



HT30KX(X)

*HMAAAA-00** & HMBAAA-00***
INSTALLATION & OWNER'S MANUAL

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VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
TABLE OF CONTENTS	03-09-15J	-
HT30KX(X) (HM*AAA-00**)	SUPERSEDES 02-18-15H	23005

SECTION 100

DESCRIPTION

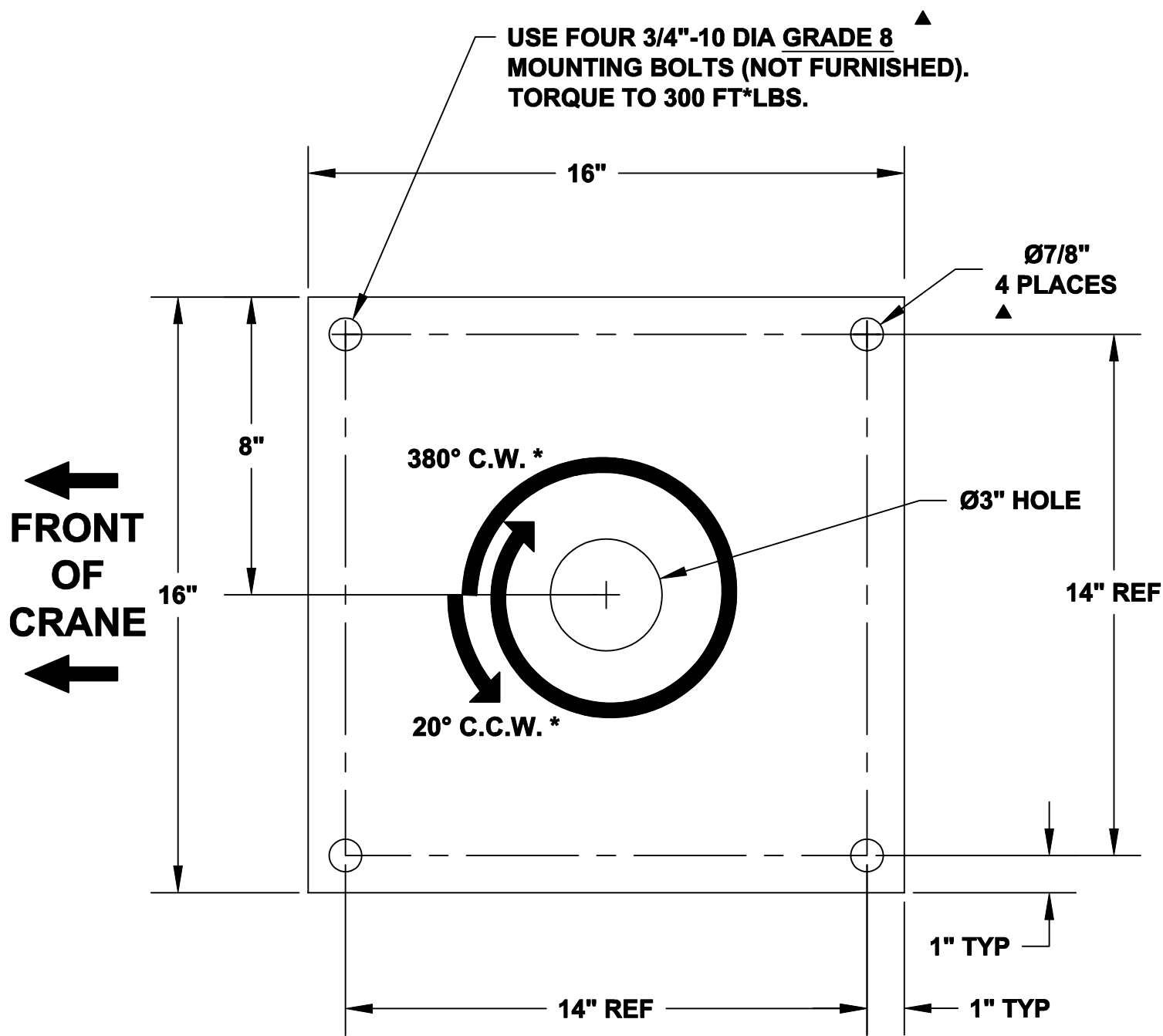
&

SPECIFICATIONS

**TOTAL INSTALLED
WEIGHT 1620 LBS.**



ET/HT25/30/36KX BASE MOUNTING DIMENSIONS



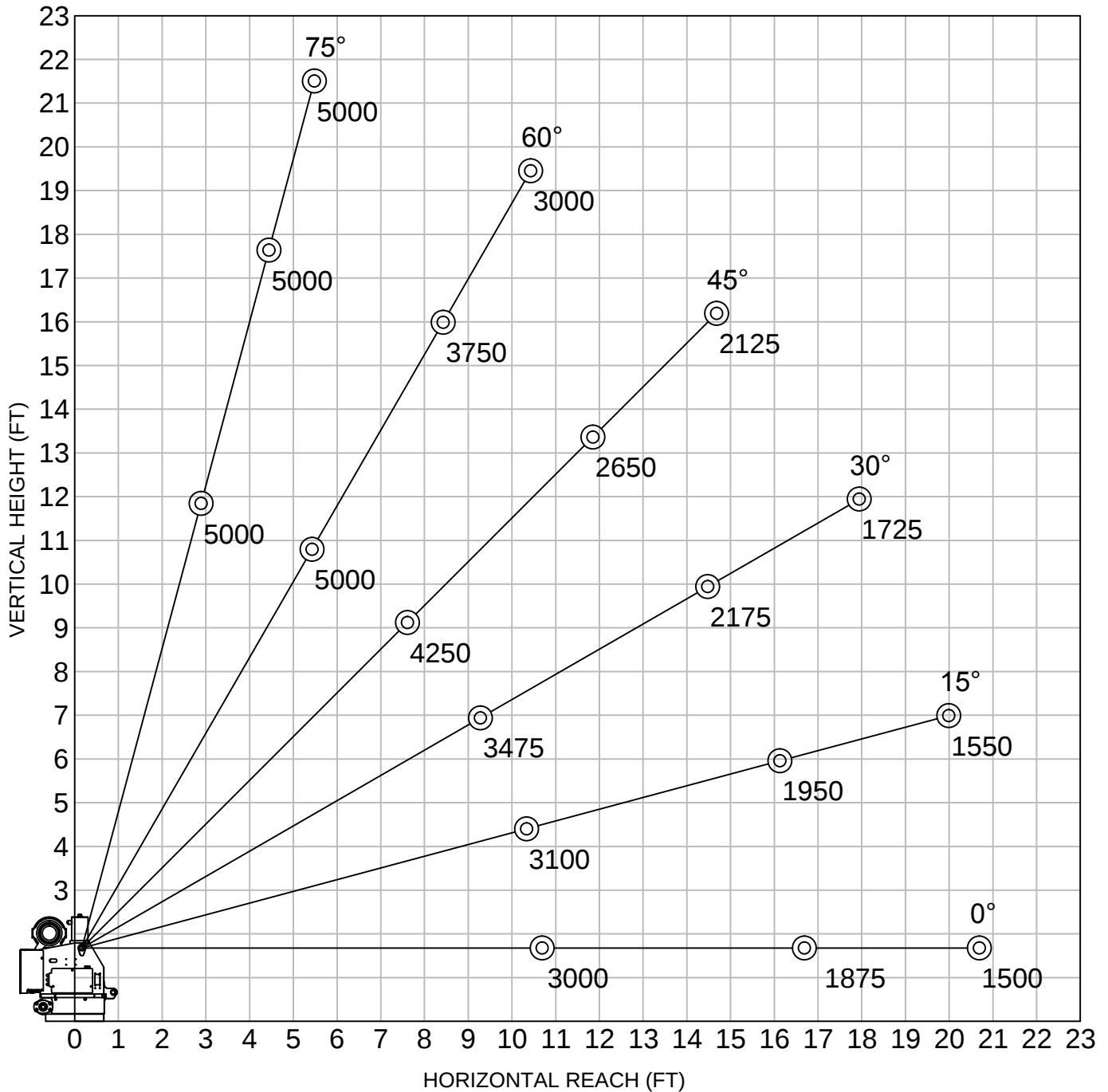
* Rotation limits typically apply to HT cranes only. ET cranes generally have continuous rotation.

TITLE	DATE	SECTION
BASE MOUNTING	02-13-12E	C100
ET/HT25/30/36	SUPERSEDES 12-14-11D	21080

ET/HT30KX, 10'-16'-20' BOOM

▲ CRANE SERIAL NUMBER: _____

MAXIMUM LOAD CAPACITY CHART



WEIGHT OF LOAD HANDLING DEVICES ARE PART OF THE LOAD AND MUST BE DEDUCTED FROM THE GROSS CAPACITY.

LOAD BLOCK USAGE

- 1 PART LINE FOR LOADS LESS THAN 2500 LBS
- 2 PART LINE FOR LOADS OF 2500 LBS AND GREATER

WEIGHT OF LOAD BLOCK = 34 LBS



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

MAXIMUM LOAD CAPACITY

ET/HT30KX, 10'-16'-20' BOOM

DATE

05-03-16C

SUPERSEDES

04-30-13B

SECTION

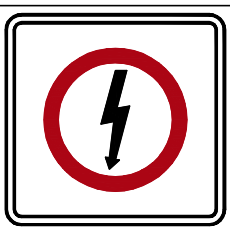
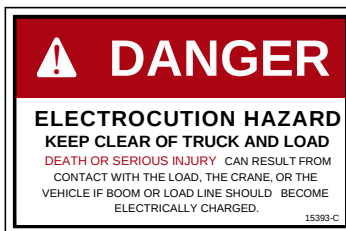
C100

21091

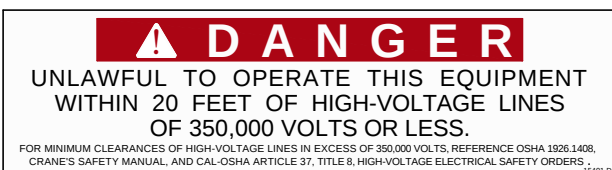
SECTION 150

SAFETY

VEHICLE & CRANE MOUNTED ELECTRICAL HAZARD SIGN APPLICATION & INFORMATION



SIGN NO. 15393 DISPLAYS THE INTERNATIONAL SYMBOL FOR ELECTRICITY AND WARNS OF DANGER FROM AN ELECTRICALLY CHARGED VEHICLE, CRANE, OR LOAD. FOUR ARE RECOMMENDED (ONE FOR EACH SIDE AND ONE FOR EACH END OF VEHICLE) TO BE APPLIED IN LOCATIONS WHICH ARE READILY VISIBLE TO GROUND PERSONNEL.



SIGN NO. 15401 PROVIDES ADDITIONAL WARNING OF LEGAL REQUIREMENTS WHEN OPERATING NEAR HIGH VOLTAGE LINES. THIS SIGN IS PLACED ON THE CONTROL PENDANT SIDE OF BOOM.

Table A - Minimum Clearance Distances

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet) *
Up to 50.....	10
over 50 - 200.....	15
over 200 - 350.....	20
over 350 - 500.....	25
over 500 - 750.....	35
over 750 - 1000.....	45
Over 1000.....	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

Table T - Minimum Clearance Distances While Traveling With No Load

Voltage (nominal, kV, alternating current)	While traveling - minimum clearance distance (feet) *
0 - 0.75.....	4
over 0.75 - 50.....	6
over 50 - 345.....	10
over 345 - 750.....	16
over 750 - 1000.....	20
Over 1000.....	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

* NOTE: ENVIRONMENTAL CONDITIONS SUCH AS FOG, SMOKE, OR PRECIPITATION MAY REQUIRE INCREASED CLEARANCES



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TITLE	DATE	SECTION
HAZARD APPS & INFO	02-21-14M	C150
ET/HT CRANES	SUPERSEDES 12-20-13L	15394

CRANE SAFETY AND HAZARDS

HT SERIES CRANES

CAUTIONS

1. INSPECT VEHICLE AND CRANE, INCLUDING OPERATION, PRIOR TO USE DAILY.
2. DO NOT USE THIS EQUIPMENT EXCEPT ON SOLID, LEVEL SURFACE WITH CRANE MOUNTED ON FACTORY-RECOMMENDED TRUCK.
3. BEFORE OPERATING THE CRANE, REFER TO MAXIMUM LOAD (CAPACITY) CHART ON CRANE FOR OPERATING (LOAD) LIMITATIONS.
4. DO NOT OPERATE, WALK, OR STAND BENEATH BOOM OR A SUSPENDED LOAD.
5. ATTACH PENDANT CORD SUPPORT SNAP TO ATTACHMENT POINT BEFORE PLUGGING IN PENDANT.
6. UNPLUG PENDANT AND DISENGAGE PTO SYSTEM WHEN CRANE NOT IN USE.
7. FOR TRAVEL, BOOM MUST BE IN STOWED POSITION.

DANGER

- THIS CRANE IS NOT A PASSENGER LIFT
- IT IS NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT, OR OTHERWISE TRANSPORT PERSONNEL.

YOU MUST NOT OPERATE THIS CRANE UNLESS

1. YOU HAVE BEEN TRAINED IN THE SAFE OPERATION OF THIS CRANE
AND
2. YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS. AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

ELECTROCUTION HAZARD

- THIS MACHINE IS NOT INSULATED.
- MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARATUS.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOADLINE SWAYING.
- THIS LIFTING DEVICE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.
- YOU MUST MAINTAIN A CLEARANCE OF AT LEAST 20 FEET BETWEEN ANY PART OF THE CRANE, LOADLINE, OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 350 kV (SEE NEW CHART). ADDITIONAL CLEARANCES ARE REQUIRED FOR VOLTAGES IN EXCESS OF 50,000 VOLTS. REFER TO DRAWING 15394 FOR ADDITIONAL INFORMATION.
- **DEATH OR SERIOUS INJURY** WILL RESULT FROM CONTACT OR INADEQUATE CLEARANCE.



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CINCINNATI, OHIO

TITLE

CRANE SAFETY & HZRDS

DATE

02-21-14D

SECTION

C150

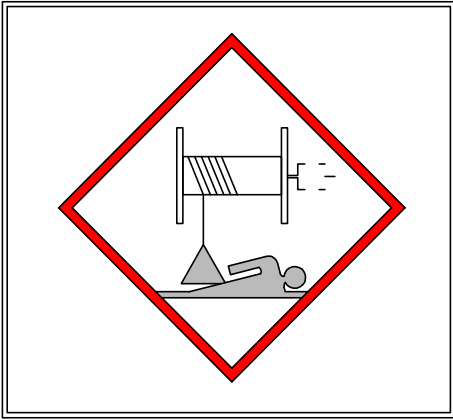
HYDRAULIC CRANES

SUPERSEDES

04-04-12C

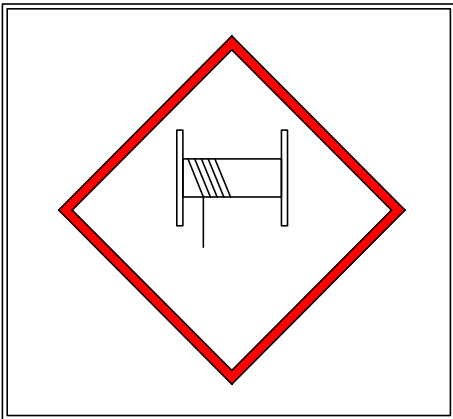
920612

WINCH SAFETY WARNINGS



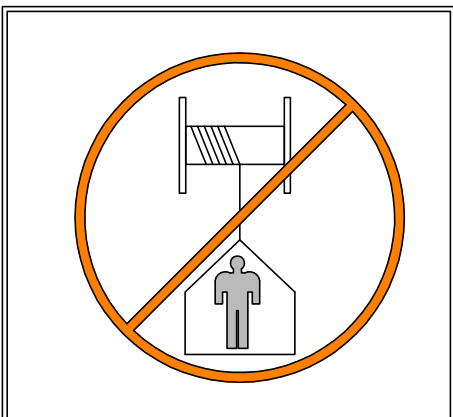
DANGER

- DO NOT DISENGAGE WINCH UNDER LOAD



DANGER

- THE LAST [5] (DEAD) WRAPS OF WIRE ROPE MUST BE LEFT ON TO ASSIST WIRE ROPE CLAMP IN HOLDING LOAD



WARNING

- Winches are not to be used to lift, support, or otherwise transport personnel



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CINCINNATI, OHIO

TITLE
WINCH SAFETY
HT CRANES

DATE
02-21-14D
SUPERSEDES
04-04-12C

SECTION
C150
19217

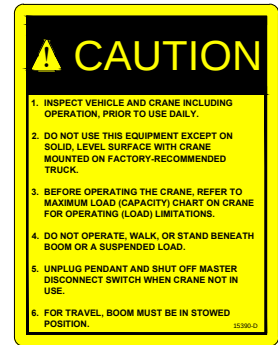
DECAL #: 15390

DESCRIPTION: CAUTION, INSPECT VEHICLE & CRANE...

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



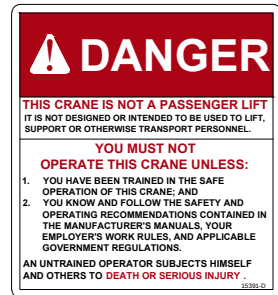
DECAL #: 15391

DESCRIPTION: DANGER, NOT A PASSENGER LIFT

PURPOSE: TO INFORM OPERATOR NOT TO LIFT, SUPPORT, OR TRANSPORT PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



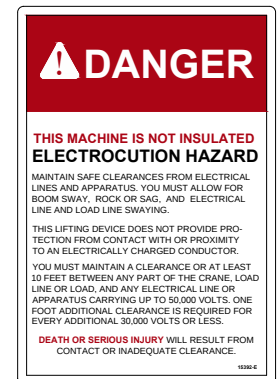
DECAL #: 15392

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)

PURPOSE: TO INFORM OPERATOR THAT MACHINE (CRANE) REPRESENTS AN ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT WITH AN ELECTRICAL VOLTAGE SOURCE.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



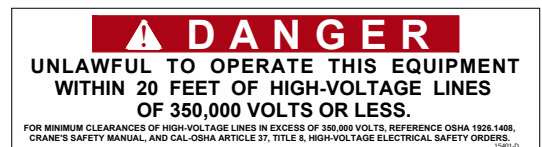
DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

PURPOSE: TO INFORM OPERATOR OF PROPER OPERATION IN VICINITY OF ELECTRICAL LINES.

QUANTITY: 1

PLACEMENT: RING COVER OR SIDE OF CRANE



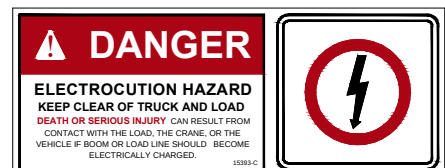
DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

PURPOSE: WARNS OF DANGER FROM ELECTRICALLY CHARGED VEHICLE, CRANE, OR LOAD.

QUANTITY: 4

PLACEMENT: EACH SIDE & EACH END OF VEHICLE



VENCO VENTURO INDUSTRIES LLC
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TITLE

SAFETY DECALS

VENTURO CRANES

DATE

04-29-16E

SUPERSEDES

10-24-13D

SECTION

C150

21353

PART NO.: 14473-2

DECAL: GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



PART NO.: 19314-1

DECAL: MANUAL OVERRIDE

FUNCTION: To inform the operator of manual override locations.

QUANTITY: 1

PLACEMENT: Left side of rear cover.



PART NO.: 19314-2

DECAL: MANUAL OVERRIDE

FUNCTION: To inform the operator of manual override locations.

QUANTITY: 1

PLACEMENT: Right side of rear cover.



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TITLE

SHUT OFF & OVERRIDE DECALS

DATE

3-9-11A

SECTION

C150

HT CRANES

SUPERSEDES

9-6-05

21355A

PART NO.: 19315-1

DECAL: MANUAL OVERRIDE (NON-PROPORTIONAL)

FUNCTION: To show the operator how to
override master shut off valve.

QUANTITY: 1

PLACEMENT: Rear cover.



PART NO.: 19315-2

DECAL: MANUAL OVERRIDE (PROPORTIONAL)

FUNCTION: To show the operator how to
override proportional valve.

QUANTITY: 1

PLACEMENT: Rear cover.



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TITLE
SHUT OFF & OVERRIDE DECALS

DATE
9-6-05

SECTION
C150

HT CRANES

SUPERSEDES
-

21355B

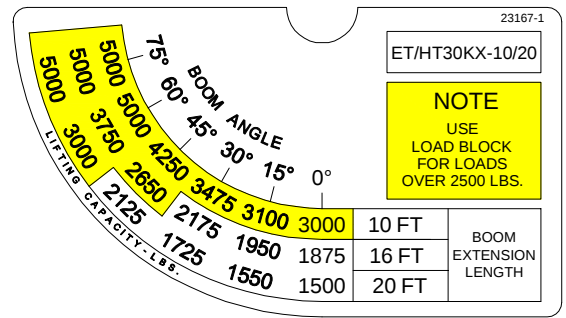
PART NO.: 23167-1 & 23167-2 (OPPOSITE)

DECAL: CRANE CAPACITY

FUNCTION: To show the operator the operating capacities of crane.

QUANTITY: 1 each

PLACEMENT: One on each side of boom.



PART NO.: 21235

DECAL: MODEL NUMBER (HT30KX)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

HT30KX

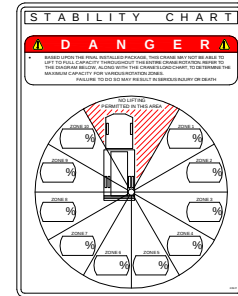
PART NO.: 20927

DECAL: CRANE STABILITY

FUNCTION: To inform the operator of the crane's lifting capacity throughout the entire rotation.

