

HTBABA-V*A0

Pages 1-60

PARTS & INSTALLATION MANUAL HT66KX-25

Included in this manual:

HT66KX-25 (VLC)

- 11,500 lb Hydraulic Telescopic Service Crane
- Venturo Logic Control System w/ Proportional Control
- 25 ft Fully-Powered, Two-Stage, Boom Extension

VENCO VENTURO INDUSTRIES LLC
12110 BEST PLACE | CINCINNATI, OHIO 45241



HT66KX-25

INST-23845 - 12/4/2023 (Rev: A2)

DESCRIPTION & SPECIFICATIONS 7607100A

INSTALLATION DIMENSIONS 23801

23802 MOUNTING DIMENSIONS: BASE PLATE CAPACITY CHART: HT66KX-25' VLC 23803

SAFETY 7607150A

15394 **VEHICLE & CRANE ELECTRICAL HAZARD INFORMATION**

920612 SAFETY & HAZARDS, GENERAL WINCH SAFETY WARNINGS 19217 SAFETY DECALS DRAWING & LIST SAFETY DECALS DRAWING & LIST 22181A 22181B SAFETY DECALS DRAWING & LIST 22181C SAFETY DECALS DRAWING & LIST 22181D

23804 **BOOM CAPACITY DECALS**

23748 VLC DECALS

7607200A INSTALLATION

23805 23806

CRANE INSTALLATION, 1/2 CRANE INSTALLATION, 2/2 CRANE OPERATION & MAINTENANCE, 1/3 23753 CRANE OPERATION & MAINTENANCE, 2/3 23808 23809 CRANE OPERATION & MAINTENANCE, 3/3 EXPLANATION OF HYDRAULIC VALVE SYSTEM 22168

ROTATION STOP LOCATION 20051

STABILITY TEST STABILITY CHART 20906-66V 20907

22825 RESERVOIR DIMENSIONS

22883

HYDRAULIC COMPONENT INSTALLATION CONNECTIONS GUIDE, 1/3 CONNECTIONS GUIDE, 2/3 23015 23014 22913 **CONNECTIONS GUIDE, 3/3** 22245 WIRE ROPE INSTALLATION

7607300A MAINTENANCE & SERVICE

MAINTENACE OVERVIEW INFORMATION 23203 WIRE ROPE & HOOK SPECIFICATIONS 23232

REPLACEMENT PARTS 7607400A

REPLACEMENT PARTS DRAWING - MECHANISM 23810 23811 REPLACEMENT PARTS LIST - MECHANISM

REPLACEMENT FASTENERS DRAWING - MECHANISM 23812 REPLACEMENT FASTENERS LIST - MECHANISM 23813 REPLACEMENT PARTS DRAWING - 27260 BOOM 23814 REPLACEMENT PARTS LIST - 27260 BOOM 23815

REPLACEMENT FASTENERS DRAWING - 27260 BOOM 23816 REPLACEMENT FASTENERS LIST - 27260 BOOM 23817

28239

A2B STOWAGE CUT-OUT REPLACEMENT PARTS DIAGRAM - 27274 WINCH 27332

23846 REPLACEMENT PARTS DRAWING - HYDRAULIC COMPONENTS 23847

REPLACEMENT PARTS LIST - HYDRAULIC COMPONENTS
22736H HYDRAULIC VALVE MANIFOLD REPLACEMENT PARTS DRAWING & LIST
WORK LIGHT INSTALLATION INSTRUCTIONS; COMPACT A2B MOUNT 22940

28188

WIRING DIAGRAM, 1/2 23836 WIRING DIAGRAM. 2/2 23821

HYDRAULIC SYSTEM DIAGRAM 23822

ENGINE START/STOP & THROTTLE CONTROL DECAL PLACEMENT 22615

23839

23224 REPLACEMENT PARTS DRAWING & LISTS - RESERVOIR KITS

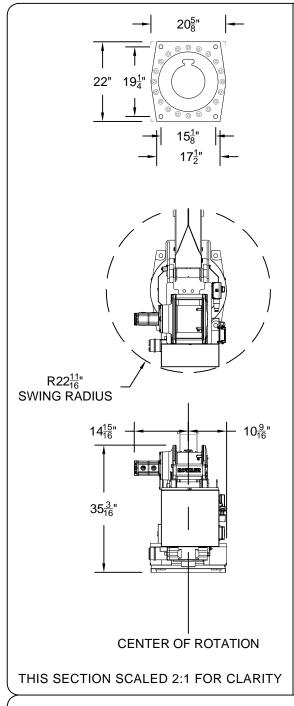
23837 FIELD SERVICE LABEL KIT 23838

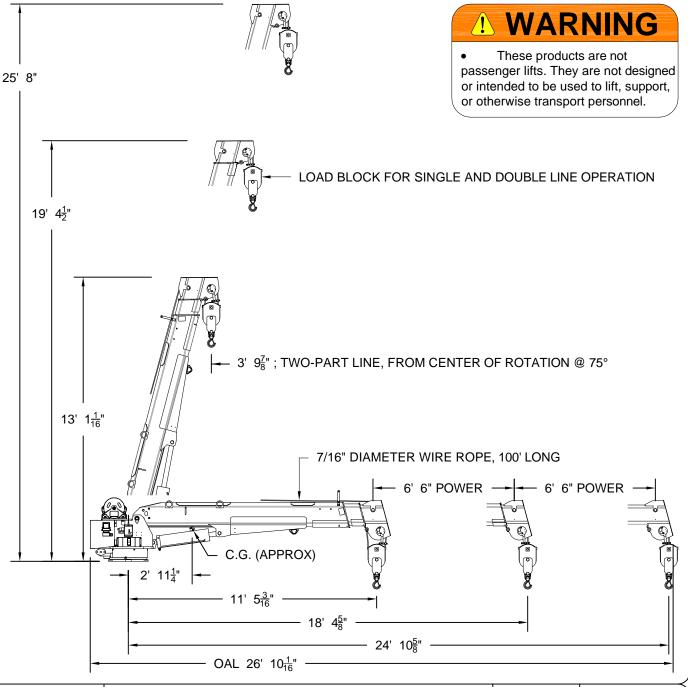
12-00073 VNT1 WARRANTY PAGE

SECTION 100

DESCRIPTION & SPECIFICATIONS





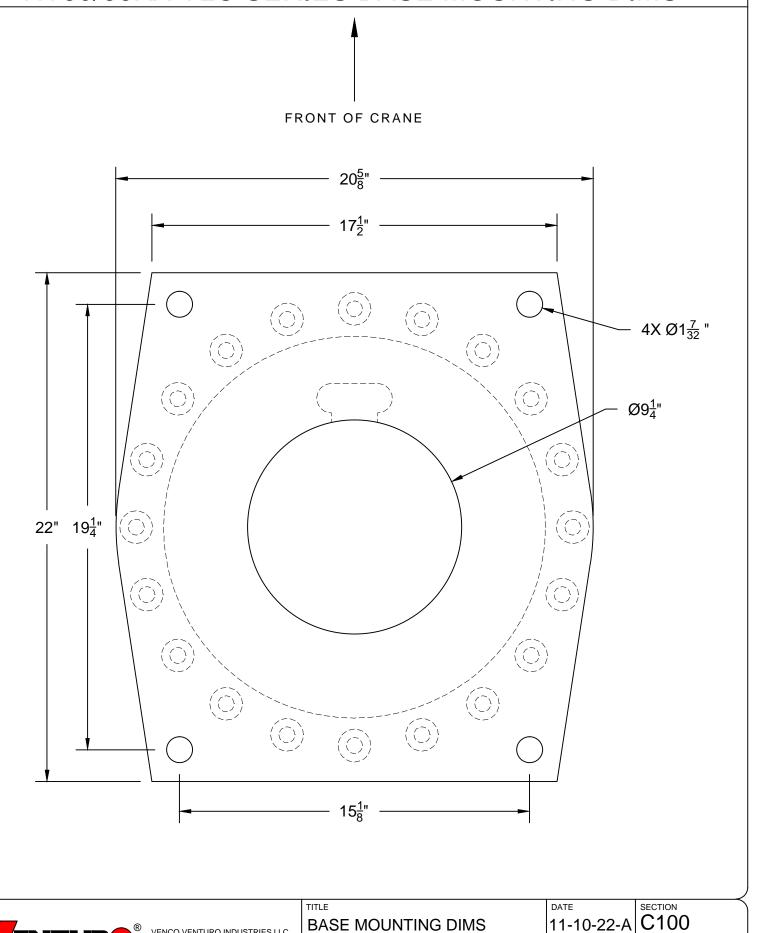




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

INSTALLATION DIMENSIONS	02-06-19	C100
HT66KX-25' VLC SERIES	SUPERSEDES -	23801

HT60/66KX VLC SERIES BASE MOUNTING DIMS





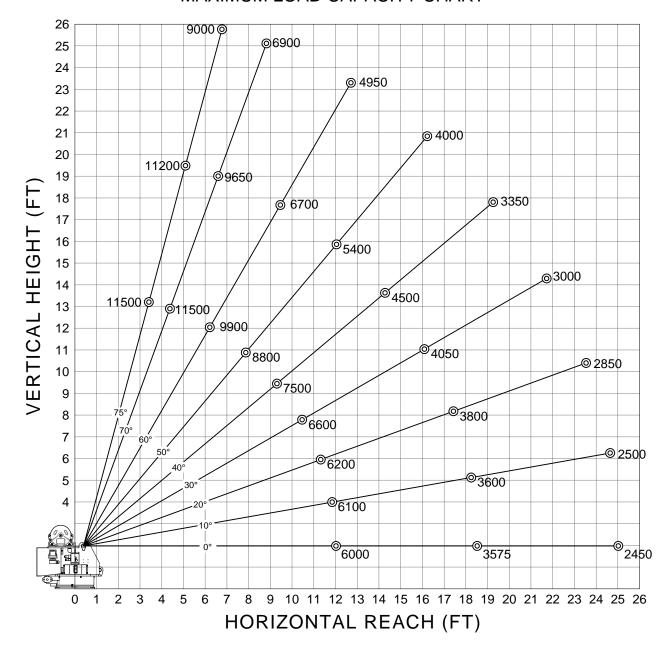
IES LLC	

BASE MOUNTING DIMS		
HT60/66KX VLC SERIES		

23802 02-06-19

HT66KX SERIES, 12' - 18.5' - 25' BOOM, WITH VENTURO LOGIC CONTROL SYSTEM (VLC) CRANE SERIAL NUMBER:

MAXIMUM LOAD CAPACITY CHART



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

LOAD BLOCK USAGE

1-PART LINE FOR LOADS LESS THAN 5750 LBS

2-PART LINE FOR LOADS OF 5750 LBS AND GREATER

WEIGHT OF LOAD BLOCK = 67 LBS

CINCINNATI, OHIO



MAXIMUM LOAD CAPACITY	03-18-19A	C100
HT66KX-25' VLC SERIES	SUPERSEDES 02-06-19	23803

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.

UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS.

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.

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

Table A - Minimum Clearance Distances

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet) *
Up to 50	10 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 (nominal, kV, alternating current)	While traveling - minimum clearance distance (feet) *
0 - 0.75	(1661)
over 0.75 - 50	6
over 50 - 345	10
over 345 - 750	16
over 750 - 1000	20
Over 1000	(as established by the utility owner/operator or registered
	professional engineer who is a qualified person with respect to
	electrical power transmission and distribution).

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



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

CRANE SAFETY AND HAZARDS HT SERIES CRANES

CAUTIONS

- INSPECT VEHICLE AND CRANE, INCLUDING OPERATION, PRIOR TO USE DAILY. 1.
- 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.
- DO NOT OPERATE, WALK, OR STAND BENEATH BOOM OR A SUSPENDED LOAD. 4.
- ATTACH PENDANT CORD SUPPORT SNAP TO ATTACHMENT POINT BEFORE PLUGGING IN PENDANT. 5.
- 6. UNPLUG PENDANT AND DISENGAGE PTO SYSTEM WHEN CRANE NOT IN USE.
- FOR TRAVEL, BOOM MUST BE IN STOWED POSITION. 7.

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

- 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

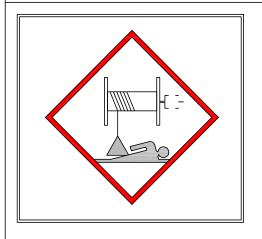
- THIS MACHINE IS NOT INSULATED.
- MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARATUS.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOADLINE SWAYING.
- THIS LIFTING DEVICE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.
- 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.**



TITLE
CRANE SAFETY & HZRDS

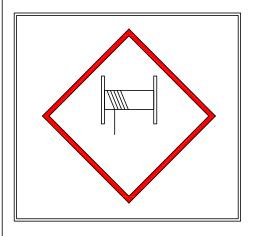
SECTION

WINCH SAFETY WARNINGS



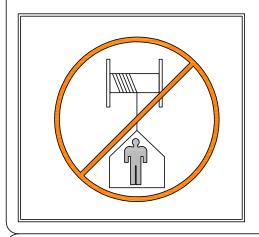
DANGER

DO NOT DISENGAGE WINCH UNDER LOAD



⚠ DANGER

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



. WARNING

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



CINCINNATI, OHIO

TITLE	DATE	SECTION
WINCH SAFETY	02-21-14D	C150
HT CRANES	supersedes 04-04-12C	192
III CINAINES	04-04-120	102

PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

FUNCTION: To inform the operator to

unplug remote control when

not being used.

