TABLE OF CONTENTS
VP / VC - 6F MANUAL

BOOKMARKS THUMBNAILS

-P DECALS AND PACKAGE INCLUDES:

15254	"CAUTION STAND CLEAR" DECAL	2 PCS.
416052	"CAUTION" DECAL	2 PCS.
6066	PLASTIC BAG	1 PC.
12-00075	ENVELOPE	1 PC.

VP/VC-6F HOIST SPECIFICATIONS OVERVIEW

VP6F - Designed for '99 and newer Ford SuperDuty pickup truck frame using pickup box
VC6F - Designed for '99 and newer Ford SuperDuty pickup truck frame using contractor bed (not using pickup box)

Hydraulic Power Unit Options

ES - Electric (12 VDC) single-acting hydraulic power unit (power up and gravity down)
ED - Electric (12 VDC) double-acting hydraulic power unit (power up and power down)

Specifications

Weight - 265 lbs (ES/ED)
Cylinder - 3-1/2" dia, 13" stroke
Operating Pressure - 2400 psi "up" (ES/ED) and 650 psi "down" (ED only)
Capacity
VP - 6000 lb (suggested maximum capacity for pickup box)
VC - Refer to the following chart:

PLATFORM AND DUMP APPLICATIONS

LENGTH	CA	OVERHANG	CAPACITY AT 40°
7'	56"	0"	3.43 tons
8'	56"	10"	3.79 tons
9"	56"	22"	4.50 tons

- Cab to axle dimensions may differ resulting in a change in capacities shown.
- Capacities include weight of body which must be deducted to determine payload.

Caution - Weight of chassis combined with weight of body, hoist and payload cannot exceed GVWR or GAWR of truck.

IMPORTANT: To avoid costly delays in installation and improper operation, read and understand this manual in its entirety before proceeding.

WARNING: Whenever work or maintenance is performed on a truck under a raised body, always remember to prop the body up with the optional safety prop (40042) or another safe method to avoid injury from the body inadvertently falling.

WARNING: To prevent damage to the truck's electrical system, disconnect the positive battery cable and alternator when arc welding on the truck.

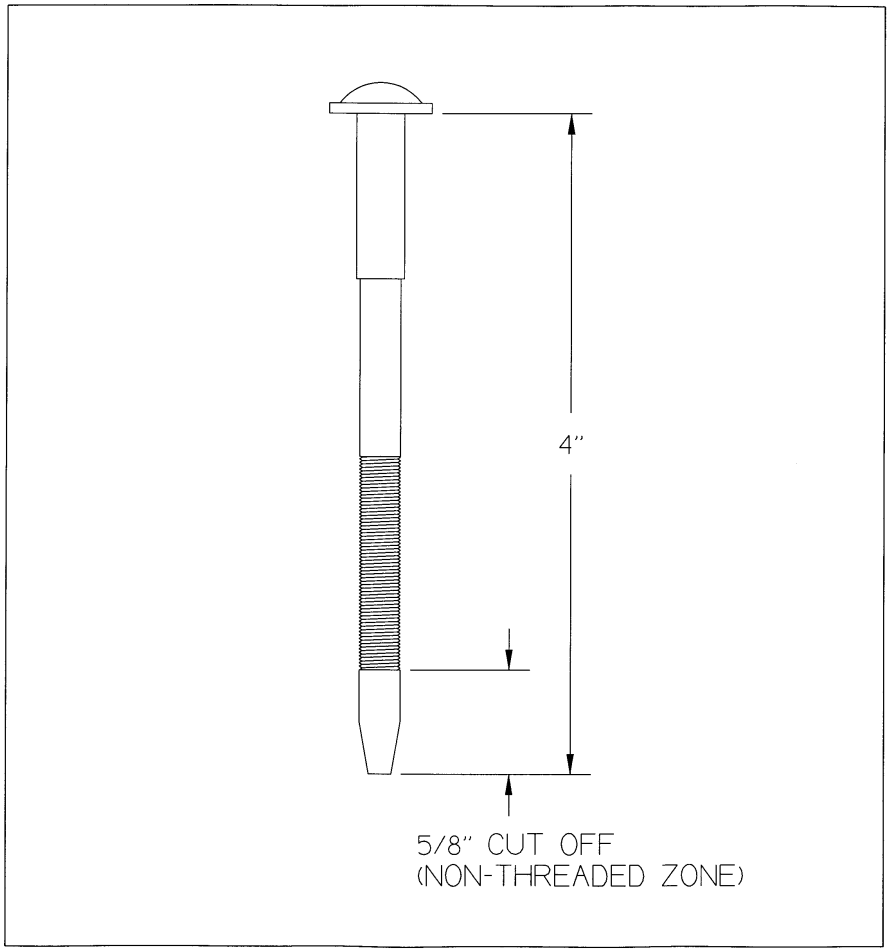
VP/VC-6F INSTALLATION INSTRUCTIONS

VP-6F (PICKUP BED) INSTALLATION

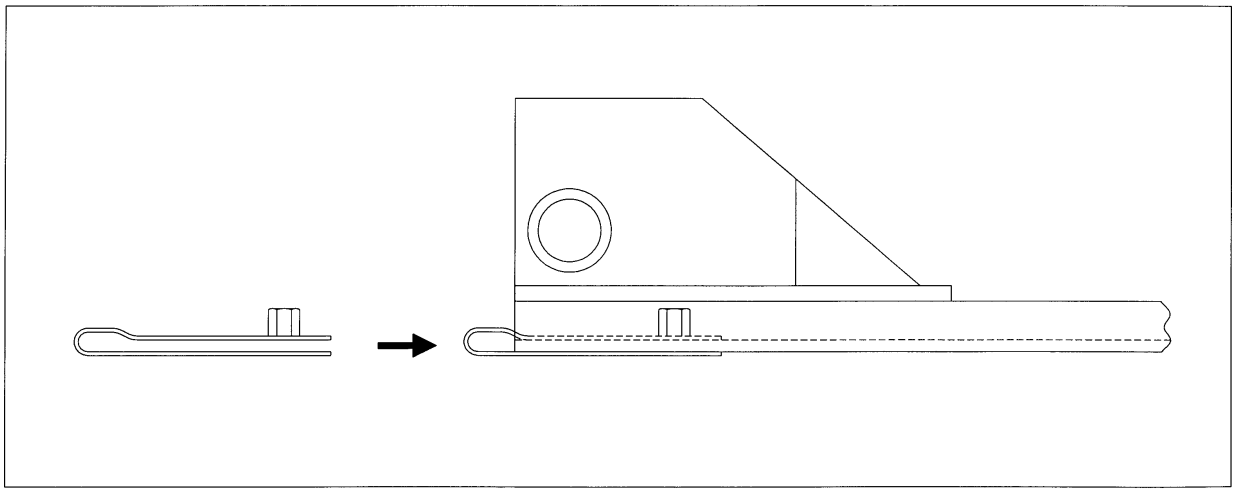
1. **Initial Disassembly**
   a. Remove pickup bumper.
   b. Disconnect gas filler neck from the gas cap assembly and seal the neck to prevent the escape of gas vapor. Be sure to attach a ground strap from top of gas filler neck to existing gas tank ground. Cover gas tank(s) and filler neck(s) with a nonflammable material before proceeding.
   c. Remove six bed bolts (T-50 Torx) from pickup bed (box) and set it, cab side down, in an upright position. Save the fasteners.
   d. Remove the rear-most U-nuts from the bed (these will be used in the rear hinge installation).
   e. Plug the four forward bed bolt holes using the supplied 1" hole plugs. Leave the two rearward bolt holes unplugged.

2. **Pickup Bed Modification (Gas Cap/Dish and Exhaust Shield Removal)**
   Reference Drawing(s): 6343
   a. Center punch and drill (1/4") out the four spot welds which attach the gas cap and dish assembly to the pickup bed and separate the gas cap and dish from the bed.
   b. Paint (and plug if desired) the four holes in the pickup bed to prevent corrosion.
   c. Remove the portion of the exhaust shield located between the second and third bed cross members (from the front of the bed).

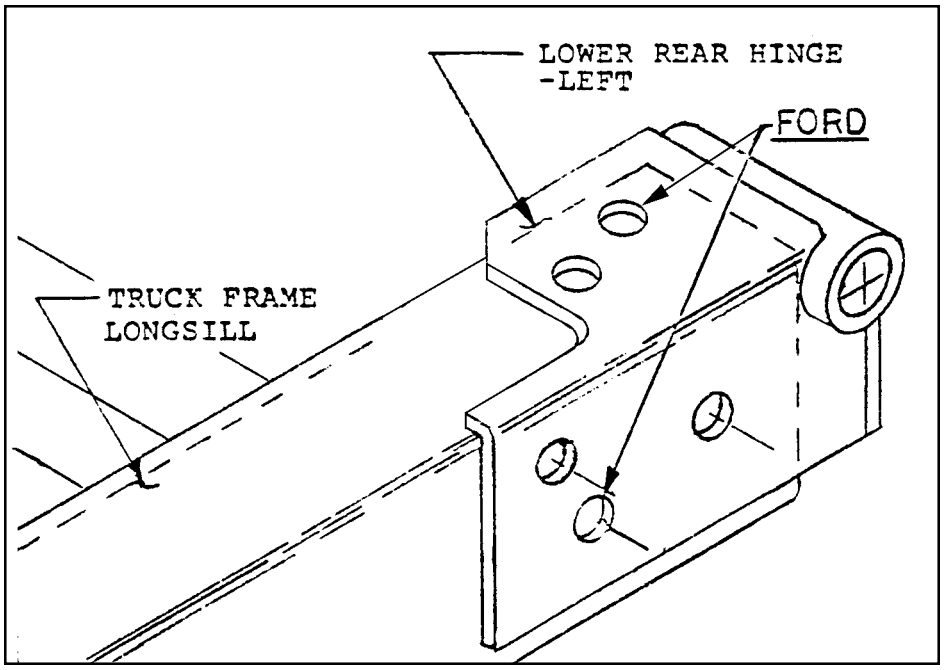
3. **Rear Hinge Installation**
   Reference Drawing(s): 6341, 6342
   a. Find the two shortest bed bolts (should be 4" long) and cut off 5/8" (the non-threaded zone).
   b. Install the two bed U-nuts on the upper rear hinge.
   c. Bolt the lower rear hinges to the truck frame (no modification of the frame is required), making sure that the hinges are square with respect to the truck frame (and each other).
   d. Secure the upper rear hinge (with collars on the side of the plates facing inboard toward the center of the frame) to the rear bed channel using the two modified bed bolts. Secure the other end of the upper rear hinge to the first bed cross member from the rear by drilling the channel and using the supplied 1/2" x 1-1/2" bolts, flat washers, lock washers, and nuts. Be sure that the upper hinge is mounted square with the bed cross members.