QUANTITY: 1

PLACEMENT: In prominent location, so it is easily seen and readily identifiable.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
DECAL DRAWING & LIST

HT30KX

DATE
06-06-14A

SUPERSEDES
12-14-09

SECTION
C150

21885

SECTION 200

INSTALLATION



CRANE INSTALLATION

HT25/HT30

BODY REINFORCEMENT

The truck body must be reinforced and outriggers provided to withstand the combined loads resulting from lifting and the weight of the crane and boom.

The maximum combined overturning moment for the HT25KX is 28,000 and for the HT30KX is 33,000 ft. lbs.

The maximum vertical load for the HT25KX and the HT30KX is 6500 lbs.

CRANE MOUNTING

The crane base plate or mounting pedestal must be bolted to the body reinforcing plate with four (4) Grade 5 bolts of 3/4" dia. A larger than 3" dia. hose clearance hole must be cut in this plate to allow the hoses to swing and coil freely.

ROTATION POSITIONING

The HT cranes are shipped with the boom rotated as shown on drawing 20051. It can be in any position that pleases the user since the boom can always reach the storage and travel position by rotating one way or the other.

HYDRAULIC CONNECTIONS

The crane is furnished with a pressure and a return hose that come down through the center of the housing. Included in the installation kit are two hydraulic swivels.

The hoses are to be connected in a relaxed position while the crane is at the midpoint of the 400 degree rotation range -- regardless of the final position of the boom during storage/travel.

The bulkhead fittings may be located on any side of the compartment relative to the middle of rotation position.

NOTE: If you purchased one of Venturo's hydraulic packages (19294 series), you will have received our pressure gauge kit. This kit includes a gauge, hose and bulkhead "T" fitting and should be installed on the pressure hose.



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

HT25 / HT30

DATE
12-14-09A

SUPERCEDES
3-26-08

SECTION
C200

21094

ELECTRICAL CONNECTIONS

A 25 ft. electrical power lead - intended for 12V DC only - also comes down through the center of the housing with the hoses. This lead should be looped in the compartment so that it remains relaxed throughout the 400 degree rotation of the crane.

A 15amp circuit breaker is mounted on the crane and protects the crane's internal wiring and solenoid coils. The 15amp circuit breaker does not protect the 25 foot electrical power lead. For added protection, the 25 ft. lead can be connected to a 15-20 amp protected circuit that, if possible, is powered only when the vehicle engine is running

HYDRAULIC FLUID

<u>Average Climate</u>	<u>Type of Oil</u>
Cold to Moderate	ISO Grade AW 46
Warm to Hot	ISO Grade AW 68

The fluid should have the highest anti-wear characteristics and treated to inhibit rust and oxidation.

HYDRAULIC HOSES & LINES

The minimum sizes for lines and hoses are as follows:

	NON-PROP	PROP
PRESSURE	1/4"	3/8"
RETURN	3/8"	1/2"
SUCTION	1/2"	3/4"

RESERVOIR

The PTO reservoir should have a capacity of 8 gallons fitted with 100 mesh suction screen, 10 micron return line filter, and filler/breather cap.

PTO PUMP

For standard (non-proportional) cranes, the PTO pump should be sized to provide 2.0 gpm (or 1.5 gpm for more delicate control of loads) at 3000 psi when engine is at desired idle speed.

For proportional cranes, the PTO pump should be sized to provide 4.0 gpm at 3000 psi when engine is at desired idle speed.

PTO START-UP

Before connecting the PTO system to the crane pressure and return hoses, connect the PTO pressure and return lines together at the bulkhead. Operate the PTO system for about two (2) minutes per gallon of reservoir capacity (in this case 16 minutes) to flush out the lines and filter all the fluid several times.

ENGINE START/STOP & THROTTLE CONTROL

If your crane was purchased with optional engine start/stop and throttle control, refer to drawing 22615 in the replacement parts section for further information.



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

HT25 / HT30 ▲

DATE
12-14-09G

SUPERCEDES
10-23-09F

SECTION
C200

119212b

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

HT25 / HT30

SAFETY

Before operating this crane, read and understand these instructions, the 920612 Crane Safety and Hazards Information Sheet, and review all safety & instruction labels on the crane.

CRANE INSPECTION

Before operating this crane, inspect for wear, damage, or oil leakage. After the wire rope has been run out, check for wear, kinks, and broken strands. Check the hook and safety latch for damage. Correct any problems before using the crane.

CAPACITY

Before operating this crane, review the capacity charts on the sides of the boom to relate the load to be lifted to the boom length and angle. The boom angle is shown by a gravity arrow.

SNATCH BLOCK

If the load exceeds 2500 lbs. or reduced winching speed for better control of smaller loads is required, use the snatch block to rig the crane for two part line operation.

CONTROLS

This crane is operated by a remote control pendant. The pendant should be unplugged and stored in a compartment when the crane is not in use.

Before plugging the pendant in, inspect the plug, socket, cord, pendant head, and switches for damage. Actuate all four switches both ways to verify that they all have the same feel and sound and that they return to the center position.

PTO SYSTEM

Check the hydraulic fluid level in the PTO system reservoir. Engage PTO and set the engine idle speed to provide a hydraulic flow rate per the PTO system instructions. A lower idle setting may be used for more delicate spotting of loads if required.

CRANE OPERATION

Use "Winch Down" to release tension on the wire rope to unhook it from the storage tie down position.

Use "Boom Up" to elevate the boom from the boom rest position.

Avoid repeated rapid reversals of the control switches. This can cause the load to swing.

Check all control functions to see that they are working as described in the following section

CONTROL FUNCTIONS

WINCH "UP" and "DOWN" - Raises and lowers the load with the winch.

BOOM "UP" and "DOWN" - Raises and lowers the boom elevation angle. The boom elevates from 8 degrees below horizontal to 75 degrees above horizontal.

BOOM "OUT" and "IN" - Extends and retracts the boom. The boom hydraulic extension stroke for single-stage is 6 ft. and for dual-stage is 10 ft. ▲



MFG., INC.
CINCINNATI, OHIO

TITLE

INSTALLATION DWG

DATE

12-14-09A

SECTION

C200

HT25 / HT30

SUPERCEDES

6-17-02

20435A

ROTATION "L" and "R" - Controls the left and right direction of the crane rotation. The crane rotation is limited to 400 degrees.

POWER - (Non Proportional Systems) Energizes safety shutoff valve. See page 22328 for detailed operations instructions and warnings.

TRIGGER (Proportional Systems Only) - Varies the flow rate delivered to the crane valve. The farther the trigger is pulled, the faster the selected crane function operates.

OVERLOAD SENSING SYSTEM

This crane is equipped with an Overload Sensing System. If the capacity of the crane is exceeded, the "Winch Up", "Boom Down", and "Boom Out" functions will be shut down. The "Winch Down", "Boom Up", and "Boom In" functions will continue to operate and can be used to relieve the overload condition. The "Rotation" function also will continue to operate.

TWO-BLOCK SENSING SYSTEM

This crane is equipped with an anti two-block device that is mounted at the tip of the boom. If the load block/overhaul weight contacts the device the "Winch Up", "Boom Down", and "Boom Out" functions are disabled. The "Winch Down", "Boom Up", and "Boom In" functions will continue to operate and can be used to relieve the two-block condition. Refer to Drawings 20904 in this manual for replacement parts and configuration information.

TELESCOPIC HEXAGONAL BOOM

- ▲ The dual-stage 10-20 ft. boom has a 10 ft. hydraulic power extension (REF. DWG. 21098). The single-stage 10-20 ft. boom has a 6 ft. hydraulic power extension and a 4 ft. manual extension (REF. DWG. 21198).

TRUCK SETUP & STABILIZERS

1. The truck should be parked on firm level surface, +/- 5°.
2. The center of the crane should be positioned close enough to the job so that it can be operated at a reach that puts the load within the rated capacity of the crane.
3. Set the vehicle parking brake and put the vehicle transmission in "park" if it is an automatic.
4. Deploy the stabilizers to help stabilize the vehicle against rocking or overturning when lifting with the crane.

PREPARATION FOR TRAVEL

1. Return the stabilizers to the stowed position. Install and secure all pins.
2. Stow the crane's boom in the boom support.
3. Hook the winch line to the tie down point on the boom and apply light tension.
4. Disengage PTO pump and idle speed control.
5. Unplug the control pendant and store in a body compartment or the cab.



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE

INSTALLATION DWG

HT25/30KX

DATE

04-16-13B

SUPERSEDES

12-14-09A

SECTION

C200

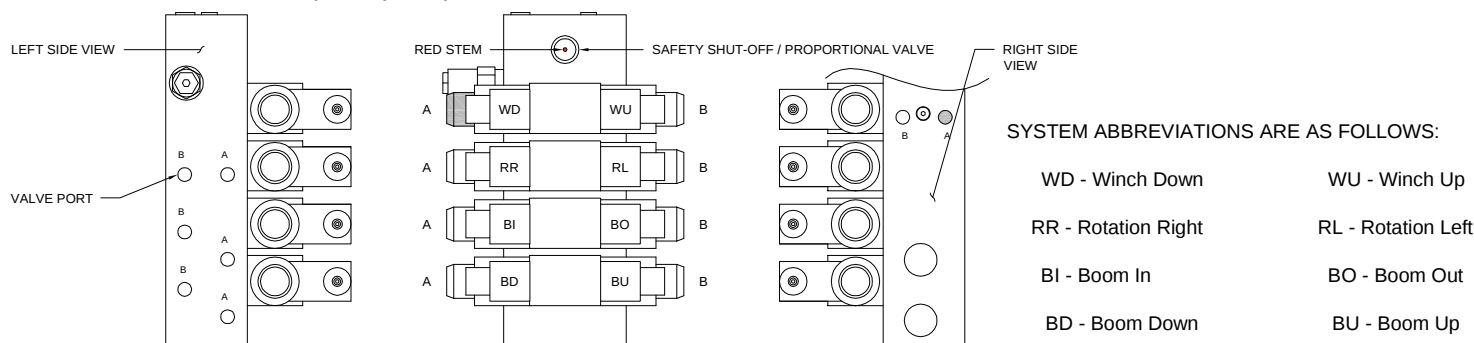
21955

EXPLANATION OF HYDRAULIC VALVE SYSTEMS

OVERVIEW

Venturo's hydraulic cranes are available in two [2] general configurations: Proportional and Non-Proportional. The **Non-Proportional** configuration (see fig. 1) utilizes a safety shut-off valve which, when **not** actuated, allows hydraulic fluid to bypass the valve bank and return to tank; the crane will not function when the safety shut-off valve is not actuated. When the safety shut-off valve is actuated (control pendant energizes the coil or the coil is manually overridden), hydraulic fluid cycles through the valve bank and allows the crane to function. The **Proportional** configuration utilizes a proportional valve which, in its fully closed and fully opened positions, functions similarly to the safety shut-off valve, but adds the ability to operate the crane at any speed in between these two extremes.

In both the Non-Proportional and Proportional configurations, the four [4] crane functions (winch, rotation, boom elevation, and boom extension) are controlled by four [4] separate valve sections. Each valve section has two [2] solenoid coils (and two [2] manual overrides) which control the direction that the function operates (e.g. winch up vs. winch down). For a given crane function and direction (e.g. winch up), the solenoid coil and the associated manual override lie on the same side of the valve bank (both 'push').



MANUAL OVERRIDE SYSTEM

Should an electrical failure occur, your Venturo crane can be operated manually. **The manual overrides are intended for emergency use only and should not be used for normal operation.**

To operate in manual override mode:

- (1) Override the safety shut-off or proportional valve by turning the red stem on the valve as stated below:

Non-Proportional system

For override operation, press stem in and rotate counter-clockwise until it stops.

To return to normal operation, press stem in and rotate clockwise until it stops.

Proportional system

For override operation, rotate stem clockwise (the farther the stem turns, the faster the crane operates).

To return to normal operation, rotate stem counter-clockwise until it stops.

- (2) Determine the coil / override associated with the function you wish to operate, then insert a small diameter object (an Allen wrench works well) into the detent on the end of the valve stem and press firmly. For example, pushing the stem labeled 'A' on the first bank (refer to illustration in Fig. 1) will actuate winch down.



W A R N I N G



- For normal crane operation, the safety shut-off or proportional valve **MUST** be in the 'normal' position (as described above). Test the crane before each use by placing the power toggle switch or trigger in the 'OFF' position and testing each crane function *using the manual overrides*. If any crane function operates, verify that the red stem on the safety shut-off or proportional valve is in the normal position, then retest.

EMERGENCY STOP

In the unlikely event that a function of the crane does not stop once the function's toggle switch is released, the **Non-proportional** crane can be stopped by simply toggling the power switch to the off (emergency stop) position, and the **Proportional** crane can be stopped by releasing the trigger.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
HYDRAULIC SYSTEM

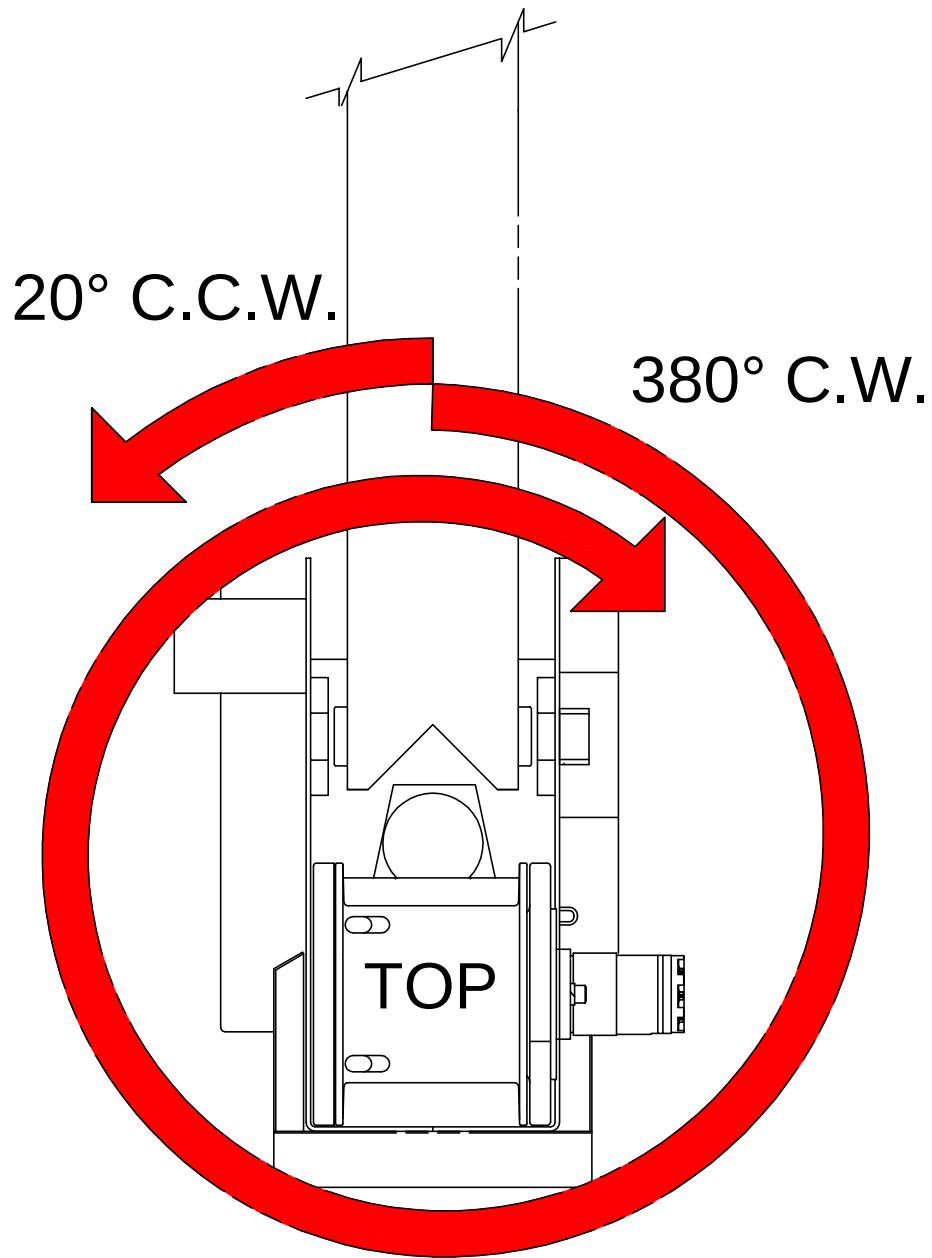
HT SERIES CRANES

DATE
07-11-14D

SUPERSEDES
12-14-09C

SECTION
C200

22328



This Venturo crane is shipped with the rotation orientation as shown above. To change the orientation rotate crane base prior to mounting to suit your application.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	ROTATION STOP LOCTN
400° ROTATION CRANES	

DATE	02-21-14D
SUPERSEDES	12-14-09C

SECTION	-
20051	

STABILITY TEST - ET/HT30-20' SERIES

Overview

Venturo follows the guidelines of ANSI B30.5 in defining stability. Generally speaking, a truck is considered stable as long as it is not on the verge of tipping - i.e. with the truck level, at least one tire on each corner of the truck must remain in contact with the ground.

It is important to note that nearly every installation is unique and will, therefore, typically require stability testing.

The procedure outlined below follows ANSI's (B30.5 - 5-1.1.1) specified "maximum load rating" of 85% of truck stability.

Testing Procedure

1. Locate the truck on firm, level ground and set parking brake.
2. Fully deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
3. Inspect wire rope and other key components of crane (consult owners manual for more information).
4. Conduct an operational check of all crane functions.
5. Use a **Test Weight** weighing a **minimum of 1765 lbs**, (includes load block weight of 34 lbs.) to a **maximum of 1825 lbs**.
6. Position the boom level and fully retracted.
7. Referring to the Stability Chart (drawing 20907) rotate the crane to a position between 1 and 2 o'clock (truck cab is facing 12 o'clock) to begin testing.
8. Use the winch to lift the Test Weight; DO NOT allow the weight to be more than 6" off the ground at any time during testing (for safety).
9. Extend the boom slowly, until one of two conditions occur: **1)** the boom reaches full extension or **2)** the vehicle begins to be unstable, **whichever occurs first**. Note: If the boom reaches full extension (without an overload or unstable condition) the % of Rated Capacity is 100% for the given ZONE.
10. Use the formula below to determine the **% of Rated Capacity** for each ZONE on the Stability Chart (ref. page 20907).
11. Note: The "**Max Stable Reach in inches**" is measured from the **center of rotation** of the crane housing to the **lifting load hook**.

$$\% \text{ Rated Capacity} = \frac{\text{"Max Stable Reach" in inches}}{248} \times 100$$

Example 1) Max Stable Reach = 248 (inches, full extension) ÷ 248 x 100 = **100** or 100% of Rated Capacity for the given ZONE

Example 2) Max Stable Reach = 241 (inches) ÷ 248 x 100 = **97.17** or 97% (rounded) of Rated Capacity for the given ZONE

12. Record the % of Rated Capacity in the appropriate blank (region) on the Crane Stability page (ref. 20907) and decal.
13. Repeat Steps 7 through 12 for each ZONE on the stability page.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

STABILITY TEST

ET/HT30-20' SERIES

DATE

02-26-21C

SUPERSEDES

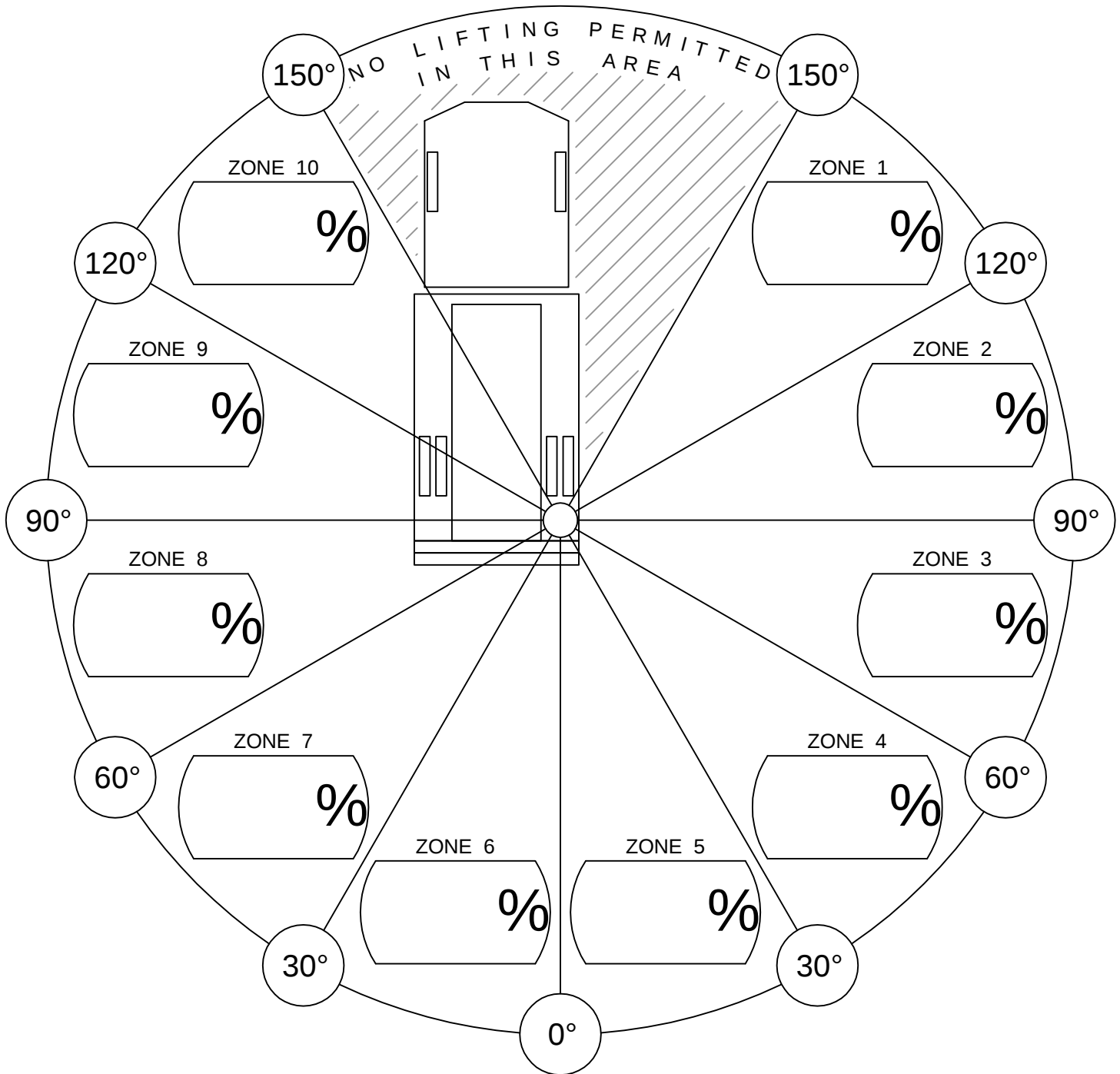
04-23-20B

SECTION

C200

20906-30

CRANE STABILITY



% of Rated Capacity for each of the 10 regions are provided above.

