



ECBAAB-****

PARTS & INSTALLATION MANUAL 2010E

Included in this manual:

2010E

- 2,000 lbs. Hydraulic Telescopic Service Crane
- 10 ft Manual Boom Extension





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

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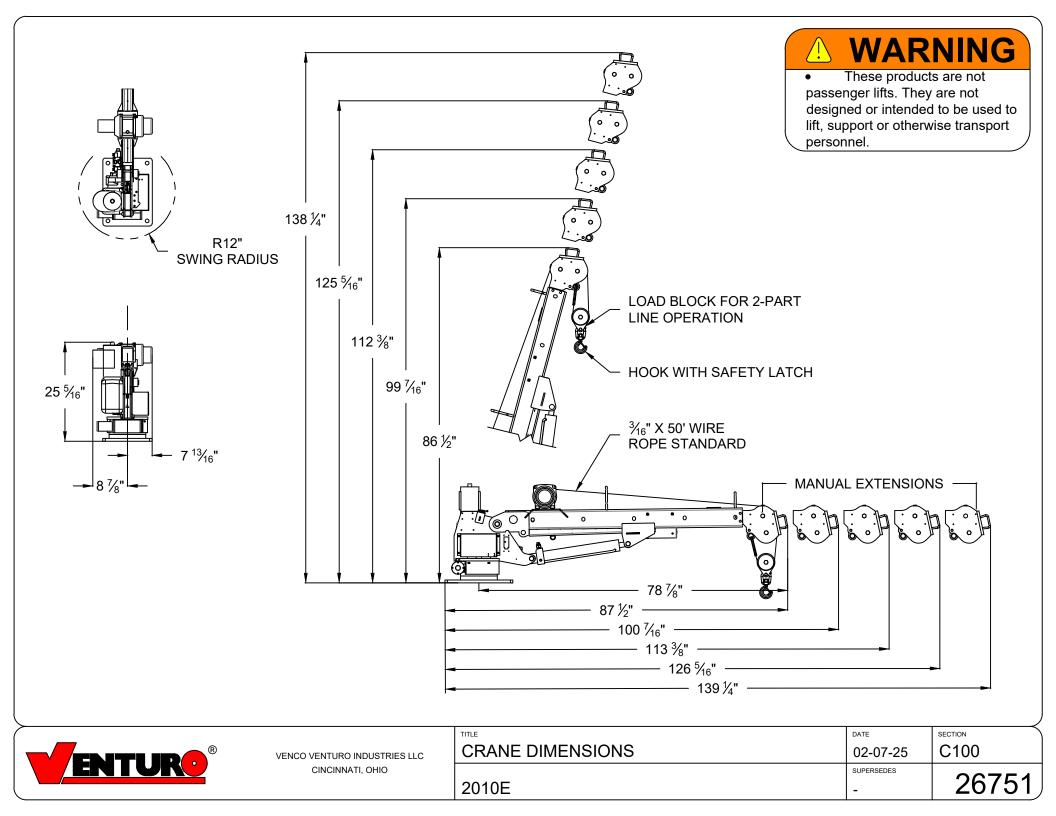
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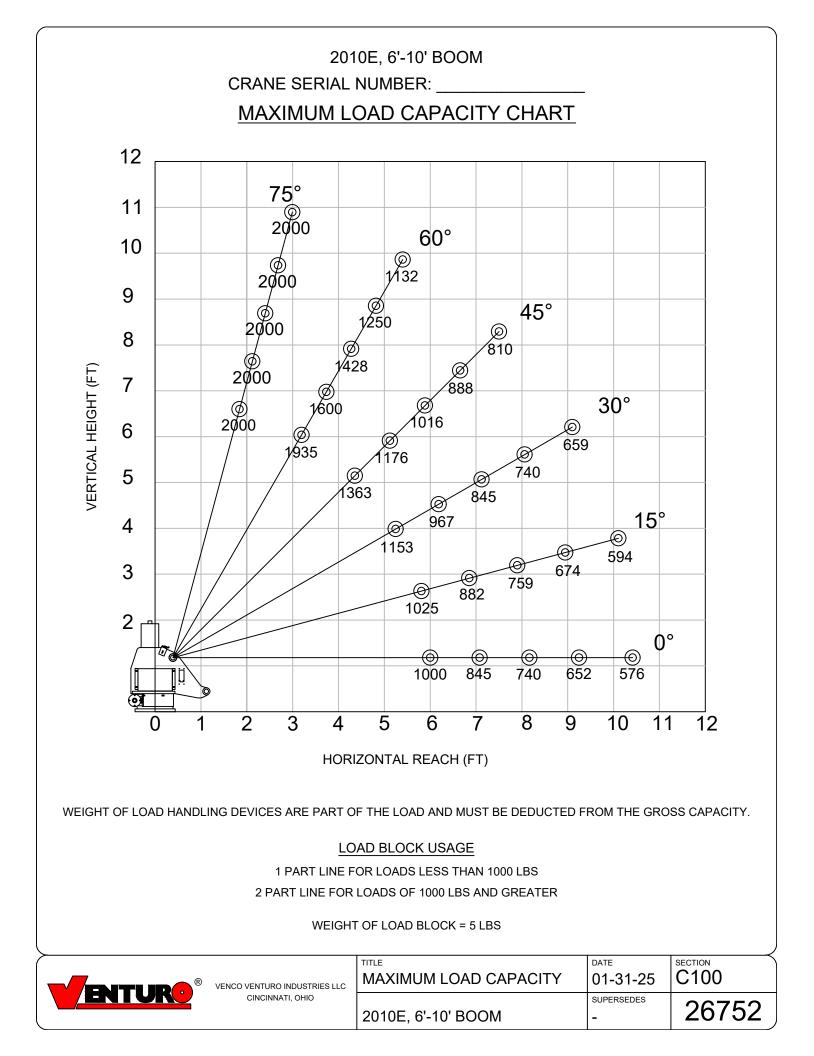
SECTION 100

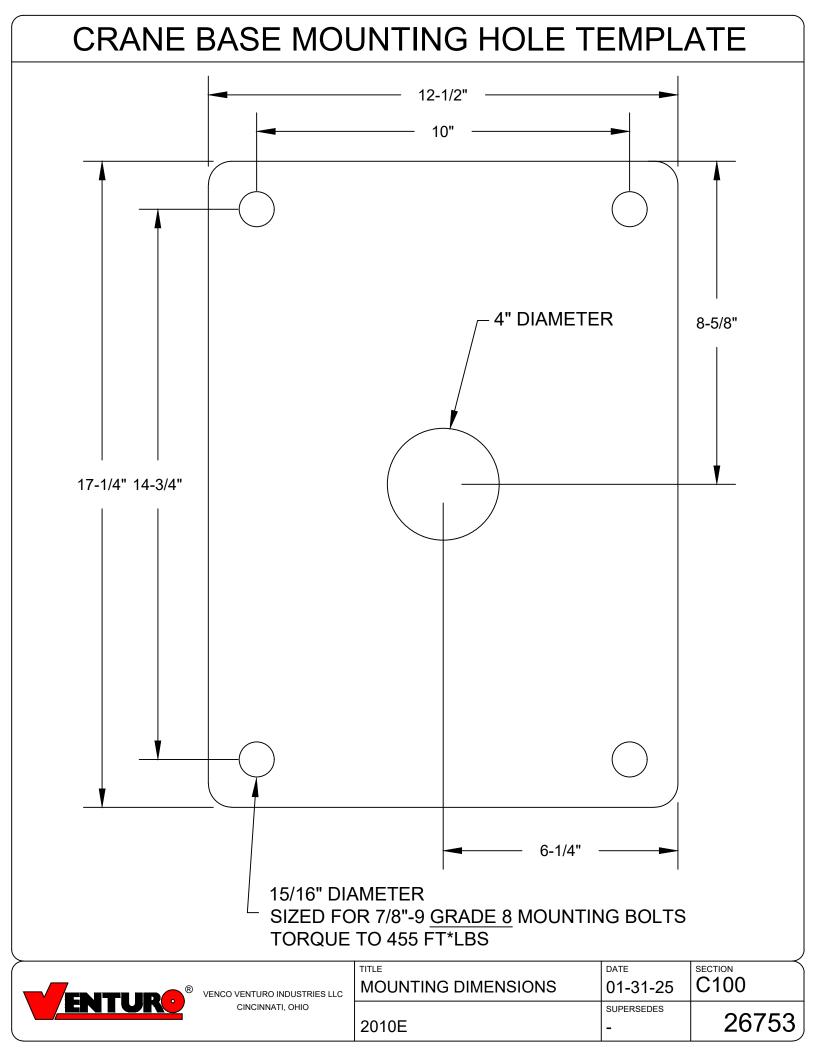
DESCRIPTION & SPECIFICATIONS



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO







SECTION 150

SAFETY



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

CRANE SAFETY AND HAZARDS

CAUTIONS

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

DANGER

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

YOU MUST NOT OPERATE THIS CRANE, UNLESS:

- 1. YOU HAVE BEEN TRAINED IN THE SAFE OPERATION OF THIS CRANE, AND
- 2. YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONSCONTAINED 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 APPARATUSES.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK, OR SAG, AND ELECTRICAL LINE AND LOAD-LINE 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 10 FEET BETWEEN ANY PART OF THE CRANE, LOAD-LINE, OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS. REFER TO DRAWING 15394 FOR ADDITIONAL INFORMATION.
- **DEATH OR SERIOUS INJURY** WILL RESULT FROM CONTACT OR INADEQUATE CLEARANCES.

