

INST-26927

HSBA*G-P***

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PARTS & INSTALLATION MANUAL HT50KXP SERIES

Included in this manual:

HT50KX

- 8,000 lb Hydraulic Telescopic Service Crane
- Proportional Control
- 20, 25, or 30 ft Fully-Powered, Two-Stage Boom Extension

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

VENCU VENTURO (INDUSTRIES LLC D

HT50KX PROPORTIONAL SERIES

INST-26927 - 10/6/2025 (Rev: D3)

SECTION 100: DESCRIPTION & SPECIFICATIONS SPECIFICATIONS & OPERATING FEATURES INSTALLATION DIMENSIONS (20') 7607100A 24448 26894 26893 INSTALLATION DIMENSIONS (25) INSTALLATION DIMENSIONS (25')
INSTALLATION DIMENSIONS (30')
MOUNTING DIMENSIONS; BASE PLATE
CAPACITY CHART; HT50KX (20' BOOM)
CAPACITY CHART; HT50KX (25' BOOM)
CAPACITY CHART; HT50KX (30' BOOM) 24161 26892 22351 23122 24093 7607150A SECTION 150: SAFETY VEHICLE & CRANE ELECTRICAL HAZARD INFORMATION 15394 920612 SAFETY & HAZARDS, GENERAL WINCH SAFETY WARNINGS SAFETY DECALS DRAWING & LIST 19217 22181A SAFETY DECALS DRAWING & LIST 22181B SAFETY DECALS DRAWING & LIST 22181C 28521 SAFETY DECALS DRAWING & LIST DECALS; BOOM CAPACITY (20', 25', & 30') 24095 7607200A SECTION 200: INSTALLATION CRANE INSTALLATION, PG. 1 CRANE INSTALLATION, PG. 2 26895 22173 ROTATION STOP LOCATION STABILITY PROCEDURE (20') STABILITY PROCEDURE (25') 23532 20906-50 20906-50B STABILITY PROCEDURE (30') 20906-50C STABILITY CHART 20907 22785 HYDRAULIC TANK DIMENSIONS CONNECTIONS GUIDE (PAGE 1 OF 2) CONNECTIONS GUIDE (PAGE 2 OF 2) 22825 23015 23014 22883 PTO INSTALLATION COMPARTMENT DRAWING 22913 WIRE ROPE INSTALLATION 22245 7607300B SECTION 300: OPERATION & MAINTENANCE MAINTENANCE OVERVIEW INFORMATION 23203 CRANE OPERATION & MAINTENANCE INSTRUCTIONS (PAGE 1 OF 3) CRANE OPERATION & MAINTENANCE INSTRUCTIONS (PAGE 2 OF 3) CRANE OPERATION & MAINTENANCE INSTRUCTIONS (PAGE 2 OF 3) HYDRAULIC VALVE SYSTEMS EXPLANATION WIRE ROPE, HOOK, & LOAD BLOCK INFO 23753 26935 23755 26934 23231 SECTION 400: REPLACEMENT PARTS REPLACEMENT PARTS DRAWING; MECHANISM REPLACEMENT PARTS LIST; MECHANISM 7607400A 26890 26881 REPLACEMENT FASTENER DRAWING; MECHANISM REPLACEMENT FASTENER LIST; MECHANISM 26905 26906 REPLACEMENT PARTS DRAWING; 26595 20' BOOM 26947 REPLACEMENT PARTS LIST; 26595 20' BOOM REPLACEMENT FASTENER DRAWING; 26595 20' BOOM 26948 26949 REPLACEMENT FASTENER DRAWING, 26393 20' BOOM REPLACEMENT FASTENER LIST; 26595 20' BOOM REPLACEMENT PARTS DRAWING; 26593 25' BOOM REPLACEMENT FASTENER DRAWING; 26593 25' BOOM REPLACEMENT FASTENER LIST; 26593 25' BOOM REPLACEMENT FASTENER LIST; 26593 25' BOOM 26950 26951 26952 26953 26954 REPLACEMENT PARTS DRAWING; 26590 30' BOOM REPLACEMENT PARTS LIST; 26590 30' BOOM REPLACEMENT FASTENER DRAWING; 26590 30' BOOM 26955 26956 26957 26958 REPLACEMENT FASTENER LIST; 26590 30' BOOM REPLACEMENT PASTENER LIST, 2039 30 BOOM
REPL PARTS DWG & LIST - 27469-L-C-11 ANTI-TWO-BLOCK
COMPACT A2B CUT-OUT CAM INSTALLATION / ADJUSTMENT
WORK LIGHT INSTALLATION W/ 3-WIRE CORD REEL (NON-VLC)
TI1 & TI2 WINCH REPLACEMENT PARTS DRAWING & LIST
PROP HYDRAULIC SYSTEM COMPONENTS REPLACEMENT PARTS DRAWING
PROP HYDRAULIC SYSTEM COMPONENTS REPLACEMENT PARTS LIST 26942 28239 28199 26896 22978 26930 PROP HYDRAULIC SYSTEM COMPONENTS REPLACEMENT PARTS LIST 22736H HYDRAULIC VALVE MANIFOLD REPLACEMENT PARTS DRAWING & LIST HYDRAULIC SYSTEM SCHEMATIC - PROPORTIONAL CONTROL 40/50KX ELECTRICAL SCHEMATIC (PROP); W/ HORN ELECTRICAL SCHEMATIC; 16 PIN SOCKET WIRING REPL PARTS DWG / LIST; 21988 PENDANT (PROP, CORDED) REPL PARTS DWG / LIST; 21987 PENDANT (PROP W/ ENG CTRL, CORDED) REPL PARTS DWG / LIST; 21983 (PROP W/ ENG CTRL, RADIO) ENGINE START & STOP / THROTTLE CONTROLS RESERVOIR KITS: REPLACEMENT PARTS DRAWING & LISTS 22940 27352 26898 22125 23073 23072 23531 22615 RESERVOIR KITS: REPLACEMENT PARTS DRAWING & LISTS 23224 DECAL PLACEMENT 28522 22924 FIELD SERVICE LABEL KITS 22926 25431 NOTES

SECTION 100

DESCRIPTION & SPECIFICATIONS



SPECIFICATIONS

PTO-driven hydraulic system

12-volt electrical controls (e.g. valve coils)

50,000 ft-lb overturning moment (or as limited by truck stability)

Moment overload shut-off system

Hydraulic winch - 4,000 lb single-line capacity with automatic load brake

Hydraulic boom elevation

Hydraulic boom extension

Hydraulic 400° rotation

Corded remote control pendant

Radio remote control pendant (optional)

In-compartment electrical control panel (optional)

Accessories (optional):

Stabilizers: 25100-CD, 25500-PHX(D), 26100-PHX(D)

Pedestal: 17830

Boom Rest: 20381-1, VT1199

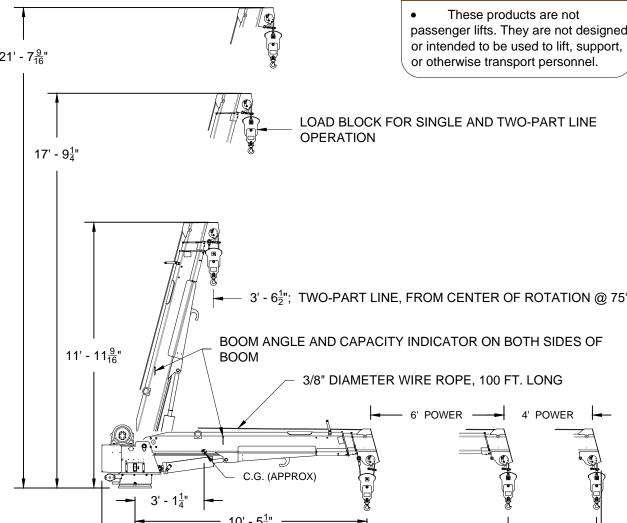
TELESCOPIC BOOM	10.4 - 20.8 ft	11.9 - 25.2 ft	13.5 - 30.2 ft
BOOM ELEVATION	-5° TO 75°	-5° TO 75°	-5° TO 75°
BOOM HYD EXTENSION	10 ft	13 ft	16.3 ft
BOOM MANUAL EXT	-	-	-
CAPACITY	2500 lb @ 20.5 ft	2000 lb @ 25.0 ft	1450 lb @ 30.0 ft
CAPACITY	8000 lb @ 5.5 ft	8000 lb @ 6.0 ft	8000 lb @ 6.0 ft
WIRE ROPE	3/8" x 100 ft	3/8" x 100 ft	3/8" x 125 ft

TITLE	DATE	SECTION
SPECS & OP. FEATURES	03-19-25	C100
HT50KX	SUPERSEDES	24448

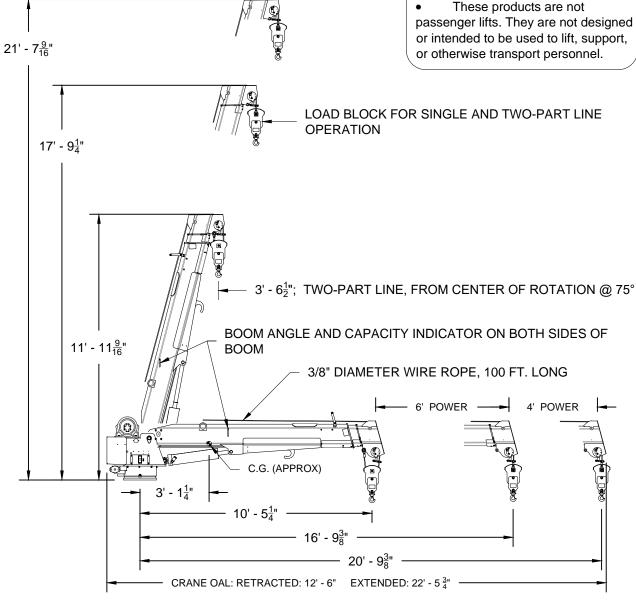
R19⁵₈" **SWING RADIUS**

 $10\frac{1}{16}$ "

39¹/₂"



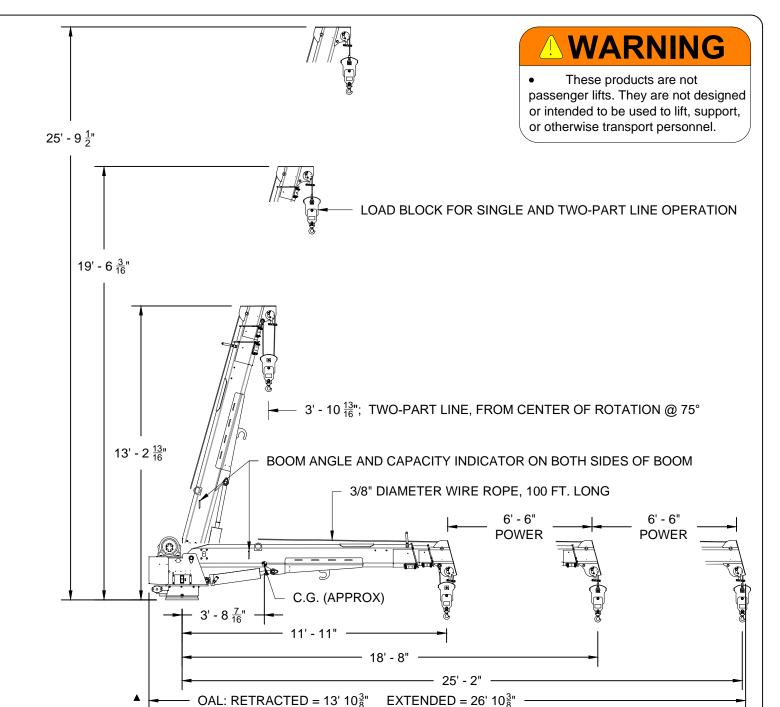
WARNING

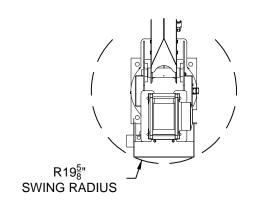


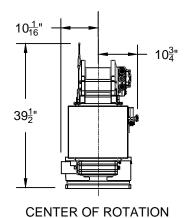


CENTER OF ROTATION

SECTION C100 **INSTALLATION DIMENSIONS** 10-03-24A SUPERSEDES 26894 HT40/45/50KX-20' BOOM 05-25-23







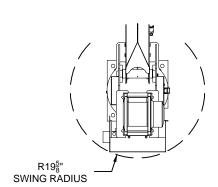


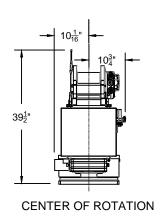
CINCINNATI, OHIO

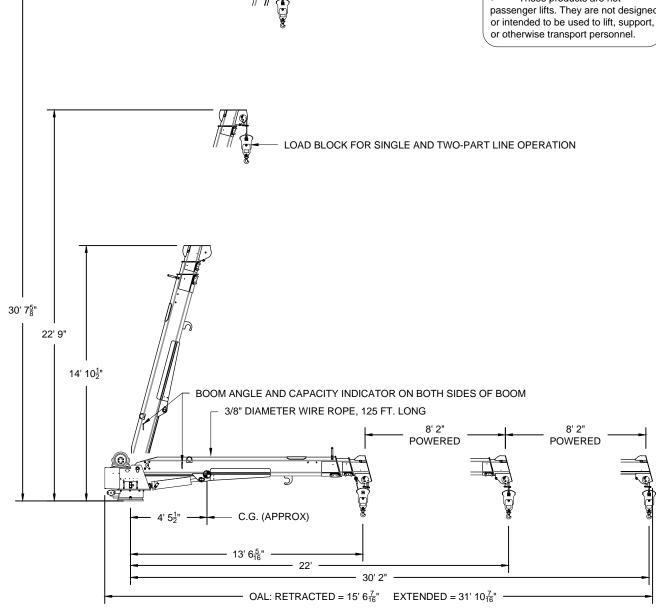
TITLE	DATE	SECTION
INSTALLATION DIMENSIONS	10-03-24A	C100
	SUPERSEDES	00000
HT40/45/50KX-25' BOOM	05-25-23	26893



passenger lifts. They are not designed or intended to be used to lift, support, or otherwise transport personnel.



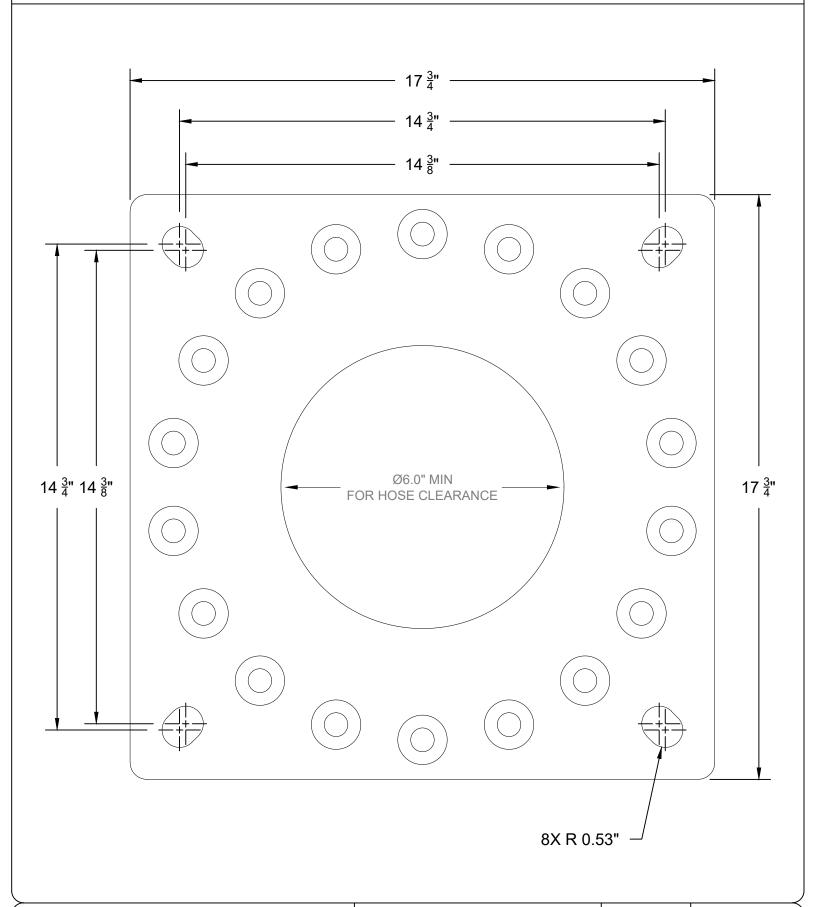






INSTALLATION DIMENSIONS	10-03-24B	C100
HT45/50KX-30' BOOM	SUPERSEDES 05-26-23A	24161

HT40/45/50KX SERIES MOUNTING DIMENSIONS





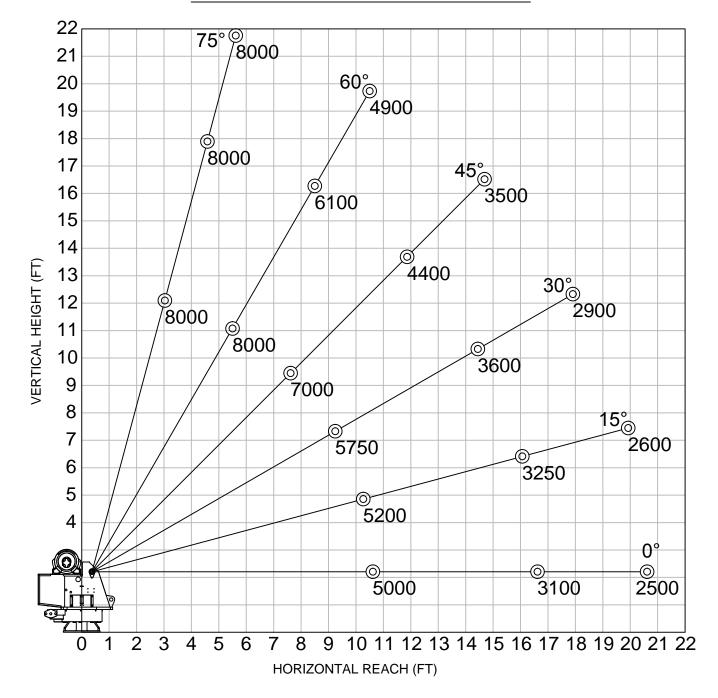
NCO V	ENTURO INDUSTRIES LLC
(CINCINNATI, OHIO

