INST-26917



HUBACB-V*A0

PARTS & INSTALLATION MANUAL HT45KX-30

Included in this manual:

HT45KX-30 (VLC)

- 7,800 lb Hydraulic Telescopic Service Crane
- Venturo Logic Control System w/ Proportional Control
- 30 ft Fully-Powered, Two-Stage Boom Extension





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

HT45KX-30' VLC INST-26917 - 11/11/2024 (Rev: NEW4)

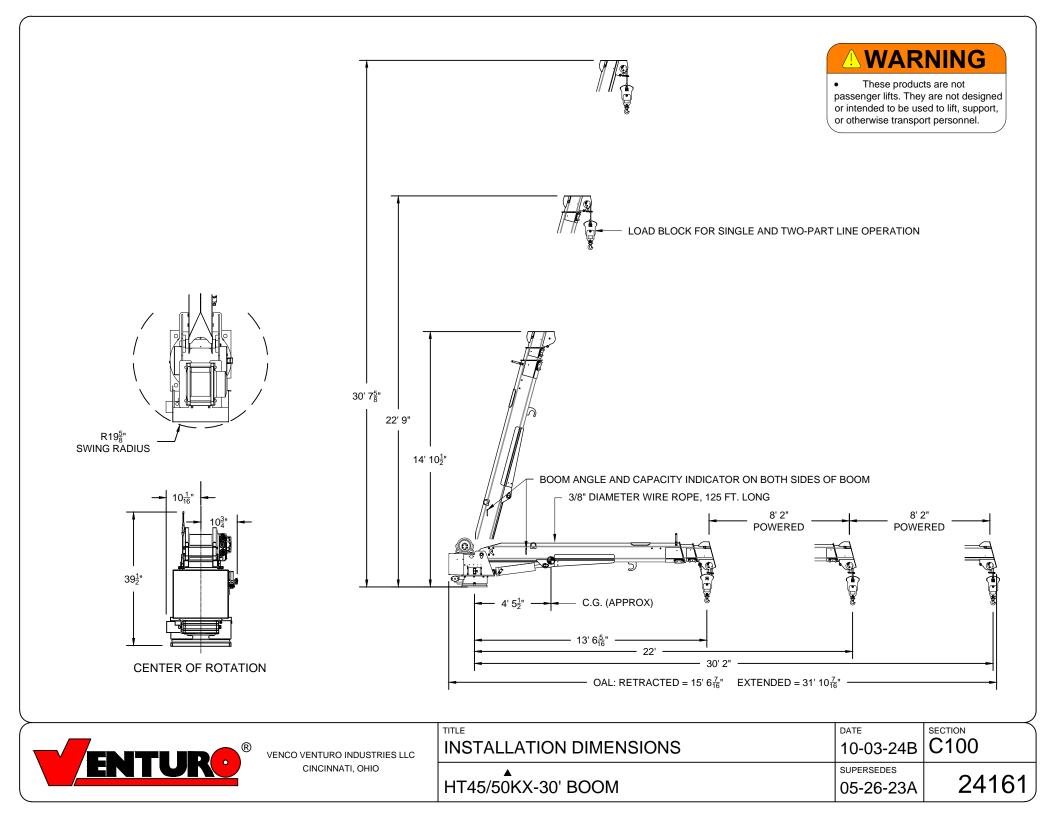
7607150A SECTION 150: SAFETY 15394 VEHICLE & CRARE ELECTRICAL HAZARD INFORMATION 920612 SAFETY & HAZARDS, GENERAL 19217 WINCH SAFETY WARNINGS 22181A SAFETY DECALS DRAWING & LIST 221815 SAFETY DECALS DRAWING & LIST 221816 SAFETY DECALS DRAWING & LIST 28526 SAFETY DECALS DRAWING & LIST 23749 BOOM CAPACITY DECALS; HT45 SERIES 23748 DECALS; VENTURO LOGIC CONTROLS (VLC) 7607200A SECTION 200: INSTALLATION (PAGE 1 OF 2) 23752 CRANE INSTALLATION (PAGE 2 OF 2) 20051 ROTATION STOP LOCATION 20067 STABILITY CHART 22825 22785 HYDRAULIC TANK DIMENSIONS 22831 CONNECTIONS GUIDE (PAGE 1 OF 2) 23014 CONNECTIONS GUIDE (PAGE 2 OF 3) 22245 WIRE ROPE INSTALLATION 23753 CRANE OPERATION & MAINTENANCE INSTRUCTIONS (PAGE 1 OF 3) 23754 CONNECTIONS GUIDE (PAGE 2 OF 2) 23014 CONNECTIONS GUIDE (PAGE 3 OF 3) 22245 WIRE ROPE INSTALLATION 23755 CRANE OPERATION & MAINTENANCE INSTRUCTIONS (PAGE 1 OF 3) 23755 </th <th>7607100A 24161 26892 24162</th> <th>SECTION 100: DESCRIPTION & SPECIFICATIONS INSTALLATION DIMENSIONS MOUNTING DIMENSIONS CAPACITY CHART; HT45KX (30' BOOM)</th>	7607100A 24161 26892 24162	SECTION 100: DESCRIPTION & SPECIFICATIONS INSTALLATION DIMENSIONS MOUNTING DIMENSIONS CAPACITY CHART; HT45KX (30' BOOM)
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23766 23739 FIELD SERVICE LABEL KIT, HT45KX	26901 26902 26903 26904 24164 24165 24166 24167 28239 26896 23864 23865 22940 28188 23436 23437 23868 23437 23868 22615 28527 23224	REPLACEMENT PARTS DRAWING; MECHANISM REPLACEMENT PARTS LIST; MECHANISM REPLACEMENT FASTENER DRAWING; MECHANISM REPLACEMENT FASTENER DRAWING; 23880 BOOM REPLACEMENT PARTS DRAWING; 23880 BOOM REPLACEMENT PARTS LIST; 23880 BOOM REPLACEMENT FASTENER DRAWING; 23880 BOOM REPLACEMENT FASTENER DRAWING; 23880 BOOM REPLACEMENT FASTENER LIST; 23880 BOOM A2B STOWAGE CUT-OUT REPLACEMENT PARTS DIAGRAM; TI1 & TI2 WINCH REPLACEMENT PARTS DIAGRAM; TI1 & TI2 WINCH REPLACEMENT PARTS DIAGRAM; 22736H HYDRAULIC COMPONENTS REPLACEMENT PARTS DIAGRAM; 22736H HYDRAULIC VALVE MANIFOLD WORK LIGHT INSTALLATION INSTRUCTIONS; COMPACT A2B MOUNT WIRING DIAGRAM, PG. 1 WIRING DIAGRAM, PG. 2 HYDRAULIC SYSTEM DIAGRAM ENGINE START/STOP/THROTTLE CONTROLS DECAL PLACEMENT RESERVOIR KITS; REPLACEMENT PARTS DRAWING & LISTS

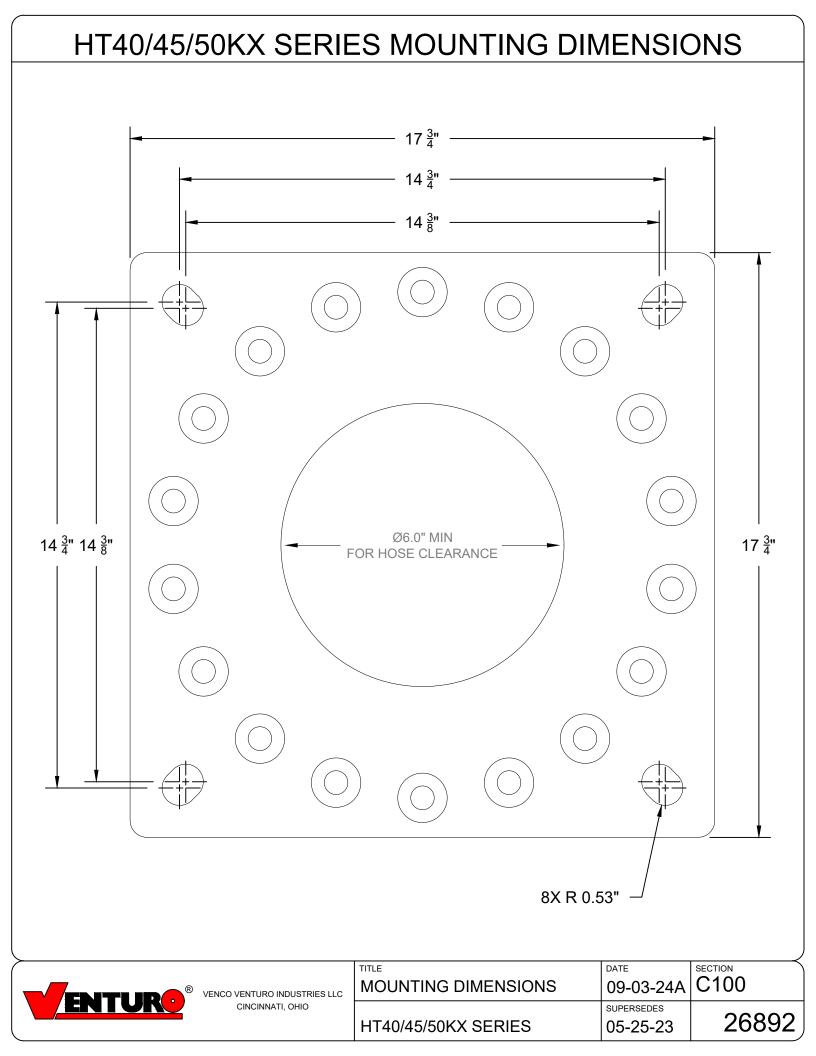
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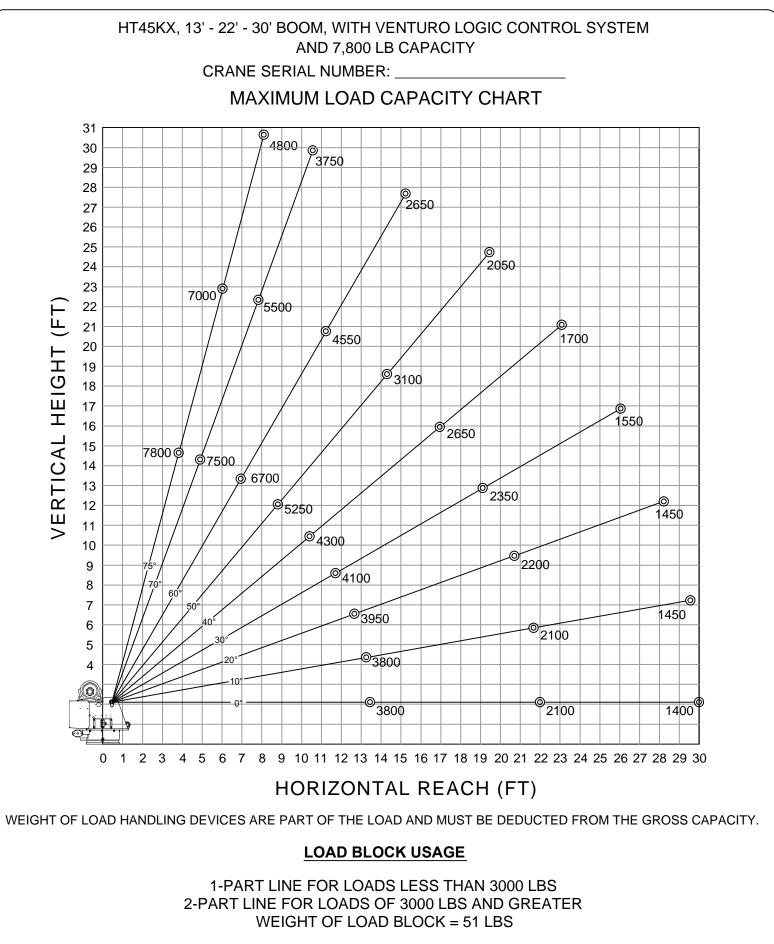
SECTION 100

DESCRIPTION & SPECIFICATIONS









	MAXIMUM LOAD CAPACITY	DATE 07-08-22C	SECTION C100
ENTURO Venco ven loro industries LLC cincinnati, ohio	HT45KX-30', VLC, 7,800 LB CAP.	SUPERSEDES 05-02-22B	24162

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

	O VENTURO INDUSTRIES LLC	HAZARD APPS & INFO	^{DATE} 02-21-14M	section C150
CINCINNATI, OHI	CINCINNATI, OHIO	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.