OVERLOAD SENSING SYSTEM - STANDARD ON ALL CRANES

- 1. IF OVERLOADED, THE WINCH UP, BOOM DOWN, AND (OPTIONAL) BOOM OUT FUNCTIONS WILL AUTOMATICALLY, SHUT OFF TO PREVENT INCREASED OVERLOAD.
- 2. ON CRANES EQUIPPED WITH AN OPTIONAL OVERLOAD ALARM, IT WILL ALSO SOUND.
- 3. IF AN OVERLOAD OCCURS, USE THE WINCH DOWN, BOOM UP OR BOOM IN FUNCTIONS TO RELIEVE THE OVERLOAD.
- 4. THE OVERLOAD SENSING SYSTEM IS INOPERATIVE IF THE BOOM ELEVATION IS AT THE BOTTOM OR TOP LIMIT OF TRAVEL. TO RELIEVE THIS CONDITION, RAISE OR LOWER THE BOOM SLIGHTLY BEFORE LIFTING THE LOAD.
- 5. SEE MANUAL FOR TESTING THE OVERLOAD SYSTEM.

NOTICE - WARRANTY VOID IF DISCONNECTED

THE OVERLOAD SENSING SYSTEM HAS BEEN INSTALLED AS A SAFETY FEATURE TO PROTECT THE EQUIPMENT AND THE OPERATOR.

DO NOT DISCONNECT THIS SYSTEM

™	^{date}	section
SAFETY & HAZARDS	01-29-15K	C150
ELECTRIC CRANES	supersedes 12-20-13J	

CRANE SAFETY AND HAZARDS - CONT'D

OVERLOAD ALARM SYSTEM - OPTIONAL

1. OVERLOAD ALARM HORN SOUNDS IF RATED LOAD IS EXCEEDED AT ANY REACH.

- 2. IF ALARM SOUNDS, RAISE BOOM OR LOWER WINCH TO REMOVE OVERLOAD.
- 3. ALWAYS RAISE BOOM SLIGHTLY BEFORE LIFTING LOAD. WARNING SYSTEM INOPERATIVE WHEN CYLINDER IS COMPLETED BOTTOMED.
- 4. ALARM CAN BE TESTED BY TYING DOWN BOOM WITH WINCH CABLE AND OPERATING BOOM UP OR BY RAISING BOOM AGAINST UP LIMIT STOP.

NOTICE - WARRANTY VOID IF DISCONNECTED

THIS ALARM SYSTEM HAS BEEN INSTALLED AS A SAFETY FEATURE TO PROTECT BOTH THE EQUIPMENT AND THE OPERATOR.

DO NOT DISCONNECT THIS SYSTEM

INTENTIONALLY LEFT BLANK

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TITLE	
SAFETY & HZRDS, CONT.	
ELECTRIC CRANES	

DATE	SECTION
01-29-15	C15
SUPERSEDES	_

-

VEHICLE & CRANE MOUNTED ELECTRICAL HAZARD SIGN APPLICATION & INFORMATION



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

A DANGER UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS. SIGN NO. 15401 PROVIDES ADDITIONAL WARNING OF LEGAL REQUIREMENTS WHEN OPERATING NEAR HIGH VOLTAGE LINES. THIS SIGN IS PLACED ON THE CONTROL PENDANT SIDE OF BOOM.

Table A - Minimun	n Clearance Distances

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

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

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

O VENTURO INDUSTRIES LLC	HAZARD APPS & INFO	^{DATE} 02-21-14M	section C150
CINCINNATI, OHIO	ET/HT CRANES	SUPERSEDES	15394

DECAL #: DESCRIPTION: PURPOSE: QUANTITY: PLACEMENT:	15390 CAUTION, INSPECT VEHICLE & CRANE TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS. 1 REAR COVER OR SIDE OF CRANE	CAUTION ADD CRAME INCLUDING OPERATION, PRIOR TO USE DAILY. ADD CRAME INCLUDING OPERATION, PRIOR TO USE DAILY. ADD COMPLEX TRANSPORT SOLD, LEVEL SURFACE WITH CRAME MOUTED ON FACTOR/MECOMMENCED TRUCK. ADD CRAME CRAME REFER TO MAXIMUM LOAD (CAPACITY) CHART ON CRAME PORTONIC DAIL (CAPACITY) CHART ON CRAME DO NOT OPERATING LOAD. LIMITATIONS. DO NOT OPERATE, WALK, OR STAND BENEATH BOOM OR A SUSFENDED LOAD. UNSUE OPENATION CLANS DHUT OFF MASTER DISCOMECT SWITCH WHEN CRAME NOT IN USE. FOR TRAVEL, BOOM MUST BE IN STOWED POSITION.	
DECAL #:	15391		
DESCRIPTION:	DANGER, NOT A PASSENGER LIFT	A DANGER	
PURPOSE:	TO INFORM OPERATOR NOT TO LIFT, SUPPORT, OR TRANSPORT	THIS CRANE IS NOT A PASSENGER LIFT IT IS NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT OR OTHERWISE TRANSPORT PERSONNEL.	
	PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED	D. YOU MUST NOT OPERATE THIS CRANE UNLESS: 1. YOU HAVE BEEN TRAINED IN THE SAFE	
QUANTITY:	1	OPERATION OF THIS CRANE; AND 2. YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR	
PLACEMENT:	REAR COVER OR SIDE OF CRANE	EMPLOYER'S WORK RULES, AND APPLCABLE GOVERNMENT REGULATIONS. AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY. 1591.0	
DECAL #:	15392		
DESCRIPTION:	DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)		
PURPOSE:	TO INFORM OPERATOR THAT MACHINE (CRANE) REPRESENTS AN	THIS MACHINE IS NOT INSULATED ELECTROCUTION HAZARD	
	ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONT	ACT MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARTUS. YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOAD LINE SWAYING.	
	WITH AN ELECTRICAL VOLTAGE SOURCE.	THIS LIFTING DEVICE DOES NOT PROVIDE PRO- TECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTICALLY CHARGED CONDUCTOR.	
QUANTITY:	LINE OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYNN UD ITO 50,000 UC1S, ONE		
PLACEMENT:	REAR COVER OR SIDE OF CRANE		
DECAL #:	15401		
DESCRIPTION:	DANGER, UNLAWFUL TO OPERATE	ADANGER	
PURPOSE:	WITHIN	IL TO OPERATE THIS EQUIPMENT 20 FEET OF HIGH-VOLTAGE LINES	
	FOR MINIMUM CLEARANCE CRANES SAFETY MANUA	OF 350,000 VOLTS OR LESS. ES OF HIGH-VOLTAGE LINES IN EXCESS OF 350,000 VOLTS, REFERENCE OSHA 1926.1408, AL, AND CAL-OSHA ARTICLE 37, TITLE 8, HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS	
QUANTITY: PLACEMENT:	1 RING COVER OR SIDE OF CRANE		
DECAL #:	15393		
DESCRIPTION:	DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)	DANGER	
PURPOSE:	WARNS OF DANGER FROM ELECTRICALLY CHARGED		
	VEHICLE, CRANE, OR LOAD.	P CLEAR OF TRUCK AND LOAD 4 OR SERIOUS INJURY CAN RESULT FROM TACT WITH THE LOAD, THE CRUNE, OR THE	
	VEHICLE		
QUANTITY:	4 EACH SIDE & EACH END OF VEHICLE	E IF BOOM OR LOAD LINE SHOULD BECOME ELECTRICALLY CHARGED.	

	ENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO
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VENTURO CRANES

SAFETY DECALS

04-29-16E	C150
SUPERSEDES 10-24-13D	21353

PART NO.: 14473-2

DECAL: CONDUCTIVE GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.