QUANTITY: 1

PLACEMENT: Right side of housing.

PART NO.: 15401

DECAL: UNLAWFUL TO OPERATE

FUNCTION: To inform the operator of proper

operation in vicinity of power lines.

QUANTITY: 1

PLACEMENT: Right side of housing.

PART NO.: 19314-1 [LEFT] & -2 [RIGHT]

DECAL: MANUAL OVERRIDE (NON-PROP)

FUNCTION: To inform the operator of

manual override locations.

QUANTITY: 1 EACH

PLACEMENT: Inside of rear cover.

PART NO.: 22768-1 [LEFT] & -2 [RIGHT]

DECAL: MANUAL OVERRIDE (PROPORTIONAL)

FUNCTION: To inform the operator of

manual overide locations.

QUANTITY: 1

PLACEMENT: Inside of rear cover.

UNPLUG

REMOTE CONTROL
PENDANT WHEN
NOT IN USE

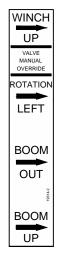
15398-F

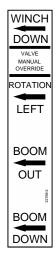
A DANGER

UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS.

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.











DECAL DRAWING & LIST

11-30-22E

SECTION C150

HT40/50/60/66 SERIES

SUPERSEDES 02-21-14D

22181A

PART NO.: 23068-1 [LEFT] & -2 [RIGHT]

DECAL: MANUAL OVERRIDE

(HT66KXX w/ TH-2 Winch ONLY)

FUNCTION: To inform the operator of

manual overide locations.

QUANTITY:

PLACEMENT: Inside of rear cover.

WINCH ÙΡ VALVE MANUAL OVERRIDI ROTATION **LEFT BOOM** OUT **BOOM** DOWN



PART NO.: 19315-1

DECAL: SHUT OFF (NON-PROPORTIONAL)

FUNCTION: To show the operator how to

override master shut off valve.

QUANTITY:

PLACEMENT: Inside rear cover.

PART NO.: 19315-2

DECAL: MANUAL OVERRIDE (PROPORTIONAL)

FUNCTION: To show the operator how to

override proportional valve.

QUANTITY: 1

PLACEMENT: Inside rear cover.

WARNING!

KEEP VALVE IN NORMAL POSITION. **OVERRIDE POSITION IS INTENDED** FOR EMERGENCY USE ONLY.



NON-PROPORTIONAL VALVE

PUSH IN STEM AND ROTATE

WARNING!

KEEP VALVE IN NORMAL POSITION. **OVERRIDE POSITION IS INTENDED** FOR EMERGENCY USE ONLY.



PROPORTIONAL

ROTATE STEM

PART NO.: 20834

DECAL: MANUAL OVERRIDE NOTICE

FUNCTION: To inform the operator of

manual override locations.

QUANTITY:

PLACEMENT: Inside rear cover.

NOTICE FOR MANUAL OVERRIDE OF CRANE FUNCTIONS. REMOVE REAR COVER AND SEE INSTRUCTIONS INSIDE.



DECAL DRAWING & LIST

04-14-23H

C150

HT40/50/60/66 SERIES

SUPERSEDES 11-30-22G

CINCINNATI, OHIO

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.





IT IS NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT OR OTHERWISE TRANSPORT PERSONNEL.

YOU MUST NOT OPERATE THIS CRANE UNLESS:

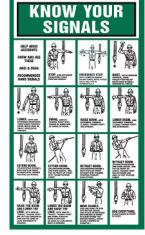
YOU HAVE BEEN TRAINED IN THE SAFE YOU HAVE BEEN IN TAINED IN INE SAFE OPERATION OF THIS CRANIE; AND YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS.

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

DANGER 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 11 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.







DECAL DRAWING & LIST

DATE

11-30-22F

SECTION C150

HT40/50/60/66 SERIES

SUPERSEDES 02-21-14E

22181

PART NO.: 17389

DECAL: MEDIUM VENTURO

FUNCTION: Branding.

QUANTITY: 1

PLACEMENT: Rear cover.



PART NO.: 22496

DECAL: LARGE VENTURO

FUNCTION: Branding.

QUANTITY: 2

PLACEMENT: Boom.



PART NO.: 20927

DECAL: CRANE STABILITY

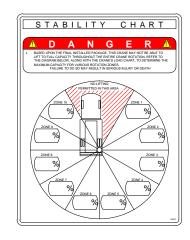
FUNCTION: To inform the operator of the crane's lifting capacity

throughout the entire rotation.

QUANTITY: 1

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

identifiable.





TITLE

DECAL DRAWING & LIST

DATE

11-30-22K

C150

SECTION

HT40/50/60/66 SERIES

12-11-18J

22181D

LEFT SIDE OF BOOM

RIGHT SIDE OF BOOM

PART NO.: 20771-1 & 20771-2

DECAL: HT66-25' CRANE CAPACITY

FUNCTION: To show the operator the operating

capacities of the crane

QUANTITY: 1 each

PLACEMENT: Right side of boom, Left side of boom

20771-2

20771-1

LEFT SIDE OF BOOM

RIGHT SIDE OF BOOM

PART NO.: 23466 & 23467

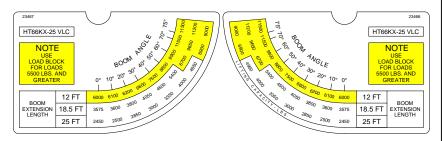
DECAL: HT66-25' CRANE CAPACITY (VLC)

FUNCTION: To show the operator the operating

capacities of the crane

QUANTITY: 1 each

PLACEMENT: Right side of boom, Left side of boom



23467 23466

SPACE INTENTIONALLY LEFT BLANK

SPACE INTENTIONALLY LEFT BLANK



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO BOOM CAPACITY DECALS

02-06-19

DATE

C150

SECTION

SUPERSEDES 2

HT66KX SERIES

4

PART NO.: 23742

DECAL: VLC, 2.94" x 6.00"

FUNCTION: To show that the crane is equipped

with Venturo Logic Controls

QUANTITY: 2 each

PLACEMENT: Each side of Housing



•

SPACE INTENTIONALLY LEFT BLANK

SPACE INTENTIONALLY LEFT BLANK

SPACE INTENTIONALLY LEFT BLANK



/ENCO VENTURO INDUSTRIES LLC	
CINCINNATI, OHIO	

VLC SERIES CRANES	SUPERSEDES 10-11-18	23748
VLC DECALS	02-06-19A	C150
TITLE	DATE	SECTION

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 66,000 ft. lbs.

The maximum vertical load for the HT66 VLC is 14,000 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 either coarse or fine 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.

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

_		TITLE	DATE	SECTION	١
ENTURO® VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	CRANE INSTALLATION	03-16-23A	C200		
	CINCINNATI, OHIO		SUPERSEDES	00005	1
		HT66KX-25' VLC SERIES	02-06-19	23805	J

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.



CRANE OPERATION AND MAINTENANCE INSTRUCTIONS



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 A

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 A

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.



TITLE
CRANE OP / MNTNC INST

08-08-23A
SUPERSEDES

C200

SECTION

HT CRANES

10-11-18

23753

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS, PAGE 2 HT66KX 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. The boom elevates from 8 degrees below horizontal to 75 degrees above horizontal.
- BOOM "OUT" and "IN" Extends and retracts the boom. The boom hydraulic extension stroke is 6 ft. or 10 ft.
- ROTATION "L" and "R" Controls the left and right direction of the crane rotation. The crane rotation is limited to 400 degrees.
- TRIGGER (Proportional Systems Only) Varies the flow rate delivered to the crane valve. The farther the trigger is
 pulled, the faster the selected crane function operates. See page 22168 for detailed operations instructions and
 warnings.

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%		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.

TELESCOPIC HEXAGONAL BOOM - VLC SYSTEMS

12' - 25' LENGTH Double stage only

The hexagonal shaped boom shall telescope to provide a horizontal reach range of 12 ft. to 25 ft. using a hydraulic power extension cylinder with a 13 ft. stroke (See pages 23814 thru 23817).



TITLE	DATE	SECTION
CRANE OP / MNTNC INST	02-06-19	C200
	SUPERSEDES	00000
HT66KX VLC SERIES	-	23808

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS, PAGE 3 HT66KX 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.

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 weeks or 10 hours of operation.

Periodic Change - on an annual basis or every 50 hours of operation.

Temp Range (°F) Winch Gear Oil

120° to 10° High quality SAE 90 gear lubricant oil Severe Duty Swepco #201 multi-purpose gear 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

Speed reducer (2 fittings)

Elevation cylinder tail clevis

Bottom of Swing Bearing (2 fittings)

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

Check electrical connections for looseness and corrosion.



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

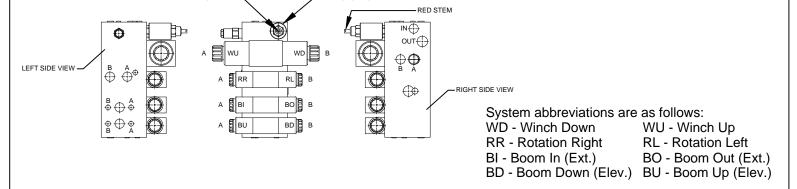
RED STEM

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.

PROPORTIONAL VALVE



MANUAL OVERRIDE SYSTEM

Should an electrical failure occur, your Venturo crane can be operated manually.

The manual overrides are intended for emergency use only and should not be used for normal operation.

To operate in manual override mode:

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

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 to insure that it is fully counter-clockwise.

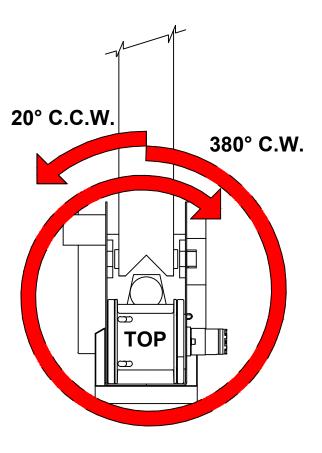
EMERGENCY STOP

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.

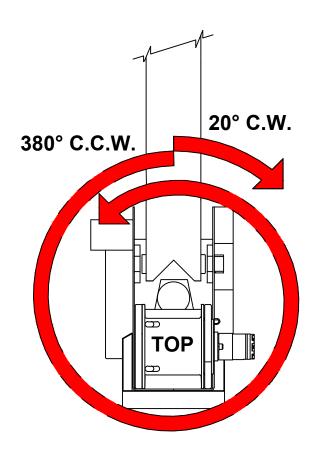
R VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	HYDRAULIC SYSTEM	11-10-22E	section C200
	HT40/50/60/66KX; PROP	02-21-14D	22168

400° ROTATION STOP LOCATION

CURBSIDE



STREETSIDE





TITLE	DATE	SECTION
ROTATION STOP LOCATION	03-09-23F	C200
	SUPERSEDES	000=4
400° ROTATION CRANES	05-20-20E	20051

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 **2882 lbs**, (includes load block weight of <u>67</u> lbs.) to a **maximum of 3050 lbs**.
- 6. Place the VLC system into **Stability Mode** (ref. VLC Manual, INST-30000, page 30005)
- 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 the 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 "<u>Max Stable Reach in inches"</u> is measured from the **center of rotation** of the crane housing to the **lifting load hook.**

% Rated Capacity =

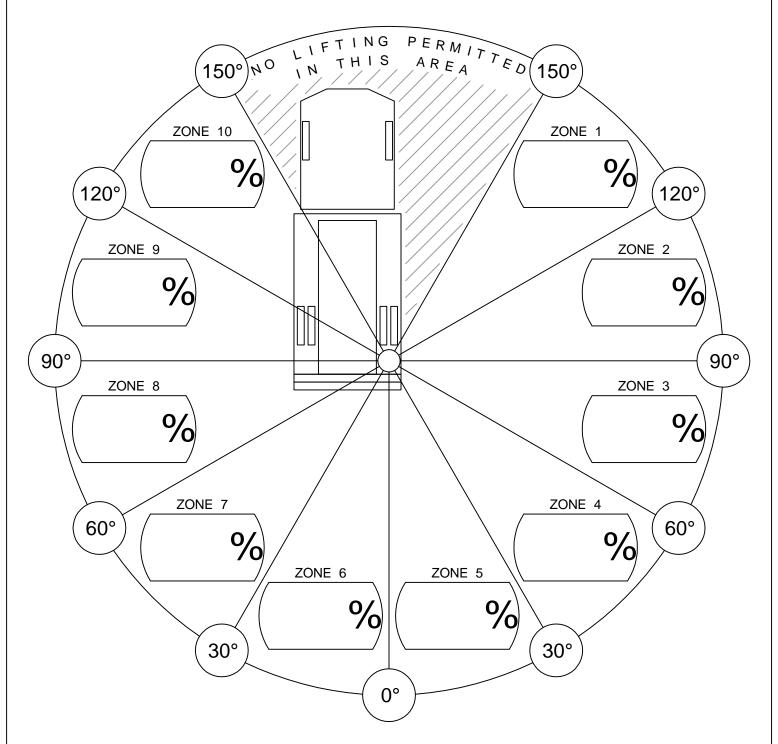
"Max Stable Reach" in inches

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.