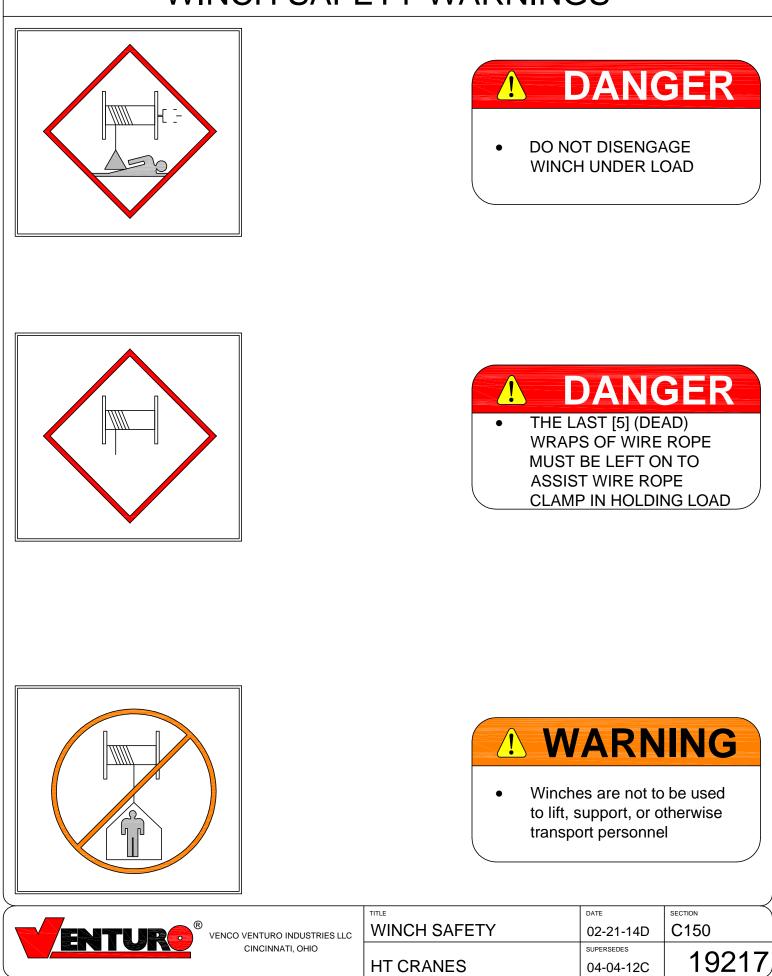
ELECTROCUTION HAZARD

- 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 HT40/50/60/66 SERIES	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

тг

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.



HT45KX /ENTUR

PART NO.: 28525

DECAL: MODEL HT45KX

FUNCTION: Branding.

QUANTITY: 2

PLACEMENT: Boom.

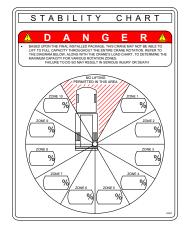
PART NO.: 20927

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.



	DECAL DRAWING & LIST	DATE 06-19-23	SECTION C150	
CINCINNATI, OHIO	HT45KX	SUPERSEDES	28526)

		LEFT SIDE OF BOOM	RIGHT SIDE OF BOOM
PART NO.:	24171 & 24172		
DECAL:	HT45-30' CRANE CAPACITY (VLC)		400 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FUNCTION:	To show the operator the operating capacities of the crane	LOAD BLOCK FOR LOADS 3000 LBS, AND GREATER 0 10° 20° 30° 40° 40° 40°	LOADBLOCK 1 1940
QUANTITY:	1 each	BOOM EXTENSION LENGTH 30 FT 1400 1450 1450	*1770 4360 200 2100 13 FT 1650 1450 1400 30 FT BOOM EXTENSION ENSTH
PLACEMENT:	Right side of boom, Left side of		
	boom	24171	24172
		LEFT SIDE OF BOOM	RIGHT SIDE OF BOOM
PART NO.: 2	3464 & 23465		
DECAL: H	IT45-25' CRANE CAPACITY (VLC)	(23465 HT45KX-25 VLC) (HT45KX-25 VLC) (HT45KX-	23464 17, 28, 00 10, 00 10, 10 10,
	o show the operator the operating apacities of the crane	NOTE USE LOAD BLOCK FOR LOADS 30000 LBS. AND GREATER 0° 10° 20° 30° 40° 40° 40° 40° 40° 40° 40° 40° 40° 4	NOTE Use 0
QUANTITY: 1	each	BOOM EXTENSION LENGTH 25 FT 1500 1525 1550 1500 1525 1550 1550 1550	12 FT 800 1550 1550 1550 1550 1555 155 1555 1
PLACEMENT: R	Right side of boom, Left side of boom		
		23465	23464
		LEFT SIDE OF BOOM	RIGHT SIDE OF BOOM
PART NO.: 2	3462 & 23463	23463	23462
DECAL: H	IT45-20' CRANE CAPACITY (VLC)	HT45KX-20 VLC	780 - 78 - 18 - 18 - 18 - 18 - 18 - 18 - 18
	o show the operator the operating apacities of the crane	LOAD BLOCK FOR LOADS 3000 LBS. AND GREATER COM or So	Star Star NCLE USE Star Sta
QUANTITY: 1	each	ВООМ EXTENSION LENGTH 20 FT 2250 2850 2450 2400 2450 2400 2450 2400 2450 245	2850 2800 2700 16 FT 2850 2800 2700 16 FT 2850 2250 2250 20 FT
PLACEMENT: R	Right side of boom, Left side of boom		
		23463	23462
SΡΑ	CE INTENTI	ONALLY LEF	T BLANK
	RURCO VENTURO INDUSTRIES L CINCINNATI, OHIO		LS 06-29-21D C150

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 HT45KX 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 HT45KX is 45,000 ft. lbs.

The maximum vertical loads for the HT45KX are listed based on the boom length:

HT45KX VLC				
BOOM LENGTH (FT) 20' 25' 30'				
MAX VERTICAL LOAD (LBS)	9400	9850	10050	

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" dia. with coarse threads, torqued to 680 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

CINCINNATI.



	TITLE	DATE	SECTION
DUSTRIES LLC	CRANE INSTALLATION	05-23-23	C200
, OHIO		SUPERSEDES	26900
	HT45KX VLC SERIES	-	20900

CRANE INSTALLATION, PAGE 2 HT45/55 VLC SERIES CRANES

ELECTRICAL CONNECTIONS

An 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 electrical power lead. For added protection, the electrical power 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	HT45/55 SERIES
PRESSURE	5/8"
RETURN	3/4"
SUCTION	1-1/4"

RESERVOIR

The PTO reservoir should have a capacity of 25 gallons fitted with 100 mesh suction screen, 10 micron return line filter, and filler/breather cap.

▲ PTO PUMP

The PTO and pump should be sized to deliver approximately 12.0 GPM at 3000 psi for the HT45/55 VLC series cranes.

PTO START-UP

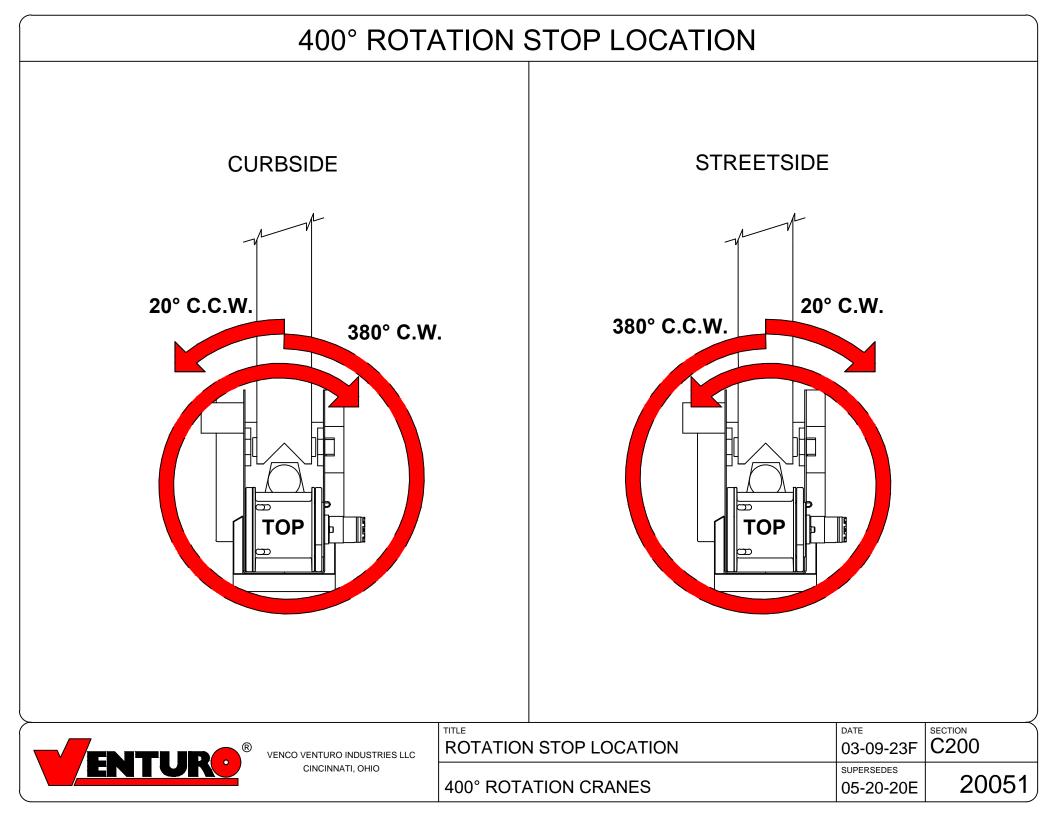
Before connecting the PTO system to the crane pressure and return hoses, connect the PTO pressure and return lines together at the bulkhead. Operate the PTO system for about two (2) minutes per gallon of reservoir capacity (25 gallon reservoir = 50 minutes) to flush out the lines and filter all the fluid 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.



:		^{date} 08-08-23C	section C200
	HT45/55 VLC SERIES	supersedes 05-10-21B	23752



STABILITY TEST - HT45-30' 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>1647 lbs</u>, (includes load block weight of <u>51</u> lbs.) to a *maximum of* 1750 *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 occur:
 - 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 "*Max Stable Reach in inches"* is measured from the *center of rotation* of the crane housing to the *lifting load hook.*

"Max Stable Reach" in inches"