CONDITIONS:

- STABILIZERS FULLY EXTENDED & DOWN, ON FIRM LEVEL GROUND.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
STABILITY CHART

VENTURO CRANES

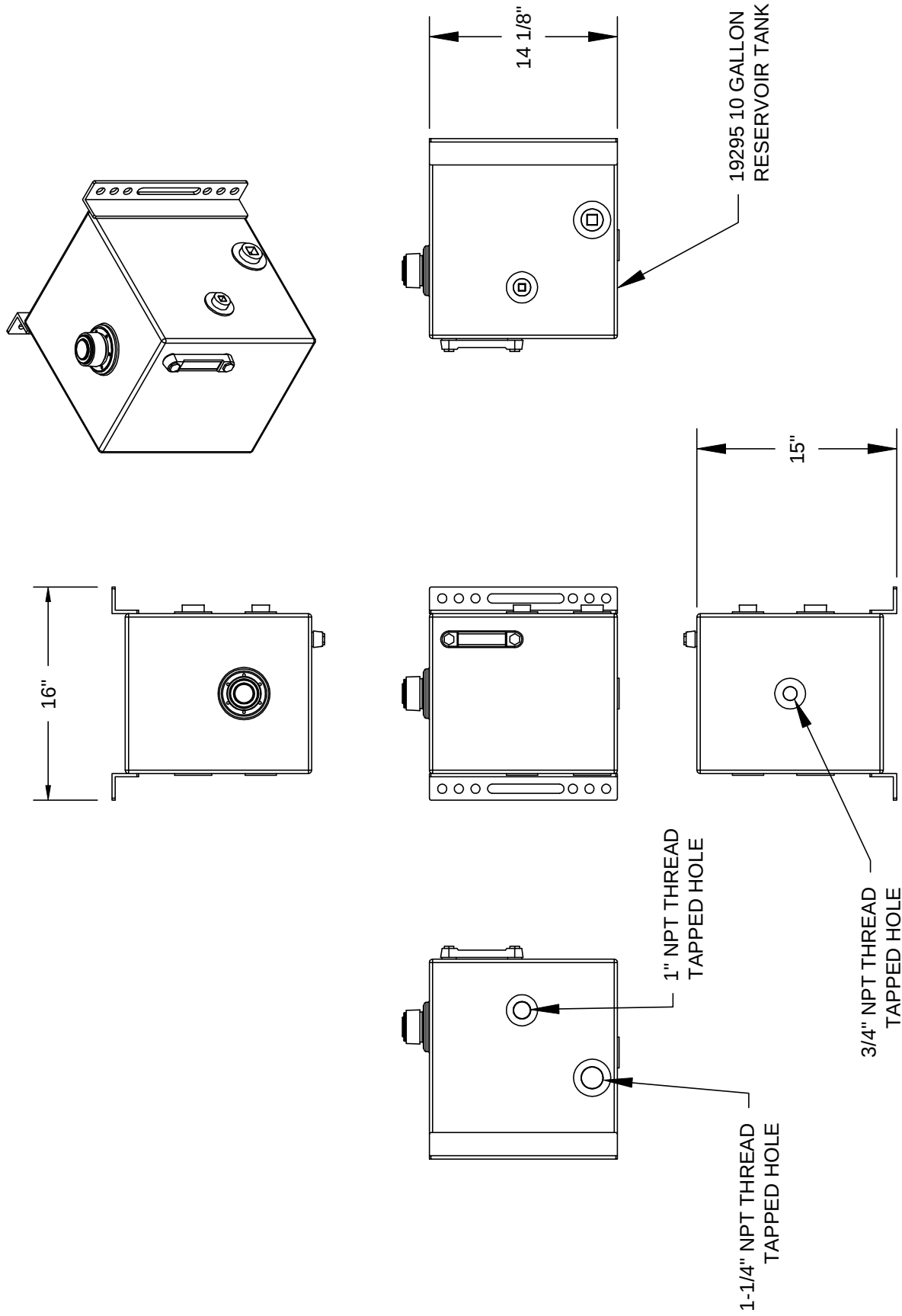
DATE
05-11-17F

SUPERSEDES
02-21-14E

SECTION
C200

20907

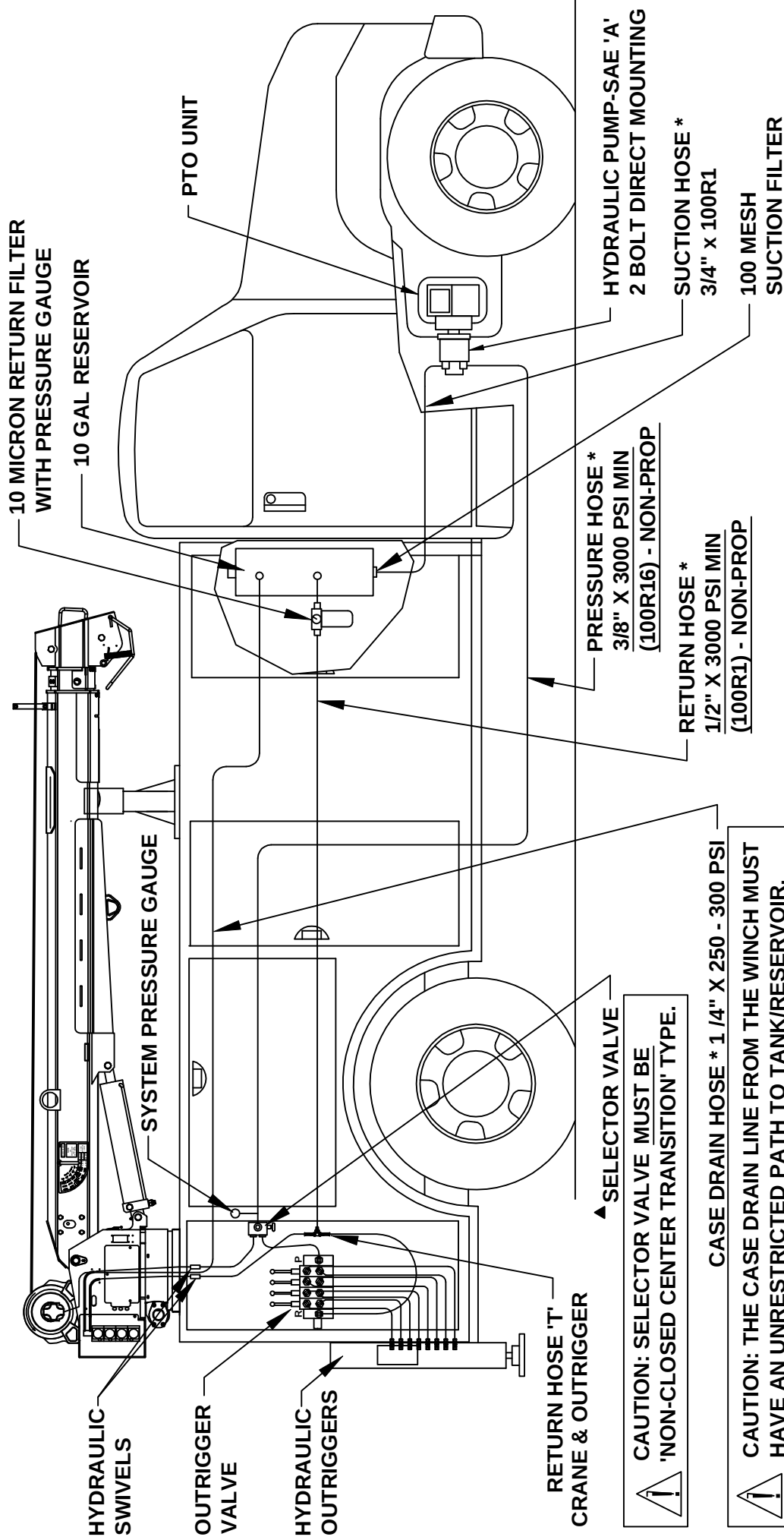
19295; 10 GALLON HYDRAULIC TANK



	VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	10 GALLON HYDRAULIC TANK		DATE	05-01-14A	SECTION	-
	VARIOUS APPLICATIONS					SUPERSEDES	03-17-06		22826

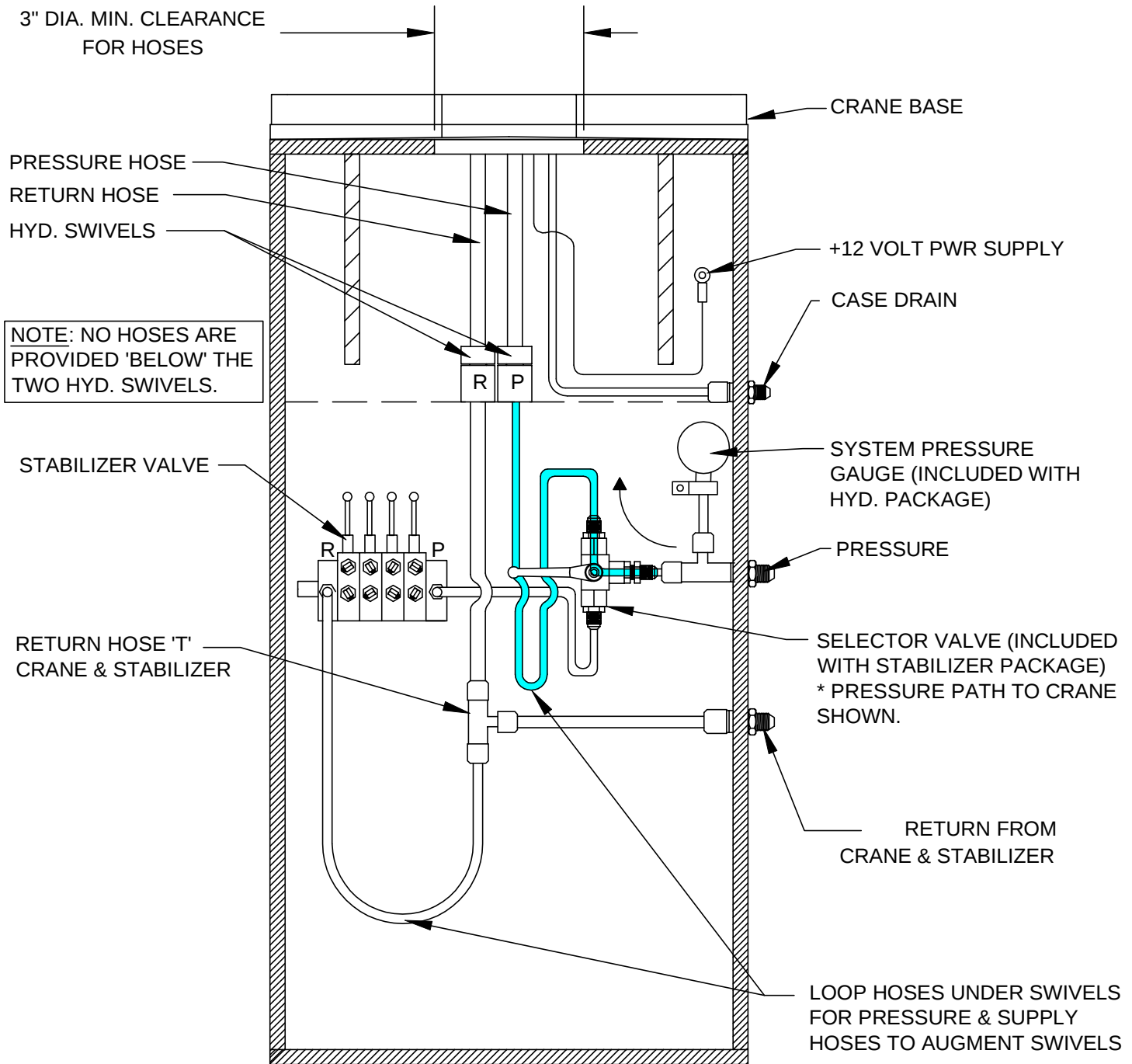
REFER TO SECTION 200 FOR MORE INFORMATION
ON INSTALLING HYDRAULIC COMPONENTS.

HYDRAULIC REQUIREMENTS (GPM @ 3000 PSI)		
	NON-PROP (STANDARD)	PROPORTIONAL
HT18KX **	1.7	3.5
HT25KX(X)	2.0	4.0
HT30KX(X)	2.0	4.0



*HOSES & FITTINGS BETWEEN PUMP, RESERVOIR AND CRANE NOT INCLUDED.

RECOMMENDED SUPPLY & RETURN HOSE CONNECTIONS CRANE & STABILIZERS



CAUTION

- SELECTOR VALVE MUST BE 'NON-CLOSED CENTER TRANSITION' TYPE VALVE.



CAUTION

- CASE DRAIN MUST RETURN DIRECTLY TO RESERVOIR WITHOUT RESTRICTION.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

CONNECTIONS GUIDE

HT CRANES

DATE

02-21-14F

SUPERSEDES

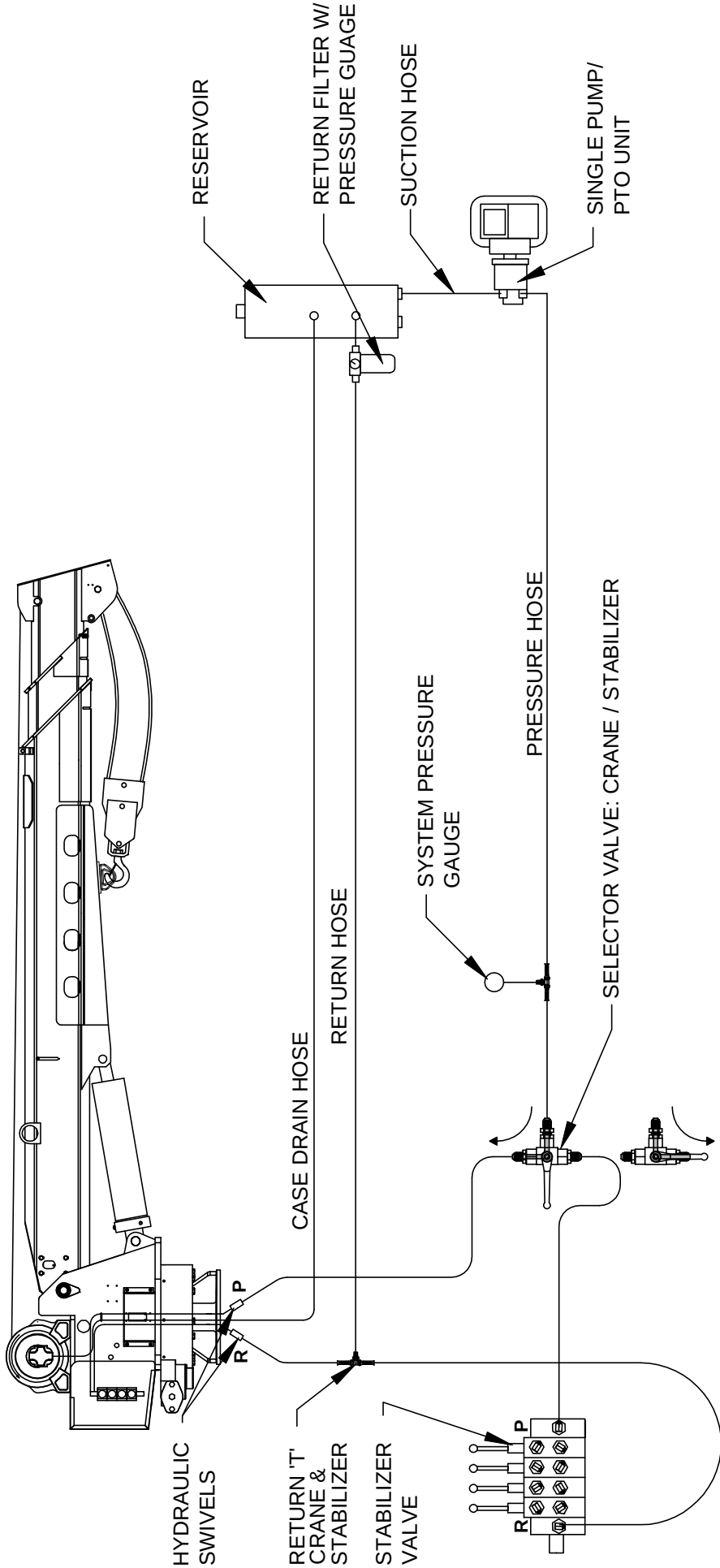
10-24-12E

SECTION

C200

22913

HYDRAULIC CIRCUIT CONNECTION GUIDE - SINGLE PUMP (NO COMPRESSOR) (REFER TO SECTION 200 FOR MORE INFORMATION, INCLUDING HOSE SPECIFICATIONS)



CAUTION

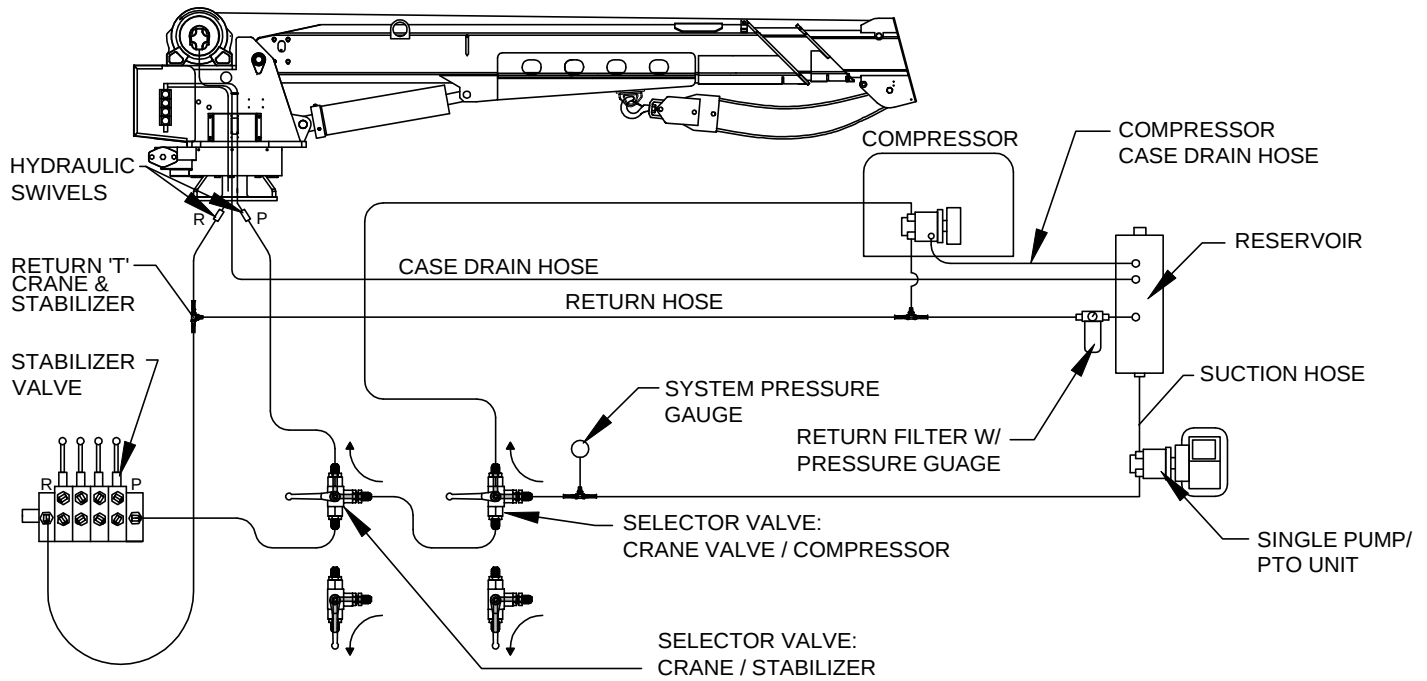
- SELECTOR VALVE MUST BE 'NON-CLOSED CENTER TRANSITION' TYPE.