PART NO.: 13397

DECAL: OIL LEVEL

FUNCTION: To inform the operator of proper oil level to maintain.

QUANTITY: 1

PLACEMENT: Side of hydraulic power unit.

PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

FUNCTION: To inform the operator to unplug remote control when not in use.

QUANTITY: 1

PLACEMENT: Near pendant socket.



CONDUCTIVE GREASE

Retract All Cylinders Prior to Servicing





MANUFACTURING, INC. CINCINNATI, OHIO

	TITLE	DATE	SECTION
).	DECALS	11-12-19E	C150
		SUPERSEDES	
	ET CRANES	12-23-13D	21354

PART NO.: 26772-1 & 26772-2

DECAL: **CRANE CAPACITY**

FUNCTION: To show the operator the crane capacities. QUANTITY: 1 each

PLACEMENT: One on each side of boom.

PART NO.: 26771

DECAL: MODEL NUMBER (2010E)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

PART NO.: 26774

DECAL: VENTURO

FUNCTION: To show the brand of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

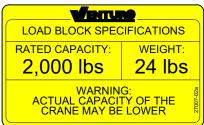
PART NO.: 27007-02a

DECAL: LOAD BLOCK CAPACITY DECAL

FUNCTION: To show the capacity of load block.

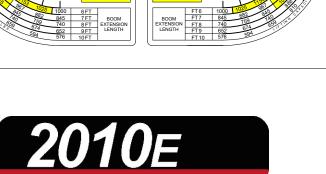
QUANTITY: 2

PLACEMENT: Each side of load block.



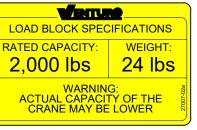


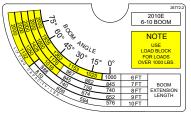
2010E	SUPERSEDES	2675
DECAL LIST / DWG	05-12-25	C150
TITLE	DATE	SECTION



2010E 6-10 BOOM

NOTE





SECTION 200

INSTALLATION



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

!! IMPORTANT !!

ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

- PROPER GROUND PATH SEE DWG 28821 1.
- 2. CURRENT DRAW IS SEVERAL HUNDRED AMPERES -ADEQUATE WIRE SIZE AND BATTERY CAPACITY IS ABSOLUTELY ESSENTIAL (SEE CHART BELOW).

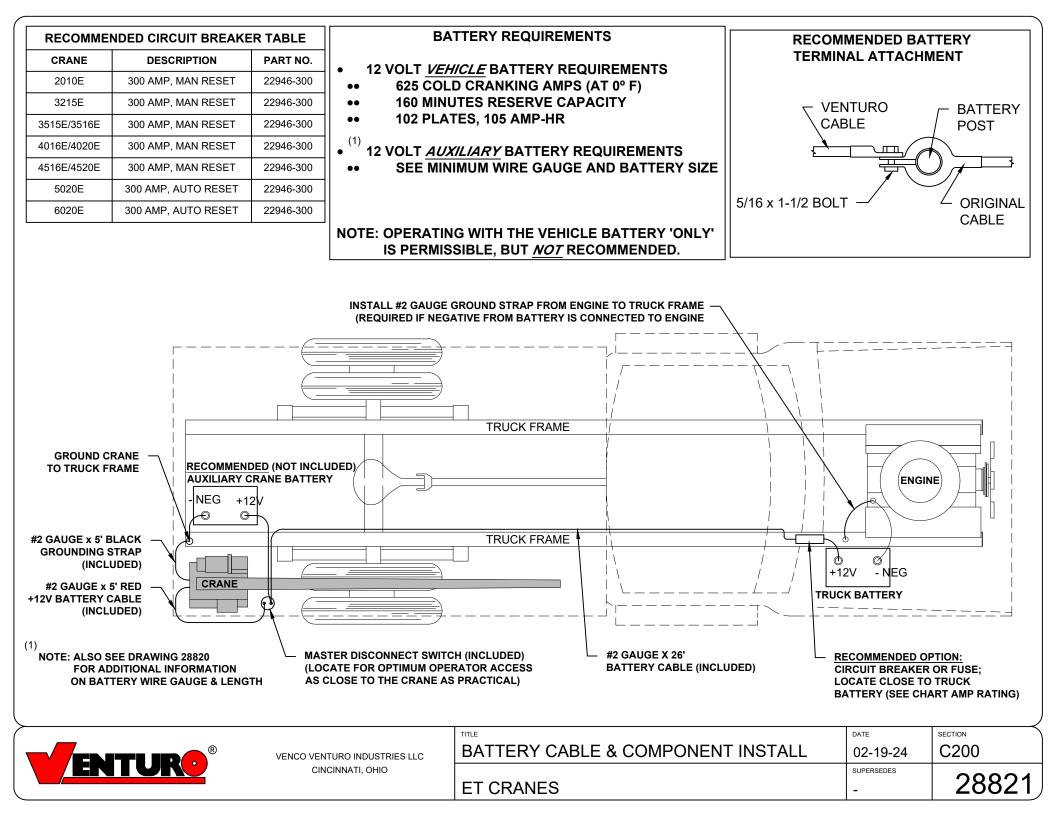
	MINIMUM WIRE GAUGE AND AUXILIARY BATTERY SIZE									
MODEL	MODEL TOTAL LENGTH OF CABLE (FT) *							-	UXILIARY QUIREMENTS	
	0-20	21-25	26-30	31-40	41-50	51-60	61-70	71-80	CCA (A) **	RC (MIN) ***
2010E	#2	#2	#1	#0	#00	NOT R	ECOMN	IENDED	450	100
3215E 3515E 3516E	#2	#2	#1	#0	#00	NOT R	ECOMN	IENDED	550	150
4016E SEE DRAWING 28821 FOR CABLE AND BATTERY 4020E REQUIREMENTS 4516E 5020E 6020E Image: Comparison of the second se					Y					

INCLUDES GROUND CABLE

- CCA = COLD CRANKING AMPS AT 0° (F).
- RC = RESERVE CAPACITY IN MINUTES AT 25 AMPS AND 80° (F). THE RC RATING IS A MEASURE OF THE PERIOD OF TIME THE BATTERY CAN SUPPLY A GIVEN CURRENT WITHOUT RECHARGING.

CINCINNATI, OHIO





STABILITY TEST - 2010E

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. <u>Note: The black & white wires MUST be</u> reconnected to the Overload Pressure Switch after the stability test has be completed.
- 6. Use a *Test Weight* weighing a *minimum* of <u>678 lbs</u>, (includes load block weight of <u>8</u> lbs.) to a *maximum of 705 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 the 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 of the ground
 - 10.2.1. Retract the boom until at least one tire on each corner of the truck is making contract with the ground
 - 10.2.2. Use the formula below to determine the allowable <u>% of Rated Capacity</u> for the ZONE in question.
- 11. Note: The "<u>Max Stable Reach in inches"</u> is measured from the *center of rotation* of the crane housing to the *lifting* load hook.

"Max Stable Reach" in inches"

X 100

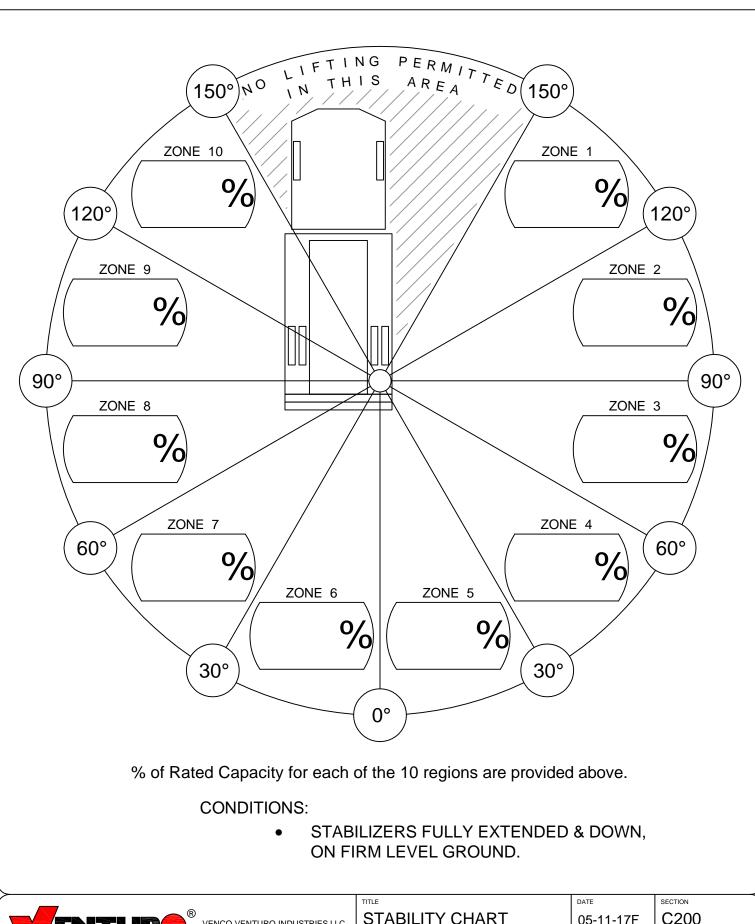
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- 12. Record the <u>% of Rated Capacity</u> in the appropriate blank (region) on the Crane Stability page (ref. 20907) and decal.
- 13. Repeat Steps 7 through 12 for each ZONE on the stability page.