% Rated Capacity =

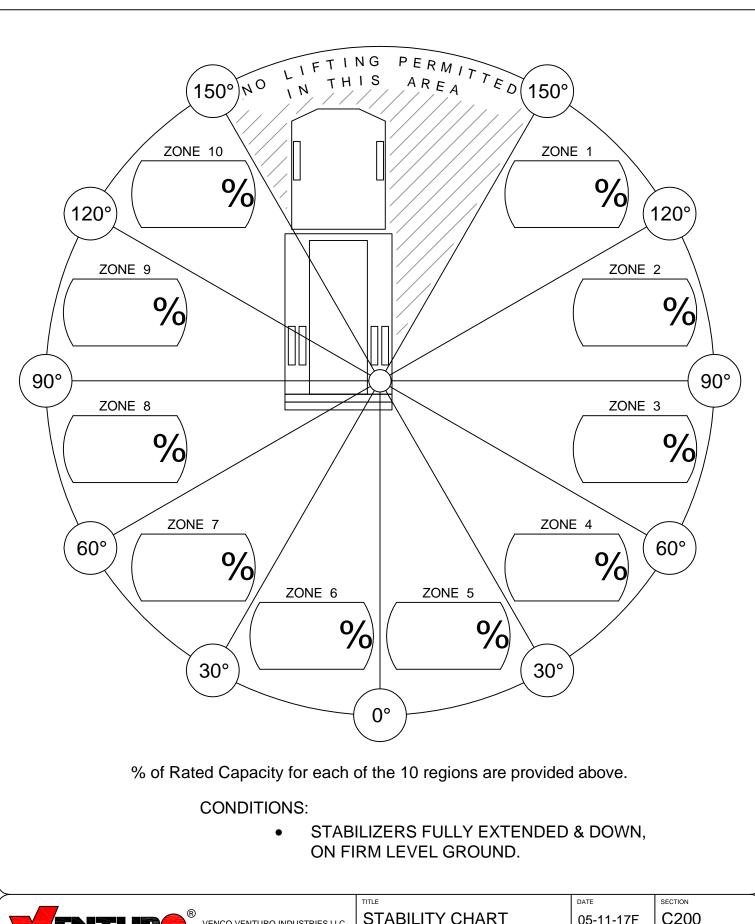
X 100

362

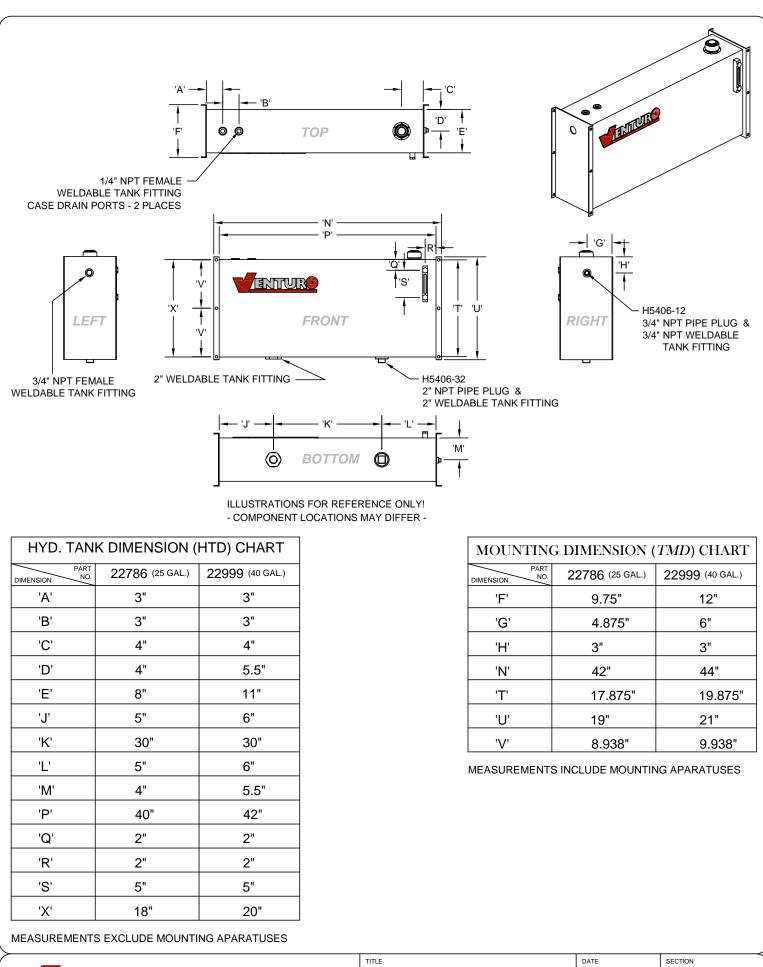
- 12. Record the <u>% of Rated Capacity</u> in the appropriate blank (region) on the Crane Stability page (ref. 20907) and decal.
- 13. Repeat Steps 7 through 12 for each ZONE on the stability page.

	STABILITY TEST	^{DATE} 06-07-24D	SECTION C200
ENTUR CINCINNATI, OHIO	HT45-30' VLC SERIES	SUPERSEDES 02-23-23C	20906-4530

CRANE STABILITY

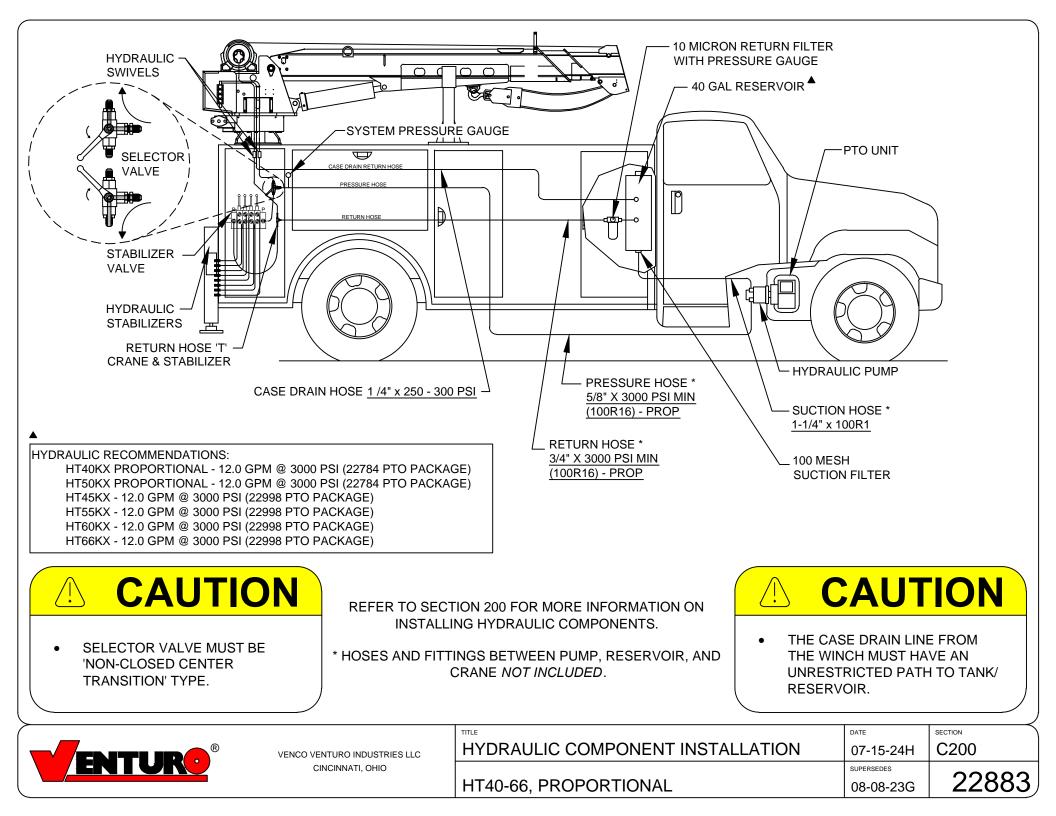


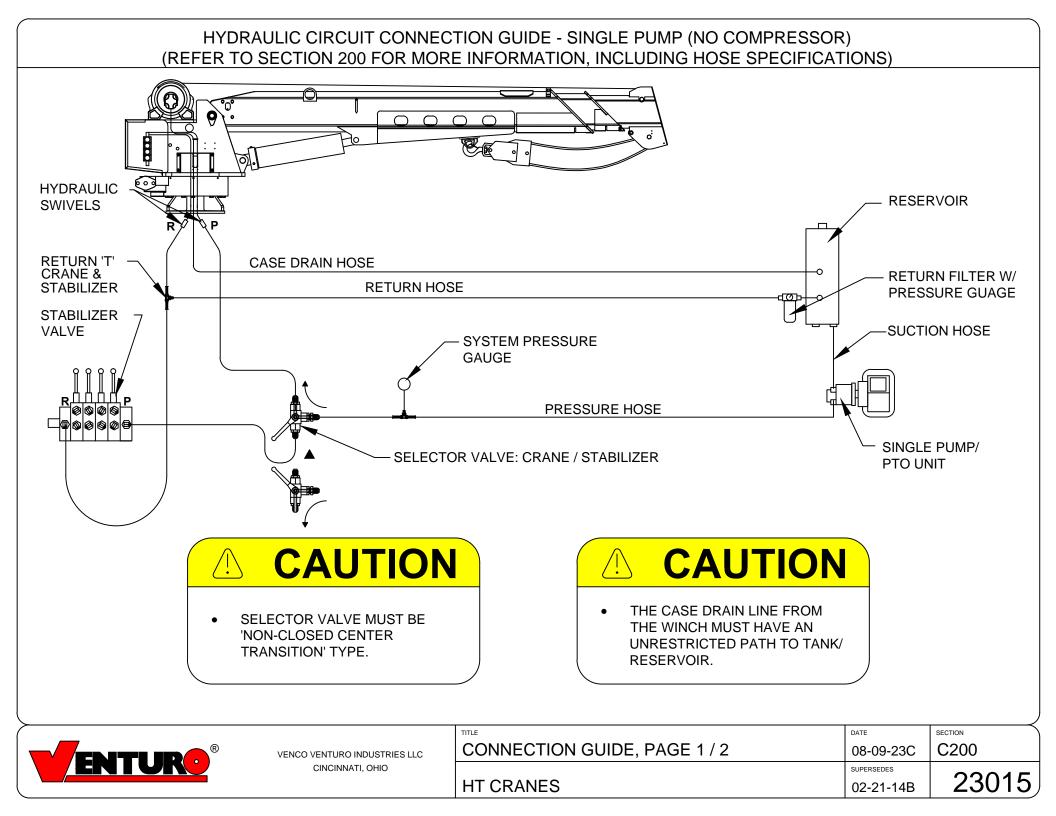
VENCO VENTURO INDUSTRIES LLC	STABILITY CHART	05-11-17F	C200
CINCINNATI, OHIO	VENTURO CRANES	SUPERSEDES	20907
	VENTURO CRAINES	02-21-14E	20001

