INST-28504



HTBABB-V*A0

PARTS & INSTALLATION MANUAL HT66KX-25

Included in this manual:

HT66KX-25 (VLC)

- 12,000 lb Hydraulic Telescopic Service Crane
- Venturo Logic Control System w/ Proportional Control
- 25 ft Fully-Powered, Two-Stage Boom Extension





This manual also available online at www.venturo.com.

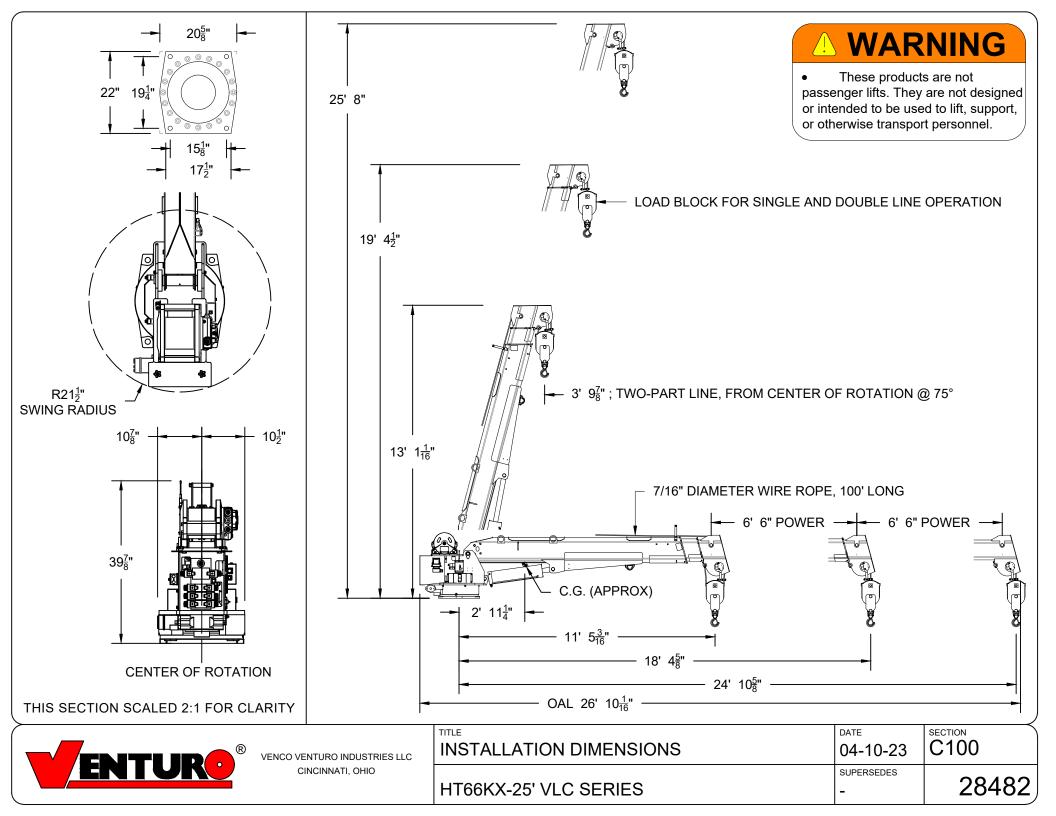
HT66KX-25', VLC

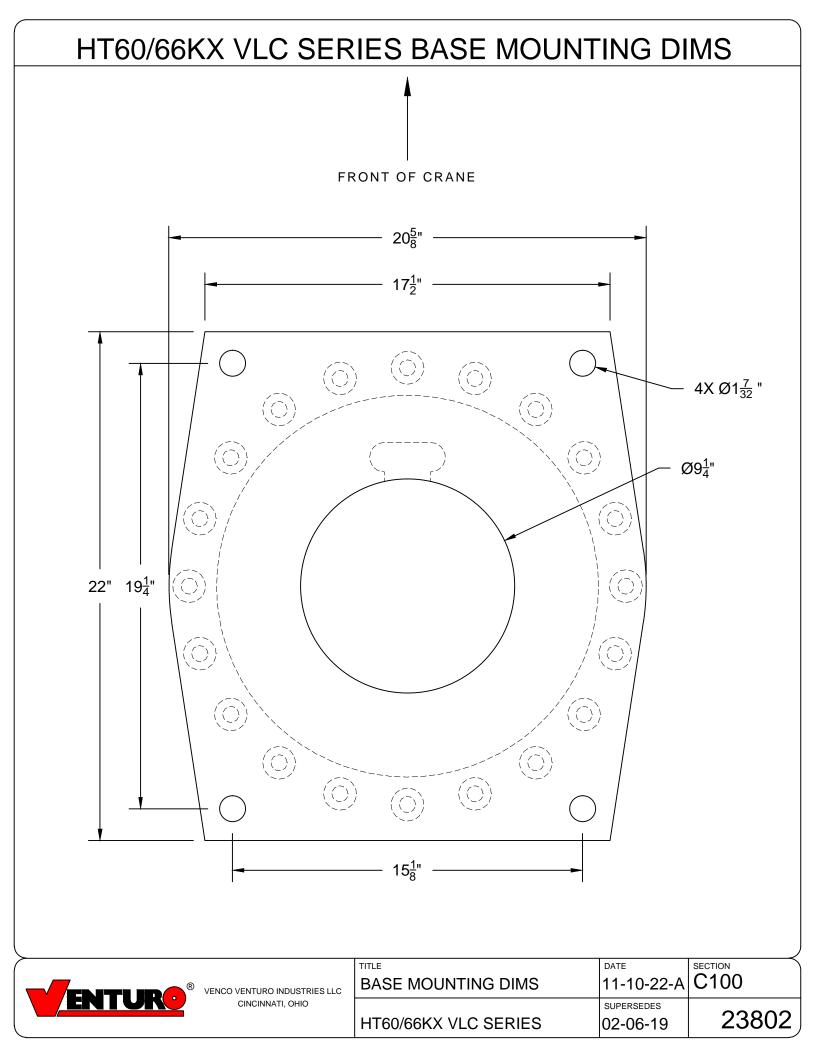
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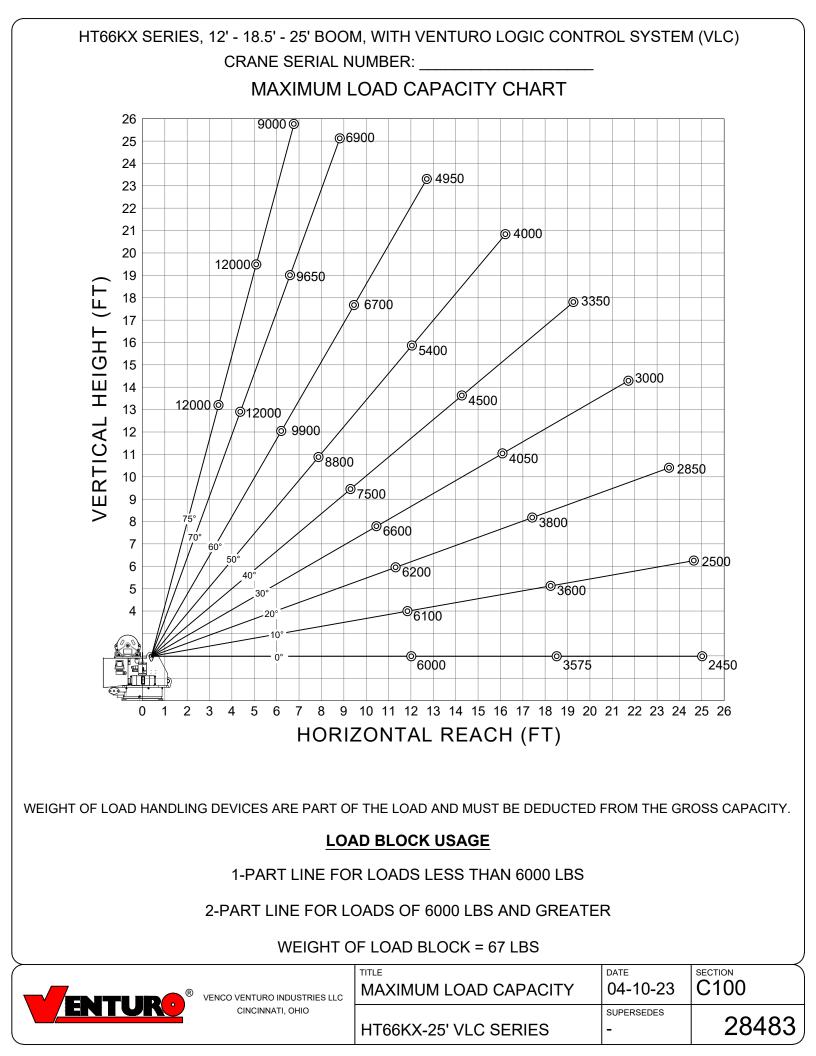
SECTION 100

DESCRIPTION & SPECIFICATIONS









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.

A DANGER UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS. 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 - Minimun	n Clearance Distances

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

Voltage	While traveling - minimum clearance distance
(nominal, kV, alternating current)	(feet) *
0 - 0.75 over 0.75 - 50 over 50 - 345 over 345 - 750 over 750 - 1000 Over 1000	4 6 10 16 20 (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

	VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	HAZARD APPS & INFO	^{DATE} 02-21-14M	section C150
		ET/HT CRANES	SUPERSEDES	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.

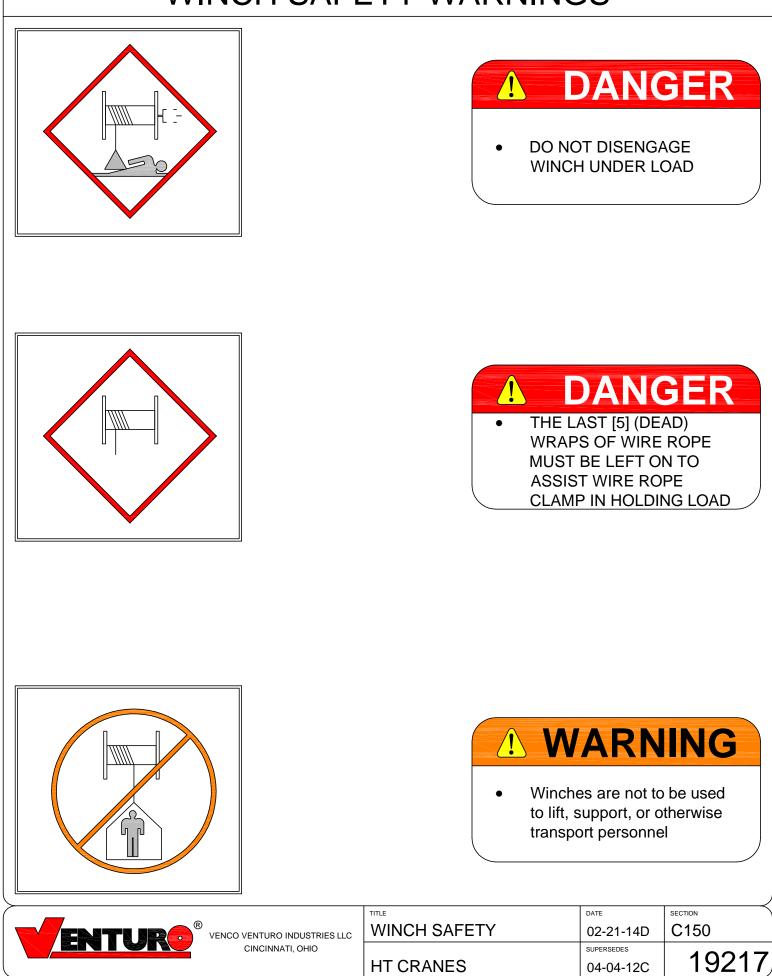
ELECTROCUTION HAZARD

- 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.



	SUPERSEDES	C150 92(
HYDRAULIC CRANES	04-04-12C	970

WINCH SAFETY WARNINGS



PART NO.: DECAL: FUNCTION: QUANTITY:	15398 UNPLUG REMOTE CONTROL To inform the operator to unplug remote control when not being used.	UNPLUG REMOTE CONTROL PENDANT WHEN NOT IN USE
PLACEMENT:	Right side of housing.	
PART NO.:	15401	
DECAL:	UNLAWFUL TO OPERATE	A DANGER
FUNCTION:	To inform the operator of proper operation in vicinity of power lines.	UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS.
QUANTITY:	1	FOR MINIMUM CLEARANCES OF HIGH-VOLTAGE LINES IN EXCESS OF 350,000 VOLTS, REFERENCE OSHA 1926.1408, CRANE'S SAFETY MANUAL, AND CAL-OSHA ARTICLE 37, TITLE 8, HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS. 15401-D
PLACEMENT:	Right side of housing.	WINCH DOWN VALVE MANUAL WINCH UP VALVE MANUAL
PART NO.:	19314-1 [LEFT] & -2 [RIGHT]	OVERRIDE ROTATION ROTATION
DECAL:	MANUAL OVERRIDE (NON-PROP)	RIGHT LEFT
FUNCTION:	To inform the operator of manual override locations.	
QUANTITY:	1 EACH	
PLACEMENT:	Inside of rear cover.	
PART NO.: DECAL:	22768-1 [LEFT] & -2 [RIGHT] MANUAL OVERRIDE (PROPORTIONAL)	WINCH DOWN VALVE MANUAL OVERRIDE ROTATION
FUNCTION:	To inform the operator of manual overide locations.	LEFT RIGHT
QUANTITY:	1	BOOM OUT IN
PLACEMENT:	Inside of rear cover.	
		DECAL DRAWING & LIST 11-30-22E C150
	CINCINNATI, OHIO	HT40/50/60/66 SERIES 02-21-14D 22181A

A PART NO.: DECAL: FUNCTION: QUANTITY: PLACEMENT	23068-1 [LEFT] & -2 [RIGHT] MANUAL OVERRIDE (HT66KXX w/ TH-2 Winch ONLY) To inform the operator of manual overide locations. 1 : Inside of rear cover.	UP VALVE MANUAL OVERRIDE ROTATION LEFT BOOM OUT BOOM BOOM BOOM BOOM		
PART NO.: DECAL: FUNCTION: QUANTITY: PLACEMENT:	 19315-1 SHUT OFF (NON-PROPORTIONAL) To show the operator how to override master shut off valve. 1 Inside rear cover. 	KEEP VALVE OVERRIDE P	POSITION IS II RGENCY USE	POSITION. NTENDED ONLY. PORTIONAL
PART NO.: DECAL: FUNCTION: QUANTITY: PLACEMENT:	19315-2 MANUAL OVERRIDE (PROPORTIONAL) To show the operator how to override proportional valve. 1 Inside rear cover.	KEEP VALVE OVERRIDE P	POSITION IS II RGENCY USE PROPORT VALVE ROTATE S	POSITION. NTENDED ONLY.
PART NO.: DECAL: FUNCTION: QUANTITY: PLACEMENT:	20834 MANUAL OVERRIDE NOTICE To inform the operator of manual override locations. 1 Inside rear cover.	FOR MANUA OF CRANE REMOVE RI AND SEE INS	FUNCTION EAR COVE STRUCTION	S, R
	TURC [®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	DECAL DRAWING & LIST	DATE 04-14-23H SUPERSEDES 11-30-22G	стом С150 22181В

PART NO.: 15390

DECAL: CAUTION - INSPECT VEHICLE & CRANE

FUNCTION: To inform the operator of key operating requirements.

