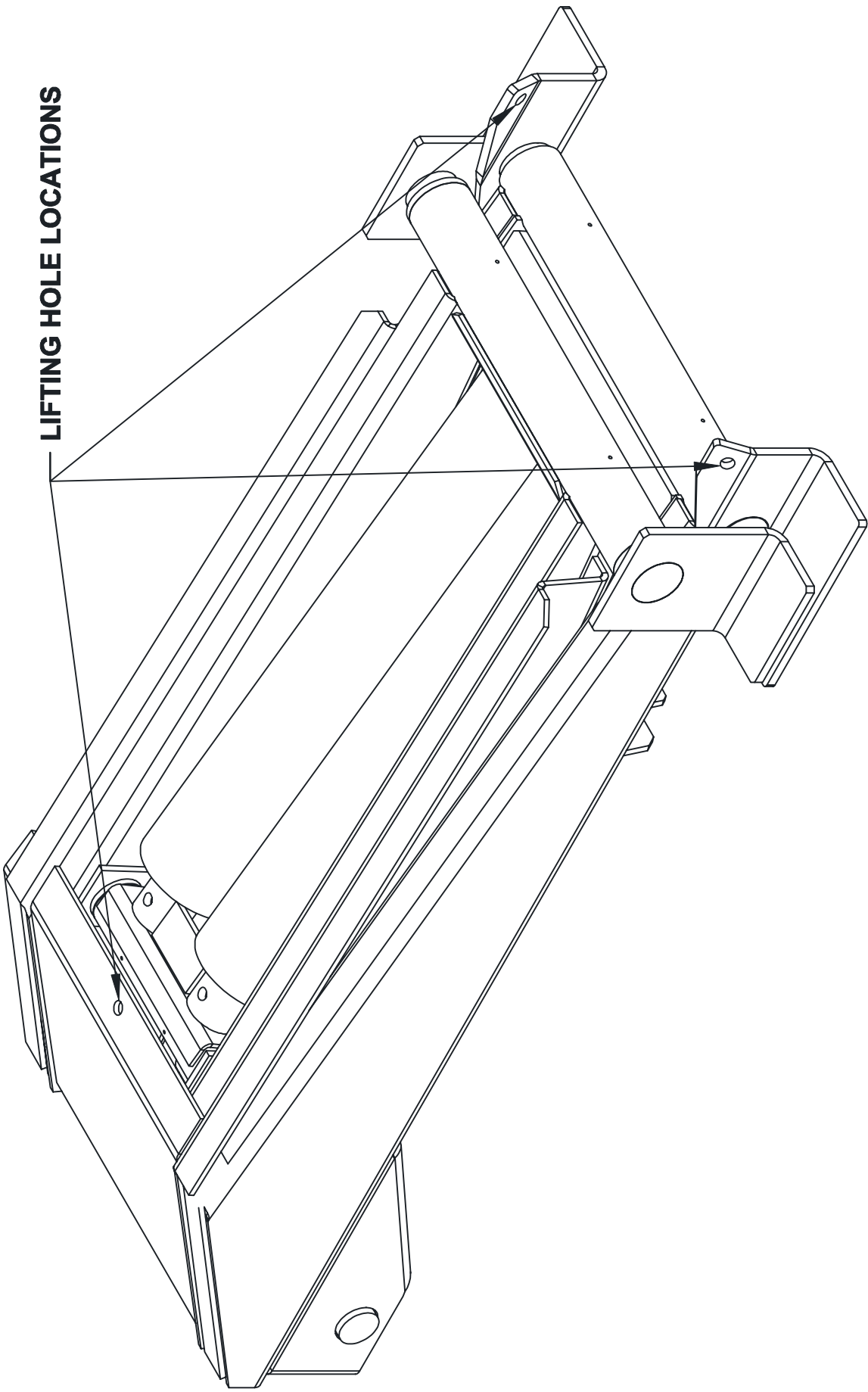
DATE
3-10-05A

SUPERSEDES
9-30-98

SECTION
H100

628021

LIFTING HOLE LOCATIONS



 VENCO MANUFACTURING, INC.	TITLE	HOIST LIFTING HOLE LOCATIONS	
	DATE	3-11-05A	SECTION
	SUPERSEDES	2-6-02	662864
	VC 6620 - VC 6628		

SECTION 150

SAFETY

READ THIS FIRST

BE SURE TO DO THE FOLLOWING AND YOU WILL AVOID THE MOST COMMON INSTALLATION MISTAKES.

1. HOIST MUST BE LEVEL
SEE PAGE: 416086, 416272.
2. MUST HAVE 2" SPACE
SEE PAGE: 416086.
3. SUFFICIENT OVERHANG
SEE PAGE: 520069, 620010, 620103, 620104, 628020, 552010, 662052 OR 662851.
4. USE PUMP WHICH MEETS VENCO SPECIFICATION
SEE PAGE: 416811.



TITLE	CAUTION NOTE	DATE	12-15-04	SECTION	-
	-	SUPERCEDES	-		416756

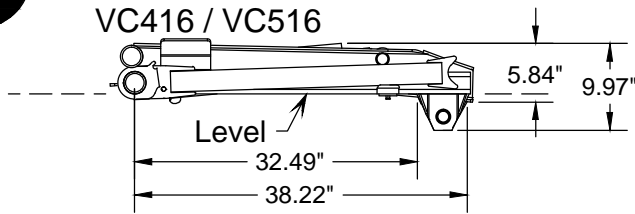
!! IMPORTANT WARNING !!

* ALL VENCO CONVERSION HOISTS → VC416 THRU VC6628 *

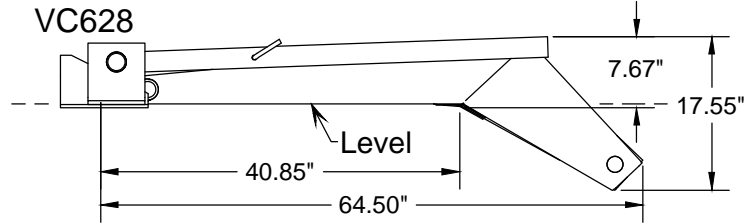
1

When installing the hoist, be sure to keep the hoist on a horizontal plane - LEVEL - with the truck frame.

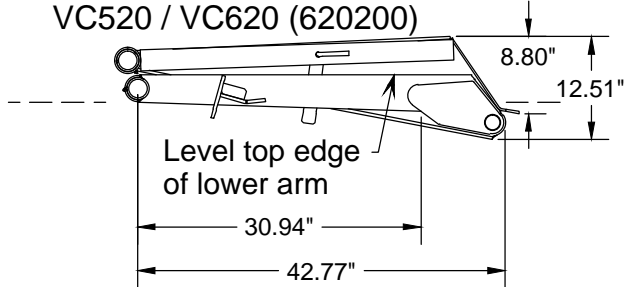
VC416 / VC516



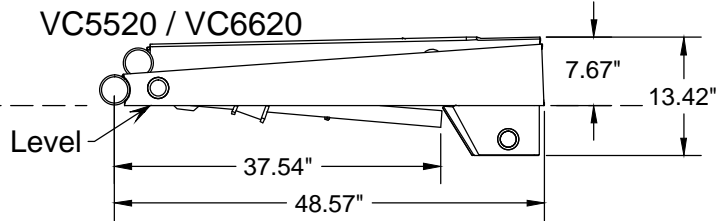
VC628



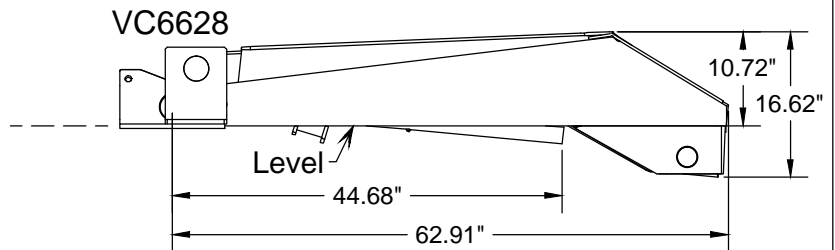
VC520 / VC620 (620200)



VC5520 / VC6620



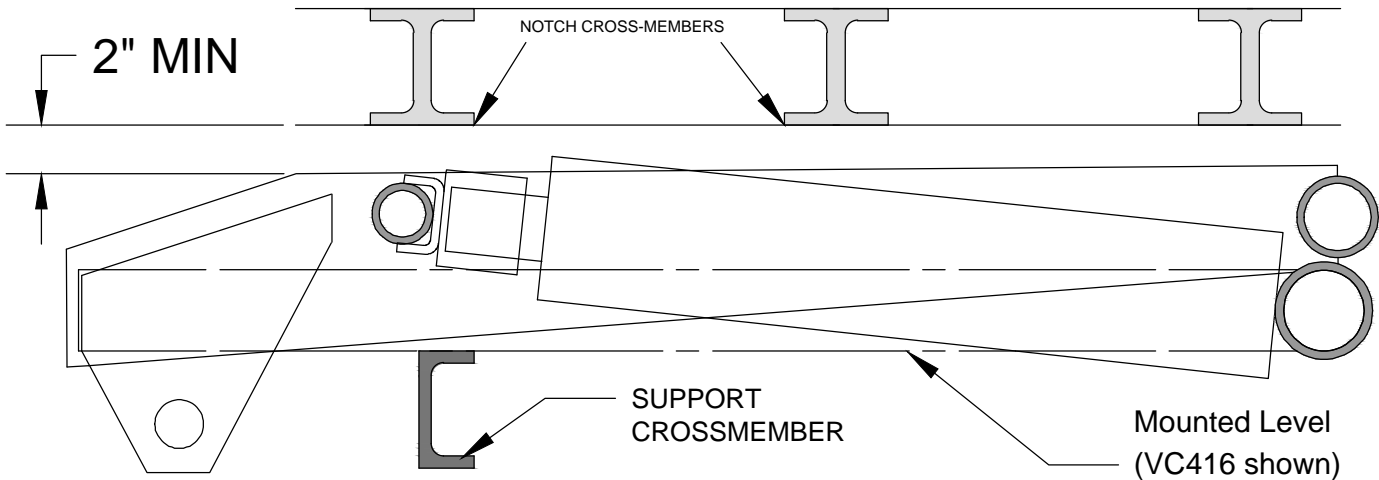
VC6628



2

!! IMPORTANT !!

A minimum clearance of 2" is required between the hoist (upper arm) and the body cross-members in order to prevent a mechanical lockout. If clearance is less than 2", then cross-members must be notched above arms.



!! IMPORTANT !!
 THE HOIST SCISSOR MUST BE SUPPORTED WITH A CHASSIS-MOUNTED SUPPORT CROSSMEMBER. IF THE TRUCK CHASSIS DOES NOT HAVE A CROSSMEMBER TO SUPPORT THE HOIST IN A 'LEVEL' POSITION, THE INSTALLER 'MUST' INSTALL A SUPPORT CROSSMEMBER AS SHOWN ABOVE.



VENCO VENTURO INDUSTRIES LLC
 CINCINNATI, OHIO

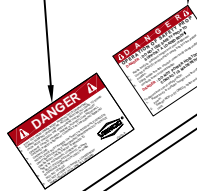
TITLE	DATE	SECTION
IMPORTANT WARNING	12-08-20P	H200
VENCO HOISTS	SUPERSEDES 11-05-15N	416086

Included with your Venco hoist are various danger, warning, and caution decals. These decals must be placed in prominent locations so they are easily seen and readily identifiable. This illustration provides the recommended decal locations.

PD MODEL ONLY
 Venco #416624 → 1 REQ'D
 AFFIX TO TRUCK DASHBOARD



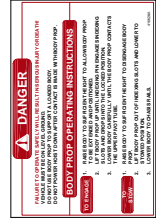
Venco #416052
 2 REQ'D (1 EACH SIDE)



Venco #416084
 1 REQ'D FOR EACH SIDE
 SAFETY PROP
 (SWING-DOWN)



Venco #416626
 1 REQ'D FOR EACH SIDE
 SAFETY PROP
 (INDEXING)