% Rated Capacity =

	STABILITY TEST	^{DATE} 01-31-25	C200
ENTUR: CINCINNATI, OHIO	2010E	SUPERSEDES	20906-2010E

CRANE STABILITY



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

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

SAFETY

Before operating this crane, read and understand these instructions, the "CRANE SAFETY AND HAZARDS" pages, and review all safety and instruction labels on the crane.

CRANE INSPECTION

Before operating this crane, inspect for wear, damage, and 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 problems before using the crane.

CAPACITY

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

LOAD BLOCK

If the load exceeds:

1000 lbs. for the 2010E, or

1600 lbs. for the 3215E, or

1750 lbs. for the 3515E/3516E Series,

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. Refer to your crane's "MAXIMUM LOAD CAPACITY" page within this manual.

CONTROLS

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

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

Plug the pendant into the socket on the right side of the crane and, if applicable, snap the strain relief tether to the crane housing.

Turn on the Master Disconnect Switch. Use "WINCH DOWN" to release tension on the wire rope and unhook it from the storage tie-down position.

Use "BOOM UP" to elevate the boom from the boom rest position.

Check all control functions to see that they are working correctly.



	TITLE	DATE	SECTION
USTRIES LLC	INSTALLATION DWG	09-12-24	C200
OHIO		SUPERSEDES	00000
	2010E/3215E/351*E	-	28939

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

CONTROL FUNCTIONS

WINCH UP and WINCH DOWN - Raises and lowers the load with the wire rope.

POWER EXTENSION - "Up" raises the boom elevation by operating the valves and the electric hydraulic power unit. "DOWN" operates a solenoid release valve mounted on the cylinder to lower the load and/or boom by gravity at a controlled rate. A check valve on the cylinder prevents the boom from coming down if a hose breaks. A flow control valve controls the lowering rate.

POWER ROTATION - "L" and "R" control the direction of rotation. The 2010E. 3215E or 351*E can be rotated continuously thru 360° or more. There are no restrictions on the number of rotations in any direction.

CONTROL PRIORITY SYSTEM (NON-PROPORTIONAL SYSTEMS) - As a built in safety feature, the operator can perform only one major and one minor function at any one time. Major functions include rotation, winching up of a load. and elevating, extending, and retracting the boom. Minor functions include winching down and lowering the boom.

a. "WINCH UP" has priority over "BOOM UP", "BOOM OUT", "BOOM IN", and "ROTATION."

b. "BOOM UP" has priority over "BOOM OUT", "BOOM IN", and "ROTATION."

c. "BOOM OUT" and "BOOM IN" have priority over "ROTATION."

d. "BOOM DOWN" and "WINCH DOWN" can be operated with any function.

CINCINN

TRIGGER (351*E) - 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.

CRANE OPERATION

Avoid rapid reversal of the winch and rotation control switches. The high inrush current to the motors during reversal can reduce the life of the contactors, motor brushes, and commutators.

When operating "WINCH UP", "BOOM DOWN", or "BOOM OUT," always maintain clearance between the boom head and the load block or hook.

Do not lift or drag a load sideways using any of the crane funcitons. The boom has much lower bending strength sideways than in a vertical direction.



	INSTALLATION DWG		SECTION
O INDUSTRIES LLC	INSTALLATION DWG	09-12-24	C200
IATI, OHIO		SUPERSEDES	00040
	2010E/3215E/351*E	-	28940

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

OVERLOAD ALARM SYSTEMS (OPTIONAL)

This crane may be equipped with an optional overload alarm system.

- 1. Overload alarm horn sounds if rated load is exceeded at any reach.
- 2. If alarm sounds, RAISE boom or LOWER winch to remove overload.
- 3. Always RAISE boom slightly before lifting load warning system INOPERATIVE when cylinder is completely bottomed.
- 4. Alarm can be tested by raising boom against up limit stop.

MANUAL TELESCOPIC BOOM

The 6' -14' and 7' - 15' booms have a 4' manual telescoping section in addition to the 4' power extension. A toggle pin locks the boom into either the extended or retracted position.

TRUCK SETUP & STABILIZERS

- 1. The truck should be parked on firm level ground when using the crane.
- 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" (automatic transmission) or low gear (manual transmission), unless the engine is to be left running.
- 4. Deploy the stabilizers to stabilize the vehicle against rocking or overturning when lifting with the crane.

PREPARATION FOR TRAVEL

- 1. Return the stabilizers to the stowed position. Install and secure all pins.
- 2. Stow the crane boom in the boom support.
- 3. Hook the winch line to a tie down point on the body or pedestal and apply tension.
- 4. TURN OFF MASTER DISCONNECT SWITCH.
- 5. Unplug the control pendant and store in a body compartment or the cab.



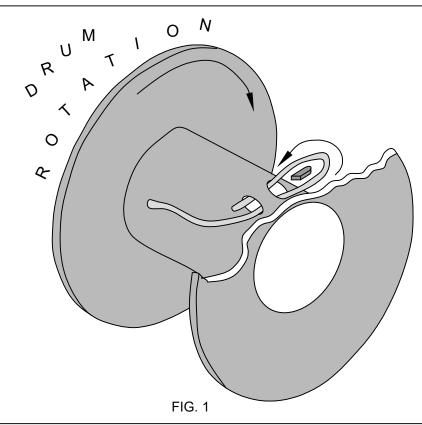
 The pendant (or receiver) plug must be unplugged from the crane socket and the Master Disconnect Switch (power) turned "OFF" when the crane is not in use! Leaving the pendant (or receiver) connected and power on when not in use may result in dangerous, unintentional activation of the crane functions.



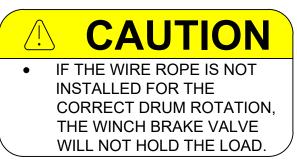
MANUFACTURING, INC CINCINNATI, OHIO

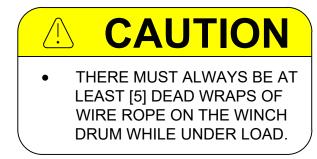
TITLE	DATE	SECTION
INSTALLATION DWG	09-12-24	C200
2010E/3215E/351*E	SUPERSEDES	28941

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) 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.





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



с	WIRE ROPE INSTALLTN	02-20-24 SUPERSEDES	C200
	2010E & LARGER CRANES	-	28822)

SECTION 300

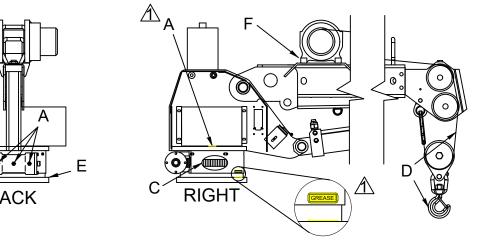
MAINTENANCE

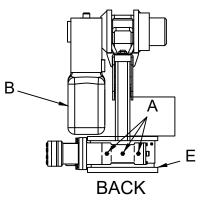
&

SERVICE



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO





ATTENTION: NEVER WASH THIS CRANE WITH CHEMICAL PRODUCTS OR HIGH PRESSURE WATER JETS, AS THEY CAN CAUSE DETACHMENT OF DECALS OR ENTRANCE OF WATER INTO ELECTRICAL OR SLEWING RING COMPONENTS

Location	Service Required	No	ote	Service Interval
A	Grease fitting With Pressure Grease Gun		Use FUCHS Renolit Aluminum Complex Grease, or equivalent	
		ALIGNMENT: To align hole w/ fitting, line up grease decals on lower cover and baseplate.		
В	Fill Oil Reservoir to Oil Level with Boom Down and Boom In.	Use Dextron ATF for Ambient Temperatures Between -22° F and 30° F	Use ISO Viscosity Grade 68 or Equivalent for Ambient Temperatures Between 10°F and 125°F	Time of Truck Service and as required by changes in the ambient temperature range
С	Lubricate Gear Teeth	Remove Cover & Use Chassis Grease		Time of Truck Service
D	Check Wire Rope and Hook	Rope should be free of kinks and fraying		Time of Truck Service
E	Check Torque of Base Mounting Bolts	Rectangular base: torqued to 455 ft-lbs		Time of Truck Service
F	Check Torque of Winch Mounting Bolts	Bolts should be t	orqued to 32 ft-lbs	Time of Truck Service