QUANTITY: 1

PLACEMENT:Left side of rear cover.

PART NO.: 15391

DECAL: DANGER - NOT PASSENGER LIFT

FUNCTION: To inform the operator not to lift, support or transport personnel, and to ensure that crane operator is adequately trained.

QUANTITY: 1

PLACEMENT:Left side of rear cover.

PART NO.: 15392

DECAL: DANGER - ELECTROCUTION HAZARD

FUNCTION: To inform the operator that the machine (crane) represents an electrocution hazard should it come too near or in contact with electrical voltage source.

QUANTITY: 1

PLACEMENT:Left side of rear cover.

PART NO.: 22499

DECAL: KNOW YOUR SIGNALS

FUNCTION: To inform the operator of proper signals.

QUANTITY: 1

PLACEMENT: Right side of rear cover.



INSPECT VEHICLE AND CRANE INC OPERATION, PRIOR TO USE DAILY

- SOLID, LEVEL SURFACE WITH CRANE MOUNTED ON FACTORY-RECOMMENDED TRUCK. DO NOT USE THIS EQUIPMENT EXCEPT ON
- BEFORE OPERATING THE CRANE, REFER TO MAXIMUM LOAD (CAPACITY) CHART ON CRANE FOR OPERATING (LOAD) LIMITATIONS.
- DO NOT OPERATE, WALK, OR STAND BENEATH BOOM OR A SUSPENDED LOAD.

UNPLUG PENDANT AND SHUT OFF MASTER DISCONNECT SWITCH WHEN CRANE NOT IN USE.

FOR TRAVEL, BOOM MUST BE IN STOWED

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:**

YOU HAVE BEEN TRAINED IN THE SAFE YOU HAVE BEEN IKAINED IN THE SAFE OPERATION OF THIS CRANE, AND YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS. 2.

AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY .

THIS MACHINE IS NOT INSULATED ELECTROCUTION HAZARD

MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARATUS. YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOAD LINE SWAYING.

THIS LIFTING DEVICE DOES NOT PROVIDE PRO-TECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR. YOU MUST MAINTAIN A CLEARANCE OR AT LEAST 10 FEET BETWEEN ANY PART OF THE CRANE, LOAD LINE OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS, ONE FOOT ADDITIONAL CLEARANCE IS REQUIRED FOR EVERY ADDITIONAL 30,000 VOLTS OR LESS.

DEATH OR SERIOUS INJURY WILL RESULT FROM CONTACT OR INADEQUATE CLEARANCE.





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

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HT40/50/60/66 SERIES	02-21-14E	22181C
	SUPERSEDES	_
DECAL DRAWING & LIST	11-30-22F	C150
TITLE	DATE	SECTION

PART NO.: 17389

DECAL: MEDIUM VENTURO

FUNCTION: Branding.

QUANTITY: 1

PLACEMENT: Rear cover.



PART NO.: 28501

DECAL: LARGE VENTURO

FUNCTION: Branding.

QUANTITY: 2

PLACEMENT: Boom.

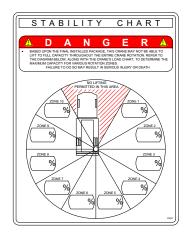


PART NO.: 20927

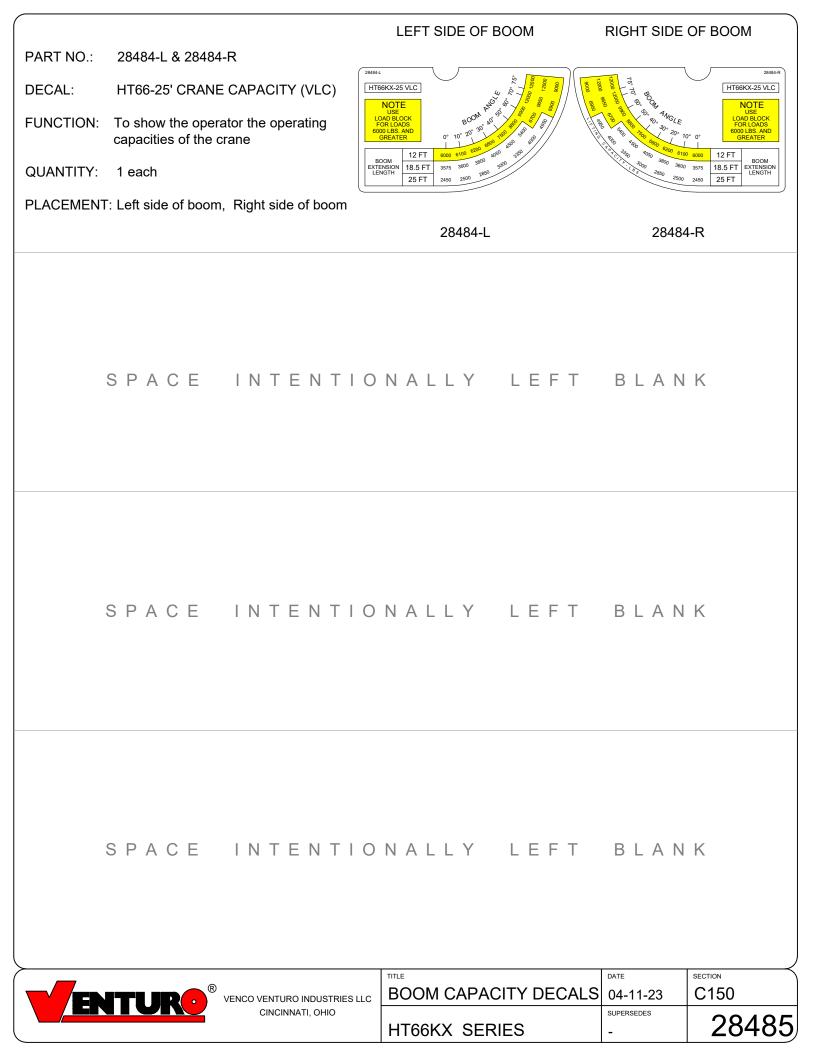
- DECAL: CRANE STABILITY
- FUNCTION: To inform the operator of the crane's lifting capacity throughout the entire rotation.

QUANTITY: 1

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



	VENCO VENTURO INDUSTRIES LLC	DECAL DRAWING & LIST	DATE 05-02-23	SECTION C150	
CINCINNAT		HT66KX	SUPERSEDES	28499)



PART NO.: 23742		
DECAL: VLC, 2.94" x 6.00"		N
FUNCTION: To show that the crane is equipped with Venturo Logic Controls		
QUANTITY: 2 each VENTURO LOGI	C CONTROL	S
PLACEMENT: Each side of Housing		-
▲ Space intentionally left	ΒL	A N K
SPACE INTENTIONALLY LEFT	ΒL	A N K
SPACE INTENTIONALLY LEFT		
	^{date} 02-06-19A	SECTION C150
CINCINNATI, OHIO	supersedes	23748

SECTION 200

INSTALLATION



CRANE INSTALLATION, PAGE 1 HT66KX-25' VLC SERIES

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 HT66 VLC is 75,000 ft*lb (includes moments induced by both lifted load and weight of the boom itself).

The maximum vertical load for the HT66 VLC is 14,500 lbs.

CRANE MOUNTING

The crane base plate or mounting pedestal must be bolted to the body reinforcing plate with four [4] grade eight (8) bolts of 1-1/8" dia. with coarse threads, torqued to 965 foot pounds. A 6" 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, return and a case drain hoses that come down through the center of the housing. The pressure and return hoses connect to two hydraulic swivels to prevent damage while rotating the crane right and left.



• THE CASE DRAIN HOSE MUST BE A DEDICATED RETURN HOSE UNRESTRICTED TO TANK / RESERVOIR. DO NOT 'T' INTO ANOTHER EXISTING RETURN HOSE OR DAMAGE TO THE HYD. WINCH FROM BACK-PRESSURE WILL OCCUR. BACK-PRESSURE IN EXCESS OF 200 PSI WILL DAMAGE THE HYD. WINCH.

Arrange the pressure & return hoses in the compartment below the crane so that they are 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. See installation pages 22913 for more information on hose connections.



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO HT66KX-25' VLC SERIES 05-03-23 05-03-23 05-03-23

CRANE INSTALLATION, PAGE 2 HT60/66 VLC SERIES CRANES

ELECTRICAL CONNECTIONS

A 9 ft. electrical power lead - intended for 12V DC only - comes down through the center of the crane base plate along with the hoses. This power lead should be slacked in the compartment so that it remains relaxed throughout the 400 degree rotation of the crane.

A 20 amp circuit breaker is mounted on the crane and protects the crane's internal wiring and solenoid coils. The 20 amp circuit breaker does not protect the 9 ft. power lead. For added protection, the 9 ft. lead can be connected to a 20 amp protected circuit that, if possible, is powered only when the vehicle engine is running.

HYDRAULIC FLUID

Average Climate	Type of Oil
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:

HYDRAULIC LINES	HT66 SERIES
PRESSURE	5/8"
RETURN	3/4"
SUCTION	1-1/4"

RESERVOIR

The PTO reservoir should have a capacity of 40 gallons fitted with 100 mesh suction screen, 10 micron return line filter, and filler/breather cap.

PTO PUMP

The PTO pump should be sized to allow an engine idle speed range that will deliver approximately 12.0 GPM for the HT60/66 VLC series. The crane's relief pressure is set at 3000 psi on the HT60 and HT66.

PTO START-UP

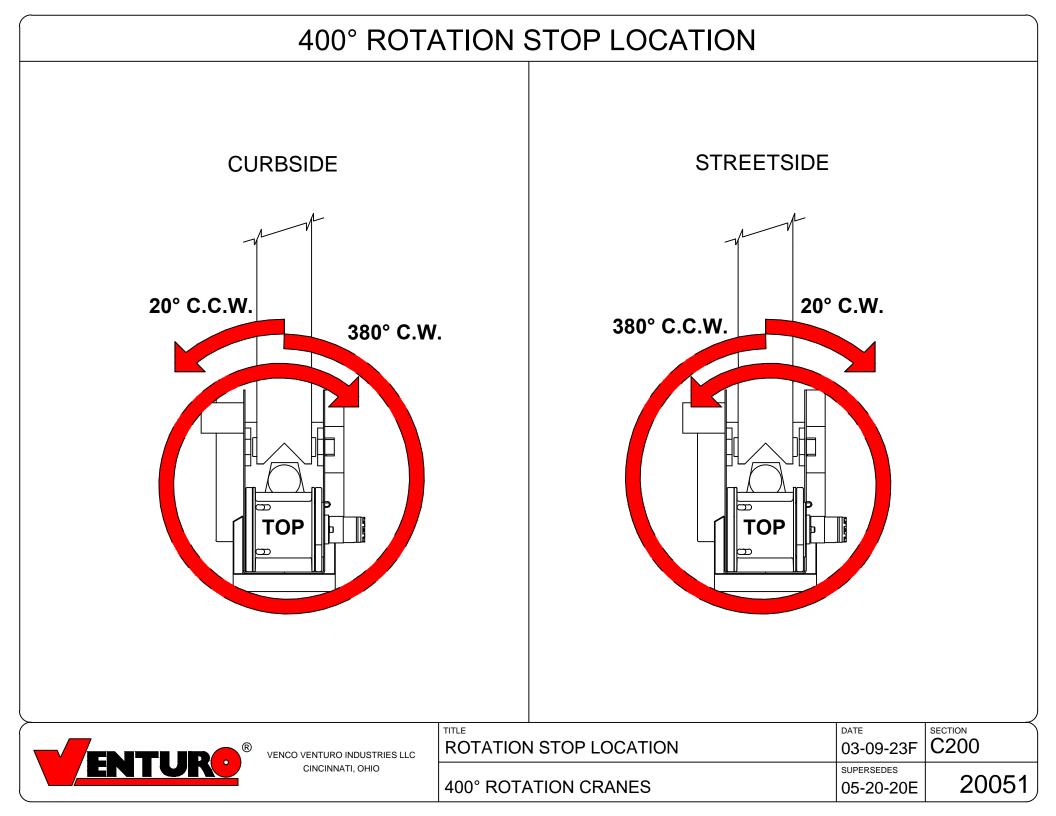
Before connecting the PTO system to the crane pressure and return hoses, connect the PTO pressure and return lines together at the bulkhead. Assuming 12 gal./min. with a 40 gal. reservoir, operate the PTO system for 20-25 min. to flush out the lines and filter all fluid approximately seven times.

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.



TITLE	DATE	SECTION
CRANE INSTALLATION	11-10-22B	C200
	SUPERSEDES	00000
HT60/66 VLC SERIES	05-10-21A	23806



STABILITY TEST - HT66-25'-VLC 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 <u>2882 lbs</u>, (includes load block weight of <u>67</u> lbs.) to a *maximum of 3050 lbs*.
- 6. Place the VLC system into Stability Mode (reference VLC Manual)
- 7. Position the boom level and fully retracted
- 8. 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.
- 9. 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).
- 10. Using the test weight, extend the boom slowly until one of three conditions occurs:
- 10.1. Full extension is reached Mark the ZONE in question 100%
- 10.2. The VLC system stops the boom extension Mark the ZONE in question 100%
- 10.3. The truck becomes unstable i.e. a tire lifts off the ground
- 10.3.1. Retract the boom until at least one tire on each corner of the truck is making contact with the ground
- 10.3.2. Use the formula below to determine the allowable % of Rated Capacity for the ZONE in question:
- 11. Note: The <u>Max Stable Reach in inches</u> is measured from the center of rotation of the crane housing to the lifting load hook.