TITLE	DATE	SECTION `
MOUNTING DIMENSIONS	09-03-24A	C100
	SUPERSEDES	00000
HT40/45/50KX SERIES	05-25-23	26892

HT50KX, 10'-16'-20' BOOM

▲ CRANE SERIAL NUMBER: _____

MAXIMUM LOAD CAPACITY CHART



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

LOAD BLOCK USAGE

1 PART LINE FOR LOADS LESS THAN 4000 LBS 2 PART LINE FOR LOADS OF 4000 LBS AND GREATER

WEIGHT OF LOAD BLOCK = 51 LBS

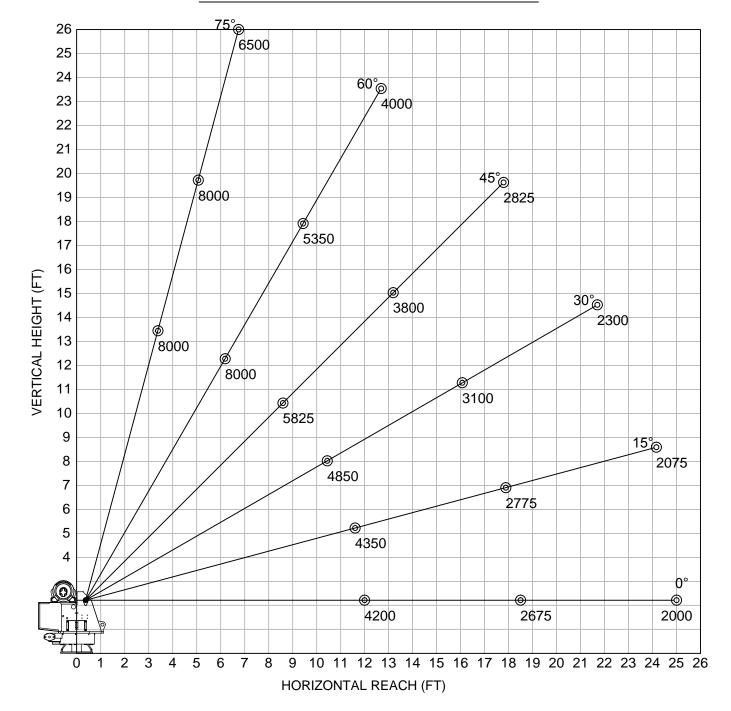


	SUPERSEDES 04-30-13E	22351	_
***==	05-03-16F		
TITLE	DATE	SECTION	

HT50KX, 12'-18.5'-25' BOOM

▲ CRANE SERIAL NUMBER: _____

MAXIMUM LOAD CAPACITY CHART



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

LOAD BLOCK USAGE

1 PART LINE FOR LOADS LESS THAN 4000 LBS 2 PART LINE FOR LOADS OF 4000 LBS AND GREATER

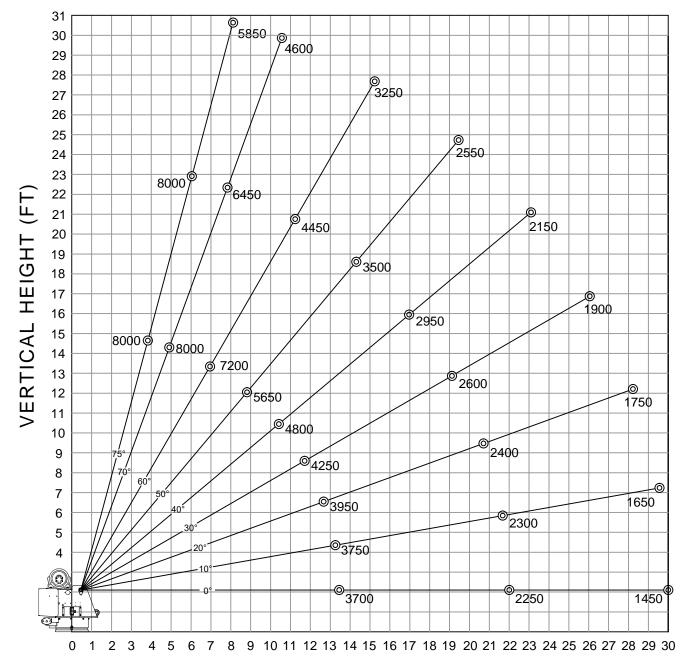
WEIGHT OF LOAD BLOCK = 51 LBS



TRIES LLC	MAXIMUM LOAD CAPACITY	05-03-16C	C100
10	HT50KX, 12'-18.5'-25' BOOM	SUPERSEDES 04-24-14B	23122

CRANE SERIAL NUMBER: __

MAXIMUM LOAD CAPACITY CHART



HORIZONTAL REACH (FT)

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 4000 LBS 2-PART LINE FOR LOADS OF 4000 LBS AND GREATER WEIGHT OF LOAD BLOCK = 51 LBS

® ®	VENCO VENTURO INDUSTRIES LLC	MAXIMUM LOAD CAPACITY	08-15-24	C100
ENTUR	CINCINNATI, OHIO	HT50KX-30'	SUPERSEDES -	24093

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	4				
over 0.75 - 50	6				
over 50 - 345	10				
over 345 - 750	16				
over 750 - 1000	20				
Over 1000	(as established by the utility owner/operator or registered				
	professional engineer who is a qualified person with respect to				
	electrical power transmission and distribution).				

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



HAZARD APPS & INFO ET/HT CRANES

C150 02-21-14M SUPERSEDES 15394 12-20-13L

SECTION

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

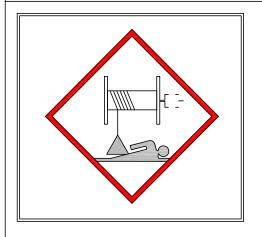
- THIS MACHINE IS NOT INSULATED.
- MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARATUS.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOADLINE SWAYING.
- THIS LIFTING DEVICE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.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

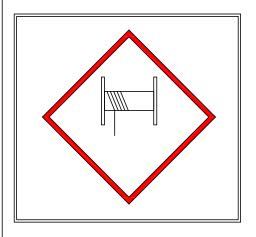
SECTION

WINCH SAFETY WARNINGS



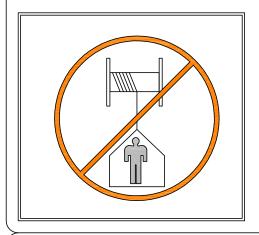
DANGER

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
	SUPERSEDES	4004
HT CRANES	04-04-12C	1921

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

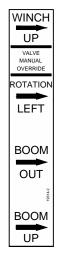
15308-F

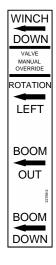
A DANGER

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.











TITLE

DECAL DRAWING & LIST

DATE

11-30-22E C150

SUPERSEDES

|22181*P*

SECTION

NCO VENTURO INDUSTRIES LL CINCINNATI, OHIO

HT40/50/60/66 SERIES

02-21-14D

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:

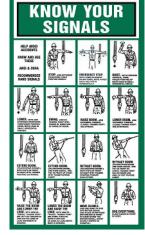
YOU HAVE BEEN TRAINED IN THE SAFE YOU HAVE BEEN IN TAINED IN INE SAFE OPERATION OF THIS CRANE; AND YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS.

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:

PLACEMENT: Rear cover.



PART NO.: 28520

DECAL: MODEL HT50KX

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

CINCINNATI, OHIO

identifiable.





DECAL	DRAWING	&	LIST

SUPERSEDES 2852 HT50KX

LEFT SIDE OF BOOM

RIGHT SIDE OF BOOM

PART NO.: 24091 & 24092

DECAL: HT50-30' CRANE CAPACITY

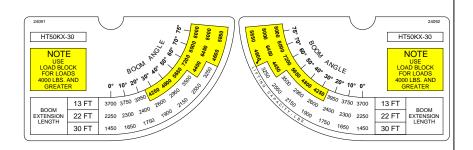
FUNCTION: To show the operator the

operating capacities of the crane

QUANTITY: 1 each

PLACEMENT: Right side of boom, Left side of

boom



24091 24092

LEFT SIDE OF BOOM

RIGHT SIDE OF BOOM

PART NO.: 22877-1 & 22877-2

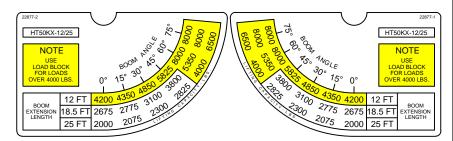
DECAL: HT50-25' CRANE CAPACITY

FUNCTION: To show the operator the operating

capacities of the crane

QUANTITY: 1 each

PLACEMENT: Right side of boom, Left side of boom



22877-2 22877-1

LEFT SIDE OF BOOM

RIGHT SIDE OF BOOM

PART NO.: 22352-1 & 22352-2

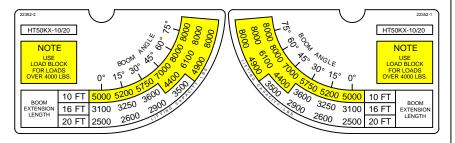
DECAL: HT50-20' CRANE CAPACITY

FUNCTION: To show the operator the operating

capacities of the crane

QUANTITY: 1 each

PLACEMENT: Right side of boom, Left side of boom



22352-2 22352-1

SPACE INTENTIONALLY LEFT BLANK

SECTION 200

INSTALLATION



CRANE INSTALLATION, PAGE 1 HT40/50KX

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 HT40KX is 45,000 ft. lbs. and for the HT50KX is 55,000 ft. lbs.

The maximum vertical loads for the HT40/50KX are listed based on the boom length:

	HT40KX			HT50KX	
BOOM LENGTH (FT)	20'	25'	20'	25'	30'
MAX VERTICAL LOAD (LBS)	7900	8050	9900	10050	10250

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" diameter with coarse threads, torqued to 680 foot pounds.

▲ A 6"- 8" diameter 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.

ENTURO ® VEN	VENCO VENTURO INDUSTRIES LLC	CRANE INSTALLATION	01-17-25B	C200
	CINCINNATI, OHIO	LITAO/FOLOV	SUPERSEDES	26805
		HT40/50KX	08-15-24A	ZUUSU

CRANE INSTALLATION, PAGE 2 HT40/50 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	NON-PROPORTIONAL	PROPORTIONAL
PRESSURE	3/8"	5/8"
RETURN	1/2"	3/4"
SUCTION	3/4"	1-1/4"

RESERVOIR

The PTO reservoir should have a capacity of 10 gallons (non-proportional) or 25 gallons (proportional) 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 2.5 GPM for the HT40 non-proportional, 12.0 GPM for the HT40 proportional, 3.0 GPM for the HT50 non-proportional, or 12.0 GPM for the HT50 proportional. These cranes' relief pressures are all set at 3000 psi.

▲ 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 (10 gallon reservoir = 20 minutes / 25 gallon = 50 minutes) to flush out the lines and filter all the fluid several times.

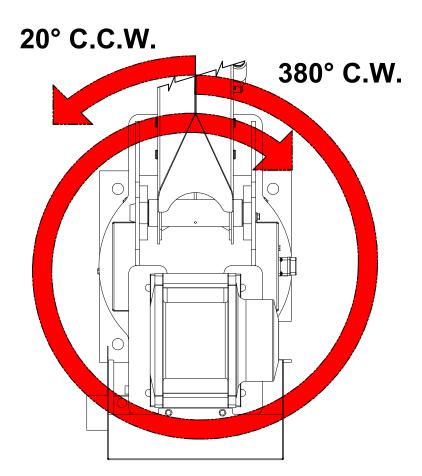
ENGINE START/STOP & THROTTLE CONTROL

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.

_		TITLE	DATE	SECTION	١
ENTIPO®) VENCO VENTURO INDUSTRIES LLC	CRANE INSTALLATION	05-10-21G	C200	
	CINCINNATI, OHIO		SUPERSEDES	00470	Ì
		HT40/50 SERIES CRANES	07-31-15F	221/3	$\Big\}$

400° ROTATION STOP LOCATION

Crane is shipped in "CURBSIDE" mounting configuration.





ROTATION STOP LOCATION	08-14-25	C200
400° ROTATION CRANES (STD CONFIG)	SUPERSEDES -	23532

STABILITY TEST - HT50-20'

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. Locate the Overload Pressure Switch at the base of the elevation cylinder
- 5.1. Disconnect the black & white wires from the housing and then connect the black & white wires together to by-pass the Overload Pressure Switch for the stability test. Note: The black & white wires MUST be reconnected to the Overload Pressure Switch after the stability test has been completed.
- 6. Use a *Test Weight* weighing a *minimum* of <u>2941 lbs</u>, (includes load block weight of <u>51</u> lbs.) to a *maximum of* <u>3030 lbs</u>.
- 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 two conditions occur:
 - 10.1. Full extension is reached Mark the ZONE in question 100%
 - 10.2. The truck becomes unstable i.e. a tire lifts off the ground
 - 10.2.1. Retract the boom until at least one tire on each corner of the truck is making contact with the ground
 - 10.2.2. 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
	247	

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

	VENCO VENTURO INDUSTRIES LLC		06-19-24E	C200
	CINCINNATI, OHIO	HT50-20'	SUPERSEDES 03-15-24D	20906-50

STABILITY TEST - HT50-25'

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. Locate the Overload Pressure Switch at the base of the elevation cylinder
- 5.1. Disconnect the black & white wires from the housing and then connect the black & white wires together to by-pass the Overload Pressure Switch for the stability test. Note: The black & white wires MUST be reconnected to the Overload Pressure Switch after the stability test has been completed.
- 6. Use a **Test Weight** weighing a **minimum** of **2353 lbs**, (includes load block weight of 51 lbs.) to a **maximum of 2675 lbs**.
- 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 two conditions occur:
- 10.1. Full extension is reached Mark the ZONE in question 100%
- 10.2. The truck becomes unstable i.e. a tire lifts off the ground
- 10.2.1. Retract the boom until at least one tire on each corner of the truck is making contact with the ground
- 10.2.2. 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
	300	

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

	VENCO VENTURO INDUSTRIES LLC	STABILITY TEST	06-19-24E	C200	\
ENTUR	CINCINNATI, OHIO	HT50-25'	SUPERSEDES 11-30-21D	20906-50B	

STABILITY TEST - HT50-30'