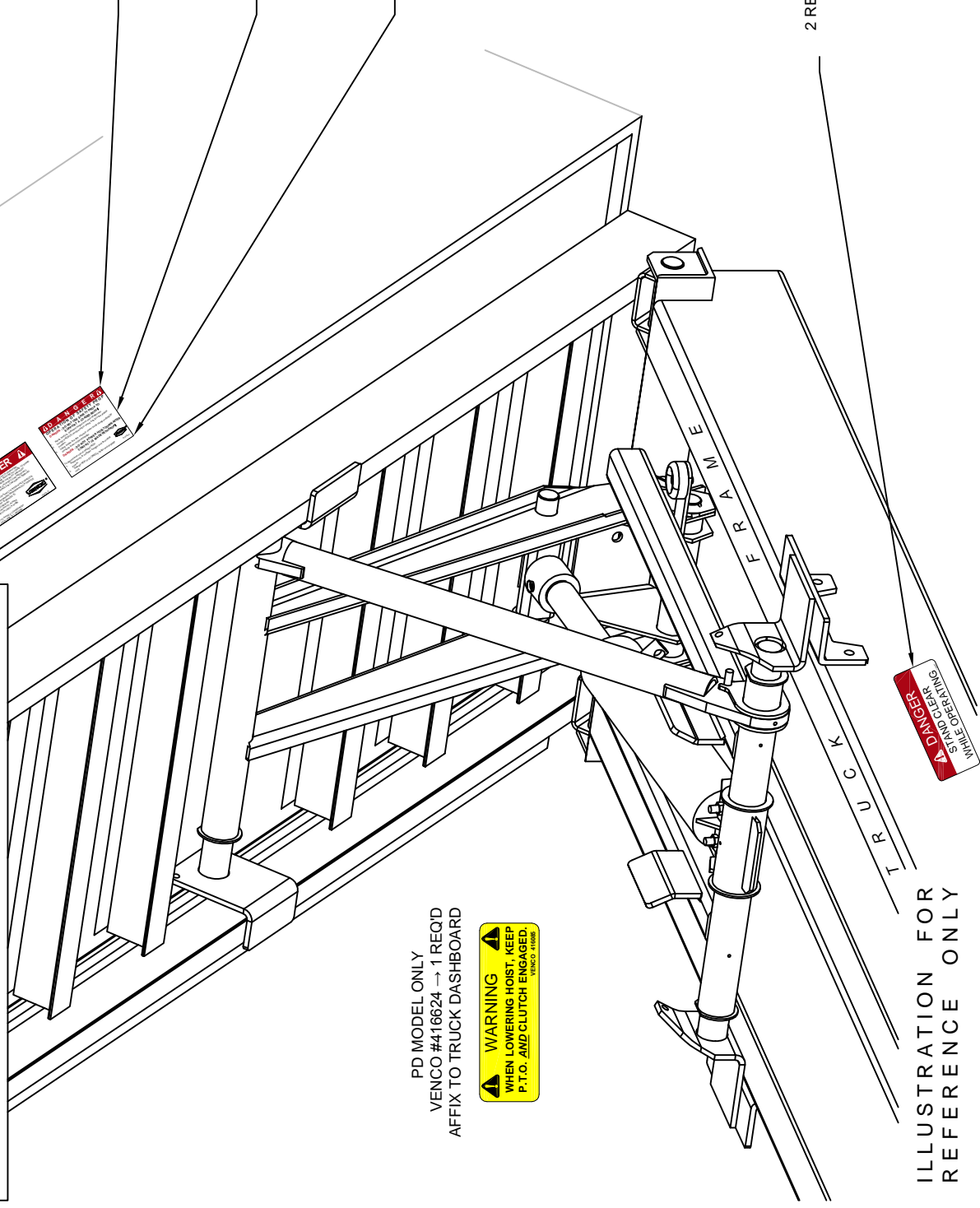
Venco #416624
 1 REQ'D FOR EACH SIDE
 SAFETY PROP
 (LINKAGE)



Venco #15254
 2 REQ'D (1 EACH SIDE)



ILLUSTRATION FOR
 REFERENCE ONLY



	Venco VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	DECAL LOCATIONS	
	VC416-6628, TRLR416-6628		DATE	10-27-15F SUPERSEDES 10-31-14E	SECTION

BODY PROP OPERATION GUIDE - GENERAL INFORMATION

D. Body prop(s): Federal Regulation 1926.601, Paragraph 10, requires the use of a body prop. Accordingly, all Venco hoist units will have included as a standard item a body prop (safety strut). See Paragraphs D.1. & D.2. below.

1. The body prop is designed for use only when the truck body is **empty**. The purpose of the body prop is to provide a safety strut for use when maintenance or inspections are performed on an **unloaded** truck body in the raised position.
2. One [1] body prop shall be furnished for truck bodies up to and including 15 feet. For bodies longer than 15 feet in length, two [2] body props should be used.
3. Venco hoists are equipped with one of three types of body props: **Indexing**, **Swing-down** or **Linkage**. The chart below shows the hoist model number and the corresponding body prop types available.



HOIST BODY PROP CONFIGURATION CHART				
HOIST MODEL	STD. BODY PROP TYPE	OPTIONAL LINKAGE BODY PROP	DUAL BODY PROP	OPERATIONAL DECAL PART NUMBER
VC416/516	INDEXING	OPTIONAL	NOT AVAILABLE	INDEX= 416626, LINKAGE= 416624
VC520	INDEXING	OPTIONAL	NOT AVAILABLE	INDEX= 416626, LINKAGE= 416624
VC620	SWING-DOWN	OPTIONAL	NOT AVAILABLE	SWING-DOWN=416084, LINKAGE=416624
VC628	SWING-DOWN	NOT AVAILABLE	OPTIONAL	SWING-DOWN=416084
VC6620	SWING-DOWN	NOT AVAILABLE	OPTIONAL	SWING-DOWN=416084
VC6628	SWING-DOWN	NOT AVAILABLE	STANDARD	SWING-DOWN=416084

NOTE: For an illustration and operating instructions for each body prop type, see page 416645 in this manual.

4. Special Precautions for Swing-down Body Props -

- Make sure the truck is parked on a **flat level surface**.
- Use a suitable tool to pull out the Spring-loaded release pin (stowage device) to release the body prop from the hoist frame. This will release the body prop allowing it to swing downward to a vertical position.
- Make sure that the body prop is aligned with the body prop foot rest (the body prop will be in a vertical position), then allow the truck body to move downward until the body prop is seated in the foot rest.
NOTE: DO NOT POWER DOWN AFTER MAKING CONTACT WITH BODY PROP FOOT REST
- To disengage the body prop, raise the truck body until the body prop swings freely away from the foot pad. Using a suitable tool, place the tool in a leverage position on the body prop and propel sharply to the left and upward (or to the right and upward) so that the locking pin can be compressed and seated in the locking pin hole. Make certain the body prop is latched securely before the hoist is operated.

WARNING

- Do not place arms, hands, or any part of the body between the truck longitudinals (long beams) or moving parts to pull the body prop release / locking pin.

WARNING

- Do not use the body prop(s) to support a loaded truck body.
- Body prop(s) should be free swinging to a vertical position after the locking pin is released

WARNING

- Read operation of safety strut and caution labels **before** operating the hoist.

WARNING

- Use care when reseating the body prop(s) in the locked position.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
BODY PROP OP. GUIDE

DATE
11-05-15A

SECTION
H250

VC416 - VC6628 HOISTS

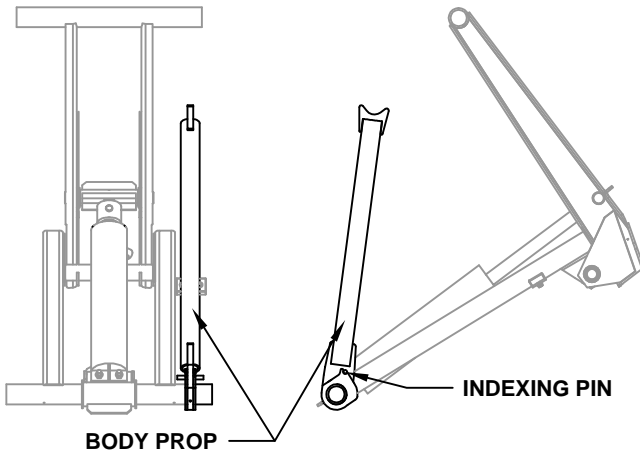
SUPERSEDES
5-28-14

416644



BODY PROP OPERATION GUIDE - ILLUSTRATIONS & INSTRUCTIONS

VC416 / VC516 / VC520 (STANDARD) INDEXING BODY PROP



⚠ DANGER

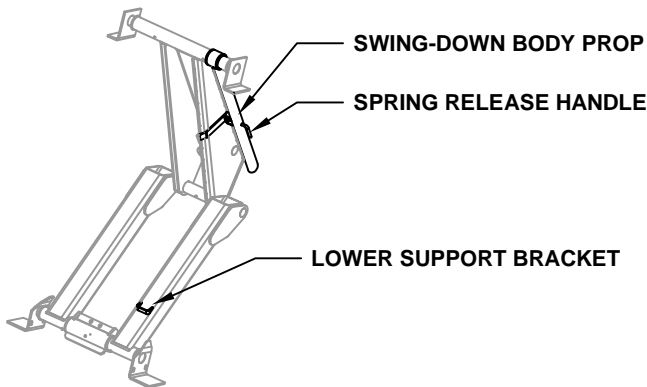
FAILURE TO OPERATE SAFELY WILL RESULT IN SERIOUS INJURY OR DEATH!
VEHICLE MUST BE ON LEVEL GROUND.
DO NOT USE BODY PROP TO SUPPORT A LOADED BODY.
DO NOT POWER HOIST DOWN AFTER CONTACT IS MADE WITH BODY PROP.

BODY PROP OPERATING INSTRUCTIONS

- TO ENGAGE**
1. RAISE BODY TO SUFFICIENT HEIGHT TO ALLOW BODY PROP TO BE EXTENDED AND POSITIONED.
 2. **LIFT BODY PROP UP UNTIL INDEXING PIN ENGAGES INDEXING SLOTS AND DROPS INTO THE LOCKED POSITION.**
 3. LOWER BODY CAREFULLY UNTIL THE BODY PROP CONTACTS THE UPPER PIVOT TUBE.
- TO STOW**
1. RAISE BODY TO SUFFICIENT HEIGHT TO DISENGAGE BODY PROP.
 2. LIFT BODY PROP OUT OF INDEXING SLOTS AND LOWER TO STOWED POSITION.
 3. LOWER BODY TO CHASIS RAILS.

416626-A

VC620 - VC6628 (STANDARD) SWING-DOWN BODY PROP



NOTE: DUAL BODY PROPS ARE STANDARD ON HOIST MODEL VC6628. REFER TO THE HOIST BODY PROP CONFIGURATION CHART ON DRAWING 416644 TO DETERMINE THE AVAILABILITY OF DUAL BODY PROPS FOR OTHER HOIST MODELS.

⚠ D A N G E R ⚠

OPERATION OF SAFETY PROP

DANGER: DO NOT USE SAFETY PROP TO SUPPORT A LOADED BODY!

1. Raise body to sufficient height and shut off all power.
2. Unlock PROP(S) and permit to swing freely to the vertical position.
3. Using inside-the-cab controls, lower body slowly until PROP contacts lower support bracket.

DANGER: DO NOT POWER HOIST DOWN AFTER CONTACT IS MADE WITH PROP!

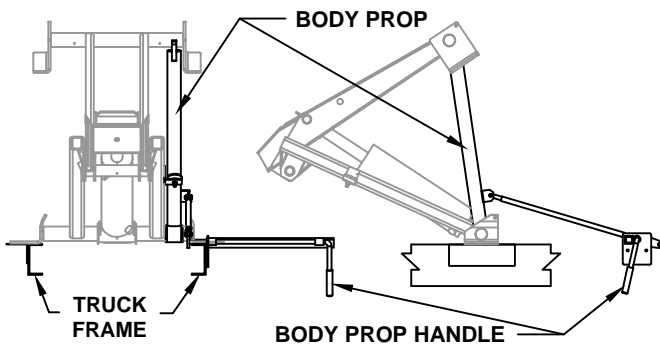
To discontinue use of safety PROP:

1. Raise body to sufficient height and shut off all power.
2. Swing PROP to STORED position and engage lock.



416084-A

VC516 / VC520 / VC620 (OPTIONAL) LINKAGE BODY PROP



NOTE: THE LINKAGE BODY PROP OPTION ALLOWS THE OPERATOR TO POSITION THE BODY PROP FROM OUTSIDE OF THE BODY FOR ADDED SAFETY. ASK YOUR SALES REPRESENTATIVE FOR MORE INFORMATION.

⚠ DANGER

FAILURE TO OPERATE SAFELY WILL RESULT IN SERIOUS INJURY OR DEATH!
VEHICLE MUST BE ON LEVEL GROUND.
DO NOT USE BODY PROP TO SUPPORT A LOADED BODY.
DO NOT POWER HOIST DOWN AFTER CONTACT IS MADE WITH BODY PROP.

BODY PROP OPERATING INSTRUCTIONS

- TO ENGAGE**
1. RAISE BODY TO SUFFICIENT HEIGHT TO ALLOW BODY PROP TO BE EXTENDED AND POSITIONED.
 2. **TURN BODY PROP HANDLE UNTIL HANDLE MAKES CONTACT WITH MECHANICAL STOP.**
 3. LOWER BODY CAREFULLY UNTIL THE BODY PROP CONTACTS THE UPPER PIVOT TUBE.
- TO STOW**
1. RAISE BODY TO SUFFICIENT HEIGHT TO DISENGAGE BODY PROP.
 2. TURN BODY PROP HANDLE TO LOWER AND STOW BODY PROP.
 3. LOWER BODY TO CHASIS RAILS.

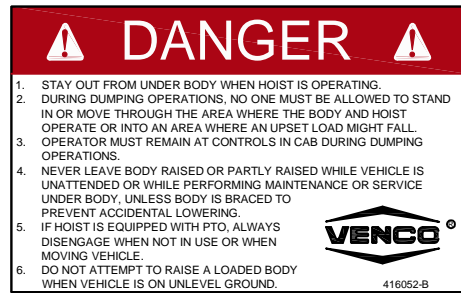
416624-A



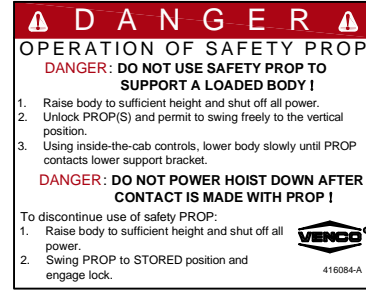
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
BODY PROP OPERATIONS	11-05-15A	H250
VC416 - VC6628 HOISTS	SUPERSEDES 5-28-14	416645

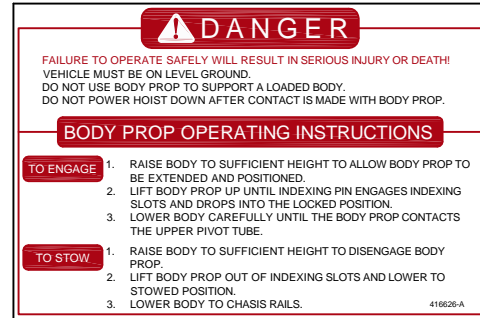
PART NO.: 416052
 DECAL: DANGER STAY CLEAR
 FUNCTION: To provide operator with a summary of key hoist operating procedures.
 QUANTITY: 2
 PLACEMENT: One on each side of body.