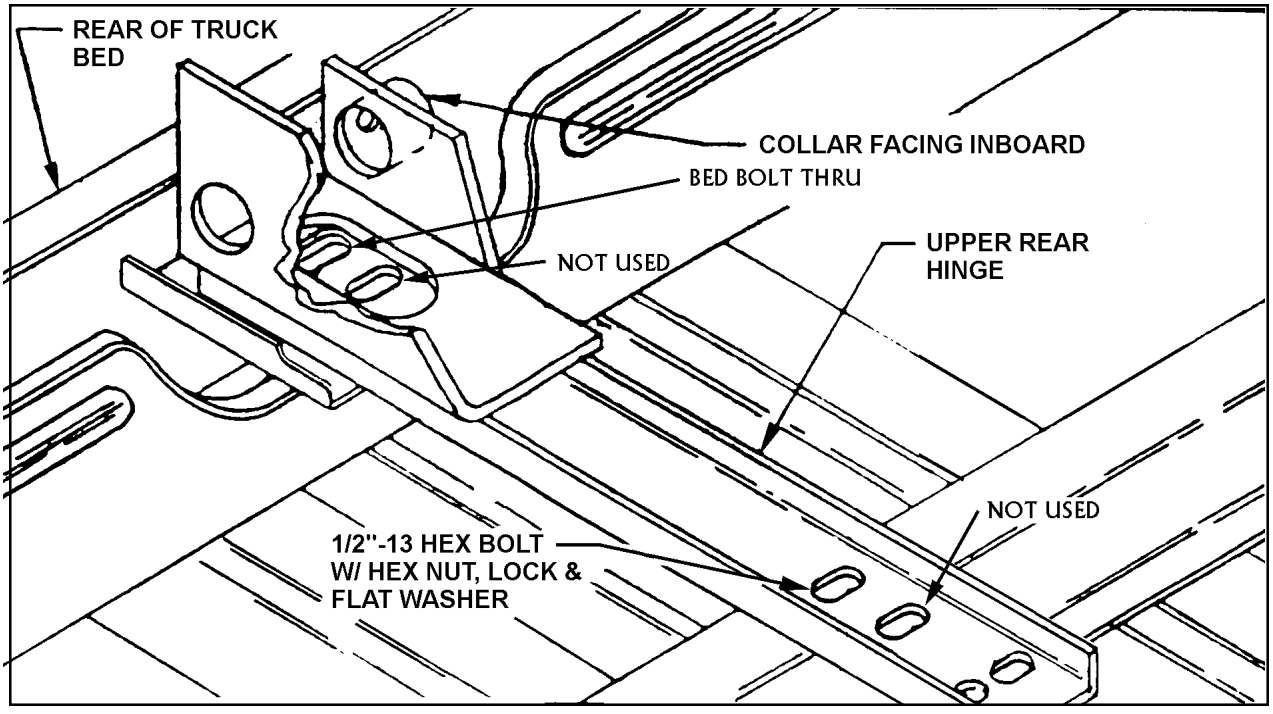
BED BOLT MODIFICATION



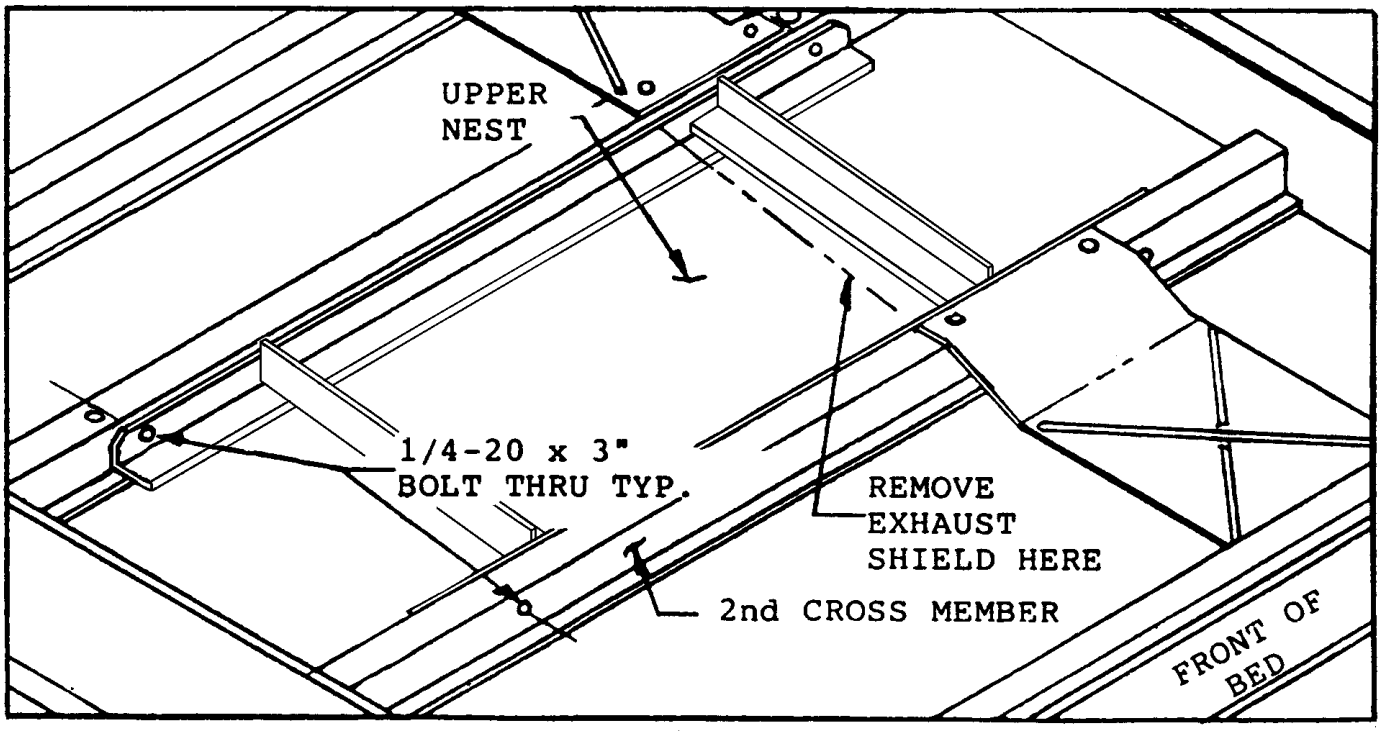
U-NUT INSTALLATION ON UPPER REAR HINGE



LOWER REAR HINGE INSTALLATION



UPPER REAR HINGE INSTALLATION



UPPER NEST INSTALLATION

VENCO MANUFACTURING, INC.	TITLE UPPER NEST INST.	DATE 5-13-98	SECTION H200
	VP/VC-6F	SUPERCEDES -	6343

4. Base Mounting Plate Assembly Installation
Reference Drawing(s): 6350

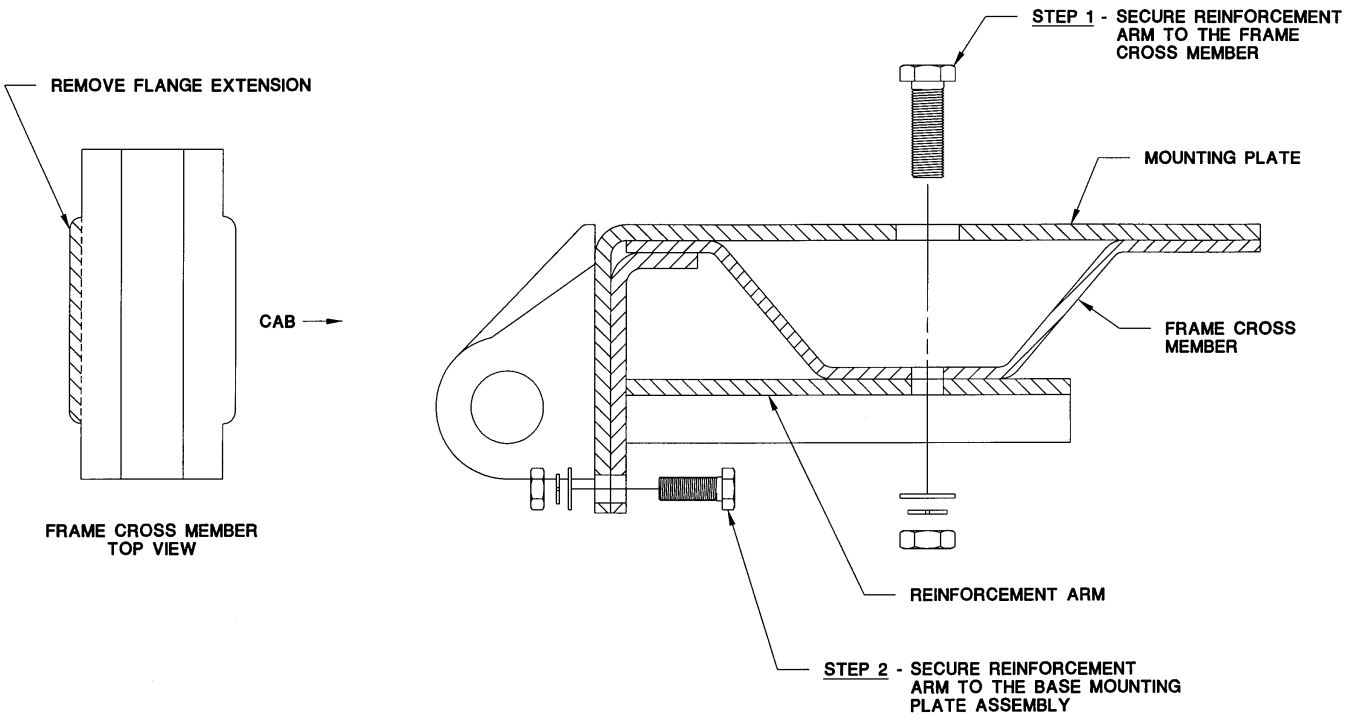
a. Remove the exhaust shield brace from the frame cross member. The hole in the frame cross member will be used for mounting the reinforcing arm.
b. Remove the 7/8" flange extension from the rear flange of the frame cross member.
c. Align the hole in the channel of the reinforcing arm with the hole in the frame cross member. Install the 1/2" x 1-1/2" bolt, washers and nut and secure the reinforcement arm to the frame cross member.
d. Position the base mounting plate assembly on the cross member such that the tab from it and the tab from the reinforcing arm align.
e. Secure the reinforcement arm to the base mounting plate assembly using the provided 1/2" x 1-1/2" bolt, flat and lock washers, and nut.
f. Using the base mounting plate as a guide, drill (four places) the flanges of the frame cross member.
g. Install the 1/2" bolts, flat washers, lock washers, and nuts (four places) to secure the base mounting plate assembly to the frame cross member.

5. Upper Nest Pivot Assembly Installation
Reference Drawing(s): 6352

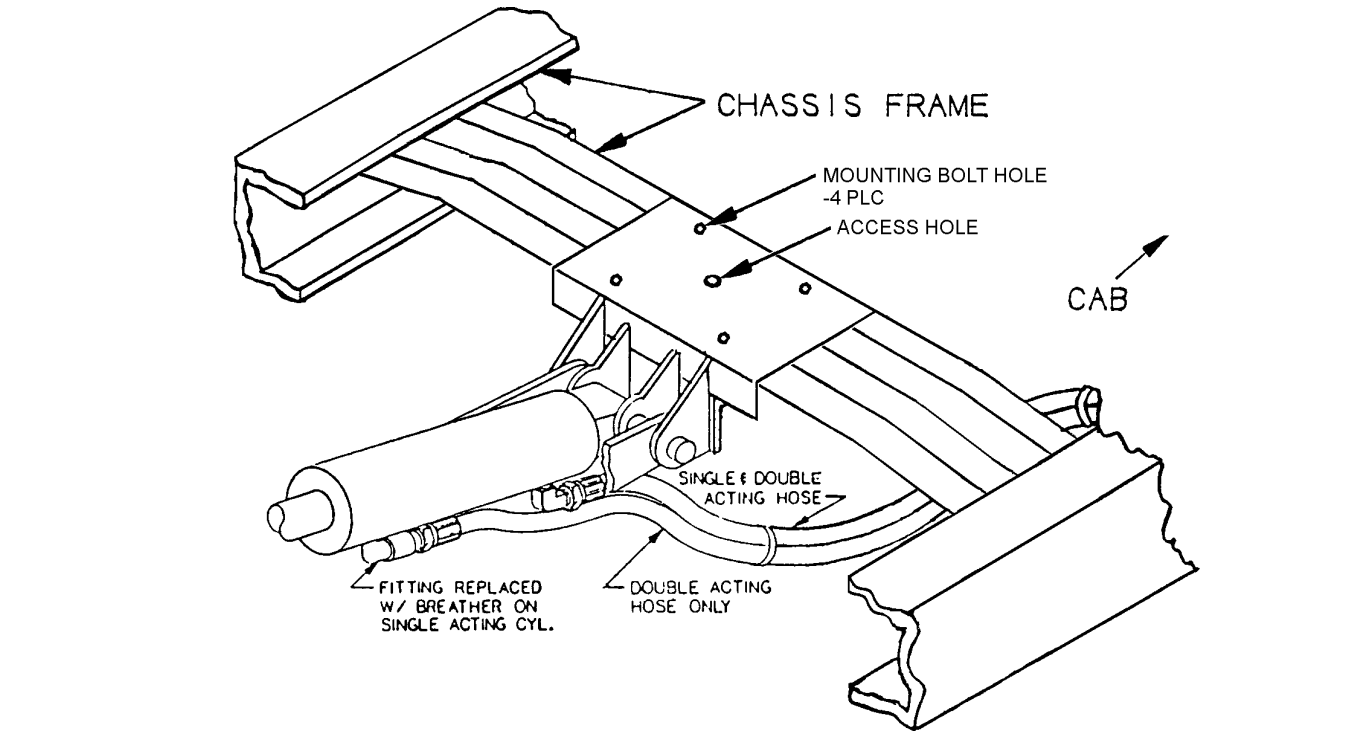
a. Slide the shaft collars (2" OD x 1-1/2" ID x 1/2") over each side of the upper pivot shaft (part of the hoist upper arm).
b. Slide the upper nest pivot assemblies onto each side of the upper pivot shaft. Orient the upper nest pivots assemblies as shown in the illustration.

6. Bed (Box) Installation

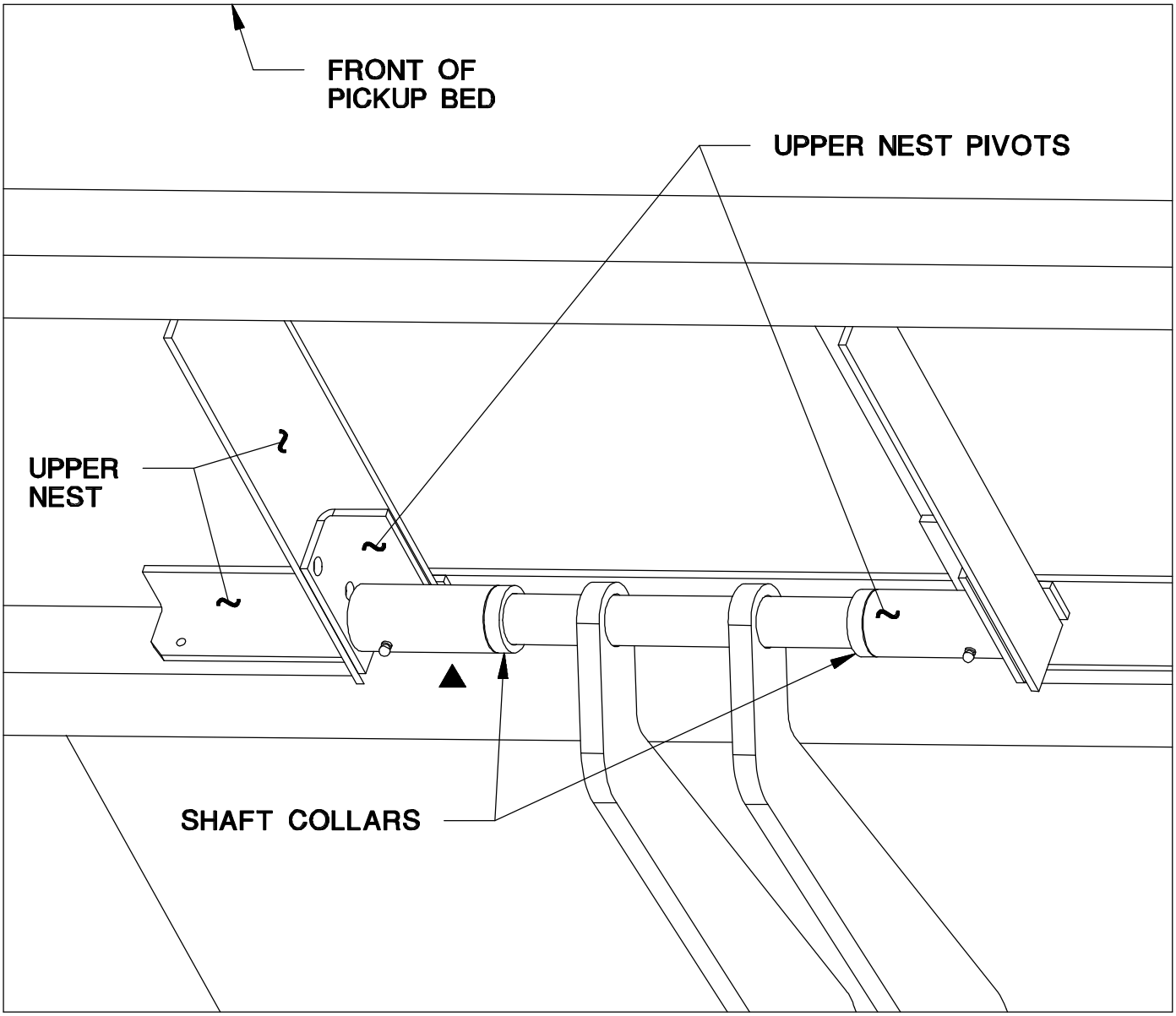
a. Reinstall the pickup bed on the pickup chassis. Install rear hinge pivot pins with heads on
▲ outside. Install the 1/4" x 1-3/4" roll pins through the collar (on the inboard side of the upper rear hinge) and the hole in the hinge pin.
b. Tighten all fasteners on the upper and lower rear hinge before continuing.



FRAME CROSSMEMBER MODIFICATION / REINFORCEMENT ARM INSTALLATION



MOUNTING PLATE ASSEMBLY INSTALLATION



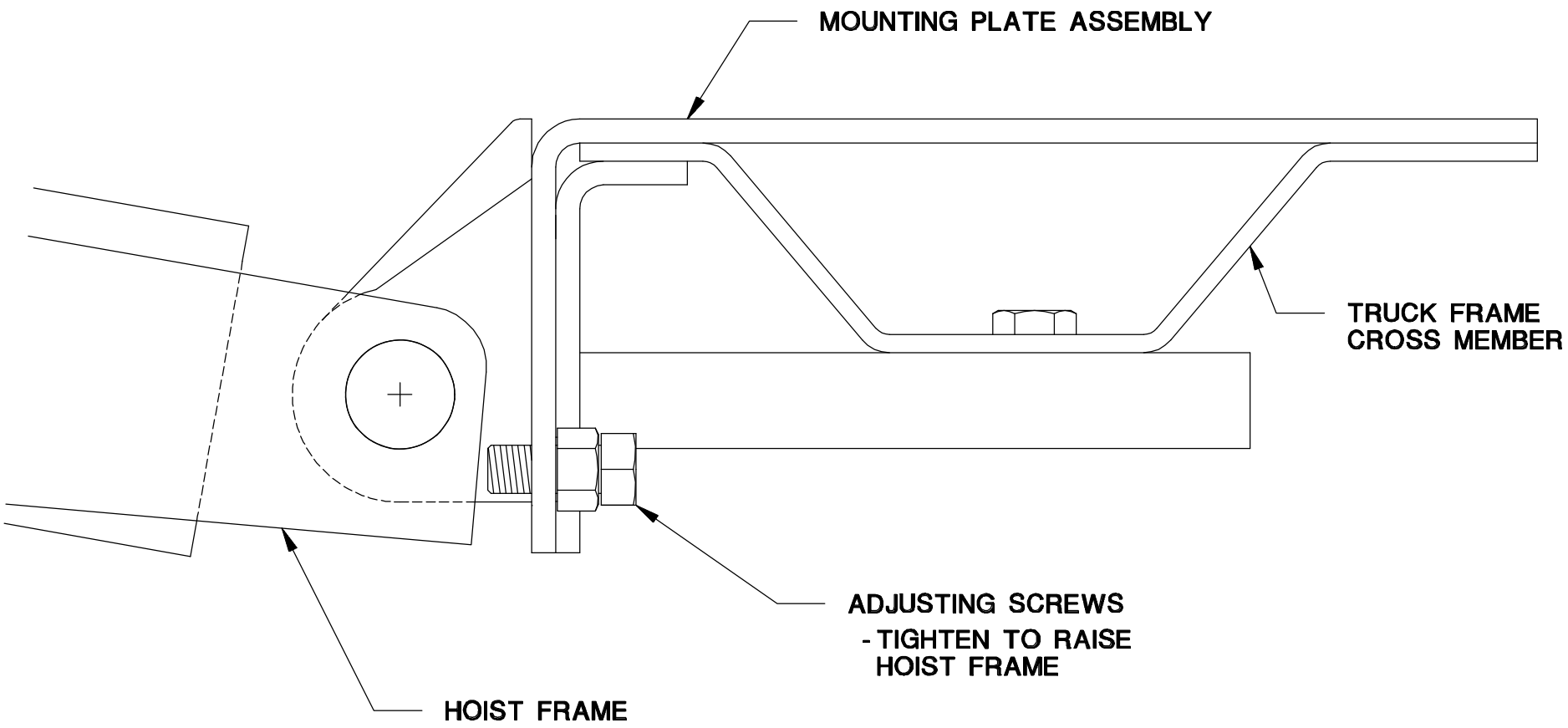
NEST PIVOT INSTALLATION

7. Installing Upper Nest and Upper Nest Pivots
Reference Drawing(s): 6343 (see previous page), 6352 (see previous page), 6354

a. Locate (Do not secure) the upper nest on the underside of the pickup bed between the second and third cross members. Be sure that the upper nest is free to slide left and right between the second and third bed cross members - it will be permanently secured later in the installation procedure.
b. Use the adjusting bolts in the hoist main frame to angle the hoist "knuckle" as high as possible without lifting the bed. This maximizes the clearance between differential and the hoist.
c. Activate hoist "up" slowly until the upper nest pivots make contact with upper nest assembly. The upper nest may need to be offset slightly from the centerline of the bed to properly align.
d. WARNING: Be sure you have followed the precautions of instruction 1.b. prior to welding.
e. Square up bed with the cab/frame of truck then spot weld the upper nest pivots to the upper nest.
f. Push the shaft collars on the upper shaft against the upper nest pivot. Spot weld the inside of the collar to the pivot shaft - repeat for other side.
g. Raise the hoist and prop body safely in "up" position.
h. Secure the front flange of the upper nest assembly to the second cross member by drilling 1/4" holes in the bed cross member and by using 1/4"-20 x 3" bolts, lock washers, flat washers, and nuts. Using the same hardware (after drilling the necessary holes), attach the rear flange of the upper nest assembly to the third cross member. Note: Be sure that the upper nest is flush against the underside of the bed before drilling holes through the bed channels.
i. Complete welding (solid) of the upper nest pivot assemblies and the shaft collars.