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

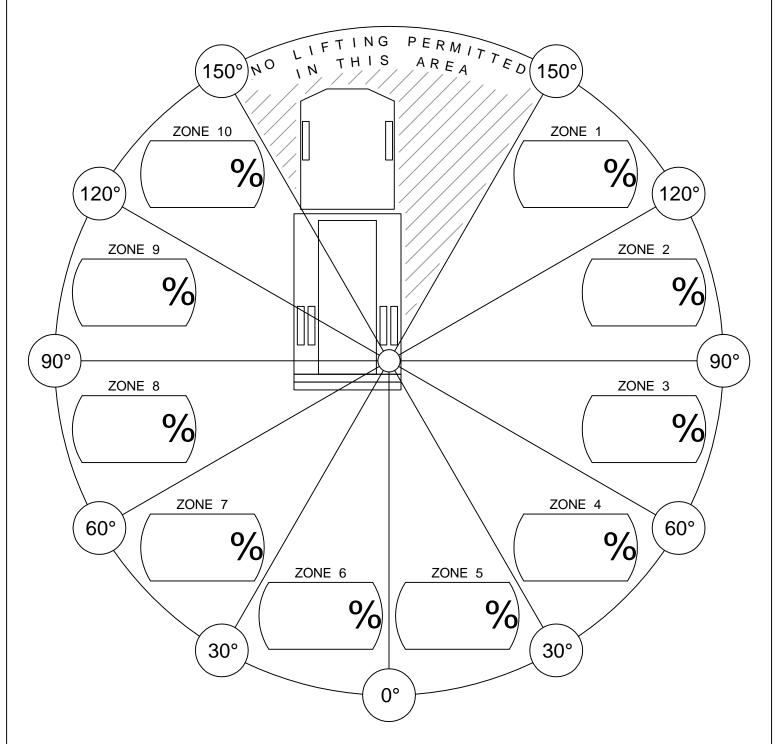
- 1. Locate the truck on firm, level ground and set parking brake.
- 2. Fully deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
- 3. Inspect wire rope and other key components of crane (consult owners manual for more information).
- 4. Conduct an operational check of all crane functions.
- 5. Locate the Overload Pressure Switch at the base of the elevation cylinder
- 5.1. Disconnect the black & white wires from the housing and then connect the black & white wires together to by-pass the Overload Pressure Switch for the stability test. Note: The black & white wires MUST be reconnected to the Overload Pressure Switch after the stability test has been completed.
- 6. Use a **Test Weight** weighing a **minimum** of **1700 lbs**, (includes load block weight of 51 lbs.) to a **maximum of 1870 lbs**.
- 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 two conditions occur:
 - 10.1. Full extension is reached Mark the ZONE in question 100%
 - 10.2. The truck becomes unstable i.e. a tire lifts off the ground
 - 10.2.1. Retract the boom until at least one tire on each corner of the truck is making contact with the ground
 - 10.2.2. 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
	360	

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

FNTURO®	VENCO VENTURO INDUSTRIES LLC	STABILITY TEST	08-15-24	C200	
ENION	CINCINNATI, OHIO	HT50-30'	SUPERSEDES -	20906-50C	

CRANE STABILITY



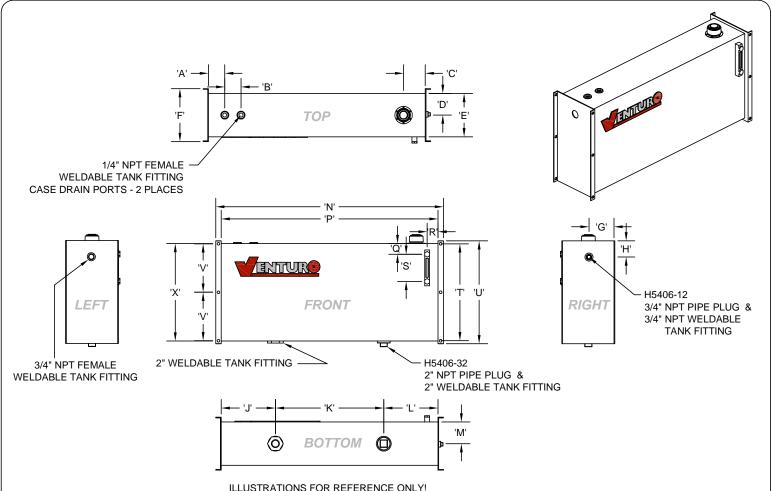
% of Rated Capacity for each of the 10 regions are provided above.

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 PART NO.	22786 (25 GAL.)	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

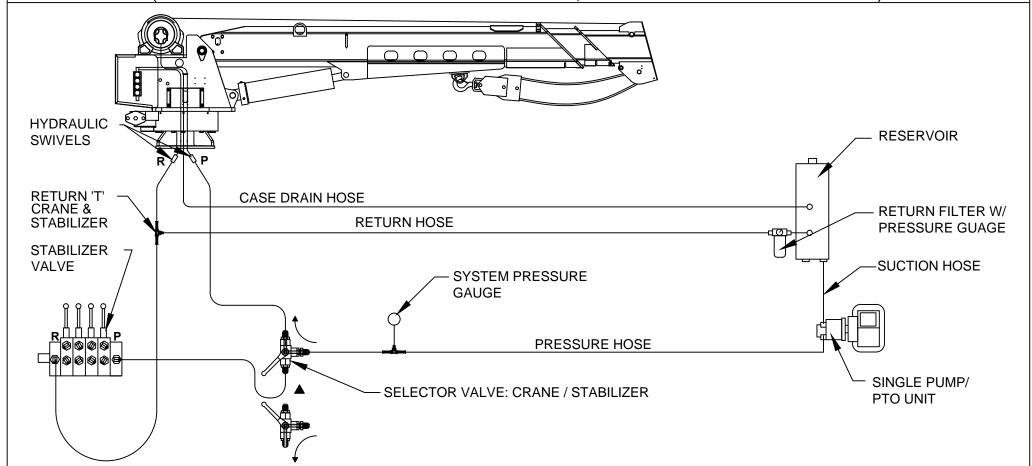
MEASUREMENTS EXCLUDE MOUNTING APARATUSES

CINCINNATI, OHIO



;	RESERVOIR DIMENSIONS	02-21-14E	C200
	HYD. TANKS (25/40 GAL.)	o6-04-13D	22825

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	

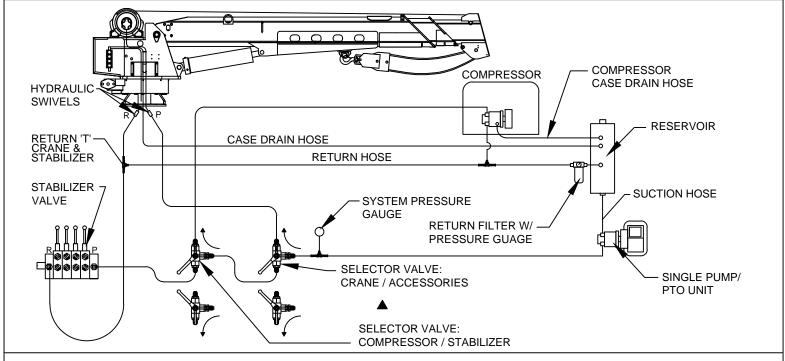
08-09-23C C200 SUPERSEDES - - -

HT CRANES

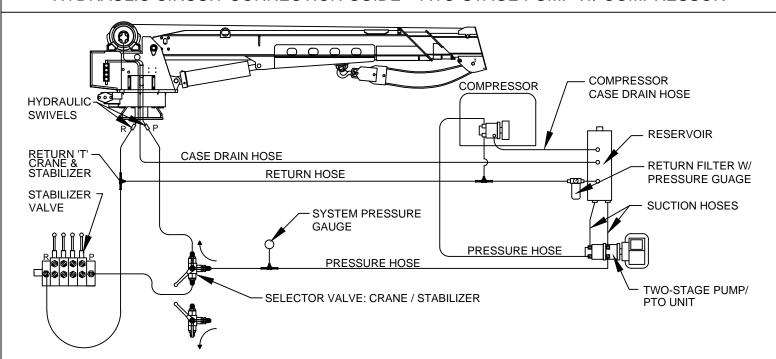
02-21-14B 23015

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

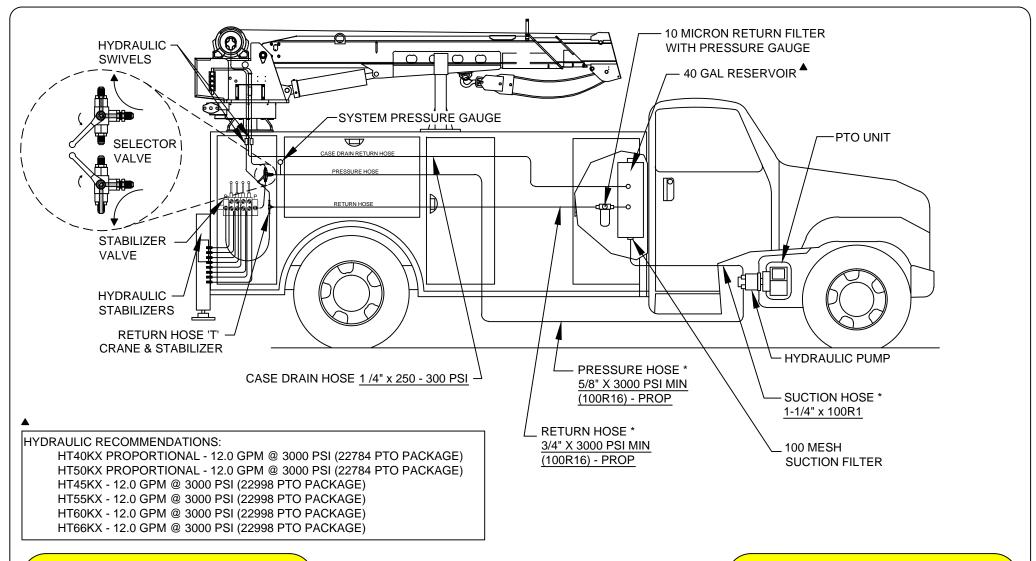
C200

SECTION

HT CRANES

02-21-14B

23014





 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

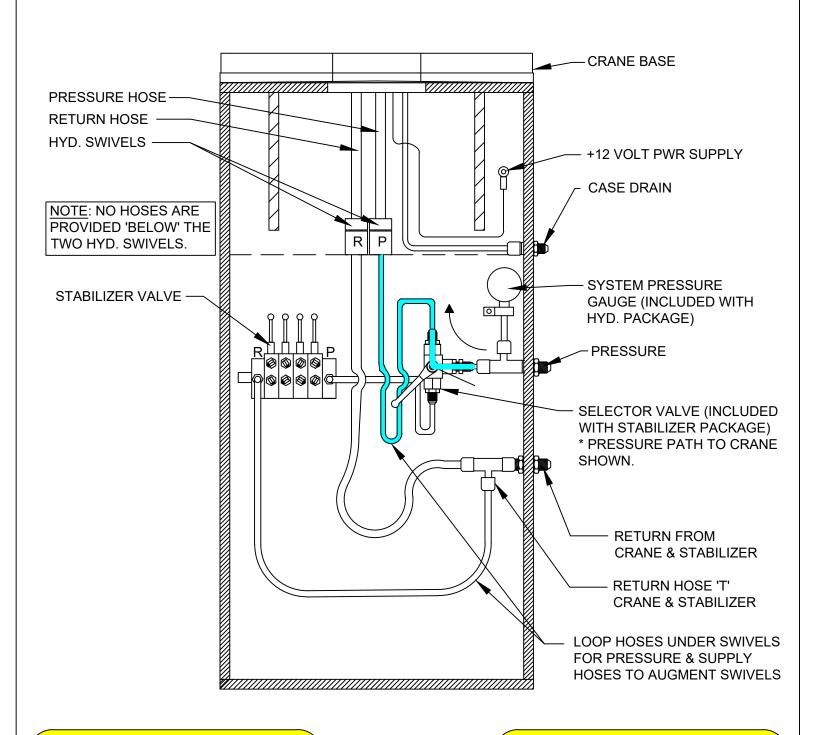
 THE CASE DRAIN LINE FROM THE WINCH MUST HAVE AN UNRESTRICTED PATH TO TANK/ RESERVOIR.



VENCO VENTURO INDUSTRIES LLC CINCINNATI. OHIO

TITLE	DATE	SECTION
HYDRAULIC COMPONENT INSTALLATION	07-15-24H	C200
	SUPERSEDES	00000
HT40-66, PROPORTIONAL	08-08-23G	22883

RECOMMENDED SUPPLY & RETURN HOSE CONNECTIONS **CRANE & STABILIZERS**



CAUTION

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

CAUTION

CASE DRAIN MUST RETURN DIRECTLY TO RESERVOIR WITHOUT RESTRICTION.



VENCO VENTURO INDUSTRIES LLC

CINCINNATI, OHIO

CONNECTIONS GUIDE

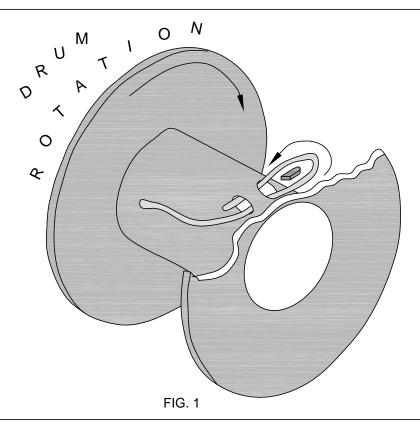
10-03-25H

SECTION C200

HT CRANES

SUPERSEDES 08-07-23G

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

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
LITOE IOO I AO IEO IOO IOO IOO IOO	SUPERSEDES	23203
HT25/30/40/50/60/66KX(P)	11-10-22D	20200

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 HT40/50KX

CONTROL FUNCTIONS

EMERGENCY STOP - Push to stop crane. Removes pendant voltage supply.

POWER - Supplies voltage to pendant.

HORN - Activates audible alert.

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

BOOM "UP" and "DOWN" - Increases and decreases the boom elevation angle.

BOOM "OUT" and "IN" - Extends and retracts the boom.

ROTATION "L" and "R" - Rotates the crane left and right.

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

OVERLOAD SENSING SYSTEM

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

TWO-BLOCK SENSING SYSTEM

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

TITLE	DATE	SECTION
CRANE OP & MAINT	06-18-24A	C200
	SUPERSEDES	26025
HT40/50KX	04-23-24	26935

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.

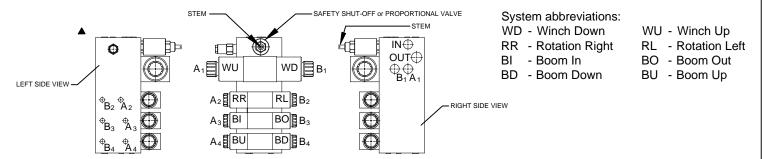
	VENCO VENTURO INDUSTRIES LLC	CRANE OP / MNTNC INST	06-18-24B	C200	
ENION	CINCINNATI, OHIO	HT40/45/50	supersedes 06-12-24A	23755)

EXPLANATION OF HYDRAULIC VALVE SYSTEMS

OVERVIEW

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

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



MANUAL OVERRIDE SYSTEM

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

To operate in manual override mode:

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

Non-Proportional system

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

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

Proportional system

For override operation, rotate stem clockwise (the farther the stem turns, the faster the crane operates). To return to normal operation, roate stem counter-clockwise until it stops.

(2) Determine the coil / override associated with the function you wish to operate, then insert a small diameter object (an Allen wrench works well) into the detent on the end of the valve stem and press firmly. For example, pushing the stem labeled 'A1' on the first bank (see illustration above) will actuate Winch Up.