"Max Stable Reach" in inches

% Rated Capacity =

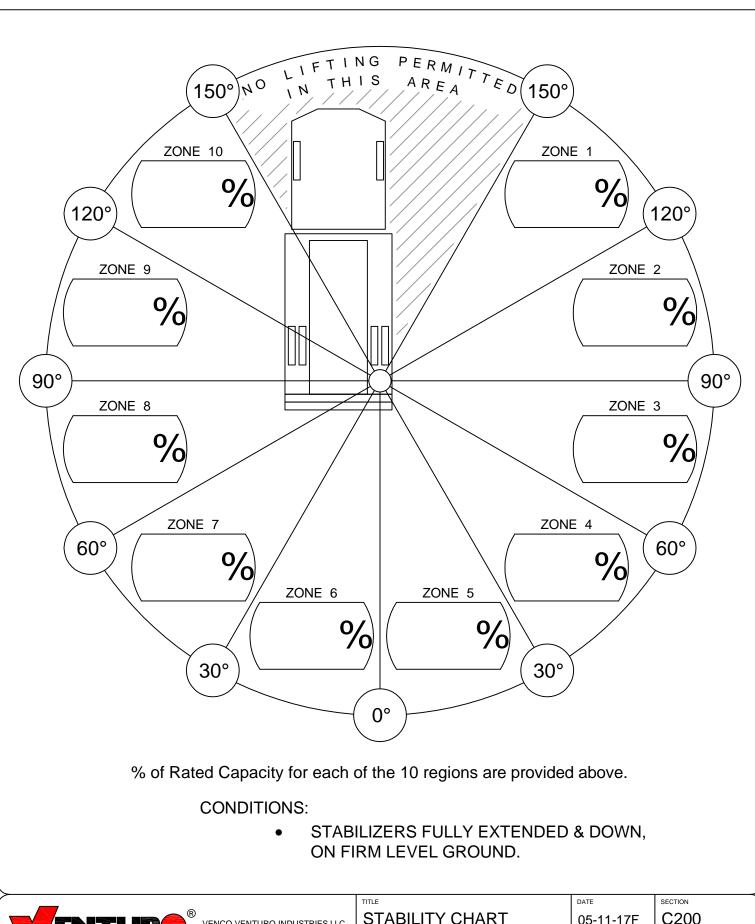
299

X 100

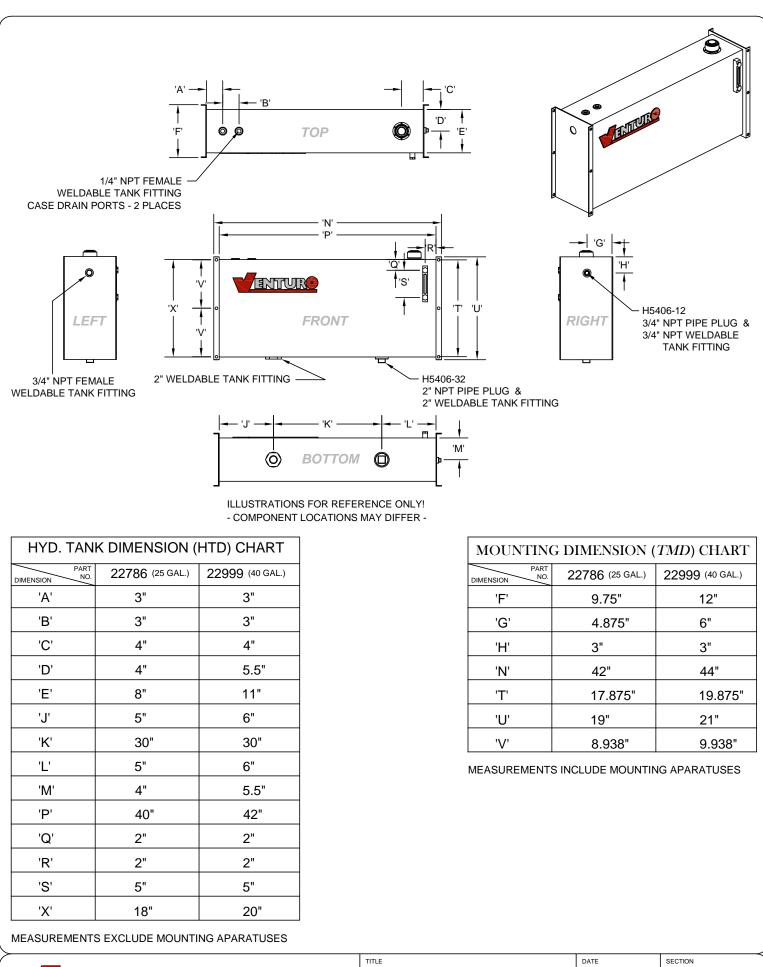
- 12. Record the <u>% of Rated Capacity</u> in the appropriate blank (region) on the Crane Stability page (ref. 20907) and decal.
- 13. Repeat Steps 7 through 12 for each ZONE on the stability page.

		^{DATE} 07-09-24E	SECTION C200
СІЛСІЛЛАТІ, ОНІО	HT66-25'-VLC SERIES	SUPERSEDES 02-28-23D	20906-66V

CRANE STABILITY

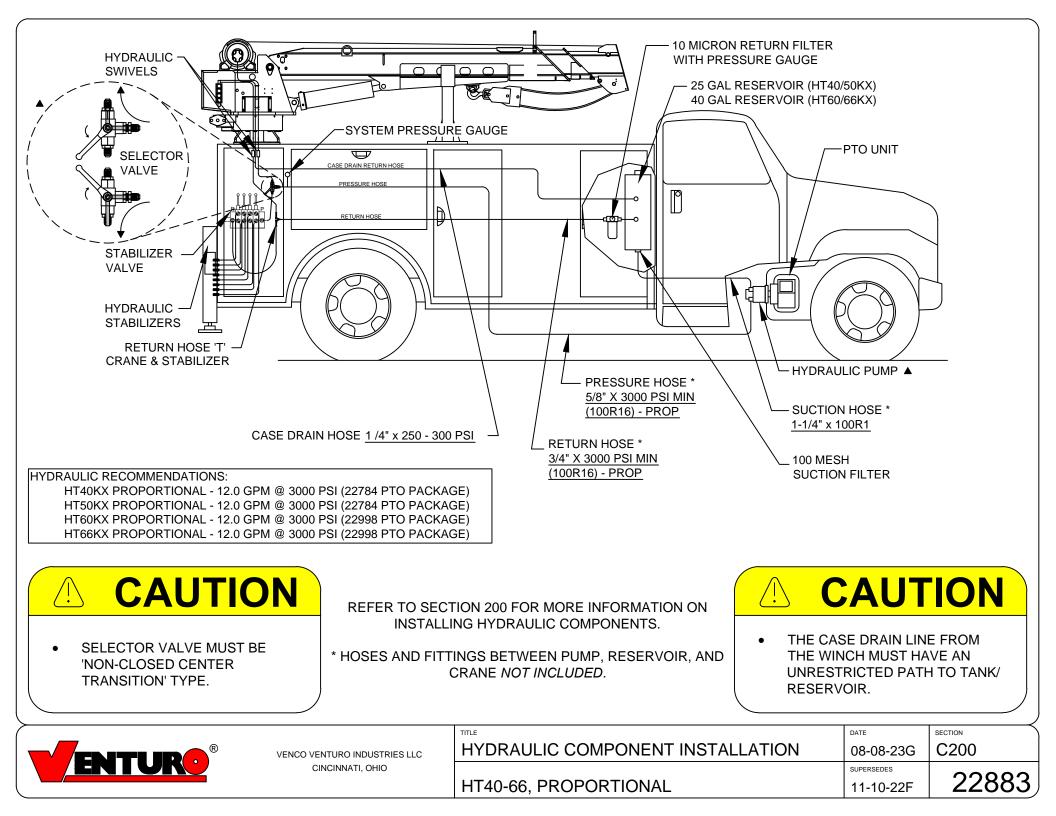


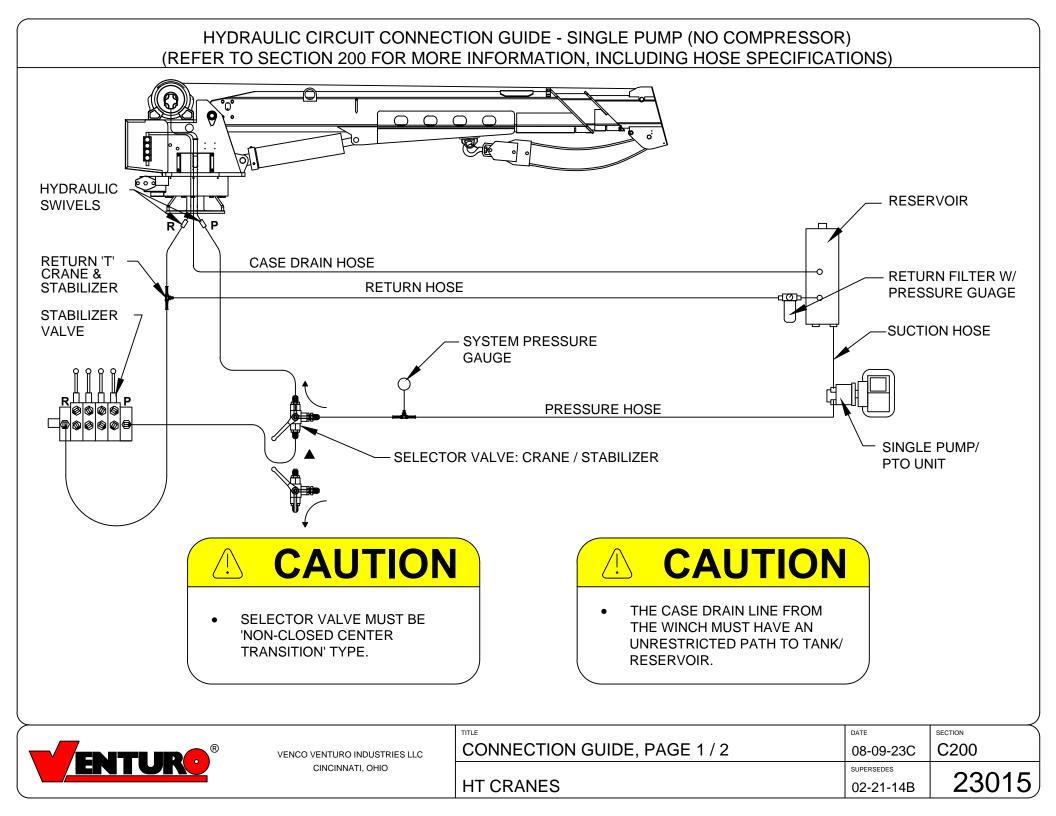
VENCO VENTURO INDUSTRIES LLC	STABILITY CHART	05-11-17F	C200
CINCINNATI, OHIO	VENTURO CRANES	SUPERSEDES	20907
	VENTURO CRAINES	02-21-14E	20001