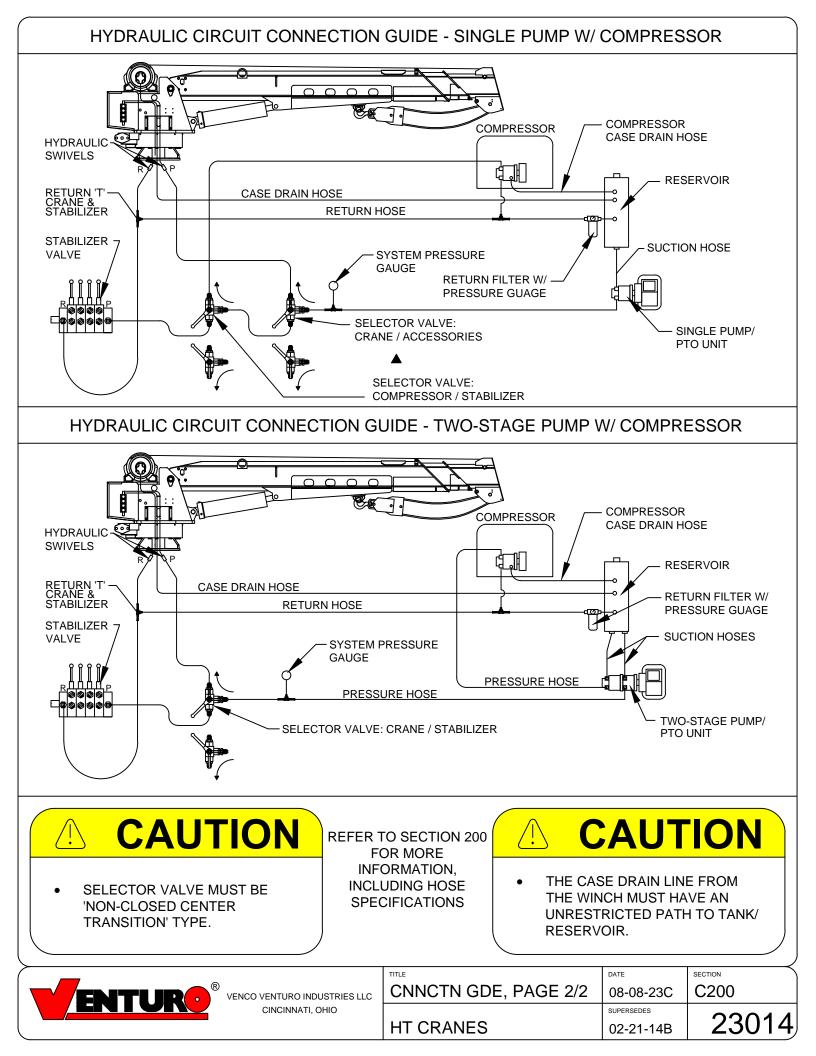


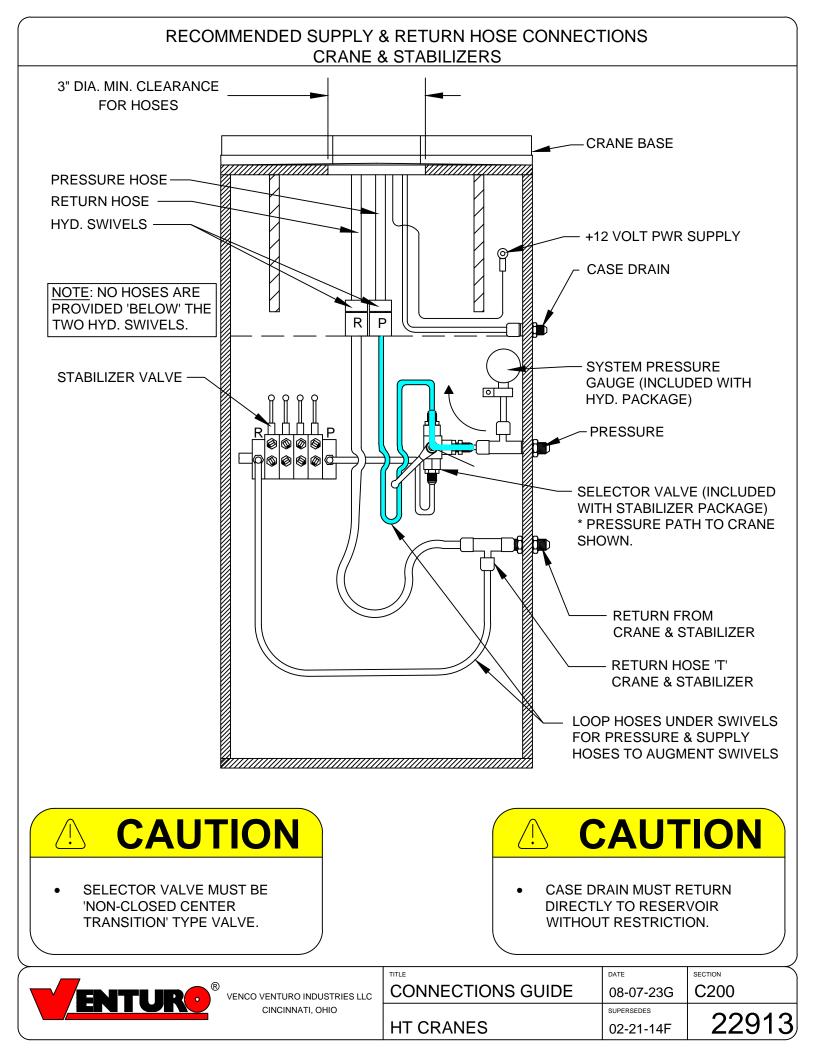
<u>entur</u> ®®	V

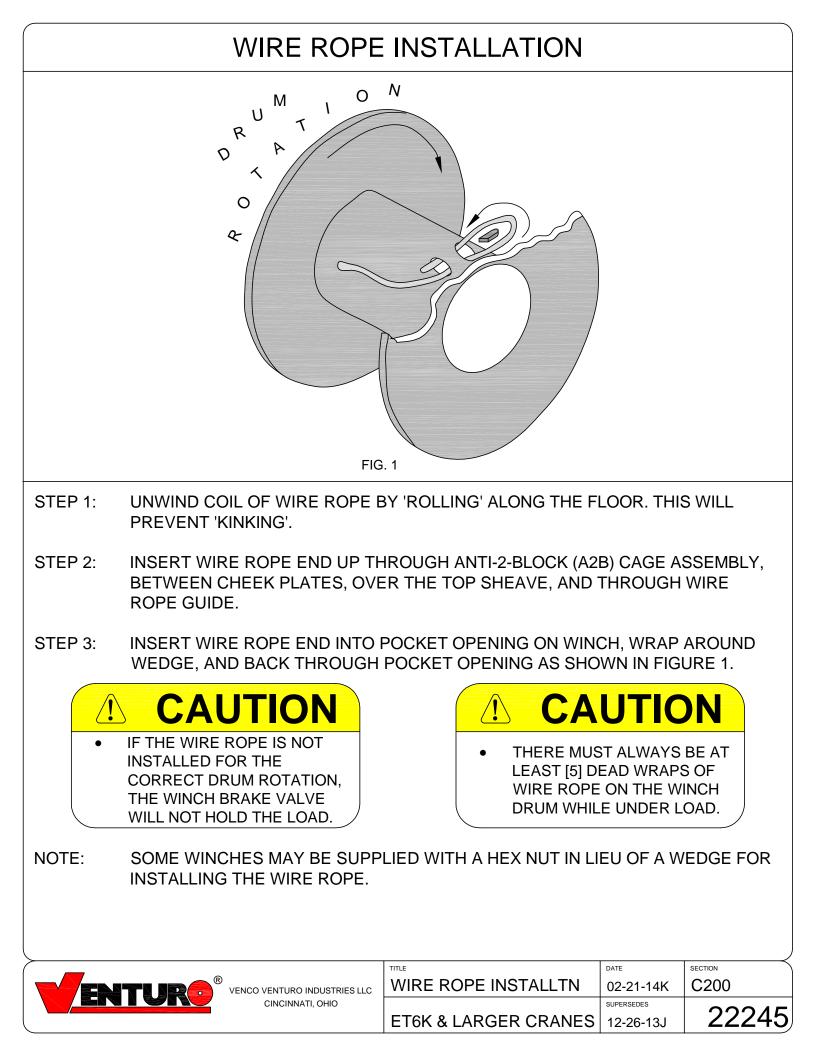
APPROVENTURO INDUSTRIES LLC CINCINNATI, OHIO RESERVOIR DIMENSIONS 02-21-14E C200 HYD. TANKS (25/40 GAL.) 06-04-13D 22825











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 HT 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 Varies the flow rate delivered to the crane valve. The farther the trigger is pulled, the faster the selected crane function operates.

VLC OVERLOAD SENSING SYSTEM

This crane is equipped with the Venturo Logic Control (VLC) 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.



CRANE OPERATION AND MAINTENANCE INSTRUCTIONS, PAGE 3

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

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

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 or 3 zerk fittings depending on component supplier) Swing bearing race (2 zerk fittings) Elevation cylinder base and rod pivots

Remove rear cover and check all hydraulic tube and hose fittings for tightness.

Check electrical connections for looseness and corrosion.

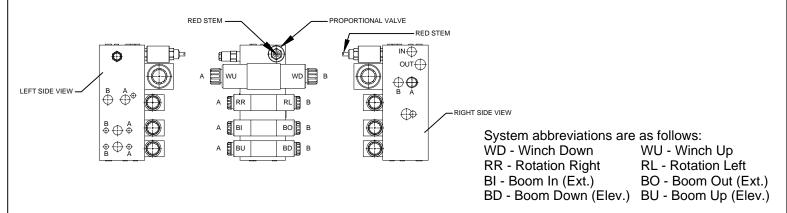
	CRANE OP / MNTNC INST	DATE 06-18-24B	section C200	
CINCINNATI, OHIO	HT40/45/50	supersedes 06-12-24A	23755	

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

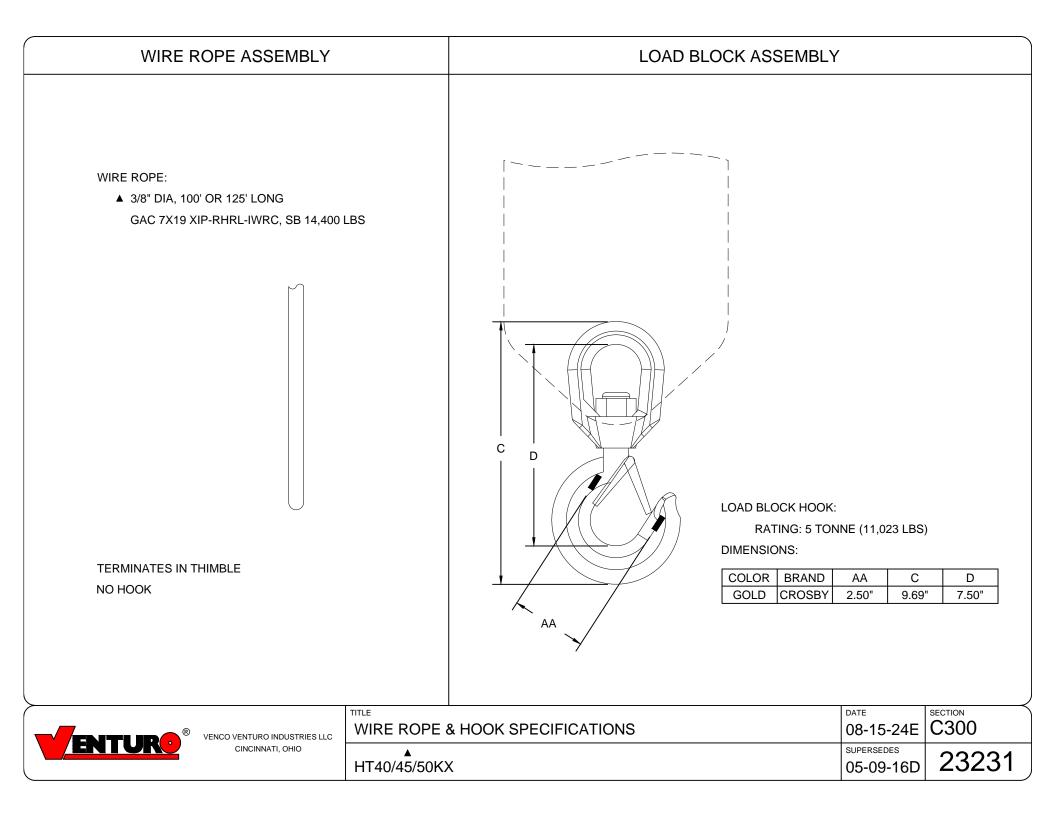
pushing the stem labeled 'A' on the first bank (refer to illustration) will actuate winch up

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

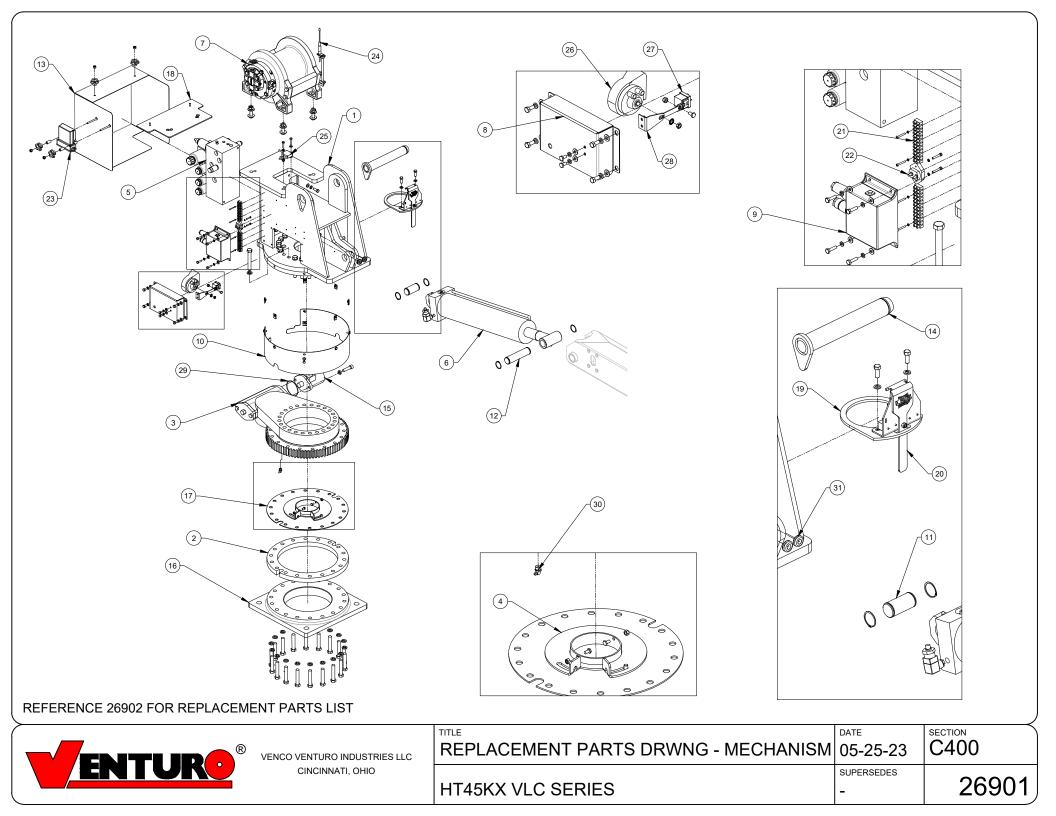


SECTION 400

REPLACEMENT PARTS



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO



REPLACEMENT PARTS LIST - HT45KX VLC SERIES; MECHANISM

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	26600	W ELDED ASSEMBLY; HOUSING, MECHANISM
2	1	23662	SPACER PLATE
3	1	22704	SLEW ING RING
4	1	24920	STOP DISK
5	1	22736H	HYDRAULIC VALVE MANIFOLD
6	1	21747	ELEVATION CYLINDER
7	1	22829	HYDRAULIC WINCH
8	2	22715-1	HOUSING SIDE COVER
9*	1	23720-RX	RECEIVER; ESCAN, 2.4GHz
10	1	23644	SLEWING RING COVER
11	1	22256	ELEVATION CYLINDER PIN - INBOARD
12	1	22257	ELEVATION CYLINDER PIN - OUTBOARD
13	1	22842	REAR COVER
14	1	22721	PIVOT PIN - MAIN BOOM PIVOT
15	1	19177	HYDRAULIC ROTATION MOTOR
16	1	26606	MACHINED BASE
17	1	23626	SLIPPER PLATE W ELD
18	1	28319	REAR COVER MOUNTING PLATE WELDEMENT
19	1	23680	Housing water dam
20	1	28474	ELECTRIC ROTATION STOP ASSEMBLY