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



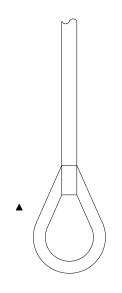
WIRE ROPE ASSEMBLY

LOAD BLOCK ASSEMBLY

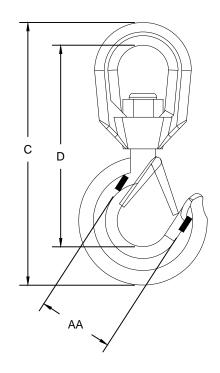
SINGLE

WIRE ROPE:

3/8" DIA, 100' OR 125' LONG GAC 7X19 XIP-RHRL-IWRC, SB 14,400 LBS



TERMINATES IN THIMBLE NO HOOK

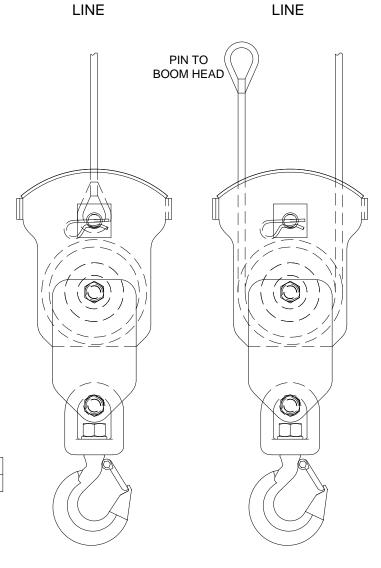


LOAD BLOCK SWIVEL HOOK:

RATING: 5 TONNE (11,023 LBS)

DIMENSIONS:

COLOR	BRAND	AA	С	D
GOLD	CROSBY	2.50"	9.69"	7.50"





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO WIRE ROPE, HOOK, & LOAD BLOCK INFORMATION

HT40/45/50KX

DATE SECTION C300

SUPERSEDES 08-15-24E 23231

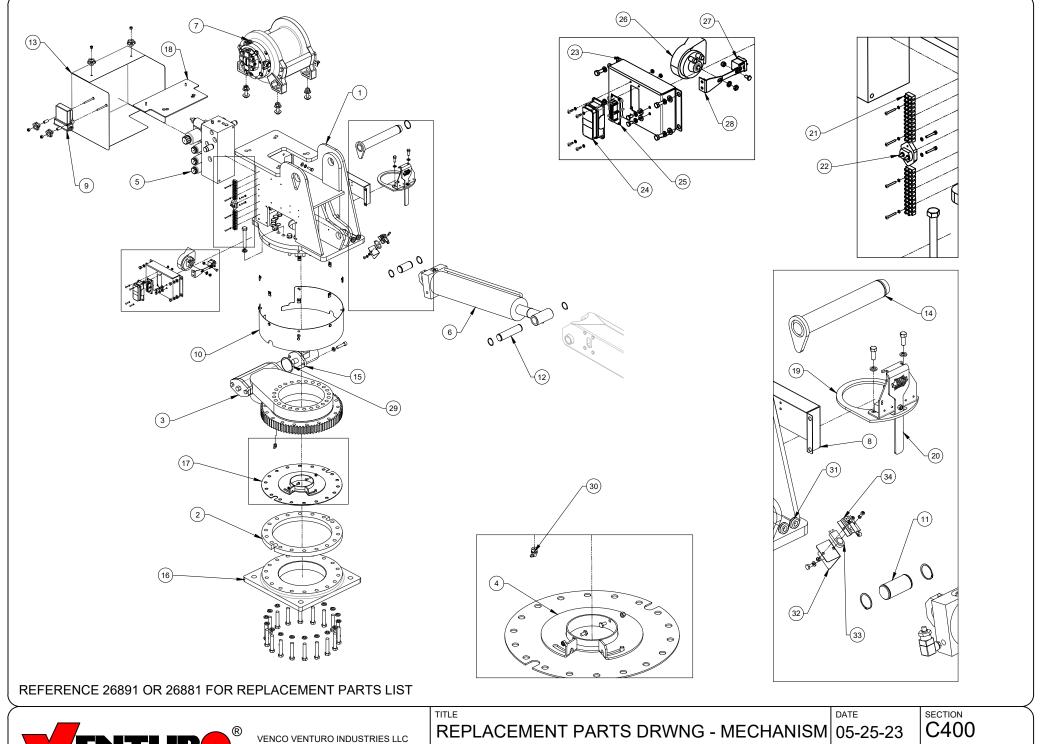
TWO-PART

X 08-15-24E

SECTION 400

REPLACEMENT PARTS





ENTUR

HT40/50 SERIES

SUPERSEDES

26890

REPLACEMENT PARTS LIST - HT50 SERIES; MECHANISM

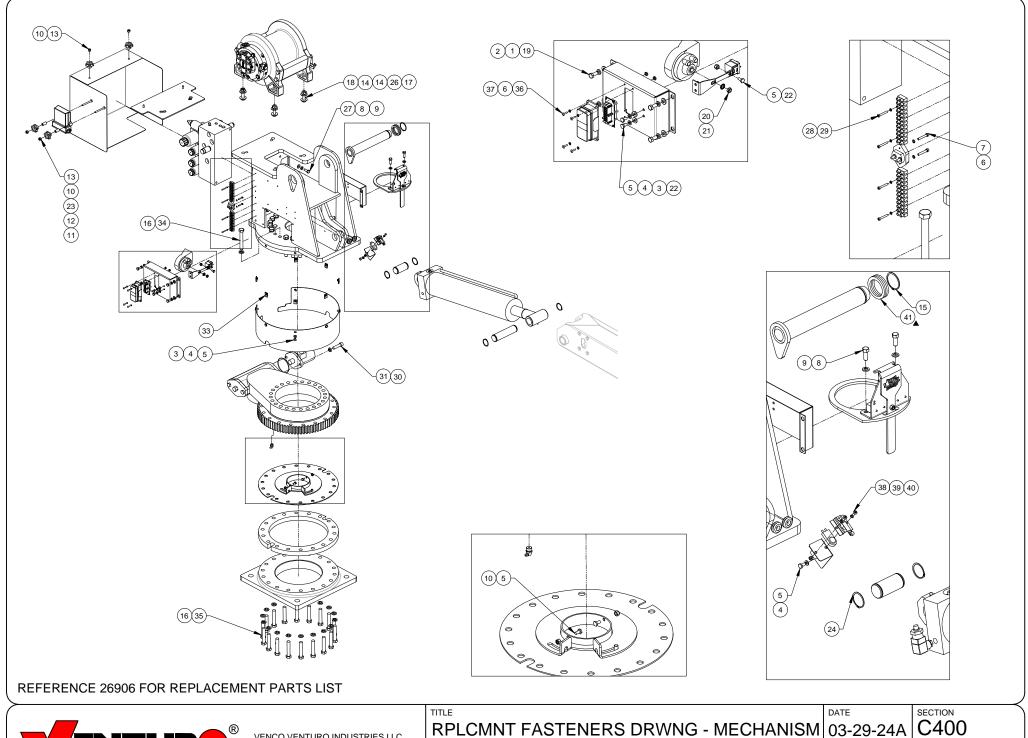
ITFM	QTY.		PART NUMBER	DESCRIPTION	
IILIVI	P	NP	17 KI I KOMBEK	DECCRIT HOLY	
1	1	1	26583	WELDED ASSEMBLY; HOUSING, MECHANISM	
2	1	1	23662	SPACER PLATE	
3	1	1	22704	SLEWING RING	
4	1	1	23666	STOP DISK	
5	1		22736H-3	HYDRAULIC VALVE MANIFOLD, PROP	
5	-	1	22501-0-225-225	HYDRAULIC VALVE MANIFOLD, NON PROP	
6	1	1	21748	ELEVATION CYLINDER	
7	1	-	22830	HYDRAULIC WINCH, PROP	
7		1	22909	HYDRAULIC WINCH, NON PROP	
8	1	1	22715-1	HOUSING SIDE COVER	
9	1	1	21986-HT	RADIO REMOTE SYSTEM (OPTIONAL)	
10	1	1	23644	SLEWING RING COVER	
11	1	1	22256	ELEVATION CYLINDER PIN - INBOARD	
12	1	1	22257	ELEVATION CYLINDER PIN - OUTBOARD	
13	1	1	22842	REAR COVER	
14	1	1	22721	PIVOT PIN - MAIN BOOM PIVOT	
15	1	1	27276	HYDRAULIC ROTATION MOTOR	
16	1	1	26606	MACHINED BASE	
17	1	1	23626	SLIPPER PLATE WELD	
18	1	1	28319	REAR COVER MOUNTING PLATE WELDEMENT	
19	1	1	23680	HOUSING WATER DAM	
20	1	1	28474	ELECTRIC ROTATION STOP ASSEMBLY	

	ITEM	M QTY.		PART NUMBER	DESCRIPTION
	21	1	1	19187-12	TERMIN AL STRIP: 12 SECTIONS
	22	1	1	15683-20A	CIRCUIT BREAKER; 20A
	23	1	1	22715-2	HOUSING SIDE COVER
	24	1	1	22481	SOCKET CASE W / HOOD; 16-PIN
	25	1	1	22482	SOCKET; 16-PIN FEMALE INSERT
	26	1	1	21948	HORN
	27	1	1	22739	HIGH CAPACITY RELAY
	28	1	1	22000	BRACKET; HORN
	29	1	1	OR-152-5	O-RING; ROTATION MOTOR
ı	30	1	1	!ZERK-013-27 NPT-90	FITTING; GREASE, 90°
١,	31	2	2	26586	GROMMET - RUBBER
	32	1	1	20497	BRACKET; SWITCH
	33	1	1	19918	SWITCH; BOOM TOP POSITION
	34	1	1	19917	BRACKET; BOOM SHUT-OFF SWITCH
	35		=		
	36		-		
	37		-		
	38		-		
	39				
	40		-		
	41		-		
	42		-		

REFERENCE 26890 FOR REPLACEMENT PARTS DRAWING



REPLACEMENT PARTS LIST - MECHANISM	07-10-25A	C400
HT50 SERIES (NON-VLC) ▲	SUPERSEDES 05-25-23	26881





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMNT FASTENERS DRWNG - MECHANISM

03-29-24A SUPERSEDES

HT40/50 SERIES

05-30-23

26905

RPLCMNT FASTENERS LIST - HT40/50KX SERIES; MECHANISM

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	8	!LWSH-031S	LOCK WASHER; 5/16, S/S
2	8	!FWSH-031S	FLAT W ASHER; 5/16, S/S
3	13	!FW SH-025S	FLAT W ASHER; 1/4, S/S
4	12	!LW SH-025S	LOCK WASHER; 1/4, S/S
5	11	!HHCS02520050S	HHCS; 1/4-20 x 1/2 LG, S/S
6	6	!LW SH-#08S	LOCK WASHER; #8, S/S
7	2	!SHCS#0832100S	SHCS; #8-32 X 1, S/S
8	4	!LW SH-038	LOCK WASHER; 3/8, ZINC
9	4	!HHC\$03816100	HHCS; 3/8-16 X 1, ZINC
10	4	28327	Knob, hand, 5-point
11	2	!HHCS02520275	HHCS, 1/4-20 X 2-3/4, S/S, FULL THRD
12	2	!JNUT-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 W ASHER; 1/2, GR. 8
15	1	24842-175	SPIRAL RETAINING RING - 1-3/4 -
10		24042 170	STAINLESS
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	!HHCS05013225-8	HHCS; 1/2-13 X 2-1/4 LG, GR 8
19	8	!HHCS03118075S	HHCS; 5/16-18 X 3/4, S/S
20	1	!LW SH-031-STAR	LOCK WASHER; 5/16, ZINC
21	1	!HNUT-03118	HEX NUT; 5/16-18, ZINC

ITEM	QTY.	PART NUMBER	DESCRIPTION
22	5	!LNUT-02520SS	NYLOCK HEX NUT 1/4-20
23	2	28328	NYLON SPACER, BLK25ID X .500D X 1
24	4	ISRNG-150	SNAP RING; 1-1/2, ZINC
25		=	-
26	4	!LW SH-050	LOCK WASHER; 1/2, GR. 8, ZINC
27	2	!FW SH-038	FLAT WASHER; 3/8, ZINC
28	4	!LWSH-#06S	LOCK WASHER; #06, S/S
29	4	!PHPMS#0632100S	PHILIPS-HD PMS; #6-32 X 1, S/S
30	2	!LWSH-050-HC	LOCK WASHER; 1/2, HI-COLLAR
31	2	ISHCS05013200	SOCKET HEAD CAP SCREW - 1/2-13 X 2
32		-	-
33	5	!UNUT-02520-LKG	U-NUT 1/4-20, LOCKING TYPE
34	20	!HHC\$06311450	HHCS; 5/8-11 x 4-1/2, GR. 5, ZINC
35	20	!HHC\$06311350	HHCS; 5/8-11 x 3-1/2, GR. 8, ZINC
36	4	ISHPMS#0832050S	SLOT-HD PMS; #8-32 x 1/2, S/S
37	4	!HNUT-#0832S	HEX NUT; #08-32, S/S
38	2	!PHPMS#1024050S	PHILIPS-HD PMS; #10-24 x 1/2, S/S
39	2	!LW SH-# 10S	LOCK WASHER; #10, S/S
40	2	!HNUT-# 1024S	HEX NUT; #10-24, S/S
41	2	26609	SHIM - STAINLESS STEEL

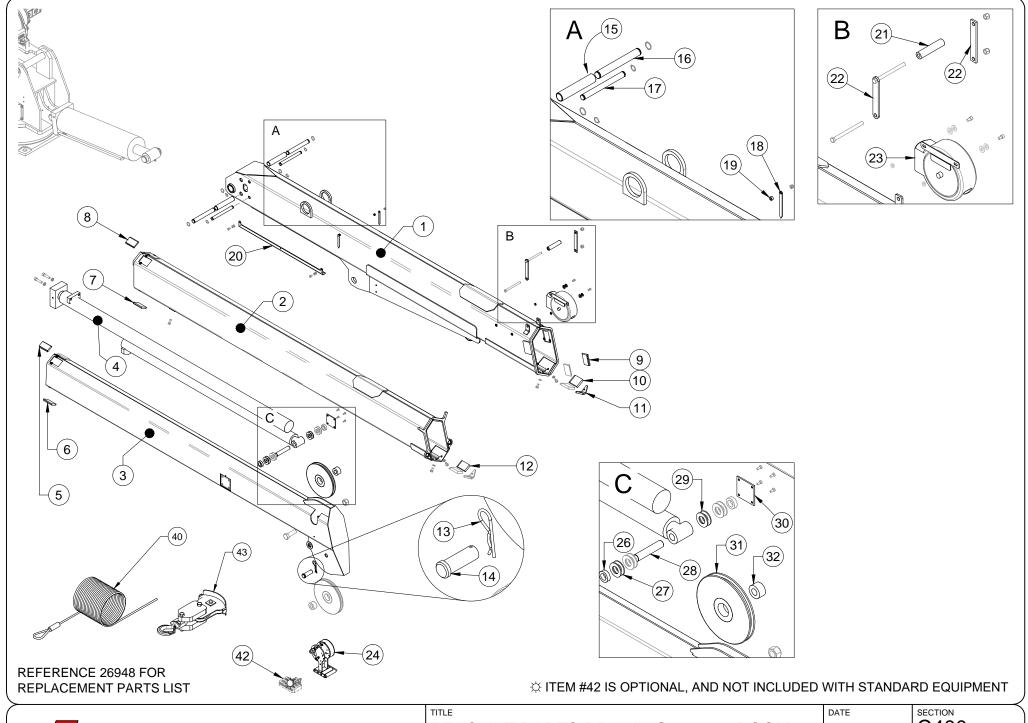
HHCS = HEX HEAD CAP SCREW, SHCS = SOCKET HEAD CAP SCREW, PMS = PAN MACHINE SCREW, S/S = STAINLESS STEEL

REFERENCE 26905 FOR REPLACEMENT PARTS DRAWING

ENTURO ®

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMNT FASTENERS LIST - MECHANISM	08-26-25C	C400
HT40/50 SERIES (NON-VLC)	07-10-25B	2690





26595 BOOM - REPLACEMENT PARTS LIST - HT40/45/50 - 20'

1 2 3 4	26596 27209 21416 21744 23217-1	1 1 1 1 2	WELDED ASS'Y; PRIMARY BOOM WELDED ASS'Y; SECONDARY BOOM WELDED ASS'Y; TERTIARY BOOM EXTENSION CYLINDER
3	21416 21744 23217-1	1	WELDED ASS'Y; TERTIARY BOOM EXTENSION CYLINDER
	21744	1	EXTENSION CYLINDER
4	23217-1	· ·	
		2	
5	23217-1		BOOM PAD; UHMW, 'A', 3.19 x 1.88 x 0.44
6		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	23217-2	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.44
9 2	23217-13	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.38
10 2	23217-17	2	BOOM PAD; UHMW, 'B', 3.19 x 2.50 x 0.50
11	23183	2	V-BLOCK, SLIDER
12 2	23217-14	2	BOOM PAD; UHMW, 'B', 3.19 x 2.13 x 0.50
13	21-08	1	PIN; HAIRPIN COTTER
14	27272	1	CLEVIS PIN
15	24535	2	THRUST ROLLER; EXTENSION CYLINDER
16	22255	2	THRUST PIN; REAR, EXTENSION CYLINDER
17	22255	2	THRUST PIN; FRONT, EXTENSION CYLINDER
18	13459-2	2	ARROW
19	22490	2	SPACER; BOOM ARROW
20	26940	1	CABLE GUARD BRACKET
21	21560	1	ROLLER; UHMW, WIRE ROPE GUIDE