® VENCO VENT	VENCO VENTURO INDUSTRIES LLC	STABILITY TEST	02-28-23D	C200	
ENION	CINCINNATI, OHIO	HT66-25'-VLC SERIES	SUPERSEDES 11-24-21C	20906-66V	

CRANE STABILITY



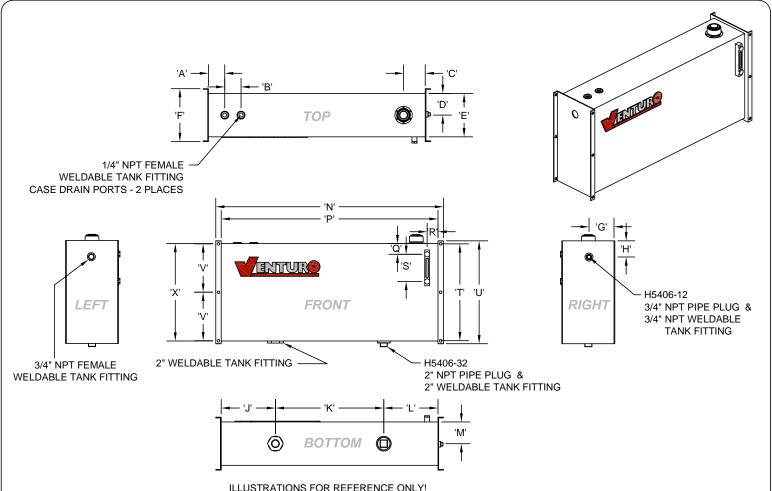
% of Rated Capacity for each of the 10 regions are provided above.

CONDITIONS:

 STABILIZERS FULLY EXTENDED & DOWN, ON FIRM LEVEL GROUND.



TITLE	DATE	SECTION
STABILITY CHART	05-11-17F	C200
	SUPERSEDES	00007
VENTURO CRANES	02-21-14E	20907



ILLUSTRATIONS FOR REFERENCE ONLY! - COMPONENT LOCATIONS MAY DIFFER -

HYD. TANK DIMENSION (HTD) CHART				
PART NO.	22786 (25 GAL.)	22999 (40 GAL.)		
'A'	3"	3"		
'B'	3"	3"		
'C'	4"	4"		
'D'	4"	5.5"		
'E'	8"	11"		
'J'	5"	6"		
'K'	30"	30"		
'L'	5"	6"		
'M'	4"	5.5"		
'P'	40"	42"		
'Q'	2"	2"		
'R'	2"	2"		
'S'	5"	5"		
'X'	18"	20"		

MOUNTING DIMENSION (TMD) CHART				
DIMENSION NO. 22786 (25 C		22999 (40 GAL.)		
'F'	9.75"	12"		
'G'	4.875"	6"		
'H'	3"	3"		
'N'	42"	44"		
'T'	17.875"	19.875"		
'U'	19"	21"		
'V'	8.938"	9.938"		

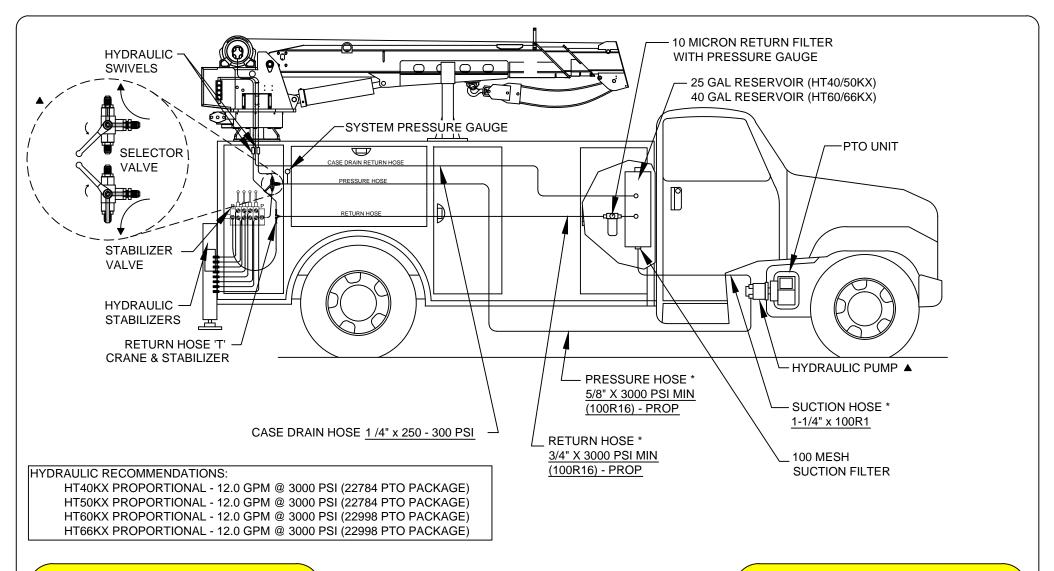
MEASUREMENTS INCLUDE MOUNTING APARATUSES

MEASUREMENTS EXCLUDE MOUNTING APARATUSES

CINCINNATI, OHIO



;	RESERVOIR DIMENSIONS		C200
	HYD. TANKS (25/40 GAL.)	06-04-13D	22825





 SELECTOR VALVE MUST BE 'NON-CLOSED CENTER TRANSITION' TYPE. REFER TO SECTION 200 FOR MORE INFORMATION ON INSTALLING HYDRAULIC COMPONENTS.

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



CAUTION

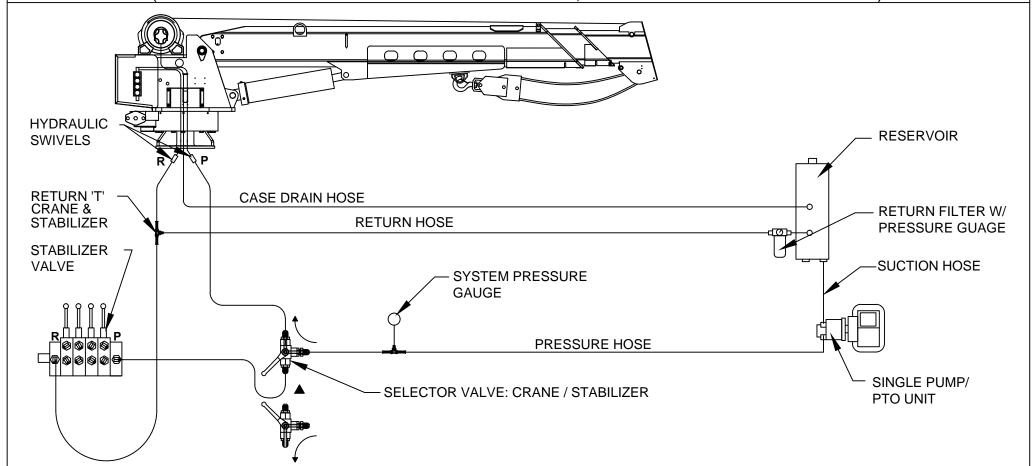
THE CASE DRAIN LINE FROM
THE WINCH MUST HAVE AN
UNRESTRICTED PATH TO TANK/
RESERVOIR.



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

TITLE	DATE	SECTION
HYDRAULIC COMPONENT INSTALLATION	08-08-23G	C200
	SUPERSEDES	22002
HT40-66, PROPORTIONAL	11-10-22F	22883

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



CAUTION

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

CAUTION

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



VENCO VENTURO INDUSTRIES LLC CINCINNATI. OHIO

<u> </u>	
CONNECTION GUIDE, P	AGE 1/2
TITLE	

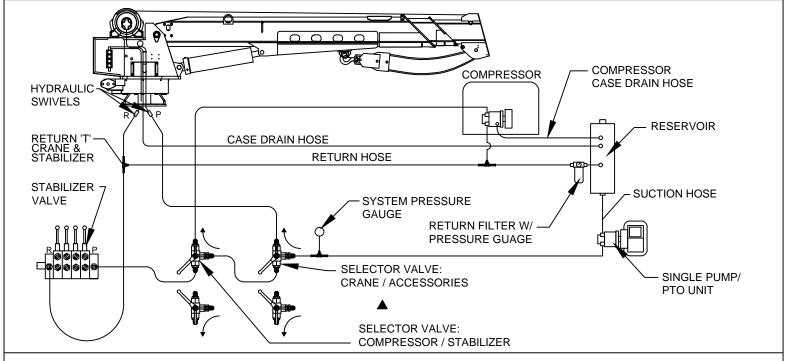
08-09-23C C200 SUPERSEDES - - -

HT CRANES

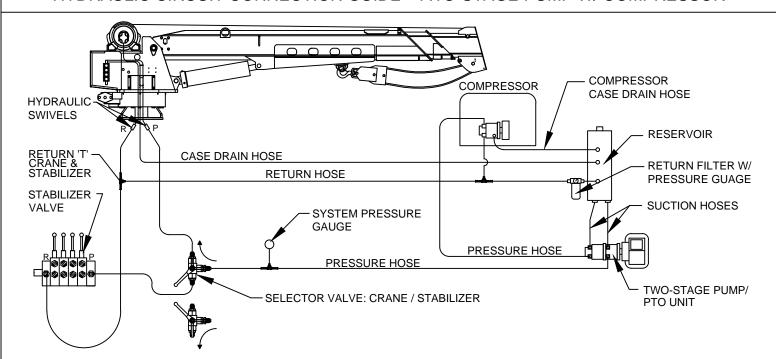
02-21-14B 23015

SECTION

HYDRAULIC CIRCUIT CONNECTION GUIDE - SINGLE PUMP W/ COMPRESSOR



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



CAUTION

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

REFER TO SECTION 200 FOR MORE INFORMATION. **INCLUDING HOSE SPECIFICATIONS**

CINCINNATI, OHIO

CAUTION

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



CNNCTN GDE, PAGE 2/2 VENCO VENTURO INDUSTRIES LLC

08-08-23C SUPERSEDES

C200

SECTION

HT CRANES

02-21-14B

23014

RECOMMENDED SUPPLY & RETURN HOSE CONNECTIONS **CRANE & STABILIZERS** 3" DIA. MIN. CLEARANCE FOR HOSES CRANE BASE PRESSURE HOSE-RETURN HOSE -HYD. SWIVELS -+12 VOLT PWR SUPPLY **CASE DRAIN** NOTE: NO HOSES ARE PROVIDED 'BELOW' THE TWO HYD. SWIVELS. SYSTEM PRESSURE STABILIZER VALVE -GAUGE (INCLUDED WITH HYD. PACKAGE) **PRESSURE** SELECTOR VALVE (INCLUDED WITH STABILIZER PACKAGE) * PRESSURE PATH TO CRANE SHOWN. **RETURN FROM CRANE & STABILIZER** RETURN HOSE 'T' **CRANE & STABILIZER** LOOP HOSES UNDER SWIVELS FOR PRESSURE & SUPPLY HOSES TO AUGMENT SWIVELS



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

CAUTION

 CASE DRAIN MUST RETURN DIRECTLY TO RESERVOIR WITHOUT RESTRICTION.



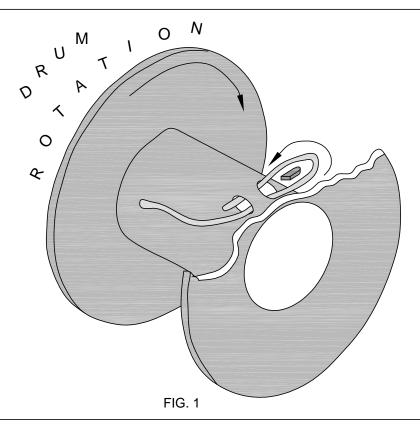
LIT CDANICO
CONNECTIONS GUIDE
TITLE

DATE SECTION C200

SUPERSEDES 2201

HT CRANES 02-21-14F

WIRE ROPE INSTALLATION



STEP 1: UNWIND COIL OF WIRE ROPE BY 'ROLLING' ALONG THE FLOOR. THIS WILL PREVENT 'KINKING'.