TITLE



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

LUBRICATION & MAINTENACE CHART

DATE SECTION C300 02-03-25 SUPERSEDES 26755

-

2010E W/ RECTANGULAR BASE

MINIMUM VOLTAGE TEST

ONE OF THE MOST COMMON ELECTRICAL PROBLEMS ENCOUNTERED ON 12 VOLT ELECTRICAL CRANES IS INSUFFICIENT VOLTAGE AT THE MOTOR WHEN DRAWING THE LARGE CURRENT THAT EXISTS AT FULL LOAD

EXTEND BOOM CYLINDER – AGAINST "UP" STOP (RELIEF VALVE WILL OPEN)

VOLTAGE AT MOTOR TERMINAL WHEN OPERATING AGAINST RELIEF VALVE SHOULD BE A MINMUM OF 9 VOLTS

BOOM ELEVATING – ELECTRIC HYDRAULIC POWER UNIT

° 🚳 👌

MANUFACTURING, INC.	MINIMUM VOLTAGE TEST	date 02-20-24	section C300
CINCINNATI, OHIO	ET SERIES CRANES	SUPERSEDES	28824

WIRE ROPE ASSEMBLY		LOAD BLOCK ASSEMBL	Y	
2010E WIRE ROPE: 3/16" DIA, 50' LONG GAC 7X19 LHRL-IWRC, SB 4200 LBS 3215E/351*E SERIES WIRE ROPE: 1/4" DIA, 65' LONG GAC 7X19 IPS-LHRL-IWRC, SB 7000 LBS	B	C D C D D D D D D D D D D D D D D D D D	(HOOK: ONNE (3307 LBS D 6.12"	5)
WIRE ROPE HOOK:		AA 3215E/351*E SERIE		HOOK:
RATING: 1 TONNE (2205 LBS) DIMENSIONS:		DIMENSIONS:	NNE (4410 LBS)	
A B C D 0.88" 1.06" 4.88" 3.63"		AA C 2.00" 8.25"	D 6.50"	,
		& HOOKS SPECIFICATIONS	DATE 09-12-24	SECTION C300
ENTURO REVENSE LLC CINCINNATI, OHIO	2010E/3215E/	/351*E	SUPERSEDES	28942

MANUAL OVERRIDE INSTRUCTIONS ET NON-PROPRTIONAL SERIES CRANES

!! READ ALL INSTRUCTIONS BEFORE PERFORMING MANUAL OVERRIDE PROCEDURES !!





Each valve station incorporates [2] hydraulic ports and [2] coils. Manual override shafts are located in the center of the coils (see figure 1). Manual override decals are placed on each crane near the valve assembly. These decals provide a visual aid that helps the operator determine the function designations (Reference figure 2).

2-STATION FUNCTIONS:

RR = Rot. Right RL = Rot. Left BU = Boom Up BD = Boom Down

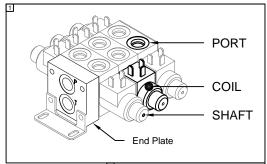
3-STATION FUNCTIONS include previous functions, plus: BI = Boom In BO = Boom Out

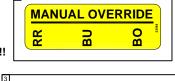
ALWAYS BE SURE TO CHECK HYDRAULIC OIL LEVEL BEFORE PROCEEDING. IT IS RECOMMENDED TO REMOVE ANY ITEM(S) THAT MAY INTERFERE WITH OPERATING THE CRANE MANUALLY. IF POSSIBLE, STRAPS AND/OR HARNESSES SHOULD BE REMOVED BEFORE OPERATING A CRANE IN MANUAL OVERRIDE !!

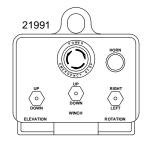
Procedure:

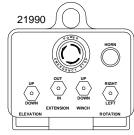
- 1. Turn Master disconnect switch to "ON"
- 2. Power up the pendant / radio
- 2.1. PENDANT twist EMERGENCY STOP button clockwise
- 2.2. RADIO Press green ON button
- 3. On the crane, reference the function you wish to perform using the manual override decal
- 4. Using a tool with a diameter of 1/8" or smaller, press the shaft inward and hold
- 5. Reference the functions listed on your pendant or radio (see figure 3)
- 6. Press the switch or button for the same function
- 7. If you need to change function,
- 7.1. Release switch or button
- 7.2. Remove tool from shaft
- 7.3. Go to step 3













For assistance, please feel free to contact Technical Support at 800-226-2238.



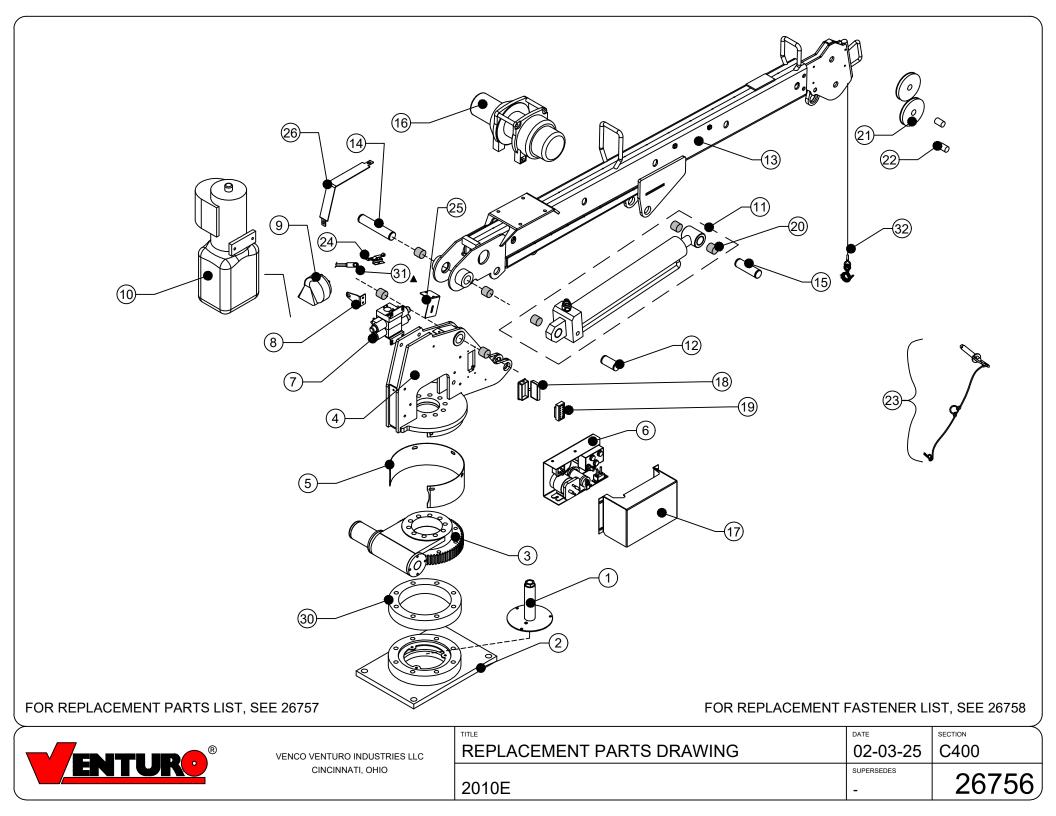
B	VENCO VENTURO INDUSTRIES LLC	TITLE MAN. OVERRIDE INSTR.	^{DATE} 03-08-19A	C200
	CINCINNATI, OHIO	ET NON-PROP CRANES	SUPERSEDES 02-09-17	23084