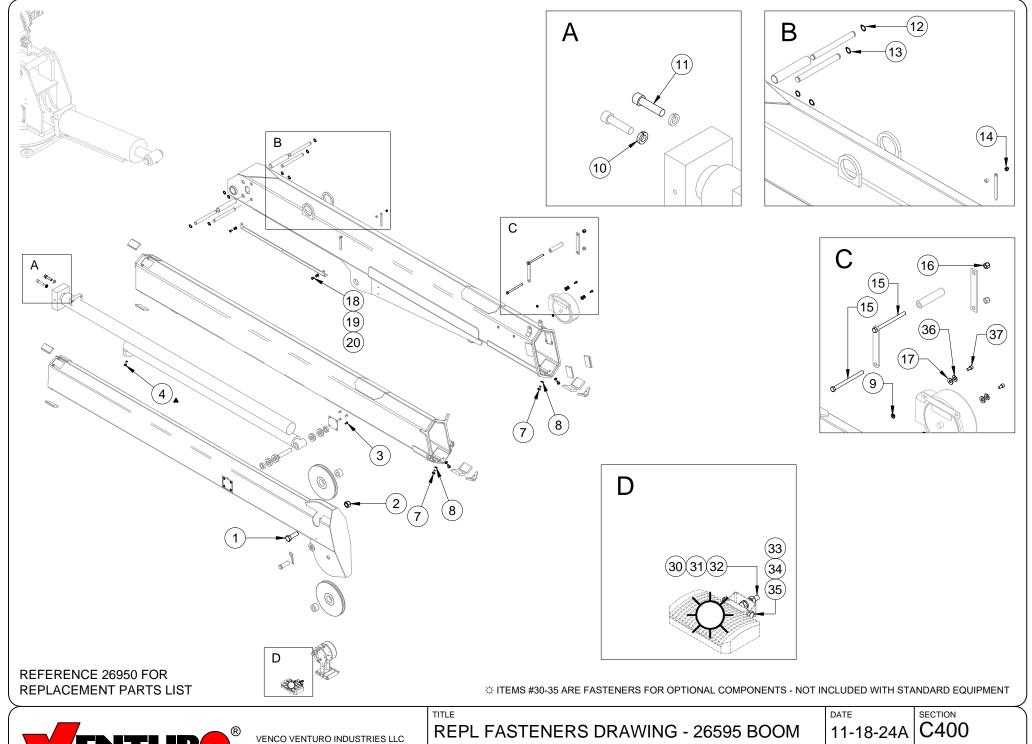
ITEM	PART NO.	QTY	DESCRIPTION
22	21936	2	FLAT, MOUNT; WIRE ROPE GUIDE
23	26577-1-20	1	COMPLETE CORD REEL
24	27469-L-C-11	1	ANTI-TWO-BLOCK ASSEMBLY
25	-	-	-
26	21428	2	BUSHING; EXTENSION CYLINDER
27	12534-8	2	BUSHING; MACHINE, 1" ID, 1-1/2" OD, 14G, ZINC
28	21405	1	PIN; CYLINDER
29	12534-2	2	BUSHING; MACHINE, 1" ID, 1-1/2" OD, 10G, ZINC
30	23116	2	PIN BLOCK REINFORCING
31	23928	2	CABLE SHEAVE
32	23929	2	SPACER; SHEAVE
33	-	ı	-
34	-	ı	-
35	-	ı	-
36	-	ı	-
37	-	ı	-
38	-	-	-
39	-	-	-
40	17094-3/8-100	1	WIRE ROPE; 100 FT, NO HOOK
41	-	-	-
⇔ 42	27483	1	ASS'Y; WORK LIGHT, LED
	17949-1	1	LOAD BLOCK ASSEMBLY (HT40)
43	17949-4	1	LOAD BLOCK ASSEMBLY (HT45)
	17949	1	LOAD BLOCK ASSEMBLY (HT50)

REFERENCE 26947 FOR REPLACEMENT PARTS DRAWING

☼ OPTIONAL; NOT INCLUDED WITH STANDARD EQUIPMENT



REPLACEMENT PARTS LIST - 26595 BOOM	06-11-24	C400
HT40/45/50 - 20'	SUPERSEDES -	2694



CINCINNATI, OHIO

HT40/45/50 - 20'

SUPERSEDES 06-11-24

26949

ITEM#	PART#	QTY	DESCRIPTION	WHERE-USED
1	17059-6	1	SHEAVE AXLE; HHCS 3/4-10 X 2" LG.	TOP SHEAVE
2	!JNUT-07510N	1	JAM NUT; 3/4-10, GR. 5	TOP SHEAVE
3	!CACS02520050S	8	CACS; 1/4-20 X 1/2", S/S	PIN BLCK REINFORCING
4	!HHCS03816100N	2	HHCS; NYLON PATCH 3/8-16 X 1", GR. 5 ZINC	EXT. CYL. V-BLOCK
5	-	ı	-	-
6	-	1	-	-
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-075	4	SNAP RING; 3/4"	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	2	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	!HHCS03118050S	2	HHCS; 5/16-11 X 1/2", S/S	CABLE GUARD BRACKET
19	!LWSH-031S	2	LOCK WASHER; 5/16", S/S	CABLE GUARD BRACKET
20	!FWSH-031S	2	FLAT WASHER; 5/16", S/S	CABLE GUARD BRACKET
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	1 17059-6 2 !JNUT-07510N 3 !CACS02520050S 4 !HHCS03816100N 5 - 6 - 7 !HHCS03816075S 8 !LWSH-038 9 28198 10 !LWSH-050-HC 11 !SHCS05013200 12 !SRNG-075 13 !SRNG-075 14 !ANUT-02520S 15 !HHCS04414550 16 !LNUT-04414 17 01016 18 !HHCS03118050S 19 !LWSH-031S	1 17059-6 1 2 !JNUT-07510N 1 3 !CACS02520050S 8 4 !HHCS03816100N 2 5 6 7 !HHCS03816075S 4 8 !LWSH-038 4 9 28198 2 10 !LWSH-050-HC 2 11 !SHCS05013200 2 12 !SRNG-075 4 13 !SRNG-075 4 14 !ANUT-02520S 2 15 !HHCS04414550 2 16 !LNUT-04414 2 17 01016 2 18 !HHCS03118050S 2 19 !LWSH-031S 2	1 17059-6 1 SHEAVE AXLE; HHCS 3/4-10 X 2" LG. 2 IJNUT-07510N 1 JAM NUT; 3/4-10, GR. 5 3 ICACS02520050S 8 CACS; 1/4-20 X 1/2", S/S 4 IHHCS03816100N 2 HHCS; NYLON PATCH 3/8-16 X 1", GR. 5 ZINC 5 6 7 IHHCS03816075S 4 HHCS; 3/8-16 X 3/4", S/S 8 ILWSH-038 4 LOCK WASHER; 3/8", GR. 5, ZINC-PL 9 28198 2 INSULATING SLEEVE WASHER - 5/16" 10 ILWSH-050-HC 2 LOCK WASHER; 1/2", HI-COLLAR 11 ISHCS05013200 2 SHCS; 1/2-13 X 2" 12 ISRNG-075 4 SNAP RING; 3/4" 13 ISRNG-075 4 SNAP RING; 3/4" 14 IANUT-02520S 2 ACORN NUT; 1/4-20, S/S 15 IHHCS04414550 2 HHCS; 7/16-14 X 5-1/2", GR. 5, ZINC 16 ILNUT-04414 2 LOCK NUT; 7/16-14, GR. 5, ZINC 17 01016 2 FIBER WASHER 18 IHHCS03118050S 2 HHCS; 5/16-11 X 1/2", S/S 19 ILWSH-031S 2 LOCK WASHER; 5/16", S/S

ITEM#	PART#	QTY	DESCRIPTION	WHERE-USED
21	-	-	-	-
22	-	-	-	-
23	-	-	-	-
24	-	-	-	-
25	-	1	-	-
26	-	1	-	-
27	-	ı	-	-
28	-	-	-	-
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
☼ 35	!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

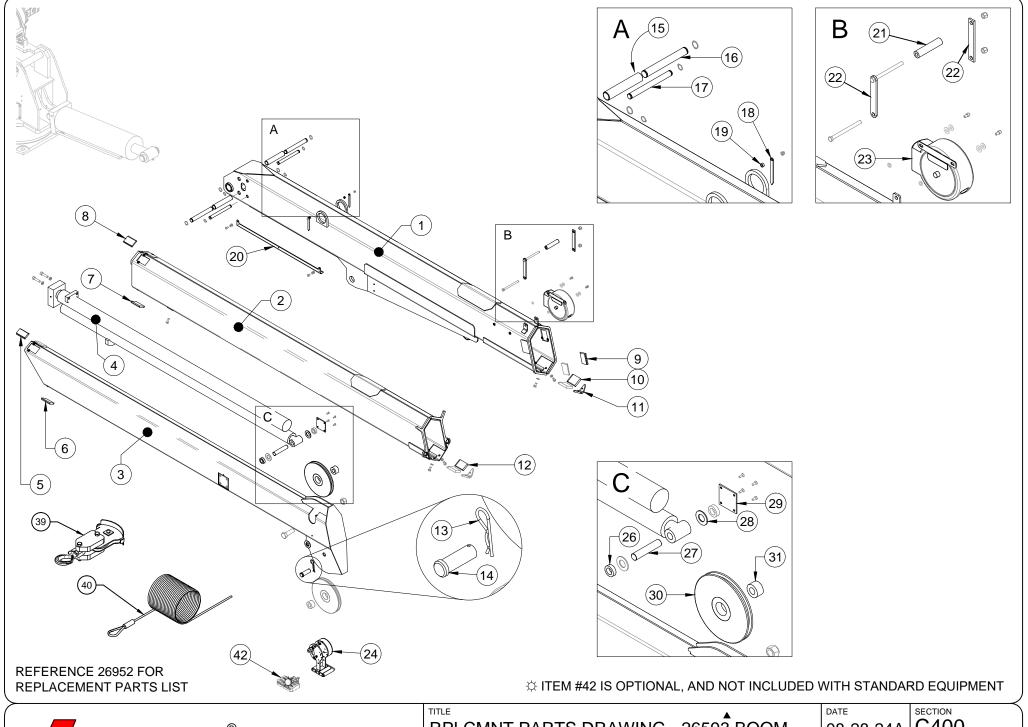
SH = SOCKET HEAD HH = HEX HEAD THCS = TRUSS HEAD PHILLIPS SCREW CACS = COUNTERSUNK ALLEN HEAD CAP SCREW PMS = PAN MACHINE SCREW S/S = STAINLESS STEEL

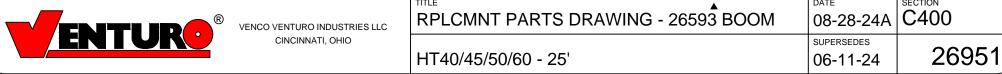
REFERENCE 26949 FOR REPLACEMENT FASTENERS DRAWING

CINCINNATI, OHIO



REPLCMNT FASTENERS LIST - 26595 BOOM	11-18-24A	C400
HT40/45/50/60 - 20'	SUPERSEDES 06-11-24	26950





REPLACEMENT PARTS LIST - 26593 BOOM

ITEM	PART NO.	QTY	DESCRIPTION
1	26594	1	WELDED ASS'Y; PRIMARY BOOM
2	27175	1	WELDED ASS'Y; SECONDARY BOOM
3	23105	1	WELDED ASS'Y; TERTIARY BOOM
4	21749	1	EXTENSION CYLINDER
5	23217-1	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	23217-2	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.44
9	23217-13	2	BOOM PAD; UHMW, 'A', 3.19 x 2.13 x 0.38
10	23217-17	2	BOOM PAD; UHMW, 'B', 3.19 x 2.50 x 0.50
11	23183	2	V-BLOCK, SLIDER
12	23217-14	2	BOOM PAD; UHMW, 'B', 3.19 x 2.13 x 0.50
13	21-08	1	PIN; HAIRPIN COTTER
14	27272	1	CLEVIS PIN
15	24535	2	THRUST ROLLER; EXTENSION CYLINDER
16	22255	2	THRUST PIN; REAR, EXTENSION CYLINDER
17	22255	2	THRUST PIN; FRONT, EXTENSION CYLINDER
18	13459-2	2	ARROW
19	22490	2	SPACER; BOOM ARROW
20	26940	1	CABLE GUARD BRACKET
21	21560	1	ROLLER; UHMW, WIRE ROPE GUIDE

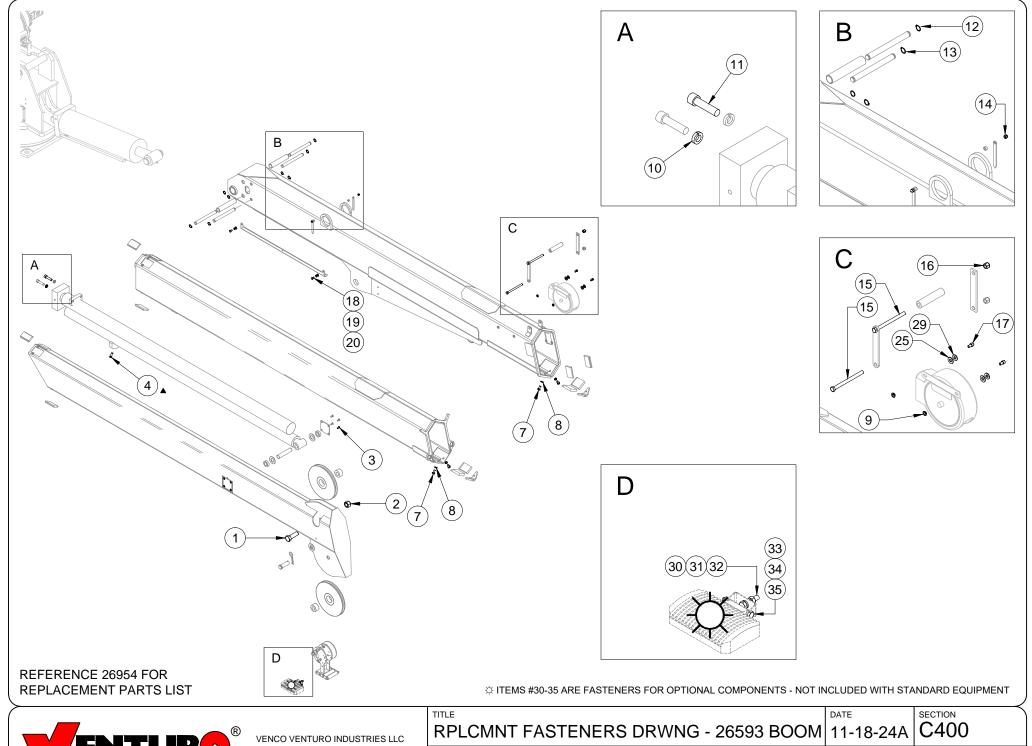
1	ITE N 4	DADTNO	OTV	DESCRIPTION
	ITEM	PART NO.	QTY	DESCRIPTION
	22	21936	2	FLAT, MOUNT; WIRE ROPE GUIDE
•	23	26577-1-25	1	CORD REEL ASSY (BLK STEEL CASE)
	23	26577-4	1	CORD REEL ASSY (BLK/YEL PLASTIC CASE)
	24	27469-L-C-11	1	ANTI-TWO-BLOCK ASSEMBLY
	25	-	ı	-
	26	21428	2	BUSHING; EXTENSION CYLINDER
	27	21405	1	PIN; PIVOT, EXTENSION CYLINDER
	28	!FWSH-100SAE	2	FLAT WASHER; 1" SAE
	29	23116	2	PIN BLOCK REINFORCING
	30	23928	2	CABLE SHEAVE
	31	23929	2	SPACER; SHEAVE
	32	27476-1	2	SPACER; COMPACT A2B
	33	-	-	-
	34	•	ı	-
	35	•	ı	-
	36	-	ı	-
	37	•	ı	-
	38	-	-	-
		17949-1	1	LOAD BLOCK ASSEMBLY (HT40)
	39	17949-2	1	LOAD BLOCK ASSEMBLY (HT45)
	39	17949	1	LOAD BLOCK ASSEMBLY (HT50)
		17949-5	1	LOAD BLOCK ASSEMBLY (HT60)
	40	17094-3/8-100	1	WIRE ROPE; 100 FT, NO HOOK (HT40/45/50/55)
	40	24916-3/8-100	1	WIRE ROPE; 100 FT, NO HOOK (HT60)
	‡42	27483	1	ASS'Y; WORK LIGHT, LED
,				

REFERENCE 26951 FOR REPLACEMENT PARTS DRAWING

☼ OPTIONAL; NOT INCLUDED WITH STANDARD EQUIPMENT



REPLACEMENT PARTS LIST - 26593 BOOM	11-25-24A	C400
HT40/45/50/60 - 25'	SUPERSEDES 06-11-24	26952



ENITI IDO®	VENCO VENTURO INDUSTRIES LLC	RPLCMNT FASTENERS DRWNG - 26593 BOOM	11-18-24A	C400
ENIUN	CINCINNATI, OHIO		SUPERSEDES	00050
		HT40/45/50/60 - 25'	06-11-24	26953 _/

(
	ITEM#	PART#	QTY	DESCRIPTION	WHERE-USED
	1	17059-6	1	SHEAVE AXLE; HHCS, 3/4-10 X 2", S/S	TOP SHEAVE
	2	!LNUT-07510	2	LOCK NUT, FULL, 3/4-10, GR. 5, ZINC	SHEAVES
	3	!CACS02520050S	8	CACS; 1/4-20 X 1/2", S/S	PIN BLCK REINFORCING
	4	!HHCS03816100N	2	HHCS; NYLON PATCH 3/8-16 X 1", GR. 5 ZINC	EXT. CYL. V-BLOCK
	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
▲	<u>^</u> 9	28198	2	INSULATING SLEEVE WASHER - 5/16"	CORD REEL
	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-075	4	SNAP RING; 3/4"	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	2	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	!SHCS03118063S	2	SHCS; 5/16-18 X 5/8" LG, S/S	CORD REEL
	18	!HHCS03118050S	2	HHCS; 5/16-11 X 1/2", S/S	CABLE GUARD BRACKET
	19	!LWSH-031S	2	LOCK WASHER; 5/16", S/S	CABLE GUARD BRACKET
	20	!FWSH-031S	2	FLAT WASHER; 5/16", S/S	CABLE GUARD BRACKET