STEP 2: INSERT WIRE ROPE END UP THROUGH ANTI-2-BLOCK (A2B) CAGE ASSEMBLY, BETWEEN CHEEK PLATES, OVER THE TOP SHEAVE, AND THROUGH WIRE ROPE GUIDE.

STEP 3: INSERT WIRE ROPE END INTO POCKET OPENING ON WINCH, WRAP AROUND WEDGE, AND BACK THROUGH POCKET OPENING AS SHOWN IN FIGURE 1.

CAUTION

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

CAUTION

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

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

1		TITLE	DATE	SECTION	١
	VENCO VENTURO INDUSTRIES LLC	WIRE ROPE INSTALLTN	02-21-14K	C200	
	CINCINNATI, OHIO		SUPERSEDES	00045	ĺ
		ET6K & LARGER CRANES	12-26-13J	22245	

SECTION 300

MAINTENANCE & SERVICE



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.

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

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

Initial Change - after the initial 100 hours of operation or six months. Periodic Change - after every 300 hours of operation or two years.

Temp Range (°F) Winch Gear Oil

120° to 10° High quality SAE 90 gear lubricant oil Severe Duty Swepco #201 multi-purpose gear oil



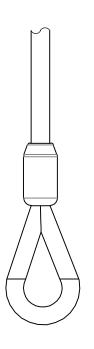
TITLE	DATE	SECTION
MAINTENANCE INFO	11-10-22D	C300
	SUPERSEDES	000
HT25/30/40/50/60/66KX(P)	02-21-14C	232

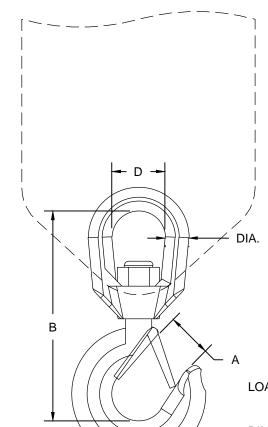
WIRE ROPE ASSEMBLY

LOAD BLOCK ASSEMBLY

WIRE ROPE:

- 7/16" DIA, 100' LONG
- DRAWN GALVANIZED STEEL WIRE ROPE; 6 X 26 WS-IWRC, EIPS, RHRL, SB 20,400 LBS
- TERMINATES IN THIMBLE
- NO HOOK





LOAD BLOCK HOOK:

RATING: 7 METRIC TONNES (15,432 LBS)

DIMENSIONS:

Α	В	D	DIA.
1.61"	9.63"	2.50"	1.00"



RIES LLC	
)	Γ

TITLE	
W	RE ROPE & HOOK SPECIFICATIONS

11-23-22C

C300

HT66KX

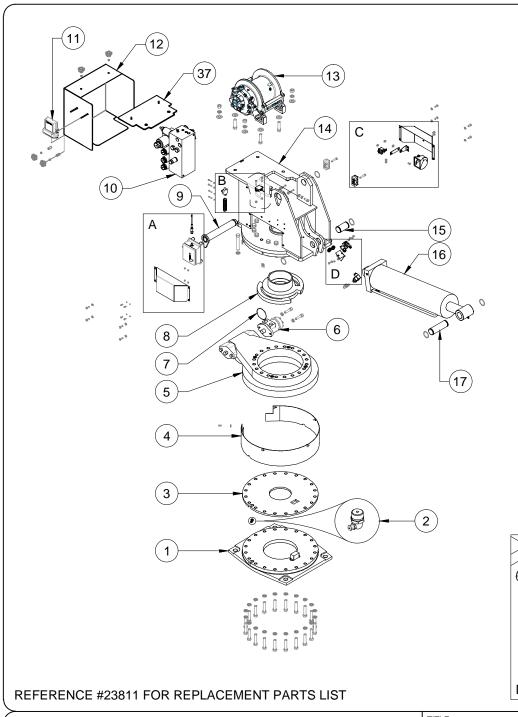
SUPERSEDES 05-09-16B

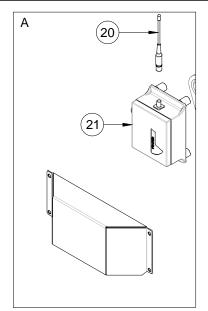
23232

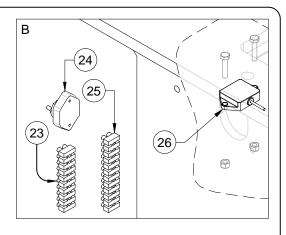
SECTION 400

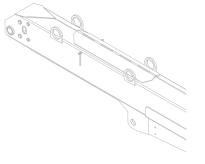
REPLACEMENT PARTS

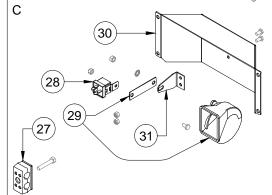


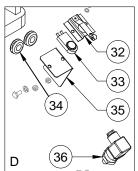














VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPLACMENT PARTS DRWNG - MECHANISM	03-09-23C	C400
HT66KX VLC SERIES	SUPERSEDES 05-17-22B	23810

REPLACEMENT PARTS LIST - HT66KX VLC SERIES; MECHANISM

ITEM	PART NO.	QTY	DESCRIPTION
1	27708	1	WELDED ASS'Y; BASE
2	!ZERK-NPT-90	1	FITTING; GREASE, 90°
3	27710	1	PLATE; SPACER
4	27406	1	COVER; SLEWING RING
5	27275	1	SLEWING RING
6	27276	1	MOTOR; HYDRAULIC ROTATION
7	OR-152-5	1	O-RING; ROTATION MOTOR
8	27296	1	ASS'Y; ROTATION STOP
9	22721	1	PIN; MAIN BOOM PIVOT
10	22736H-1	1	VALVE MANIFOLD
* 11	23720-VCM	1	* VALVE CONTROL MODULE
12	27505	1	COVER; REAR, 1-PC
13	27274	1	WINCH
14	27284	1	WELDED ASS'Y; HOUSING
15	27502	1	PIN; ELEVATION CYLINDER PIVOT, INBOARD
16	21750	1	CYLINDER; ELEVATION, 6" X 20-1/8", DA
17	27503	1	PIN; ELEVATION CYLINDER PIVOT, OUTBOARD
18	-	-	-
19	-	-	-
* 20	23720-ANT	1	* ANTENNA

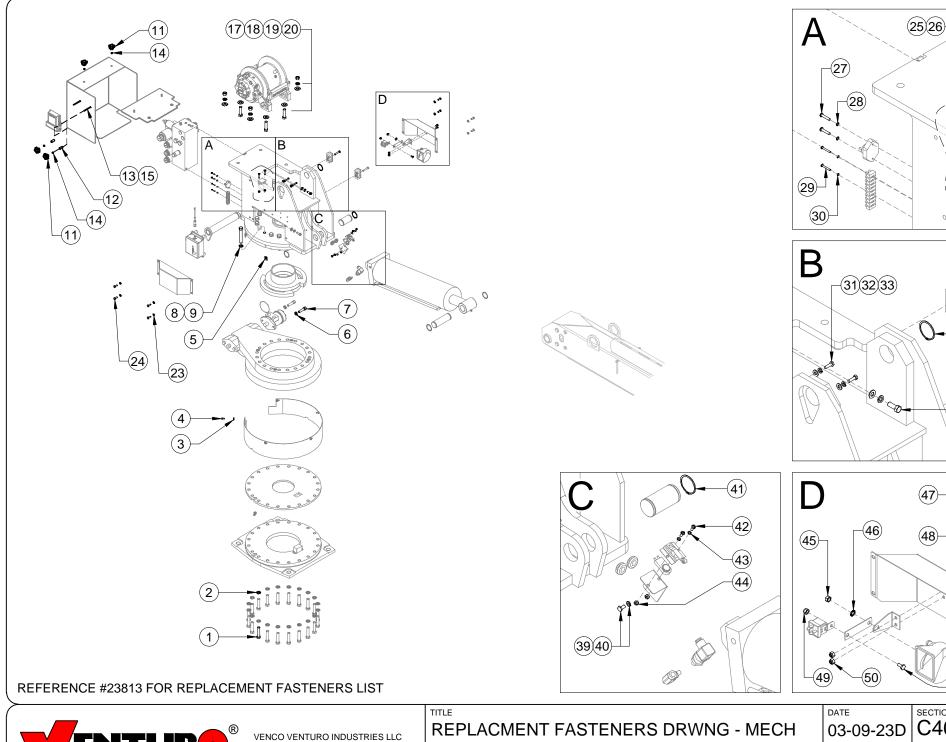
ITEM	PART NO.	QTY	DESCRIPTION
* 21	23720-RX	1	* RECEIVER; ESCAN, 2.4GHz
22	-	-	-
23	19187-10	1	TERMINAL STRIP; 10 SECTIONS
24	15683-20A	1	CIRCUIT BREAKER; 20 AMP
25	19187-12	1	TERMINAL STRIP; 12 SECTIONS
* 26	23720-INC	1	* UNIVERSAL INCLINOMTER
27	27307	2	CLAMP ASS'Y; HOSE / TUBING
28	22739	1	RELAY; HIGH CAPACITY
29	2948	1	HORN
30	27400	2	COVER; SIDE W/ HORN BRACKET HOLES
31	22000	1	BRACKET; HORN
32	19917	1	BRACKET; BOOM SHUT-OFF SWITCH
33	19918	1	SWITCH; BOOM TOP POSITION
34	14775	2	GROMMET; 1/2 x 3/16 x 3/16" THICK
35	20497	1	BRACKET; SWITCH
* 36	23720-PTD	2	* PRESSURE TRANSDUCER
37	28273	1	REAR COVER MTNG PLATE, WELDED ASS'Y
38			
39			
40			

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

REFERENCE #23810 FOR REPLACEMENT PARTS DRAWING



REPLACEMENT PARTS LIST - MECHANISM	03-09-23B	C400
HT66KX VLC SERIES	SUPERSEDES 05-17-22A	23811



ENTURO ®

CINCINNATI, OHIO

SECTION C400 SUPERSEDES

06-24-22C

23812

(51)

36 37 38

HT66KX VLC SERIES

ITEM#	PART #	QTY	DESCRIPTION	WHERE-USED
1	!HHCS06311300	20	HHCS; 5/8-11 x 3" LG, GR. 5, ZINC	BASE PLATE - SLEW DRV
2	!LWSH-063	20	LOCK WASHER; 5/8", GR. 5, ZINC	BASE PLATE - SLEW DRV
3	!FWSH-25S	5	FLAT WASHER; 1/4", S/S	ROTATION GEAR COVER
4	!HHCS02520050S	5	HHCS; 1/4-20 x 1/2" LG, S/S	ROTATION GEAR COVER
5	!UNUT-02520-LKG	5	U-NUT; 1/4-20, LOCKING	ROTATION GEAR COVER
6	!LWSH-050-HC	2	LOCK WASHER; 1/2", HI-COLLAR	ROTATION MOTOR
7	!SHCS05013200	2	SHCS; 1/2-13 X 2"	ROTATION GEAR COVER
8	!HHCS06311400	20	HHCS; 5/8-11 x 4" LG, GR. 5, ZINC	HSNG - ROTATION DRV.
9	!LWSH-063	20	LOCK WASHER; 5/8", GR. 5, ZINC	HSNG - ROTATION DRV.
10	-	-	-	-
11	28327	4	KNOB, HAND, 5-POINT	VCM & REAR COVER
12	28328	2	NYLON SPACER, .25" ID X .5" OD X 1"	VCM TO REAR COVER
13	!HHCS02520250SF	2	HHCS, 1/4-20 X2.50", S/S, FULL THRD	VCM TO REAR COVER
14	!LNUT-02520-H	4	LOCK NUT; 1/4-20, HVY PAT, NYLON	VCM & REAR COVER
15	!JNUT-02520NS	2	JNUT, NYLON INSERT, 1/4-20, S/S	VCM TO REAR COVER
16	!FWSH-025S	2	FLAT WASHER; 1/4", S/S	RECEIVER - REAR CVR
17	!HHCS06311250-8	4	HHCS; 5/8-11 X 2-1/2" LG, GR. 8	WINCH MOUNTING
18	!FWSH-063-8	8	FLAT WASHER; 5/8", GR. 8	WINCH MOUNTING
19	!LWSH-063-8	4	LOCK WASHER; 5/8", GR. 8	WINCH MOUNTING
20	!HNUT-06311-8	4	HEX NUT; 5/8-11, GR. 8	WINCH MOUNTING
21	-	-	-	-
22	-	-	-	-
23	!HHCS03118075S	4	HHCS; 5/16-18 X 3/4", S/S	SIDE COVER
24	!LWSH-031S	4	LOCK WASHER; 5/16", S/S	SIDE COVER
25	!HHCS02520125S	2	HHCS; 1/4-20 X 1-1/4", S/S	INCLINOMETER
26	!LNUT-02520NS	2	LOCK NUT; 1/4-20, NYLON, S/S	INCLINOMETER