SECTION 400

REPLACEMENT PARTS



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO



REPLACEMENT PARTS LIST - 2010E

ITEM NO	QTY	PART NO	DESCRIPTION
1	1	16780-2P6	SWIVEL TERMINAL ASSY SEE SPECIFIC PARTS DWG/LIST
2	1	26017	WELDED ASSY; MOUNTING BASE (RECTANGULAR)
3	1	27243	SLEW DRIVE ASSY; 7" W/ HD HYD MOTOR (50RA) & MNTNG BASE
4	1	25998	WELDED ASSY; MECHANISM
5	1	27519	COVER; SLEWING RING
6	1	21515	ELECTRICAL COMPONENT PANEL
7	1	21615	4-2 VALVE BLOCK
8	1	22000	BRACKET; HORN
9	1	21948	HORN
10	1	20456	HYD PWR UNIT.
11	1	21788	ELEVATION CYLINDER W/ COMPOSITE BEARINGS
12	1	21546	PIVOT PIN, ELEVATION CYLINDER, BASE PIVOT
13	1	25997	BOOM, FINAL ASSY., 2010E
14	1	27443	PIVOT PIN, PRIMARY BOOM PIVOT
15	1	27444	PIVOT PIN, ELEV. CYL, ROD PIVOT
16	1	20586	WINCH; DC1200
17	1	27435	SIDE COVER
18	1	22481	SOCKET CASE W/ HOOD; 22482 PLUG
19	1	22482	PLUG; FEMALE INSERT, 16 PIN + 1 POLE
20	7	21789	COMPOSITE BEARING; ELEVATION / PRIMARY PIVOTS, AND MECHANISM
21	2	19646	SHEAVE WITH BUSHING
22	2	13168-2	SLEEVE
23	1	23042-F-34-34	HITCH PIN ASSY; BOOM LOCK
24	1	19917	BOOM SHUT-OFF SWITCH BRACKET
25	1	20497	SWITCH BRACKET; TOP POSITION
26	1	27433	COVER; MECHANISM
27*	1	26839	FIELD SERVICE LABEL KIT, 2010E
28*	1	21666	WIRING KIT,
29*	1	25995	HOSE & FITTING KIT
30*	1	27217	SPACER RING
31	1	19918	SWITCH, TOP POSITION
32	1	15810-3/16-50	WIRE ROPE ASSY. 3/16 GALV. AIRCRAFT

* NOT SHOWN

FOR REPLACEMENT PARTS DRAWING SEE 26756

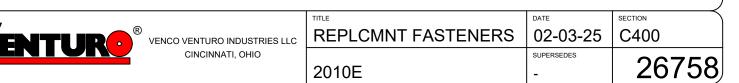


с	RPLCMNT PARTS LIST	DATE 02-03-25	section C400
	2010E	SUPERSEDES	26757

FASTENER LIST FOR 2010E

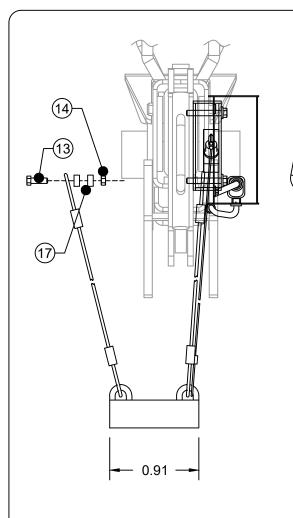
PART NO.	DESCRIPTION	QTY	LOCATION / FUNCTION
IHHCS03118063	HEX HEAD CAP SCREW; 5/16-18 x 5/8", PLATED	1	GROUND STRAP ON CANDLESTICK
!LWSH-031	LOCK WASHER; 5/16"	1	GROUND STRAP ON CANDLESTICK
ILWSH-031-STAR	LOCK WSHER; 5/16", EXTERNAL STAR	1	GROUND STRAP ON CANDLESTICK
IHHCS02520063-F	HEX HEAD CAP SCREW; 1/4-20 x 5/8", SELF-TAP	3	CANDLESTICK TO BASE
ILWSH-025-STAR	LOCK WASHER; 1/4", EXTERNAL STAR	6	CANDLESTICK TO BASE
ZERK-01327BPT	GREASE FITTING	3	SLEWING RING
12534-4	MACHINERY BUSHING; 1/2 I.D., 7/8 O.D., 14GA, PLATED	8	MOUNTING BASE TO SLEW DRIVE
ISHCS05013275	SOCKET HEAD CAP SCREW; 1/2-13 X 2-3/4", BLACK OXIDE	8	MOUNTING BASE TO SLEW DRIVE
ISHCS05013225	SOCKET HEAD CAP SCREW; 1/2-13 x 2 1/4" LG, GR. 5, PLATED	10	MECHANISM TO SLEW DRIVE
ILWSH-050-HC	LOCK WASHER; HI-COLLAR, 1/2, PLATED	10	MECHANISM TO SLEW DRIVE
IHHCS03816100	HEX HEAD CAP SCREW; 3/8-16 x 1" LG, GR. 5, PLATED	2	HYDRAULIC POWER UNIT TO MECHANISM
!LWSH-038	LOCK WASHER; 3/8"	2	HYDRAULIC POWER UNIT TO MECHANISM
IHHCS02520075	HEX HEAD CAP SCREW; 1/4-20 x 3/4", PLATED	4	4-2 VALVE BLOCK TO MECHANISM
!LW SH-025	LOCK WASHER; 1/4"	4	4-2 VALVE BLOCK TO MECHANISM
IFWSH-025	FLAT WASHER; 1/4"	4	4-2 VALVE BLOCK TO MECHANISM
!HHCS#1024125	HEX HEAD CAP SCREW; #10-24 x 1 1/4", PLATED	2	TOP ANGLE SWITCH
!LWSH-#10	LOCK WASHER; #10	2	TOP ANGLE SWITCH
!HNUT-#1024	HEX NUT; #10-24	2	TOP ANGLE SWITCH
IHHCS02520063	HEX HEAD CAP SCREW; 1/4-20 x 5/8", PLATED	1	TOP ANGLE SWTICH BRACKET - MECHANISM
!FWSH-025	FLAT WASHER; 1/4"	1	TOP ANGLE SWITCH BRACKET - MECHANISM
ILWSH-025	LOCK WASHER; 1/4"	1	TOP ANGLE SWITCH BRACKET - MECHANISM
!UNUT-02520	U-NUT; 1/4-20	5	COVER; ROTATION
IHHCS02520063	HEX HEAD CAP SCREW; 1/4-20 x 5/8", PLATED	5	COVER; ROTATION
!FWSH-025	FLAT WASHER; 1/4"	5	COVER; ROTATION
!LWSH-025	LOCK WASHER: 1/4"	5	COVER: ROTATION
IHHCS02520063	HEX HEAD CAP SCREW; 1/4-20 x 5/8", PLATED	2	ACCESS PANEL - MECHANISM
!FWSH-025	FLAT WASHER, 1/4"	2	ACCESS PANEL - MECHANISM
!SHCS#1024038	SOCKET HEAD CAP SCREW; #10-24 x 3/8", PLATED	2	HORN BRACKET - MECHANISM
!LWSH-#10	LOCK WASHER: #10	2	HORN BRACKET - MECHANISM
ISHCS#1024038	SOCKET HEAD CAP SCREW; #10-24 x 3/8", PLATED	1	CABLE CLAMP - MECHANISM
!LWSH-#10	LOCK WASHER; #10	1	CABLE CLAMP - MECHANISM
PHCS#0832050	PAN HEAD CAP SCREW; #08-32 x 1/2", PLATED	4	PENDANT PLUG CASE
!LWSH-#08	LOCK WASHER; #08	4	PENDANT PLUG CASE
IHHCS03816100	HEX HEAD CAP SCREW; 3/8-16 x 1" LG, GR. 5, PLATED	4	WINCH TO MOUNTING PLATE
!FWSH-038	FLAT WASHER: 3/8"	4	WINCH TO MOUNTING PLATE
!LWSH-038	LOCK WASHER; 3/8"	4	WINCH TO MOUNTING PLATE
!HNUT-038	HEX NUT; 3/8	4	WINCH TO MOUNTING PLATE
ISHCS03118075	SOCKET HEAD CAP SCREW; 5/16-18 x 3/4" LG, PLATED	4	SIDE COVER - MECHANISM
ILWSH-031	LOCK WASHER; 5/16"	4	SIDE COVER - MECHANISM
IHHCS06311175	HEX HEAD CAP SCREW; 5/8-11 x 1 3/4" LG, PLATED	2	SHEAVE AXLE
IJNUT-06311N	JAM NUT; 5/8-11	2	SHEAVE AXLE
HHCS02520063-F		3	
ILWSH-025-STAR	HEX HEAD CAP SCREW; 1/4-20 x 5/8", SELF-TAP	3	ELECTRICAL COMPONENT PANEL TO MECHANISM
IHHCS02520063	LOCK WASHER; 1/4", EXTERNAL STAR HEX HEAD CAP SCREW; 1/4-20 x 5/8", PLATED	2	ELECTRICAL COMPONENT PANEL TO MECHANISM
ILWSH-025	LOCK WASHER; 1/4"	2	
			MECHANISM COVER TO MECHANISM
ISRNG-113	SNAP RING; 1-1/8", PLATED	6	ALL PIVOT PINS