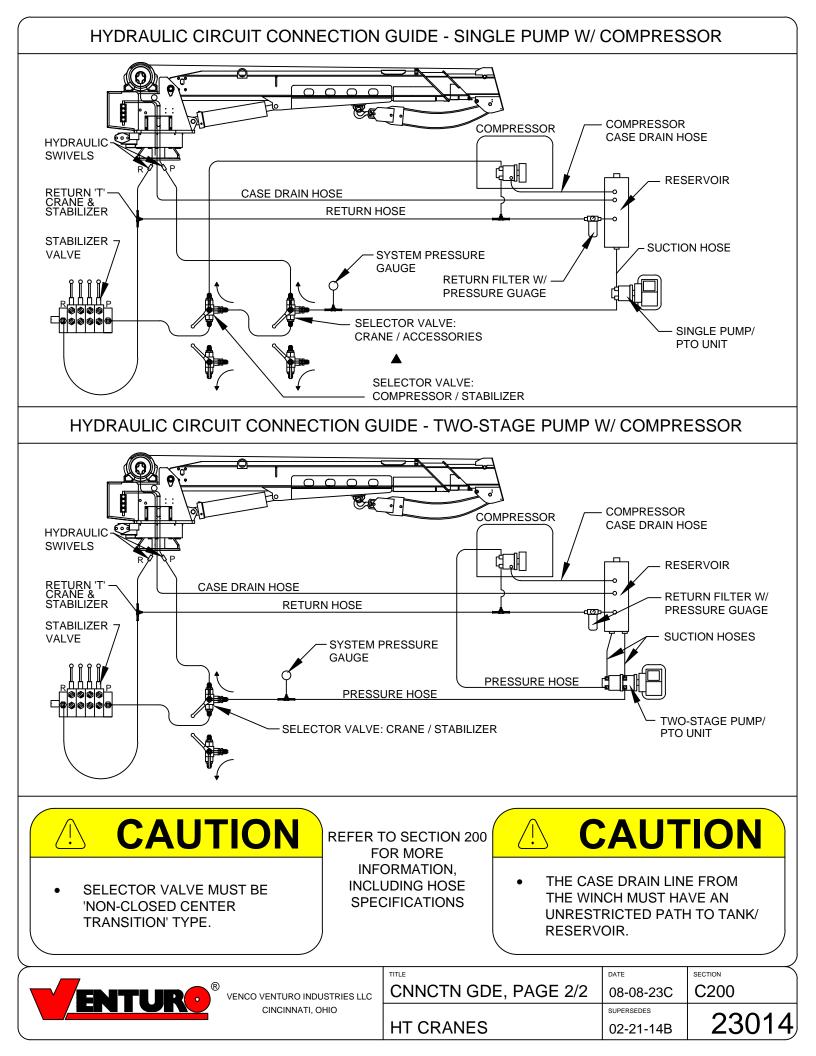


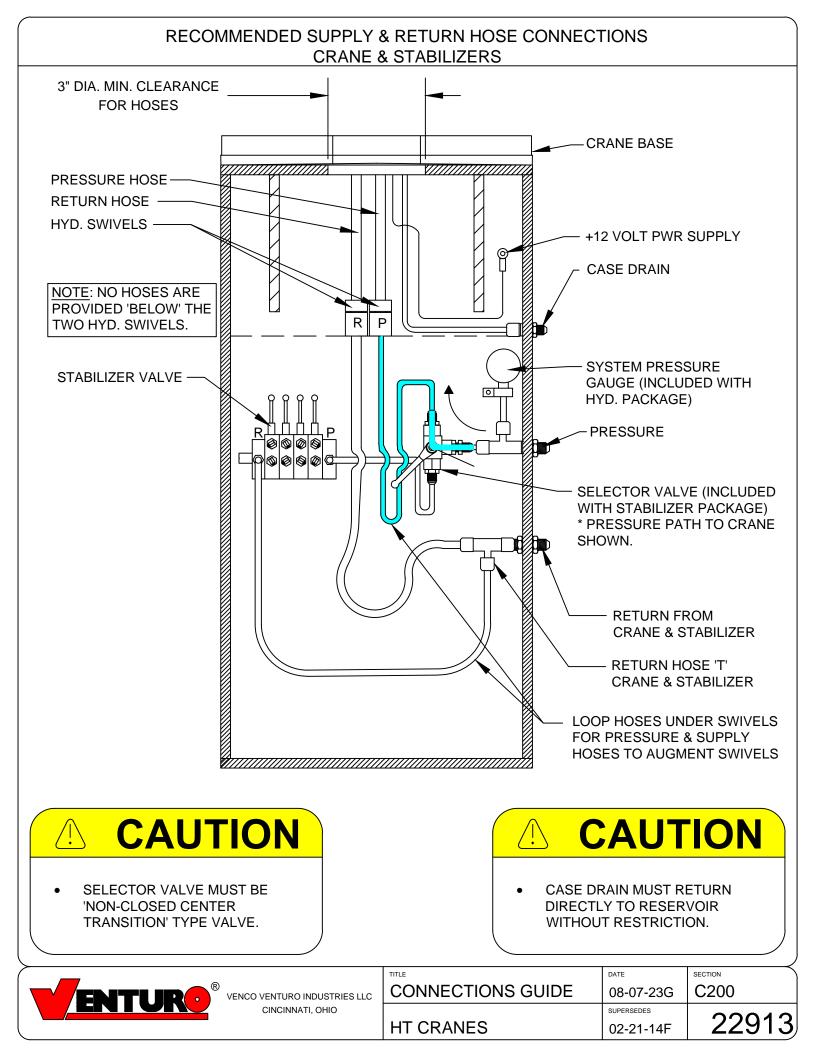
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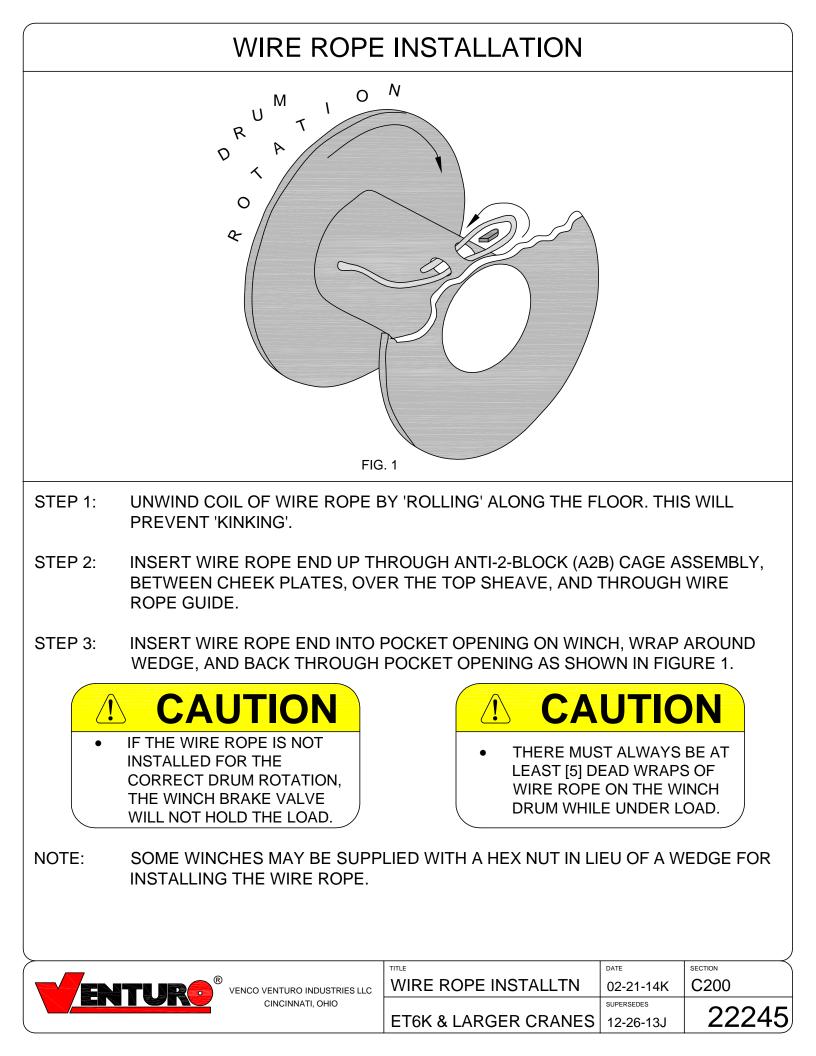
APPROVENTURO INDUSTRIES LLC CINCINNATI, OHIO RESERVOIR DIMENSIONS 02-21-14E C200 HYD. TANKS (25/40 GAL.) 06-04-13D 22825











SECTION 300

OPERATION & MAINTENANCE



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.

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



TITLE	DATE	SECTION
MAINTENANCE INFO	06-11-24E	C300
	SUPERSEDES	
HT25/30/40/50/60/66KX(P)	11-10-22D	232

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

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.

See Crane Safety Manual for proper inspection schedules and reports.

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.

LOAD BLOCK

If the load exceeds the single-line rated load or if reduced winching speed for better control of smaller loads is required, use the load block to rig the crane for two part line operation.

CONTROLS

The control pendant should be stored in a compartment or the cab when the crane is not in use.

Before activating the control pendant, inspect the cord(s) and pendant head/switches for damage. With the pendant OFF and the PTO disengaged, actuate all switches in both directions to verify that they all have the same feel/sound and return to the center position.

PTO SYSTEM 🔺

Check the hydraulic fluid level in the PTO system reservoir. Engage PTO and set the engine speed to provide the desired hydraulic flow rate per the PTO system instructions.

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.



CINNATI, OHIO	HT CRANES	supersedes	23753
URO INDUSTRIES LLC	CRANE OP / MNTNC INST	08-08-23A	C200
	TITLE	DATE	SECTION

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS, PAGE 2 HT60/66KX VLC SERIES

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.
- BOOM "OUT" and "IN" Extends and retracts the boom.
- ROTATION "L" and "R" Controls the left and right direction of the crane rotation.
- TRIGGER (Proportional Systems Only) Varies the flow rate delivered to the crane valve. The further 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.

VENTURO LOGIC CONTROL (VLC) SYSTEM

This crane is equipped with Venturo's logic control system. The receiver collects data from the boom tilt sensor and hydraulic pressure transducer, and translates the results to one of the following actions:

% OF LOAD	CRANE RESPONSE	BOOM/RECEIVER INDICATOR LIGHTS	TRANSMITTER LCD	TRANSMITTER VIBRATOR
0 - 79%	NORMAL OPERATION	Green solid	Load xx% Angle xx°	None
80% - 89%	NORMAL OPERATION	Yellow flashing	Load xx% Angle xx°	None
90% - 99%	All crane functions speed reduced to 50%	Red flashing	Load xx% Angle xx° flashing text SPD 50% icon	[3] quick vibrations when 90% threshold is exceeded
>100%	Winch down, boom retract, and rotation @ 75%. All other functions prevented.	Red solid	Overload Limited functions Speed reduced Flashing text/inverted color, or after pressing OK button- Home Screen, flasing text/inverted color, SPD 25% icon	Continuous vibration for [4] seconds when 100% threshold is exceeded

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.



O VENTURO INDUSTRIES LLC	CRANE OP / MNTNC INST	^{date} 10-26-23A	SECTION C300
CINCINNATI, OHIO	HT60/66 VLC SERIES	supersedes 11-10-22	28435

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS, PAGE 3 HT60/66KX VLC SERIES

TRUCK SETUP & STABILIZERS

- 1. The truck should be parked on firm level ground.
- 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. Fully deploy stabilizers to help stabilize vehicle against rocking or overturning.
- 5. Use stabilizers to level vehicle only. Tires must maintain contact with ground.

PREPARATION FOR TRAVEL

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

MAINTENANCE - MODEL-SPECIFIC INFORMATION

The winch planetary gearbox lube should be maintained at the level plug.

To ensure optimal winch performance, the following lube schedule and lube specifications should be followed:

Initial Change - after 6 months or 100 hours of operation (whichever comes first). Periodic Change - every 24 months or 300 hours of operation (whichever comes first).

HLP 46 or HLP 68 hydraulic oil

Service grease fittings and rotation gear with molybdenum-disulfide graphite-filled lithium-based extreme pressure grease.

Grease fitting locations: Boom pivot at rear of boom Slew drive (2 zerk fittings) Swing bearing race (1 zerk fitting) Elevation cylinder base and rod pivots



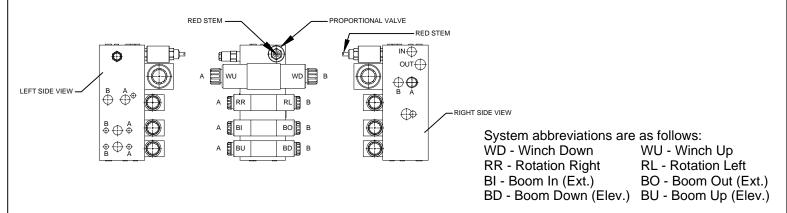
LLC	CRANE OP / MNTNC INST	DATE 07-08-24B	section C300
	HT60/66 VLC SERIES	supersedes 10-26-23A	28436

EXPLANATION OF HYDRAULIC VALVE SYSTEM HT40/50/60/66KX, PROPORTIONAL ONLY

OVERVIEW

This proportional crane utilizes a proportional valve, which controls the rate at which the hydraulic fluid flows through the valve bank. When the proportional valve is fully closed, hydraulic fluid bypasses the valve bank and returns directly to the tank. When the proportional valve is fully open, hydraulic fluid cycles through the valve bank and allows the crane to function at full speed. When the proportional valve is at any setting between, a portion of the fluid is allowed through the valve bank, with the remainder returning to the tank.

The four [4] crane functions (winch, rotation, boom extension, and boom elevation) 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 associated manual override reside on the same side of the valve bank.



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:

to insure that it is fully counter-clockwise.

- (1) Override the proportional valve by turning the red stem on the valve as stated below
 - For override operation, rotate stem clockwise (the farther the stem is turned the faster the crane will operate)
 - To return to normal operation, rotate the 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 firmly press inward. For example,

For normal crane operation, the proportional valve must be in the 'normal' position (as described above). To verify 'normal' operation, you may set the pendant (or radio) control aside and actuate a single crane function by pushing inward on any of the manual override pins, located at the ends of each function control valve. If that function operates, the proportional valve is still in manual override. Check the position of the proportional valve's red stem

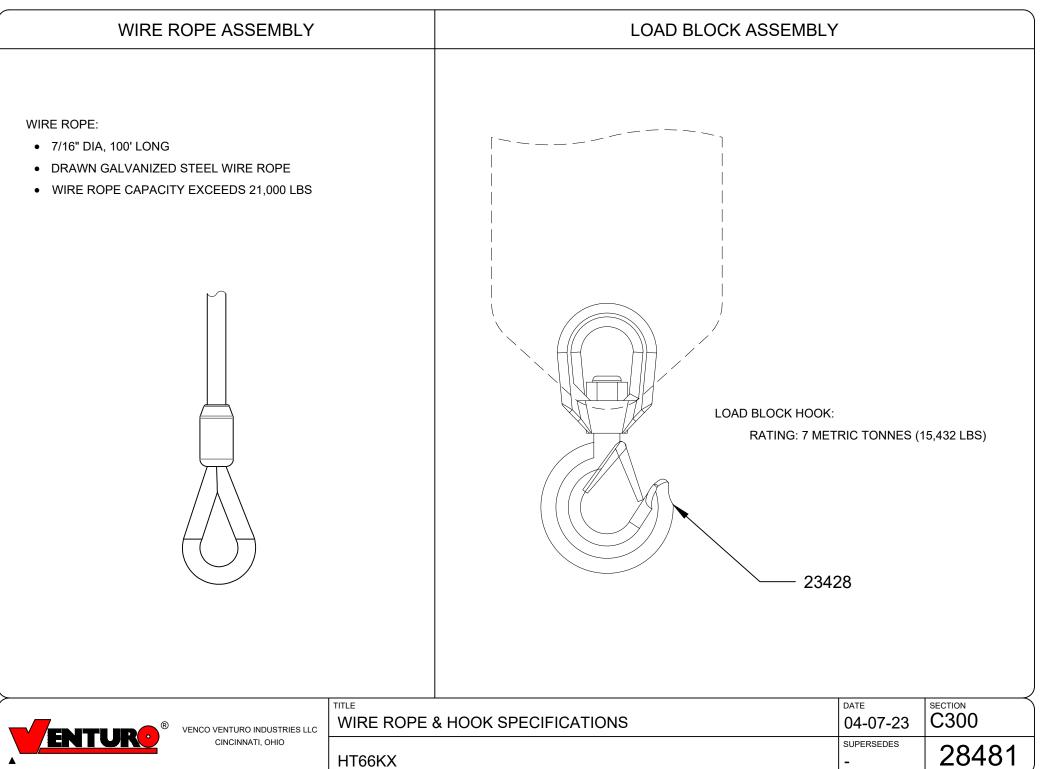
pushing the stem labeled 'A' on the first bank (refer to illustration) will actuate winch up

EMERGENCY STOP

In the unlikely event that a function of the crane does not stop once the function's toggle switch is released, the proportional crane can be stopped by releasing the trigger on activating the red E-STOP button on the transmitter.



LC	HYDRAULIC SYSTEM	^{DATE} 11-10-22E	section C200
	HT40/50/60/66KX; PROP	supersedes 02-21-14D	22168

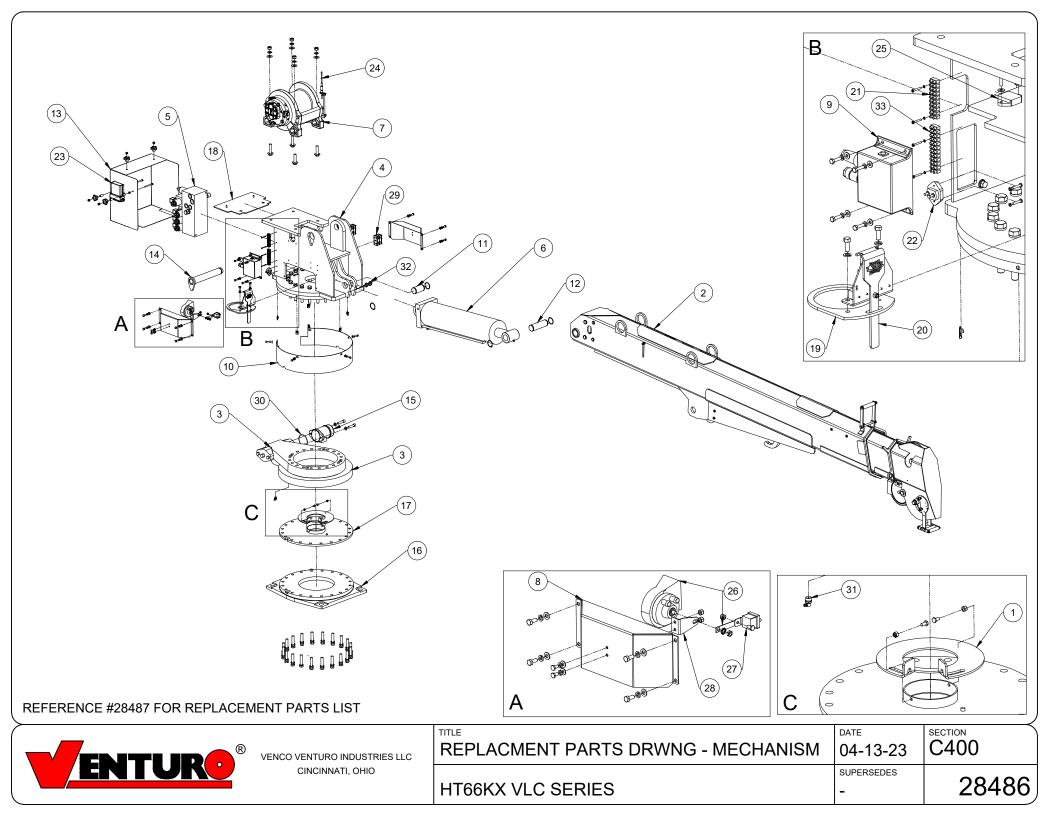


SECTION 400

REPLACEMENT PARTS



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO



REPLACEMENT PARTS LIST - HT66KX VLC SERIES; MECHANISM

ITEM	QTY.	PARTNUMBER	DESCRIPTION	ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	23666	STOP DISK - ELECTRIC ROTATION STOP	21	1	19187-10	TERMINAL STRIP; 10 SECTIONS
2	1	27260	boom final assembly	22	1	15683-20A	CIRCUIT BREAKER; 20A
3	1	27275	SLEWING RING	23*	1	23720-VCM	VALVE CONTROL MODULE
4	1	24920	Welded Assembly; Housing, Mechanism	24	1	28450	REMOTE ANTENNA
5	1	22736H-1	VAVLE MANIFOLD; HI FLOW, 3000 PSI	25*	1	23720-INC	UNIVERSAL INCLINOMETER
6	1	21750	6 X 20.125 CYLINDER	26	1	21948	HORN
7	1	27274	HYDRAULIC WINCH	27	1	22739	HIGH CAPACITY RELAY
8	2	27400	HOUSING SIDE COVER	28	1	22000	BRACKET; HORN
9*	1	23720-RX	RECEIVER; ESCAN, 2.4GHz	29	2	27307	CLAMP ASS'Y; HOSE / TUBING
10	1	27406	SLEWING RING COVER	30	1	OR-152-5	O-RING; ROTATION MOTOR
11	1	27502	ELEVATION CYLINDER PIN - INBOARD	31	1	IZERK-013-27 NPT-90	FITTING; GREASE, 90°
12	1	27503	ELEVATION CYLINDER PIN - OUTBOARD	32	2	14775	GROMMET - RUBBER
13	1	27505	REAR COVER	33	1	19187-12	TERMINAL STRIP; 10 SECTIONS
14	1	22721	PIVOT PIN - MAIN BOOM PIVOT	34	-		
15	1	27276	HYDRAULIC ROTATION MOTOR	35	-		
16	1	28470	MACHINED BASE	36	-		
17	1	28473	SLIPPER PLATE WELD	37	-		
18	1	28318	REAR COVER MOUNTING PLATE WELDEMENT HT66	38	-		
19	1	23680	Housing water dam	39	-		
20	1	28474	ELECTRIC ROTATION STOP ASSEMBLY	40	-		