	ITEM#	PART#	QTY	DESCRIPTION	WHERE-USED
	21	-	-	-	-
	22	-	-	-	-
	23	-	-	-	-
	24	-	-	-	-
•	<u>^</u> 25	01016	2	FIBER WASHER	CORD REEL
	26	-	-	-	-
	27	-	-	-	-
	28	-	-	-	-
	29	!FWSH-031	2	FLAT WASHER, 5/16"	CORD REEL
	☼ 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
	☼ 35	!HNUT-02520S	1	HEX NUT; 1/4-20, S/S	WORK LIGHT
	36	-	-	-	-
İ	37	-	-	-	-
I	38	-	-	-	-
	39		-	-	-
	40	-	-	-	-

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

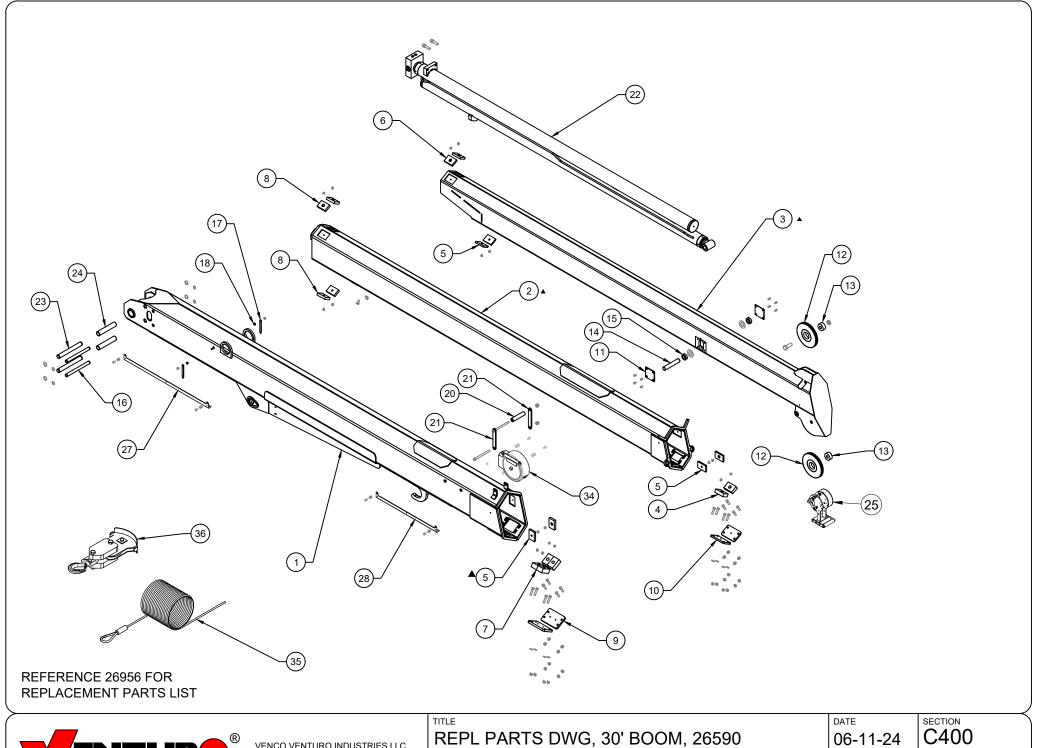
REFERENCE 26953 FOR REPLACEMENT FASTENERS DRAWING

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



PLCMNT FASTENERS LIST - 26593 BOOM	11-25-24B	C400
HT40/45/50/60 - 25'	SUPERSEDES 11-18-24A	26954

[⚠] FOR 26577-1-** ONLY (NOT REQ'D FOR 26577-4)





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPL PARTS DWG, 30' BOOM, 26590

06-11-24

HT45/60 - 30'

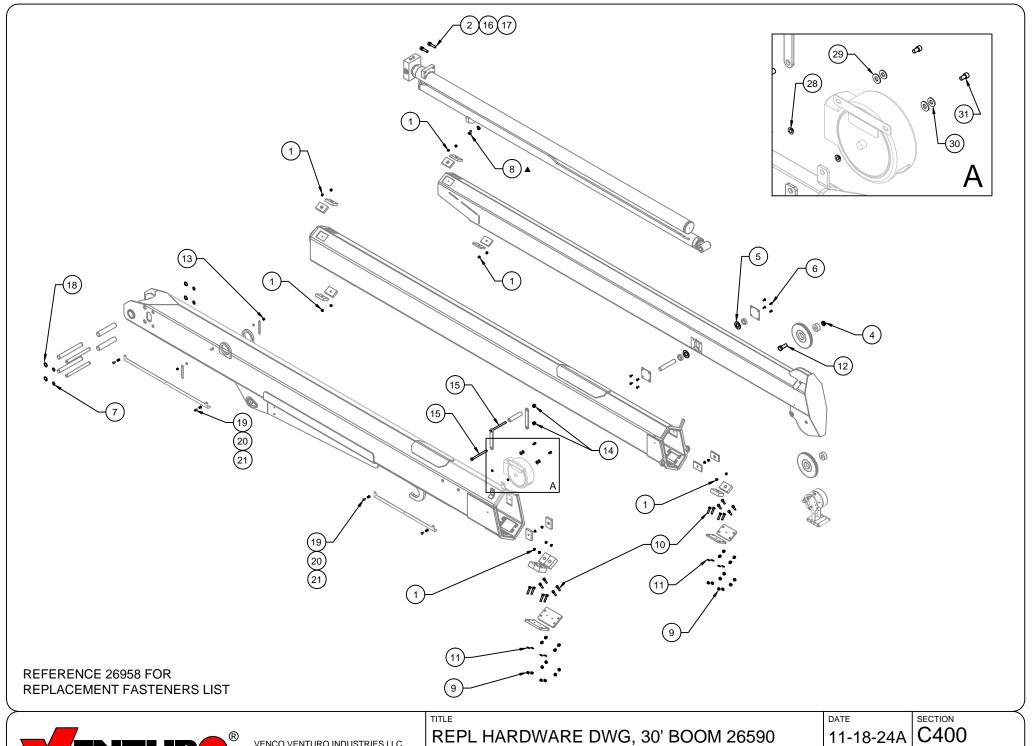
SUPERSEDES 26955

REPLACEMENT PART LIST, 30' BOOM 26590

ITEM NO.	PART NO.	QTY	DESCRIPTION		
1	26591	1	PRIMARY BOOM WELDMENT		
2	23882	1	SECONDARY BOOM WELDMENT		
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		
7	23631-10	4	BOOM PAD; 1.25" THICK		
8	23631-5	4	BOOM PAD; 0.63" THICK		
9	23677	2	COVER PLATE; PRIM. ADJ. PAD		
10	23678	2	COVER PLATE; SEC. ADJ. PAD		
11	23116	2	PIN BLOCK; REINFORCING		
12	23928	2	BOOM SHEAVE W/ BUSHING		
13	23929	2	SPACER; 23927 & 23928 POLY SHEAVES		
14	23906	1	PIN; PIVOT, ROD END, EXT. CYLINDER		
15	21428	2	BUSHING		
16	23904	2	EXTENSION CYLINDER 0.75" THRUST PIN		
17	13459	2	ARROW		
18	22490	2	SPACER; BOOM ARROW		
19	-	-	-		
20	21560	1	WIRE ROPE GUIDE; UMHW ROLLER		
21	21936	2	WIRE ROPE GUIDE; FLAT, MOUNT		
22	23875	1	EXTENSION CYLINDER		
23	23905	2	EXTENSION CYLINDER 1" THRUST PIN		
24	27283	2	THRUST ROLLER		
25	27469-L-C-11	1	ANTI-TWO-BLOCK ASSEMBLY		
26	-	-	-		
27	26940	1	CABLE GUARD BRACKET (LONG)		
28	26940-2	1	CABLE GUARD BRACKET (SHORT)		
29	-	-	-		
30	-	-	-		
31	-	_	-		
32	-	-	-		
33	-	-	-		
34	26577-1-30	1	CORD REEL ASSY (BLK STEEL CASE)		
J -1	26577-4	1	CORD REEL ASSY (BLK/YEL PLASTIC CASE)		
35	17094-3/8-125	1	WIRE ROPE; 125 FT, NO HOOK (HT45/50)		
33	24916-3/8-125	1	WIRE ROPE; 125 FT, HIGH STR (HT60)		
36	17949-2	-	LOAD BLOCK ASSEMBLY (HT45)		
30	17949-5	-	LOAD BLOCK ASSEMBLY (HT60)		

REFERENCE 26955 FOR REPLACEMENT PARTS DRAWING







VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPL HARDWARE DWG, 30' BOOM 26590

11-18-24A SUPERSEDES

HT45/60 - 30'

06-11-24

26957

REPLACEMENT FASTENERS LIST, 30' BOOM 26590

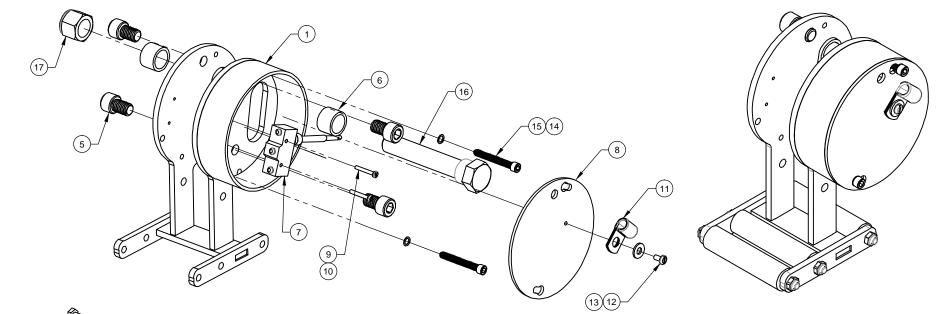
ITEM NO.	PART NO.	QTY.	DESCRIPTION	
1	!THCS02520038	18	THCS; 1/4-20 x 3/8" LG, S/S	
2	14159	1	SHIM KIT	
3	-	-	-	
4	!LNUT-07510	1	LOCK NUT; 3/4-10, NYLON, ZINC	
5	!FWSH-100SAE	2	FLAT WASHER; 1" SAE	
6	!CACS02520050S	8	CACS; 1/4-20 x 1/2" LG, S/S	
7	!SRNG-075	4	SNAP RING; 3/4"	
8	!HHCS03816100N	2	HHCS; NYLON PATCH 3/8-16 X 1", GR. 5 ZINC	
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	!HHCS03118050S	4	HHCS; 5/16-18 X 1/2", S/S	
20	!LWSH-031S	4	LOCK WASHER; 5/16", S/S	
21	!FWSH-031S	4	FLAT WASHER; 5/16", S/S	
22	-	-	-	
23	-	-	-	
24	-	-	-	
25	-	-	-	
26	-	-	-	
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	-	-	-	

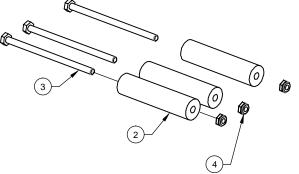
⚠ FOR 26577-1-** ONLY (NOT REQ'D FOR 26577-4)

REFERENCE 26957 FOR REPLACEMENT FASTENERS DRAWING

	VENCO VENTURO INDUSTRIES LLC	REPL FAST LIST, BOOM 26590	11-25-24B	C400	
ENTUR	CINCINNATI, OHIO	HT45/60 - 30'	SUPERSEDES 11-18-24A	26958	

COMPACT A2B - 27469-* - REPLACEMENT PARTS LIST





	COMPACT A2B CONFIGURATIONS - 27469-*						
ITEM NO.	PART NUMBER	-L-C-00	-L-C-11	-L-0-22	DESCRIPTION		
1	27468	1	1	1	WLDMNT - COMPACT A2B FRAME LH		
2	27475	3	3	3	WIRE ROPE GUIDE ROLLER		
3	!HHCS02520450	3	3	3	HHCS 1/4-20 X 4-1/2 LG		
4	!JNUT-02520N	3	3	3	NYLON INSERT JAM NUT - 1/4-20		
5	27467	4	4	4	SHCS NYLON BLACK 1/2-13 X 3/4 LG		
	27476	2	-	-	SPACER/PIVOT - 0.69"		
6	27476-1	-	2	-	SPACER/PIVOT - 0.57"		
	27476-2	-	-	2	SPACER/PIVOT - 1.06"		
7	19376	1	1	1	ANTI-TWO BLOCK SWITCH		
8	27473	1	1	1	COVER PLATE		
9	!PHCS#0632100	2	2	2	PHILLIPS HEAD CAP SCREW 6-32 X 1 LONG		
10	!LWSH-#06	2	2	2	LOCK WASHER - 6		
11	19269	1	1	1	WIRE CLAMP, 3/8 ID VIBRATION DAMPING		
12	!PHCS#1032038	1	1	1	PAN HEAD CAP SCREW 10-32 X 3/8 LONG		
13	!FWSH-025	1	1	1	FLAT WASHER - 1/4		
14	!SHCS02520200SS	2	2	2	SHCS, 1/4-20 X 2.00 LONG, STAINLESS STEEL		
15	23379	2	2	2	WASHER, NYLON, BLACK, .375" O.D. X .25" I.D.		
16	28362	1	1	-	COMPACT A2B CUT-OUT CAM WELDED ASSY.		
16	!HHCS07510450	-	-	1	HHCS, 3/4-10 X 4.50 LONG, GR.5		
17	LNUT-07510	1	1	1	NYLON INSERT LOCK NUT - 3/4-10		



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO REPLACEMENT PARTS LIST

7-10-24A

DATE

C400

COMPACT A2B - 27469-*

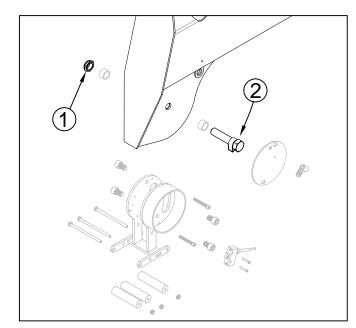
SUPERSEDES **06-11-24**

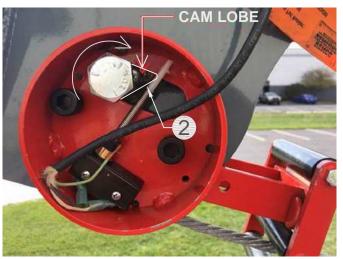
26942

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.
- 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.