▲
 PART NO.: 416084 (VC620-VC6628 MODELS ONLY)
 DECAL: SAFETY PROP OPERATION
 FUNCTION: To inform the operator of proper operation of safety prop.
 QUANTITY: 1 For each safety prop.
 PLACEMENT: On side of body closest to safety prop(s).



▲
 PART NO.: 416626 (VC416,516 & 520 MODELS ONLY)
 DECAL: SAFETY PROP OPERATION, 'INDEXING' ONLY
 FUNCTION: To inform the operator of proper operation of safety prop.
 QUANTITY: 1 For each safety prop.
 PLACEMENT: On side of body closest to safety prop(s).



PART NO.: 15254
 DECAL: CAUTION STAND CLEAR
 FUNCTION: To inform the operator to stay clear of body / hoist.
 QUANTITY: 2
 PLACEMENT: One on each side of truck frame.



PART NO.: 416085
 DECAL: WARNING WHEN LOWERING
 FUNCTION: To inform the operator to keep P.T.O. and clutch engaged when lowering the hoist.
 QUANTITY: 1
 PLACEMENT: Affixed to truck dashboard.



	Venco VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE DECAL LIST	DATE 11-05-15E	SECTION -
		VC/TRLR 416-6628	SUPERSEDES 03-26-14D	628820

SECTION 200

INSTALLATION

HOIST MOUNTING INSTRUCTIONS

Refer to drawings 520071, 662053, or 628021 (on the preceding pages).

CAUTION

If the distance between the centers of the rear axle and the rear hinge assembly exceeds 38", additional reinforcement of the truck frame is necessary.

- A. Mark the location for the rear hinge. Ideally this location will be immediately behind a truck cross member approximately 34" behind the center of the rear axle on a single axle truck.
- B. Cut a 90° slot in each side of the frame as shown in Figure 2.
- C. Position the angle iron frame of the rear hinge assembly in the truck frame cut outs. Make sure the rear hinge assembly is properly positioned on the truck frame. Weld all around truck frame rear hinge assembly joint (both sides). See installation drawing 662861 on the following page for information regarding the mounting of the rear hinge brackets to the body.

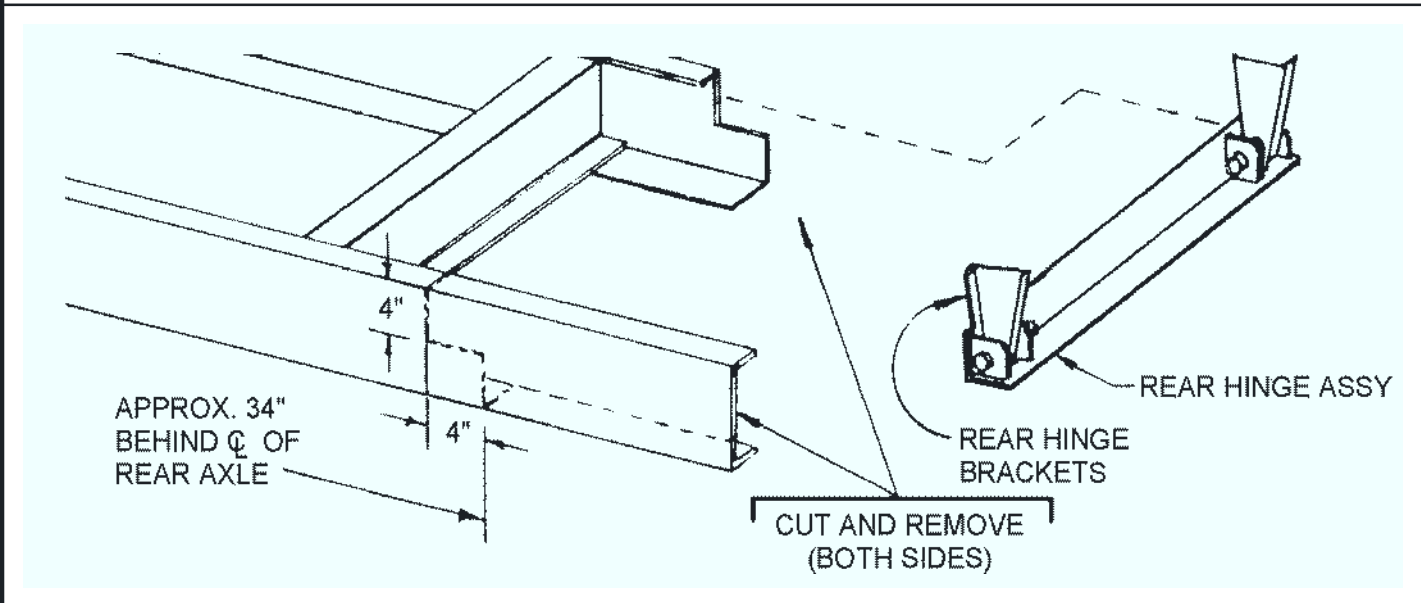


Figure 2 - Frame Modification and Rear Hinge Attachment

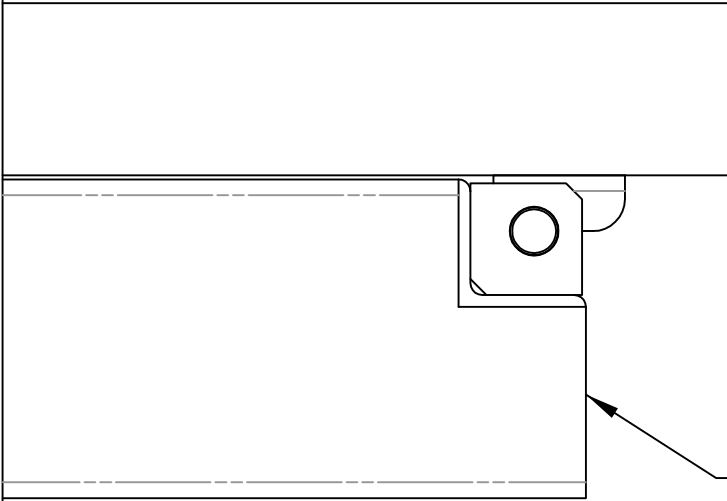
- D. Locate the hoist on the truck frame, making sure to center and square the hoist to the truck frame. The VC Hoist is designed to rest on the truck frame. A section of the hoist extends below the truck frame level. Therefore, the hoist may have to be moved slightly forward or backward to avoid frame crossmembers. The distance between the rear hinge assembly center and the hoist center is referred to as the "M" dimension. The tables on drawings 520071, 662053, and 628021 provide the dump angles associated with various "M" dimensions.

Note: Moving the hoist along the truck frame will affect the hoist's performance. A forward movement decreases dump angle and increases capacity. A backward movement increases dump angle and decreases capacity.

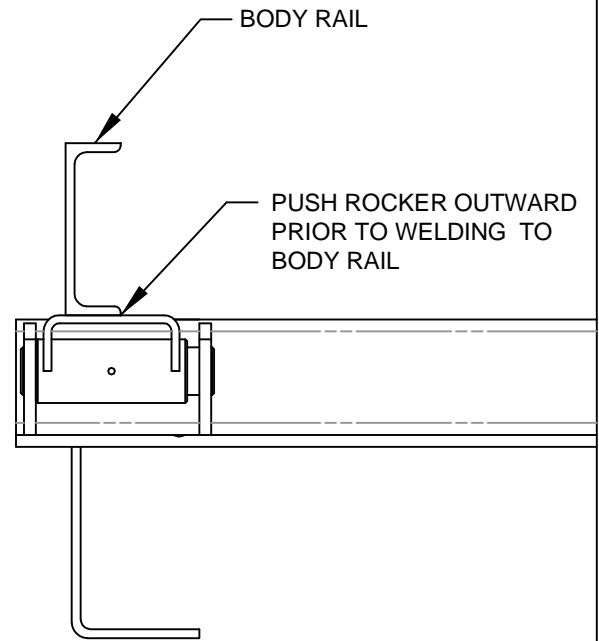


TITLE	MOUNTING INSTR.	DATE	10-27-97B	SECTION	H200
	VC 520 - VC 6628	SUPERCEDES	9-4-97A		520072

HINGE MNTG INST. VC520 - VC6628 NON-SUBFRAME



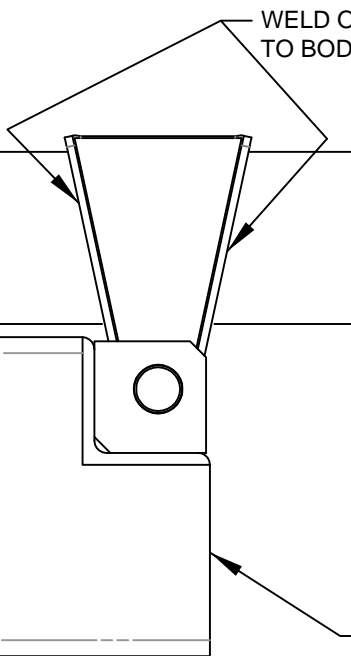
TRUCK FRAME
(CHASSIS)



BODY RAIL

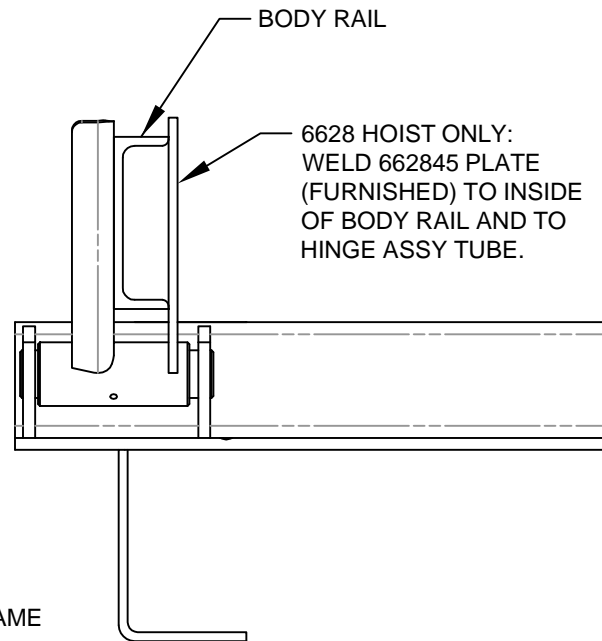
PUSH ROCKER OUTWARD
PRIOR TO WELDING TO
BODY RAIL

▲ 520915 HINGE
STANDARD → VC416-620



WELD OR BOLT
TO BODY RAIL

TRUCK FRAME
(CHASSIS)



BODY RAIL

6628 HOIST ONLY:
WELD 662845 PLATE
(FURNISHED) TO INSIDE
OF BODY RAIL AND TO
HINGE ASSY TUBE.

▲ 662057 HINGE
STANDARD → VC628-6620 OPTIONAL → VC416-620

662806 HINGE
VC6628 ONLY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	HINGE TO BED MNTG
VC416 - VC6628 (NON-SF)	

DATE	10-23-15D
SUPERSEDES	08-11-15C

SECTION	H200
662861	

HOIST MOUNTING INSTRUCTIONS (Continued)

E. After the hoist is positioned, place the mounting angles (Figure 4) under each side of the hoist saddle and against the truck frame. Clamp securely in place. Drill through the frame (17/32") and install the mounting angle with three (3) 1/2" x 1-1/2" Grade 8 hex head cap screws, lock washers, and hex nuts (both sides).

NOTE: The hoist mounting bracket must sit flush on the truck frame. If rivet head interference is encountered, use a filler block or countersink clearance holes in the bottom of the hoist saddle.

Do not weld the hoist mounting bracket to the truck frame. This may void the truck warranty.

F. Weld each end of the hoist saddle to its mounting angle as shown in Figure 4. Note the welding symbols. Do not weld to the truck frame.