8. Plastic Pad Installation

a. The plastic pads are intended to provide support and fill the space between the bed cross members and the frame rails.
b. The plastic pads are centered over the existing bed bolt holes and are secured using 1/4" x 2" self tapping Torx head screws.
c. The plastic pads should be located on the third or forth bed cross member (from the front) and on the first or second bed cross member (from the front).



VENCO MANUFACTURING, INC.

TITLE	DATE	SECTION
ADJUSTING SCREWS FOR HOIST POSITIONING	9-28-98A	H200
VP/VC-6F	SUPERSEDES 5-12-98	6354

9. Hydraulic Power Unit Installation

Reference Drawing(s): 416140, 6133B, 6096

IMPORTANT: Be sure to blow dirt and other material out of the hose(s) with compressed air to prevent the hydraulic system from being contaminated.

ES (Electric Single Acting) Power Unit

a. Install 40226 breather into rod-end port of cylinder.
b. Mount power unit to truck frame with 3/8"-16 bolts, 3/8" lock washers and washers on inside of truck frame to prevent interference with side of truck bed.
c. Install hose to the full/base end of cylinder.
d. Be sure hoses are not crimped, and use cable ties to secure hoses in a safe manner between cylinder and power unit.
e. Check hydraulic fluid level in power unit reservoir. If fluid is required, use Dextron II - ATF, mobile DTE 13 or equivalent. Fill 3/4" from the top of the reservoir.

ED (Electric Double Acting) Power Unit

a. Install the short hydraulic hose to the full/base end of the cylinder. Connect the long hydraulic hose to the rod end of the cylinder. Direct hoses to the right of the frame.
b. Install the ED Power Unit on the outside of the frame just forward of the right rear front spring hanger. Put 1/2" pipe spacers 1-1/4" long between frame and power unit, if required. Bolt through frame and pipe into side of power unit - use 3/8"-16 bolts, 3/8" washers and lock washers (2 each required). Be sure not to drill through cables running on inside of truck long-sills.
c. Connect the short hose (from the base end of the cylinder) to the high pressure port of the hydraulic power unit. Connect the long hose (from the rod end) to the low pressure port of the hydraulic power unit.
d. Be sure hoses are not crimped, and use cable ties to secure hoses in a safe manner between cylinder and power unit.
e. Check hydraulic fluid level in power unit reservoir. If fluid is required, use Dextron II - ATF, mobile DTE 13 or equivalent. Fill 3/4" from the top of the reservoir.

10. Dash Control Switch Installation

Reference Drawing(s): 40124, 6133B, 6096

a. Install dash mounting plate under the dash in a convenient location for operator control. Use the #12 pan head slotted screws (1/2" long) furnished in kit.
b. Install switch in switch plate using lock nut.
c. Install switch extension onto toggle switch.
d. Connect center post of switch to the 20 amp in-line fuse. Connect fuse to hot lead under dash.
e. Connect the 16/2 SJO Cable in the following manner:
   a. Connect one wire lead to top pole, and the other lead to the lower pole of switch. Run cable to the power unit. Noting the wire color that has been attached to the top switch pole, attach the same color wire to the small post on the power unit solenoid.
   b. Single Acting - see Drawing 6133B. The wire from the bottom of switch should be connected to the valve body post on the power unit.
   Double Acting - see Drawing 6096.

INSTRUCTIONS FOR FILLING THE RESERVOIR OF ELECTRIC HYDRAULIC POWER UNITS

THE FOLLOWING HOIST MODELS ARE INCLUDED:
VP/VC-6(R), VC-416/516, VC-520 - ES & ED

MODEL NO.	RESERVOIR CAPACITY	TOTAL FLUID REQ'D
VP/VC-6(R) ED	2 QTS.	3.5 QTS
VC-416 ES/ED	4 QTS.	5.5 QTS
VC-516 ES/ED	4 QTS.	7.5 QTS
VC-520 ES/ED	4 QTS.	9.0 QTS.

PROCEDURE

STEP 1 - On 416, 516, 520 ES models only, do not attach rod end hose to the cylinder until after completing Steps 2 thru 6.

STEP 2 - Remove the reservoir breather. With the hoist in the down position, fill the reservoir with ATF-Dextron II (Mobile DTE 13 or equivalent) - 3.5 qts. for 416, 516, 520 and 2 qts. for VP-6(R).

STEP3 - Raise the hoist halfway (22-25° dump angle, approx. 8" of cylinder stroke).

STEP 4 - Fill the reservoir with an additional 2 qts. for VP-6(R), 416, 516 and 3 qts. for 520.

STEP 5 - Raise the hoist completely.

STEP 6 - Refill the reservoir with the remaining fluid required.

STEP 7 - Attach hose to rod end of cylinder on the 416, 516, 520 ES models.

Example: VC-416 ES/ED Hoist

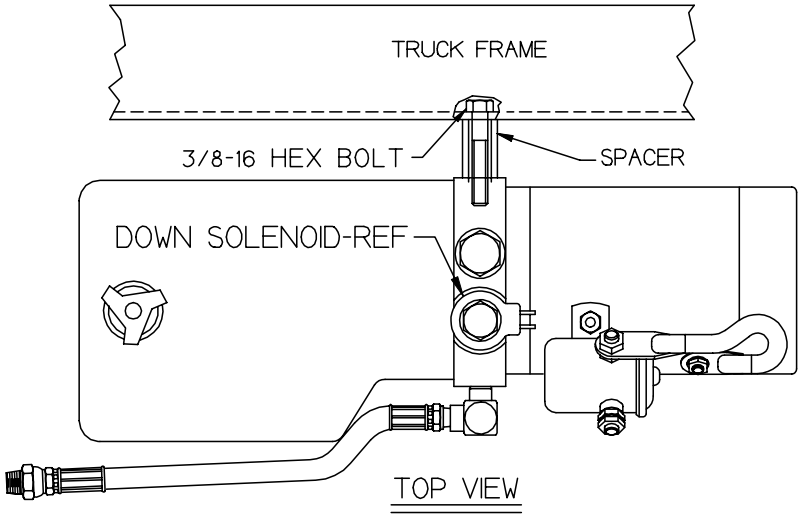
Step 2 - Add 3.5 qts.

Step 3 - Add 2.0 qts.

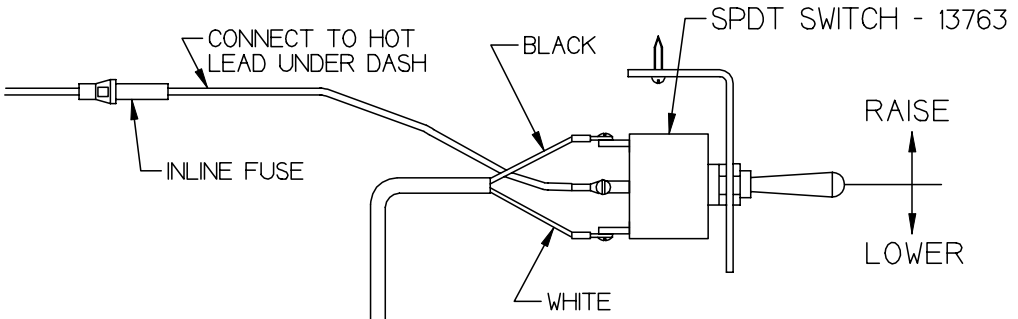
Step 4 - Add 0.0 qts (none req'd)

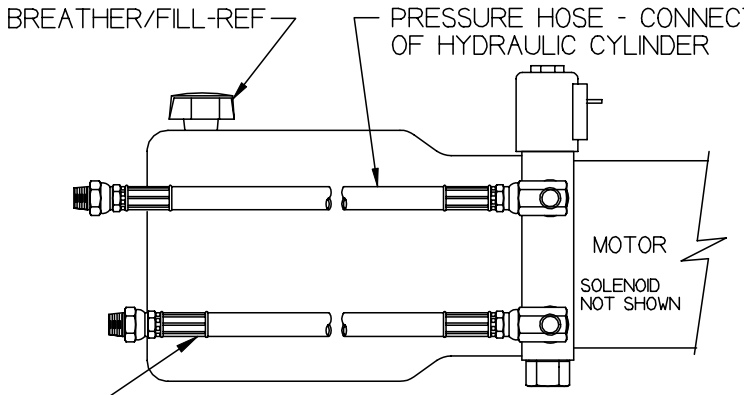
= 5.5 qts. total

* IF SPACERS ARE NOT USED USE 1" LG. BOLTS



TOP VIEW



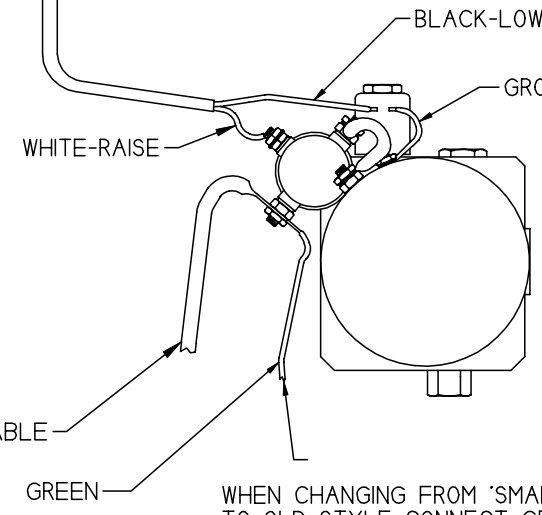


RETURN HOSE ONLY ON VC416/516 AND LARGER HOISTS
-CONNECT TO ROD END OF HYDRAULIC CYLINDER
-RETURN HOSE NOT REQUIRED ON VP/VC6R & VP/VC6D

SIDE VIEW

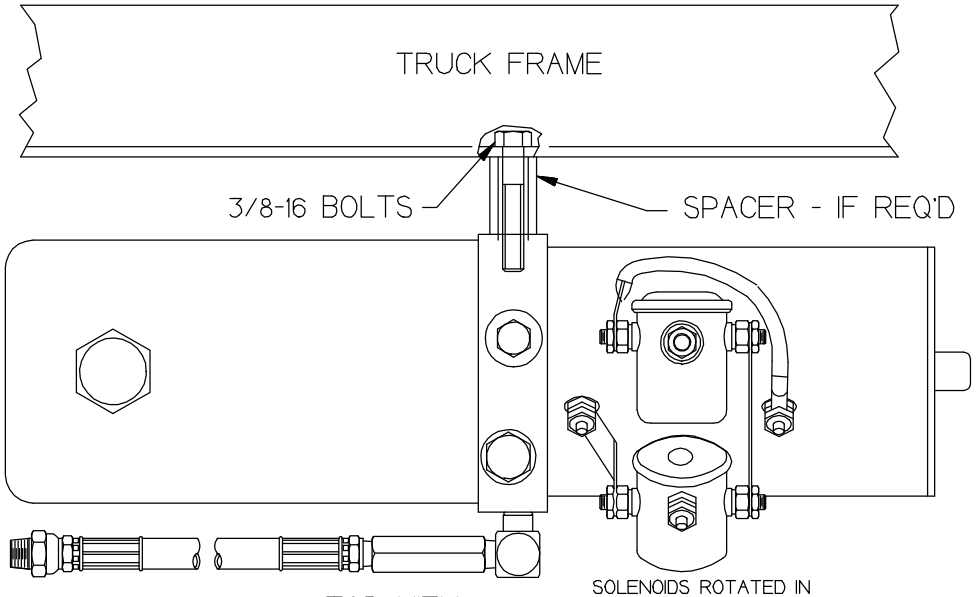
SINGLE ACTING POWER UNIT
-POWER UP/GRAVITY DOWN

NOTE: BE SURE POWER UNIT HAS GROUND TO TRUCK FRAME.
SEE DRAWING 40058-2B FOR PARTS & HYDRAULIC SCHEMATIC.



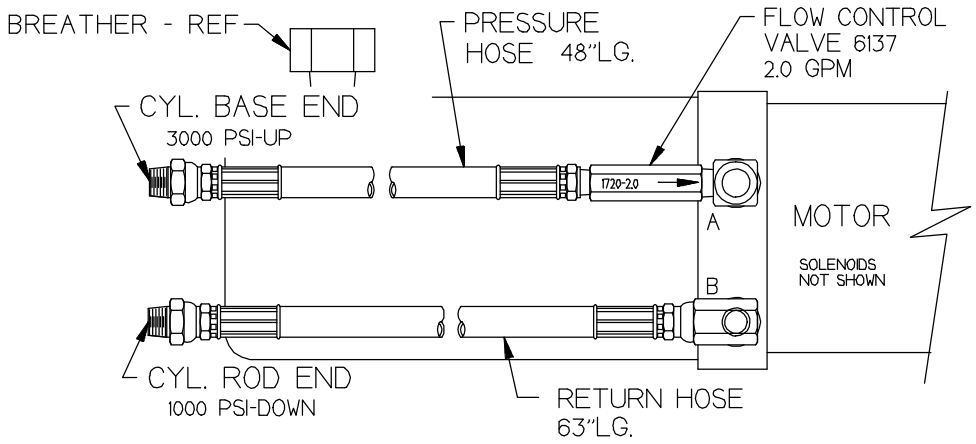
WHEN CHANGING FROM 'SMART' SOLENOID TO OLD STYLE CONNECT GREEN WIRE HERE. CONNECT BLACK TO EITHER WIRE ON RELEASE SOLENOID AND GROUND THE OTHER WIRE.