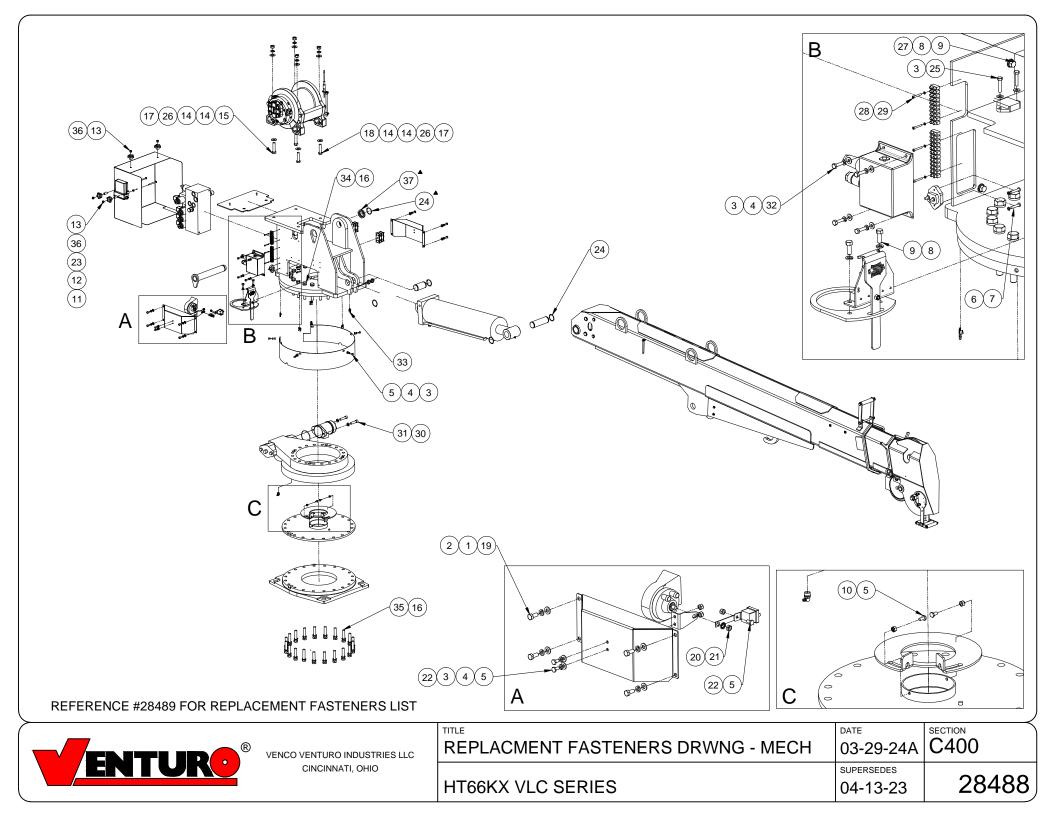
* THESE ITEMS ARE INCLUDED IN 23720 KIT. PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238 FOR ASSISTANCE.

REFERENCE #28486 FOR REPLACEMENT PARTS DRAWING



REPLACEMENT PARTS LIST - MECHANISM	^{date} 04-13-23	section C400
HT66KX VLC SERIES	SUPERSEDES	28

487



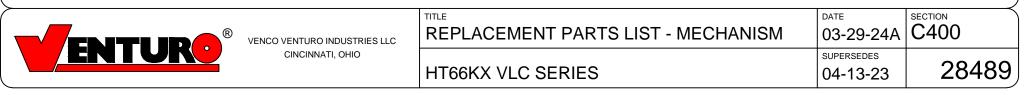
REPLACEMENT PARTS LIST - HT66KX VLC SERIES; MECHANISM

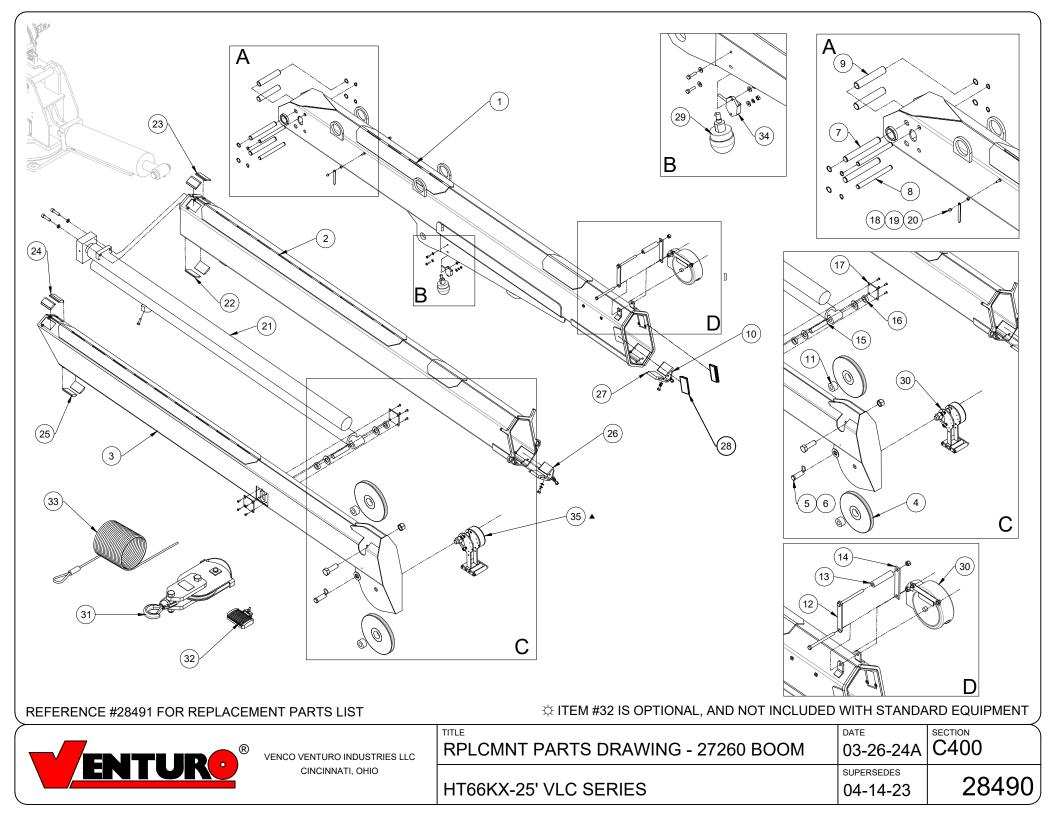
ITEM	QTY.	PART NUMBER	DESCRIPTION
1	8	!LW SH-031S	lock washer; 5/16", s/s
2	8	!FW SH-031S	FLAT WASHER; 5/16", S/S
3	13	!FW SH-025S	FLAT WASHER; 1/4", S/S
4	11	!LW SH-025S	lock washer; 1/4", s/s
5	10	!HHC\$02520050\$	HHCS; 1/4-20 x 1/2" LG, S/S
6	2	!LWSH-#10S	LOCK WASHER; #10, S/S
7	2	ISHCS#0832100S	SHCS; #10-32 X 1", S/S
8	4	!LW SH-038	lock washer; 3/8", Zinc-Pltd
9	4	!HHC\$03816100	HHCS; 3/8-16 X 1", ZINC-PLTD
10	2	!LNUT-02520	LOCK NUT; 1/4-20, NYLON, ZINC
11	2	!HHC\$02520275	HHCS, 1/4-20 X2.75", S/S, FULL THREAD
12	2	INUT-02520NS	JNUT, NYLON INSERT, 1/4-20, S/S
13	4	!LNUT-02520-H	LOCK NUT; 1/4-20, HVY PAT, NYLON
14	8	!FW SH-063	FLAT WASHER; 5/8", GR. 8
15	2	!HHC\$06311275	HHCS; 5/8-11 X 2-3/4" LG, GR 8
16	40	!LW SH-063	LOCK WASHER; 5/8", GR. 5, ZINC
17	4	!HNUT-06311-8	HEX NUT; 5/8-11, GR. 8
18	2	!HHC\$06311250-8	HHCS; 5/8-11 X 2-1/2" LG, GR 8
19	8	!HHC\$03118075\$	HHCS; 5/16-18 X 3/4", S/S
20	1	!LWSH-031-STAR	lock washer; 5/16", Zinc

ITEM	QTY.	PART NUMBER	DESCRIPTION
21	1	!HNUT-03118	Hex nut; 5/16-18, Zinc
22	5	ILNUT-02520SS	NYLOCK HEX NUT 1/4-20
23	2	28328	NYLON SPACER, BLK25"IDX.50"ODX1"LG
24	5	!SRNG-175	SNAP RING; 1-3/4", ZINC-PLTD
25	2	!HHC\$02520125\$	HHCS; 1/4-20 X 1-1/4", S/S
26	4	!LW SH-063	Lock Washer; 5/8", gr. 8, zinc
27	2	!FW SH-038	FLAT WASHER; 3/8", ZINC-PLTD
28	4	!LWSH-#06S	lock washer; #06. s/s
29	4	!PHPMS#0632100S	Philips-hd pms; #6-32 X 1", s/s
30	2	ILW SH-050-HC	Lock Washer; 1/2", HI-Collar
31	2	!SHC\$05013200	Socket head cap screw - 1/2-13 X 2 Lg
<mark>3</mark> 2	4	HHC \$02520100\$	HHCS; 1/4-20 X 1-1/4", S/S
33	5	!UNUT-02520-LKG	U-NUT 1/4-20, LOCKING TYPE
34	20	!HHC\$06311450	hhcs; 5/8-11 x 4" lg, gr. 5, Zinc
35	20	!HHC\$06311300	HHCS; 5/8-11 x 3" LG, GR. 5, ZINC
36	4	28327	Knob, Hand, 5-point
37	2	26609	SHIM - STAINLESS STEEL
38			
39			
40	-		

HHCS = HEX HEAD CAP SCREW, SHCS = SOCKET HEAD CAP SCREW, PMS = PAN MACHINE SCREW, S/S = STAINLESS STEEL

REFERENCE #28488 FOR REPLACEMENT PARTS DRAWING





REPLACEMENT PARTS LIST - HT66KX-25' VLC SERIES; 27260 BOOM

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	27262	Welded Ass'y; primary boom
2	1	27264	Welded Ass'y; secondary boom
3	1	27266	Welded ASS'Y; tertiary boom
4	2	27241	CABLE SHEAVE
5	1	27272	1X2.5 CLEVIS PIN
6	1	21-08	HAIRPIN COTTER
7	2	27282	THRUST PIN; REAR, EXTENSION CYLINDER
8	2	27293	THRUST PIN; FRONT, EXTENSION CYLINDER
9	2	27283	THRUST ROLLER; EXTENSION CYLINDER
10	2	23183	V-BLOCK SLIDER
11	2	27256	SPACER - FOR 27241 POLY SHEAVES
12	1	21935	WIRE-ROPE GUIDE WELDED
13	1	21560	ROLLER, UHMW GUIDE
14	1	21936	FLAT, MOUNT; WIRE ROPE GUIDE
15	1	21405	PIN - CYLINDER
16	2	21428	BUSHING
17	2	23116	PIN BLOCK REINFORCING
18	2	22490	SPACER, BOOM ARROW 1/2" O.D.
19	2	13459-2	BOOM ARROW 4-7/16 LONG
20	2	IANUT-02520S	ACORN NUT 1/4-20 STAINLESS

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
21	1	21751	EXTENSION CYLINDER
22	2	23217-2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.44
23	2	23217-12	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.50
24	2	23217-11	BOOM PAD; UHMW, 'A', 3.19 x 1.88 x 0.50
25	2	23217-1	BOOM PAD; UHMW, 'A', 3.19 x 1.88 x 0.44
26	2	23217-3	BOOM PAD; UHMW, 'B', 3.19 x 2.13 x 0.63
27	2	23217-4	BOOM PAD; UHMW, 'B', 3.19 x 2.50 x 0.63
28	2	23217-13	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.38
29	1	23438	WARNING LIGHT; TRI-COLOR, LED
30	1	28190-1	3-WIRE CORD REEL
31	1	27254	LOAD BLOCK ASSEMBLY
32	1	27483 🌣	ASS'Y; WORK LIGHT, LED
33	1	28337-7/16-100	WIRE ROPE 7/16"-100'
34*	1	23720-INC	UNIVERSAL INCLINOMETER
35	1	27487	COMPACT A2B
36	1		
37	-		
38	1		
39	[-		
40			

* THESE ITEMS ARE INCLUDED IN 23720 KIT. PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238 FOR ASSISTANCE.