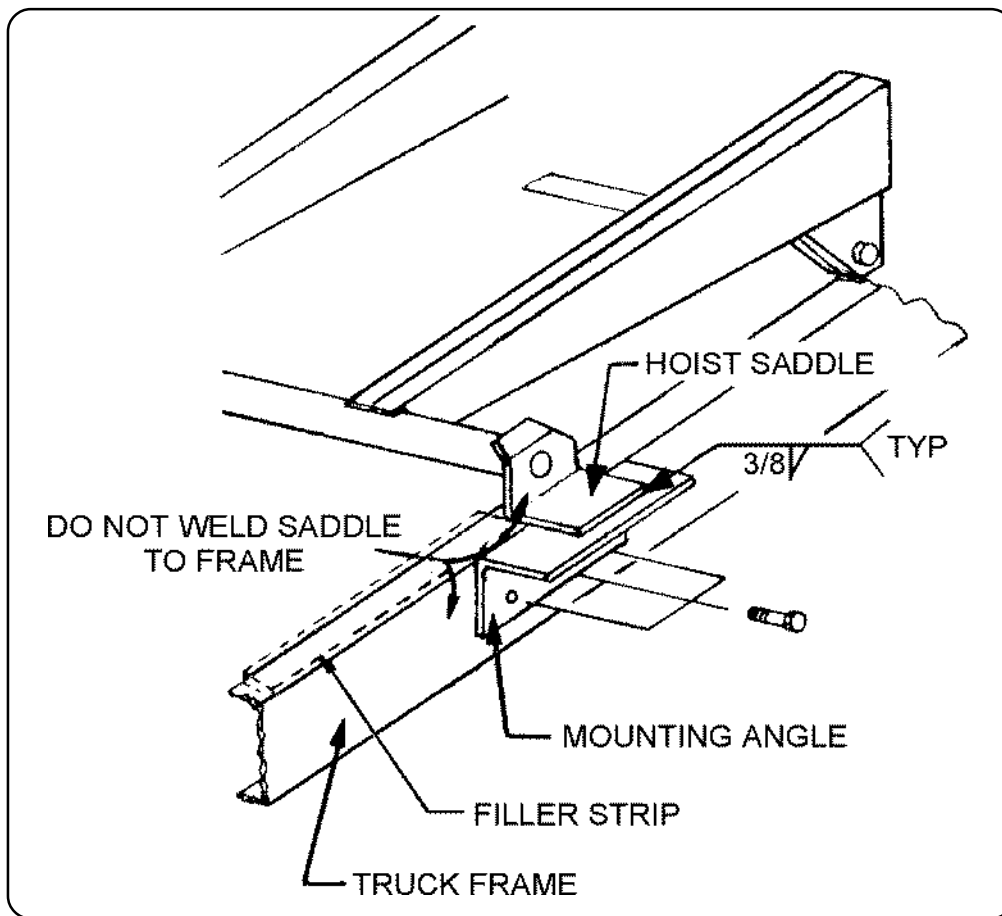


Figure 4 - Mounting Angle Assembly



TITLE
MOUNTING INSTR.

VC 520 - VC 6628

DATE
9-4-97A

SUPERCEDES
3-15-90

SECTION
H200

520074

HOIST MOUNTING INSTRUCTIONS (Continued)

G. Install the PTO pump per the following instructions and per the pump manufacturer's instructions.

1. See Figure 5. Position and bolt each pump bracket to the pump and secure with the 3/8 x 1-1/4" bolts and hex nuts (VC-520 requires only 2 pump brackets).
2. Position the pump assembly with brackets and securely clamp to the frame on the same side that the transmission mounted PTO shaft is located.

Note: Position the pump brackets as high on the truck frame as possible when mounting the pump.

3. Two (2) 17/32" holes need to be drilled in the pump brackets and truck frame (Figure 5). Mark the hole locations as close to the truck frame flanges as possible. Drill 17/32" holes and install the 1/2" x 1-1/2" hex head cap screws with lockwashers and hex nuts.

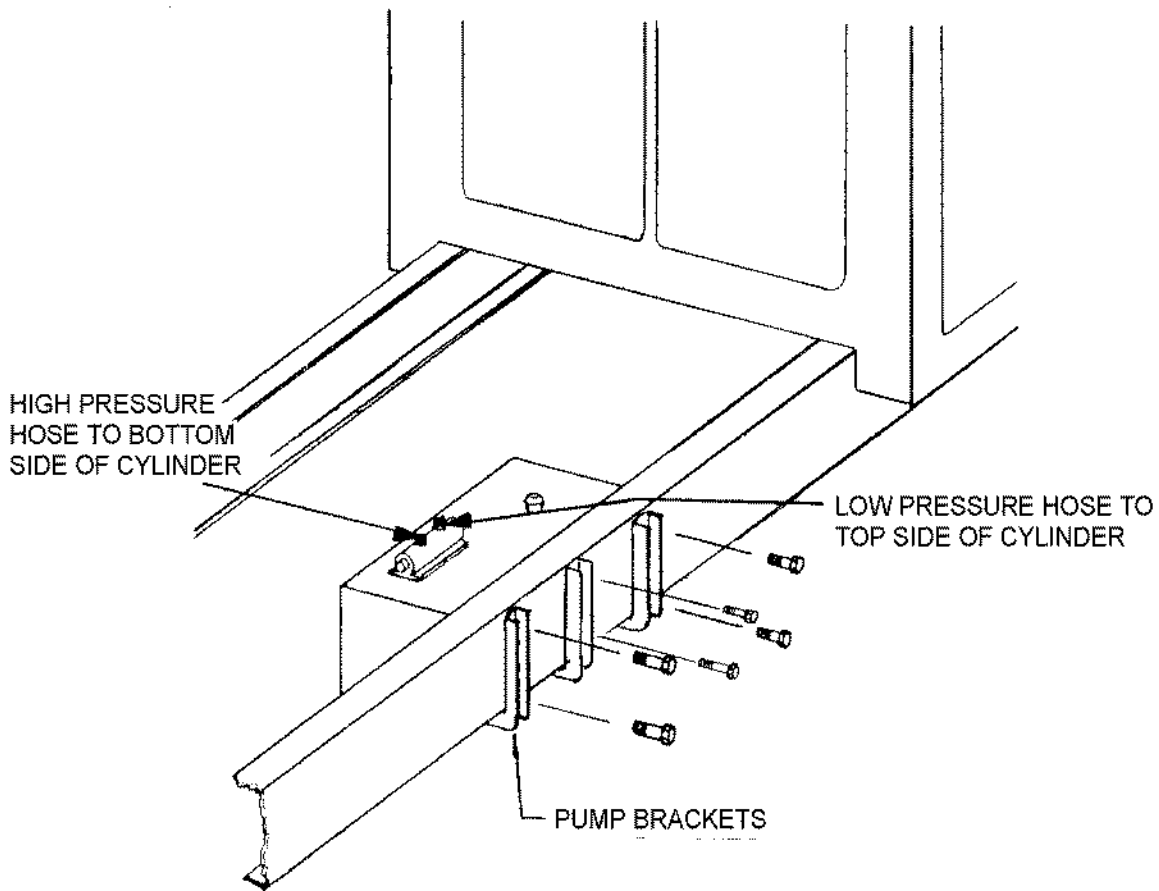


Figure 5 - Pump Installation



TITLE
MOUNTING INSTR.

VC 520 - VC 6628

DATE
9-4-97A

SUPERCEDES
3-15-90

SECTION
H200

520075

HOIST MOUNTING INSTRUCTIONS (Continued)

4. Install the truck PTO assembly using the manufacturer's instructions.
5. Determine the exact length "L" of the drive shaft (Figure 6). The drive shaft should be kept as short and level as possible.
6. Cut the 7/8" square drive shaft to the length that was determined in the previous steps.
7. The supplied U-joint (with the 1" round x 7/8" square slip yoke) fits on the pump drive shaft. The U-joint for the PTO is not furnished.
8. Trial fit each U-joint to the hex drive shaft and trial fit the drive shaft assembly to the pump and PTO. At this point, mark the set screw locations of the PTO U-joint on the square drive shaft. Disassemble the drive shaft assembly and countersink the drive shaft at the marked locations.
9. Assemble each U-joint to the hex drive shaft and install the drive shaft assembly. After installing, secure the PTO U-joint to the drive shaft using 3/8" x 5/8" drilled hex head set screw (furnished). Safety wire all (3) screws to insure that they do not loosen.
10. For additional pump and drive shaft mounting instructions, refer to the manufacturer's instructions included with the pump. Refer to Figures 6 and Dwg. 520078.

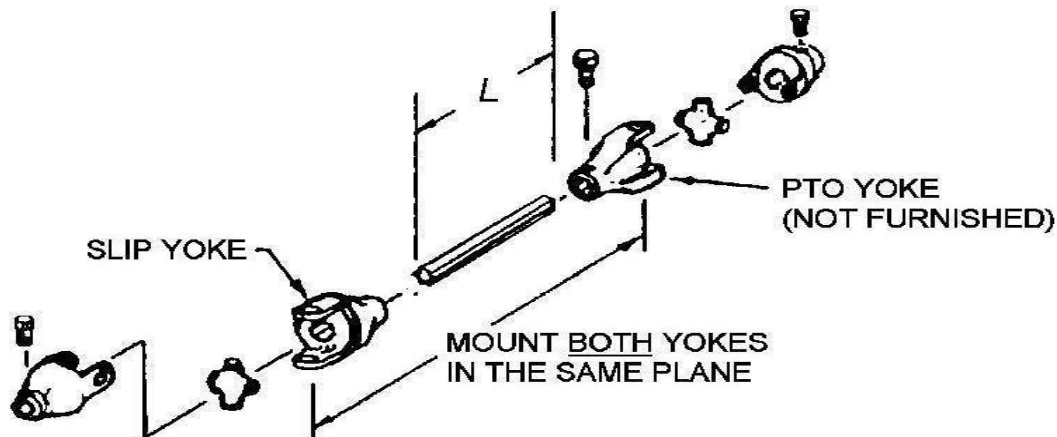


Figure 6 - Drive Shaft Assembly

H. Install hydraulic hoses per the following instructions:

1. 7' (or 7'-10") hose(s) installation - Connect one end of the hose to the front pump port (low pressure). Connect the other end of the hose to the rod end of the hoist cylinder (Figure 5).
2. 5' hose(s) installation - Connect one end of the hose to the rear pump port (high pressure). Connect the other end of the hose to the base end of the hoist cylinder (Figure 5).



TITLE
MOUNTING INSTR.
VC 520 - VC 6628

DATE
5-20-99D
SUPERCEDES
11-17-98C

SECTION
H200
520076

HOIST MOUNTING INSTRUCTIONS (Continued)

- I. Position and secure the filler strips (liner or sleeper) to the truck frame (Figure 4).

The VC 520 and VC 620 require a minimum of 7-1/2" clearance above the truck frame.

The VC 628 requires a minimum of 8" clearance above the truck frame.

The VC 5520 and VC 6620 require a minimum of 8-1/2" clearance above the truck frame.

The VC 6628 requires a minimum of 10-1/2" clearance above the truck frame.

Example: Assuming that a 7-1/2" clearance is required and 5" long beams are on the truck body, a liner of at least 2-1/2" net will be required to obtain the minimum clearance required to mount the hoist.
 $5" + 2-1/2" = 7-1/2" \text{ min.}$

- J. Position the body longitudinals (long beams) onto the truck frame.

Note: At least 2" are required for clearance between the cab and closest point on the truck body.

- K. Place the rear hinge brackets in the vertical position (Figure 2). Weld and/or bolt the brackets to the longitudinals. If bolted, mark and drill each bracket four (4) places (17/32" holes) and secure the brackets to the longitudinals using eight (8) 1/2"-13 x 1-1/2" Grade 8 hex head cap screws, eight (8) 1/2" lockwashers, and eight (8) 1/2"-13 hex nuts.

- L. **Refer to Drawing 520093 on the following page.** Make sure that the dump body longitudinals are resting flush on the top of the spacers (which are welded to the lifting angles). Weld the top of both lifting angles (the vertical "leg") to the top flanges of the body longitudinals - a reinforcement plate may be required to fill the space between the lifting angles and body longitudinals. Weld all around the lifting angles, body longitudinals, spacers, and reinforcement plates (if used). **Be sure that your installation follows the method shown on the following page - Drawing 520093.**

Note: Step "L" (above) is a critical installation procedure that must be carefully followed to ensure a successful hoist installation. Deviation from the suggested installation method may result in damage to the hoist.

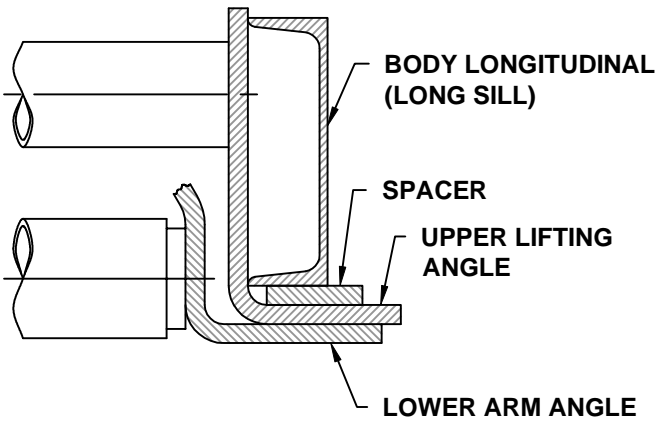


TITLE	MOUNTING INSTR.	DATE	5-19-98	SECTION	H200
	VC 520 - VC 6628	SUPERCEDES	9-4-97		520077

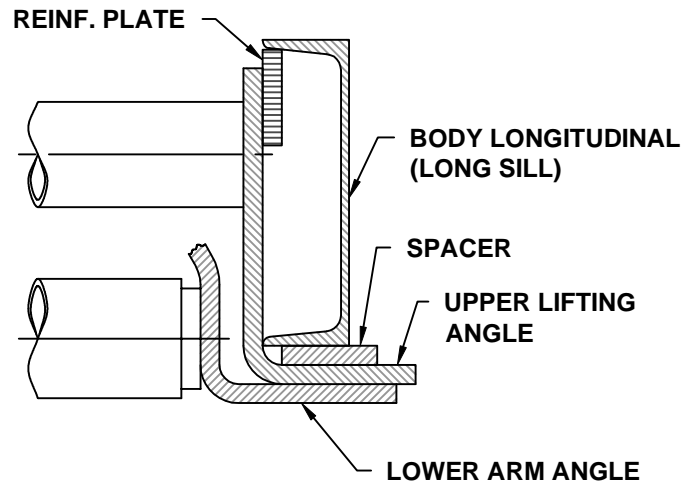
IMPORTANT!