VENCO MANUFACTURING, INC.	TITLE PLUMBING & WIRING DIAGRAM	DATE 7-18-00	SECTION H200
	FENNER ES POWER UNIT 40058-2B	SUPERSEDES 7-6-98	6133B

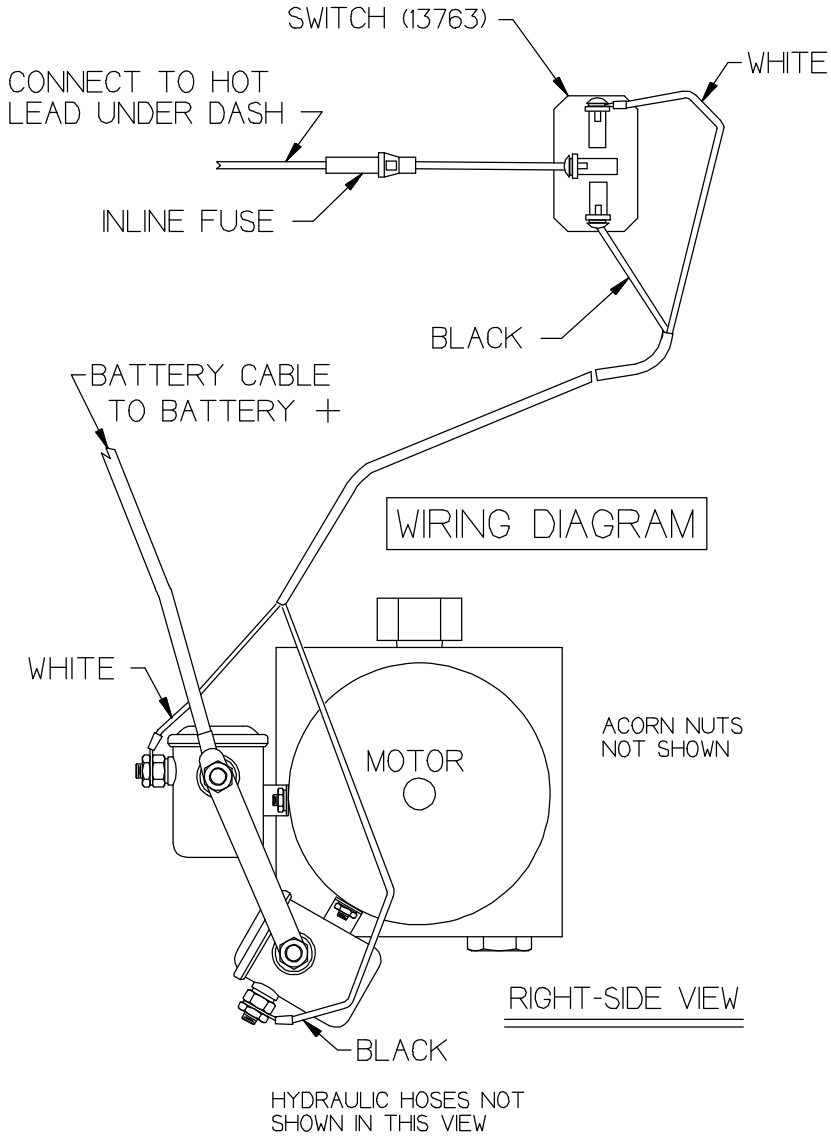


TOP VIEW

PLUMBING DIAGRAM



FRONT VIEW

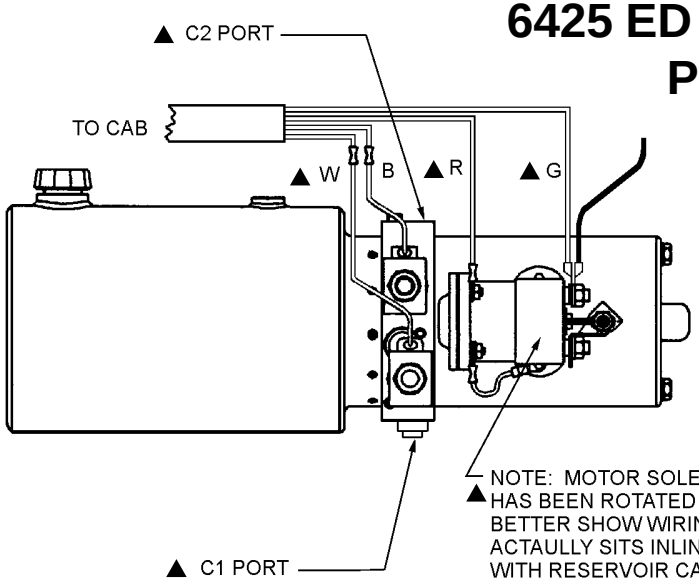


WIRING DIAGRAM

RIGHT-SIDE VIEW

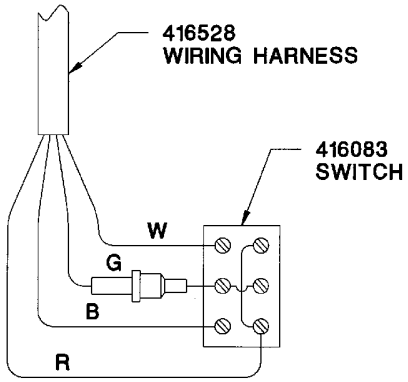
VENCO MANUFACTURING, INC.	TITLE PLUMBING & WIRING DIAGRAM	DATE 9-12-96	SECTION H200
	ED (BI-ROT) POWER UNIT 6136	SUPERSEDES 4-18-94	6096

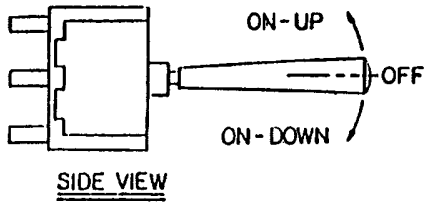
6425 ED (DOUBLE ACTING) POWER UNIT



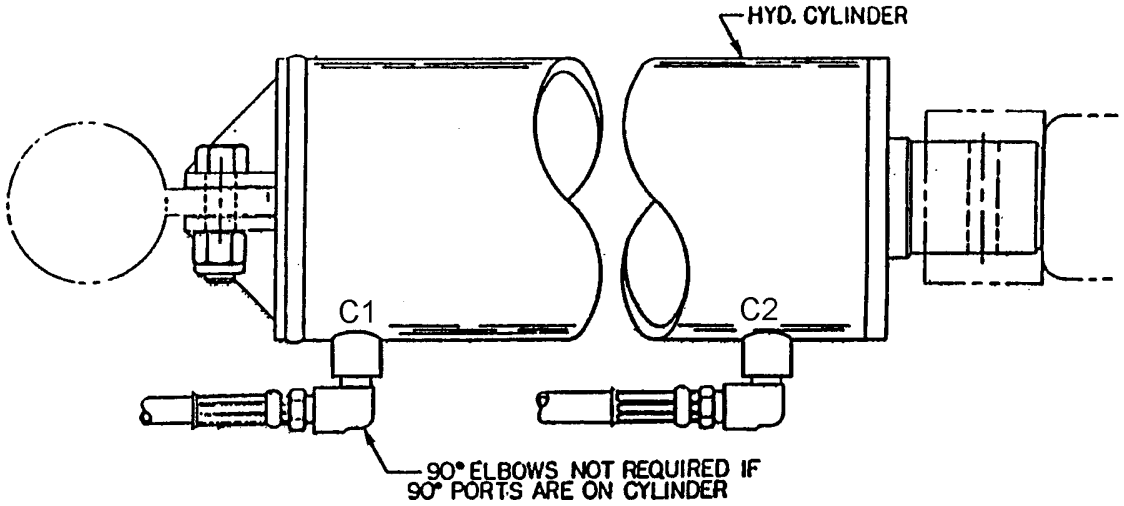
ELECTRICAL
W - WHITE WIRE
B - BLACK WIRE
G - GREEN WIRE
R - RED WIRE

HYDRAULICS
C1 - FULL END CYL
C2 - ROD END CYL



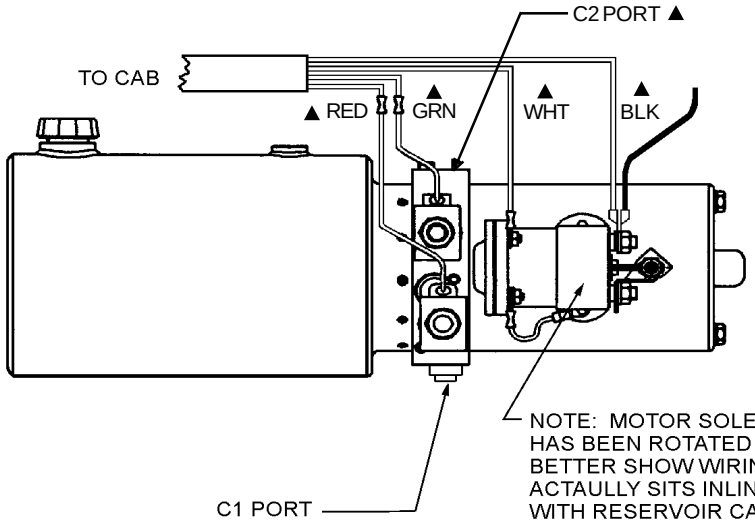


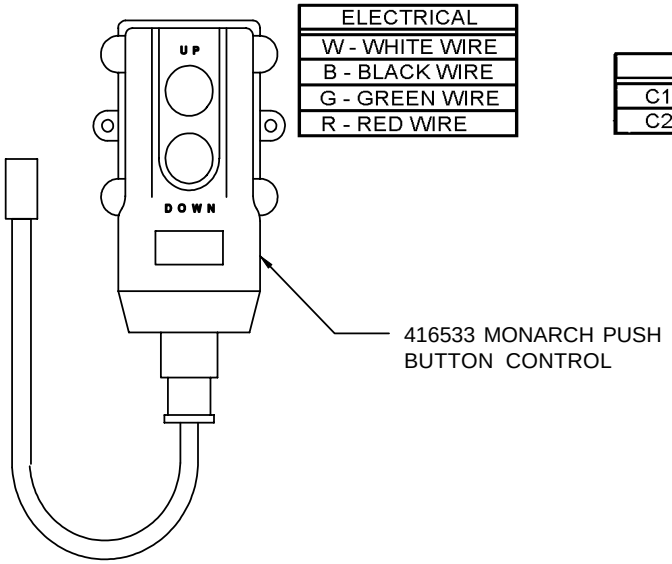
NOTE: ENERGIZING 'B' COIL SENDS FLOW TO 'C1' PORT
ENERGIZING 'W' COIL SENDS FLOW TO 'C2' PORT



VENCO MANUFACTURING, INC.	TITLE: 6425 ED POWER UNIT	DATE: 10-27-00A	SECTION: -
	VP6S	SUPERCEDES: 2-8-00	6493

6425 ED WITH MONARCH PUSH BUTTON CONTROL

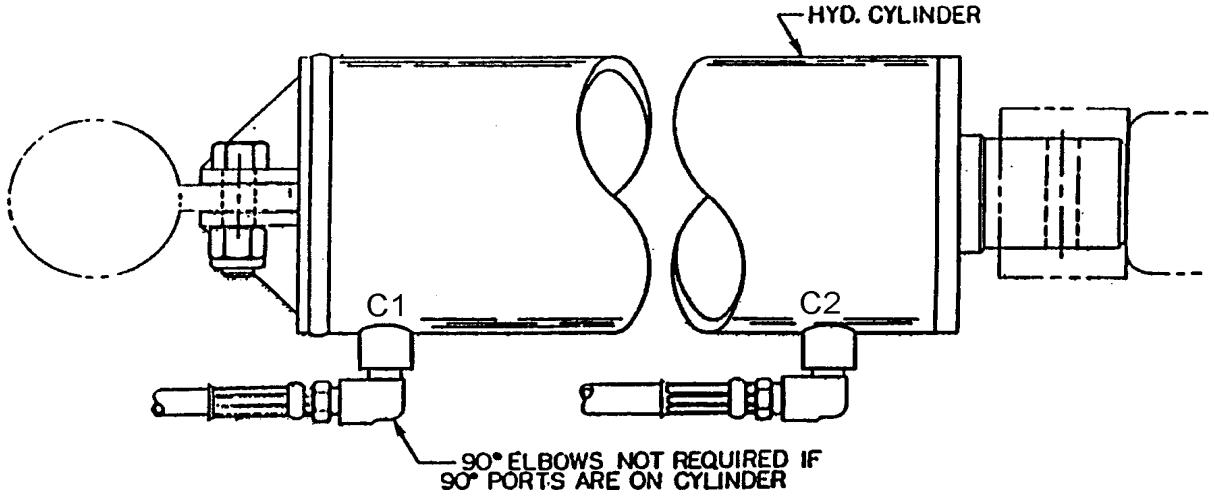




ELECTRICAL
W - WHITE WIRE
B - BLACK WIRE
G - GREEN WIRE
R - RED WIRE

HYDRAULICS
C1 - FULL END CYL
C2 - ROD END CYL

NOTE: ENERGIZING 'G' COIL SENDS FLOW TO 'C1' PORT (HOIST UP)
ENERGIZING 'R' COIL SENDS FLOW TO 'C2' PORT (HOIST DOWN)

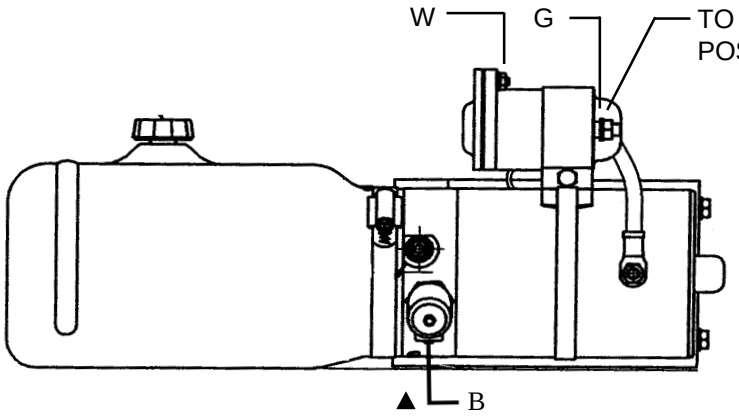


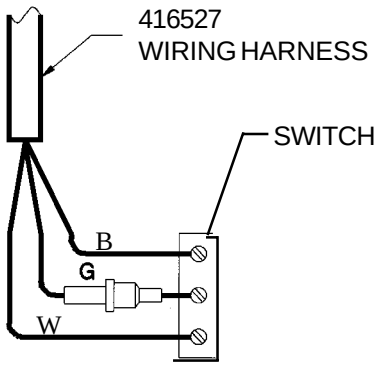
VENCO MANUFACTURING, INC.	TITLE: 6425 ED POWER UNIT	DATE: 8-24-01B	SECTION: -
	VP6S	SUPERCEDES: 10-27-00A	6500

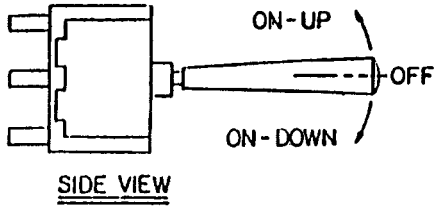
6426 ES (SINGLE ACTING) POWER UNIT

ELECTRICAL
W - WHITE WIRE
B - BLACK WIRE
G - GREEN WIRE

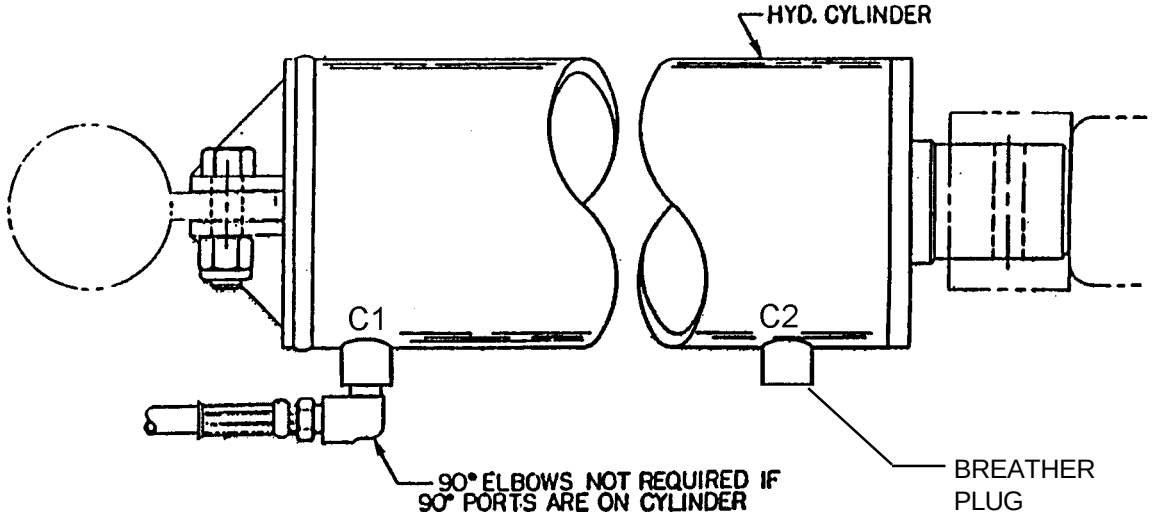
HYDRAULICS
C1 - FULL END CYL
C2 - ROD END CYL