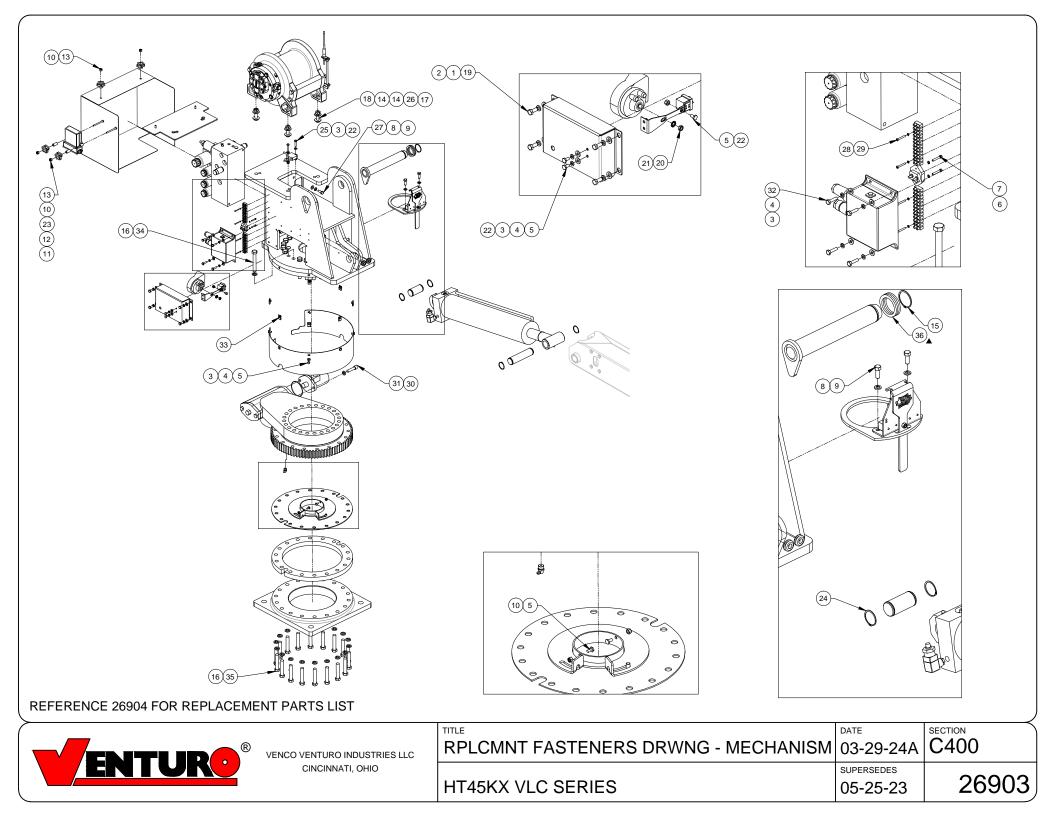
ITEM	QTY.	PART NUMBER	DESCRIPTION
21	2	19187-12	TERMINAL STRIP; 12 SECTIONS
22	1	15683-20A	CIRCUIT BREAKER; 20A
23*	1	23720-VCM	VALVE CONTROL MODULE
24	1	28450	REMOTE ANTENNA
25*	1	23720-INC	UNIVERSAL INCLINOMETER
26	1	21948	HORN
27	1	22739	HIGH CAPACITY RELAY
28	1	22000	BRACKET; HORN
29	1	OR-152-5	O-RING; ROTATION MOTOR
30	1	IZERK-013-27 NPT-90	FITTING; GREASE, 90°
31	2	14775	GROMMET - RUBBER
32	-		
33	2		
34	-		
35	-		
36	-		
37	2		
38	-		
39	-		
40	-		

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

REFERENCE 26901 FOR REPLACEMENT PARTS DRAWING



REPLACEMENT PARTS LIST - MECHANISM	^{DATE} 11-11-24A	section C400
HT45KX VLC SERIES	SUPERSEDES 05-25-23	26902



REPLACEMENT PARTS LIST - HT45KX 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-#08S	lock washer; #8, s/s
7	2	ISHCS#0832100S	SHCS; #8-32 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	4	28327	KNOB, HAND, 5-POINT
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-050	FLAT WASHER; 1/2", GR. 8
15	1	!SRNG-175	snap ring; 1-3/4", zinc-pltd
16	40	!LW SH-063	Lock Washer; 5/8", gr. 5, zinc
17	4	!HNUT-05013-8	HEX NUT; 1/2-13, GR. 8
18	2	!HHC\$05013225-8	HHCS; 1/2-13 X 2-1/4" 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	!LNUT-02520SS	NYLOCK HEX NUT 1/4-20
23	2	28328	NYLON SPACER, BLK25"IDX.50"ODX1"LG
24	4	!SRNG-150	SNAP RING; 1-1/2", ZINC-PLTD
25	2	!HHC\$02520125\$	HHCS; 1/4-20 X 1-1/4", S/S
26	4	!LW SH-050	LOCK WASHER; 1/2", 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	!LW SH-050-HC	Lock Washer; 1/2", hi-collar
31	2	!SHC\$05013200	Socket head cap screw - 1/2-13 X 2 LG
32	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 4.5" LG, GR. 5, ZINC
35	20	!HHC\$06311350	HHCS; 5/8-11 x 3.5" LG, GR. 8, ZINC
36	2	26609	SHIM - STAINLESS STEEL
37			
38			
39	-		
40	-		

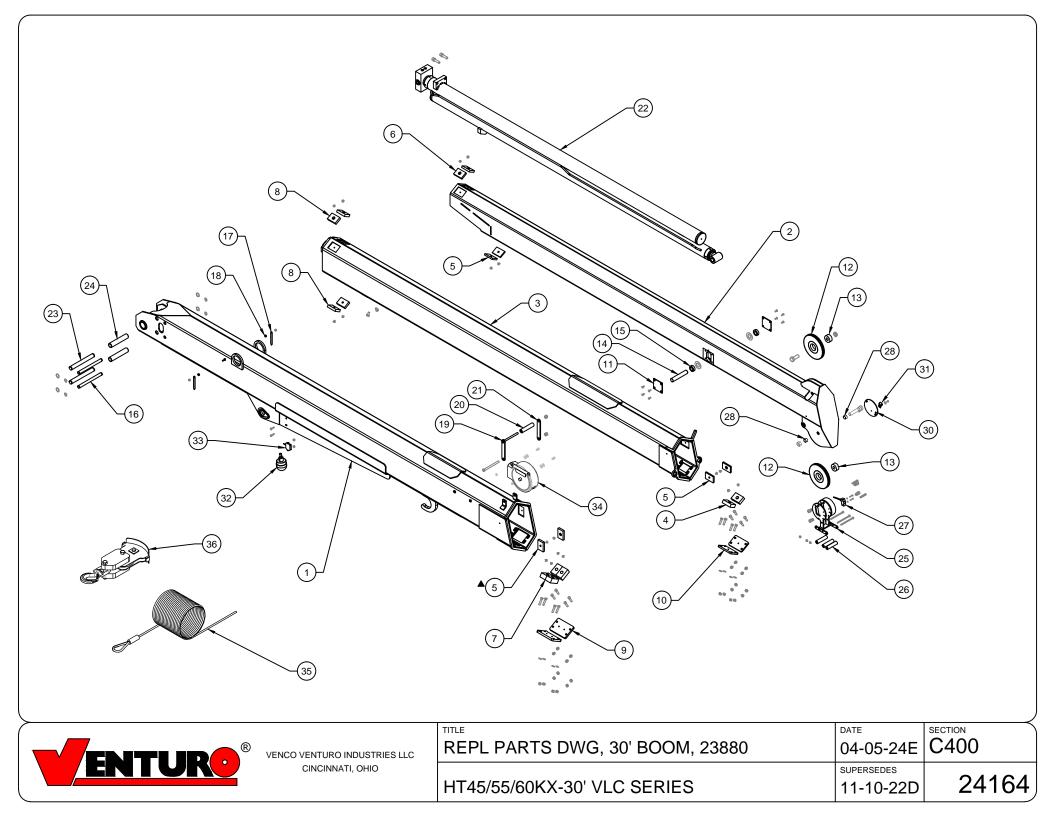
HHCS = HEX HEAD CAP SCREW, SHCS = SOCKET HEAD CAP SCREW, PMS = PAN MACHINE SCREW, S/S = STAINLESS STEEL

REFERENCE 26903 FOR REPLACEMENT PARTS DRAWING



TITLE

SECTION C400 03-29-24A 26904



REPLACEMENT PART LIST, 30' BOOM 23880

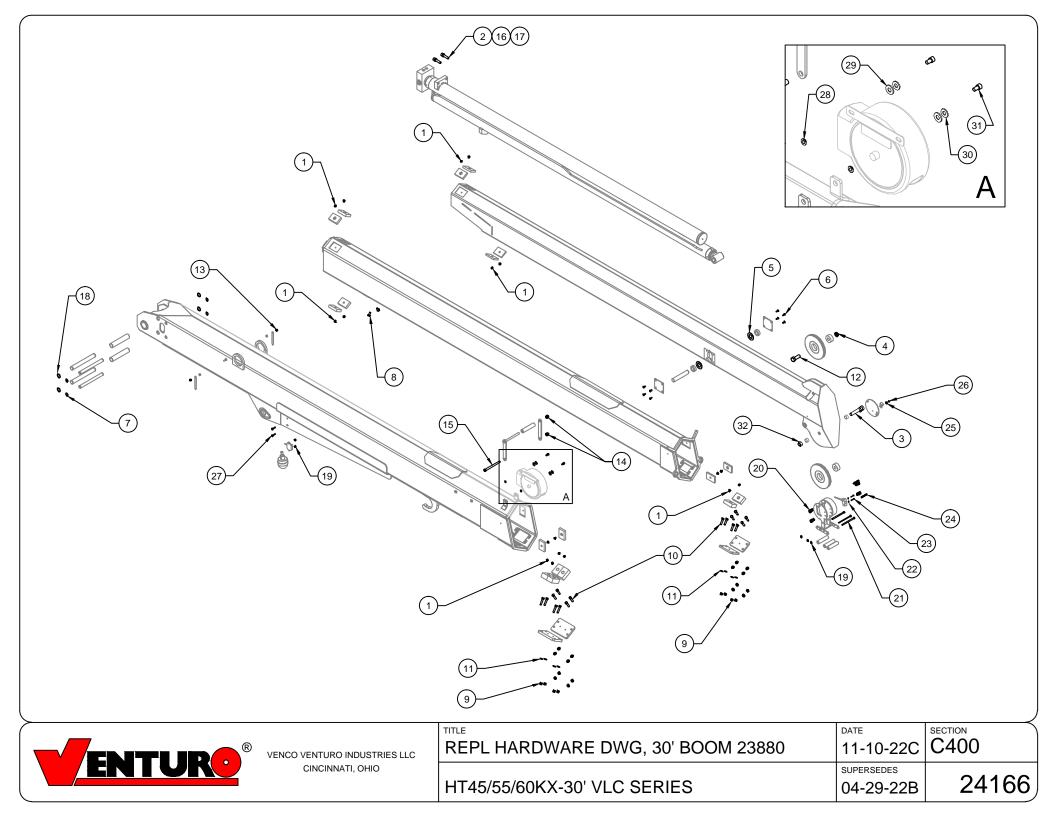
	ITEM NO.	PART NO.	QTY	DESCRIPTION
	1	23881	1	PRIMARY BOOM WELDMENT
	2	23882	1	SECONDARY BOOM WELDMENT
ſ	3	23883	1	TERTIARY BOOM WELDMENT
	4	23631-7	2	BOOM PAD; 0.88" THICK
.[5	23631-3	6	BOOM PAD; 0.38" THICK
\ [6	23631-4	2	BOOM PAD; 0.50" THICK
ſ	7	23631-10	4	BOOM PAD; 1.25" THICK
ſ	8	23631-5	4	BOOM PAD; 0.63" THICK
Ī	9	23677	2	COVER PLATE; PRIM. ADJ. PAD
ſ	10	23678	2	COVER PLATE; SEC. ADJ. PAD
ľ	11	23116	2	PIN BLOCK; REINFORCING
ľ	12	23928	2	BOOM SHEAVE W/ BUSHING
ľ	13	23929	2	SPACER; 23927 & 23928 POLY SHEAVES
ľ	14	23906	1	PIN; PIVOT, ROD END, EXT. CYLINDER
ľ	15	21428	2	BUSHING
ľ	16	23904	2	EXTENSION CYLINDER 0.75" THRUST PIN
ľ	17	13459	2	ARROW
ľ	18	22490	2	SPACER; BOOM ARROW
ľ	19	21935	1	WIRE ROPE GUIDE; WELDMENT
ľ	20	21560	1	WIRE ROPE GUIDE; UMHW ROLLER
ľ	21	21936	1	WIRE ROPE GUIDE; FLAT, MOUNT
ľ	22	23875	1	EXTENSION CYLINDER
ľ	23	23905	2	EXTENSION CYLINDER 1" THRUST PIN
ŀ	24		2	THRUST ROLLER
ľ	25	27468	1	COMPACT A2B; HOUSING, WELDMENT
ľ	26	27475	3	COMPACT A2B; ROLLER
ŀ	27	19376	1	ANTI TWO BLOCK SWITCH
ŀ	28	27476-1	2	SPACER/PIVOT; COMPACT A2B
ŀ	29	-		-
	30	27473	1	COMPACT A2B; COVER PLATE
ŀ	31	19269	1	CABLE CLAMP; 1/4"
ŀ	32	23438	1	TRI-COLOR WARNING LIGHT
ł	33	23720	1	INCLINOMETER
ŀ	34	28190	1	COMPLETE CORD REEL
ŀ		17094-3/8-125	1	WIRE ROPE; 125 FT, NO HOOK (HT45/55)
	35	24916-3/8-125	1	WIRE ROPE; 125 FT, HIGH STR (HT60)
ŀ		17949-2		LOAD BLOCK ASSEMBLY (HT45)
	36*	17949-3	_	LOAD BLOCK ASSEMBLY (HT45)
	50	17949-5	_	LOAD BLOCK ASSEMBLY (HTSS)