TITLE

REFERENCE #28490 FOR REPLACEMENT PARTS DRAWING

COPTIONAL; NOT INCLUDED WITH STANDARD EQUIPMENT

DATE

SUPERSEDES

04-17-23



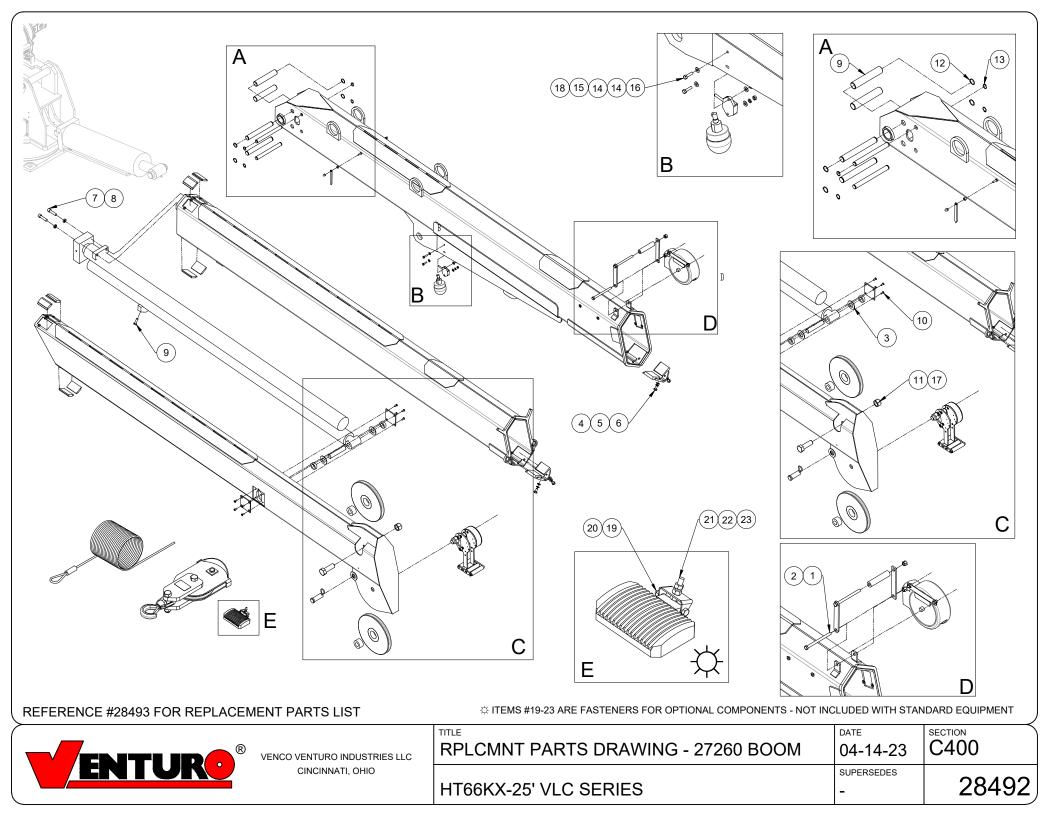
VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

HT66KX-25' VLC SERIES

REPLACEMENT PARTS LIST - 27260 BOOM

C400 03-26-24A 28491

SECTION



REPLACEMENT FASTENERS LIST - HT66KX-25' VLC SERIES; 27260 BOOM

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1 1 !HHC\$04414550		!HHC\$04414550	HHCS - 7/16-14 X 5-1/2 LG
2 2		!LNUT-04414	LOCK NUT; 7/16"-14 NYLON, GR. 5, ZINC-PLTD
3	3	12534-XX	ZINC PLATED MACHINERY BUSHINGS
4	4	!FWSH-038	FLAT WASHER; 3/8", ZINC-PLTD
5	4	!LWSH-038	LOCK WASHER; 3/8", ZINC-PLTD
6	4	!HHC\$03816075	HHCS - 3/8-16'' X 3/4
7	2	!LWSH-050-HC	LOCK WASHER; 1/2", HI-COLLAR
8	2	!SHC \$05013200	SOCKET HEAD CAP SCREW - 1/2-13 X 2 LG
9	2	!HHC\$03816125\$	HHCS 3/8-16 X 1- 1/4 LG, S/S
10	8	!CAC\$02520050\$	CACS; 1/4-20 X 1/2", S/S
11	1	!HHC\$10008300	HHCS; 1-8 X 3", GR. 5, ZINC -PLTD
12	4	!SRNG-100	RETAINING RING - 1'' SHAFT DIA.
13	4	!SRNG-075	RETAINING RING - 3/4" SHAFT DIA.
14	4	!FWSH-025S	FLAT WASHER; 1/4", S/S
15	2	!LWSH-025S	Lock Washer; 1/4", S/S
16	2	!HHC\$02520100\$	HHCS; 1/4-20 X 1-1/4", S/S
17	1	!LNUT-10008	LOCK NUT; 1"-8, NYLON, GR. 8, ZINC-PLTD
18	2	!HNUT-02520	hex nut 1/4"-20, Zinc Pltd
19¢	1	!HHC\$03118125\$	HHCS; 5/16-18 X 1-1/4", S/S
20¢	2	!HNUT-03118S	hex nut; 5/16-18, S/S

TEM NO.	QTY.	PART NUMBER	DESCRIPTION
21¢	1	!FWSH-031S	FLAT WASHER; 5/16", S/S
22¢	1	!HHC\$02520250\$	HHCS; 1/4-20 X 2-1/2", S/S
23¢	1	!LWSH-025S	LOCK WASHER; 1/4", S/S
24☆	1	!HNUT-02520S	HEX NUT; 1/4-20, S/S
25	-		
26	-		
27	-		
28	-		
29	-		
30	-		
31	-		
32	-		
33	-		
34	-		
35	-		
36	-		
37	-		
38	-		
39	-		
40	-		

C ITEMS #19-24 ARE FOR OPTIONAL COMPONENTS - NOT INCLUDED WITH STANDARD EQUIPMENT

REFERENCE #28492 FOR REPLACEMENT PARTS DRAWING

HHCS = HEX HEAD CAP SCREW PMS = PAN MACHINE SCREW S/S = STAINLESS STEEL CACS = COUNTERSINK CAP SCREW

SECTION

DATE



ENCO VENTURO INDUSTRIES L	LC
CINCINNATI, OHIO	

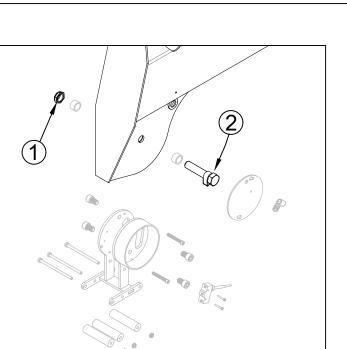
TITLE

REPLACEMENT FASTENERS LIST - 27260 BOOM	04-17-23	C400
HT66KX-25' VLC SERIES	SUPERSEDES	28493

Compact A2B with Stowage Cut-out, Install/Adjustment Instructions

The purpose of the Stowage Cut-out system is to prevent a situation whereby the wire rope is over-tensioned when the load block / wire rope is attached to the stowage hook on the bottom of the primary boom assembly. *However, the OPERATOR is ultimately responsible for ensuring that the wire rope is not over-tensioned when stowing the wire rope and boom assembly into the boom rest.*

- 1. Initially, apply a light torque to the nyloc full nut Item #1 (P/N !LNUT-10008), such that the axle bolt & cam welded assembly can be rotated / adjusted in the steps below.
- 2. Position the cam *lobe* Item #2 (P/N 28373) so that it is pointing towards the housing / mechanism
- 3. Hang the load block on the open stowage hook under the primary boom.
- 4. Thread the wire rope through the load block in a two-line configuration; the wire rope end / eyelet is pinned in the standard position on the tertiary boom tip
- 5. Actuate the Winch Up function until the load block and wire rope are *taut* enough to prevent the load block from bouncing during transit, <u>but do not</u> <u>tighten excessively so as to prevent damage to the wire rope.</u>
- 6. Rotate the axle bolt & cam welded assembly towards the housing (clockwise in standard configuration) until the cam lobe makes contact with and trips the wobble micro switch and actuates the A2B function.
- 7. Once adjusted, torque the nyloc full nut (Item #1) to 100 ft*lbs to prevent further rotational movement of the axle bolt & cam welded assembly.
- 8. Test the A2B trip-point by slackening and tightening the wire rope / load block assembly by actuating Winch Up/Down. <u>NOTE: The point at which</u> the A2B trips WILL vary to some degree, depending upon the winch up speed. It is recommended to actuate the winch up function slowly, which will yield a consistent and repeatable result, in terms of wire rope tension when stowed.

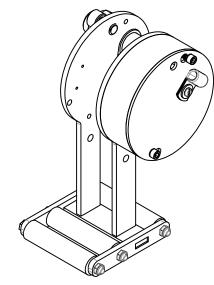




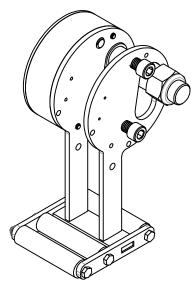
Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124

VENCO VENTURO INDUSTRIES LLC	A2B Stowage Cut-out	DATE 05-08-23	SECTION C400
CINCINNATI, OHIO	HT66KX Crane w/ Comp. A2B	SUPERSEDES	28505

REPLACEMENT PARTS LIST - 27487 A2B STOWAGE CUT-OUT



27487 (LEFT HAND)



27487-1 (RIGHT HAND)



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

TITLE

REPLACEMENT PARTS LIST -27486 A2B STOWAGE CUT-OUT

HT66KX-25' VLC SERIES

DATE C400 04-18-23 SUPERSEDES

SECTION

WLDMNT - COMPACT A2B FRAME RH

SHCS NYLON BLACK 1/2-13 X 3/4 LG

WIRE ROPE GUIDE ROLLER

WASHER, NYLON, BLACK, .375" O.D. X .25" I.D. PAN HEAD CAP SCREW 10-32 X 3/8 LONG

FLAT WASHER - 1/4

LOCK WASHER - 6

PHILLIPS HEAD CAP SCREW 6-32 X 1 LONG

ANTI-TWO BLOCK SWITCH

SHCS, 1/4-20 X 2.00 LONG, STAINLESS STEEL

WIRE CLAMP, 3/8 ID VIBRATION DAMPING

COVER PLATE

NYLON INSERT JAM NUT - 1/4-20

HHCS 1/4-20 X 4-1/2 LG

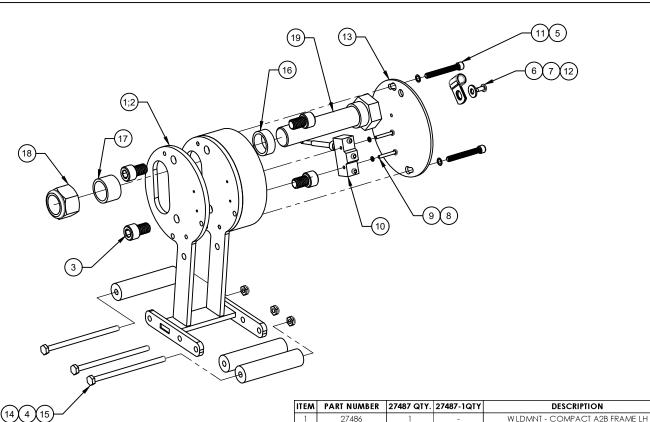
SPACER - COMPACT A2B, .47 LG (HT66)

SPACER - COMPACT A2B, .81 LG (HT66)

HEX NUT; 1-8, GR. 5, ZINC-PLTD

COMPACT A2B CUT-OUT CAM WELDED ASSY

28496



27486-1

27467

27475

23379

!PHCS#1032038

IFW SH-025

!LW SH-#06

!PHC\$#0632100

19376

ISHC \$02520200\$

19269

27473

IJNUT-02520N

!HHC\$02520450

27466-1

27466-2

!LNUT-10008

28373

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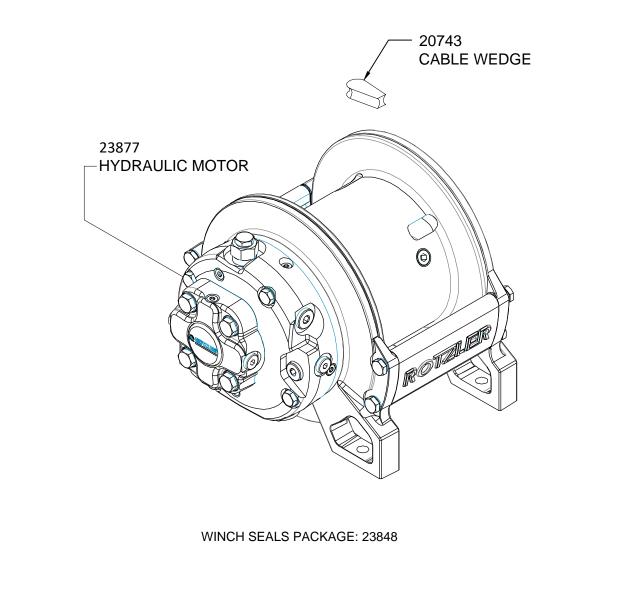
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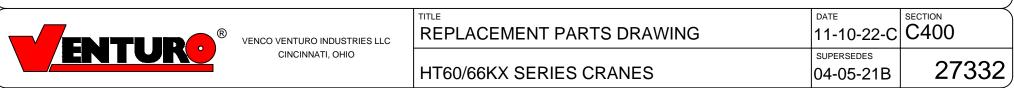
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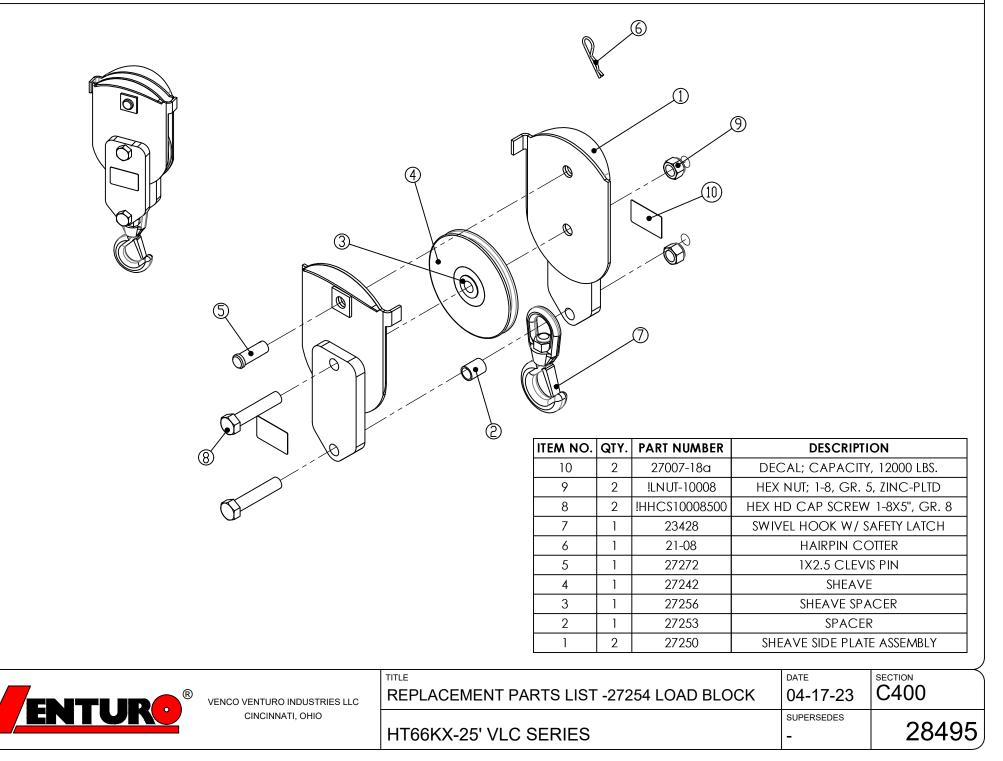
19