CAUTION

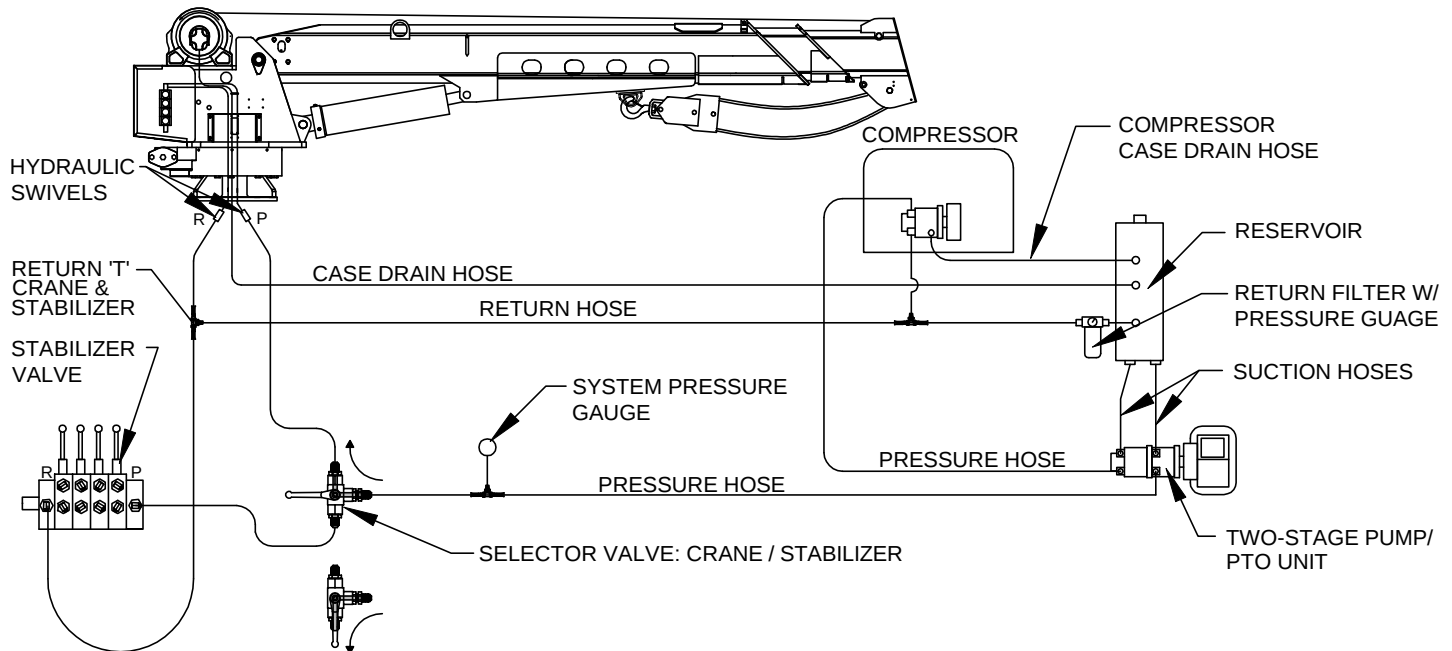
- THE CASE DRAIN LINE FROM THE WINCH MUST HAVE AN UNRESTRICTED PATH TO TANK/ RESERVOIR.

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE		SECTION
	CONNECTION GUIDE, PAGE 1 / 2		C200
	DATE		SUPERSEDES
	02-21-14B		04-19-12A
HT CRANES		23015	

HYDRAULIC CIRCUIT CONNECTION GUIDE - SINGLE PUMP W/ COMPRESSOR



HYDRAULIC CIRCUIT CONNECTION GUIDE - TWO-STAGE PUMP W/ COMPRESSOR



CAUTION

- SELECTOR VALVE MUST BE 'NON-CLOSED CENTER TRANSITION' TYPE.

REFER TO SECTION 200
FOR MORE
INFORMATION,
INCLUDING HOSE
SPECIFICATIONS



CAUTION

- THE CASE DRAIN LINE FROM THE WINCH MUST HAVE AN UNRESTRICTED PATH TO TANK/ RESERVOIR.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
CNNCTN GDE, PAGE 2/2
HT CRANES

DATE
02-21-14B
SUPERSEDES
04-19-12A

SECTION
C200
23014

WIRE ROPE INSTALLATION

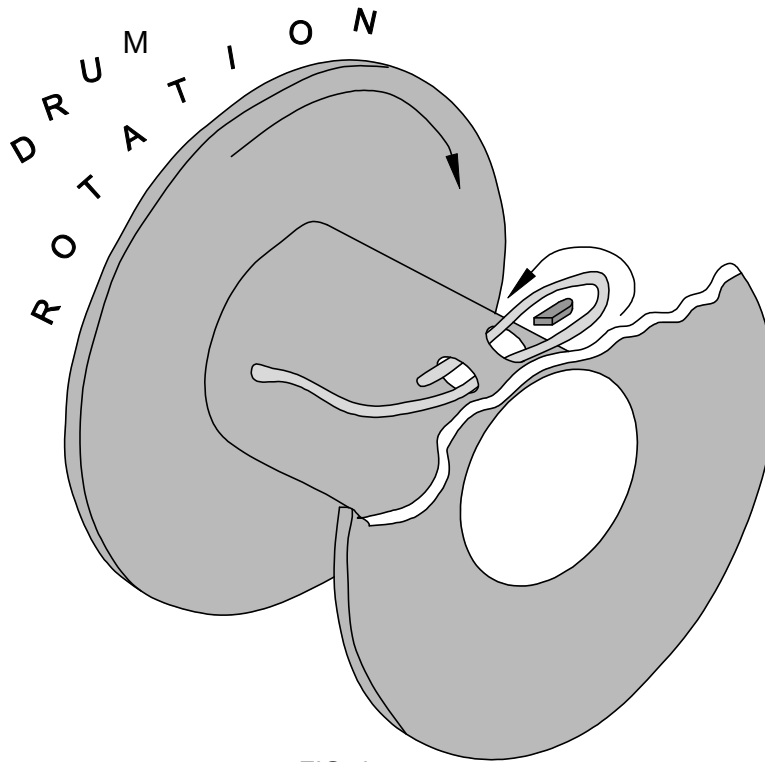


FIG. 1

- STEP 1: UNWIND COIL OF WIRE ROPE BY 'ROLLING' ALONG THE FLOOR. THIS WILL PREVENT 'KINKING'.
- STEP 2: INSERT WIRE ROPE END UP THROUGH ANTI-2-BLOCK (A2B) CAGE ASSEMBLY, BETWEEN CHEEK PLATES, OVER THE TOP SHEAVE, AND THROUGH WIRE ROPE GUIDE.
- STEP 3: INSERT WIRE ROPE END INTO POCKET OPENING ON WINCH, WRAP AROUND WEDGE, AND BACK THROUGH POCKET OPENING AS SHOWN IN FIGURE 1.



CAUTION

- IF THE WIRE ROPE IS NOT INSTALLED FOR THE CORRECT DRUM ROTATION, THE WINCH BRAKE VALVE WILL NOT HOLD THE LOAD.



CAUTION

- THERE MUST ALWAYS BE AT LEAST [5] DEAD WRAPS OF WIRE ROPE ON THE WINCH DRUM WHILE UNDER LOAD.

NOTE: SOME WINCHES MAY BE SUPPLIED WITH A HEX NUT IN LIEU OF A WEDGE FOR INSTALLING THE WIRE ROPE.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

WIRE ROPE INSTALLTN

DATE

02-21-14K

SECTION

C200

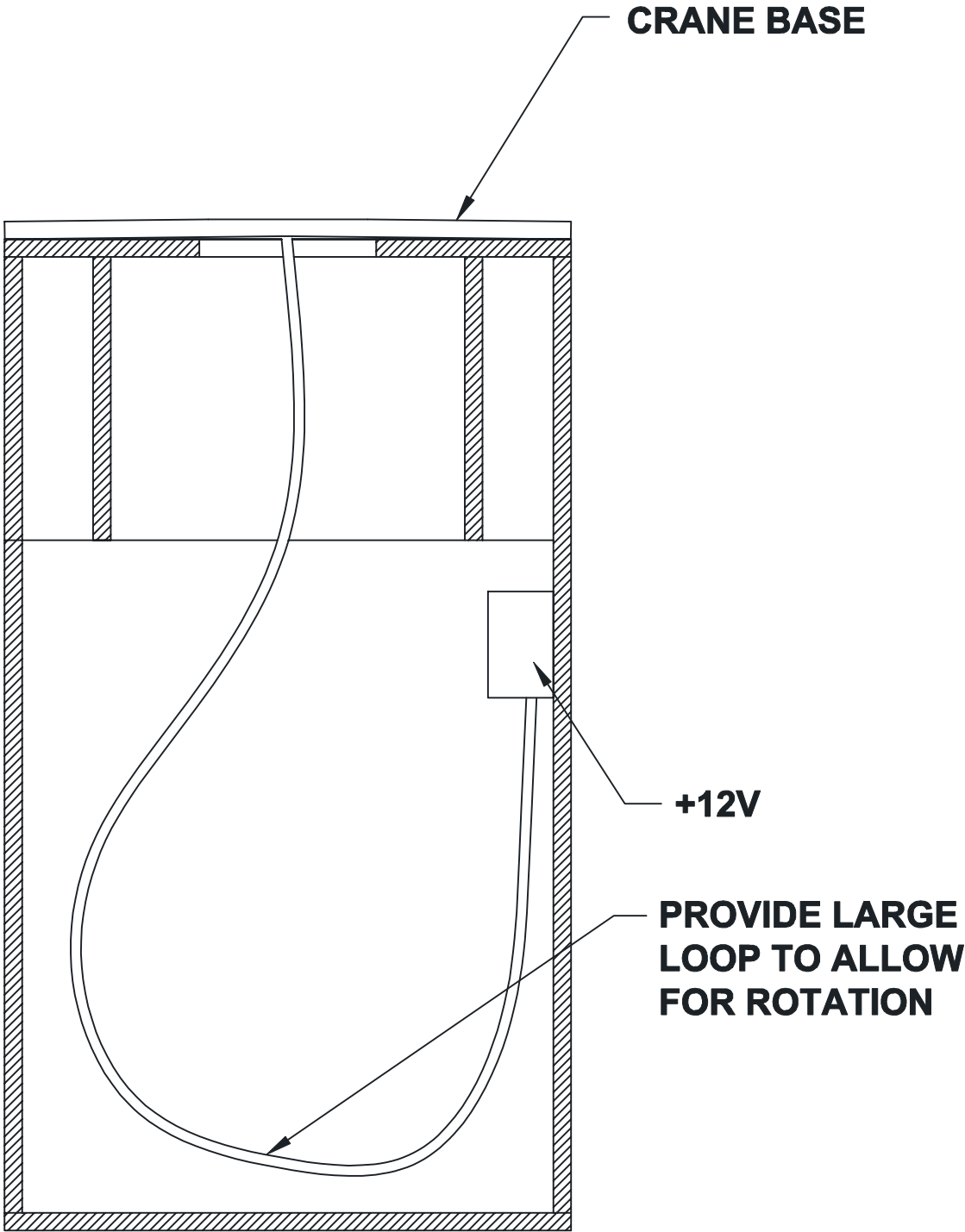
ET6K & LARGER CRANES

SUPERSEDES

12-26-13J

22245

IN-COMPARTMENT CONTROLS INSTALLATION
HT25 / 30 ▲



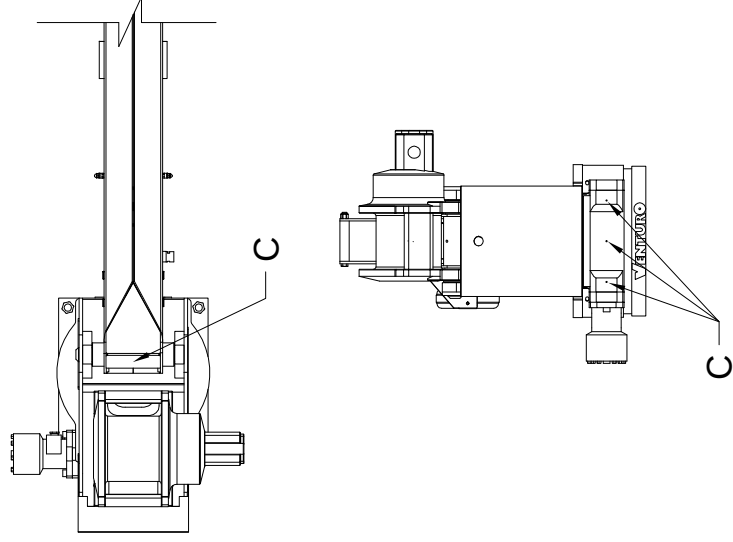
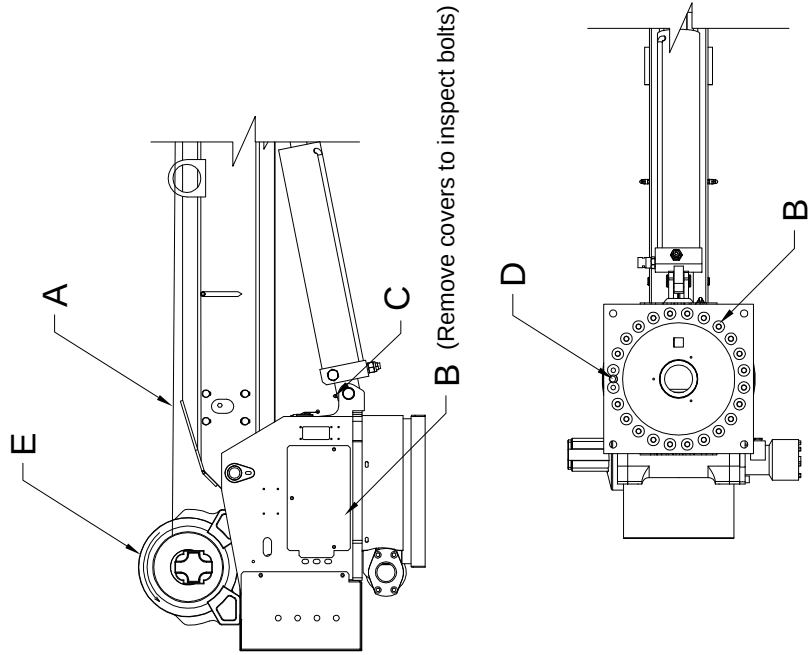
SECTION 300

MAINTENANCE

&

SERVICE





Location	Service Required	Note	Service Interval
A	Check Wire Rope and Hook	Rope should be free of kinks and fraying	Prior to Use (Daily)
B	Check Torque of bolts	Bolts should be torqued to 60 ft-lbs	Time of Truck Service
C	Grease Fitting with Pressure Grease Gun	Use Lithium Based Grease	Time of Truck Service
D	Grease Fitting with Pressure Grease Gun	Use Lithium Based Grease	Every 6 months
E	Check Winch gearbox oil level	SAE 90 Gear Lubricant	Every 6 months



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE LUBRICATION & MAINTENANCE CHART

HT25/30 CRANES

DATE
06-21-19B
SUPERSEDES
01-23-10A

SECTION
C300

21956

MAINTENANCE OVERVIEW INFORMATION

MAINTENANCE

The crane requires only periodic lubrication. As a standard procedure, this can be done at the time the vehicle is serviced.

GENERAL

Inspect wire rope for any evidence of kinks or fraying. Ensure that lifting hook of wire rope shows no evidence of damage and is functioning normally.

Inspect headache ball ("load block") for any signs of damage or excessive wear.

Service all grease fitting locations.

Inspect hydraulic hoses and hydraulic fittings for hydraulic leaks.

Inspect electrical connections for any looseness or corrosion.

Inspect bolts and verify all are tight, paying particular attention to winch, rotation system, and mounting base bolts.

Inspect all pins and snap rings for proper fit and function.

Inspect sheaves for excessive wear or play.

WINCH

Perform a basic inspection of the winch with each use, monitoring for unusual noise or hydraulic leaks.

The winch planetary gearbox lube (SAE 90) should be maintained at the level plug (final base relief valve port) which is approximately half-full point.

To ensure optimal winch performance, the following oil change schedule should be followed:

Initial Change - after the initial 100 hours of operation or two months.

Periodic Change - after every 1000 hours of operation or two years .



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
MAINTENANCE INFO	02-21-14C	C300
HT25/30/40/50/66K(X)	SUPERSEDES 04-12-12B	23203

WIRE ROPE ASSEMBLY

WIRE ROPE:

5/16" DIA, 80' LONG

GAC 7X19 XIP-RHRL-IWRC, SB 9800 LBS

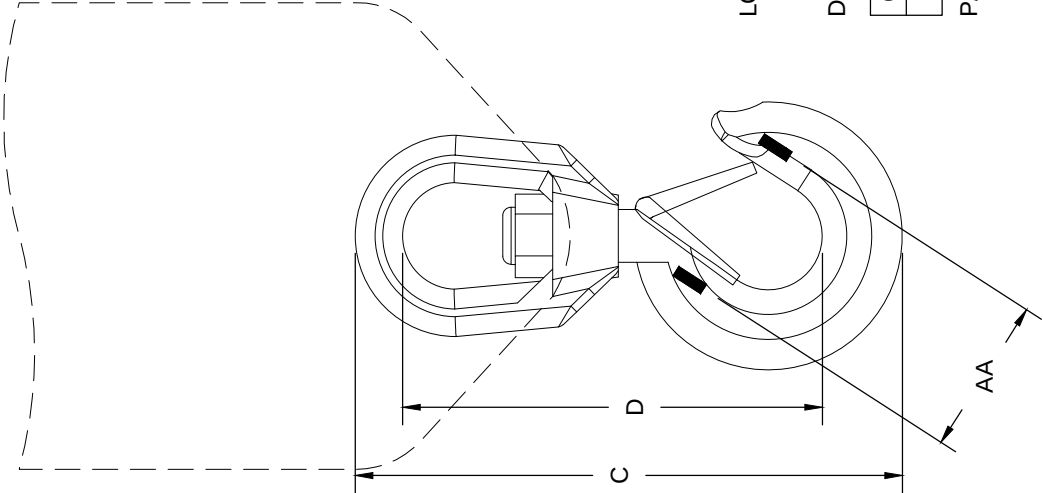
P/N: 27668-5/16-80



TERMINATES IN THIMBLE

NO HOOK

LOAD BLOCK ASSEMBLY



LOAD BLOCK HOOK:

RATING: 3 TONNE (6615 LBS)

DIMENSIONS:

COLOR	BRAND	AA	C	D
GOLD	CROSBY	2.00"	8.25"	6.50"

P/N: 27667

TITLE

WIRE ROPE & HOOK SPECIFICATIONS

ET16/18KXX-20, ET/HT25/30KX

DATE

03-12-20C

SUPERSEDES

05-09-16B

SECTION

C300

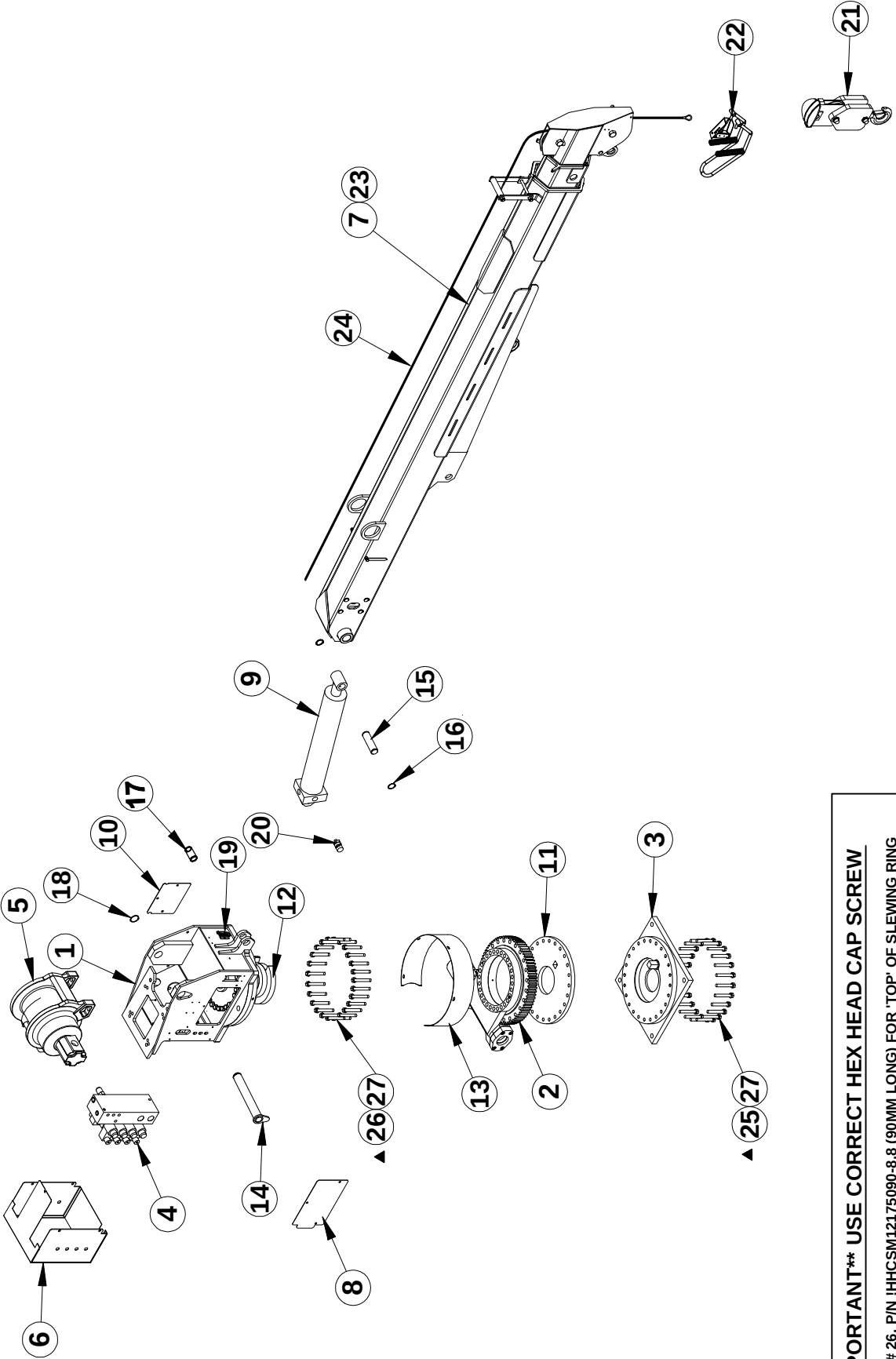
23228

SECTION 400

PARTS



REPLACEMENT PARTS LIST - REF 23205



⚠ **IMPORTANT USE CORRECT HEX HEAD CAP SCREW**
 - ITEM # 26, P/N IHHCSM12175090-8.8 (90MM LONG) FOR 'TOP' OF SLEWING RING
 - ITEM # 25, P/N IHHCSM12175080-8.8 (80MM LONG) FOR 'BOTTOM' OF SLEWING RING