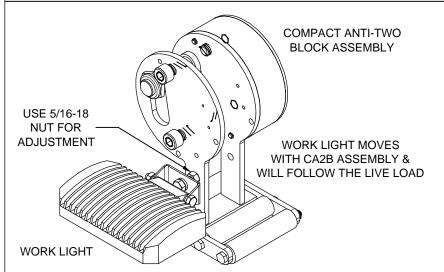


Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124

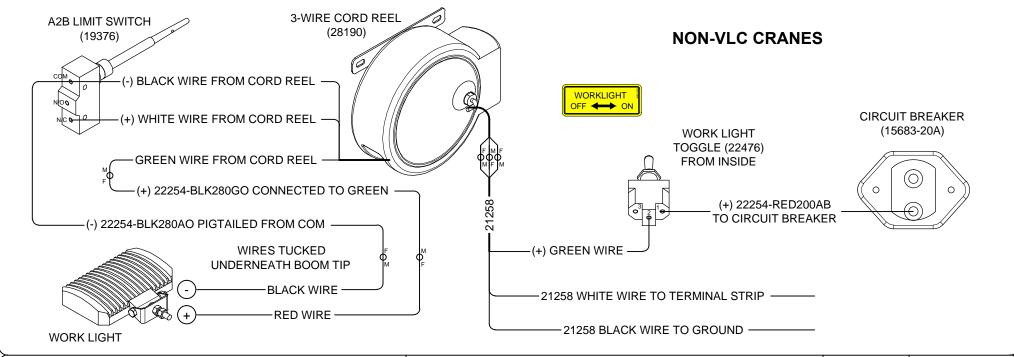


A2B Stowage Cut-out	10-04-21B	C400
ET/HT Cranes w/ Comp. A2B	SUPERSEDES 08-03-21A	2823

WORK LIGHT INSTALLATION: 28240-1 (3-WIRE CORD REEL ON NON-VLC CRANES)



	BILL OF MATERIALS	-1	28240
#	DESCRIPTION		PART NUMBER
1	IDWG; WORK LIGHT INSTALLATION, NON-VLC CRANES	1	28199
2	LED WORK LIGHT	1	27483
3	TERMINAL; 16G, FEMALE, QUICK-CONNECT	3	ITERM16G250QCFI
4	TERMINAL; 16G, MALE, QUICK-CONNECT	4	ITERM16G250QCM
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	TOGGLE SWITCH; ON / OFF, IP-RATED	1	22476
8	HALF-BOOT, FOR IP-RATED TOGGLE SWITCH	1	19793
9	DECAL; ON/OFF, OPTIONAL WORK LIGHT W/ TOGGLE	1	28307
10	WIRE ASS'Y; 16G, RED, 20", #6 RING - #10 RING	1	22254-RED200AB
11	TERMINAL; 16G, #6 RING, CLOSED-END	1	!TERM16G#6RG

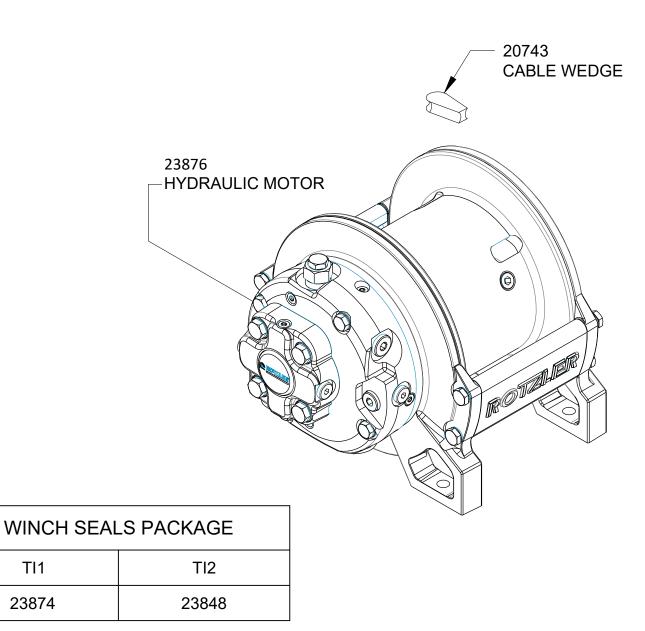




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

WORK LIGHT INSTALLATION, 3-WIRE CORD REEL	02-10-21	C400
NON-VLC CRANES	SUPERSEDES -	28199

TI1 & TI2 WINCH REPLACEMENT PARTS DRAWING



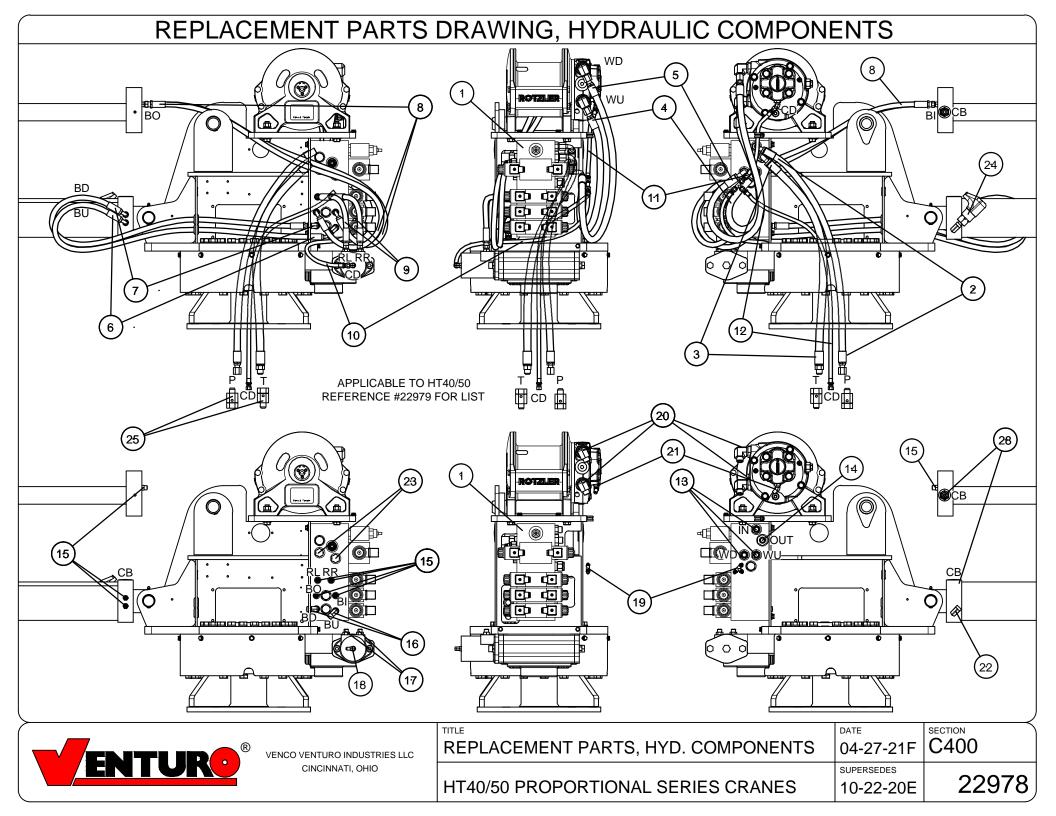


TI1

23874

HT40/45/50KX	SUPERSEDES	26896
TI1 & TI2 REPLACEMENT PARTS DRAWING	05-30-23	C400
TITLE	DATE	SECTION

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO



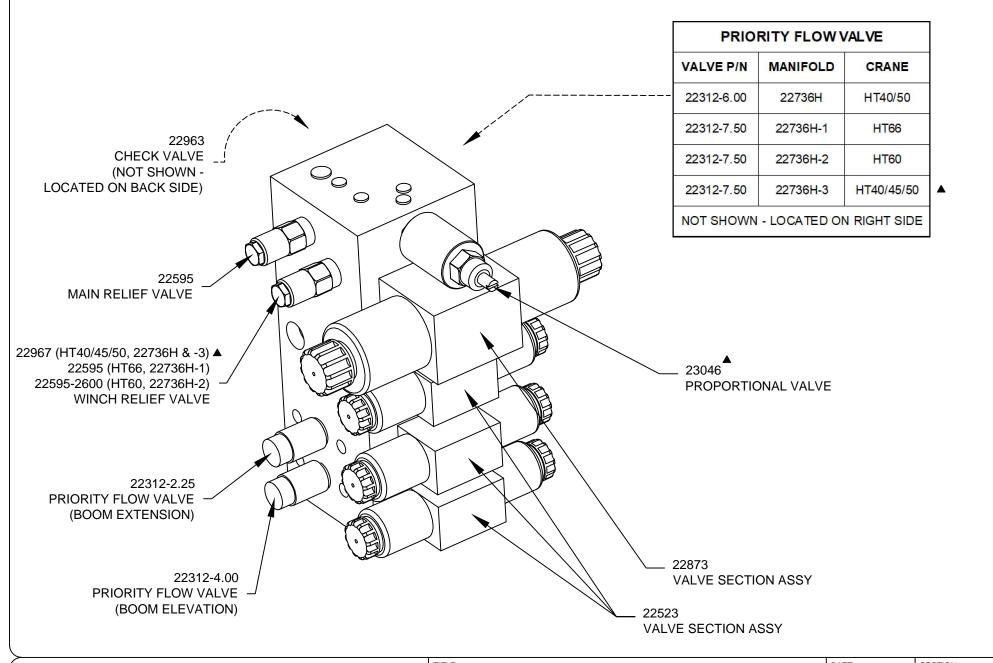
REPLACEMENT PARTS LIST; HYDRAULIC COMPONENTS

#	DESCRIPTION	QTY	PART NUMBER	APPLICATION	
1	VALVE MANIFOLD; PROPORTIONAL, HT40-55KX	1	22736H-3	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, 60FS-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, 60FS-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	H6805-0404	ELEVATION BASE-END, PRESSURE SWITCH	
23	FITTING; PLUG, 10MO	2	H6408-10	LEFT SIDE VALVE BANK, WU & WD PORTS	
24	PRESSURE SWITCH, 2900 PSI RATING	1	17460-2900-21	BASE-END ON ELEVATION CYLINDER	
25	LIVE SWIVEL; CONTINUOUS, STRAIGHT, 8MJ-8FJ	2	22764	PRESSURE & RETURN HOSES, COMPARTMENT SIDE	
26	COUNTER-BALANCE VALVE; CBPA, 50/40, 3000 PSI SYS.	2	20893	ELEVATION & EXTENSION CYLINDER VALVE	
	нур	RAUL	LIC 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		
оит	RETURN OUT	BU	BOOM UP		
wu	WINCH UP	BD	BOOM DOWN		
WD	WINCH DOWN	СВ	COUNTER-BALANCE VALVE		

REFERENCE #22978 FOR REPLACEMENT PARTS DRAWING



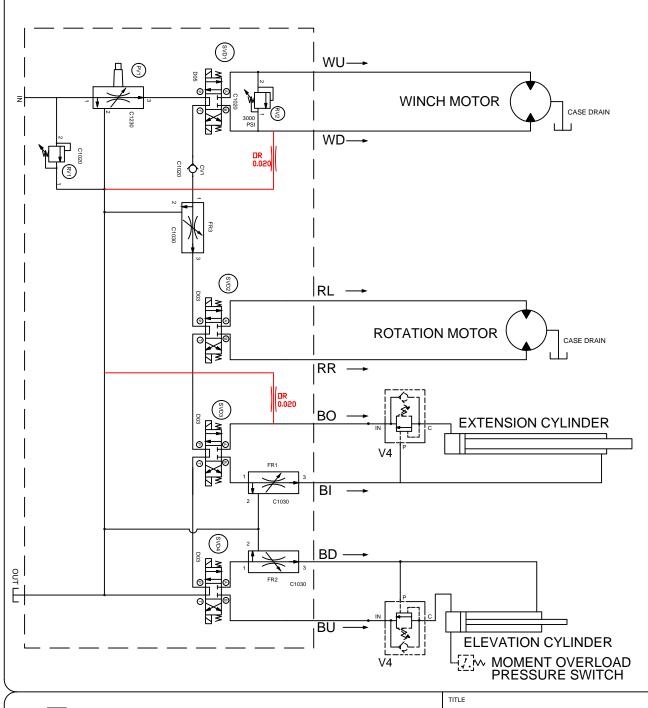
22736 SERIES VALVE MANIFOLD REPLACEMENT PARTS





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

22736 REPLACEMENT PARTS	04-19-24H	C400
HT40/50/60/66KX PROPORTIONAL	SUPERSEDES 11-10-22G	22940



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

PVI PROPORTIONAL CONTROL VALVE (SIMPLIFIED REP)
RV1 INLET RELIEF VALVE
RV2 WINCH RELIEF VALVE

FR1 PRIORITY FLOW REGULATOR
FR2 PRIORITY FLOW REGULATOR
FR3 PRIORITY FLOW REGULATOR
SVD1 3 POSITION - 4 WAY VALVE
SVD2 3 POSITION - 4 WAY VALVE
SVD3 3 POSITION - 4 WAY VALVE