REPLACEMENT PARTS DRAWING; 27274 WINCH

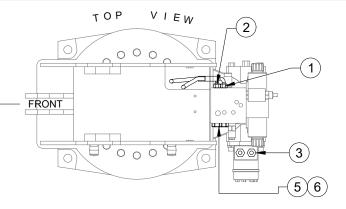


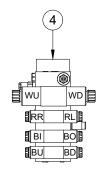


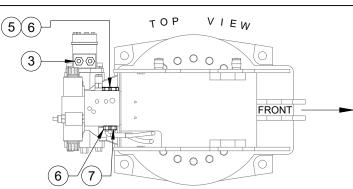
REPLACEMENT PARTS LIST - HT66KX-25' VLC SERIES; 27254 LOAD BLOCK

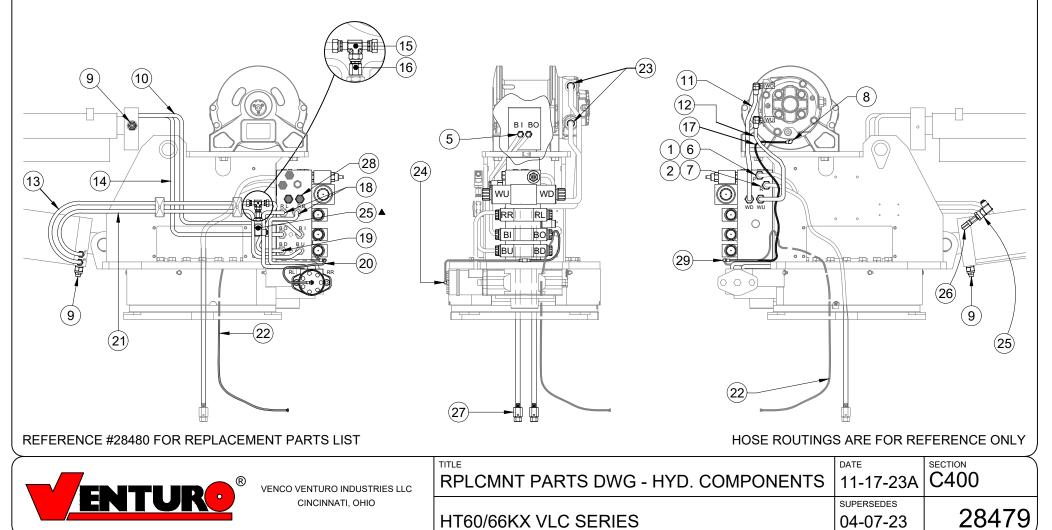


REPLACEMENT PARTS DRAWING - HYDRAULIC COMPONENTS









REPLACEMENT PARTS LIST - HYD. COMPONENTS

ITEM	PART NO.	QTY HT66	DESCRIPTION	INSTALLATION
1	28477	1	HOSE ASS'Y; PRESSURE	FF6400-0810 (MANIFOLD) TO COMPARTMENT
2	28267	1	HOSE ASS'Y; RETURN	FF6400-0812 (MANIFOLD) TO COMPARTMENT
3	FF6400-0610	2	FITTING; STRAIGHT ADAPTER, 60FS-10MO	ROTATION MOTOR PORTS
4	22736H-1	1	VALVE MANIFOLD; HI-FLOW, 3000 PSI	-
5	FF6400-0606	10	FITTING; STRAIGHT ADAPTER, 60FS-6MO	RL/RR/BI/BO/BU/BD MANIFOLD PORTS, CYL. PORTS
6	FF6400-0810	3	FITTING; STRAIGHT ADAPTER, 80FS-10MO	MANIFOLD PORTS: 'P' (RIGHT), WU/WD (LEFT)
7	FF6400-0812	1	FITTING; STRAIGHT ADAPTER, 80FS-12MO	MANIFOLD RETURN PORT (RIGHT)
8	3802-0404 (FF3802-4-4)	1	FITTING; ADAPTER, 45° ELBOW, 04MJ-04MBP (MALE BRITISH PARALLEL)	WINCH CASE DRAIN PORT
9	20893	2	COUNTER-BALANCE VALVE	ELEVATION & EXTENSION CYLINDERS
10	27593	1	HOSE ASS'Y; BOOM IN	FF6400-0606 (MANIFOLD) - FF6400-0606 (EXT. CYL.)
11	27025	1	HOSE ASS'Y; WINCH DOWN	FF6400-0810 (MANIFOLD) - FF3801-8-12 (WINCH)
12	27024	1	HOSE ASS'Y; WINCH UP	FF6400-0810 (MANIFOLD) - FF3801-8-12 (WINCH)
13	28052	1	HOSE ASS'Y; BOOM DOWN, CYL-SIDE	23731 - FF6400-0606 (ELEV. CYL. 'R' PORT)
14	27592	1	HOSE ASS'Y; BOOM OUT	FF6400-0606 (MANIFOLD) - FF6400-0606 (EXT. CYL.)
15	FF6602-06-06-06	1	FITTING; TEE, 6MORFS-6FORFS-6MORFS	PRESSURE TRANSDUCER (ROD SIDE)
16	23732	1	FITTING; REDUCER, 6FORFS-4FORB	PRESSURE TRANDUCER (ROD SIDE)
17	22953	1	HOSE ASS'Y; CASE DRAIN, 30" LONG	H6801-0404 (WINCH) - H2603-040404 (TEE)
18	27598	2	HOSE ASS'Y; ROTATION LEFT/RIGHT	FF6400-0606 (MANIFOLD) - FF6400-0610 (ROT. MTR.)
19	28053	1	HOSE ASS'Y; BOOM DOWN, MANIFOLD-SIDE	23731 - FF6400-0606 (MANIFOLD)
20	22952	1	HOSE ASS'Y; CASE DRAIN, 13" LONG	H6801-0404 (ROTATION MTR) - H2603-040404 (TEE)
21	28033	1	HOSE ASS'Y; BOOM UP	FF6400-0606 (X2); MANIFOLD - ELEV. CYL. 'E' PORT
22	22903	1	HOSE ASS'Y; CASE DRAIN, 96" LONG	H2603-040404 - COMPARTMENT
23	FF3801-8-12	2	FITTING; 90° ELBOW ADAPTER, 80FS-12MBP (MALE BRITISH PARALLEL)	WINCH PORTS - 28271, 28272
24	H6801-0404	1	FITTING; 90° ELBOW ADAPTER, 4MJ-4MO	ROTATION MOTOR CASE DRAIN PORT
* 25	23720-PTD	2	PRESSURE TRANSDUCER	-
26	H6815-0604	1	FITTING; 90° ELBOW, 6MORB-4FORB	TRANSDUCER - ELEV. CYLINDER PORT (RIGHT SIDE)
27	22764	2	HYDRAULIC SWIVELS; 8MJ-8FJ	COMPARTMENT - 22765 (PRESS), 22764 (RETURN)
28	H6408-10	2	FITTING; PLUG, 10MO	MANIFOLD (WU/WD PORTS)
29	H2603-040404	1	FITTING; T-SHAPE, 4MJ-4MJ-4MJ	22952, 22953, & 22903 (CASE DRAIN HOSES)

* THESE ITEMS ARE INCLUDED IN 23720 KIT. PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238 FOR ASSISTANCE.

TITLE

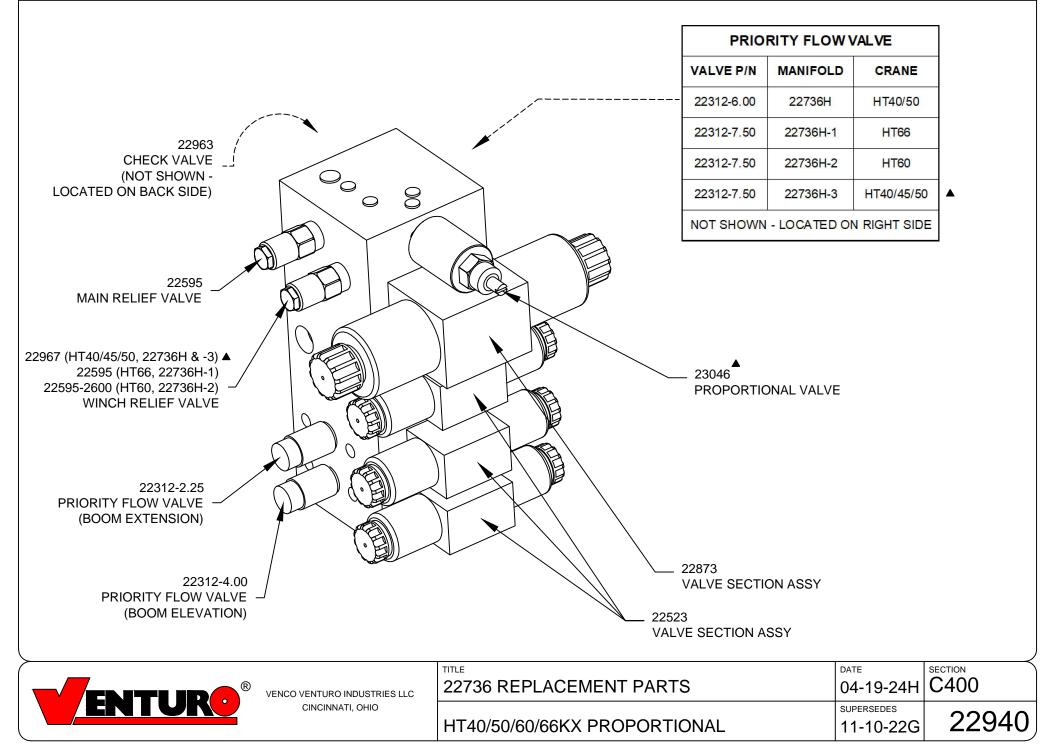
REFERENCE #28479 FOR REPLACEMENT PARTS DRAWING