	REPLACEMENT PARTS DWG		SECTION	C400
	HT30KX(X)		DATE	01-29-13B
	MANUFACTURING, INC. CINCINNATI, OHIO		SUPERSEDES	04-12-10A
		23204		

▲ 27	50	!LWSH-050	LOCK WASHER, 1/2"
▲ 26	26	!HHCSM12175090-8.8	HHCS; 12MM-1.75MM X 90MM LG, GR. 8.8
▲ 25	24	!HHCSM12175080-8.8	HHCS; 12MM-1.75MM X 80MM LG, GR. 8.8
24	1	27668 - 5/16-80	WIRE ROPE ASS'Y.
23	1	27198	BOOM FINAL ASS'Y. (KX - SINGLE STAGE)
22	1	27738	ANTI-2-BLOCK ASS'Y.
21	1	27667	LOAD BLOACK ASS'Y. - 6000 LBS.
20	1	17460-2700-21	OVERLOAD PRESSURE SWITCH
19	1	19904	BOOM SHUT-OFF SWITCH ASS'Y.
18	1	!SRNG-150	RETAINING RING; 1 1/2" SHAFT DIA.
17	1	18762	PIVOT PIN; ELEVATION CYLINDER
16	4	!SRNG-125	RETAINING RING; 1 1/4" SHAFT DIA.
15	1	18761	PIVOT PIN; ELEVATION CYLINDER
14	1	21012	PIVOT PIN; MAIN BOOM PIVOT
13	1	27186	GUARD; ROTATION GEAR
12	1	27557	LIMITING RING; ROTATION
11	1	27520H	SPACER
10	1	23156	PLATE, COVER
9	1	21752	ELEVATION CYLINDER
8	1	27000	SIDE COVER; HOUSING
7	1	21470	BOOM FINAL ASS'Y. (KXX - DUAL STAGE)
6	1	27315	REAR COVER; CRANE
5	1	19814	HYDRAULIC WINCH; HT25KX
4	1	22501	VALVE MANIFOLD
3	1	27520m-1	WELDED ASS'Y.; BASE
▲ 2	1	21418	SLEWING RING
1	1	27521	WELDED ASS'Y.; UPPER HOUSING
ITEM NO.	QTY.	PART NO.	DESCRIPTION

REPLACEMENT PARTS DRAWING - REFERENCE 23204



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE

REPLACEMENT PARTS

HT30KX(X)

DATE

01-29-13E

SUPERSEDES

07-13-11D

SECTION

C400

23205

This diagram illustrates the exploded view of a mechanical assembly, likely a conveyor belt system. The components are numbered 1 through 33. The main assembly consists of a long, narrow frame (1) with a central support structure (2). The frame is supported by a series of rollers (3) and is connected to a motor or drive unit (4). The rollers are mounted on a series of shafts (5) and are supported by a series of bearings (6). The frame is also equipped with a series of guides (7) and a series of sensors or detectors (8). The assembly is shown in a disassembled state, with the various components labeled with numbers 1 through 33, indicating their relative positions and how they fit together.

REPLACEMENT PARTS LIST - REF

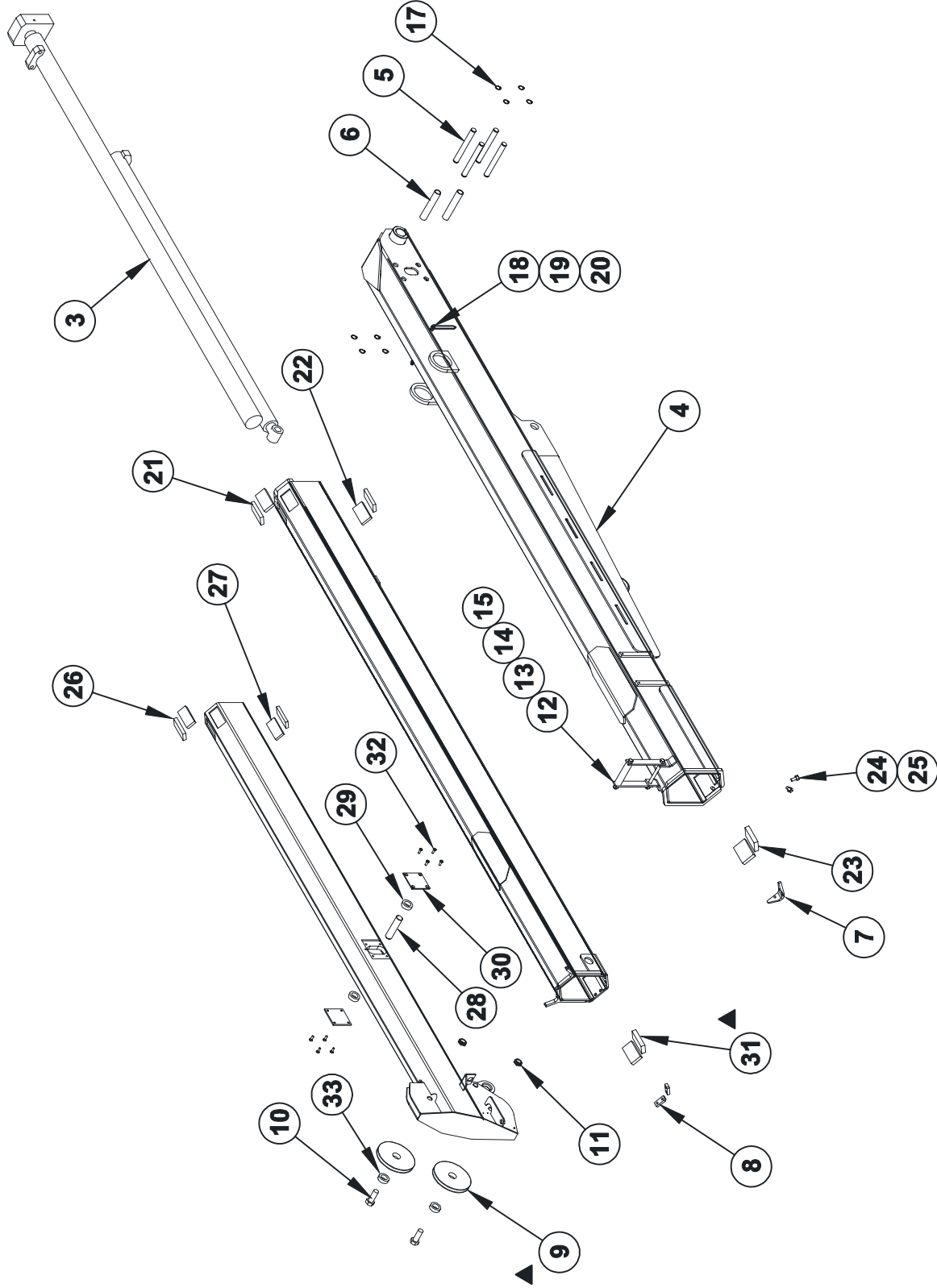
VENTURO®
MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE	DATE	SECTION
27198 BOOM REPLACEMENT PARTS DWG	3-3-10A	C400
ET/HT30KX	SUPERSEDES 12-11-08	21198

33	6	!LWSH-038	LOCK WASHER 3/8"
32	6	!HHCS03816063	HEX HEAD CAP SCREW 3/8-16 X 5/8 LG
31	2	23217-10	UHMW PAD
30	2	23217-3	UHMW PAD
29	2	23217-9	UHMW PAD
28	2	23217-8	UHMW PAD
27	2	23217-7	UHMW PAD
26	2	23217-6	UHMW PAD
25	4	!CAC03816075	C-SINK CAP SCREW 3/8-16 X 3/4 LG
24	2	!LNUT-04414	NYLON INSERT LOCK NUT - 7/16-14
23	1	21560	ROLLER,UHMW GUIDE
22	1	21936	FLAT,MOUNT;WIRE ROPE GUIDE
21	1	!HHCS04414550	HHCS - 7/16-14 X 5-1/2 LG
20	1	21935	WIRE-ROPE GUIDE WELDED
19	2	!LNUT-07510	LOCKNUT 3/4-10
18	2	17059-6	SHEAVE AXLE 3/4 X 2 W/ 1" SHANK
17	2	27001	SHEAVE - BOOM
16	1	23924-1	SPACER - SHEAVE
15	-	-	-
14	-	-	-
13	-	-	-
12	2	21498	EXTENSION CYLINDER ROLLER
11	8	!SRNG-075	RETAINING RING - 3/4" SHAFT DIA.
10	4	21497	THRUST PIN - EXTENSION CYLINDER
9	2	!ANUT-02520S	ACORN NUT 1/4-20 STAINLESS
8	2	13459-2	BOOM ARROW 4-7/16 LONG
7	2	22490	SPACER, BOOM ARROW 1/2" O.D.
6	2	23119	BEARING RETAINING BLOCK
5	1	23183	V-BLOCK SLIDER
4	1	27110	TERTIARY BOOM WELDED ASSEMBLY
3	1	27201	PRIMARY BOOM WELDED ASSEMBLY
2	1	20061	EXTENSION CYLINDER - HOLLOW ROD
1	1	27108	SECONDARY BOOM WELDED ASSEMBLY
ITEM NO.	EXPLODE/QTY.	PART NUMBER	DESCRIPTION

REPLACEMENT PARTS
DRAWING - REF 21198

21470 BOOM REPLACEMENT PARTS DRAWING



VENTURO [®] MANUFACTURING, INC. CINCINNATI, OHIO	TITLE 21470 BOOM REPLACEMENT PARTS DWG		DATE 4-27-11B SUPERSEDES 3-2-10A	SECTION C400
	ET/HT30KXX		21098	

33	2	23924-1	SPACER - SHEAVE
32	8	!CACS02520063-N	CNTR SNK ALLEN HEAD CAP SCREW 1/4-20 X 5/8 LG W / PATCH
31	2	23217-10	UHMW GUIDE PAD
30	2	23116	PIN BLOCK REINFORCING
29	2	21428	BUSHING
28	1	21941	EXTENSION CYLINDER PIN
27	2	23217-7	UHMW GUIDE PAD
26	2	23217-6	UHMW GUIDE PAD
25	2	!LWSH-038	LOCK WASHER 3/8"
24	2	!HHCS03816075	HEX HEAD CAP SCREW - 3/8-16 X 3/4 LONG
23	2	23217-3	UHMW GUIDE PAD
22	2	23217-9	UHMW GUIDE PAD
21	2	23217-8	UHMW GUIDE PAD
20	2	!ANUT-02520S	ACORN NUT 1/4-20 STAINLESS
19	2	13459-2	BOOM ARROW 4-7/16 LONG
18	2	22490	SPACER, BOOM ARROW 1/2" O.D.
17	8	!SRNG-075	RETAINING RING - 3/4" SHAFT DIA.
16	1	!HHCS04414550	HEX HEAD CAP SCREW - 7/16-14 X 5-1/2 LG
15	2	!LNUT-04414	NYLON INSERT LOCK NUT - 7/16-14
14	1	21560	ROLLER,UHMW GUIDE
13	1	21936	FLAT.MOUNT;WIRE ROPE GUIDE
12	1	21935	WIRE-ROPE GUIDE WELDED
11	2	!LNUT-07510	LOCKNUT 3/4-10
10	2	17059-6	SHEAVE AXLE 3/4 X 2 W / 1" SHANK
9	2	27001	SHEAVE - BOOM
8	2	23119	BEARING RETAINING BLOCK
7	1	23183	V-BLOCK SLIDER
6	2	21498	EXTENSION CYLINDER ROLLER
5	4	21497	THRUST PIN - EXTENSION CYLINDER
4	1	21472	PRIMARY BOOM WELDED ASSEMBLY
3	1	21753	EXTENSION CYLINDER
2	1	21476	TERTIARY BOOM ASSEMBLY
1	1	21474	SECONDARY BOOM WELDED ASSEMBLY
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE

21470 BOOM PARTS LIST

DATE

4-27-11C

SECTION

C400

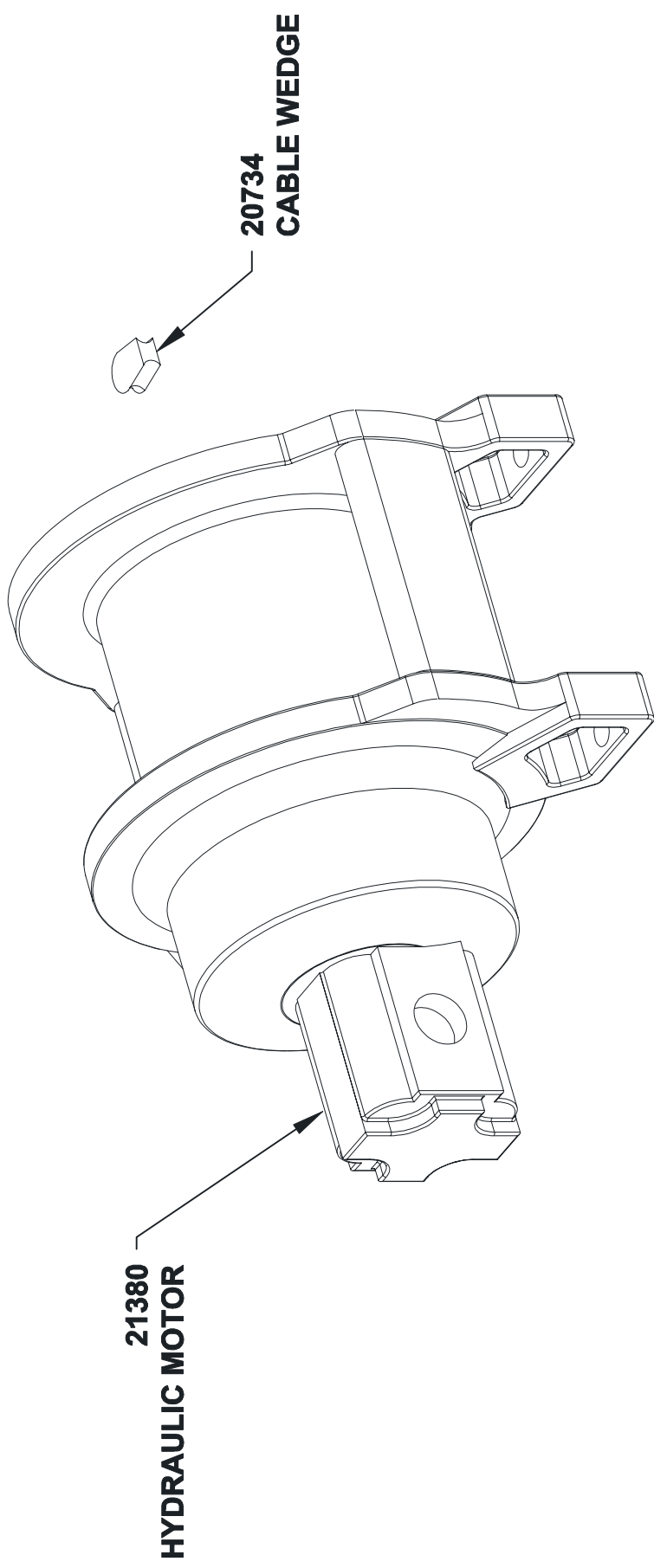
SUPERSEDES

3-2-10B

ET/HT30KXX

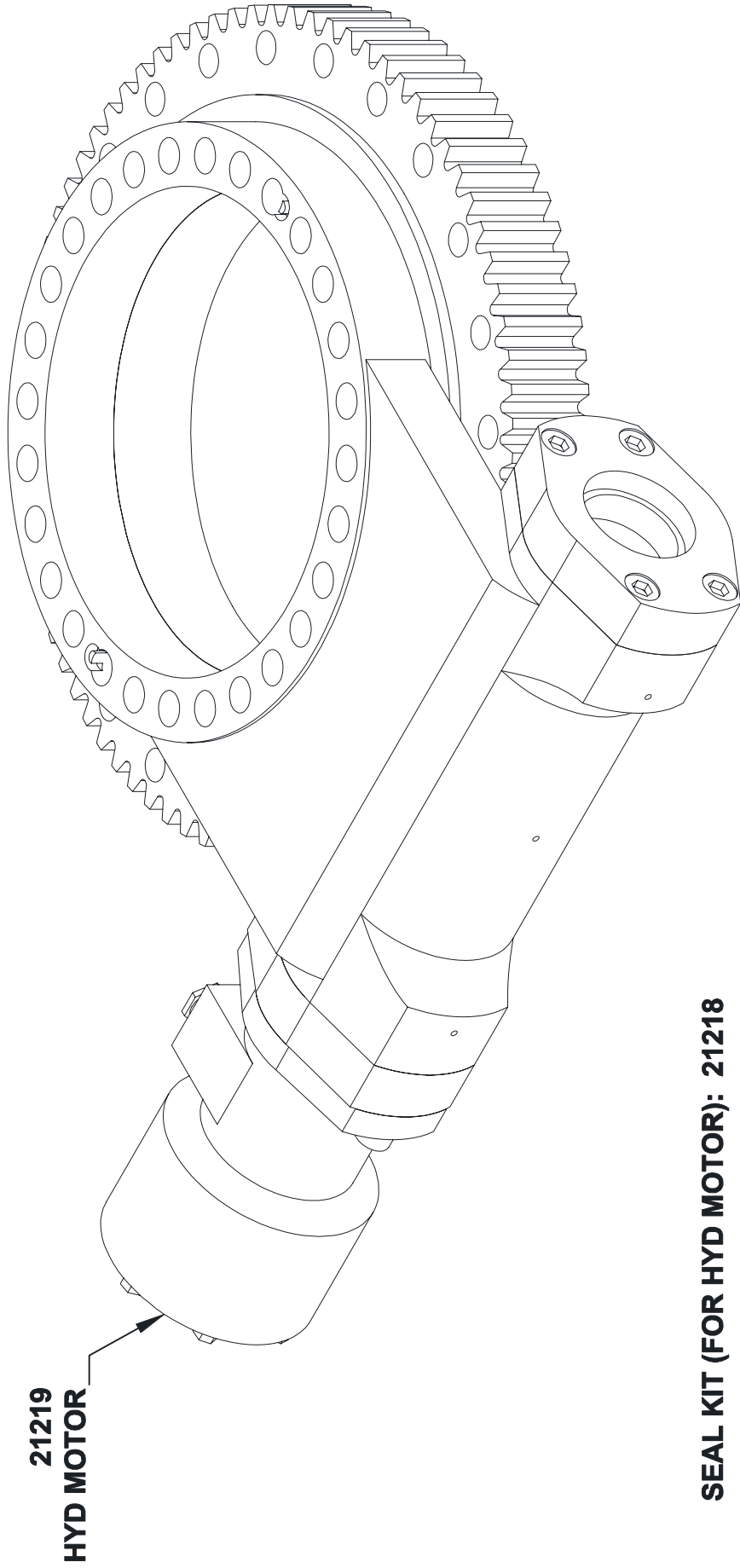
21099

REPLACEMENT PARTS 19814 WINCH



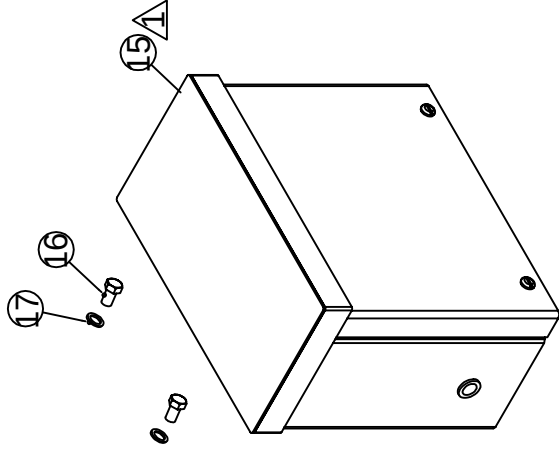
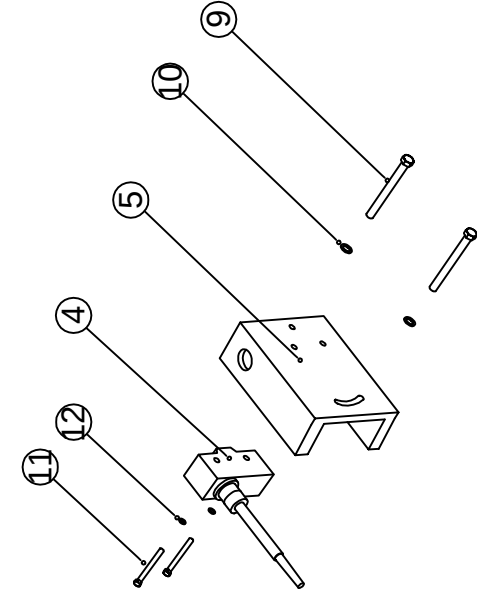
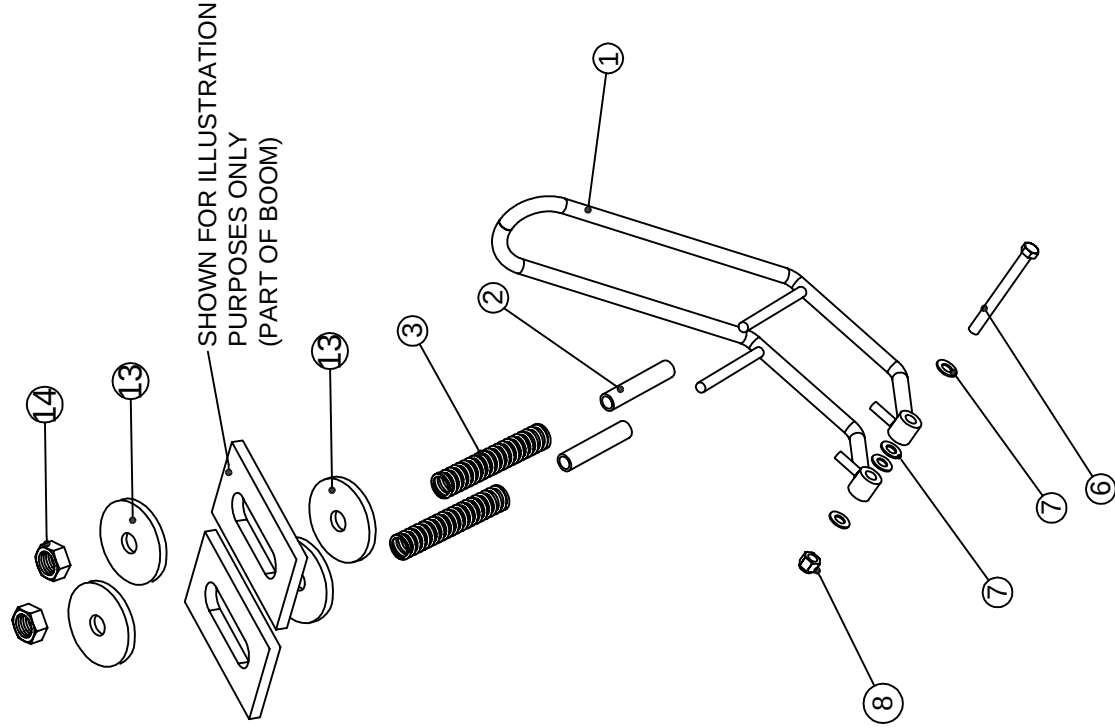
NOT SHOWN ON DRAWING:
21381 - WINCH SEAL KIT
21382 - MOTOR SEAL KIT