NOTE: ENERGIZING 'B' COIL RELEASES 'C1' PORT
ENERGIZING SOLENOID COIL SENDS FLOW TO 'C1' PORT

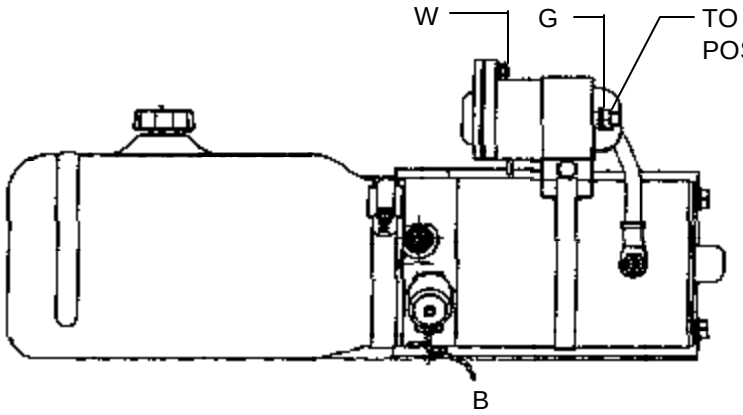


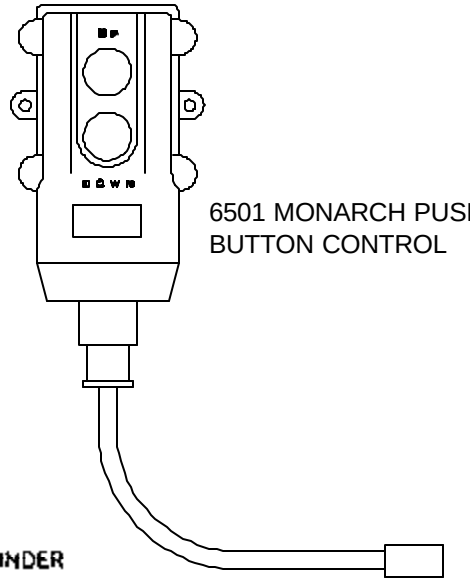
VENCO MANUFACTURING, INC.	TITLE: 6426 ES POWER UNIT	DATE: 8-2-01B	SECTION: -
	VP6S	SUPERCEDES: 6-9-00A	6506

6426 ES (SINGLE ACTING) POWER UNIT

ELECTRICAL
W - WHITE WIRE
B - BLACK WIRE
G - GREEN WIRE

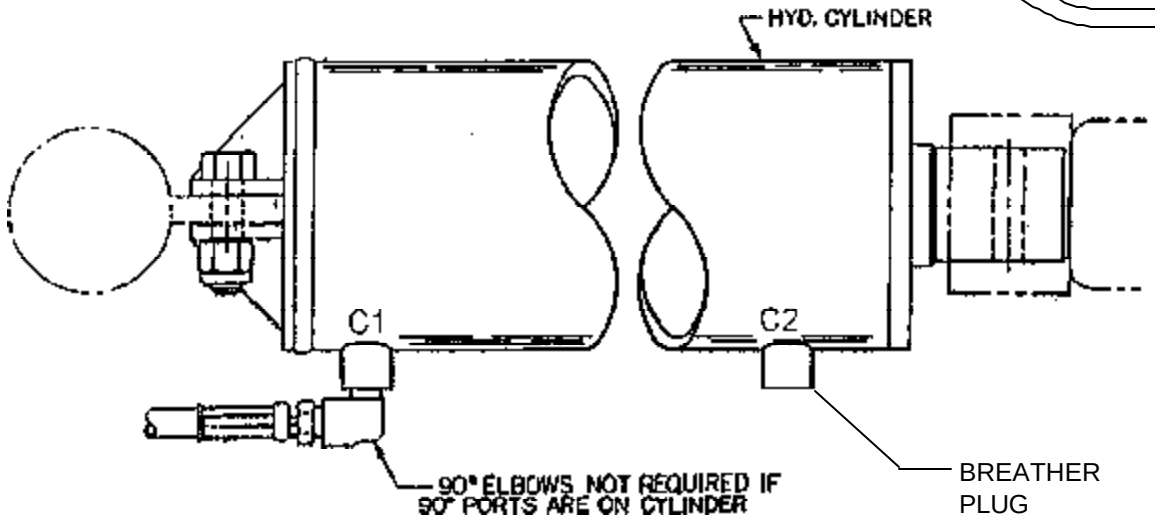
HYDRAULICS
C1 - FULL END CYL
C2 - ROD END CYL



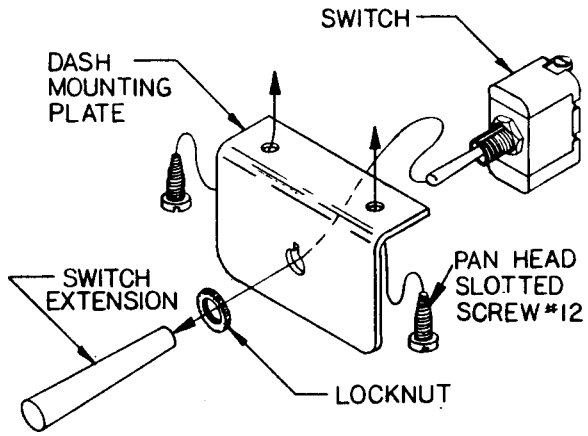


6501 MONARCH PUSH BUTTON CONTROL

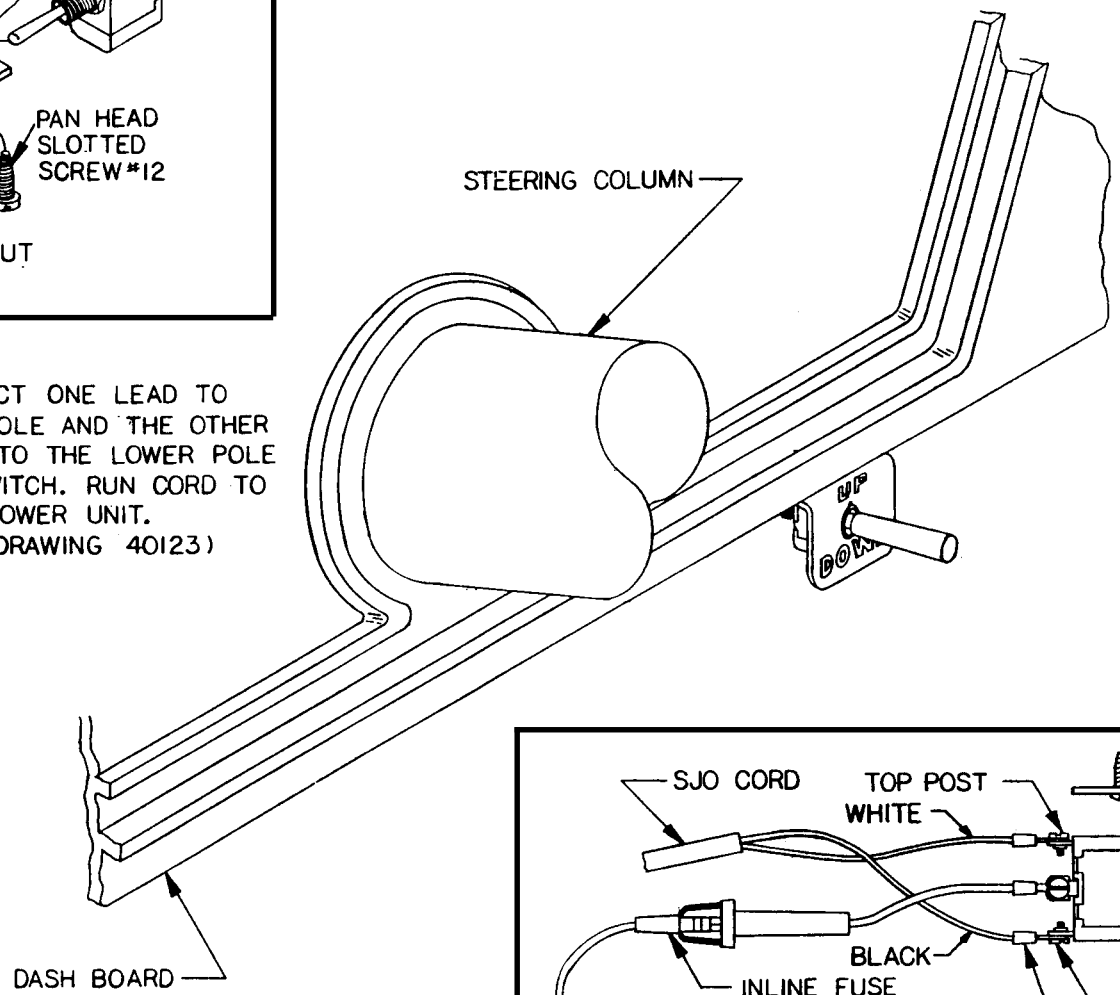
NOTE: ENERGIZING 'B' COIL RELEASES 'C1' PORT
ENERGIZING SOLENOID COIL SENDS FLOW TO 'C1' PORT

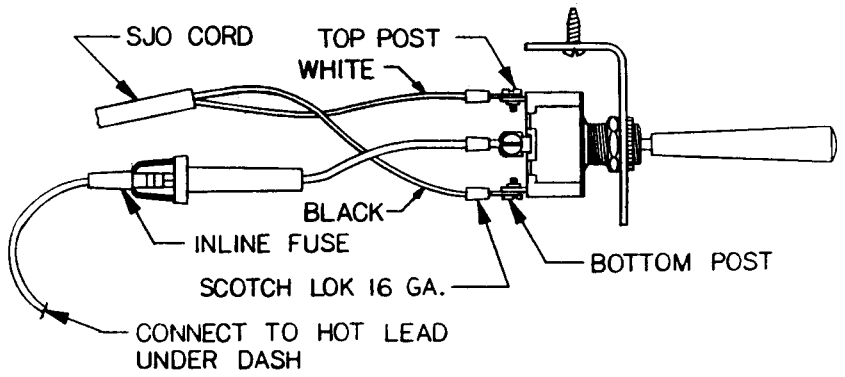


VENCO MANUFACTURING, INC.	6426 ES PWR UNIT W/ PUSHBUTTON INST.	6-9-00A	-
	VP6S	5-30-00	6507



SJO CORD: CONNECT ONE LEAD TO TOP POLE AND THE OTHER LEAD TO THE LOWER POLE OF SWITCH. RUN CORD TO THE POWER UNIT. (SEE DRAWING 40123)





VENCO MANUFACTURING, INC.

TITLE	DATE	SECTION
DASH CONTROL INSTALLATION	5-15-98B	H200
VP/VC-6 SERIES	SUPERCEDES 1-22-90A	40124

11. Gas Filler Hose Modification
Reference Drawing(s): 40126

a. Shorten the hoses if necessary to provide adequate clearance when bed is raised and lowered.
b. Attach gas filler hose and breather hose to gas filler support and secure the gas filler support to the truck frame using 3/8"-16 x 1" bolt, flat washer, and nut.

12. Pickup Bumper Installation
Reference Drawing(s): 6072

Bumper is installed to rear hinge assembly using optional bumper brackets available from Venco.

13. Grease all fittings located at pivot points and repeat every 90 days.
Reference Drawing(s): 40260

14. Safety decals (provided for the safety of anyone who may operate this unit and intended to protect all parties from potential liability) must be installed as follows:

a. Two "Warning" decals - one on each side of the pickup bed adjacent to the cab in a highly visible location.
b. Two "Caution Stand Clear" decals - one on each side of truck frame in a highly visible location.

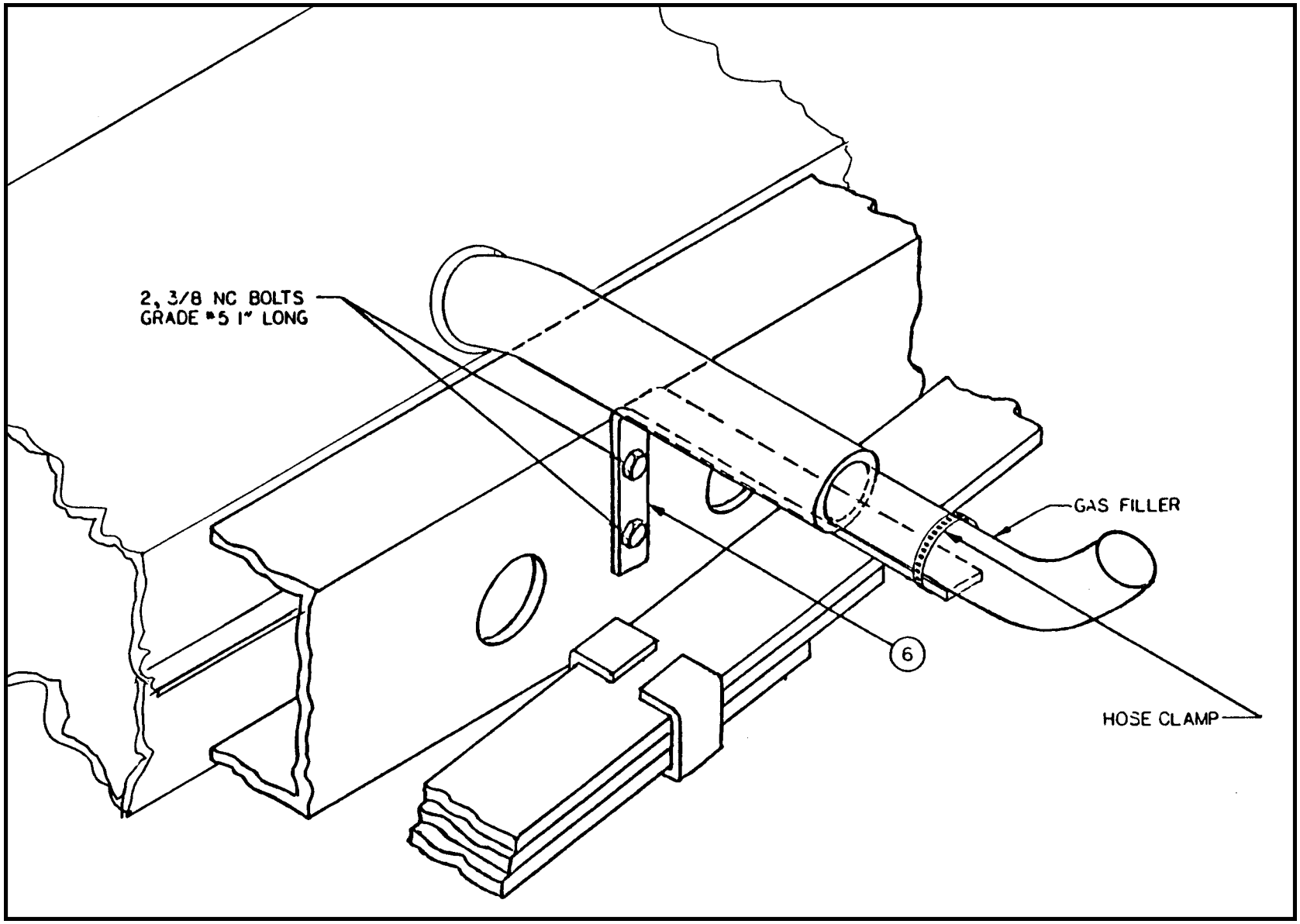
VC-6F (CONTRACTOR BODY) INSTALLATION

Reference Drawing(s): 6347

The installation of a VC-6F hoist is identical to the VP-6F hoist with the following exceptions:

A. The rear pivot angle is welded to the truck frame.
   a. Notch the ends of the frame channels as shown.
   b. Position the angle iron frame of the rear hinge assembly in the truck frame notches. Make sure the rear pivot angle assembly is properly positioned on the truck frame. Weld all around the truck frame and hinge assembly interface.
B. The upper rear hinge assembly is welded to the rear of the contractor body.
C. The contractor's upper lift shaft assembly is also welded to the understrucure of the contractor body.