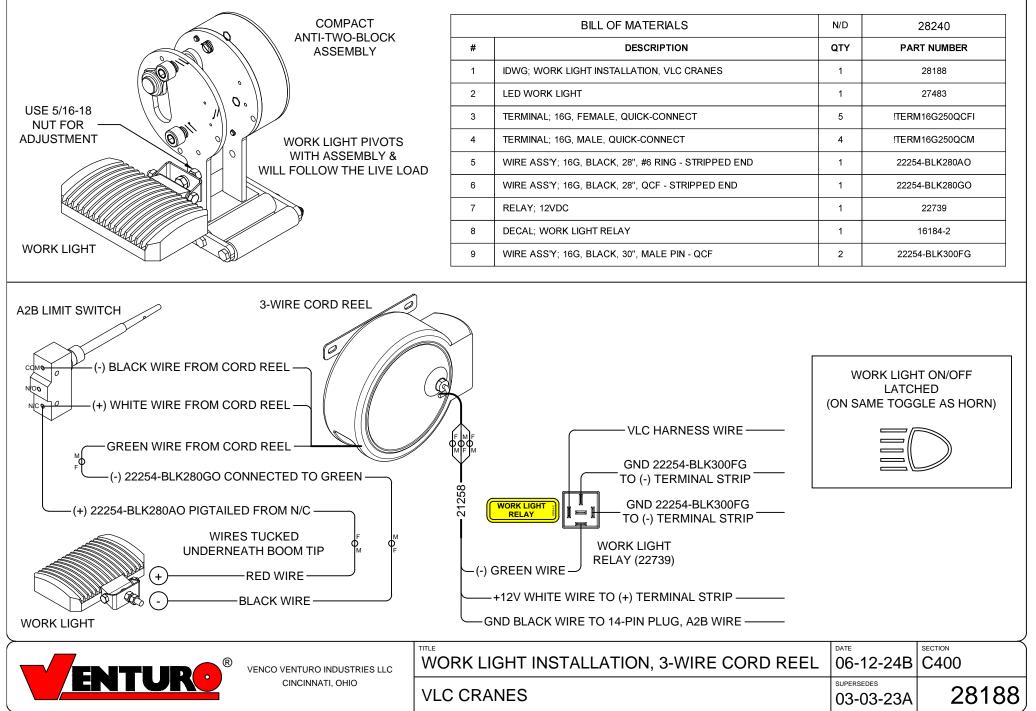
DATE 11-17-23	C400
SUPERSEDES	28506

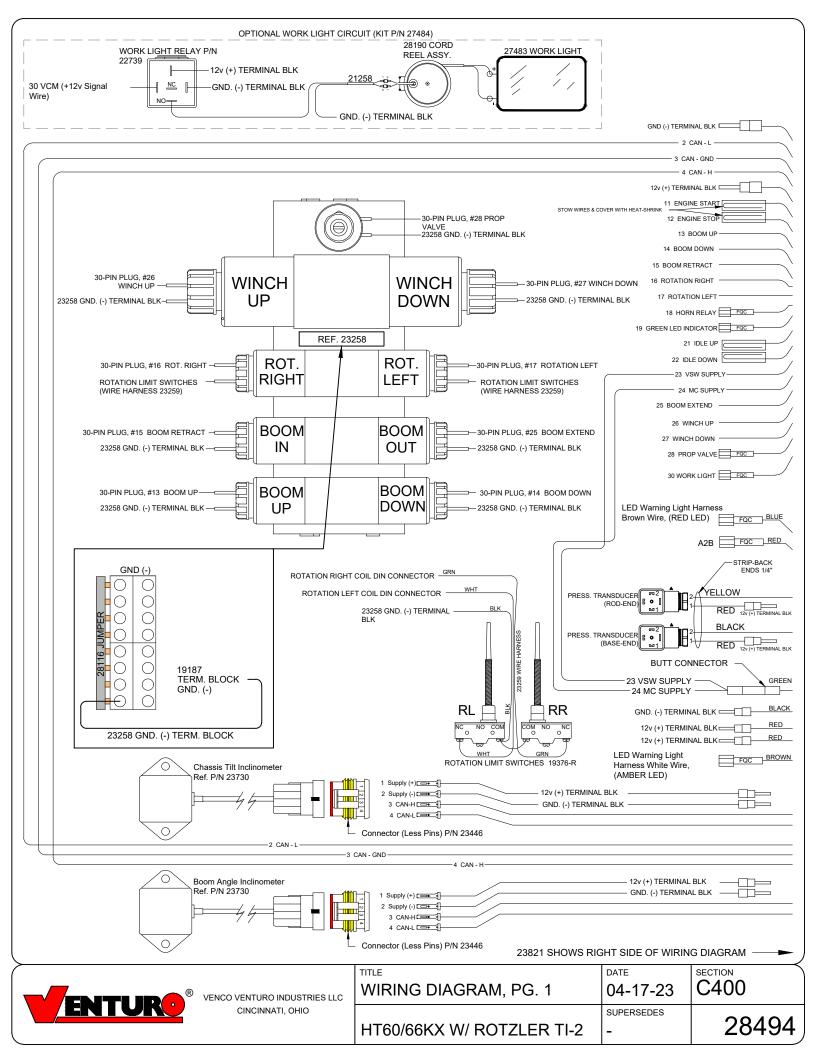
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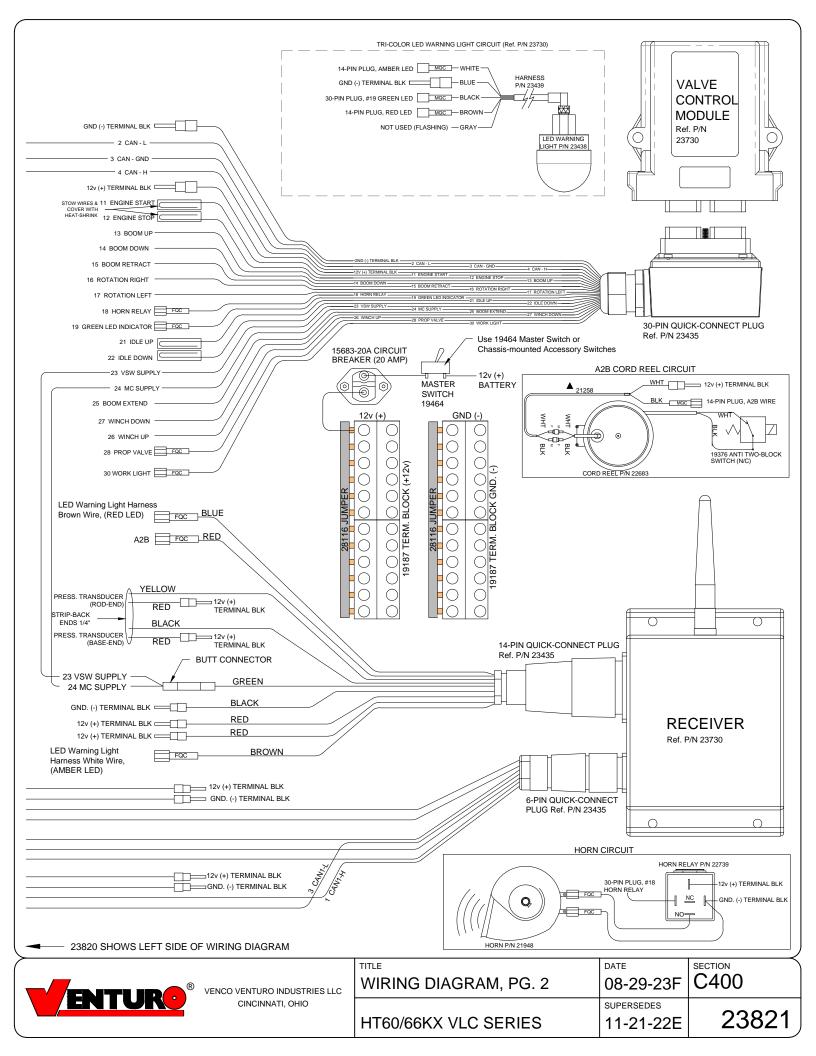
22736 SERIES VALVE MANIFOLD REPLACEMENT PARTS

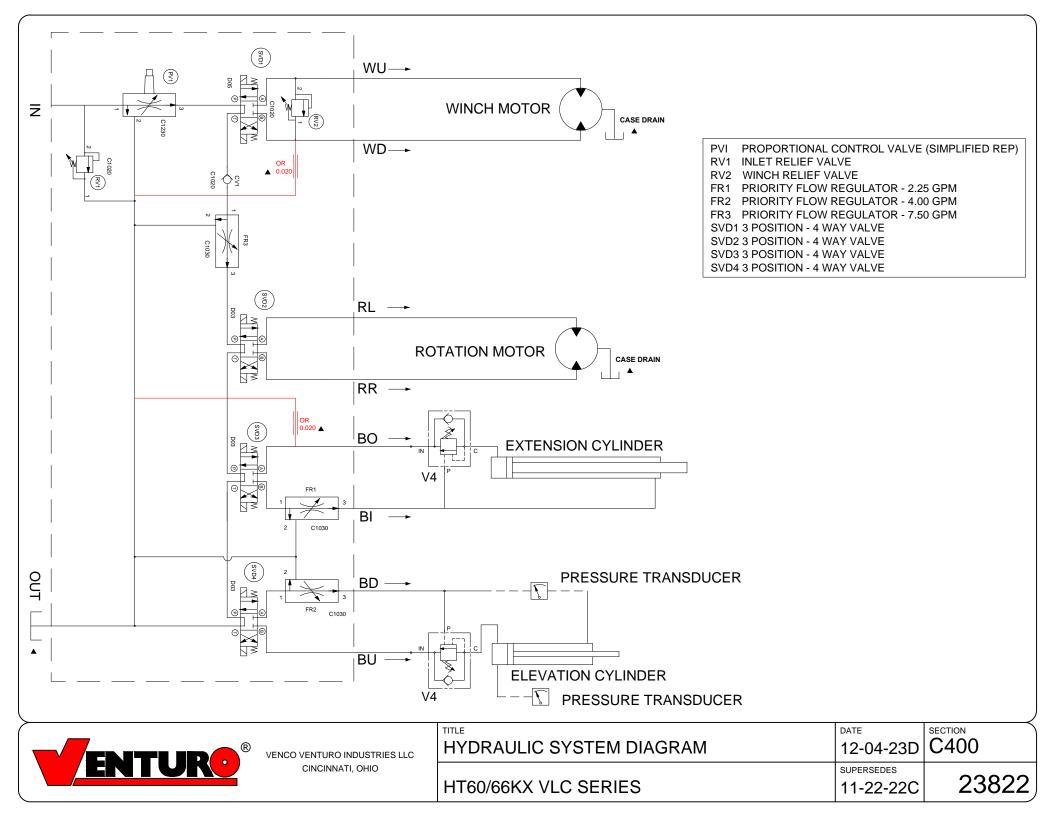


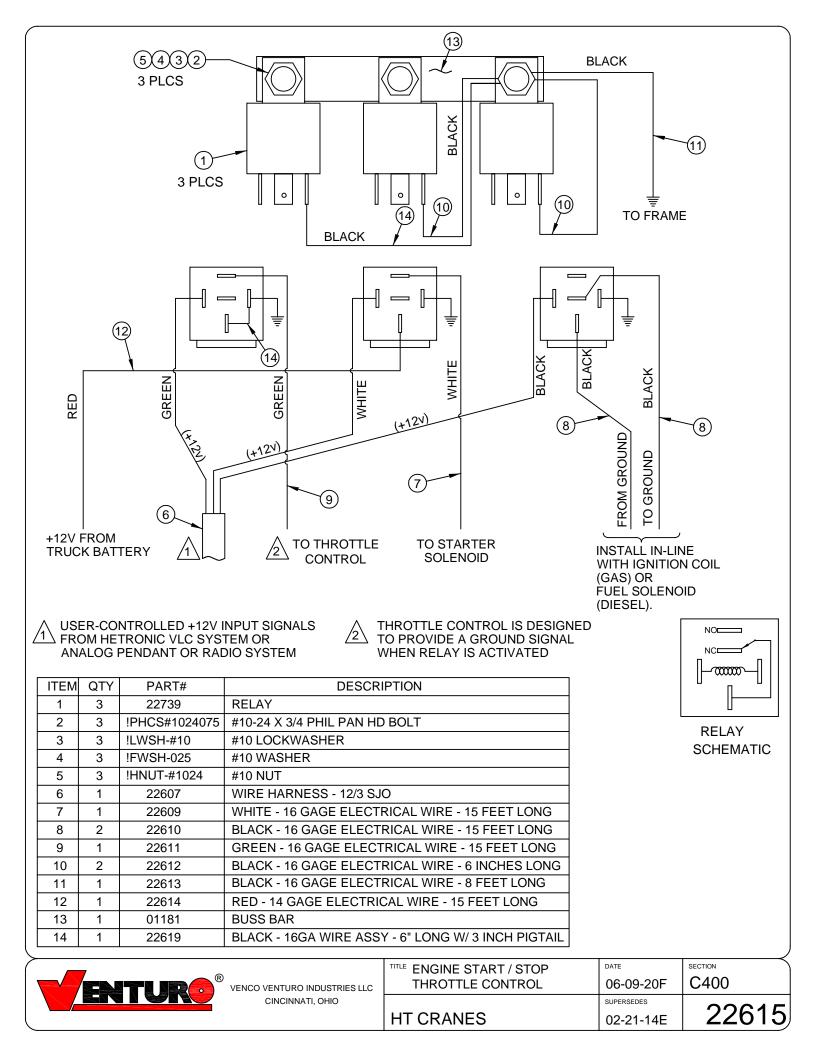
WORK LIGHT INSTALLATION: 28240 (3-WIRE CORD REEL ON VLC CRANES)



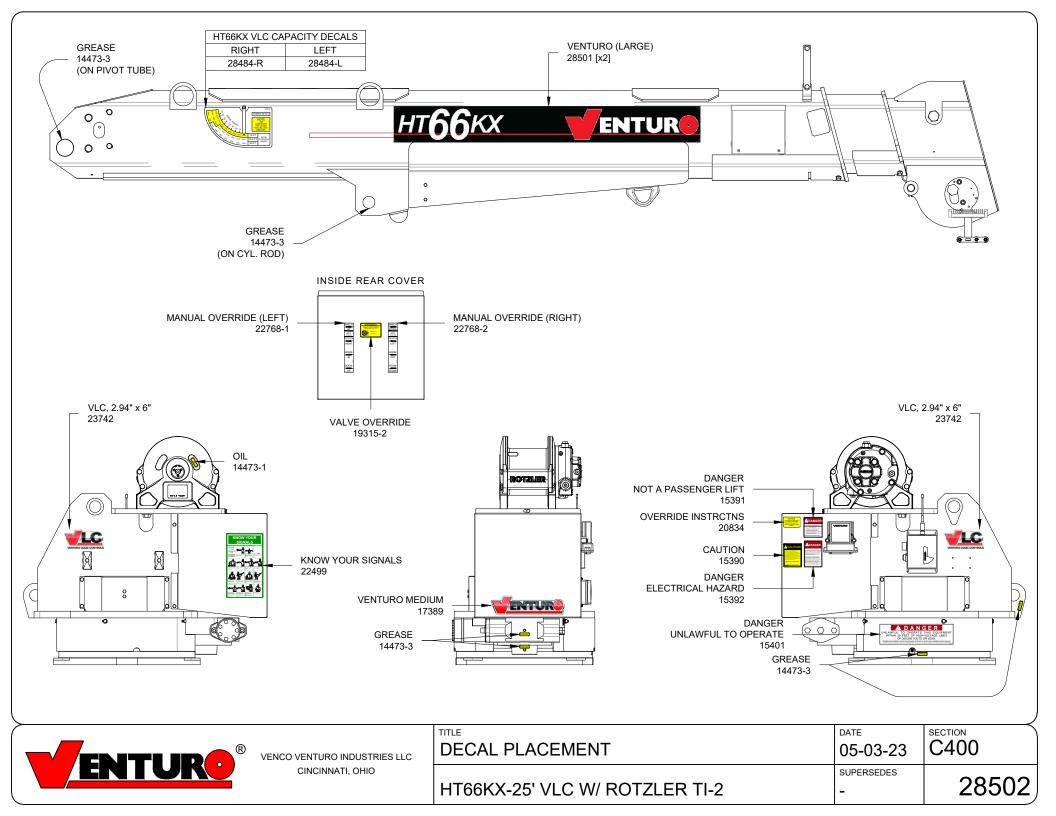








IOUTINE FROM			0			7	5
		10	1	19298	FILTER ASSY,		
		9	1	22789		THER CAP ASSE	MBLY
		8	1	22787	SIGHT GLASS		
		7 6	1 1	!HWHS02520075-F 19275	CLAMP	HEAD 1/4-20 X 3	4 SELF TAPPING
		5	1	22730		AUGE ASSEMBLY	/
		4	1	22788		EEN - 100 MESH	
		3	1	19297		AUGE - RETURN	
L 22785 HYDRAULIC						RESERVOIR - 25 GAL (18" x 40" x 8")	
							GAL (20" x 42" x 11")
		ТЕМ	QTY	PART NUMBERS	DESCRIPTION	N	
<u></u>		1		· ·		I	<
ENTURO [®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		RESERVOIR KIT REPL PARTS HT CRANES; 25/40 GAL RESERVOIR				^{DATE} 12-09-22D	section C400
CINCINNATI, OHIO	HT CRANES; 25					SUPERSEDES 08-04-15C	23224



28498 FIELD SERVICE LABEL KIT; HT66KX

-25	28498 FIELD SERVICE LABEL KIT (FOR HT66KX GENERATION 'B')				
QTY	PART #	DESCRIPTION			
1	16184-1	DECAL; HORN RELAY			
1	16184-2	DECAL; WORK LIGHT RELAY			
2	28501	DECAL; HT66KX W/ VENTURO LOGO			
1	17389	DECAL; VENTURO LOGO, MEDIUM			
1	28484-R	DECAL; BOOM CAPACITY, RIGHT (HT66KX-25')			
1	28484-L	DECAL; BOOM CAPACITY, LEFT (HT66KX-25')			
1	14473-1	DECAL; OIL			
6	14473-3	DECAL; GREASE			
1	17813	DECAL; OVERLOAD SENSING SYSTEM			
1	22499	DECAL; KNOW YOUR SIGNALS			
1	20834	DECAL; MANUAL OVERRIDE, INSTRUCTIONS			
1	19315-2	DECAL; MANUAL OVERRIDE, SHUTOFF, PROPORTIONAL			
1	22768-1	DECAL; MANUAL OVERRIDE, HT PROPORTIONAL, LEFT			
1	22768-2	DECAL; MANUAL OVERRIDE, HT PROPORTIONAL, RIGHT			
2	23742	DECAL; VLC, 2.94" x 6.00"			
1	28497	IDWG; FIELD SERVICE LABEL KIT, HT66KX VLC SERIES			
1	28502	IDWG; DECAL PLACEMENT, HT66KX VLC SERIES			
1	INST-23233	SAFETY MANUAL; VENTURO CRANES			
1	15397	KIT; ACCIDENT PREVENTION SIGNS			
2	27007-18a	DECAL; LOAD BLOCK CAPACITY			

DUSTRIES LLC		date 05-03-23	C400	
CINCINNATI, OHIO	НТ66КХ	SUPERSEDES	28497]

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.

<u>1-Year Limited Warranty Policy</u>

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.

VENCO VENTURO INDUSTRIES LLC

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

Revised: January 2015

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