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO
 TITLE
 DATE
 SECTION

 REPL PART LIST, BOOM 23880
 04-05-24G
 C400

 HT45/55/60KX-30' VLC SERIES
 09-07-23F
 24165



RPLCMNT H/W LIST, 30' BOOM 23880

ITEM NO.	PART NO.	QTY.	DESCRIPTION			
1	!THCS02520038	18	THCS; 1/4-20 x 3/8" LG, S/S			
2	14159	1	SHIM КІТ			
3	28362	1	ASSY, WELDED, CAM & HHCS CA2B CUT-OUT			
4	!LNUT-07510	1	LOCK NUT; 3/4-10, NYLON, ZINC			
5	!FWSH-100SAE	2	FLAT WASHER; 1" SAE			
6	!CACS02520050S	8	CACS; 1/4-20 x 1/2" LG, S/S			
7	!SRNG-075	4	SNAP RING; 3/4"			
8	!HHCS03816075	2	HHCS; 3/8-16 X 3/4", GR.5			
9	!LNUT-03816	16	LOCK NUT; 3/8-16, GR. 5, ZINC			
10	!HHCS03816175	16	HHCS; 3/8-16 x 1-3/4" LG, GR. 5, ZINC			
11	!FWSH-038	16	FLAT WASHER; 3/8", ZINC			
12	!HHCS07510350	1	HHCS; 3/4-10 x 3-1/2" LG, GR. 5, ZINC			
13	!ANUT-02520S	2	ACORN NUT; 1/4-20, S/S			
14	!LNUT-04414	2	LOCK NUT; 7/16-14, NYLON INSERT			
15	!HHCS04414550	1	HHCS; 7/16-14 x 5-1/2", GR. 5, ZINC			
16	!SHCS05013200	2	SHCS; 1/2-13 x 2"			
17	LWSH-050-HC	2	LOCK WASHER; 1/2, GR. 5, ZINC, HI-COLLAR			
18	!SRNG-100	3	SNAP RING; 1"			
19	!LNUT-02520NS	2	LOCK NUT; 1/4-20, NYLON, S/S			
20	27467	4	SHCS; 1/2-13 x 3/4" LG, BLK NYLON			
21	HHCS02520450	3	HHCS; 1/4-20 x 4-1/2" LG, GR. 5, ZINC			
22	!LWSH-#06S	2	LOCK WASHER; #06, S/S			
23	!PHPMS#0632100S	2	PHILIPS-HD PMS; 6-32 x 1", S/S			
24	!SHCS02520175S	2	SHCS; 1/4-20 x 1-3/4", S/S			
25	!FWSH-025S	1	FLAT WASHER; 1/4", S/S			
26	!SHPMS#1032038S	1	SLOT-HD PMS; 10-32 x 3/8", S/S			
27	!HHCS02520100S	2	HHCS; 1/4-20 x 1", S/S			
28	28198	2	INSULATING SLEEVE WASHER - 5/16"			
29	01016	2	FIBER WASHER			
30	!FWSH-031	2	FLAT WASHER; 5/16"			
31	!SHCS03118063S	2	SHCS; 5/16-18 X 5/8" LG, S/S			
32	!JNUT-07510N	1	JAM NUT; 3/4-10, GR. 5			



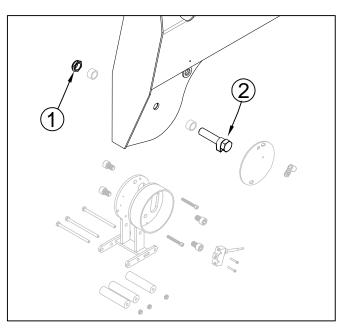
) VENTURO INDUSTRIES LLC	REPL HW LIST, BOOM 23880	DATE 11-10-22C	C400
CINCINNATI, OHIO	HT45/55/60KX-30' VLC SERIES	supersedes 04-29-22B	24167

Compact A2B with Stowage Cut-out, Install/Adjustment Instructions (Kit: 28375)

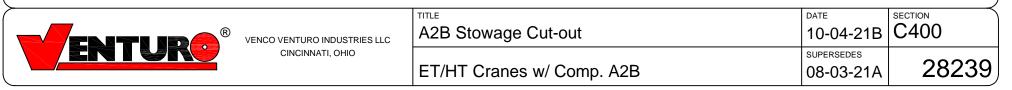
The purpose of the Stowage Cut-out system is to prevent a situation whereby the wire rope is over-tensioned when the load block / wire rope is attached to the stowage hook on the bottom of the primary boom assembly. *However, the OPERATOR is ultimately responsible for ensuring that the wire rope is not 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-07510), 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 28362) 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.

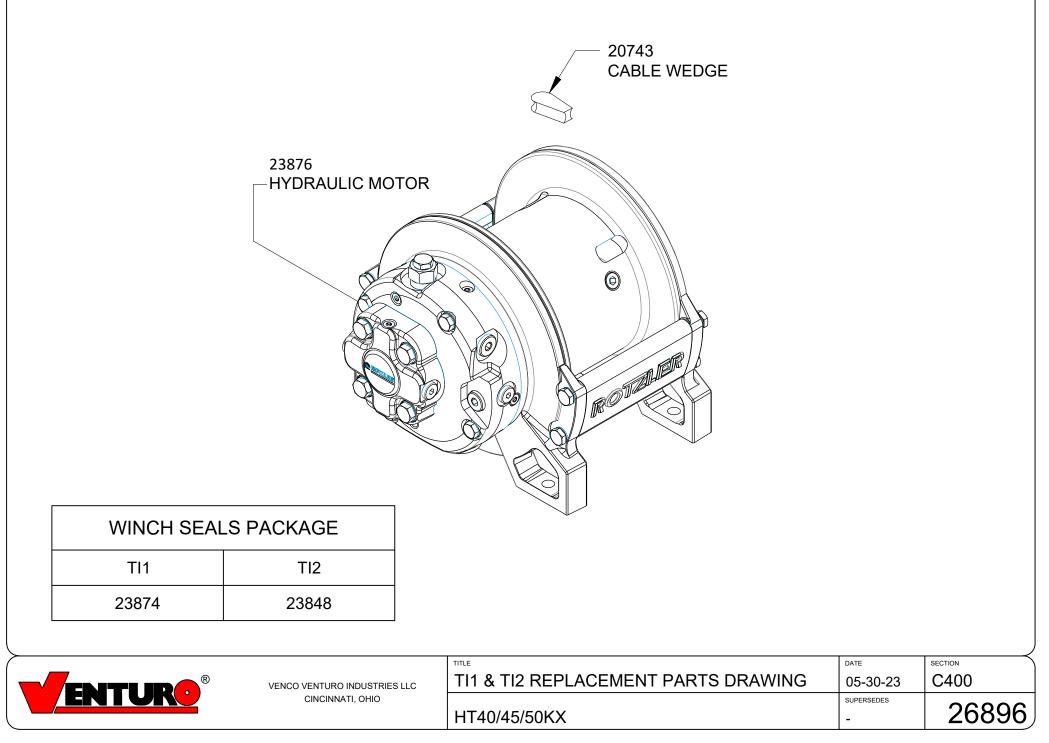
Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124