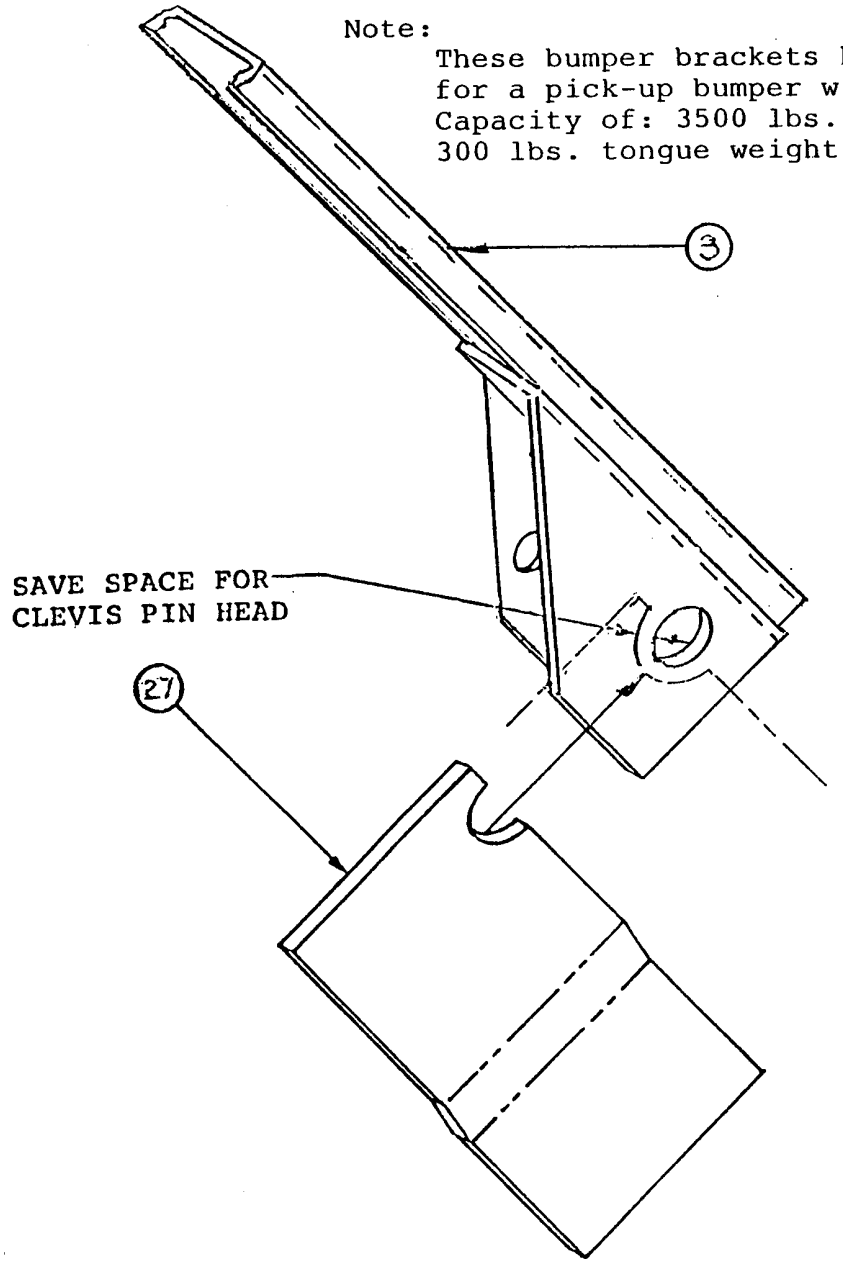
IMPORTANT: Always use safety prop or other bed supports to safely prop the truck bed in "up" position when servicing hoist.

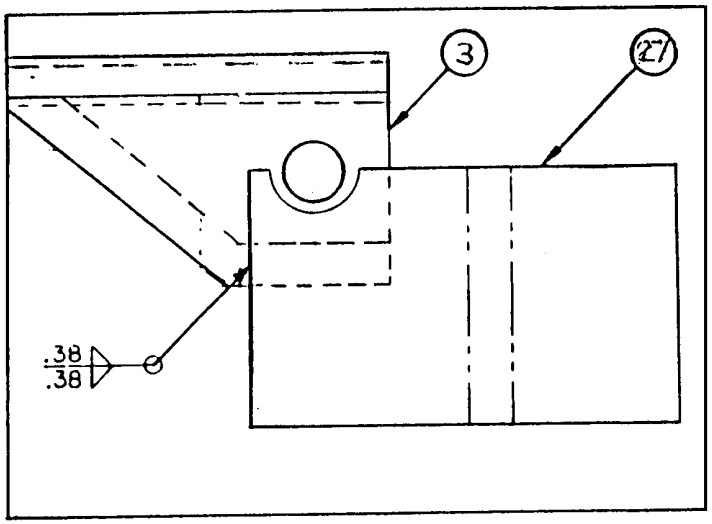


VENCO MANUFACTURING, INC.

TITLE	DATE	SECTION
GAS FILLER SUPPORT INSTALLATION	5-15-98A	H200
VP/VC-6 SERIES	SUPERCEDES 2-9-84	40126

Note:
These bumper brackets have been designed for a pick-up bumper with a maximum Capacity of: 3500 lbs. gross weight and 300 lbs. tongue weight.





See Note at Top of Page

1) LEFT HAND SIDE SHOWN.

2) BUMPER BRACKET IS TO BE WELDED ON AT INSTALLATION.

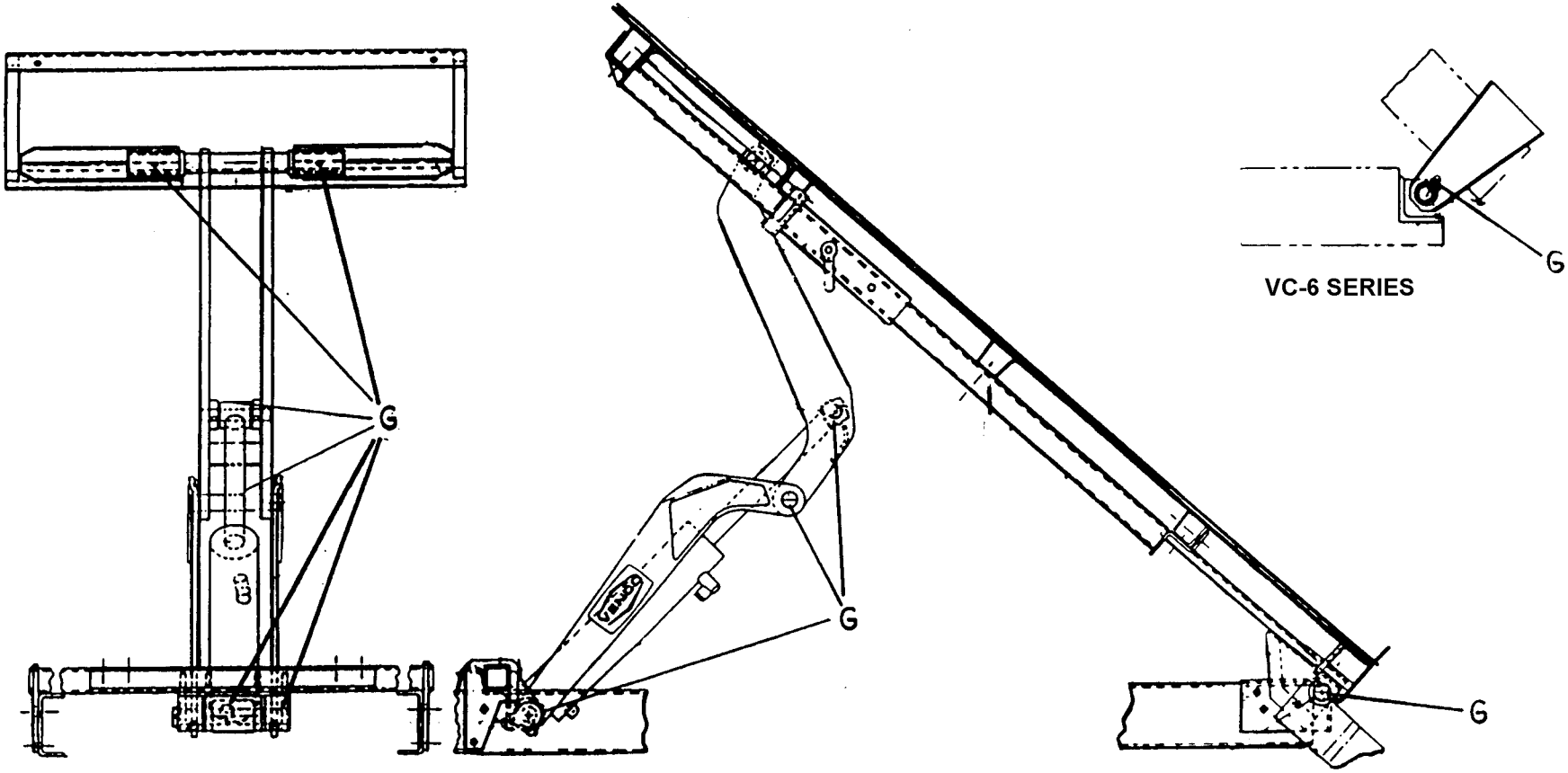
3) MAKE SURE BENDS ARE TOWARD CENTER-LINE OF TRUCK.

4) WELD TO SPECS.

5) NOTE: WHEN INSTALLING BUMPER - CUT AND WELD BRACKET AS REQUIRED.

VENCO MANUFACTURING, INC.

TITLE	DATE	SECTION
BUMPER BRACKET INSTALLATION	5-15-98B	H200
VP/VC-6 SERIES	SUPERCEDES 10-31-88A	6072

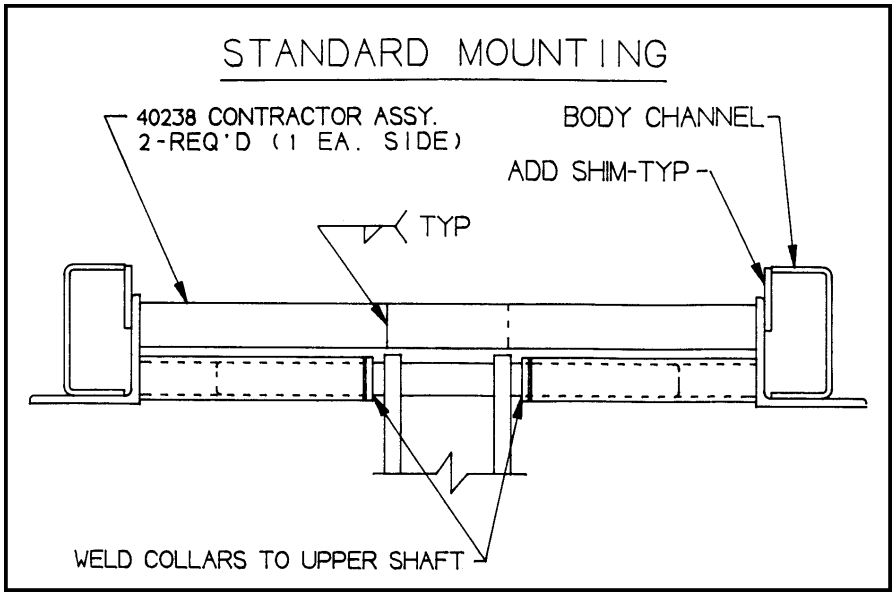


Check for leaks around fittings or in hydraulic hoses.
Check battery water periodically, frequent operation demands extra care.

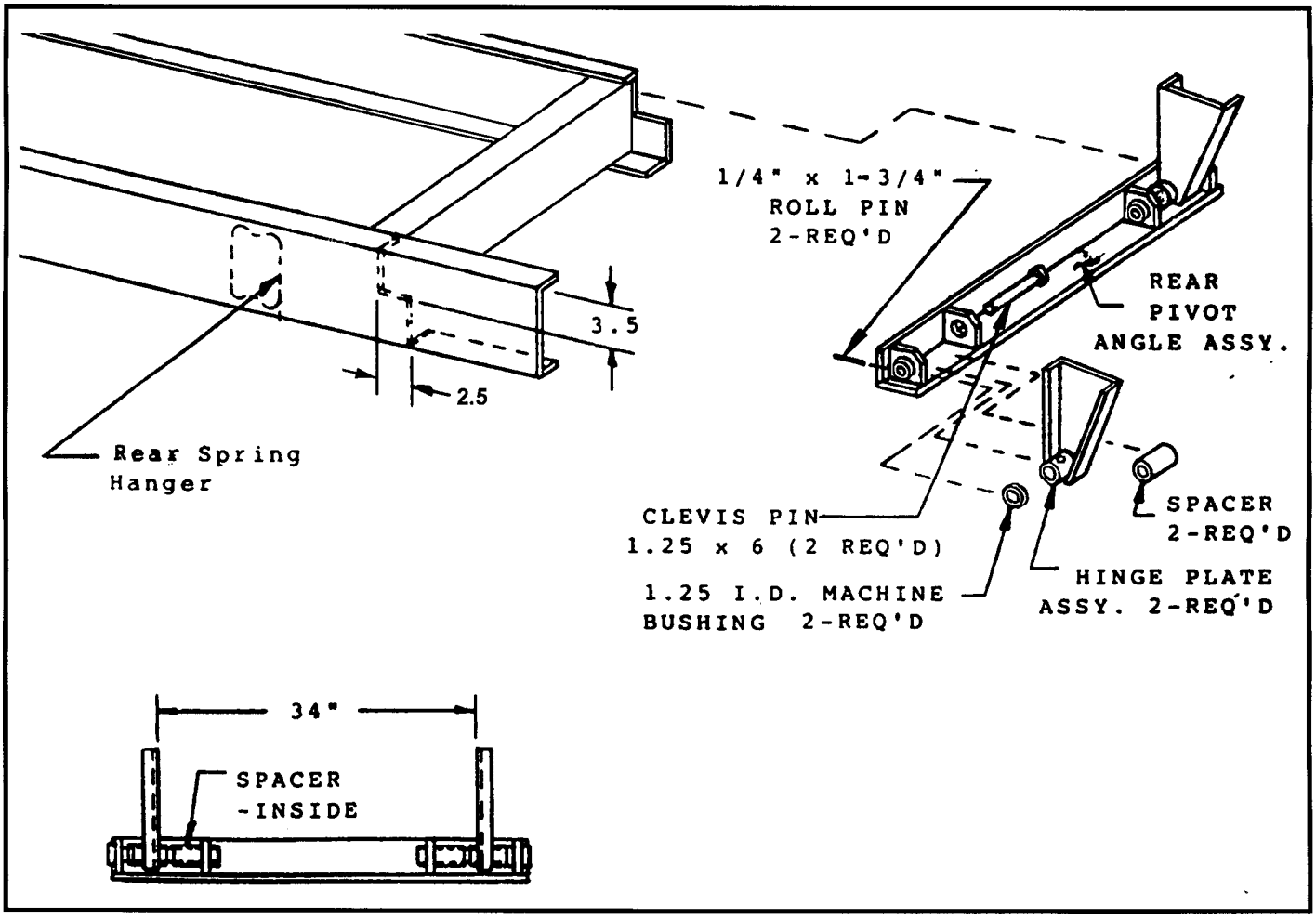
	Lubrication required:	Lubrication used:	Service:
G	Grease fittings w/pressure grease gun	Chassis grease	Time of Truck Service
	Fill oil reservoir 3/4" from top with hoist down .	ATF-Dexron II or Mobile DTE 13 - Below 20° F add 3/4 pt. kerosene	Check periodically or when hoist jerks

VENCO MANUFACTURING, INC.