ITEM#	DADT "	OTV	DECODIBEION	WILEDE LIGER
ITEM #	PART #	QTY	DESCRIPTION	WHERE-USED
27	!PHPMS#1024100S	2	PHILIPS-HD PMS; #10-24 X 1", S/S	CIRCUIT BRKR - HSNG
28	!LWSH-#10S	2	LOCK WASHER; #10, S/S	CIRCUIT BRKR - HSNG
29	!PHPMS#0632100S	2	PHILIPS-HD PMS; #6-32 X 1", S/S	TERMINAL STRIP - HSNG
30	!LWSH-#06S	2	LOCK WASHER; #06. S/S	TERMINAL STRIP - HSNG
31	!HHCSM6M1M16S	4	HHCS; 6mm-1mm X 16mm, S/S	ESCAN - HOUSING
32	!LWSH-025S	4	LOCK WASHER; 1/4", S/S	ESCAN - HOUSING
33	!FWSH-025S	4	FLAT WASHER; 1/4", S/S	ESCAN - HOUSING
34	!HHCS03118175S	2	HHCS; 5/16-18 X 1-3/4", S/S	HOSE CLAMPS - HSNG
35	!SRNG-175	1	SNAP RING; 1-3/4", ZINC-PLTD	MAIN BOOM PIVOT PIN
36	!HHCS03816100	2	HHCS; 3/8-16 X 1", ZINC-PLTD	MANIFOLD - HOUSING
37	!FWSH-038	2	FLAT WASHER; 3/8", ZINC-PLTD	MANIFOLD - HOUSING
38	!LWSH-038	2	LOCK WASHER; 3/8", ZINC-PLTD	MANIFOLD - HOUSING
39	!HHCS02520050S	1	HHCS; 1/4-20 x 1/2", S/S	SWITCH BRKT - HSNG
40	!LWSH-025S	1	LOCK WASHER; 1/4", S/S	SWITCH BRKT - HSNG
41	!SRNG-150	4	SNAP RING; 1-1/2", ZINC-PLTD	ELEV. CYL. PIVOTS
42	!PHPMS#1024050S	2	PHILIPS-HD PMS; #10-24 X 1/2", S/S	SWITCH & SWITCH BRKT
43	!LWSH-#10S	2	LOCK WASHER; #10, S/S	SWITCH & SWITCH BRKT
44	!HNUT-#1024S	2	HEX NUT; #10-24, S/S	SWITCH & SWITCH BRKT
45	!HNUT-03120	1	HEX NUT; 5/16-20, ZINC	HORN - HORN BRKT
46	!LWSH-031-STAR	1	LOCK WASHER; 5/16", ZINC	HORN - HORN BRKT
47	!HHCS03118075S	4	HHCS; 5/16-18 X 3/4", S/S	SIDE COVER
48	!LWSH-031S	4	LOCK WASHER; 5/16", S/S	SIDE COVER
49	!LNUT-02520NS	1	LOCK NUT; 1/4-20, NYLON, S/S	RELAY - BRACKET
50	!LNUT-02520NS	2	LOCK NUT; 1/4-20, NYLON, S/S	RELAY-HORN - SIDE CVR
51	!HHCS02520050S	3	HHCS; 1/4-20 X 1/2", S/S	RELAY, BRKT - SIDE CVR
52	-	-	-	-

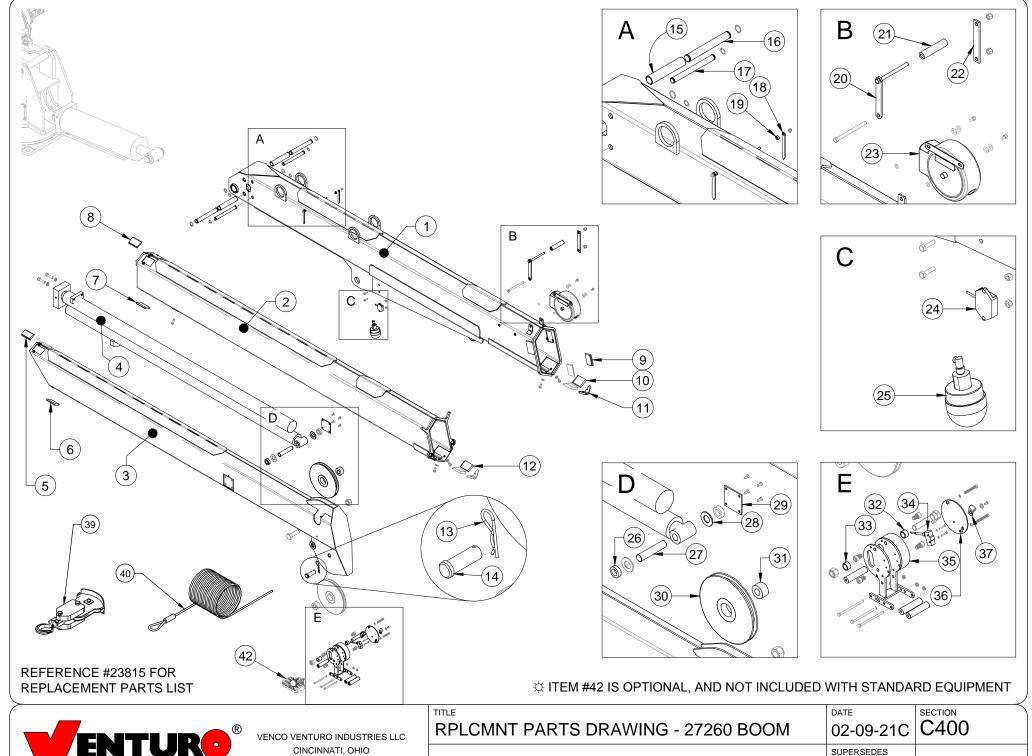
REFERENCE #23812 FOR REPLACEMENT FASTENERS DRAWING

CINCINNATI, OHIO

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



SECTION 03-09-23C C400 PLCMNT FASTENERS LIST - MECHANISM SUPERSEDES 23813 HT66KX VLC SERIES 06-24-22B



CINCINNATI, OHIO

HT66KX-25' VLC SERIES

01-05-21B

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

ITEM	PART NO.	QTY	DESCRIPTION
1	27262	1	WELDED ASS'Y; PRIMARY BOOM
2	27264	1	WELDED ASS'Y; SECONDARY BOOM
3	27266	1	WELDED ASS'Y; TERTIARY BOOM
4	21751	1	EXTENSION CYLINDER
5	23217-11	2	BOOM PAD; UHMW, 'A', 3.19 x 1.88 x 0.50
6	23217-1	2	BOOM PAD; UHMW, 'A', 3.19 x 1.88 x 0.44
7	23217-2	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.44
8	23217-13	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.38
9	23217-2	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.44
10	23217-4	2	BOOM PAD; UHMW, 'B', 3.19 x 2.50 x 0.63
11	23183	2	V-BLOCK, SLIDER
12	23217-3	2	BOOM PAD; UHMW, 'B', 3.19 x 2.13 x 0.63
13	21-08	1	PIN; HAIRPIN COTTER
14	27272	1	CLEVIS PIN
15	27283	2	THRUST ROLLER; EXTENSION CYLINDER
16	27282	2	THRUST PIN; REAR, EXTENSION CYLINDER
17	27293	2	THRUST PIN; FRONT, EXTENSION CYLINDER
18	13459-2	2	ARROW
19	22490	2	SPACER; BOOM ARROW
20	21935	1	WELDED ASS'Y; WIRE ROPE GUIDE
21	21560	1	ROLLER; UHMW, WIRE ROPE GUIDE

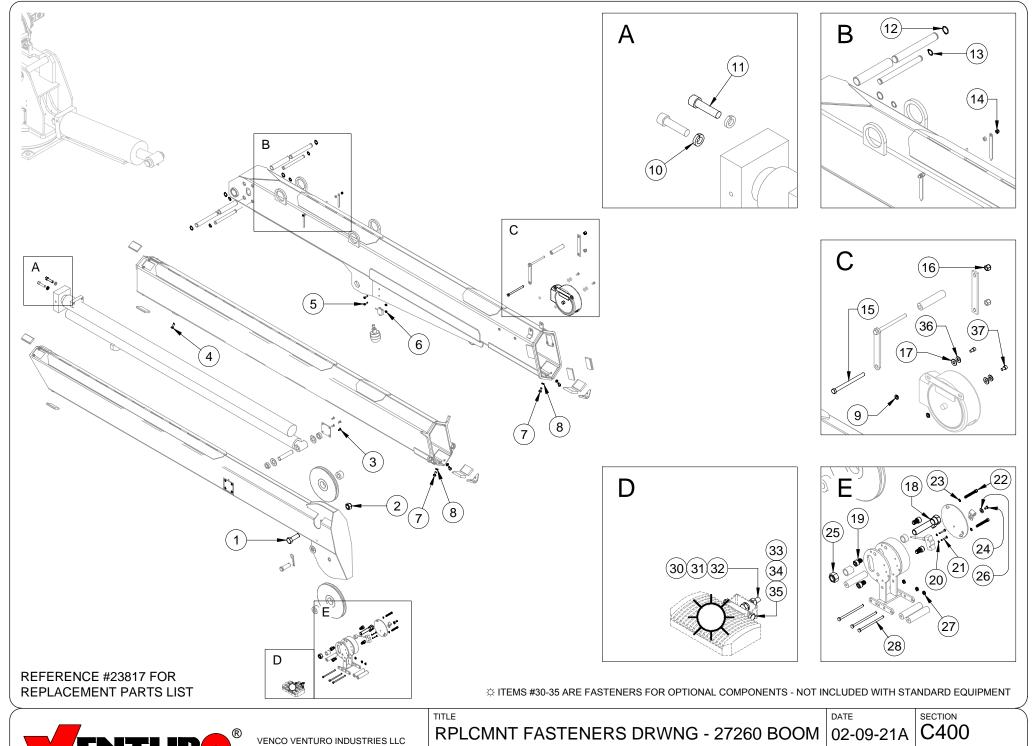
ITEM	PART NO.	QTY	DESCRIPTION
22	21936	1	FLAT, MOUNT; WIRE ROPE GUIDE
23	28190	1	COMPLETE CORD REEL
* 24	23720-INC	1	UNIVERSAL INCLINOMTER
25	23438	1	WARNING LIGHT; TRI-COLOR, LED
26	21428	2	BUSHING; EXTENSION CYLINDER
27	21405	1	PIN; PIVOT, EXTENSION CYLINDER
28	!FWSH-100SAE	2	FLAT WASHER; 1" SAE
29	23116	2	PIN BLOCK REINFORCING
30	27241	2	CABLE SHEAVE
31	27256	2	SPACER; SHEAVE
32	27466-1	1	SPACER; COMPACT A2B, 0.47" LONG
33	27466-2	1	SPACER; COMPACT A2B, 0.81" LONG
34	19376	1	LIMIT SWITCH; MODIFIED
35	27486	1	WLDMNT; COMPACT A2B FRAME, LEFT-HAND
36	27473	1	PLATE; COMPACT A2B COVER
37	19269	1	CLAMP; 1/4" CABLE
38	27475	3	ROLLER; COMPACT A2B, WIRE ROPE GUIDE
39	27254	1	LOAD BLOCK ASSEMBLY
40	27587-7/16-100	1	WIRE ROPE; 7/16 * 100 FT
41	-	-	-
 ⇔42	27483	1	ASS'Y; WORK LIGHT, LED