WHEN INSTALLING THE UPPER LIFTING ANGLES, THE GOAL IS TO COMPLETELY "BOX IN" THE LIFTING ANGLE, BODY LONG SILL SPACER, AND REINFORCEMENT PLATE - 100% WELD.

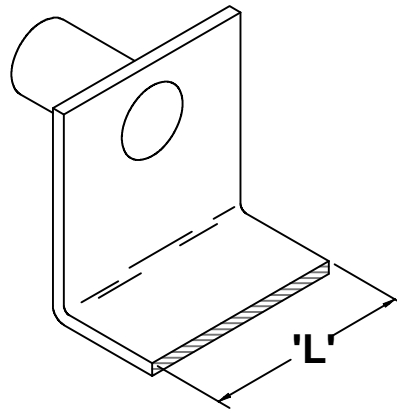
**SITUATION A:
LIFTING ANGLE FULLY
ENVELOPS BODY LONG SILL.**



**SITUATION B:
LIFTING ANGLE DOES NOT
ENVELOP BODY LONG SILL
AND A REINFORCEMENT PLATE
IS REQUIRED.**



NOTE: THE SPACER AND REINFORCEMENT PLATE SHOULD BE THE LENGTH AS THE LIFTING ARM. SEE 'L' DIMENSION BELOW.



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
INST. INSTRUCTIONS

VC416-6628, TRL313-6628

DATE
01-14-13D

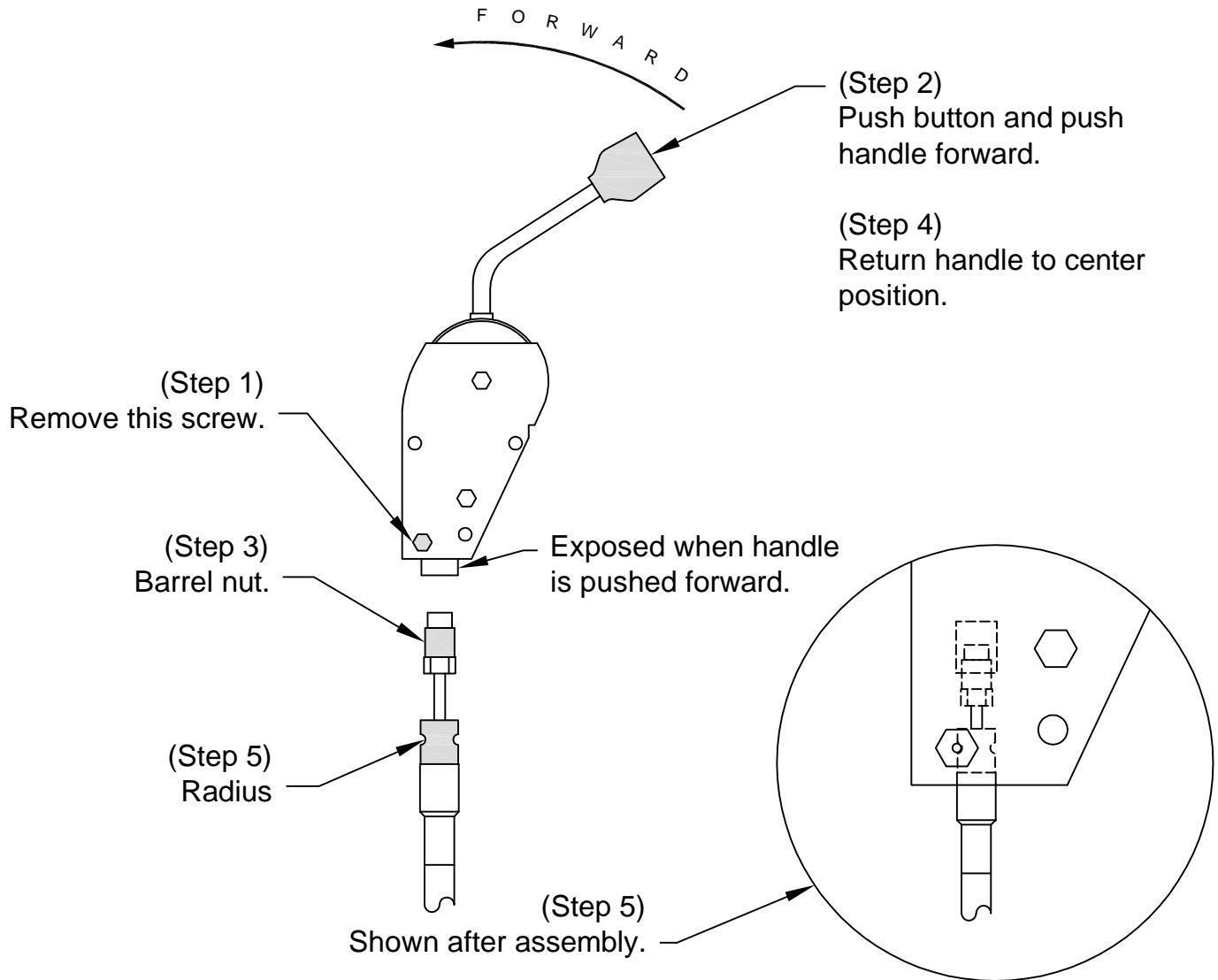
SUPERSEDES
02-25-10C

SECTION
H200

520093

ATTACHING 620129 CABLE TO 620131 / 132 HANDLE

- Step 1. Remove lowest screw & nut.
- Step 2. Depress red button on top of handle. Push handle forward and hold.
- Step 3. While holding handle, thread "barrel nut" into threaded hole in bottom and tighten.
- Step 4. Release handle. Handle should return to center position.
- Step 5. Replace screw & nut, making sure that radius on cable end is aligned with screw hole. After tightening screw, move handle forward and backward to make sure cable end is secure in console.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
CABLE / HANDLE ASSY
PTO PUMP CABLE

DATE
11-05-15B
SUPERSEDES
03-17-14A

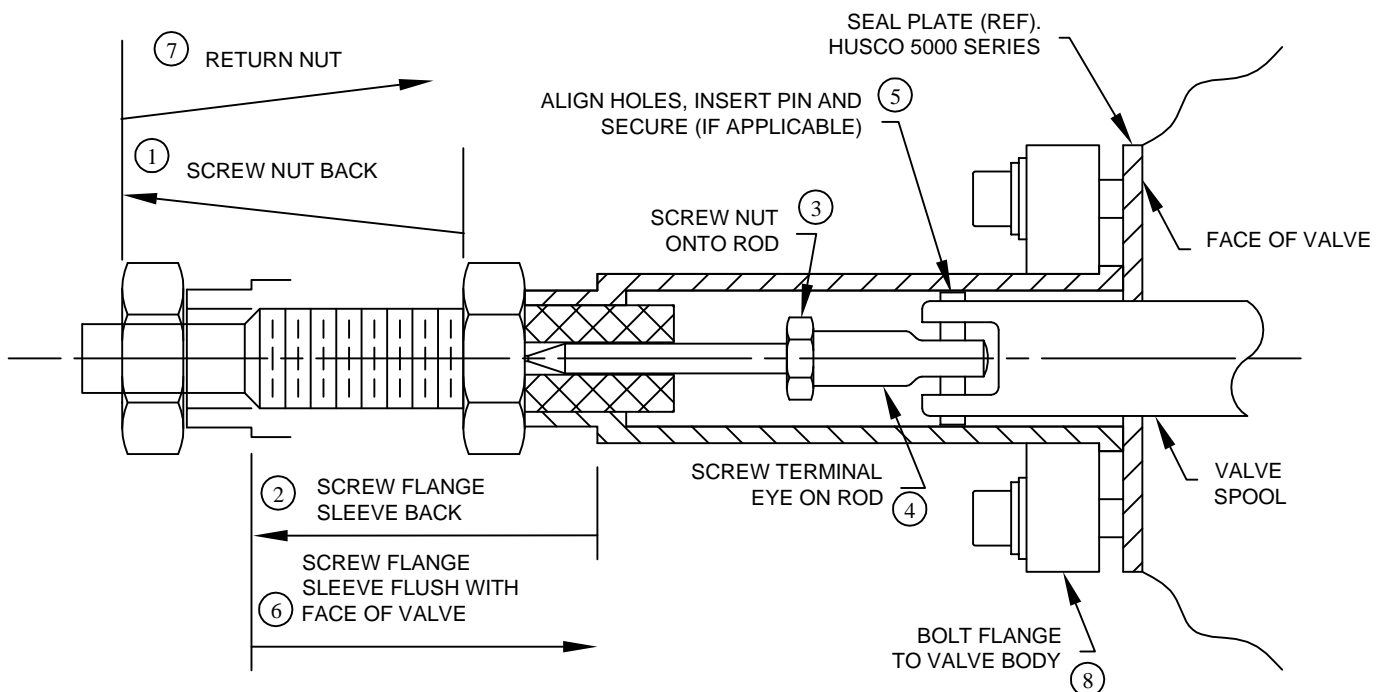
SECTION
-
620246

PTO PUMP CABLE INSTALLATION

1. Thread 0.750-16 UNF jam nut entire length of threaded hub and onto cable.
2. Place flange on sleeve and turn flange / sleeve assembly entire length of threaded hub and onto cable.
3. Threade 0.250-28 UNF jam nut onto threaded rod until it bottoms.
4. Thread terminal eye onto threaded rod and bottom against jam nut, turn to align with spool slot and secure jam nut against terminal eye.
5. Slide terminal eye into slot in spool and align holes. Insert connecting pin and secure with cotter pin (if applicable).
6. With cable attached to valve and input device, thread the flange / sleeve assembly onto the threaded hub until it is flush with the valve face. When turning the flange / sleeve assembly, make sure the input device remains in the neutral position.
7. Tighten the 0.750-16 UNF jam nut against the sleeve to lock in position.
8. Bring flange into position and bolt assembly to valve housing using two [2] socket head cap screws and two [2] split lock washers under head and two [2] flat washers under lockwashers. Tighten screws sufficiently to flatten lock washers or secure flange (see CAUTION).

⚠ CAUTION

- Excessive torque or over-tightening will distort flange.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
PTO PUMP CABLE INSTL

VC416-6628

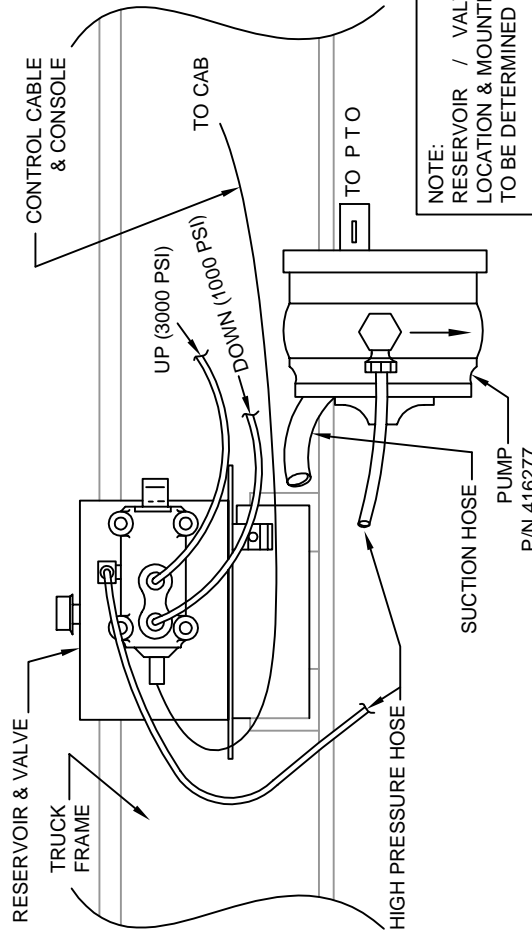
DATE
11-05-15B

SUPERSEDES
03-17-14A

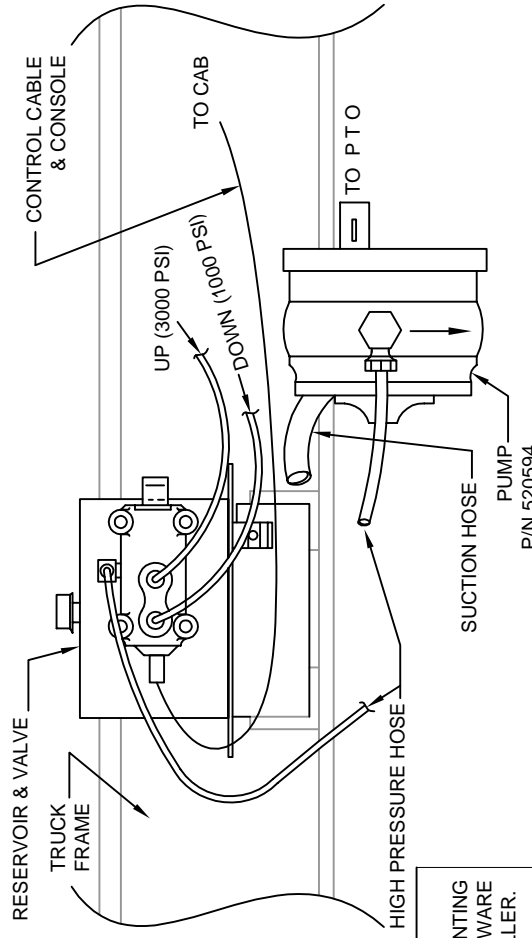
SECTION
-

416755

DIRECTIONAL PUMP CONFIGURATION FOR VC416-620



BI-DIRECTIONAL PUMP CONFIGURATION FOR VC628 & UP



NOTE: ARROW ON PUMP HOUSING INDICATED ROTATION DIRECTION. FAILURE TO MATCH PTO ROTATION WITH PUMP ROTATION WILL RESULT IN PUMP FAILURE.