21419 ROTATION SYSTEM REPLACEMENT PARTS



SEAL KIT (FOR HYD MOTOR): 21218

 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE		21419 REPLACEMENT PARTS	DATE	SECTION
	HT25/30 & ET36		1-20-10	SUPERSEDES	25203



A FOR RT-HAND MNGT. USE CORD REEL P/N 27034-1

17	2	ILWSH-031	LOCK WASHER 5/16 SPLIT
16	2	IHHCS03118050-5	HEX HEAD CAP SCREW 5/16-18 X 1/2"
15	1	22683	CORD REEL W/MOUNTING BRACKET
14	2	ILNUT-04414	LOCKNUT W/NYLON INSERT - 7/16-14
13	4	IFWSH-050	FLAT WASHER -1/2 USS
12	2	ILWSH-#06-STAR	EXTERNAL STAR LOCK - #6
11	2	IPHCS#0632100	PAN CAP SCREW - #6-32 X 1
10	2	ILWSH-#10	LOCK WASHER - #10
9	2	IPHCS#1024125	PAN HD CAP SCREW - #10-24 X 1-1/2"
8	1	ILNUTM12X175	NYLOK NUT12MM-1.75
7	4	IFWSH-044SAE	FLAT WASHER - 7/16 SAE
6	1	IHHCSM12M120	HEX HEAD CAP SCREW 12MM X 120MM LONG
5	1	21237	SWITCH HOUSING (BLACK CAST NYLON)
4	1	19376	ANTI-TWO BLOCK SWITCH
3	2	27586	SPRING
2	2	27579b	SPRING LOCATING TUBE
1	1	21870	ANTI TWO BLOCK CAGE ASSEMBLY
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
RPLCMNT PARTS - LH CORD REEL (STNDRD)

DATE
02-03-15A

SECTION
C400

ET/HT25/30 & ET36 ANTI-2-BLOCK SYSTEM

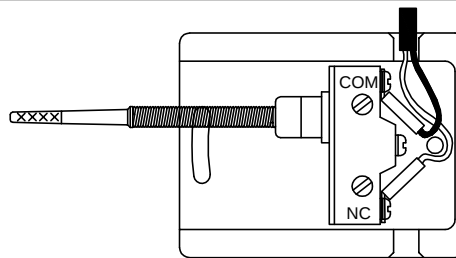
SUPERSEDES
04-28-11

23026

STEP 1

ANTI-TWO BLOCK (A2B) SWITCH WIRING

Connect the Black wire to the 'COM' (Common) terminal and the White wire to the 'NC' (Normally Closed) terminal. The center terminal is not used.



CUT-AWAY VIEW

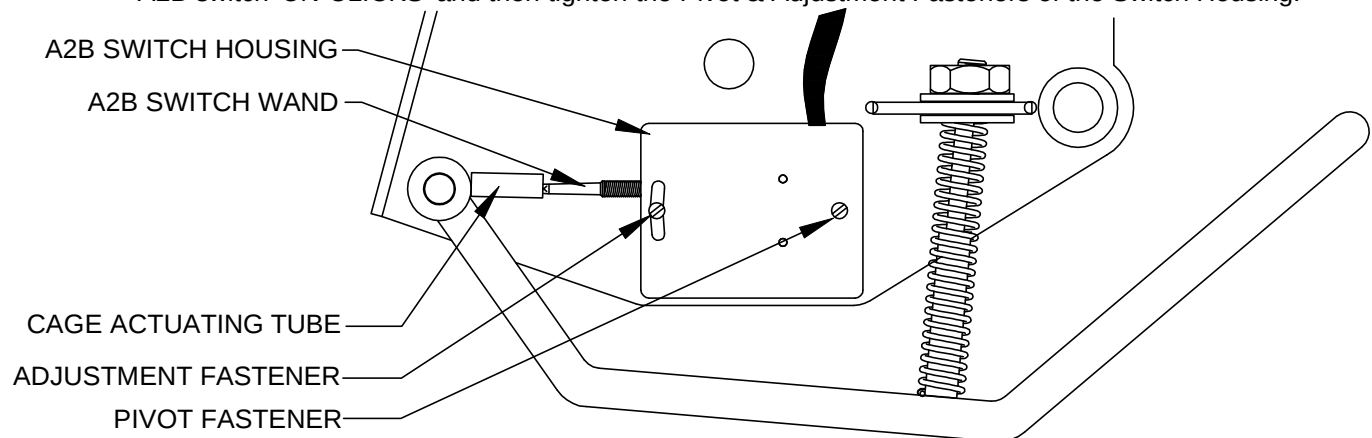
STEP 2

ANTI-TWO BLOCK (A2B) SWITCH ADJUSTMENT

The A2B switch is adjusted by loosening the Pivot & Adjustment Fasteners of the A2B switch housing.

Once loosened the A2B switch and housing move freely pivoting on the 'Pivot Fastener' allowing the 'Switch Wand' to be adjusted to the 'Cage Actuating Tube'.

With the A2B Switch Wand inserted into the Cage Actuating Tube rotate the A2B switch housing Counter-Clockwise until you hear the 'click' of the A2B switch then rotate Clockwise 'just until' the A2B switch 'UN-CLICKS' and then tighten the Pivot & Adjustment Fasteners of the Switch Housing.

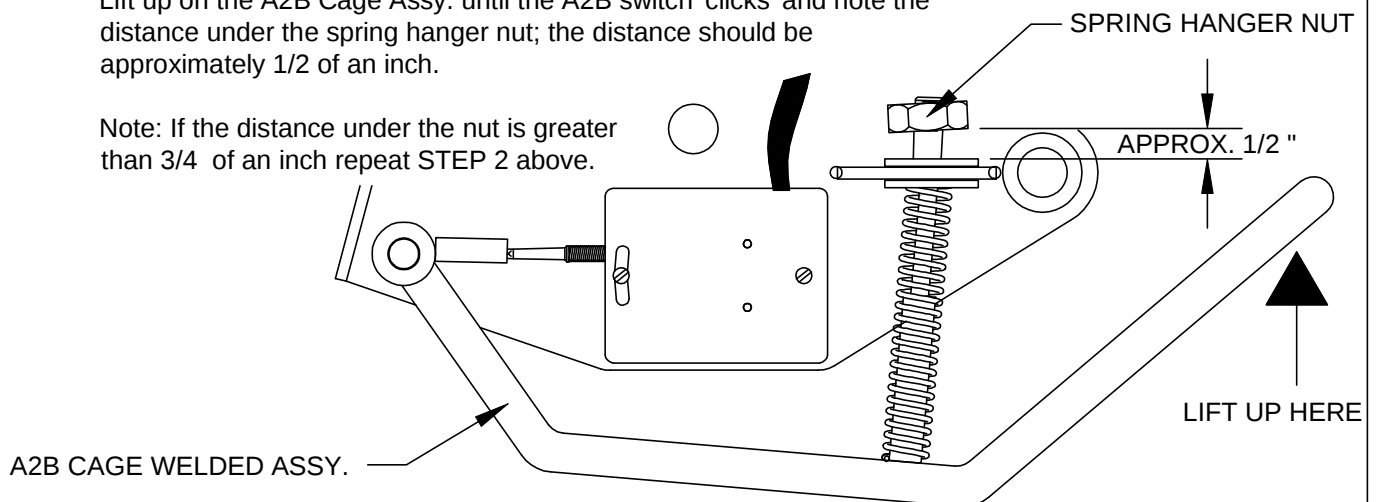


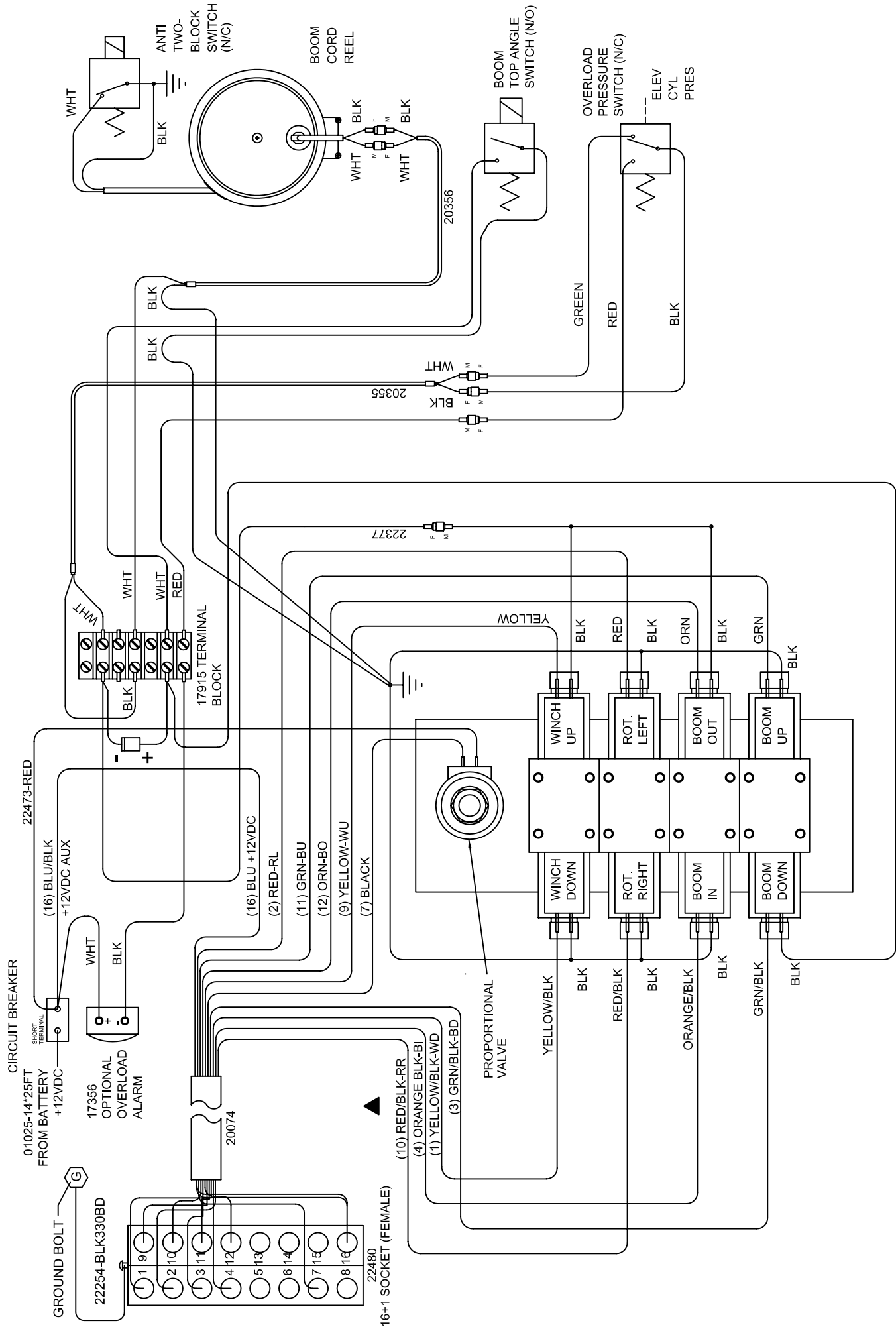
STEP 3

TESTING ADJUSTMENT

Lift up on the A2B Cage Assy. until the A2B switch 'clicks' and note the distance under the spring hanger nut; the distance should be approximately 1/2 of an inch.

Note: If the distance under the nut is greater than 3/4 of an inch repeat STEP 2 above.





MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
WIRING DIAGRAM

HT25/30 - PROPORTIONAL (NO ENG CTRL)

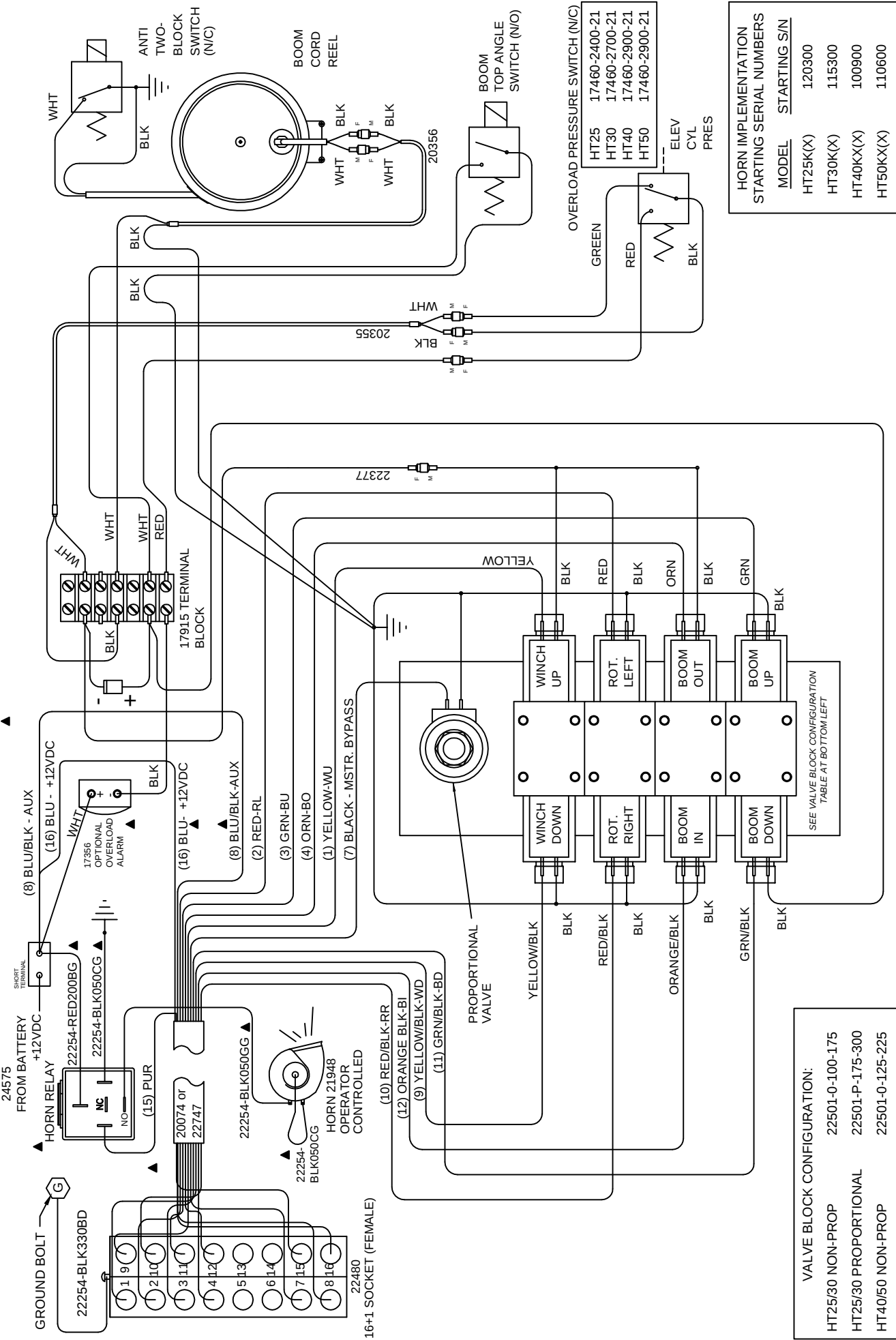
DATE
5-1-11D

SUPERSEDES
4-28-11C

SECTION
C400

20362

CIRCUIT BREAKER



HORN IMPLEMENTATION	
MODEL	STARTING S/N
HT25K(X)	120300
HT30K(X)	115300
HT40K(X)	100900
HT50K(X)	110600

VALVE BLOCK CONFIGURATION:	
HT25/30 NON-PROP	22501-0-100-175
HT25/30 PROPORTIONAL	22501-P-175-300
HT40/50 NON-PROP	22501-0-125-225