FOR REPLACEMENT PARTS DRAWING SEE 26756



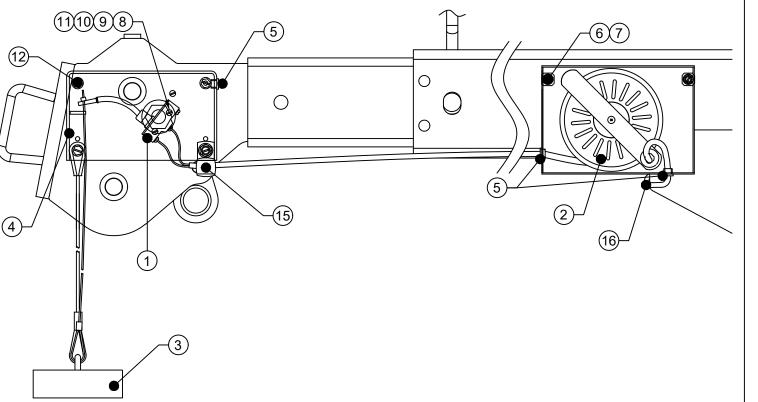
9 2 IHNUT-#0632 HEX NUT; #6-32 10 2 IFWSH-#06 FLAT WASHER; #6 11 2 ILWSH-#06 FLAT WASHER; #6 11 2 ILWSH-#06 LOCK WASHER; #6 12 4 IHHCS02520175 HEX HEAD CAP SCREW; 1/4-20 x 1/4, GR. 5 13 1 IHHCS02520175 HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5 14 1 IHNUT-02520 HEX NUT; 1/4-20 15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER: BOOM ARROW (2 PER SIDE) VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO TITLE A2B SYSTEM RPLCMNT PARTS DWG/LIST 0ATE 02-03-25 C400 2010E 2010E - 2010E - 267759	-	_						
11 2 ILWSH.#06 LOCK WASHER; #6 12 4 IHHCS02520175 HEX HEAD CAP SCREW; 1/4-20 x 1 3/4, GR. 5 13 1 IHHCS02520075-5 HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5 14 1 IHNUT-02520 HEX NUT; 1/4-20 15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	9	2	IHNUT-#0	632	HEX NUT; #6-32			
12 4 IHHCS02520175 HEX HEAD CAP SCREW; 1/4-20 x 1 3/4, GR. 5 13 1 IHHCS02520075-5 HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5 14 1 IHNUT-02520 HEX NUT; 1/4-20 15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) TURIO VENCO VENTURO INDUSTRIES LLC CINCINNATI OHIO TITLE Mate ABE SYSTEM RPLCMNT PARTS DWG/LIST Date Section C400	10	2	!FWSH-#	¢06	FLAT WASHER; #6			
13 1 IHHCS02520075-5 HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5 14 1 IHNUT-02520 HEX NUT; 1/4-20 15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) VENCO VENTURO INDUSTRIES LLC CINCINNATI OHIO	11	2	!LWSH-#	¢06	LOCK WASHER; #6			
14 1 IHNUT-02520 HEX NUT; 1/4-20 15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) VENCO VENTURO INDUSTRIES LLC CINCINNATI OHIO TITLE DATE SECTION CINCINNATI OHIO	12	4	IHHCS0252	20175	HEX HEAD CAP SCREW; 1/4-20 x 1 3/4, GR. 5			
15 1 19269 CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) TURE Date SECTION CABLE CLAMP; SMALL 16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) Date SECTION MURE NOT UNDUSTRIES LLC Date Date SECTION CINCINNATI OHIO	13	1	IHHCS02520	0075-5	HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5			
16 1 21679 WIRE HARNESS; A2B CORD REEL 17 4 22490 SPACER; BOOM ARROW (2 PER SIDE) Image: Book and the second read of the second	14	1	IHNUT-02	520	HEX NUT; 1/4-20			
Initial Initial <thinitial< th=""> <thinitial< th=""> <thinitial< th=""></thinitial<></thinitial<></thinitial<>	15	1	19269	6	CABLE CLAMP; SMALL			
Image: Section of the section of t	16	1	21679	1	WIRE HARNESS; A2B CORD REEL			
************************************	17	4	22490	(SPACER; BOOM ARROW (2 PER SIDE)			

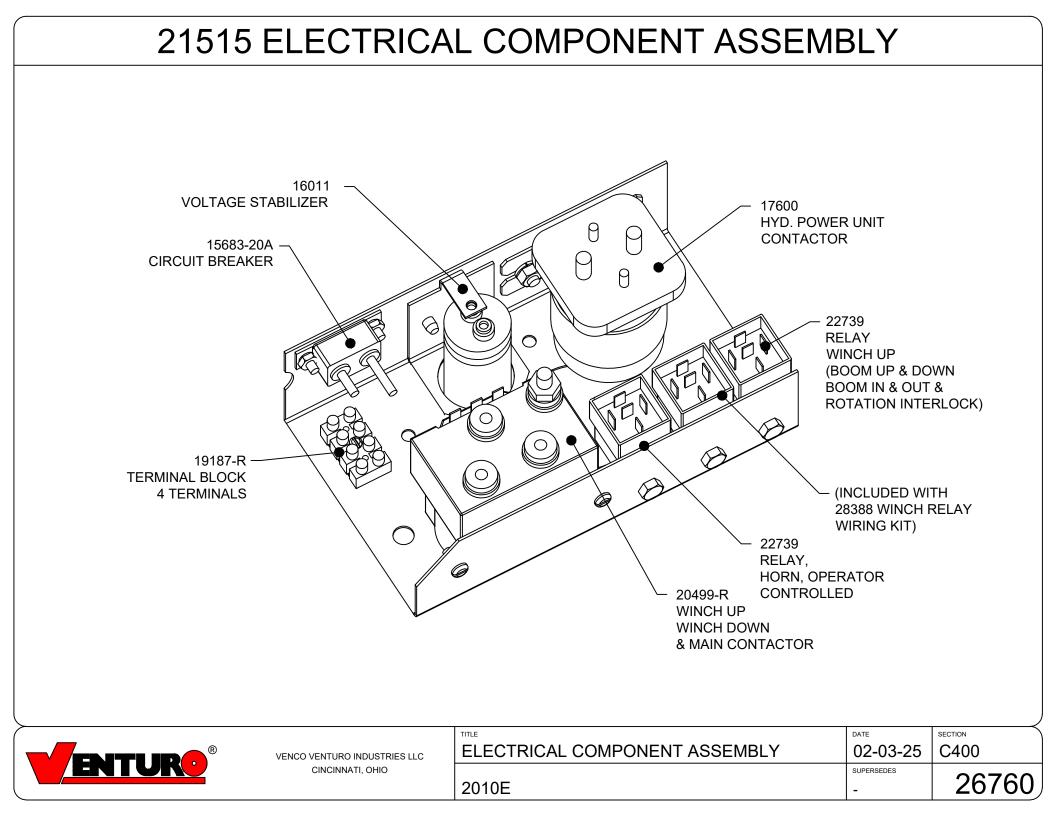
				TITLE			DATE	SECTION
CINCINNATI, OHIO 2010E SUPERSEDES - 26759	VENCO VENTURO IN	IDUSTRIE	ES LLC	A2	B SYSTEM RPLCMNT PARTS	DWG/LIST	02-03-25	C400
2010E - 2675S	CINCINNATI	I, OHIO					SUPERSEDES	
				20	10E		-	26759
				I			1	I