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

REFERENCE #23814 FOR REPLACEMENT PARTS DRAWING

☼ OPTIONAL; NOT INCLUDED WITH STANDARD EQUIPMENT







CINCINNATI, OHIO

HT66KX-25' VLC SERIES

SUPERSEDES

02-06-19

	ITEM#	PART#	QTY	DESCRIPTION	WHERE-USED
	1	!HHCS10008300	1	HHCS; 1-8 X 3", GR. 5, ZINC -PLTD	TOP SHEAVE
	2	!LNUT-10008	1	HEX NUT; 1-8, GR. 5, ZINC-PLTD	TOP SHEAVE
	3	!CACS02520050S	8	CACS; 1/4-20 X 1/2", S/S	PIN BLCK REINFORCING
	4	!HHCS02520125S	2	HHCS; 1/4-20 X 1-1/4", S/S	EXTENSION CYLINDER
	5	!HHCS02520100S	2	HHCS; 1/4-20 X 1", S/S	INCLINOMETER
	6	!LNUT-02520NS	2	LOCK NUT; 1/4-20, NYLON, S/S	INCLINOMETER
	7	!HHCS03816075S	4	HHCS; 3/8-16 X 3/4", S/S	V-BLOCKS
	8	!LWSH-038	4	LOCK WASHER; 3/8", GR. 5, ZINC-PL	V-BLOCKS
	9	28198	2	INSULATING SLEEVE WASHER - 5/16"	CORD REEL ASS'Y
	10	!LWSH-050-HC	2	LOCK WASHER; 1/2", HI-COLLAR	EXTENSION CYLINDER
	11	!SHCS05013200	2	SHCS; 1/2-13 X 2"	EXTENSION CYLINDER
	12	!SRNG-100	4	SNAP RING; 1"	EXT. CYL. REAR PINS
	13	!SRNG-075	4	SNAP RING; 3/4"	EXT. CYL. FRONT PINS
	14	!ANUT-02520S	2	ACORN NUT; 1/4-20, S/S	BOOM ARROWS
	15	!HHCS04414550	1	HHCS; 7/16-14 X 5-1/2", GR. 5, ZINC	WIRE ROPE GUIDE
	16	!LNUT-04414	2	LOCK NUT; 7/16-14, GR. 5, ZINC	WIRE ROPE GUIDE
	17	01016	2	FIBER WASHER	CORD REEL ASS'Y
▲	18	28373	1	ASSY, CAM & HHCS CA2B CUT-OUT	COMPACT A2B ASS'Y
	19	27467	4	SHCS; 1/2-13 X 3/4", BLACK NYLON	COMPACT A2B ASS'Y
	20	!LWSH-#06	2	LOCK WASHER; #06, ZINC	COMPACT A2B SWITCH

ITEM#	PART #	QTY	DESCRIPTION	WHERE-USED
21	!PHCS#0632100	2	PHCS; #06-32 X 1", GR. 5, ZINC	COMAPCT A2B SWITCH
22	!SHCS02520200SS	2	SHCS; 1/4-20 X 2", S/S	COMPACT A2B COVER
23	23379	2	WASHER; 3/8" ID, 1/4" OD, NYLON	COMPACT A2B COVER
24	!SHPMS#1032038S	1	SLOT-HD PMS; #10-32 X 3/8", S/S	COMPACT A2B CLAMP
25	!LNUT-10008	1	LOCK NUT; 1-8, NYLON	COMPACT A2B ASS'Y
26	!FWSH-025S	1	FLAT WASHER; 1/4", S/S	COMPACT A2B CLAMP
27	!JNUT-02520NS	3	JAM NUT; 1/4-20, NYLON, S/S	COMPACT A2B ROLLERS
28	!HHCS02520450	3	HHCS; 1/4-20 X 4-1/2"	COMPACT A2B ROLLERS
29	-	-	-	-
☆ 30	!HHCS03118125S	1	HHCS; 5/16-18 X 1-1/4", S/S	WORK LIGHT
☆ 31	!HNUT-03118S	2	HEX NUT; 5/16-18, S/S	WORK LIGHT
☆ 32	!FWSH-031S	1	FLAT WASHER; 5/16", S/S	WORK LIGHT
⇔ 33	!HHCS02520250S	1	HHCS; 1/4-20 X 2-1/2", S/S	WORK LIGHT
☆ 34	!LWSH-025S	1	LOCK WASHER; 1/4", S/S	WORK LIGHT
	!HNUT-02520S	1	HEX NUT; 1/4-20, S/S	WORK LIGHT
36	!FWSH-031	2	FLAT WASHER; 5/16"	CORD REEL ASS'Y
37	!SHCS03118063S	2	SHCS; 5/16-18 X 5/8" LG, S/S	CORD REEL ASS'Y
38	-	-	-	-
39	-	-	-	-
40	-	-	-	-

ITEMS #30-35 ARE FOR OPTIONAL COMPONENTS - NOT INCLUDED WITH STANDARD EQUIPMENT

REFERENCE #23816 FOR REPLACEMENT FASTENERS DRAWING

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

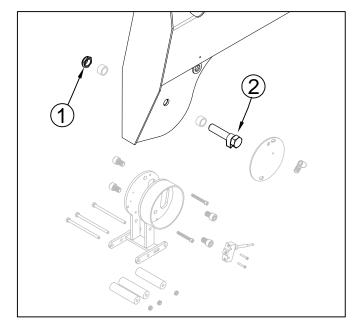


| DATE | DATE | 02-09-21A | C400 | C4

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.

- 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, *but do not tighten excessively so as to prevent damage to the wire rope.*
- 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. NOTE: The point at which 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.



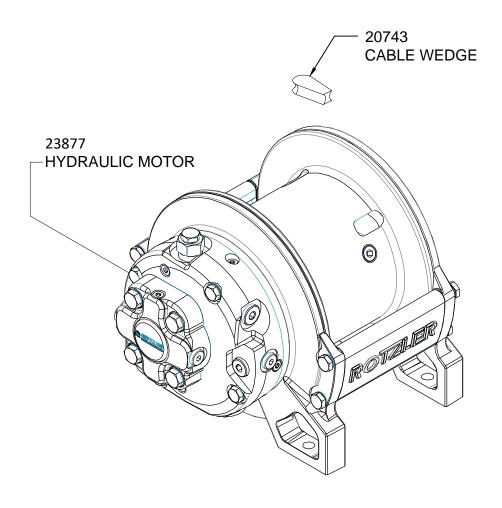


Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124



A2B Stowage Cut-out	10-04-21B	C400
ET/HT Cranes w/ Comp. A2B	SUPERSEDES 08-03-21A	28239

REPLACEMENT PARTS DRAWING; 27274 WINCH



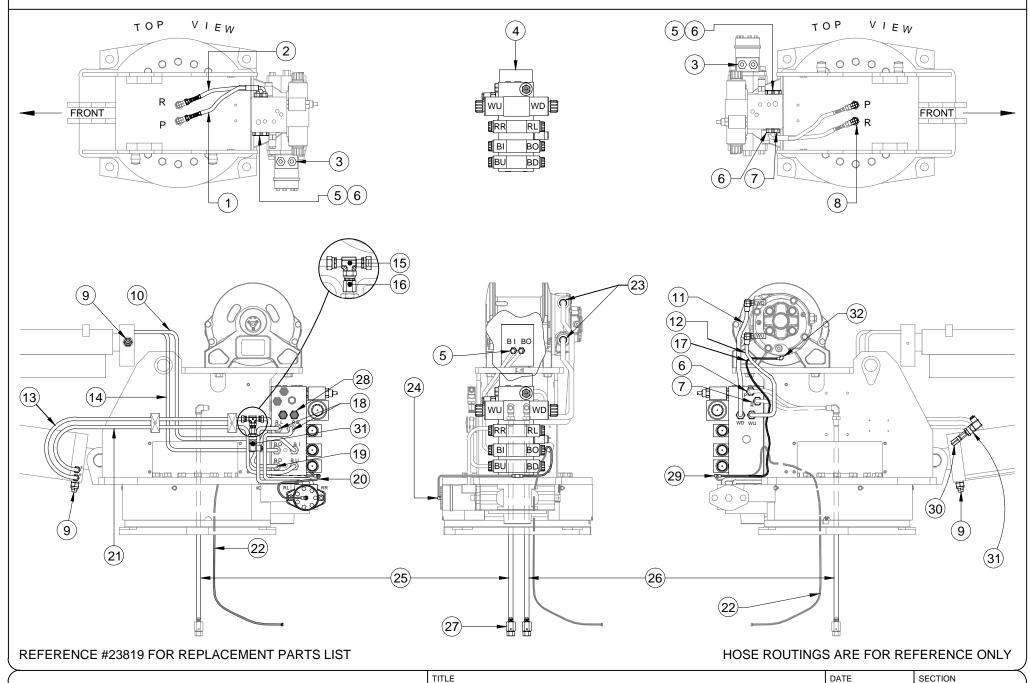
WINCH SEALS PACKAGE: 23848

CINCINNATI, OHIO



TITLE	DATE	SECTION
REPLACEMENT PARTS DRAWING	11-10-22-C	C400
	SUPERSEDES	0-000
HT60/66KX SERIES CRANES	04-05-21B	27332

REPLACEMENT PARTS DRAWING - HYDRAULIC COMPONENTS





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMNT PARTS DWG - HYD. COMPONENTS

03-15-23B (

C400

HT60/66KX VLC SERIES

12-01-22A

REPLACEMENT PARTS LIST - HYD. COMPONENTS

ITEM	PART NO.	HT60	HT66	DESCRIPTION	INSTALLATION
1	27584	1	1	HOSE ASS'Y; PRESSURE	H2701LN-0808 (BLKHD) - FF6400-0810 (MANIFOLD)
2 27618 1		1	HOSE ASS'Y; RETURN	H2701LN-0808 (BLKHD) - FF6400-0812 (MANIFOLD)	
3 FF6400-0610 2		2	2	FITTING; STRAIGHT ADAPTER, 60FS-10MO	ROTATION MOTOR PORTS
4	22736H-1	-	1	VALVE MANIFOLD; HI-FLOW, 3000 PSI	-
4	22736H-2	1	-	VALVE MANIFOLD; HI-FLOW, 2600 PSI	-
5	FF6400-0606	10	10	FITTING; STRAIGHT ADAPTER, 60FS-6MO	RL/RR/BI/BO/BU/BD MANIFOLD PORTS, CYL. PORTS
6	FF6400-0810	3	3	FITTING; STRAIGHT ADAPTER, 80FS-10MO	MANIFOLD PORTS: 'P' (RIGHT), WU/WD (LEFT)
7	FF6400-0812	1	1	FITTING; STRAIGHT ADAPTER, 80FS-12MO	MANIFOLD RETURN PORT (RIGHT)
8	H2701LN-0808	2	2	FITTING; BULKHEAD, 90° ELBOW, 8MJ-8MJ	MECHANISM; MIDPLATE
9	20893	2	2	COUNTER-BALANCE VALVE	ELEVATION & EXTENSION CYLINDERS
10	27593	1	1	HOSE ASS'Y; BOOM IN	FF6400-0606 (MANIFOLD) - FF6400-0606 (EXT. CYL.)
11	27025 ¹	1	1	HOSE ASS'Y; WINCH DOWN	FF6400-0810 (MANIFOLD) - FF3801-8-12 (WINCH)
12	27024 ²	1	1	HOSE ASS'Y; WINCH UP	FF6400-0810 (MANIFOLD) - FF3801-8-12 (WINCH)
13	28052	1	1	HOSE ASS'Y; BOOM DOWN, CYL-SIDE	23731 - FF6400-0606 (ELEV. CYL. 'R' PORT)
14	27592	1	1	HOSE ASS'Y; BOOM OUT	FF6400-0606 (MANIFOLD) - FF6400-0606 (EXT. CYL.)
15	23731	1	1	FITTING; TEE, 6MORFS-6FORFS-6MORFS	28052, 28053, & 23732
16 23732		1	1	FITTING; REDUCER, 6FORFS-4FORB	23731 - PRESSURE TRANDUCER
17	22953	1	1	HOSE ASS'Y; CASE DRAIN, 30" LONG	H6801-0404 (WINCH) - H2603-040404 (TEE)
18	27598	2	2	HOSE ASS'Y; ROTATION LEFT/RIGHT	FF6400-0606 (MANIFOLD) - FF6400-0610 (ROT. MTR.)
19 28053		1	1	HOSE ASS'Y; BOOM DOWN, MANIFOLD-SIDE	23731 - FF6400-0606 (MANIFOLD)
20	22952	1	1	HOSE ASS'Y; CASE DRAIN, 13" LONG	H6801-0404 (ROTATION MTR) - H2603-040404 (TEE)
21	27663	1	1	HOSE ASS'Y; BOOM UP	FF6400-0606 (X2); MANIFOLD - ELEV. CYL. 'E' PORT
22	22903	1	1	HOSE ASS'Y; CASE DRAIN, 96" LONG	H2603-040404 - COMPARTMENT
23	FF3801-8-12	2	2	FITTING; 90° ELBOW ADAPTER, 80FS-12MBP	WINCH PORTS - 28271, 28272
24	H6801-0404	1	1	FITTING; 90° ELBOW ADAPTER, 4MJ-4MO	ROTATION MOTOR CASE DRAIN PORT
25	27665	1	1	HOSE ASS'Y; PRESSURE SUPPLY	22764 (SWIVEL) - H2701LN-0808 (BULKHEAD)
26	27664	1	1	HOSE ASS'Y; RETURN SUPPLY	22764 (SWIVEL) - H2701LN-0808 (BULKHEAD)
27	22764	2	2	HYDRAULIC SWIVELS; 8MJ-8FJ	COMPARTMENT - 22765 (PRESS), 22764 (RETURN)
28	H6408-10	2	2	FITTING; PLUG, 10MO	MANIFOLD (WU/WD PORTS)
29	H2603-040404	1	1	FITTING; T-SHAPE, 4MJ-4MJ	22952, 22953, & 22903 (CASE DRAIN HOSES)
30	H6815-0604	1	1	FITTING; 90° ELBOW, 6MORB-4FORB	TRANSDUCER - ELEV. CYLINDER PORT (RIGHT SIDE)
* 32	23720-PTD	2	2	PRESSURE TRANSDUCER	-
33	3802-0404 (FF3802-4-4)	1	1	FITTING; ADAPTER, 45° ELBOW, 04MJ-04MBP	WINCH CASE DRAIN PORT