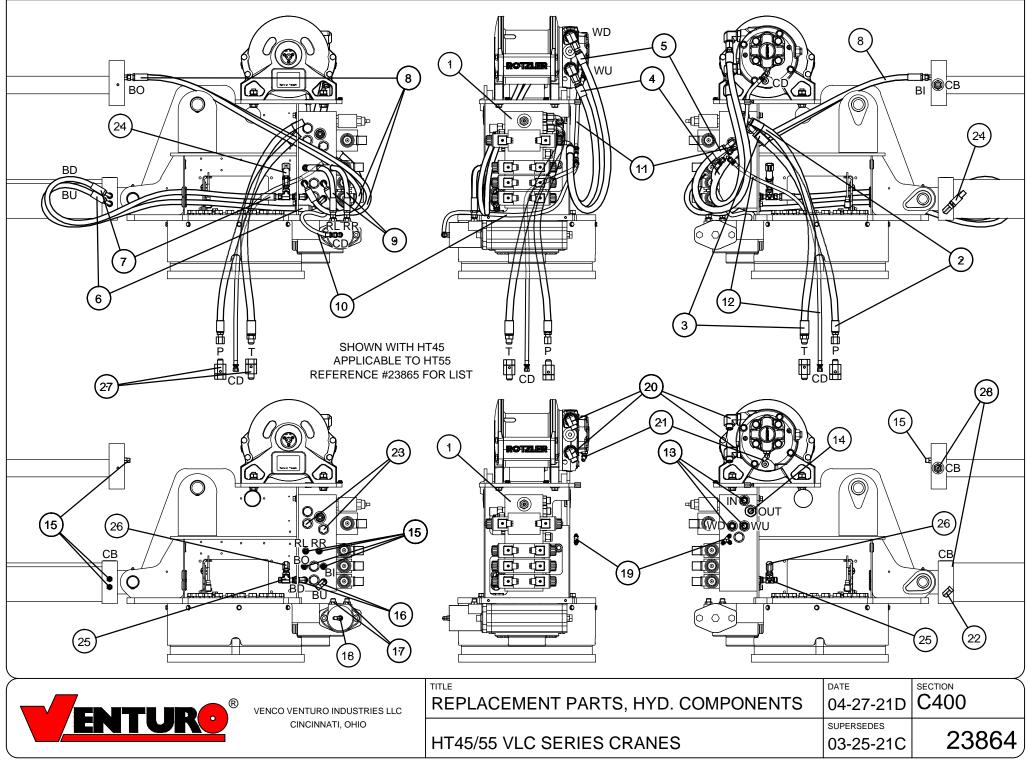




TI1 & TI2 WINCH REPLACEMENT PARTS DRAWING







REPLACEMENT PARTS LIST; HYDRAULIC COMPONENTS

#	DESCRIPTION	QTY	PART NUMBER	APPLICATION
1	VALVE MANIFOLD; PROPORTIONAL, HT40-55KX	1	22736H	REAR OF MECHANISM, INSIDE REAR COVER
2	HOSE ASSEMBLY; PRESSURE SUPPLY	1	23798	RIGHT SIDE VALVE BANK TO COMPARTMENT SIDE
3	HOSE ASSEMBLY; RETURN SUPPLY	1	23799	RIGHT SIDE VALVE BANK TO COMPARTMENT SIDE
4	HOSE ASSEMBLY; WINCH UP	1	27024	RIGHT SIDE VALVE BANK TO WINCH UP PORT
5	HOSE ASSEMBLY; WINCH DOWN	1	27025	RIGHT SIDE VALVE BANK TO WINCH DOWN PORT
6	HOSE ASSEMBLY; BOOM UP	1	27026	LEFT SIDE VALVE BANK TO BOOM UP PORT
7	HOSE ASSEMBLY; BOOM DOWN	1	27027	LEFT SIDE VALVE BANK TO BOOM DOWN PORT
8	HOSE ASSEMBLY; BOOM IN & OUT	2	27592	EXTENSION PORTS TO LEFT SIDE VALVE BANK
9	HOSE ASSEMBLY; ROTATION LEFT & RIGHT	2	27598	LEFT SIDE VALVE BANK TO ROTATION PORTS
10	HOSE ASSEMBLY; WINCH CASE DRAIN	1	22952	ROTATION CASE DRAIN TO T-FITTING JUNCTION
11	HOSE ASSEMBLY; ROTATION CASE DRAIN	1	22953	WINCH CASE DRAIN TO T-FITTING JUNCTION
12	HOSE ASSEMBLY; CASE DRAIN OUT	1	22903	T-FITTING JUNCTION TO COMPARTMENT SIDE
13	FITTING; ADAPTER, STRAIGHT, 80FS-10MO	3	FF6400-0810	RIGHT SIDE VALVE BANK; IN, WU & WD PORTS
14	FITTING; ADAPTER, STRAIGHT, 80FS-12MO	1	FF6400-0812	RIGHT SIDE VALVE BANK, OUT PORT
15	FITTING; ADAPTER, STRAIGHT, 6OFS-6MO	8	FF6400-0606	ELEVATION, EXTENSION, RL, RR, BI & BO PORTS
16	FITTING; ADAPTER, 90° ELBOW, 60FS-6MO	2	FF6801-0606	LEFT SIDE VALVE BANK, BU & BD PORTS
17	FITTING; ADAPTER, STRAIGHT, 6OFS-10MO	2	FF6400-0610	ROTATION RIGHT & LEFT PORTS
18	FITTING; ADAPTER, 90° ELBOW, 4MJ-4MO	1	H6801-0404	ROTATION CASE DRAIN PORT
19	FITTING; ADAPTER, T-SHAPE, 4MJ-4MJ-4MJ	1	H2603-040404	T-FITTING JUNCTION FOR CASE DRAIN HOSES
20	FITTING; ADAPTER, 90° ELBOW, 80FS-12MO BRITISH	2	FF3801-8-12	WINCH UP & DOWN PORTS, ROTZLER TI SERIES
21	FITTING; ADAPTER, 45° ELBOW, 4MJ-4MO BRITISH	1	3802-0404	WINCH CASE DRAIN PORT, ROTZLER TI SERIES
22	FITTING; ADAPTER, 90° ELBOW, 4MO-4FO	1	23733	ELEVATION BASE-END, PRESSURE TRANSDUCER
23	FITTING; PLUG, 10MO	2	H6408-10	LEFT SIDE VALVE BANK, WU & WD PORTS
24	PRESSURE TRANSDUCER; VLC SYSTEM	2	23720-PTD	BASE-END ON EL. CYLINDER, ROD-END INSIDE MECH
25	FITTING; ADAPTER, T-SHAPE, 6MOFS-6FOFS-6MOFS	1	23731	ROD-END OF EL. CYLINDER, INSIDE MECHANISM
26	FITTING; ADAPTER, STRAIGHT, 60FS-4MO	1	23732	T-FITTING FOR ROD-END OF EL. CYLINDER
27	LIVE SWIVEL; CONTINUOUS, STRAIGHT, 6MJ-6FJ	2	22764	PRESSURE & RETURN HOSES, COMPARTMENT SIDE
28	COUNTER-BALANCE VALVE; CBPA, 50/40, 3000 PSI SYS.	2	20893	ELEVATION & EXTENSION CYLINDER VALVE
	Нү	DRAUL	IC FUNCTION KEY	
Р	PRESSURE SUPPLY	RL	ROTATION LEFT	
т	TANK RETURN	RR	ROTATION RIGHT	•
CD	CASE DRAIN	во	BOOM OUT	
IN	PRESSURE IN	ВІ	BOOM IN	
сит	RETURN OUT	BU	BOOM UP	
wu	WINCH UP	BD	BOOM DOWN	
WD	WINCH DOWN	СВ	COUNTER-BALAN	ICE VALVE

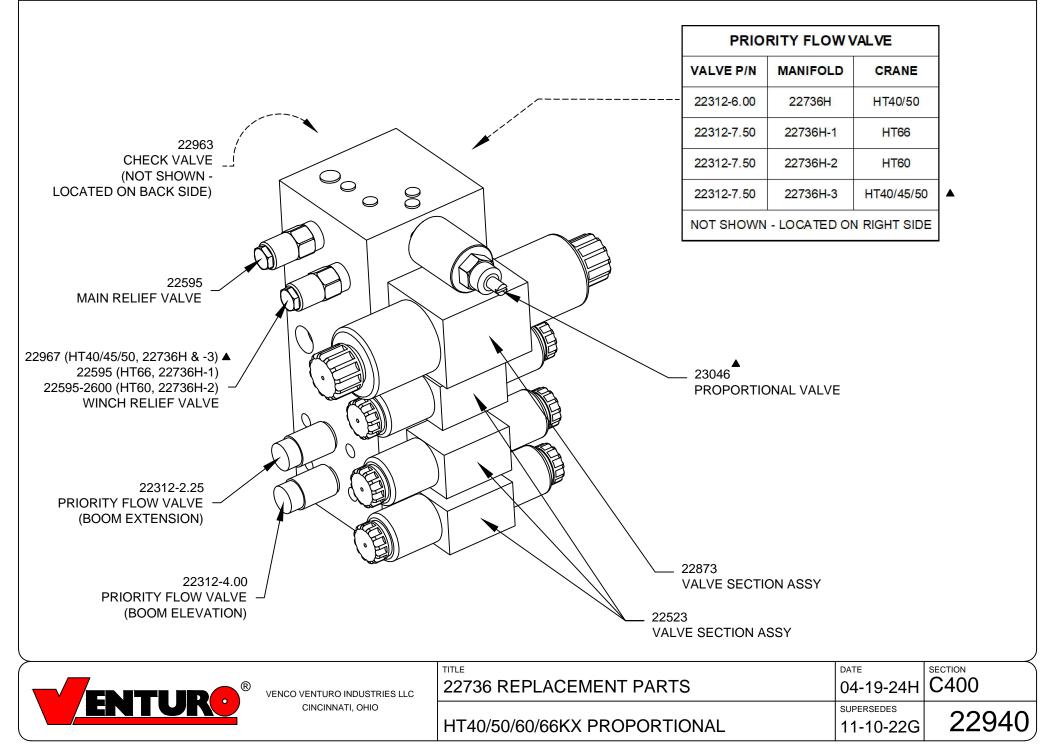


TITLE

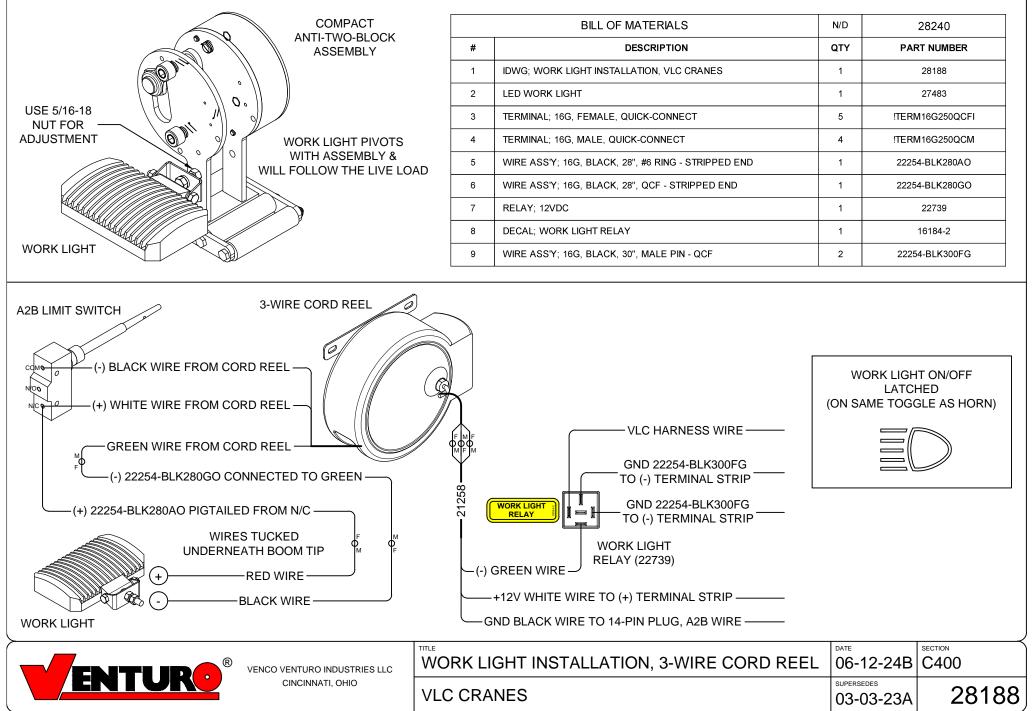
REPLACEMENT PARTS LIST

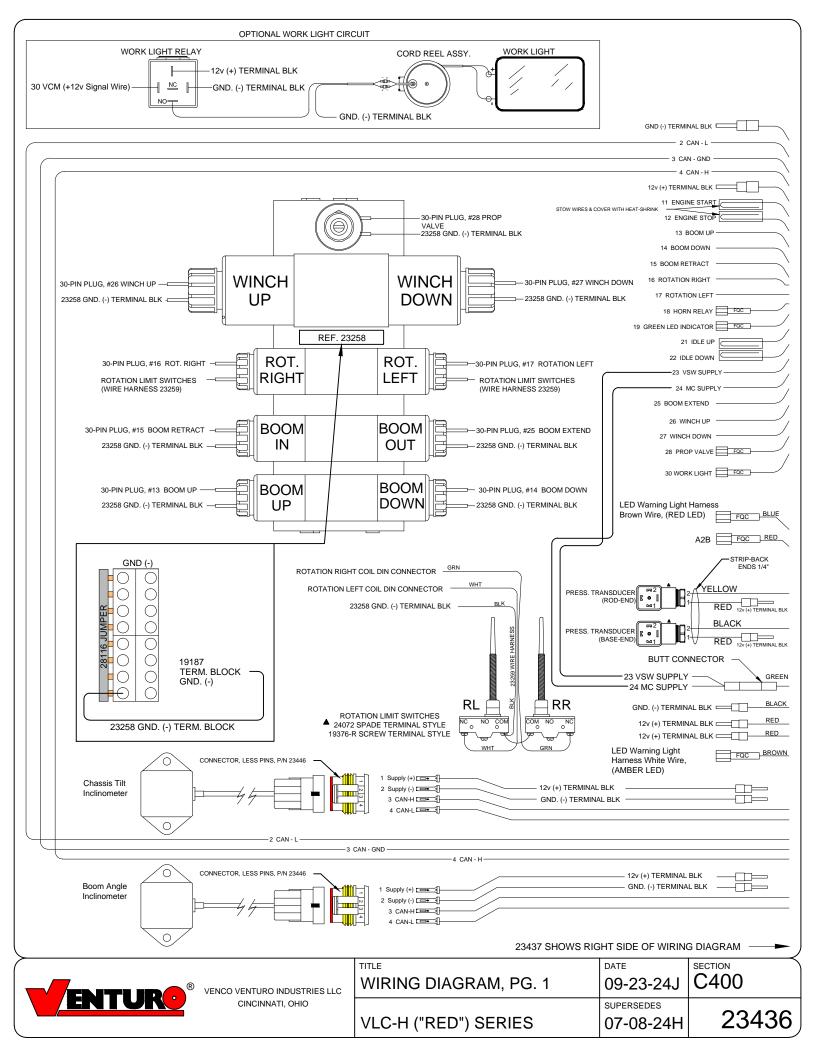
DATE	SECTION
04-27-21E	C400
SUPERSEDES	00005
10-15-20D	23865

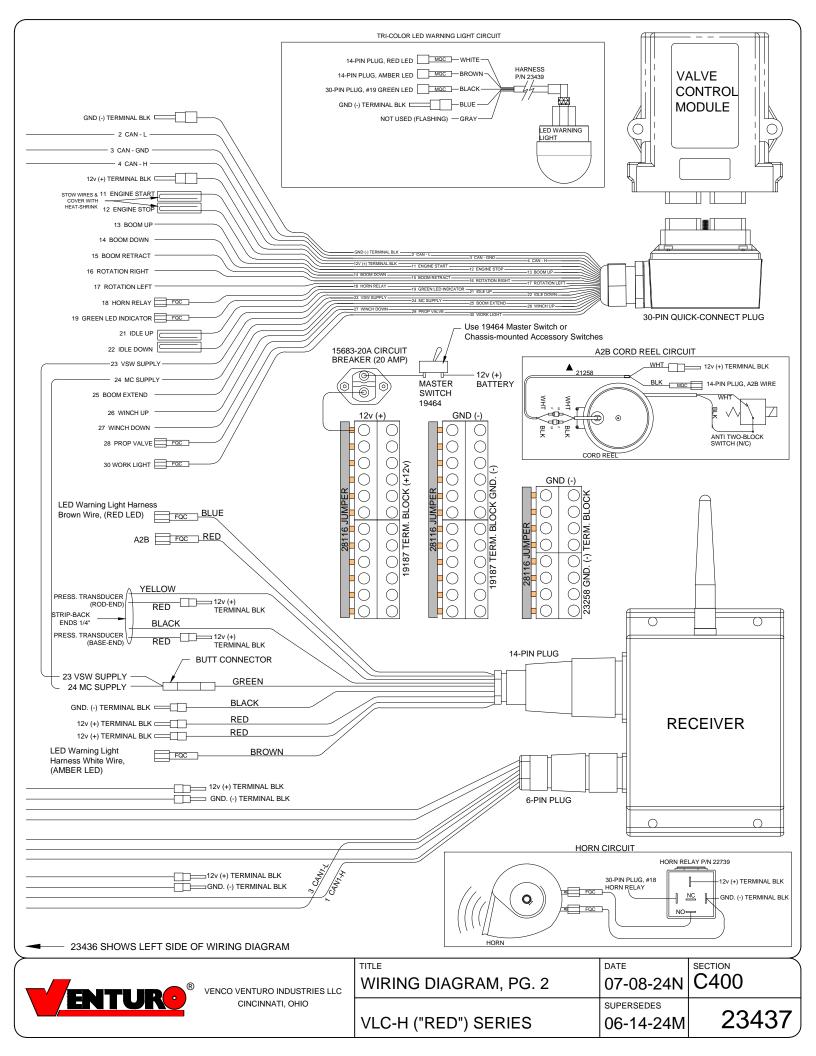
22736 SERIES VALVE MANIFOLD REPLACEMENT PARTS