SVD4 3 POSITION - 4 WAY VALVE

HYDRAULIC SYSTEM DIAGRAM

DATE

06-17-24E

C400

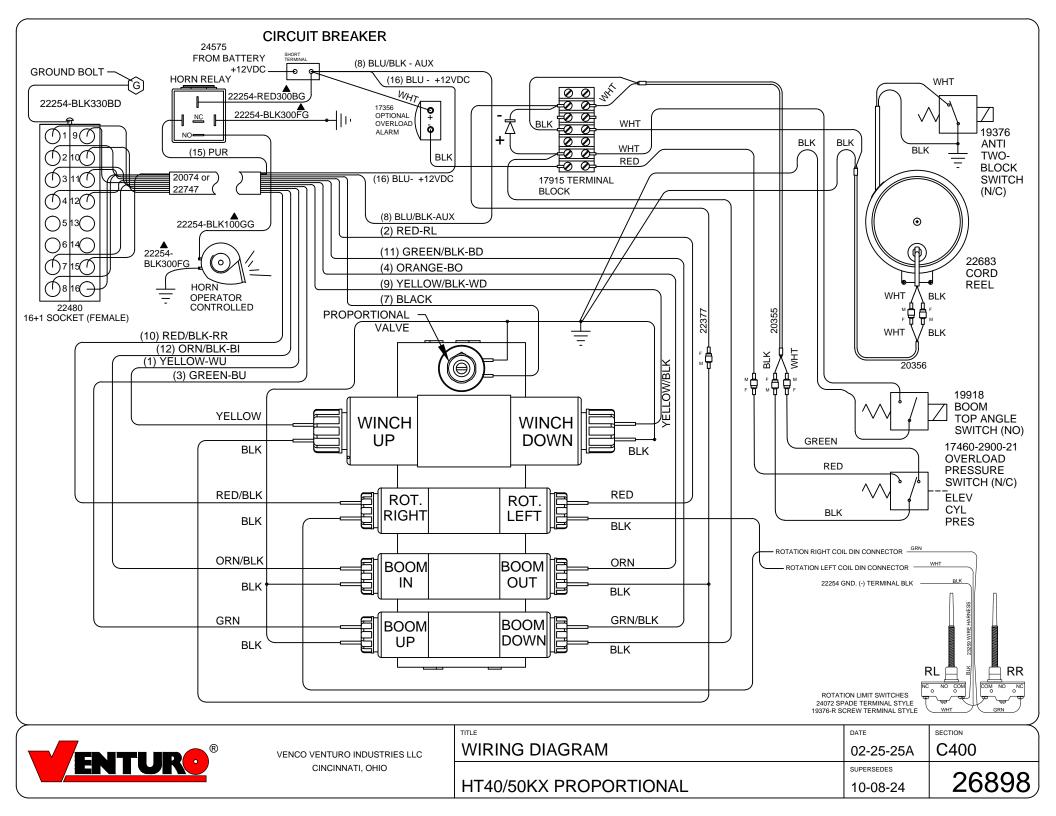
HT40/50/66KX; PROPORTIONAL

DATE

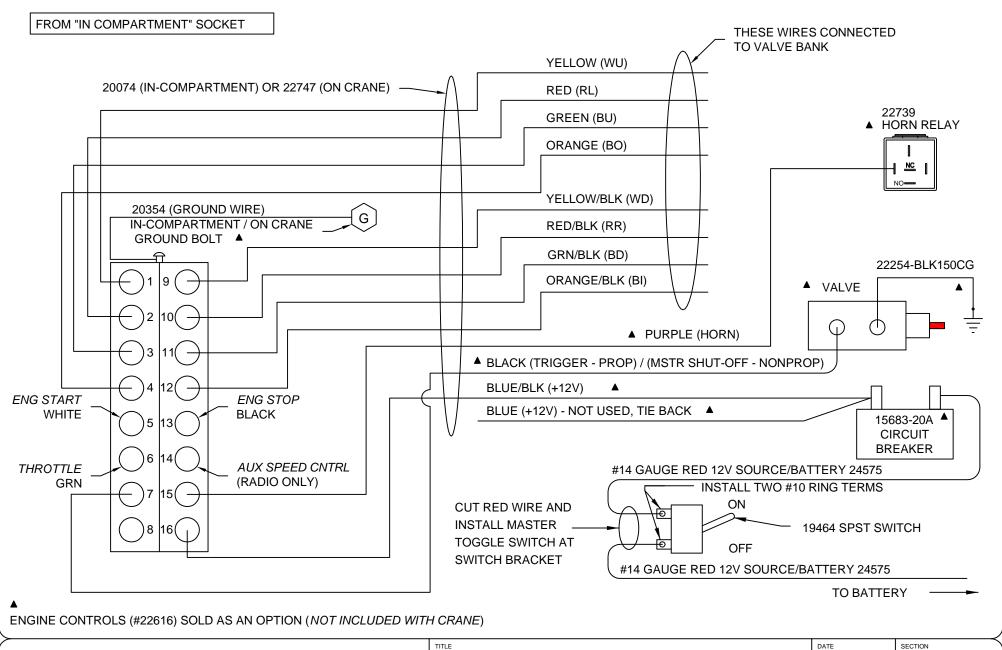
06-17-24E

12-04-23D

27352



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

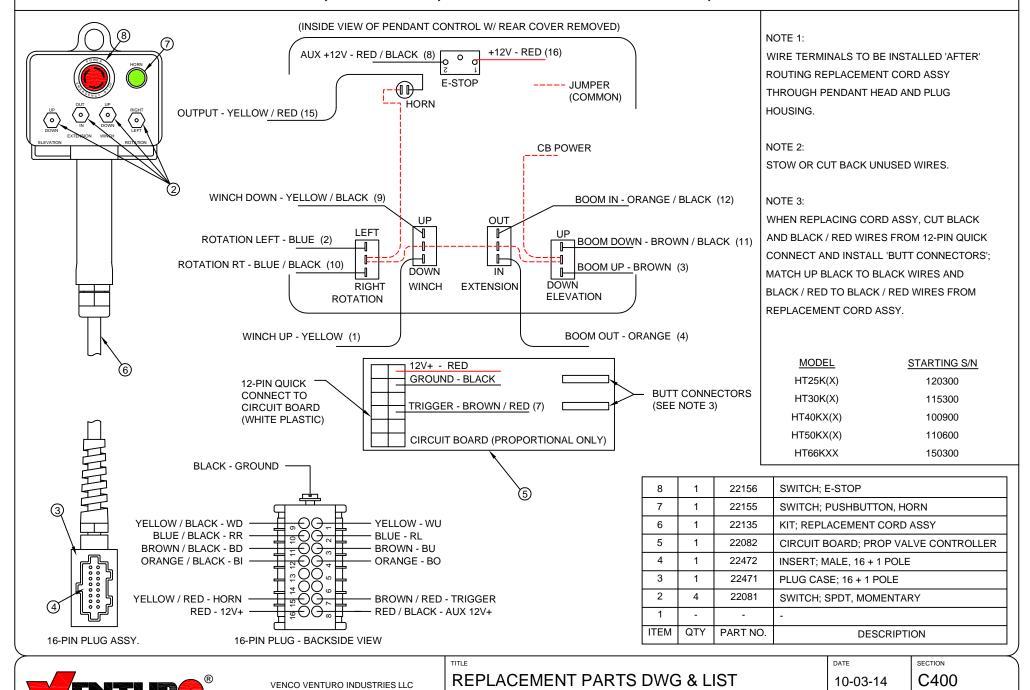




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

IIILE	DATE	SECTION
SOCKET WIRING; 16 PIN	02-17-15G	C400
	SUPERSEDES	00405
HT CRANES	02-21-14F	22125

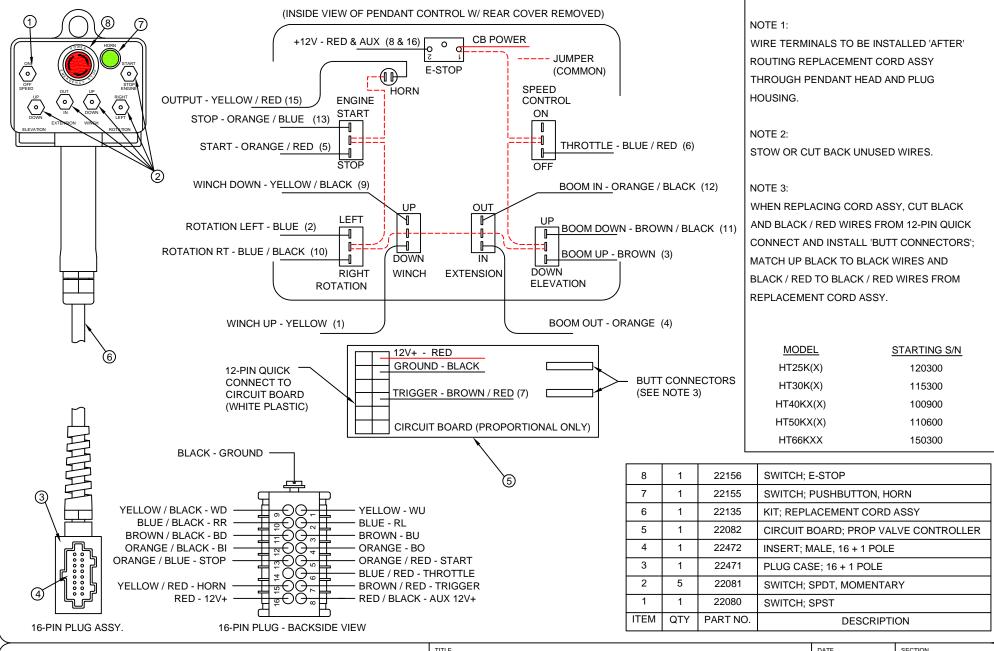
21988 PENDANT; PROP, NO ENG CNTRL, E-STOP / HORN



21988 PNDNT; PROP, NO ENG CNT, ESTP/HRN

CINCINNATI, OHIO

21987 PENDANT; PROP, ENG CNTRL, E-STOP / HORN

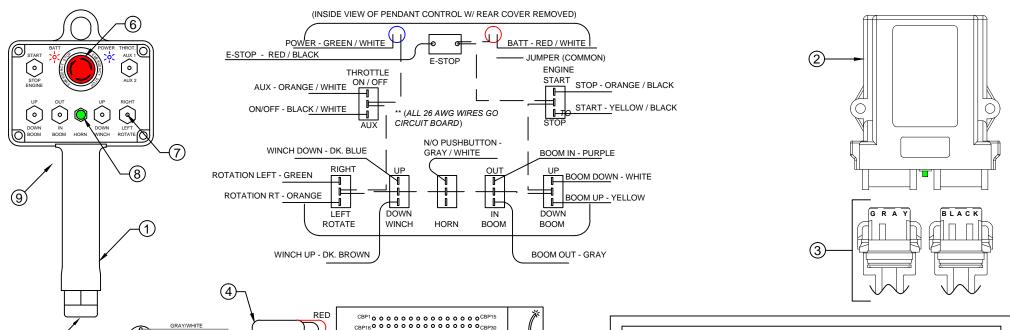




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

IIILE	DATE	SECTION
REPLACEMENT PARTS DWG & LIST	10-03-14	C400
	SUPERSEDES	00070
21987 PENDANT; PROP, ENG CNTL, ESTP/HRN	-	23072

21983 RADIO; PROP, NON-CAN, ENG CNTRLS, E-STOP/HORN



TRIGGER

BOARD PINS (CBP) TO FRONT PANEL FUNCTIONS

ENCASED CIRCUIT BOARD (PROPORTIONAL ONLY)

CABLE 1 = GRAY CONI CABLE 2 = BLACK CON	
GREEN - CABLE 2 (WD) BLACK - CABLE 2 (RR) WHITE / BLACK - CABLE 1 (BD) BLUE / BLACK - CABLE 1 (BI) RED / BLACK - CABLE 2 (ENG. STOP) WHITE / BLACK - CABLE 2 (HORN) GREEN / BLACK - CABLE 2 (HORN) RED - CABLE 1 (12V+)	VIEW
BLACK - CABLE 1 GND BOLT	Pin 14 (White / Black) factory default to AUX. ON/OFF If using a 2-channel THROTTLE, Pin 14 will be THROTTLE DOWN.

3.7V

BATTERY

	COMPONENTS				
ITEM NO.	PART NO.	DESCRIPTION			
1 21983-TX		TRANSMITTER			
2	21983-RX	RECEIVER			
3 21983-HN		HARNESS			
4 22965-BATT 5 22965-CHGR		BATTERY			
		CHARGER (NOT SHOWN)			
6	21983-STP	E-STOP BUTTON			
7 21983-TOG 8 21983-HOR 9 23234		FUNCTION TOGGLE			
		HORN BUTTON & BOOT			
		PROP TRIGGER (NOT SHOWN)			

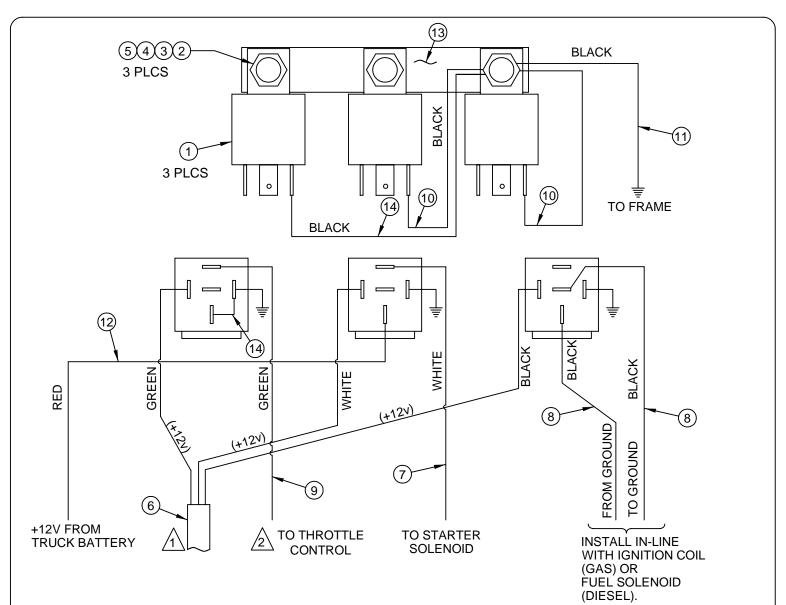


CHARGER

RECEPTACLE

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

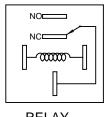
REPLACEMENT PARTS DWG & LIST	09-04-25A	C400
HT PROPORTIONAL SERIES CRANES	SUPERSEDES 08-13-25	23531



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

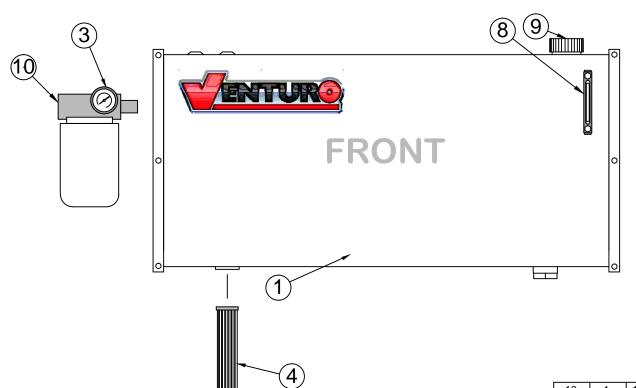
THROTTLE CONTROL IS DESIGNED TO PROVIDE A GROUND SIGNAL WHEN RELAY IS ACTIVATED

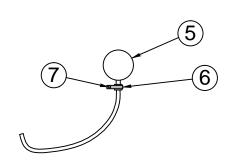
ITEM	QTY	PART#	DESCRIPTION
1	3	22739	RELAY
2	3	!PHCS#1024075	#10-24 X 3/4 PHIL PAN HD BOLT
3	3	!LWSH-#10	#10 LOCKWASHER
4	3	!FWSH-025	#10 WASHER
5	3	!HNUT-#1024	#10 NUT
6			WIRE HARNESS - 12/3 SJO
7			WHITE - 16 GAGE ELECTRICAL WIRE - 15 FEET LONG
8	2	22610	BLACK - 16 GAGE ELECTRICAL WIRE - 15 FEET LONG
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

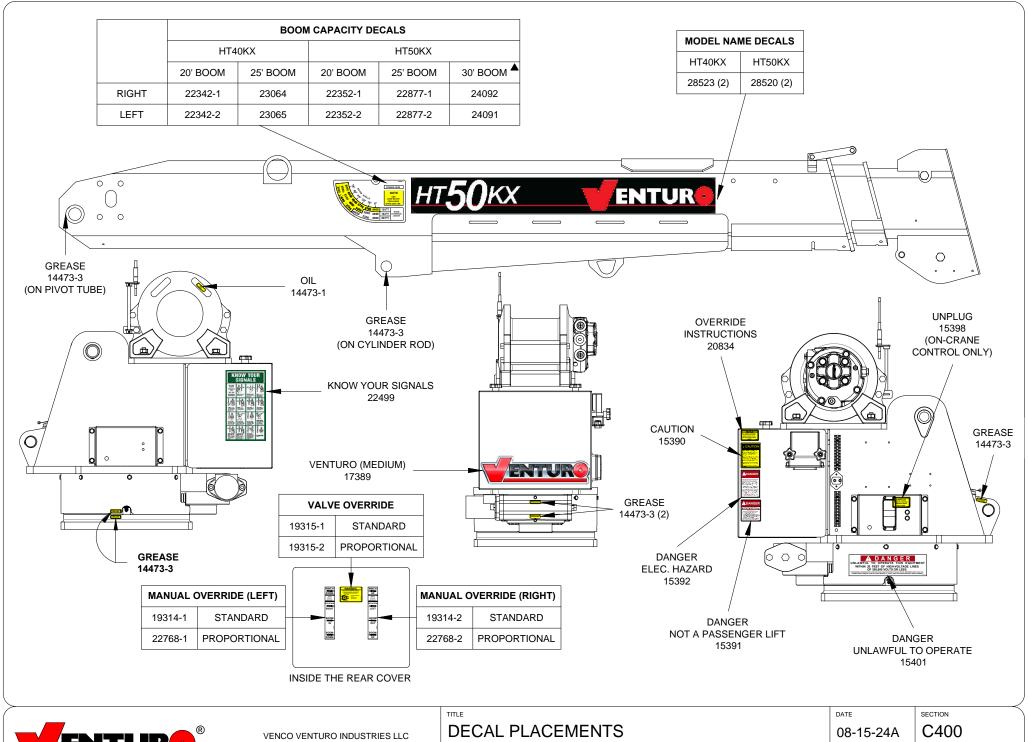
HT CRANES; 25/40 GAL RESERVOIR

DATE
12-09-22D

C400

SUPERSEDES
08-04-15C

23224





VENCO VENTURO INDUSTRIES LLO CINCINNATI, OHIO

TITLE	DATE	SECTION
DECAL PLACEMENTS	08-15-24A	C400
	SUPERSEDES	00500
HT40/50KX SERIES	06-16-23	28522 <i>)</i>

HT50KX FIELD SERVICE LABEL KITS

-20-N (STANDARD 20')	-20-P (PROPORTIONAL 20')	-25-N (STANDARD 25')	-25-P (PROPORTIONAL 25')	-30-P (PROPORTIONAL 30')

22924 FIELD SERVICE LABEL KITS FOR HT50KX SERIES

	7		7	5			
QUANTITY				PART#	DESCRIPTION		
2	2	2	2	2	28520	DECAL; MODEL HT50KX	
1	1	1	1	1	17389	DECAL; V ENTURO LOGO, MEDIUM	
1	1	-	-	•	22352-1	DECAL; BOOM CAPACITY, HT50KX, 10//16//20', RIGHT	
1	1	-			22352-2	DECAL; BOOM CAPACITY, HT50KX, 10'/16'/20', LEFT	
-		1	1	-	22877-1	DECAL; BOOM CAPACITY, HT50KX, 12'/18.5'/25', RIGHT	
	-	1	1	•	22877-2	DECAL; BOOM CAPACITY, HT50KX, 12'/18.5'/25', LEFT	
-	•		-	1	24092	DECAL; BOOM CAPACITY, HT50KX, 13/22/30', RIGHT	
-	-	-	-	1	24091	DECAL; BOOM CAPACITY, HT50KX, 131/221/301, LEFT	
1	1	1	1	1	14473-1	DECAL; OIL	
7	7	7	7	7	14473-2	DECAL; GREASE	
1	1	1	1	1	17813	DECAL; OVERLOAD SENSING SYSTEM	
1	1	1	1	1	14459	DECAL; OVERLOAD A LA RM SYSTEM (OPTIONAL PART)	
1	1	1	1	1	22499	DECAL; KNOW YOUR SIGNALS	
1	1	1	1	1	20834	DECAL; MANUAL OVERRIDE, INSTRUCTIONS	
1	•	1		-	19315-1	DECAL; MANUAL OVERRIDE, SHUTOFF, STANDARD	
-	1	-	1	1	19315-2	DECAL; MANUAL OVERRIDE, SHUTOFF, PROPORTIONAL	
1		1	•	-	19314-1	DECAL; MANUAL OVERRIDE, STANDARD, LEFT	
1	-	1	1.	-	19314-2	DECAL; MANUAL OVERRIDE, STANDARD, RIGHT	
-	1	-	1	1	22768-1	DECAL; MANUAL OVERRIDE, PROPORTIONAL, LEFT	
-	1	-	1	1	22768-2	DECAL; MANUAL OVERRIDE, PROPORTIONAL, RIGHT	
1	1	1	1	1	22926	IDWG; FIELD SERVICE LA BEL KITS, HT50KX	
1	1	1	1	1	28522	IDWG; DECAL PLACEMENTS, HT40/50KX, GEN B & UP	
1	1	1	1	1	INST-23233	SA FETY MANUAL, VENTURO CRANES	
1	1	1	1	1	15397	KIT; ACCIDENT PREVENTION SIGNS	



FIELD SERVICE LABEL KITS	08-15-24G	C400
HT50KX	SUPERSEDES 07-17-23F	22926

USER NOTES			
-			
			_
	LIGER NOTES	DATE	PAGE _
® VENCO VENTURO INDUSTRIES LLC	USER NOTES	02-23-16	_



INSTALLATION MANUALS	SUPERSEDES	25431
USER NOTES	02-23-16	-
	DATE	PAGE

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

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