NOTE: FOR BI-ROTATIONAL PUMP MOUNTING AND HOSE CONNECTION INFORMATION, SEE DWG 416812 (IF APPLICABLE).

Model	VC416	VC516	VC520	VC620	VC628	VC5520	VC6620	VC6628
Control Cable & Console	620125 - Curved 620124 - Straight							
Cylinder Up Hose	416044	520574						
Cylinder Down Hose	416045 (2) 520574 (2) 628041 (2) 628041							
High Pressure Hose (pump to valve)	416045 (7' LG, 3/8 HOSE)				620909 (10' LG, 3/8 HOSE)			
	FOR VC620 NON-SF				FOR VC620 SF			
Suction Hose (reservoir to pump)	416079 (7' LG, 1.00" I.D.)				520088F (10' LG, 1-1/4" I.D.)			
	FOR VC620 SF				FOR VC620 NON-SF			
Pump/Valve/Tank	620011 (9 QUART)							
Pump (Only)	416277 (5gpm) 662077 (21 QUART) 520594 (10gpm)							



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
SPLIT PUMP

VC416-6628

DATE
03-16-22E

SUPERSEDES
08-01-17D

SECTION
H200

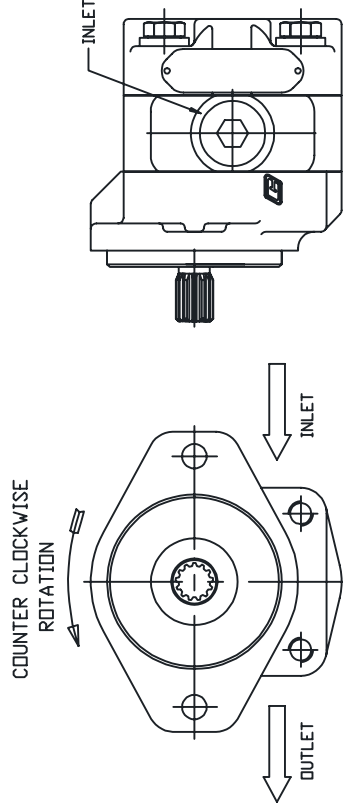
416763

BI-ROTATIONAL PUMP INSTALLATION

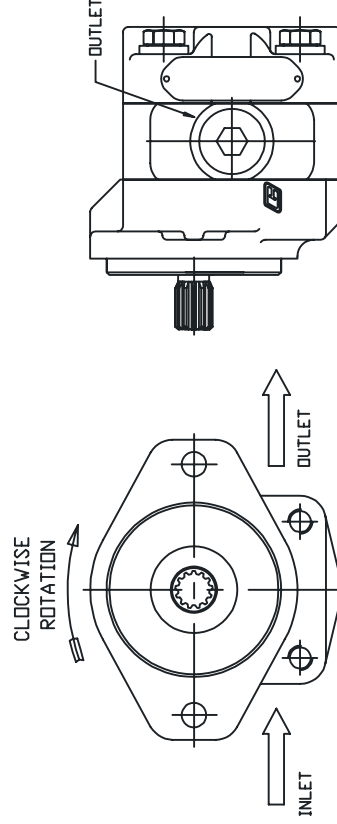
TO VERIFY THE INLET PORT ON A BI-ROTATIONAL PUMP, DETERMINE WHICH WAY THE SHAFT OF THE PUMP IS GOING TO TURN FROM THESE TWO SAMPLE DIAGRAMS AND PLUMB ACCORDINGLY.

NOTE: DO NOT OPERATE THE PUMP WITHOUT OIL.

CLOCKWISE ROTATION PTO
REQUIRES COUNTER CLOCKWISE
ROTATION PUMP



COUNTER CLOCKWISE ROTATION PTO
REQUIRES CLOCKWISE
ROTATION PUMP



3098



TITLE

BI-ROTATIONAL PUMP INSTALLATION

VC416/516, VC 520 - 6628

DATE

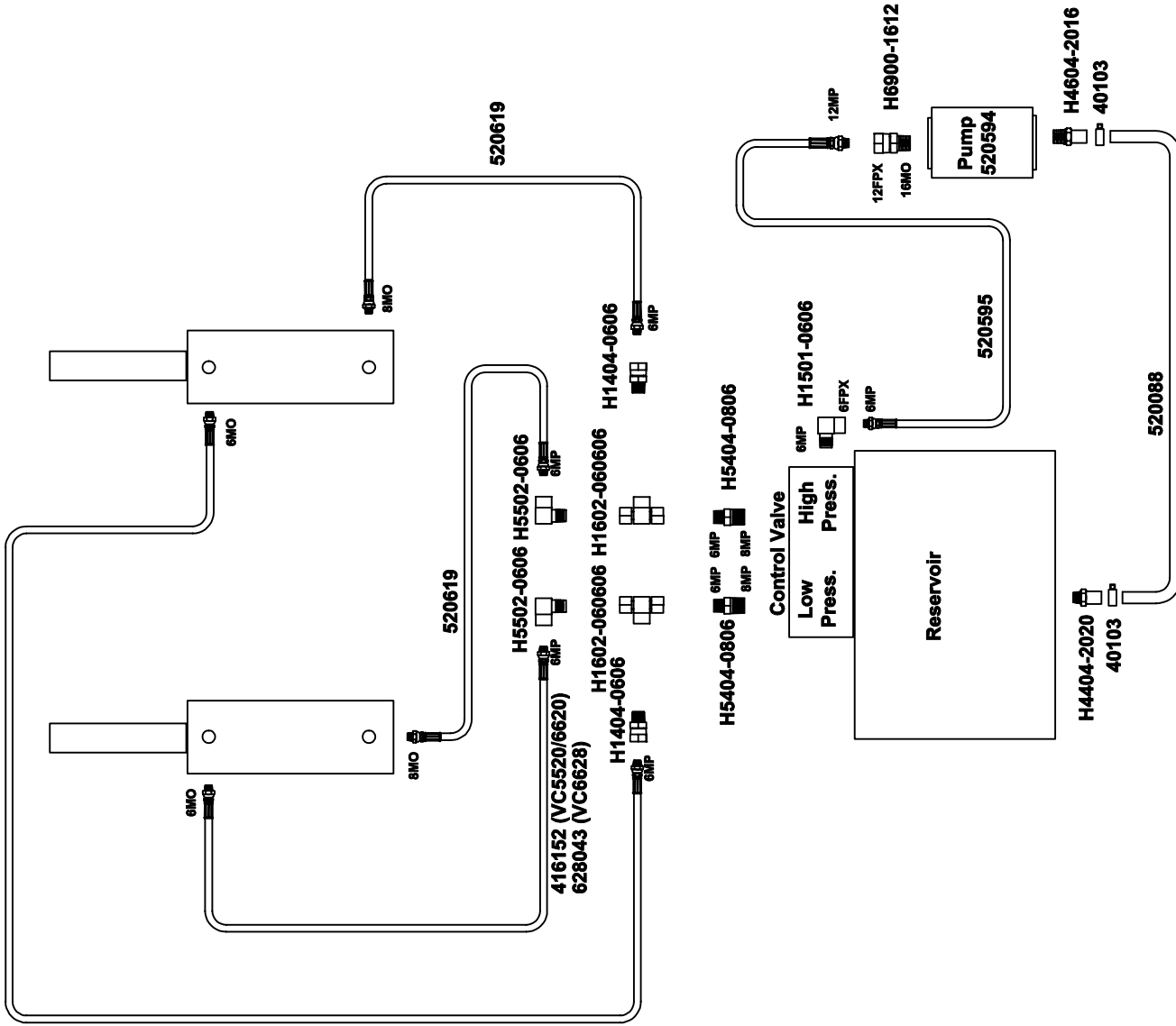
6-2-05

SUPERSEDES

416812

SECTION

-



416152 (VC5520/6620)
628043 (VC6628)



TITLE
SPDG HOSE CONNECTION DIAGRAM

VC5520, VC6620, VC6628

DATE
5-22-06

SUPPERSEDES
-

SECTION
-

552004

HPU GROUNDING CABLE INSTALLATION

HYDRAULIC POWER UNIT (HPU) GROUNDING CABLE INSTALLATION

STEP 1

Locate the 5/16-18 tapped hole in the aluminum pump housing and attach one end of the black #4 Gage battery cable with the 5/16" hex head cap screw and Lock Washer.



C A U T I O N

- Prior to drilling the 9/32" hole in step 2, inspect the area on both sides of the chassis rail to ensure that you will NOT drill into other components - i.e. brake lines, etc. Then, drill hole as close to the center of the chassis rail as possible.

STEP 2

Drill a 9/32" hole in the truck frame.

STEP 3

Remove any undercoating around the drilled hole for best connection to the truck frame - clean surface to bare metal.

STEP 4

Attach the other end of the black #4 Gage battery cable with the 5/16" hex washer-head self-tapping fastener to the truck frame.

NOTE: To prevent corrosion, both fasteners should be coated with dielectric grease (NOT provided in kit).

NOTE: Using the Ground Strap Kit (P/N 6474) and following the mounting instructions on page 6368 in your Hoist Owner's Manual will provide a solid ground.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

GROUND CABLE INSTLLTN

DATE

10-09-15A

SECTION

-

HOIST HYD. POWER UNITS

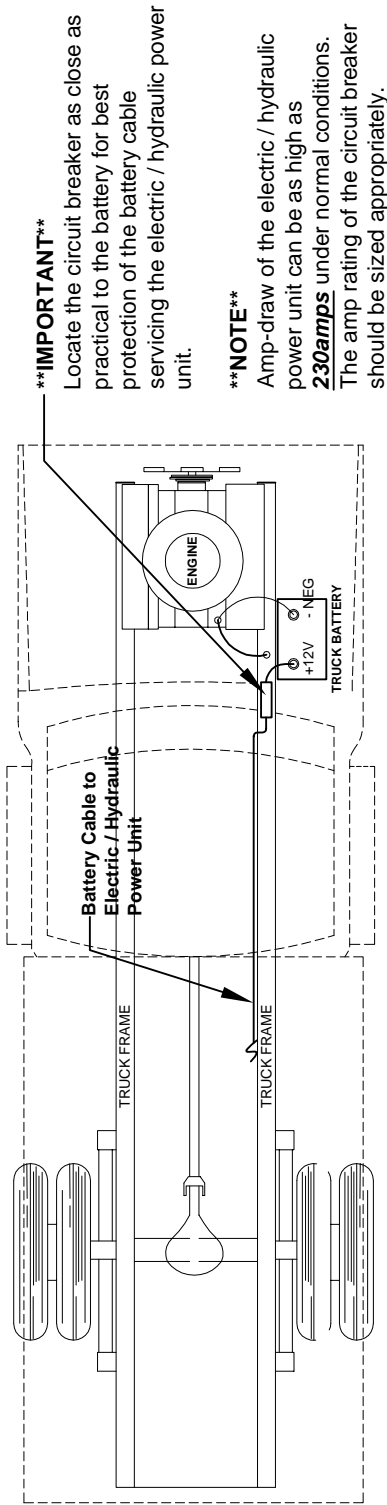
SUPERSEDES

09-25-09

416640

ELECTRICAL CONNECTIONS - HYDRAULIC POWER UNITS

+12 Volt Power Connection:



IMPORTANT

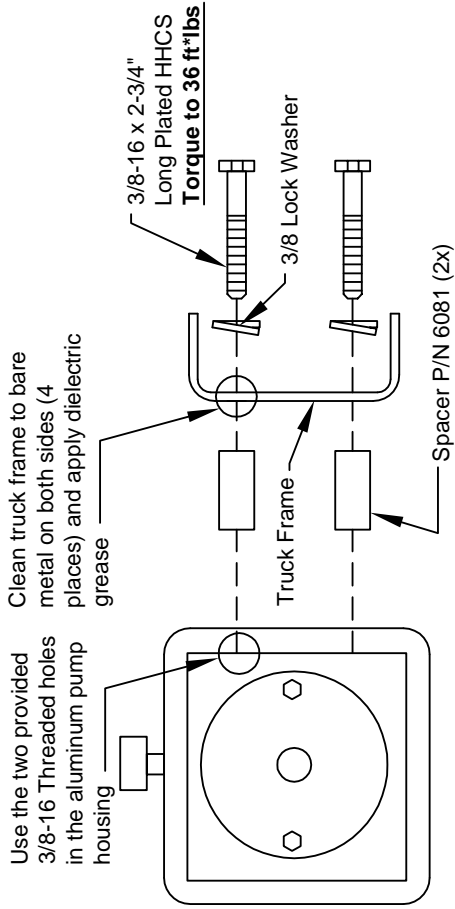
Locate the circuit breaker as close as practical to the battery for best protection of the battery cable servicing the electric / hydraulic power unit.

NOTE

Amp-draw of the electric / hydraulic power unit can be as high as **230amps** under normal conditions. The amp rating of the circuit breaker should be sized appropriately.

Grounding: Hydraulic power units WILL run with a poor ground connection, BUT the service life of the motor and control valve coils WILL be greatly reduced unless a proper ground connection is made - see illustrations below.