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

REFERENCE #23818 FOR REPLACEMENT PARTS DRAWING

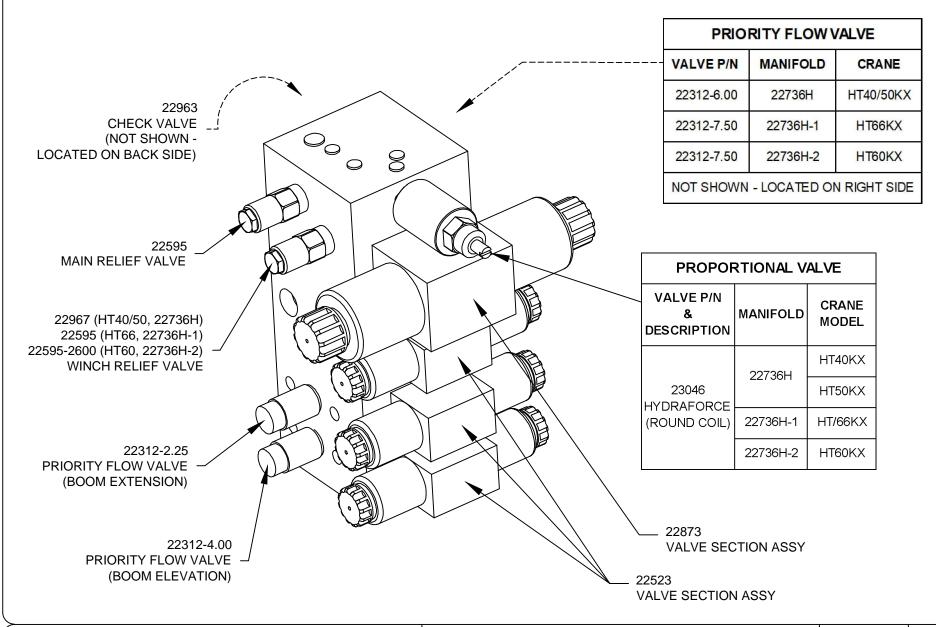


RPLCMNT PARTS - HYD. CMP	03-15-23C	C400
HT60/66KX VLC SERIES	SUPERSEDES 11-23-22B	23847

¹ WINCH DOWN HOSE #27025 IS APPLICABLE TO CRANES WITH SERIAL #10A000024 & HIGHER. ITEM #11 WAS 28272

² WINCH UP HOSE #27024 IS APPLICABLE TO CRANES WITH SERIAL #10A000024 & HIGHER. ITEM #12 WAS 28271

22736 SERIES VALVE MANIFOLD REPLACEMENT PARTS

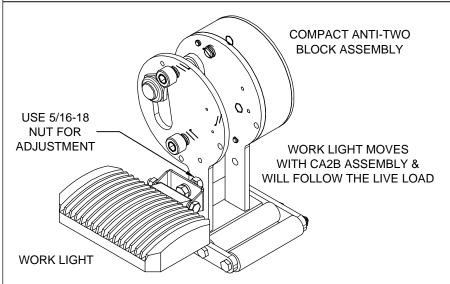




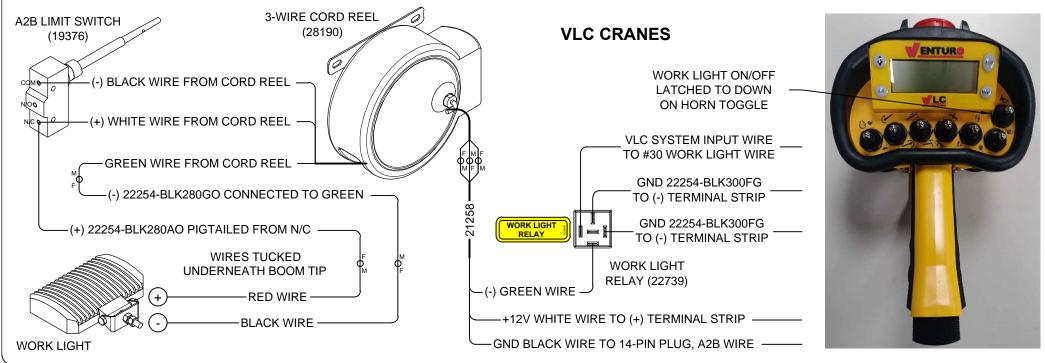
VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

22736 REPLACEMENT PARTS	11-10-22G	C400
HT40/50/60/66KX PROPORTIONAL	SUPERSEDES 11-13-17F	22940

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



	BILL OF MATERIALS	N/D	28240
# DESCRIPTION			PART NUMBER
1	IDWG; WORK LIGHT INSTALLATION, VLC CRANES	1	28188
2	LED WORK LIGHT	1	27483
3	TERMINAL; 16G, FEMALE, QUICK-CONNECT	5	!TERM16G250QCFI
4	TERMINAL; 16G, MALE, QUICK-CONNECT	4	!TERM16G250QCM
5	WIRE ASS'Y; 16G, BLACK, 28", #6 RING - STRIPPED END	1	22254-BLK280AO
6	WIRE ASS'Y; 16G, BLACK, 28", QCF - STRIPPED END	1	22254-BLK280GO
7	RELAY; 12VDC	1	22739
8	8 DECAL; WORK LIGHT RELAY		16184-2
9	WIRE ASS'Y; 16G, BLACK, 30", MALE PIN - QCF	2	22254-BLK300FG



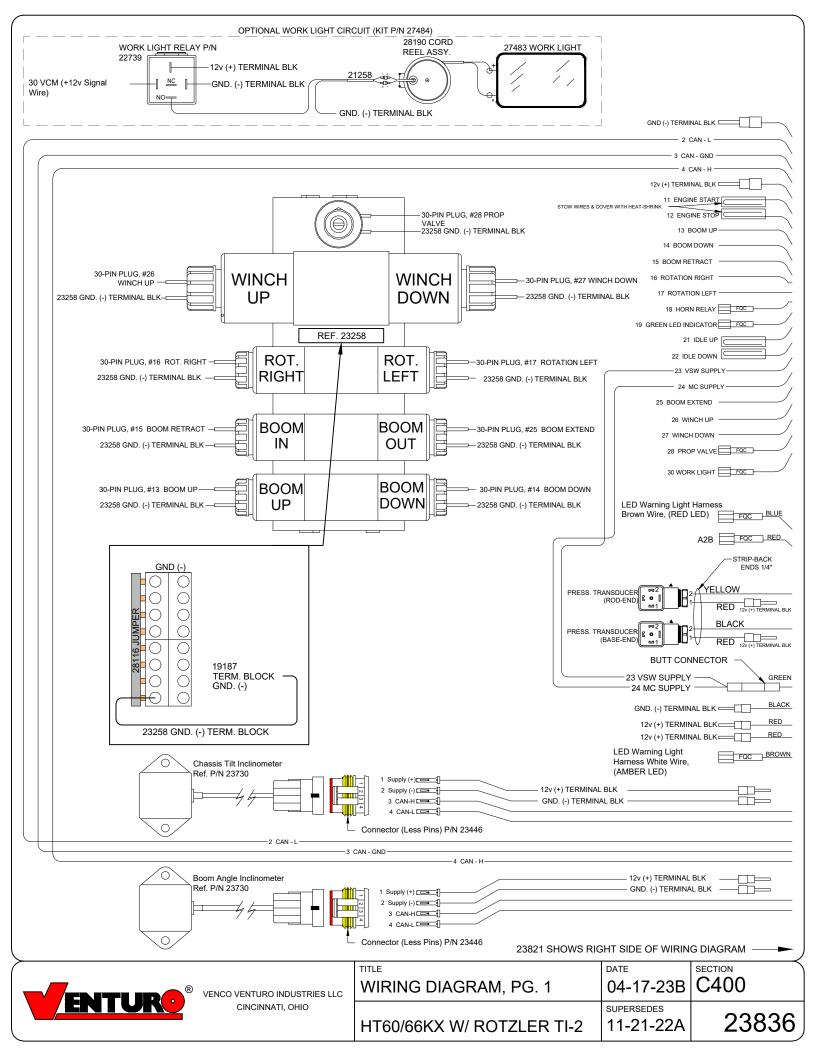


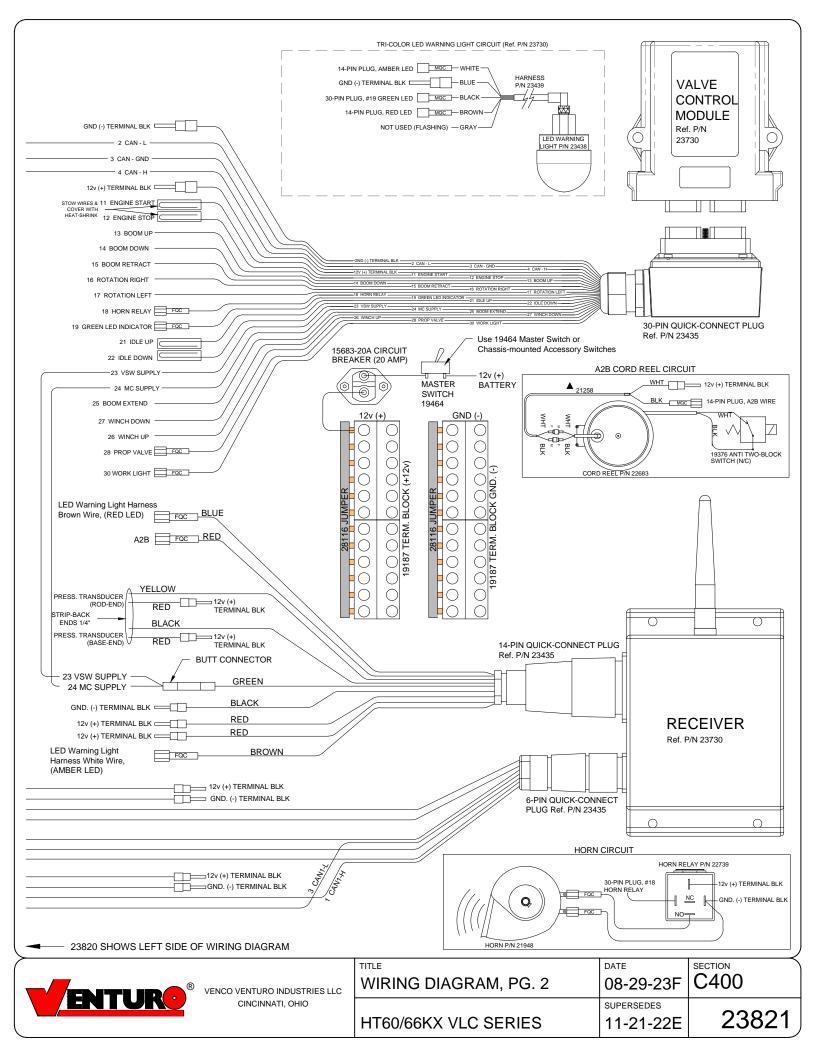
VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