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE: **WIRING DIAGRAM**

DATE: **02-02-15F**

SECTION: **C400**

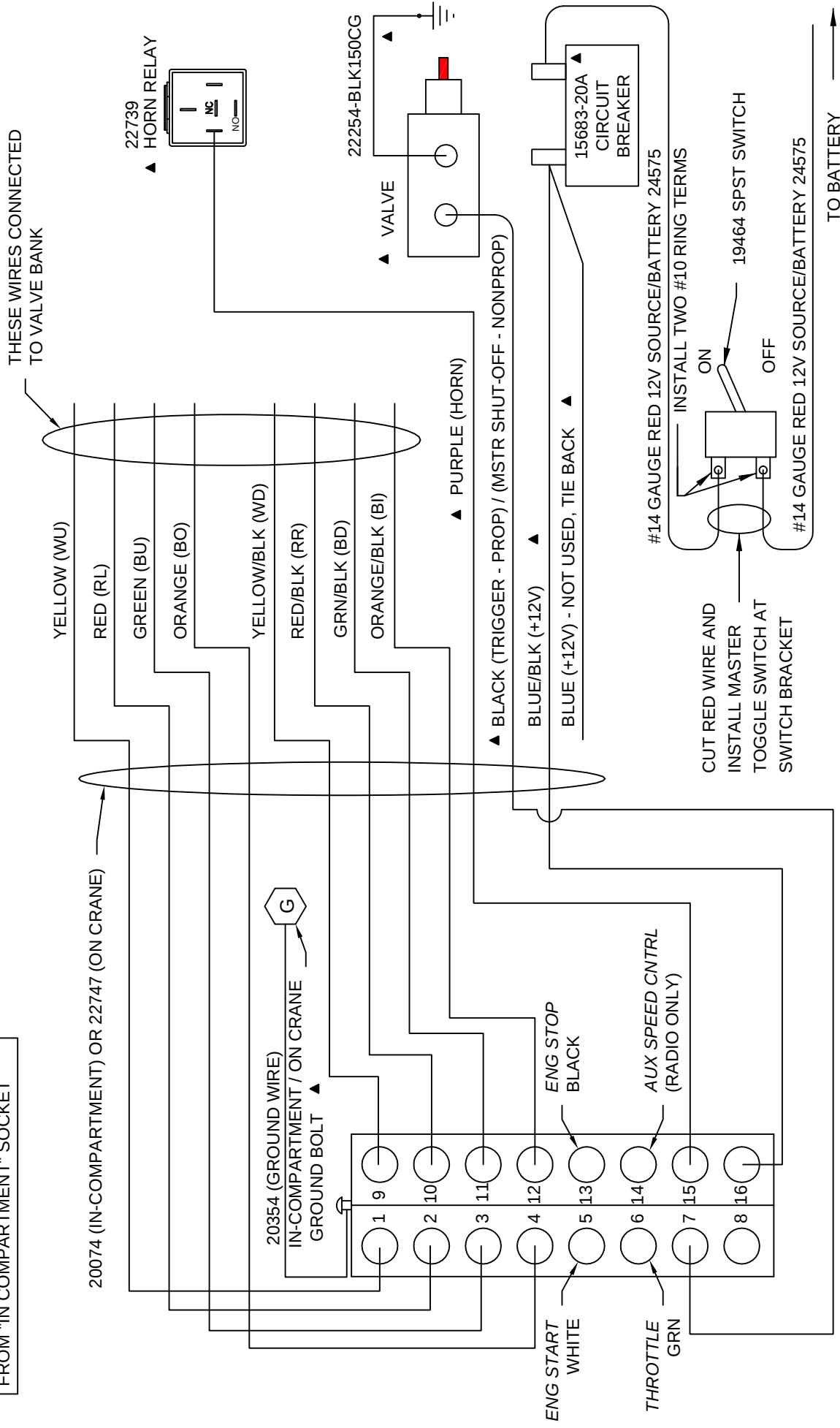
ALL HT25/30, & NON-PROPORTIONAL HT40/50

SUPERSEDES: **10-09-14E**

20362

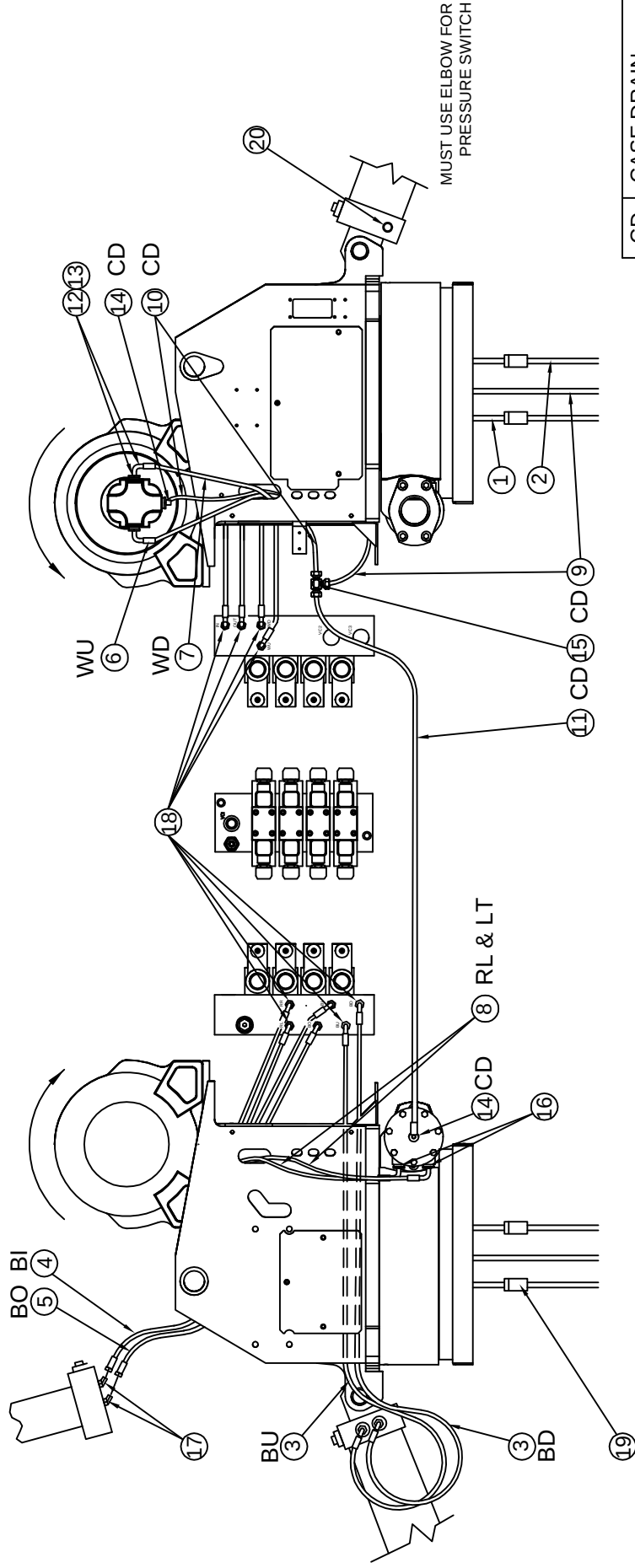
• SOCKET WIRING; 16-PIN, W/ OPTIONAL ENG CONTROLS

FROM "IN COMPARTMENT" SOCKET



ENGINE CONTROLS (#22616) SOLD AS AN OPTION (NOT INCLUDED WITH CRANE)

	VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	SOCKET WIRING; 16 PIN		DATE	SECTION
	HT CRANES			02-17-15G		02-21-14F	C400
				SUPERSEDES		22125	



LEFT SIDE

RIGHT SIDE

CD	CASE DRAIN
RR	ROTATION RIGHT
RL	ROTATION LEFT
BO	BOOM OUT
BI	BOOM IN
BU	BOOM UP
BD	BOOM DOWN
PR	PRESSURE
RE	RETURN
WU	WINCH UP
WD	WINCH DOWN
WR	WINCH RELIEF

REFERENCE REPLACEMENT PARTS LIST 21252

 VENTURO [®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	DATE	SECTION
	RPLCMNT PARTS DWG; HYD. COMPONENTS	12-16-16A	C400
	HT25/30 SERIES CRANES	SUPERSEDES 12-15-09	21251

REPLACEMENT PARTS LIST; HYDRAULIC SYSTEM COMPONENTS
HT25/30 SERIES CRANES

ITEM	QTY	PART NUMBER	DESCRIPTION	INSTALLATION
1	1	21764	HOSE ASSY; PRESSURE SUPPLY	VALVE BANK TO COMPARTMENT
2	1	21763	HOSE ASSY; RETURN SUPPLY	VALVE BANK TO COMPARTMENT
3	2	21761	HOSE ASSY; BOOM UP / BOOM DOWN	VALVE BANK TO ELEVATION CYLINDER
4	1	21765	HOSE ASSY; BOOM IN	VALVE BANK TO EXTENSION CYLINDER
5	1	21766	HOSE ASSY; BOOM OUT	VALVE BANK TO EXTENSION CYLINDER
6	1	21767	HOSE ASSY; WINCH UP	VALVE BANK TO WINCH MOTOR
7	1	21768	HOSE ASSY; WINCH DOWN	VALVE BANK TO WINCH MOTOR
8	2	21771	HOSE ASSY; ROTATE LEFT / RIGHT	VALVE BANK TO ROTATION MOTOR
9	1	22903	HOSE ASSY; CASE DRAIN, 96" LONG	T-SHAPE FITTING TO COMPARTMENT
10	1	22952	HOSE ASSY; CASE DRAIN, 13" LONG	WINCH CASE DRAIN TO T-SHAPE FITTING
11	1	22953	HOSE ASSY; CASE DRAIN, 30" LONG	ROTATION CASE DRAIN TO T-SHAPE FITTING
12	2	H6410-1608	FITTING; ADAPTER, STRAIGHT, 16MO-8FO	WINCH MOTOR PORTS
13	2	FF6801-0608	FITTING; ADAPTER, 90° ELBOW, 6OFS-8MO	FOR ADAPTERS IN WINCH MOTOR PORTS
14	2	H6801-0404	FITTING; ADAPTER, 90° ELBOW, 4MJ-4MO	WINCH & ROTATION MOTORS CASE DRAINS
15	1	H2603-040404	FITTING; T-SHAPE JUNCTION, 4MJ-4MJ-4MJ	CASE DRAIN HOSES, NEAR VALVE BANK
16	2	FF6400-0610	FITTING; ADAPTER, STRAIGHT, 6OFS-10MB	ROTATION MOTOR PORTS
17	2	FF6802-0606	FITTING; ADAPTER, 45° ELBOW, 6OFS-6MO	EXTENSION CYLINDER PORTS
18	12	FF6400-0606	FITTING; ADAPTER, STRAIGHT, 6OFS-6MB	VALVE BANK & ELEVATION CYLINDER PORTS
19	2	20684	LIVE CONTINUOUS HYDRAULIC SWIVEL	PRESSURE & RETURN SUPPLIES TO MAINS
* 20	1	H6805-0404	FITTING; ADAPTER, 90° ELBOW, 4MO-4FP	ELEVATION CYLINDER TO PRESSURE SWITCH
21	-	-	-	-
22	-	-	-	-
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	-	-	-	-
27	-	-	-	-
28	-	-	-	-
29	-	-	-	-
30	-	-	-	-

* MUST USE ELBOW FOR PRESSURE SWITCH

REFERENCE REPLACEMENT PARTS DWG 21251



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
RPLCMNT PARTS LIST

HT25/30 SERIES CRANES

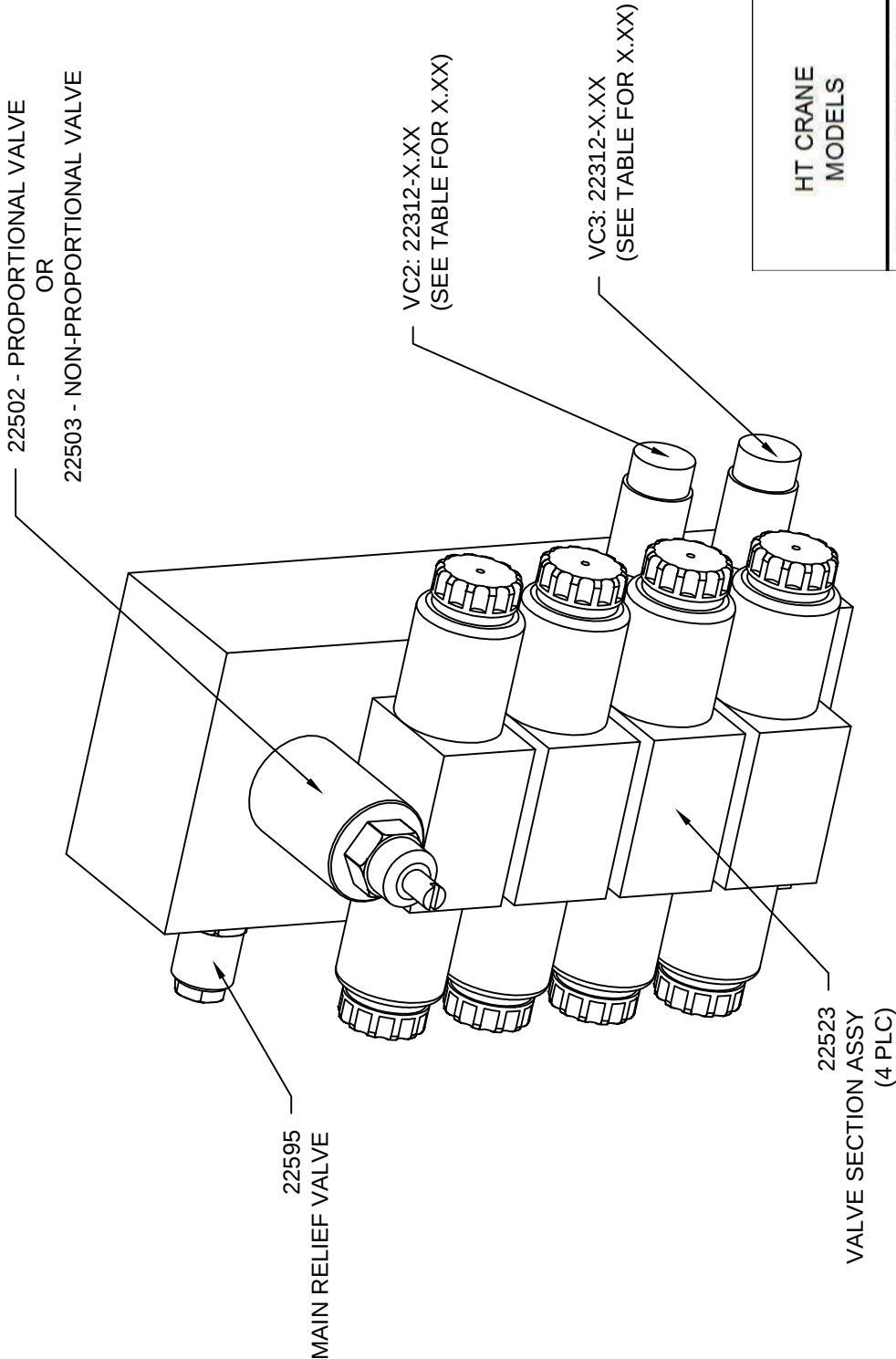
DATE
12-16-16B

SUPERSEDES
04-19-10A

SECTION
C400

21252

22501 HYDRAULIC VALVE MANIFOLD, REPLACEMENT PARTS



HT CRANE MODELS	PRIORITY FLOW VALVES	
	VC2	VC3
	EXTENSION	ELEVATION
HT 25/30 NON-PROP	1.00	1.75
HT 25/30 PROP	1.75	3.00
HT 40/50 NON-PROP	▲ 2.25	2.25



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS

DATE
10-22-15B

SUPERSEDES
03-04-10A

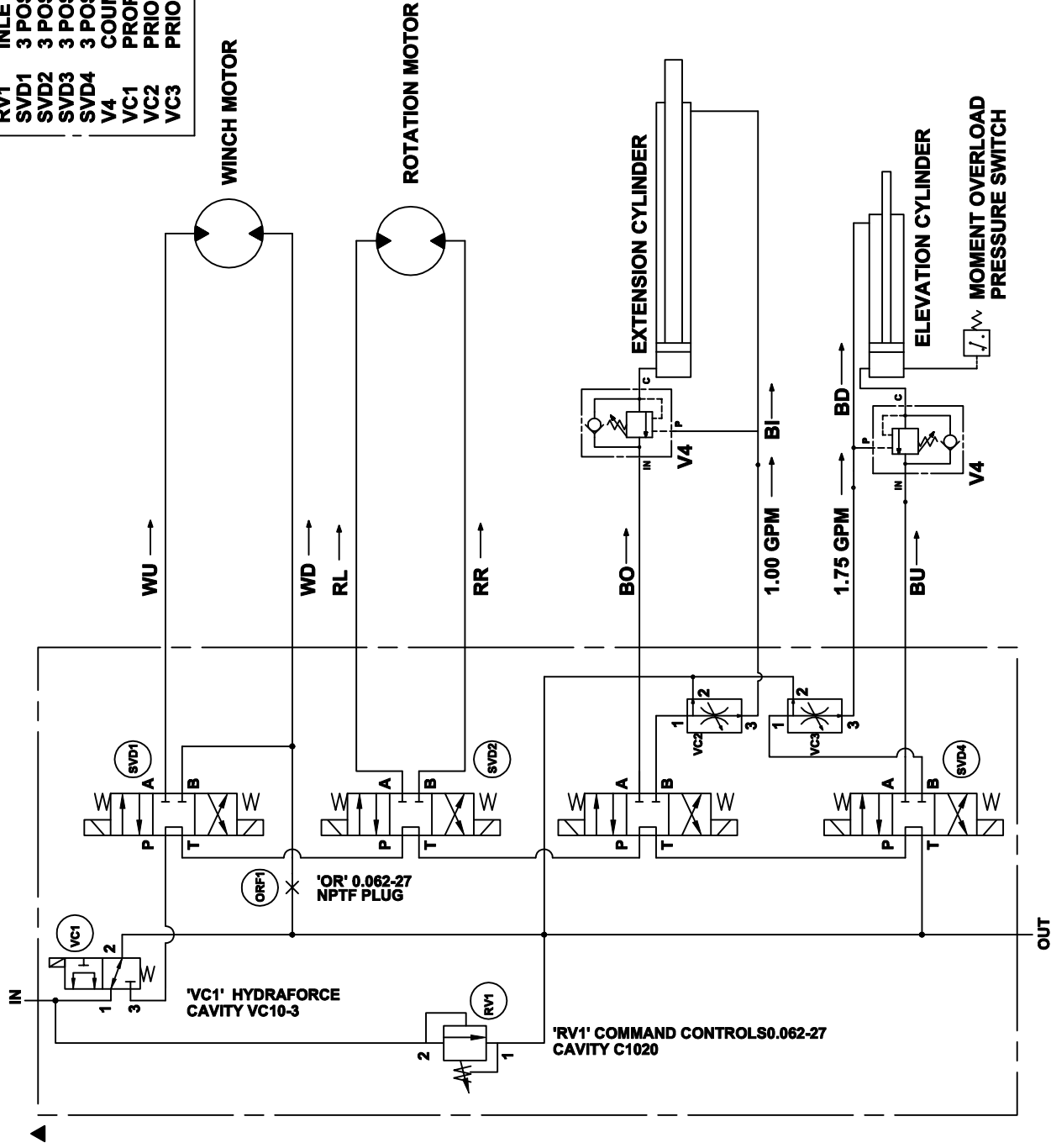
SECTION
C400

22501 VALVE BLOCK, HT SERIES CRANES

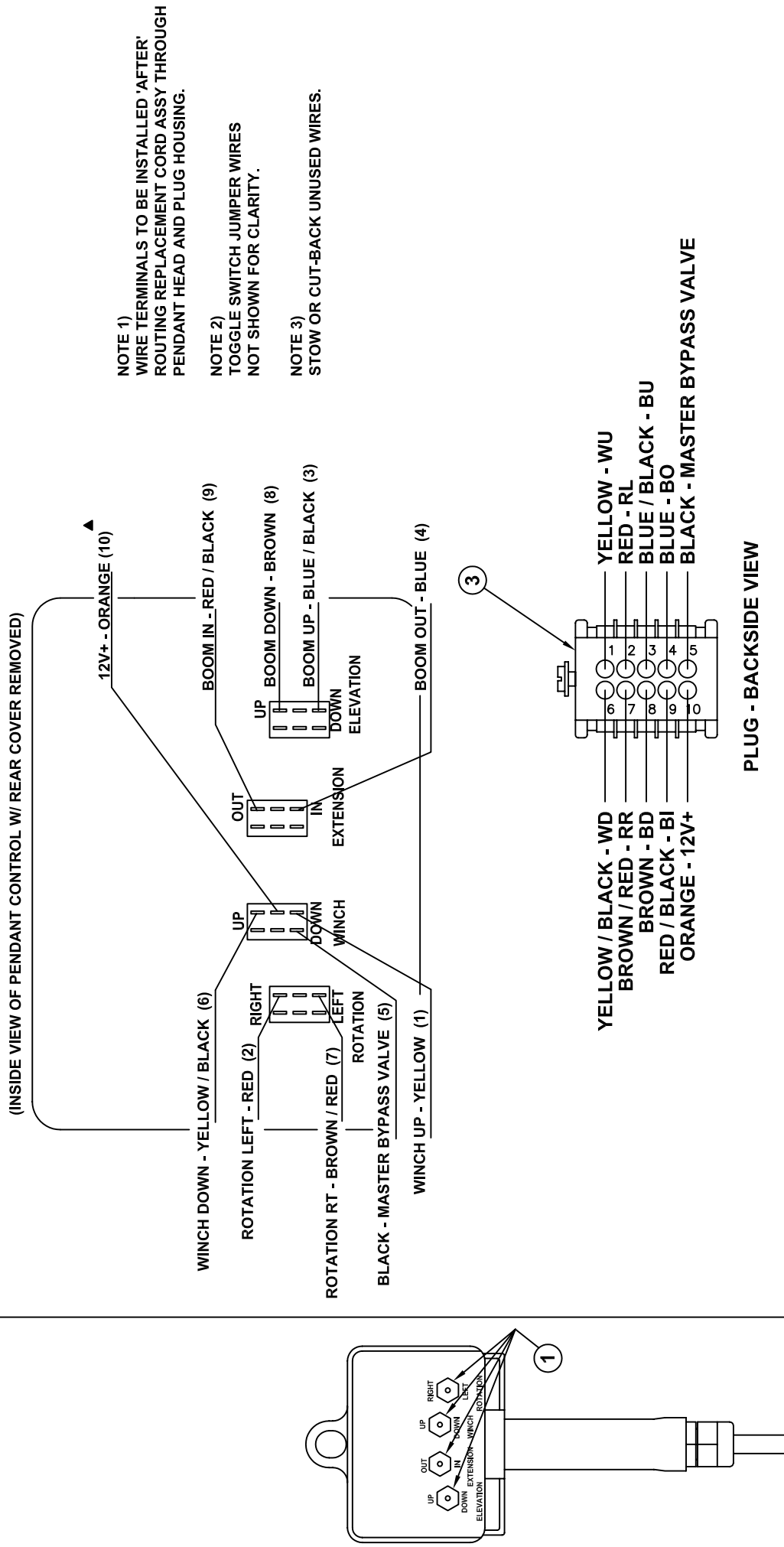
22939

- CONTROL VALVE ASSY
 INLET RELIEF VALVE (3000 PSI)
 3 POSITION-4 WAY VALVE
 3 POSITION-4 WAY VALVE
 3 POSITION-4 WAY VALVE
 3 POSITION-4 WAY VALVE
 COUNTERBALANCE CARTRIDGE VALVE
 PROPORTIONAL CONTROL VALVE (SIMPLIFIED REP)
 PRIORITY FLOW REGULATOR VALVE
 PRIORITY FLOW REGULATOR VALVE