Non Sub-frame Grounding



Use the two provided 3/8-16 Threaded holes in the aluminum pump housing

Clean truck frame to bare metal on both sides (4 places) and apply dielectric grease

3/8-16 x 2-3/4" Long Plated HHCS
Torque to 36 ft*lbs

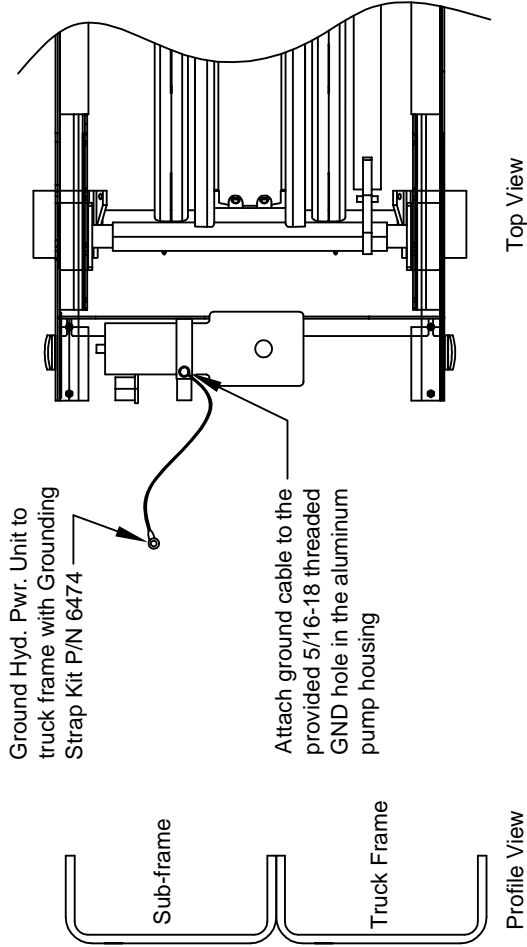
Truck Frame

3/8 Lock Washer

Spacer P/N 6081 (2x)

DO NOT APPLY THREAD LOCK LIQUIDS TO BOLT THREADS, AS THEY WILL INSULATE THE BOLTS FROM THE ALUMINUM PUMP HOUSING.

Sub-frame Grounding




Ground Hyd. Pwr. Unit to truck frame with Grounding Strap Kit P/N 6474

Sub-frame

Truck Frame

Profile View

Top View

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	SECTION
	ELECTRICAL CONNECTIONS - HYD PWR UNITS	DATE
ALL ELECTRIC HOIST APPLICATIONS	SUPERSEDES	06-16-20C
		6368

Williams[®] Machine & Tool Co.

MANUFACTURERS OF HYDRAULIC PISTON PUMPS



CAUTION



- The gear pump you have purchased is a single rotation Gear Pump. Installation of this Gear Pump into a system that does not match the rotation of the Gear Pump may result in personal injury and/or property damage.

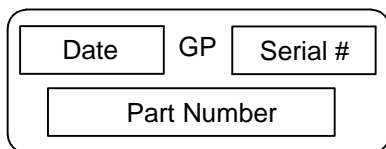
The Gear Pump you have purchased is a single rotation Gear Pump. The direction of rotation can be found by using the Williams Machine and Tool Co.'s Model Number. Directly following the Model Number are the letters CCW or CW. These letters indicate the direction of rotation for the Gear Pump. CCW indicates a counter-clockwise rotation. CW indicates a clockwise rotation. Pump shaft rotation is determined by viewing pump from the shaft end.

Example: GP1538 CCW. The CCW indicates a counter-clockwise rotation.

To verify the direction of rotation of your Gear Pump, perform the following steps:

- 1.) Locate the Part Number on the Gear Pump. The Part Number, Serial Number, and date code are located on the rear of the Gear Pump.
- 2.) Part Numbers ending in an even number are clockwise rotation (CW). Part Numbers ending in an odd number are counter-clockwise rotation (CCW).

Example: 1830201. The last number is 1 (an odd number). This indicates a counter-clockwise rotation (CCW).



The following chart specifies torque requirements for the SAE O' ring plugs installed into the side or rear ports of the Gear Pump. Any combination of inlet and outlet ports may be used, ie., inlet large rear port. outlet small side port; inlet large side and outlet small rear ports; or both side ports or both rear ports. One inlet and one outlet part must be plugged for proper Gear Pump operation.

PORT SIZE (SAE)	TORQUE (FT. LBS)
3/4 - 16	15 - 20
7/8 - 14	20 - 25
1 - 1/16 - 12	30 - 35
1 - 5/16 - 12	45 - 50
1 - 5/8 - 12	65 - 70



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

WILLIAMS PTO WARNING

DATE

11-05-15D

SECTION

H200

SUPERSEDES

03-17-14C

416287

SECTION 300

MAINTENANCE

&

SERVICE

HOIST MAINTENANCE AND OPERATION INSTRUCTIONS

- A. Hoist unit lubrication
1. Lubricate all grease fittings on the hoist unit.
 2. Lubricate the rear hinge assembly.
 3. The hoist system should be serviced at the same time the truck is serviced, and sooner if the hoist unit is performing heavy duty service.
 4. Pump Reservoir → Shall be filled with the recommended oil per the manufacturer's instructions. Periodically check the hydraulic fluid and change when the truck engine oil is changed.
- B. PTO Pump Operation
- With the hoist and body completely installed, cycle the hoist several times to purge the hydraulic system of air. Operate the hoist system per the instructions in this manual and per the PTO manufacturer's instructions.



C A U T I O N



- Do not operate the pump at more than 1000 RPM. Severe hoist system damage could result. The PTO speed to engine speed is governed by the gear ratio of the PTO drive installed in the truck transmission.
- For long service and safety from VC hoists, it is important that the following procedure be followed each time the hoist is operated:

1. Engage the PTO from the truck cab and adjust the engine speed to obtain the correct PTO and lift speed desired.
2. Pull the pump stick out. This will cause the hoist to raise.
3. When the pump has reached its maximum capacity, the pump will bypass through the relief valve. To prevent the pump from bypassing, push the pump knob to the center / middle position. Whenever the pump knob is centered, the hoist will stop moving and hold its position.



C A U T I O N



- Do not allow the pump to bypass for long periods of time, as this will put stress on the hydraulic and electrical systems of the hoist.

4. To lower the hoist, push the pump stick in.
NOTE: The Venco hoist powered by PTO drive pumps must be 'powered down'. Failure to 'power down' will cause the reservoir to overflow.
5. To lock the hoist against the truck frame when it is in the down position, push the pump knob in. When the pump bypasses, place the knob in the center 'hold' position.
6. Disengage PTO from transmission per the manufacturer's instructions.



C A U T I O N



- Do not drive the truck without first disengaging the PTO. Failure to disengage the PTO may result in severe damage to the pump and pump drive unit.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

MAINT. & OPER. INSTRC.

DATE

11-05-15D

SECTION

H250 ▲

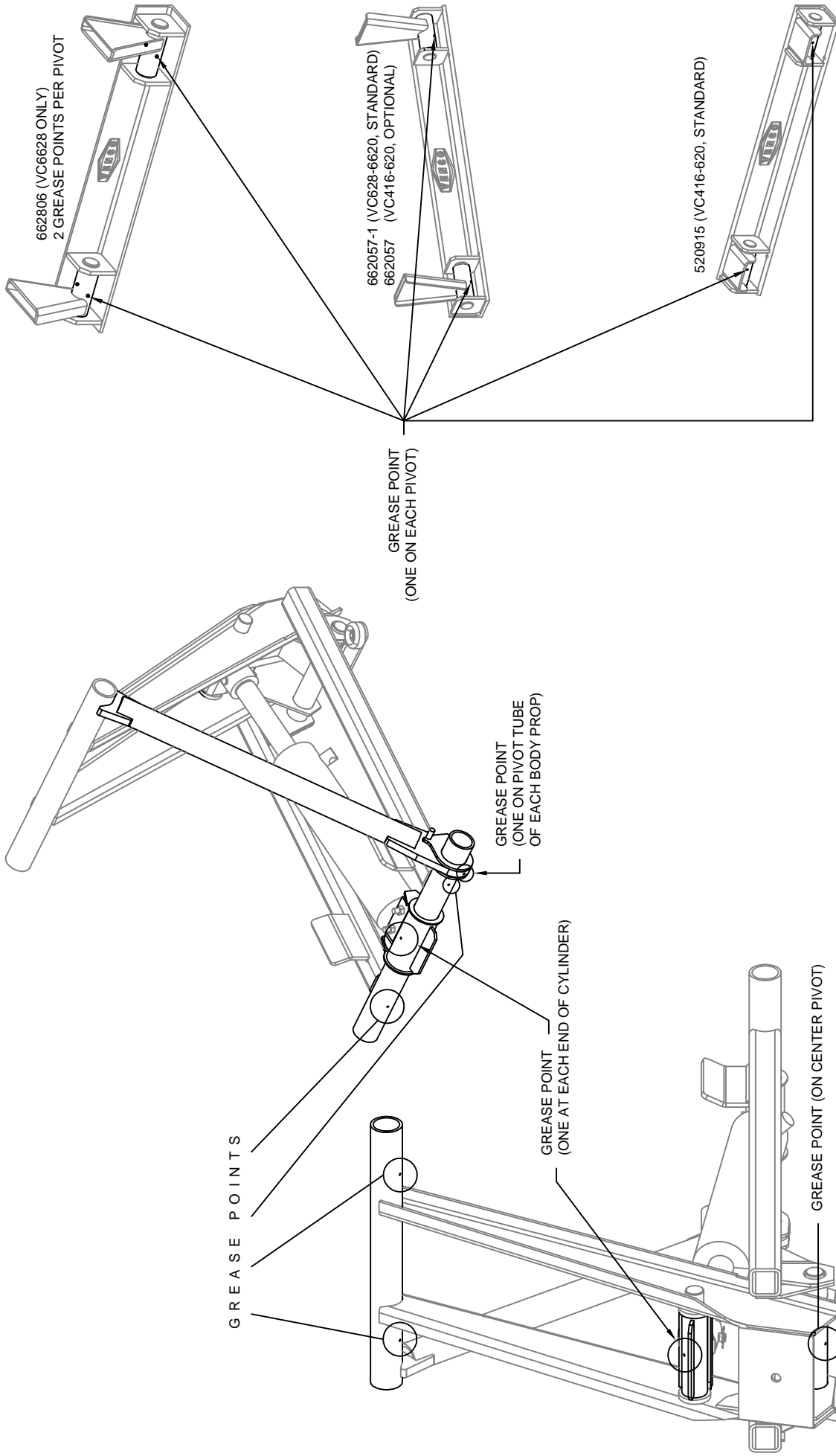
VC 520-6628

SUPERSEDES


08-12-15C

520079

HOIST GREASE POINTS



TO ENSURE THE RELIABLE PERFORMANCE OF YOUR VENCO HOIST, IT IS NECESSARY THAT YOU GREASE THE HOIST AT THE TIME OF TRUCK SERVICE WITH CHASSIS GREASE. THE GREASE POINTS FOR THE HOIST SCISSORS AND REAR HINGES ARE SHOWN ABOVE. ADDITIONAL FITTINGS FOR TWIN CYLINDER HOISTS AND ADDITIONAL BODY PROPS ARE ALSO NOTED.

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	SECTION
	GREASE POINTS FOR HOISTS VC416-6628	DATE 10-27-15E SUPERSEDES 08-11-15D

BODY PROP USE AND WARNINGS

D. Body prop(s): Federal Regulation 1926.601, Paragraph 10, requires the use of a body prop. Accordingly, all Venco Hoist Units will have included as a standard item a body prop (safety strut). See Paragraphs D.1. & D.2. below.

WARNING

Do not place arms, hands, or any part of the body between the truck longitudinals (long beams) or moving parts to pull the body prop release/locking pin

Do not use the body prop(s) to support a loaded truck body.

Body prop(s) should be free swinging to a vertical position after the locking pin is released.

Read operation of safety strut and caution labels before operating the hoist.

1. The body prop is designed for use only when the truck body is empty. The purpose of the body prop is to provide a safety strut for use when maintenance or inspection are performed on an unloaded truck body in the raised position.

2. One (1) body prop shall be furnished for truck bodies up to and including 15 feet. For bodies longer than 15 feet in length, two (2) body props should be used.

Note: For all dump bodies two (2) body props are required.

3. On models equipped with a spring-loaded release pin, use a suitable tool to pull out the release pin to release the body prop from the hoist frame. This will release the body prop allowing it to swing downward to a vertical position.

4. Make sure that the body prop is aligned with the body prop foot rest (the body prop will be in a vertical position), then allow the truck body to move downward until the body prop is seated in the foot rest. Note: Do not power down after making contact with body prop foot rest.

5. To disengage the body prop, raise the truck body until the body prop swings freely away from the foot pad. Using a suitable tool, place the tool in a leverage position on the body prop and propel sharply to the left and upward (or to the right and upward) so that the locking pin can be compressed and seated in the locking pin hole. Make certain the body prop is latched securely before the hoist is operated.