TITLE	DATE	SECTION
LUBRICATION / SERVICE CHART	5-15-98A	H300
VP/VC-6 SERIES	SUPERCEDES 10-19-89	40260

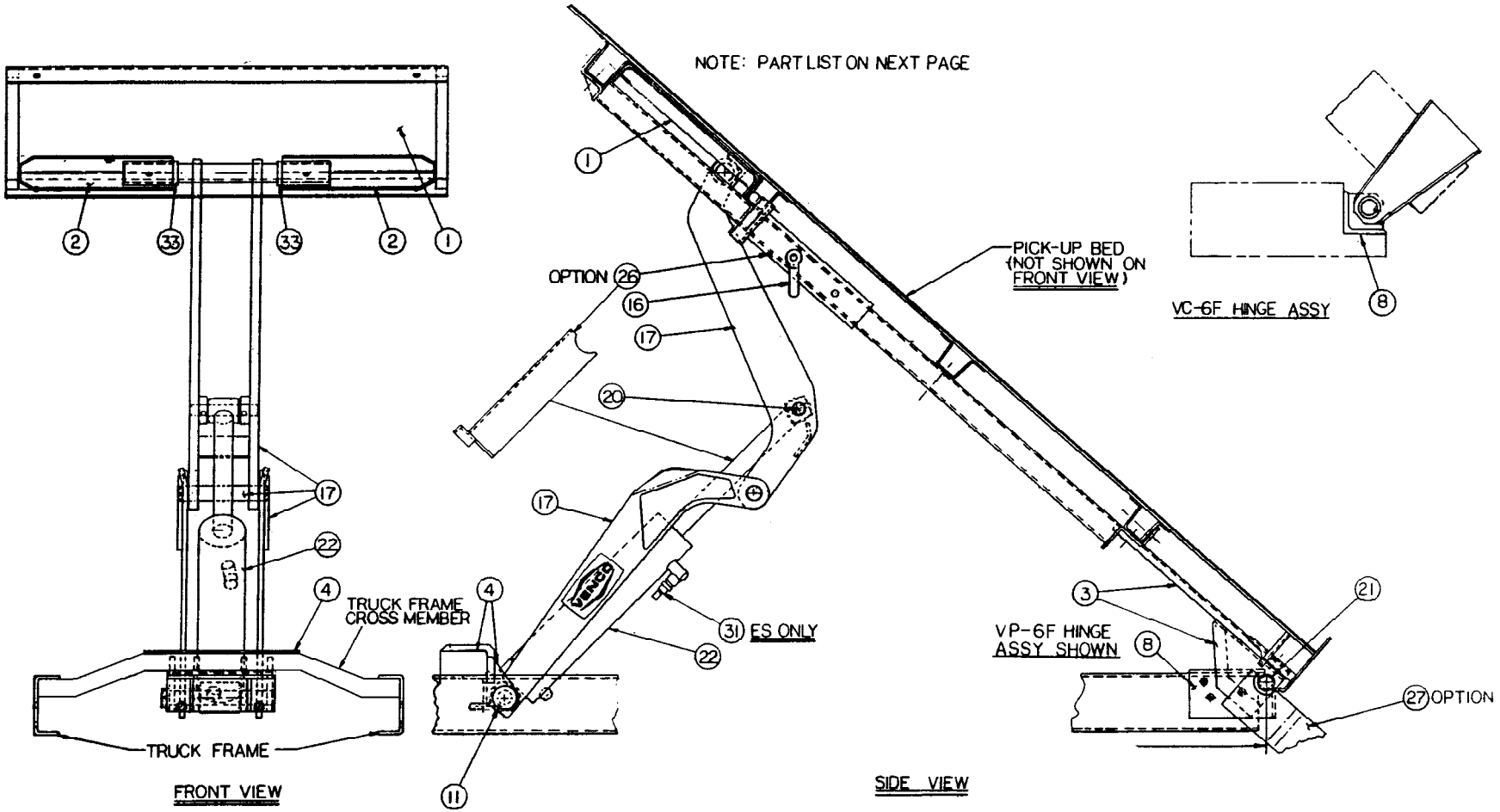


UPPER LIFT SHAFT ASSEMBLY MOUNTING



FRAME MODIFICATION AND REAR HINGE ATTACHMENT

VENCO MANUFACTURING, INC.	TITLE INSTALLATION DRAWING	DATE 5-7-98	SECTION H200
	VC-6F	SUPERCEDES -	6347



VENCO MANUFACTURING, INC.	TITLE REPLACEMENT PARTS DWG	DATE 10-4-99A	SECTION H400
	VP/VC-6F	SUPERCEDES 5-1-98	6344

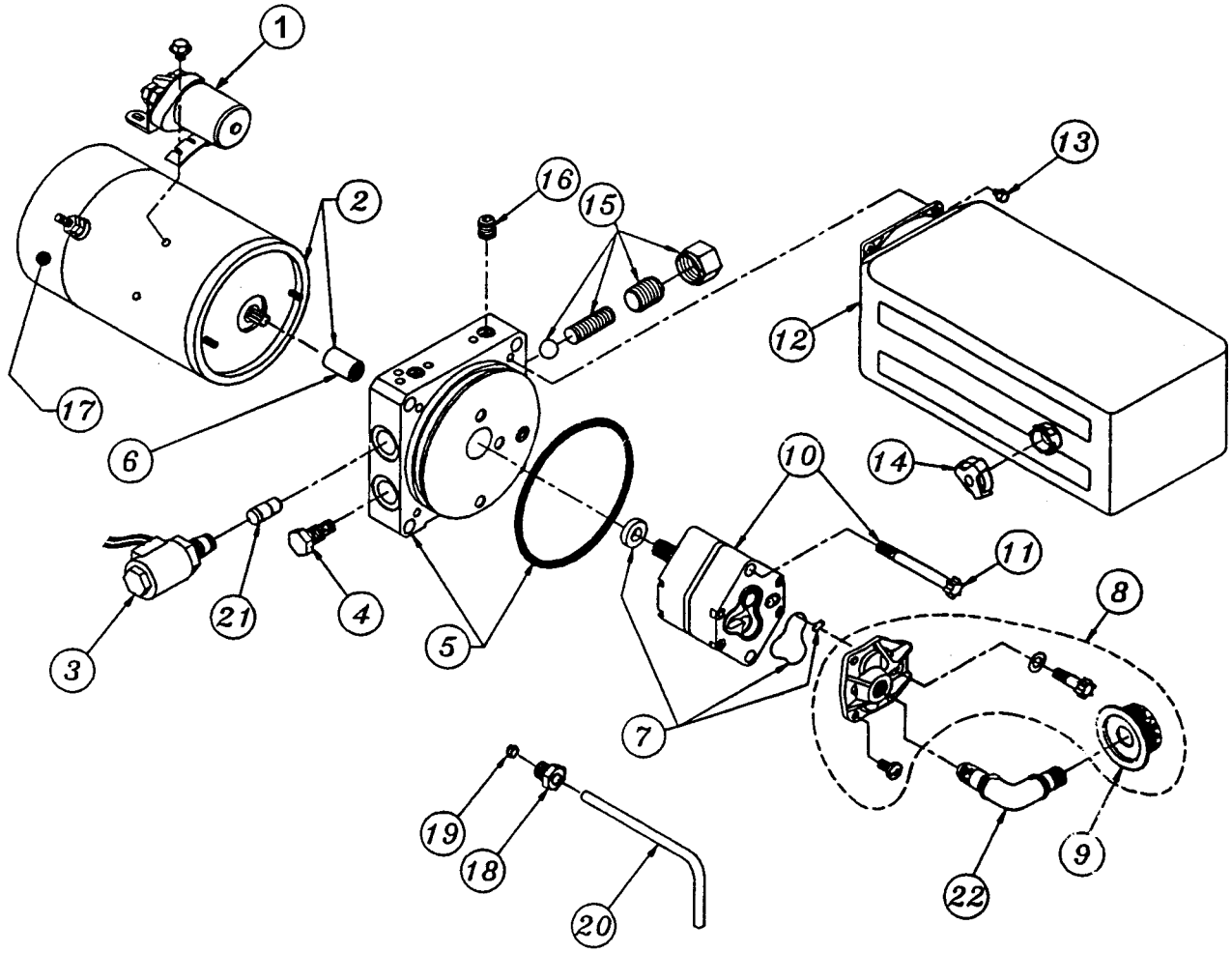
VP/VC-6F
REPLACEMENT PARTS LIST

ITEM	QTY	VP-6F	VC-6F	DESCRIPTION
1	1	6320	40211	UPPER NEST ASSEMBLY CONTRACTOR ASSEMBLY
2	2	6325	-	UPPER NEST PIVOT ASSEMBLY
3	2	6005	-	UPPER REAR HINGE - R&L
4	1	6360	6360	BASE MOUNTING PLATE ASSEMBLY
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-
8	2	6035	(1) 416207-1 ▲	LOWER REAR HINGE - R&L
*9	2	6037	6037	PAD - NYLON
*10	2	6038	6038	PAD - NYLON
11	1	6311	6311	PIN - CYLINDER BASE
*12	2	6081	6081	MOUNTING PIPE - POWER UNIT
*13	1	6043	6043	GAS FILLER SUPPORT
*14	1	6346	6346	INSTALLATION INSTRUCTIONS
*15	1	6065	6065	BATTERY CONNECT
16	1	6067	6067	1/2"-13 LEVER NUT
17	1	6371	6371	HOIST SCISSORS ASSY. (DOES NOT INCLUDE CYL.)
*18	1	13763	13763	TOGGLE SWITCH (ES ONLY)
*19	2	15254	15254	"CAUTION - STAND CLEAR" DECAL
20	1	40003	40003	PIN - CYLINDER BASE
21	2	40025	-	CLEVIS PIN - REAR HINGE
22	1	40034	40034	HYDRAULIC CYLINDER
*23	1	40036	40036	HOSE ASSEMBLY - 48" (ES ONLY)
*24	1	40037	40037	HOSE ASSEMBLY - FULL END 48" (ED ONLY)
*25	1	40037-2	40037-2	HOSE ASSEMBLY - ROD END 63" (ED ONLY)
26	1	40042	40042	SAFETY PROP (OPTION)
27	2	40057	40057	BUMPER BRACKET (OPTION) - R&L
* 28	1	40058-WF	40058-WF	ES (SINGLE ACTING) POWER UNIT
* 29	1	6136	6136	ED (DOUBLE ACTING) POWER UNIT
30	1	40223	40223	MOUNTING PLATE SWITCH
31	1	40226	40226	BREATHER - ROD END (ES ONLY)
* 32	2	416052	416052	"CAUTION - INSTRUCTIONS" DECAL
33	2	40007	40007	COLLAR - 2" O.D. x 1.53" I.D. x 1/2" LG.
* 34	2	40237	40237	DECAL - SAFETY PROP
35	-	-	-	-
36	-	-	-	-
37	-	-	-	-
* 38	1	416122	416122	TOGGLE SWITCH (ED ONLY)
* 39	1	6137	6137	FLOW CONTROL (BI-ROT ED ONLY)

*ITEM NOT SHOWN ON DRAWING

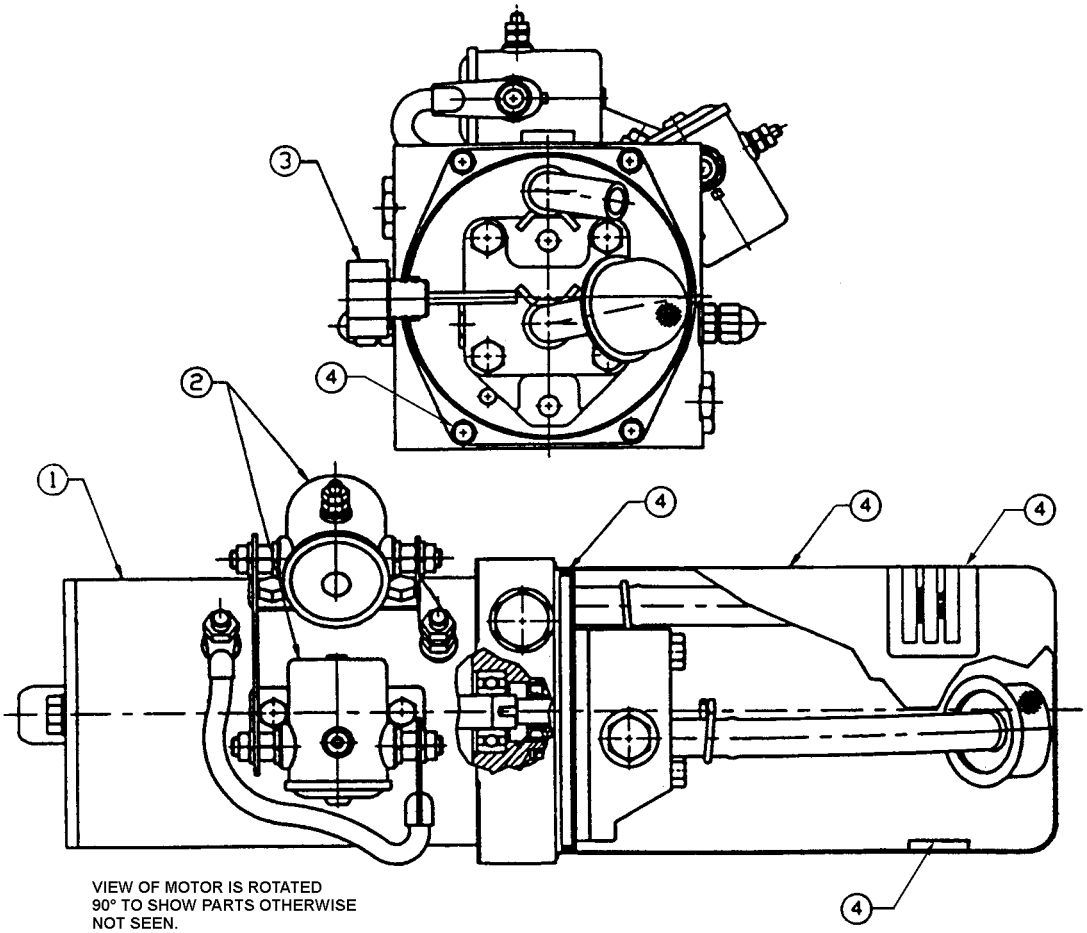
REPLACEMENT PARTS DWG REF 6344

40058-2 SINGLE-ACTING HYDRAULIC POWER UNIT
SERVICE PARTS LIST



ITEM NO.	DESCRIPTION	FENNER P/N	QTY.
1	SOLENOID 12 VDC	2145-AA	1
2	MOTOR 12 VDC	1787-AC	1
3	VALVE NC 12 VDC	EI-1019-04	1
4	VALVE CARTRIDGE CHECK	2507-AA	1
5	RESERVOIR O-RING	G1-1073-48	1
6	COUPLING	1118-AA	1
7	PUMP O-RING KIT	K-40	1
8	INLET PLUMBING KIT	KH	1
9	FILTER	1611-AA	1
10	PUMP ASSEMBLY	PS-2.0	1
11	PUMP MOUNTING BOLT	2825-AA	2

ITEM NO.	DESCRIPTION	FENNER P/N	QTY.
12	RESERVOIR	3856-AC	1
13	RESERVOIR SCREW	3346-AA	4
14	BREATHER	8060-CC	1
15	ADJ. RELIEF VALVE ASSY	RV-2	1
16	PLUG	1456-AA	1
17	MOTOR BRUSH KIT	K-90	1
18	COMPRESSION NUT	816-217	1
19	TUBE SLEEVE	816-218	1
20	RETURN TUBE	T2-1006-28	1
21	FLOW CONTROL	FC-2.5	1
22	INLET ELBOW ASSEMBLY	S7-4000-09	1



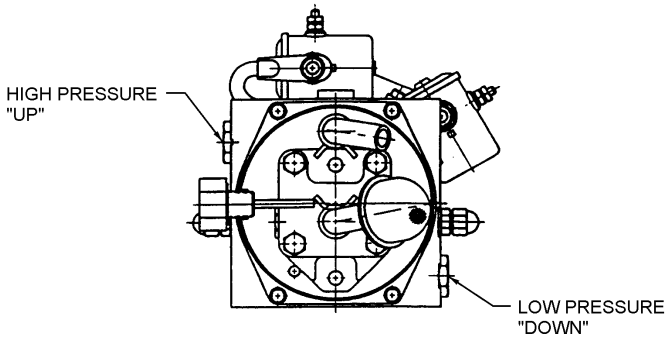
VIEW OF MOTOR IS ROTATED
90° TO SHOW PARTS OTHERWISE
NOT SEEN.