- VA1
 RV1
 SVD1
 SVD2
 SVD3
 SVD4
 VC1
 VC2
 VC3



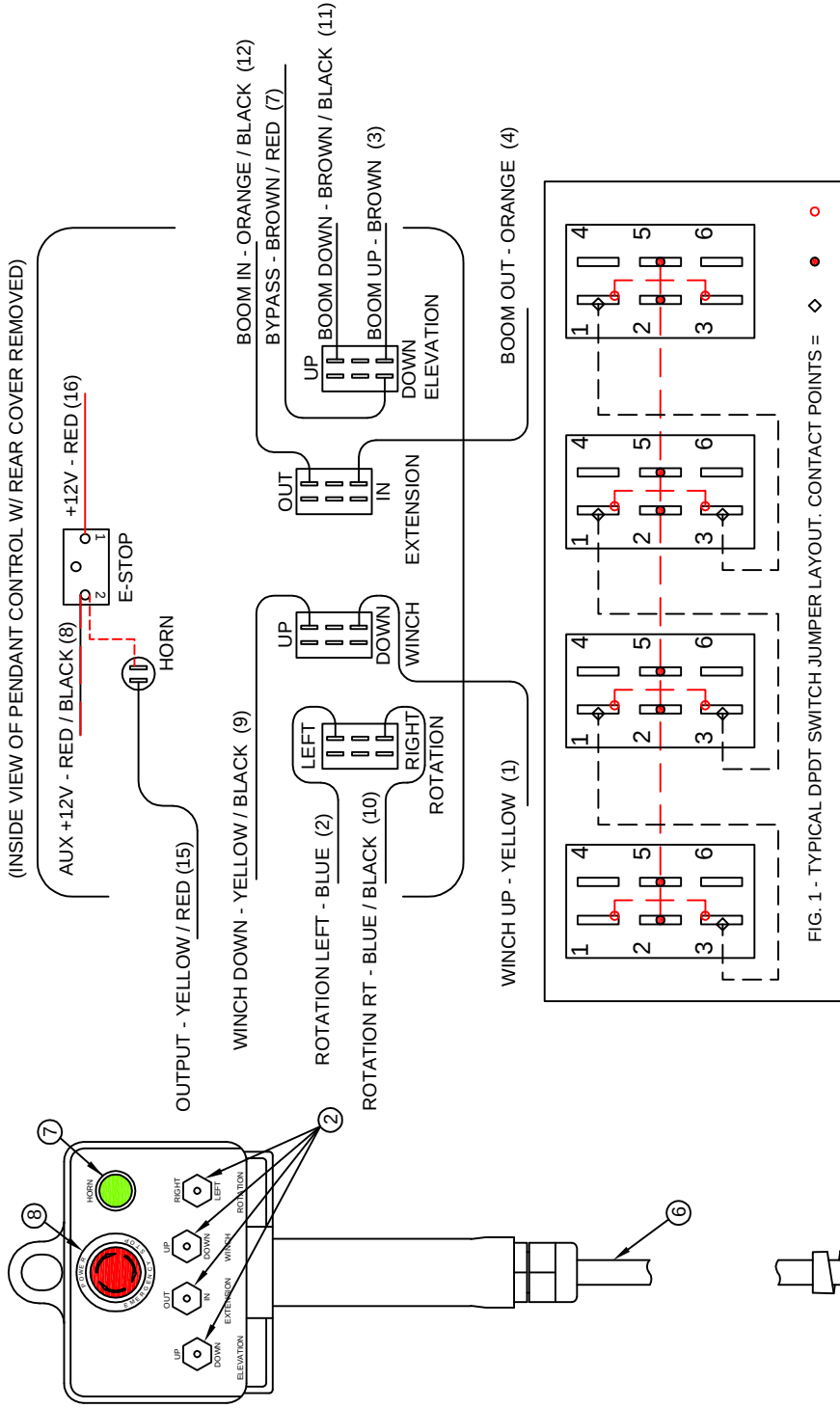
CORD REPLACEMENT INSTRUCTIONS



4	1	22135	CORD ASSY. KIT
3	1	19427	MALE INSERT - 10 + 1 POLE
2	1	19426	PLUG CASE - 10 + 1 POLE
1	4	22152	DPDT MOMENTARY SWITCH
ITEM	QTY	PART NO.	DESCRIPTION

TITLE	DATE	SECTION
REPLACEMENT PARTS DRAWING	10-6-11C	C400
22062 PENDANT (STANDARD CTRL)	SUPERSEDES 8-15-11B	22078

21989 PENDANT; HT CRANES, NON-PROP, E-STOP / HORN

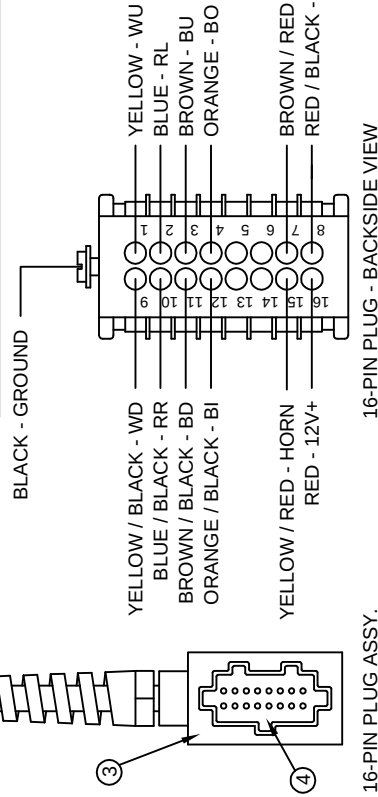


NOTE 1:
WIRE TERMINALS TO BE INSTALLED 'AFTER'
ROUTING REPLACEMENT CORD ASSY
THROUGH PENDANT HEAD AND PLUG
HOUSING.

NOTE 2:
STOW OR CUT BACK UNUSED WIRES.

MODEL	STARTING S/N
HT25K(X)	120300
HT30K(X)	115300
HT40K(X)	100900
HT50K(X)	110600
HT66KXX	150300

ITEM	QTY	PART NO.	DESCRIPTION
8	1	22156	SWITCH; E-STOP
7	1	22155	SWITCH; PUSHBUTTON, HORN
6	1	22135	KIT; REPLACEMENT CORD ASSY
5	-	-	-
4	1	22472	INSERT; MALE, 16 + 1 POLE
3	1	22471	PLUG CASE; 16 + 1 POLE
2	4	22152	SWITCH; DPDT, MOMENTARY
1	-	-	-



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS DWG & LIST

21989 PNDNT; HT, NON-PROP, ESTP/HRN

DATE
01-12-17A

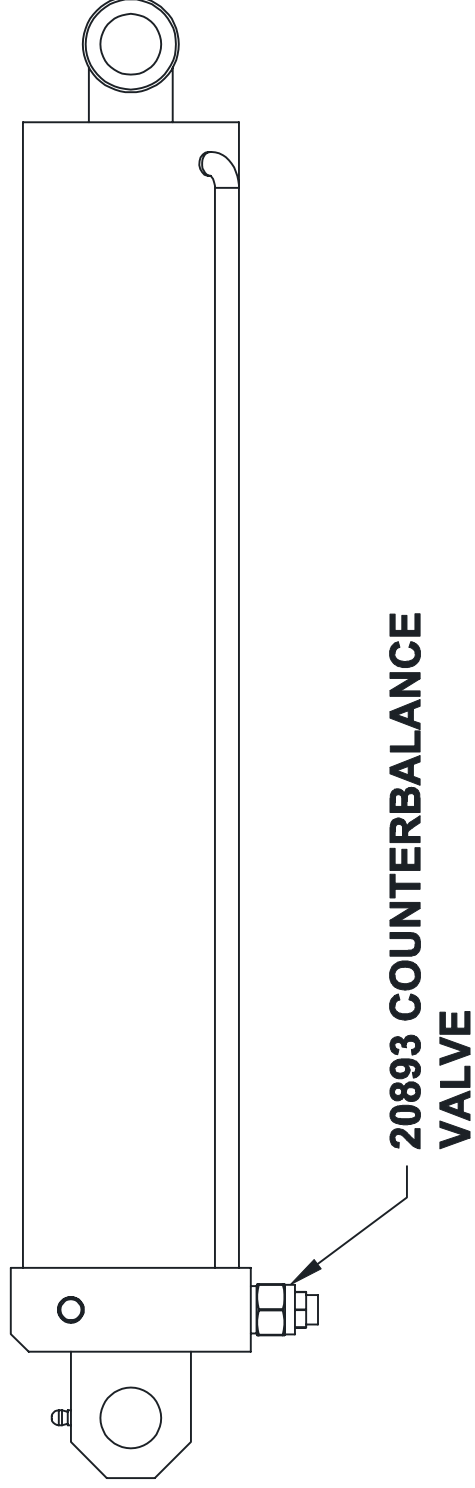
SUPERSEDES
10-03-14

SECTION

C400

23074

21752 ELEVATION CYLINDER



SEAL KIT P/N: 21774



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
ELEVATION CYLINDER

DATE
8-12-09

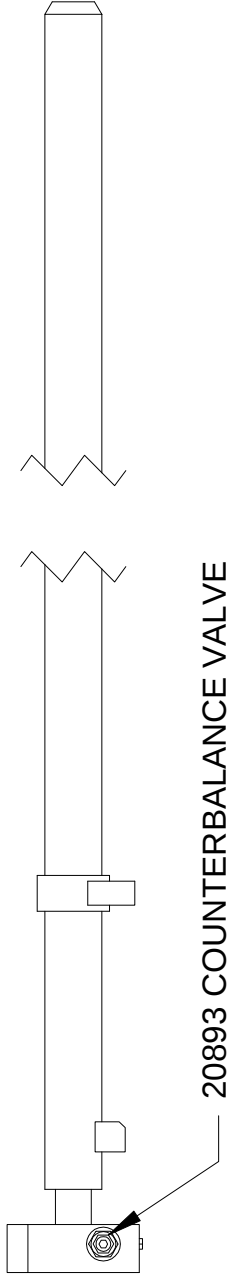
SECTION
C400

ET/HT25/30/36KX(X)

SUPERSEDES
-

21773

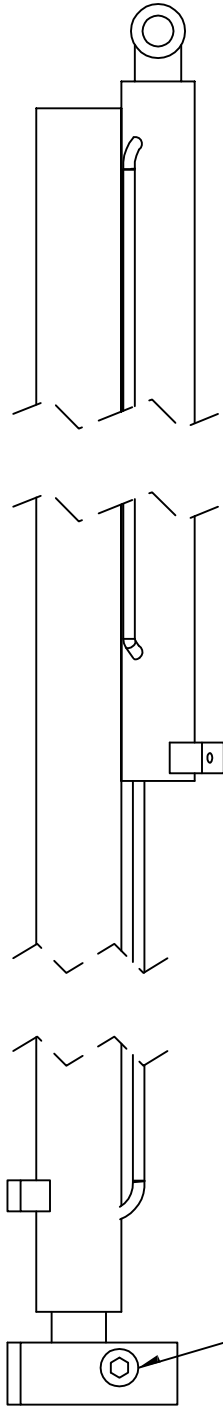
20061 EXTENSION CYLINDER



SEAL KIT P/N: 19887

 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE EXTENSION CYLINDER ET/HT25/30KX	DATE 01-07-14A	SECTION C400
		SUPERSEDES 08-20-09	21879

21753 DUAL-STAGE EXTENSION CYLINDER

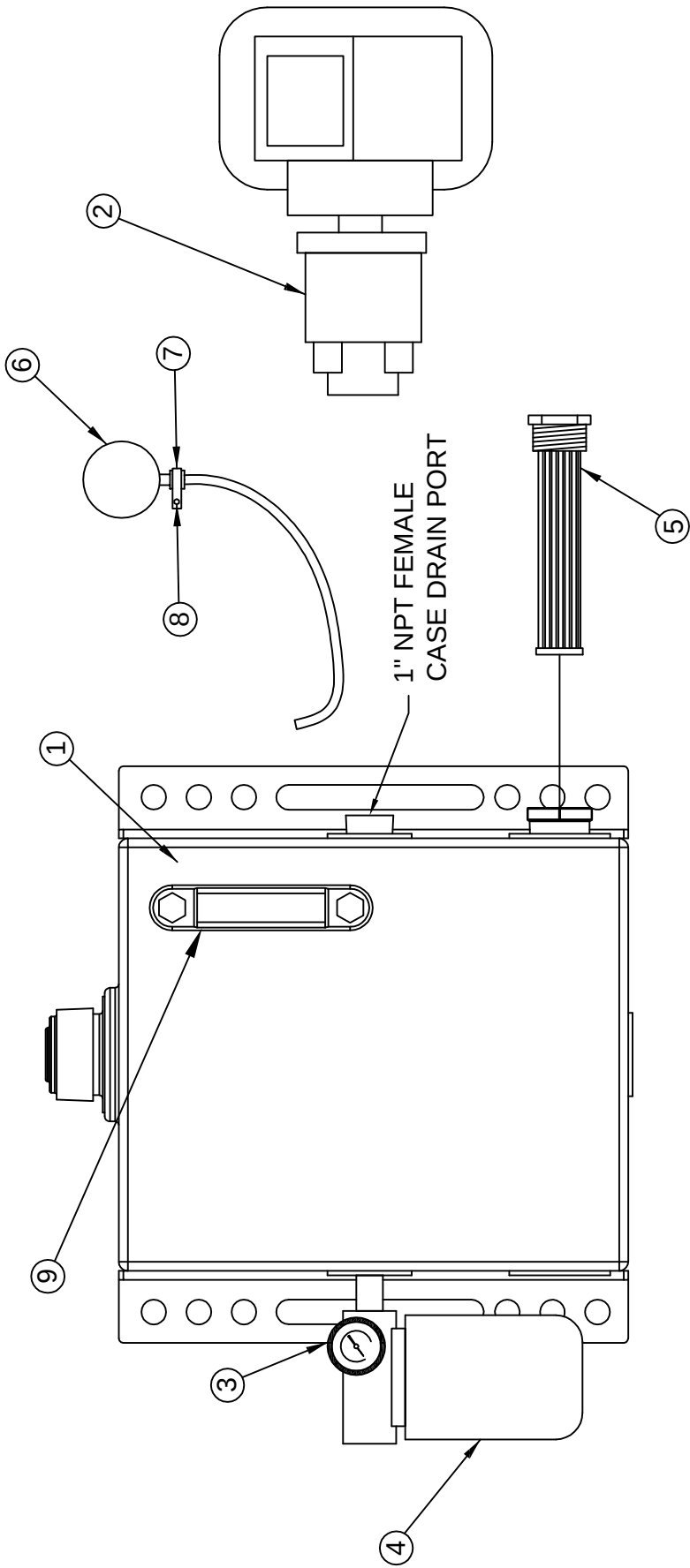


20893 - COUNTERBALANCE VALVE

SEAL KIT P/N: 21775

 VENTURO[®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE		EXTENSION CYLINDER, DUAL-STAGE	DATE	SECTION
	ET25-36KX & HT25/30 SERIES CRANES			03-08-17B SUPERSEDES 04-30-09A	C400 21860

19294 PTO PACKAGES; 5.0 GPM & LOWER



PUMP	MOUNTING	RECOMMENDED GPM (RPM)
19296-1.60	SAE "A" 9 TOOTH SPLINED SHAFT	HT25/30 - STD. - 2.00 GPM (1250 RPM)
19296-2.64		HT40 - STD. - 2.6 GPM (1000 RPM)
		HT50 - STD. - 3.0 GPM (1150 RPM)
19296-4.00		HT25/30 - PROP. - 4.0 GPM (1000 RPM)

ITEM	QTY	PART NO.	DESCRIPTION
9	1	22184	SIGHT GLASS
8	1	!HWHS02520075-F	HEX WSHR HEAD, 1/4-20 X 3/4 SELF-TAP
7	1	19275	CLAMP
6	1	22730	PRESSURE GAUGE ASSEMBLY
5	1	19300	SUCTION SCREEN - 100 MESH
4	1	19298	FILTER ASSY, RETURN - 10 MICRON
3	1	19297	PRESSURE GAUGE - RETURN
2	1	SEE CHART	PTO PUMP - HT18/25/40/50KX
1	1	19295	RESERVOIR TANK - 10 GALLON



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS DIAGRAM

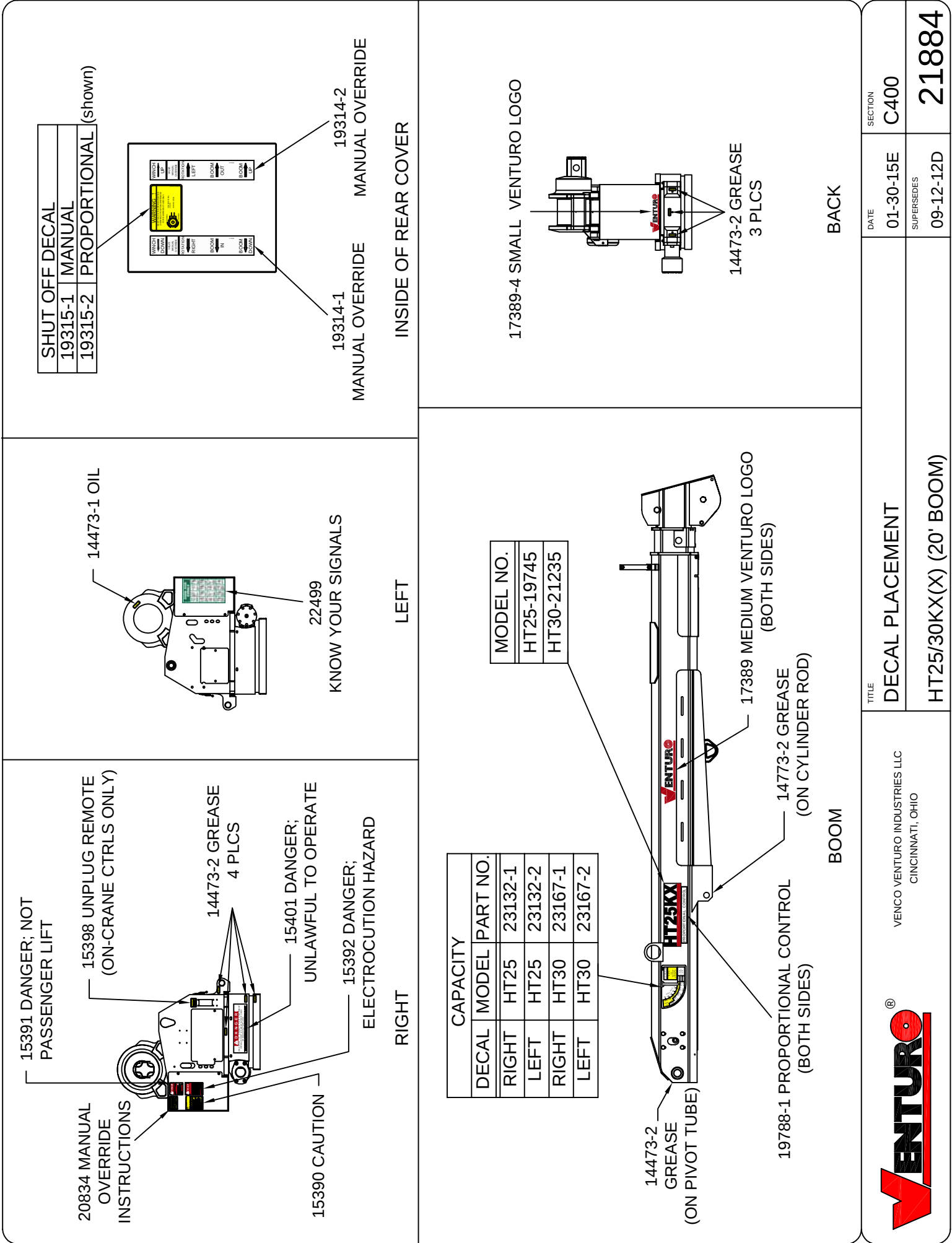
DATE
08-04-15E

SUPERSEDES
05-01-15D

SECTION
C400

PTO KIT; HT CRANES (LOW FLOW)

22744



21874-30-0 FIELD SERVICE LABEL KIT

QTY.	PART NO.	DESCRIPTION
1	14473-1	DECAL; OIL
9	14473-2	DECAL; GREASE
1	19314-1	DECAL; MANUAL OVERRIDE, VALVE BANK, LEFT
1	19314-2	DECAL; MANUAL OVERRIDE, VALVE BANK, RIGHT
2	17389	DECAL; VENTURO LOGO, MEDIUM
1	17389-4	DECAL; VENTURO LOGO, SMALL
1	23167-1	DECAL; BOOM CAPACITY, RIGHT
1	23167-2	DECAL; BOOM CAPACITY, LEFT
2	21235	DECAL; MODEL NAME, HT30KX
1	19315-1	DECAL; SAFETY SHUT-OFF OVERRIDE
1	22499	DECAL; KNOW YOUR SIGNALS
1	20834	DECAL; OVERRIDE INSTRUCTIONS
1	17813	DECAL; OVERLOAD SENSING SYSTEM
▲ 1	21883	IDWG; FIELD SERVICE LABEL KIT LIST
▲ 1	21884	IDWG; DECAL PLACEMENT
▲ 1	INST-23233	SAFETY MANUAL, VENTURO CRANES
1	15397	KIT; ACCIDENT PREVENTION SIGNS

NOTE:

APPLICABLE SERIAL NUMBERS = 115000 TO CURRENT

▲ 15397 ACCIDENT PREVENTION SIGNS		
PART NO.	QTY.	DESCRIPTION
15390	1	DECAL; CAUTION, OPERATIONS
15391	1	DECAL; DANGER, NOT PASSENGER LIFT
15392	1	DECAL; DANGER, ELECTRICAL HAZARD SIGN
15393	4	DECAL; DANGER, ELECTRICAL HAZARD
15394	1	APPLICATION INSTRUCTIONS
15398	1	DECAL; UNPLUG PENDANT
15401	1	DECAL; UNLAWFUL TO OPERATE
15513	1	DECAL; MASTER DISCONNECT
22317	1	DECAL SHEET; VENTURO, COMPLEMENTARY
20927	1	DECAL; CRANE STABILITY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

FIELD SERVICE LABEL KIT

DATE

02-12-15C

SECTION

C400

SUPERSEDES

HT30KX(X)-20' NON-PROPORTIONAL

05-15-13B

21883



VENTURO CRANES LIMITED WARRANTY POLICY

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

As a purchaser of any new Venturo product covered by warranty, you will receive 1 year of the most complete coverage available...and, at no added cost to you.

1-Year Limited Warranty Policy

This limited policy warrants new products of Venturo to be free from defects in material and workmanship for a period of one (1) year from date of original installation. OEM products or accessories purchased by Venturo 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. 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 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, Venturo requires the model and serial number. Only authorized Venturo Distributors can perform warranty. For the name and address of your local Venturo 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 Venturo Distributor. No modifications or alterations may be made to any Venturo product without the expressed written consent of Venco Venturo Industries LLC. Installation of any Venturo product must be done by an authorized Venturo 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.

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