WARNING

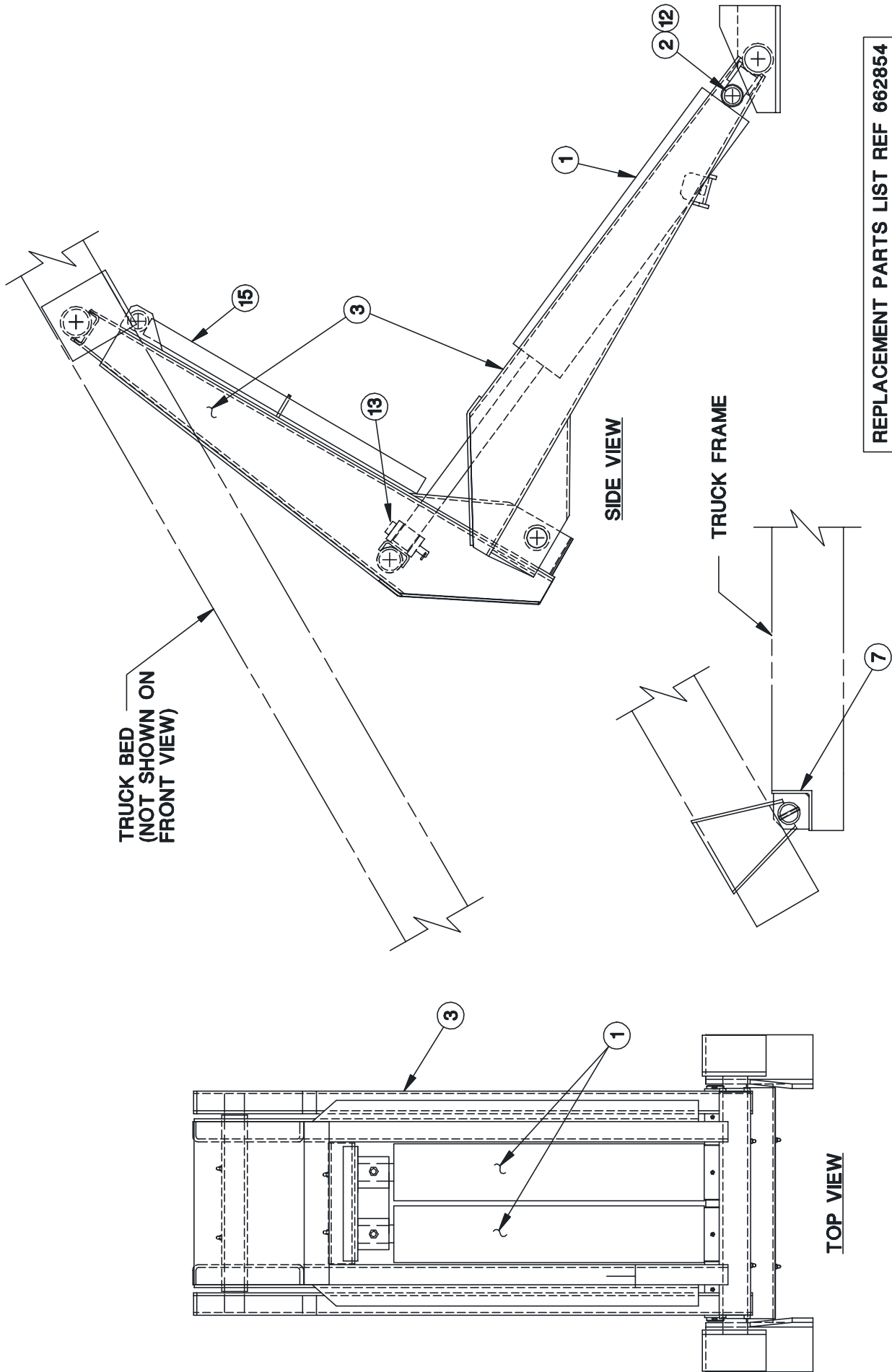
Use care when reseating the body prop(s) in the locked position.



TITLE	DATE	SECTION
BODY PROP INSTR.	5-24-02C	H200
VC 520 - VC 6628	SUPERCEDES 5-6-01B	520081

SECTION 400

REPLACEMENT PARTS



 VENCO MANUFACTURING, INC.	TITLE	REPLACEMENT PARTS DWG	SECTION	H400
		VC 6628 HOIST	DATE	8-7-00C
			SUPERSEDES	10-4-99B
				662853

**VC 6628
REPLACEMENT PARTS LIST**

ITEM	QTY	PARTNUMBER	DESCRIPTION
1	2	628900 ▲	CYLINDER - 6" BORE x 20" STROKE
2	1	662808	LOWER CYLINDER PIVOT SHAFT
3	1	662809	SCISSORS ASSEMBLY
*4	1	662830	PTO PUMP
5	-	-	-
6	-	-	-
7	1	662806	REAR HINGE ASSEMBLY
8	-	-	-
*9	2	662840	MOUNTING ANGLE
10	-	- ▲	-
11	-	- ▲	-
12	2	416010	COTTER PIN - 1/4" x 3"
13	2	416545	5/8 X 3-1/2 CLEVIS PIN ASSEMBLY
14	-	-	-
15	2	662836	BODY PROP
16		-	-
17		-	-
18		-	-
19		-	-
20		-	-
21		-	-
22		-	-
23		-	-
24		-	-
25		-	-
26		-	-
27		-	-
28		-	-
29		-	-
30		-	-
31		-	-
32		-	-
33		-	-
34		-	-
35		-	-

*ITEM NOT SHOWN ON DRAWING

REPLACEMENT PARTS DWG REF 662853

NOTE: PIN FOR MULTI-PIECE HINGE IS 662839



TITLE
REPL. PARTS LIST

VC 6628

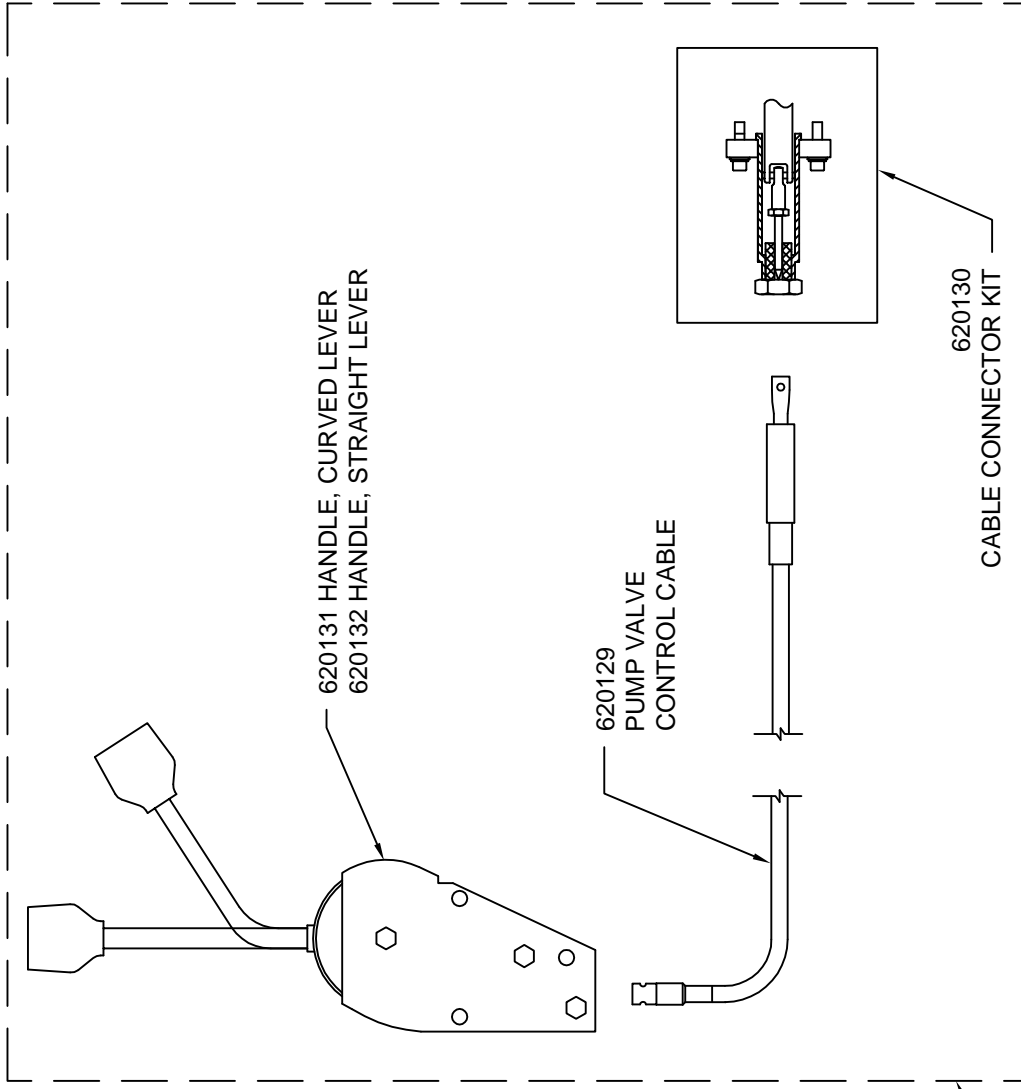
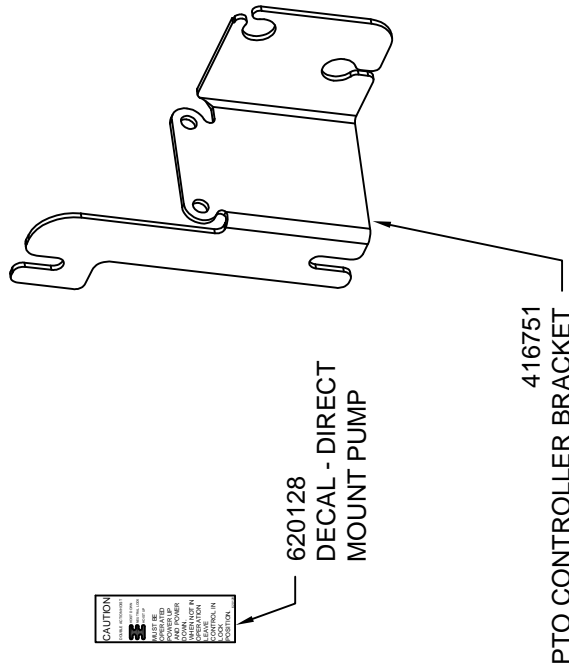
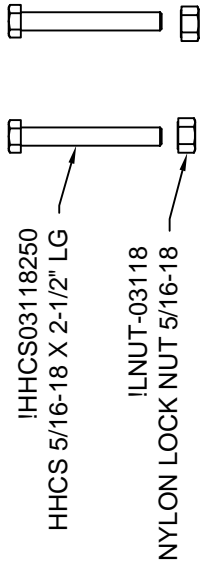
DATE
5-23-06E

SUPERCEDES
4-9-03D


SECTION
H400

662854

CABLE & CONSOLE KITS; 620125 (CURVED) & 620124 (STRAIGHT)



620126 CURVED HANDLE CABLE ASSEMBLY
620127 STRAIGHT HANDLE CABLE ASSEMBLY

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	REPLACEMENT PARTS DWG & LIST	DATE	SECTION
		PTO PUMP CABLE	10-29-15B SUPERSEDES 03-17-14A	H400
				620245

USER NOTES



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
USER NOTES (1)

DATE
09-17-15

SECTION
-

HOISTS

SUPERSEDES
-

516919



VENCO HOISTS LIMITED WARRANTY POLICY

Venco products are built to last...we guarantee them.

As a purchaser of any new Venco product covered by warranty, you will receive 3 years of the most complete coverage available...and, at no added cost to you.

3-Year Limited Warranty Policy

This limited policy warrants new products of Venco to be free from defects in material and workmanship for a period of three (3) years from date of original installation. OEM products or accessories purchased by Venco as part of or offered with our product will carry the OEM manufacturer's respective warranty. Our warranty covers:

- ***Repair or replacement of product***
- ***Labor to repair or replace product***
- ***Freight to return and/or replace product***

We shall not be liable for any contingent liabilities arising out of the improper function of any products. Warranty shall become void if the product is improperly installed, modified, damaged, abused or used for application other than intended use. Venco hoists are designed for and intended to be used on stationary trucks dumping on firm and level ground. Spreading applications and/or shock unloading are strictly prohibited and will void this warranty. There is no warranty of merchantability, fitness for a particular purpose, warranty arising from course of dealing or usage of trade, or any other implied or expressed warranty, except as made specifically herein. This warranty supersedes all previous warranties, written or implied.

Warranty Claims

Venco Venturo Industries LLC will make a good faith effort for prompt correction or other adjustment with respect to any product, which proves to be defective after our inspection and within the warranty period. Before any repairs are attempted or before returning any product, your Venco Distributor is required to obtain a warranty claim number. This number is necessary for any claim to be considered. To obtain a warranty claim number, Venco requires the model and serial number. Only authorized Venco Distributors can perform warranty. For the name and address of your local Venco Distributor call the **Warranty Claim Department - 513-772-8448**.

WARNING - It is the responsibility of the installer to ensure the installation is completed according to the manufacturer's recommendations, ensure the ultimate user understands how to operate product in a safe manner, and understands the need for regular service and maintenance by an authorized Venco Distributor. No modifications or alterations may be made to any Venco product without the expressed written consent of Venco Venturo Industries LLC. Installation of any Venco product must be done by an authorized Venco Distributor, to the standards of the industry; including maintenance, service and affixing of all instruction, safety and warning decals. Users should be instructed as to the safe operation at time of delivery. Maintenance, service, operation and safety warning decals are available on request from Venco Venturo Industries LLC.

VENCO VENTURO INDUSTRIES LLC
12110 BEST PLACE | CINCINNATI, OHIO 45241
P: 800-226-2238 | F: 513-326-5427
www.venturo.com