NO.	DESCRIPTION	VENCO PART NO.
1	MOTOR, 12V BI-ROT	6145
2	12V DC SOLENOID SWITCH (2 PLCS.)	6146
3	FILLER BREATHER CAP	6147
4	2 QT. RESERVOIR	6148
	60 DUROMETER O-RING	
	MTE ZEBRA LABEL	
	HEX WASHER HD. CAP SCREW (4 PLCS.)	
	MAGNET	

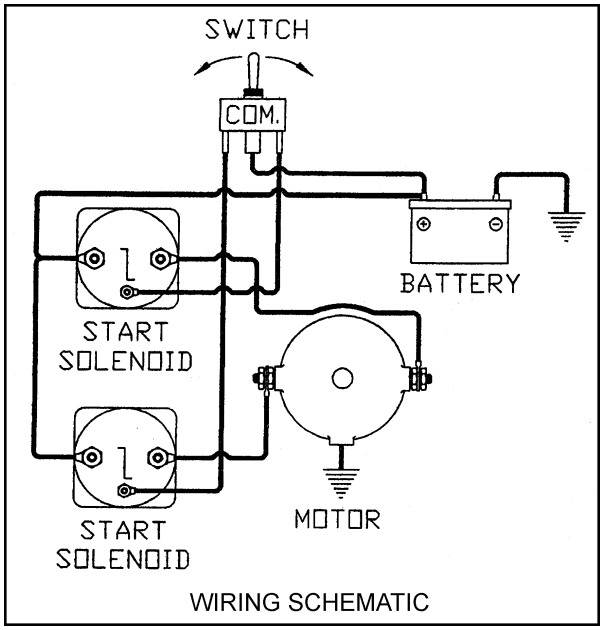
NOTE: ITEM 4 IS OFFERED AS A COMPLETE KIT ONLY.

6136 ED (DOUBLE ACTING) 12VDC HYDRAULIC POWER UNIT

6136 ED (BI-ROT) POWER UNIT



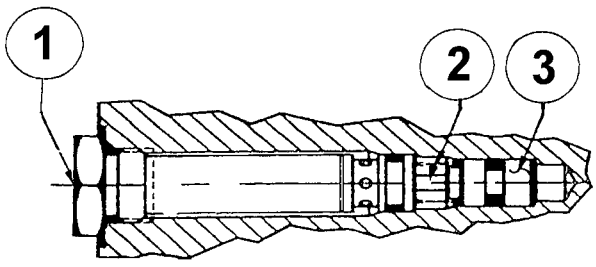
VIEW FROM TANK END



WIRING SCHEMATIC

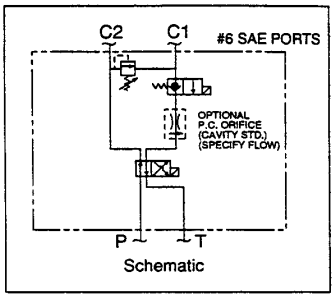
The primary cause of failure on the 6136 bi-rotation power unit is contamination within the shuttle cavities. The contaminaton can cause the shuttle(s) to stick and result in a hoist that will not operate in one (or both) directions.

The following procedure involves flushing out the shuttle cavity in an attempt to restore proper functioning of the shuttle and the power unit.



1. Remove the holding valve (Item 1).
2. Place a dental inside the roll pin (Item 2) and push firmly so that the shuttle valve (Item 3) can be removed.
3. Flush the valve cavity with oil or solvent to remove any contamination that may be causing the shuttle valve to stick.
4. Re-assemble parts into the cavity and test the unit to determine if proper functioning has been restored.

6425 ED POWER UNIT REPLACEMENT PARTS



REPLACEMENT PARTS LIST REF 6487

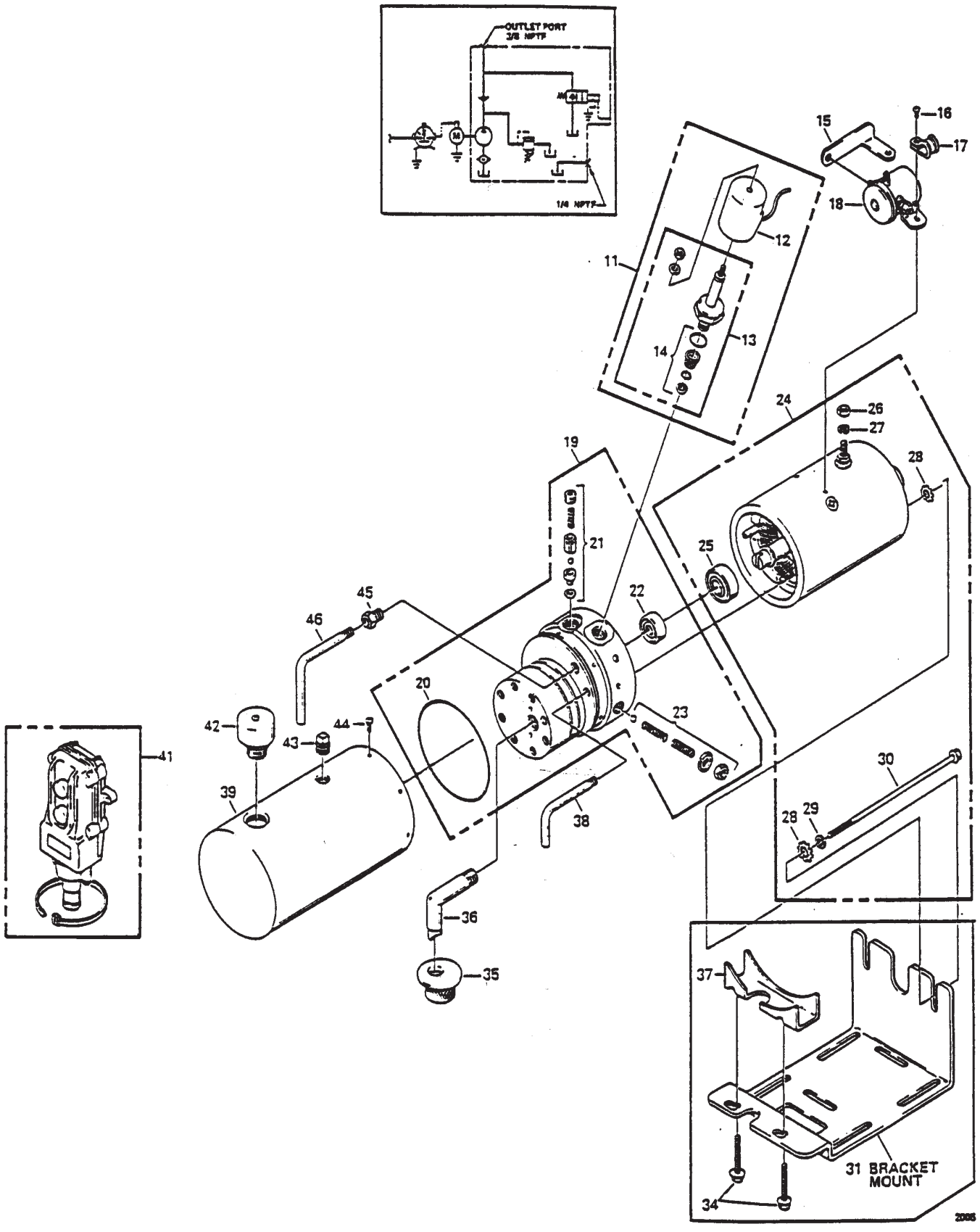
VENCO MANUFACTURING, INC.	TITLE	DATE	SECTION
	REPL. PARTS DWG	6-2-00A	-
	6425 ED POWER UNIT	SUPERCEDES 2-11-00	6486

ITEM #	PART #	DESCRIPTION	ITEM #	PART #	DESCRIPTION
1	-	-	41	-	PLUG - 3/8" NPTF
2	-	-	42	-	RETURN TUBE - 1/8"
3	-	-	43	-	FILTER SCREEN (SUCTION)
4	-	-	44	-	FILTER SUCTION TUBE - 3/8" NPTF 90 DEG.
5	-	-	45	-	-
6	-	-	46	416524	PLUG, VENT 3/8" NPT
7	-	-	47	-	HOSE WORM GEAR CLAMP
8	-	-	48 ▲	416533	BOX ASSEMBLY, PUSH BUTTON (WEATHER PROOF)
9	-	-	49	-	-
10	-	-	50	-	-
11	-	-	51	-	-
12	-	-	52	-	-
13	-	-	53	-	-
14	416510	VALVE, 4 WAY - 2 POSITION (12V)	54	-	-
15 ▲	- ▲	-	55	-	-
16 ▲	- ▲	-	56	-	-
17	416513	VALVE, 2 WAY - 2 POSITION, 12 VDC, GROUNDED	57	-	-
18 ▲	- ▲	-	58	-	-
19 ▲	- ▲	-	59	-	-
20	-	STRAP, MOTOR-SOLENOID CONNECTING	60	-	-
21	-	SCREW, ROUND HEAD MACHINE 10-32 x 1/4"	61	-	-
22	416516	SWITCH, SOLENOID, 12VDC, 3-POST GROUNDED	62	-	-
23	416517	PUMP ASSY, GEAR CODE 03 (#6 SAE PORTS)	63	-	-
24	416518	O-RING, INDUSTRIAL (3-5/8 x 3-7/8 x 1/8)	64	-	-
25	416519	PARTS KIT, VALVE ASSY, POPPET/BALL CHECK	65	-	-
26	-	PLUG	66	-	-
27	-	SEAL	67	-	-
28	-	PLUG, #8 SAE	68	-	-
29	416520	VALVE, PRESS COMP. ORIFICE (1.5 GPM)	69	-	-
30	416521	PARTS KIT, RELIEF VALVE	70	-	-
31	416522	MOTOR, ELECTRIC, 12 VDC	71	-	-
32	-	BEARING, BASE, MOTOR	72	-	-
33	-	HEX NUT - 5/16-24	73	-	-
34	-	LOCK WASHER - 5/16"	74	-	-
35	-	STAR WASHER - 1/4"	75	-	-
36	-	HEX HEAD CAP SCREW - 1/4-20 x 6-1/2"	76	-	-
37	-	-	77	-	-
38	-	-	78	-	-
39	6478	PLASTIC RESERVOIR	79	-	-
40	-	THREAD FORMING SCREW - 10-24 x 3/8"	80	-	-

REPLACEMENT PARTS DWG REF 6486

VENCO MANUFACTURING, INC.

REPLACEMENT PARTS LIST	**6-2-00A**	**-**
6425 ED POWER UNIT	**2-11-00**	**6487**



VENCO MANUFACTURING, INC.	TITLE REPL. PARTS LIST	DATE 5-30-00	SECTION -
	6426 ES POWER UNIT	SUPERCEDES -	6508

ITEM #	PART #	DESCRIPTION
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	416513	VALVE, 2 WAY - 2 POSITION, 12VDC
12	-	COIL, 12VDC, 2 WAY - 2 POSITION
13	-	CARTRIDGE, 2 WAY - 2 POSITION, 12VDC
14	-	* * PARTS KIT, 2 WAY - 2 POSITION, CARTRIDGE
15	-	STRAP, MOTOR SOLENOID CONNECTING
16	-	SCREW, ROUND HEAD MACHINE 10-32 X 1/4"
17	-	CLAMP CABLE
18	-	SWITCH, SOLENOID, 12VDC, 3 POST, GROUNDED
19	6504	PUMP ASSEMBLY, GEAR CODE 03
20	416518	* O-RING, INDUSTRIAL (3 5/8 X 3 7/8 X 1/8)
21	416519	PARTS KIT, VALVE ASSEMBLY, POPPET/BALL CHECK
22	-	SEAL
23	6505	* PARTS KIT, RELIEF VALVE
24	416522	MOTOR, ELECTRIC, 12VDC
25	-	BEARING, BASE, MOTOR
26	-	* NUT, HEX 5/16-24
27	-	* WASHER, LOCK 5/16"
28	-	* WASHER, STAR, 1/4"
29	-	* WASHER,LOCK 1/4"
30	-	* SCREW, HEX HEAD CAP 1/4-20 X6 1/2"
31	6503	BRACKET, MOUNTING
32	-	-
33	-	-
34	-	SCREW, HEX HEAD THREAD FORMING 1/4-20 X 1 3/8"
35	-	SCREEN, FILTER (SUCTION)
36	-	TUBE, FILTER SUCTION 3/8 NPT 90 DEG
37	-	ADAPTER, PUMP MOUNTING BRACKET
38	-	TUBE, RETURN (1/8")
39	6478	RESEVOIR, 6-1/2" X 10"
40	-	-

ITEM #	PART #	DESCRIPTION
41	6501	BOX ASSEMBLY, PUSH BUTTON (WEATHER PROOF)
42	416524	PLUG, VENT, 3/8" NPT
43	-	PLUG, SQUARE HEAD, 1/4 NPT
44	-	SCREW, THREAD FORMING, 10-24 X 3/8"
45	-	BUSHING, REDUC HIGH PRESSURE 1/4 NPT TO 1/8 NPT
46	-	TUBE, RETURN (1/8")
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
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70	-	-
71	-	-
72	-	-
73	-	-
74	-	-
75	-	-
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80	-	-

REPLACEMENT PARTS DWG REF 6486

VENCO MANUFACTURING, INC.

REPLACEMENT PARTS LIST	5-30-00	-
6426 ES POWER UNIT	-	6509

VENCO®

VENTURO

TRUCK MOUNTED CRANES

LIFTGATES AND HOISTS

WARRANTY POLICY

For one year from date of original purchase, we will replace or repair free of charge all Venco/Venturo parts returned to our factory prepaid and found upon inspection by us to be faulty due to defects in materials or workmanship. We shall not be liable for any contingent liabilities arising out of the improper function of any parts. We make no warranty with respect to parts not of our manufacture, but we will carry out the terms of the warranties of their respective manufacturers. One year warranty on hydraulic cylinders including labor.

WARNING - It is the responsibility of the installer to not only insure that the installation is completed according to the manufacturer's recommendations, but to insure that the ultimate user understands how to operate in a safe manner and the need for regular service and maintenance by an authorized Venco/Venturo Distributor. No modifications or alterations may be made to any Venco/Venturo equipment without the expressed written consent of the manufacturer. Reinstallation of any Venco/Venturo product must be done by an authorized Venco/Venturo Distributor to the standards of the industry, including the maintenance and service and the affixing of all instructional, safety and warning labels. Users should again 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.

WARRANTY CLAIMS

Venco/Venturo 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 or part, your Venco/Venturo 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/Venturo requires the model and serial number. Only authorized Venco/Venturo Distributors can perform warranty. For the name and address of your local Venco/Venturo Distributor call the **Warranty Claims Department - 513-772-8448.**

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