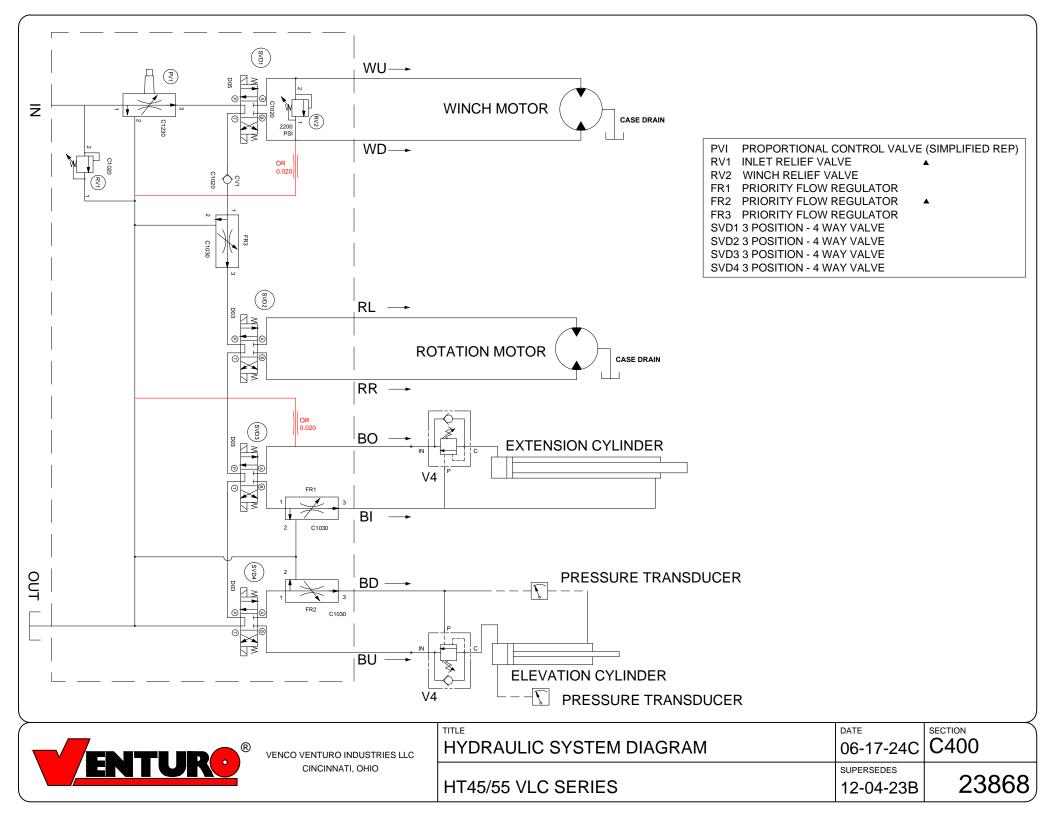


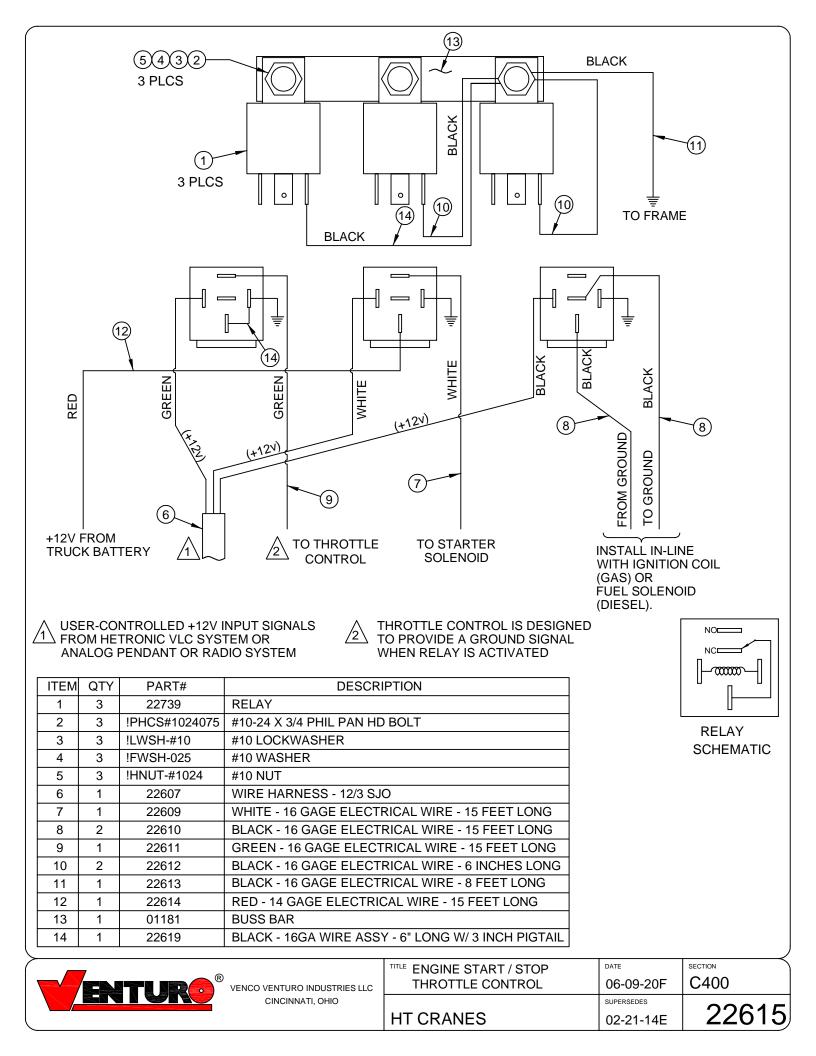
WORK LIGHT INSTALLATION: 28240 (3-WIRE CORD REEL ON VLC CRANES)

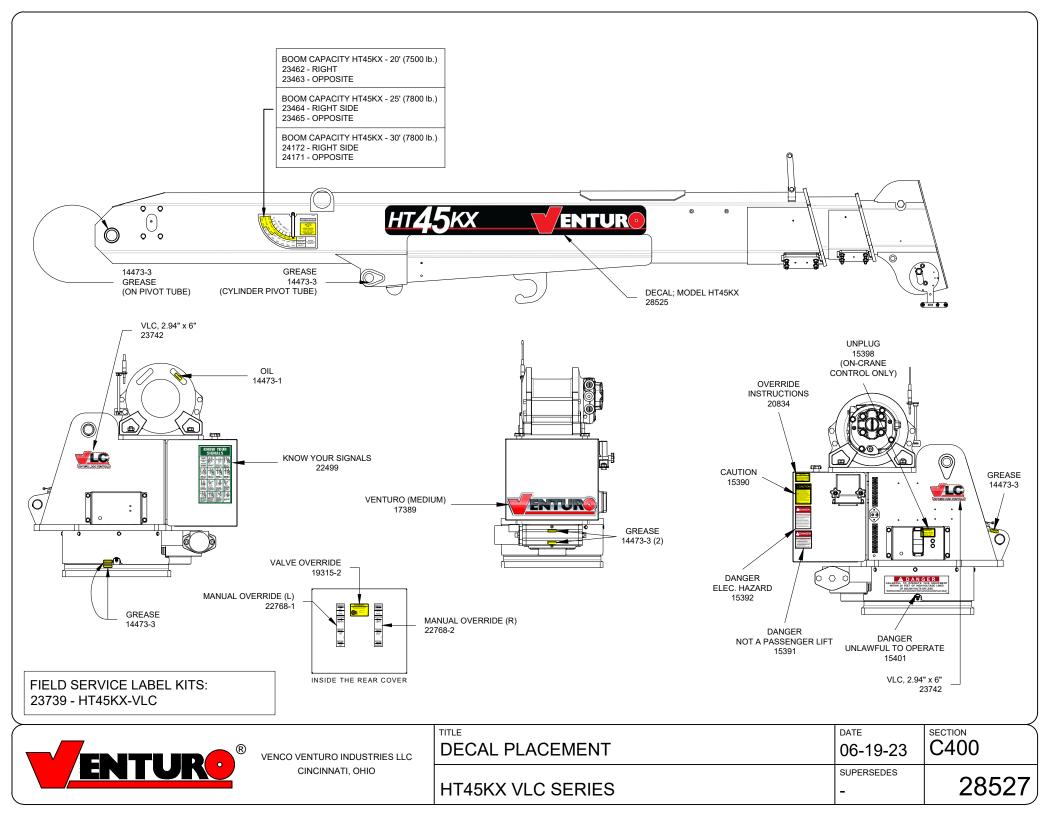












IOUUTION FROM			0			7	5
		10	1	19298	FILTER ASSY,		
		9	1	22789		THER CAP ASSE	MBLY
		8	1	22787	SIGHT GLASS		
		7 6	1 1	!HWHS02520075-F 19275	CLAMP	HEAD 1/4-20 X 3	4 SELF TAPPING
	-	5	1	22730		AUGE ASSEMBLY	/
		4	1	22788		EEN - 100 MESH	
	-	3	1	19297		AUGE - RETURN	
		2	-	-	-		
	. [. 1	1	22785	HYDRAULIC R	ESERVOIR - 25 G	GAL (18" x 40" x 8")
	▲ *	• 1	1	22998			GAL (20" x 42" x 11")
	Г	TEM	QTY	PART NUMBERS	DESCRIPTION	١	
<u></u>						I	
ENTURO [®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		T RE	PL	PARTS		^{дате} 12-09-22D	section C400
CINCINNATI, OHIO	HT CRANES; 25	6/40	GAL	RESERVOIR		SUPERSEDES 08-04-15C	23224

FIELD SERVICE LABEL KITS; HT45 VLC SERIES

	HT45KX									
-20 (20' BOOM)	-25 (25' BOOM)	-30 (30' BOOM)	23739 FIELD SERVICE LABEL KITS							
	QTY		PART #	DESCRIPTION						
1	1	1	16184-1	DECAL; HORN RELAY						
1	1	1	16184-2	DECAL; WORK LIGHT RELAY						
2	2	2	28525	DECAL; MODEL HT45KX						
1	1	1	17389	DECAL; VENTURO LOGO, MEDIUM						
1	1	1	23741	DECAL; VLC MODEL SERIES						
1	-	-	23462	DECAL; BOOM CAPACITY, 10-16-20, RIGHT						
1	-	-	23463	DECAL; BOOM CAPACITY, 10-16-20, LEFT						
-	1	-	23464	DECAL; BOOM CAPACITY, 12-18.5-25, RIGHT						
-	1	-	23465	DECAL; BOOM CAPACITY, 12-18.5-25, LEFT						
-	-	1	24172	DECAL; BOOM CAPACITY, 13.5-22-30, RIGHT						
-	-	1	24171	DECAL; BOOM CAPACITY, 13.5-22-30, LEFT						
1	1	1	14473-1	DECAL; OIL						
8	8	8	14473-3	DECAL; GREASE						
1	1	1	17813	DECAL; OVERLOAD SENSING SYSTEM						
1	1	1	22499	DECAL; KNOW YOUR SIGNALS						
1	1	1	20834	DECAL; MANUAL OVERRIDE, INSTRUCTIONS						
1	1	1	19315-2	DECAL; MANUAL OVERRIDE SHUT-OFF, PROPORTIONAL						
1	1	1	22768-1	DECAL; MANUAL OVERRIDE, PROPORTIONAL, LEFT						
1	1	1	22768-2	DECAL; MANUAL OVERRIDE, PROPORTIONAL, RIGHT						
1	1	1	23766	IDWG: FIELD SERVICE LABEL KIT						
1	1	1	28527	IDWG: DECAL PLACEMENT						
1	1	1	INST-23233	SAFETY MANUAL, VENTURO CRANES						
1	1	1	15397	KIT; ACCIDENTAL PREVENTION SIGNS						



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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