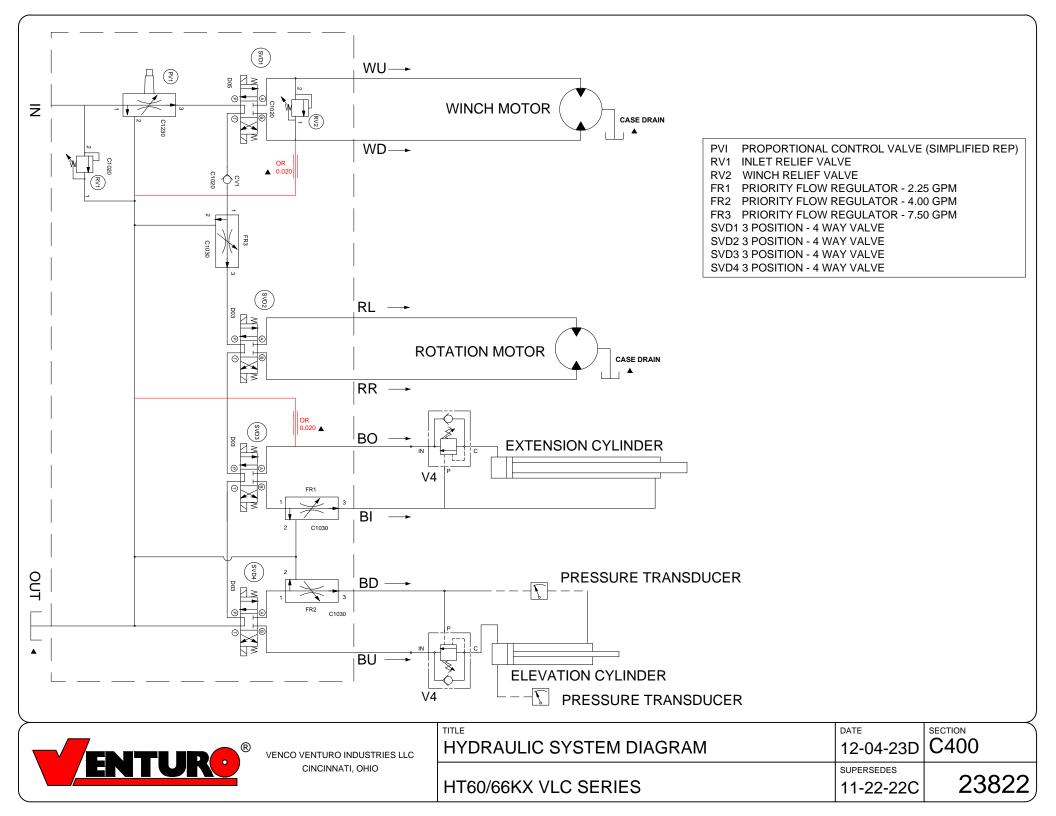
WORK LIGHT INSTALLATION, 3-WIRE CORD REEL	03-0
VLC CRANES	SUPERSI

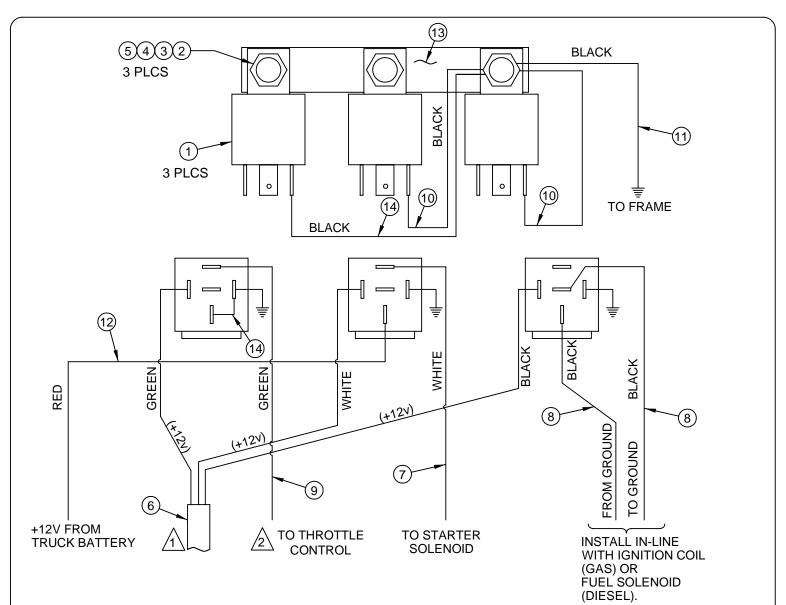
33-03-23A C400

02-05-21





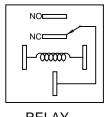




USER-CONTROLLED +12V INPUT SIGNALS FROM HETRONIC VLC SYSTEM OR ANALOG PENDANT OR RADIO SYSTEM

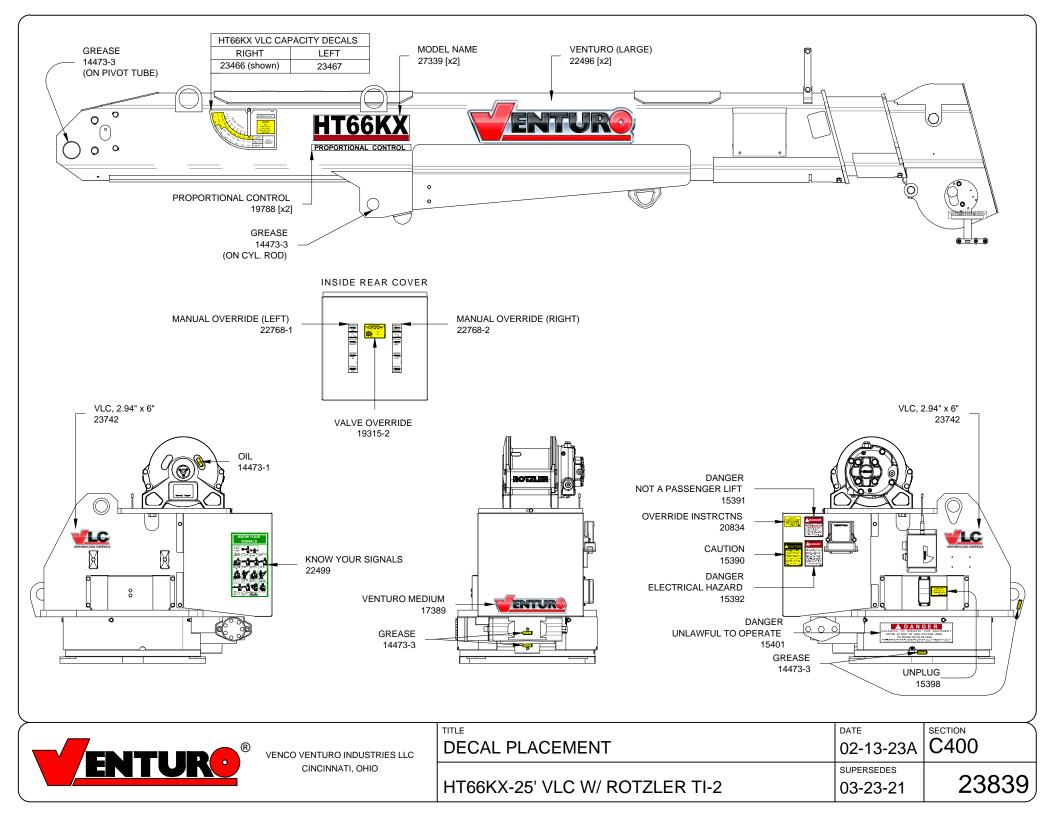
THROTTLE CONTROL IS DESIGNED TO PROVIDE A GROUND SIGNAL WHEN RELAY IS ACTIVATED

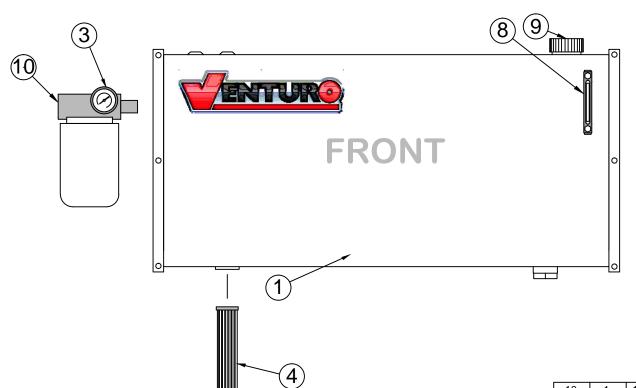
ITEM	QTY	PART#	DESCRIPTION
1	3	22739	RELAY
2	3	!PHCS#1024075	#10-24 X 3/4 PHIL PAN HD BOLT
3	3	!LWSH-#10	#10 LOCKWASHER
4	3	!FWSH-025	#10 WASHER
5	3	!HNUT-#1024	#10 NUT
6	1	22607	WIRE HARNESS - 12/3 SJO
7	1	22609	WHITE - 16 GAGE ELECTRICAL WIRE - 15 FEET LONG
8	2	22610	BLACK - 16 GAGE ELECTRICAL WIRE - 15 FEET LONG
9	1	22611	GREEN - 16 GAGE ELECTRICAL WIRE - 15 FEET LONG
10	2	22612	BLACK - 16 GAGE ELECTRICAL WIRE - 6 INCHES LONG
11	1	22613	BLACK - 16 GAGE ELECTRICAL WIRE - 8 FEET LONG
12	1	22614	RED - 14 GAGE ELECTRICAL WIRE - 15 FEET LONG
13	1	01181	BUSS BAR
14	1	22619	BLACK - 16GA WIRE ASSY - 6" LONG W/ 3 INCH PIGTAIL

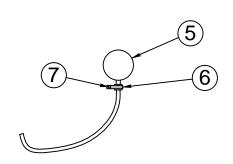


RELAY SCHEMATIC

 TITLE ENGINE START / STOP THROTTLE CONTROL	06-09-20F	c400
HT CRANES	02-21-14E	22615







	10	1	19298	FILTER ASSY, RETURN
	9	1	22789	FILLER / BREATHER CAP ASSEMBLY
	8	1	22787	SIGHT GLASS
	7	1	!HWHS02520075-F	HEX WASHER HEAD 1/4-20 X 3/4 SELF TAPPING
	6	1	19275	CLAMP
	5	1	22730	PRESSURE GAUGE ASSEMBLY
	4	1	22788	SUCTION SCREEN - 100 MESH
	3	1	19297	PRESSURE GAUGE - RETURN
	2	-	-	-
	* 1	1	22785	HYDRAULIC RESERVOIR - 25 GAL (18" x 40" x 8")
١.		'	22998	HYDRAULIC RESERVOIR - 40 GAL (20" x 42" x 11")
	ITEM	QTY	PART NUMBERS	DESCRIPTION



RESERVOIR KIT REPL PARTS

12-09-22D

C400

HT CRANES; 25/40 GAL RESERVOIR

DATE
12-09-22D

C400

SUPERSEDES
08-04-15C

23224

23837 FIELD SERVICE LABEL KIT; HT66KX W/ ROTZLER TI-2

	(FOF	23837 FIELD SERVICE LABEL KIT (FOR HT66KX GENERATION 'A' VLC W/ ROTZLER TI-2)			
QTY	PART # DESCRIPTION				
2	22496	DECAL; VENTURO LOGO, LARGE			
1	17389	DECAL; VENTURO LOGO, MEDIUM			
2	27339	DECAL; MODEL NAME, HT66KX	3ES:		
2	19788	DECAL; PROPORTIONAL CONTROL	RANGE		
1	23466	DECAL; BOOM CAPACITY, RIGHT (HT66KX-25')	ER R		
1	23467	DECAL; BOOM CAPACITY, LEFT (HT66KX-25')	9		
1	14473-1	DECAL; OIL	IAL NUMB A000025 JRRENT		
6	14473-3	DECAL; GREASE	SIAL JA00		
1	17813	DECAL; OVERLOAD SENSING SYSTEM	SER - 10,		
1	22499	DECAL; KNOW YOUR SIGNALS			
1	20834 DECAL; MANUAL OVERRIDE, INSTRUCTIONS		TZLER TI-2 10A000024 10A000028		
1	19315-2	DECAL; MANUAL OVERRIDE, SHUTOFF, PROPORTIONAL	HT66KX W/ ROTZLER 10A000 10A00		
1	22768-1	DECAL; MANUAL OVERRIDE, HT PROPORTIONAL, LEFT	, RO		
1	22768-2	DECAL; MANUAL OVERRIDE, HT PROPORTIONAL, RIGHT	×		
2	23742	DECAL; VLC, 2.94" x 6.00"	36K)		
1	16184-1	DECAL: HORN RELAY	Ħ		
1	16184-2				
1	23838				
1	23839	IDWG; DECAL PLACEMENT, HT66KX VLC SERIES			
1	INST-23233	SAFETY MANUAL; VENTURO CRANES			
1	15397	15397 KIT; ACCIDENT PREVENTION SIGNS			

® VE	ENCO VENTURO INDUSTRIES LLC	FIELD SERVICE LABEL KIT	03-13-23B	C400	
ENION	CINCINNATI, OHIO	HT66KX W/ ROTZLER TI-2	SUPERSEDES 02-13-23A	23838	

VENTURO CRANES LIMITED WARRANTY POLICY



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

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

1-Year Limited Warranty Policy

This limited policy warrants new products of Venturo to be free from defects in material and workmanship for a period of one (1) year from date of original installation. OEM products or accessories purchased by Venturo as part of or offered with our product will carry the OEM manufacturer's respective warranty. Our warranty covers:

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

We shall not be liable for any contingent liabilities arising out of the improper function of any products. Warranty shall become void if the product is improperly installed, modified, damaged, abused or used for application other than intended use. There is no warranty of merchantability, fitness for a particular purpose, warranty arising from course of dealing or usage of trade, or any other implied or expressed warranty, except as made specifically herein. This warranty supersedes all previous warranties, written or implied.

Warranty Claims

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

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

VENCO VENTURO INDUSTRIES LLC

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

Revised: January 2015 12-00073_VNT1-D