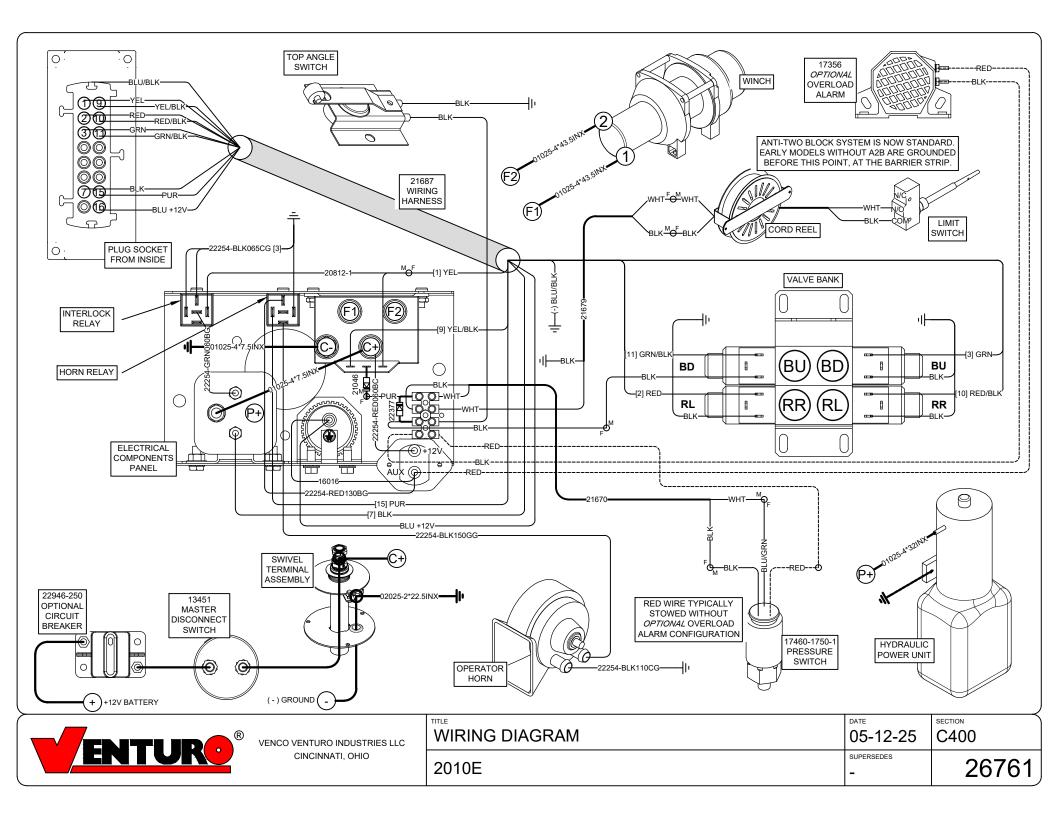


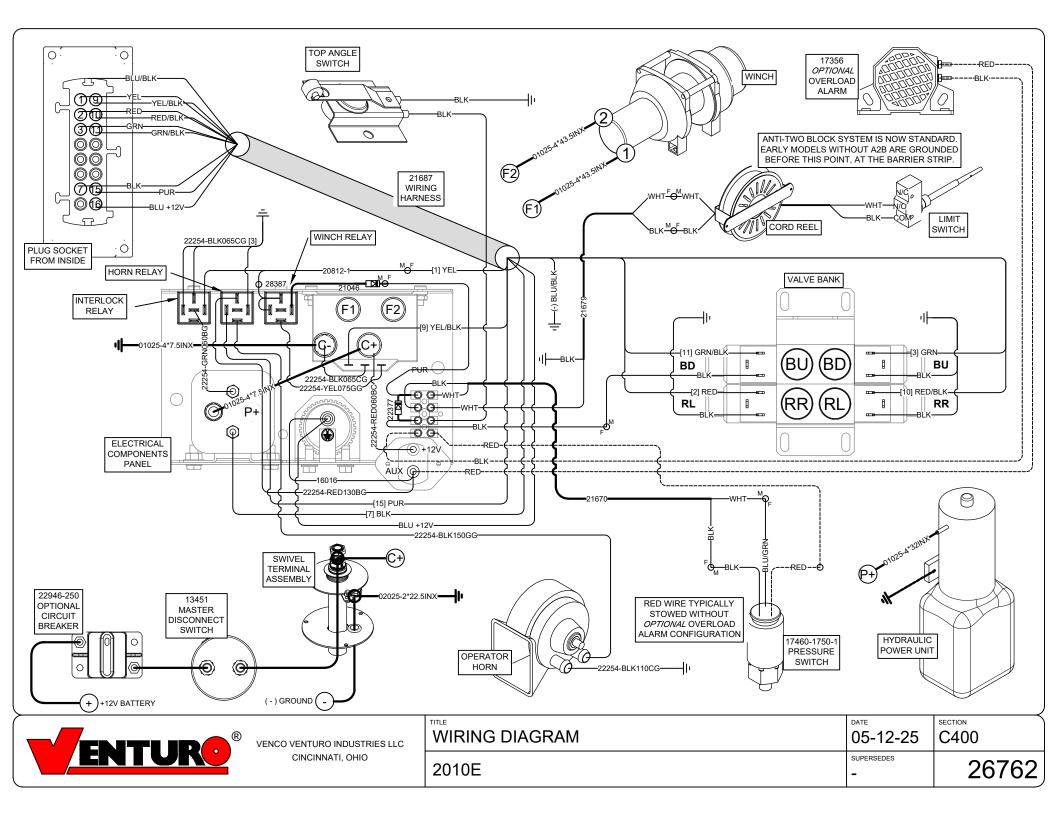
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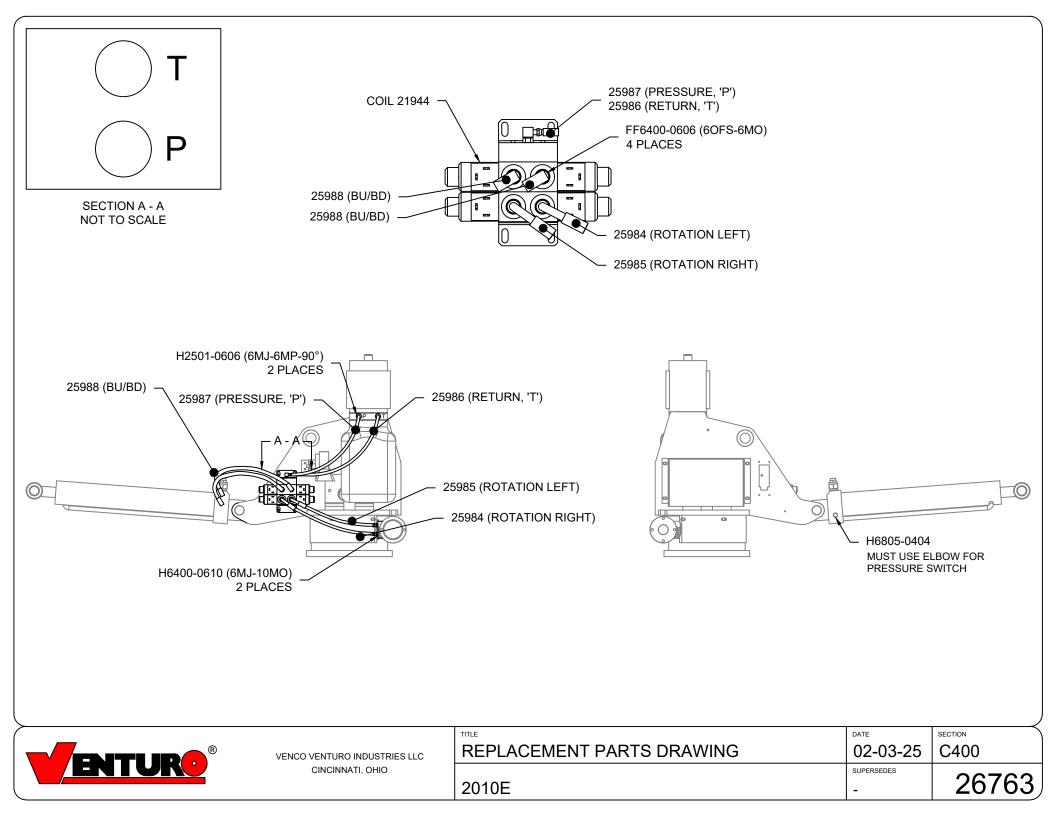
ITEM	QTY	PART NO	DESCRIPTION
1	1	19376	SWITCH; A2B
2	1	22683	ASSY; CORD REEL, LEFT
3	1	19377-1	ASSY; WEIGHT, A2B
4	1	21291	ANTI-TWO-BLOCK (A2B) HOUSING
5	3	19270	SNAP BUSHING; 9/16" I.D.
6	4	ISHCS03118050-5	SOCKET HEAD CAP SCREW; 5/16-18 x 1/2", GR. 5
7	4	!LWSH-031	LOCK WASHER; 5/16
8	2	IPHMS#0632125	PAN HEAD MACHINE SCEW; #6-32 x 1 1/4", GR. 5
9	2	!HNUT-#0632	HEX NUT; #6-32
10	2	IFWSH-#06	FLAT WASHER; #6
11	2	!LWSH-#06	LOCK WASHER; #6
12	4	IHHCS02520175	HEX HEAD CAP SCREW; 1/4-20 x 1 3/4, GR. 5
13	1	IHHCS02520075-5	HEX HEAD CAP SCREW; 1/4-20 x 3/4, GR. 5
14	1	!HNUT-02520	HEX NUT; 1/4-20
15	1	19269	CABLE CLAMP; SMALL
16	1	21679	WIRE HARNESS; A2B CORD REEL
17	4	22490	SPACER; BOOM ARROW (2 PER SIDE)

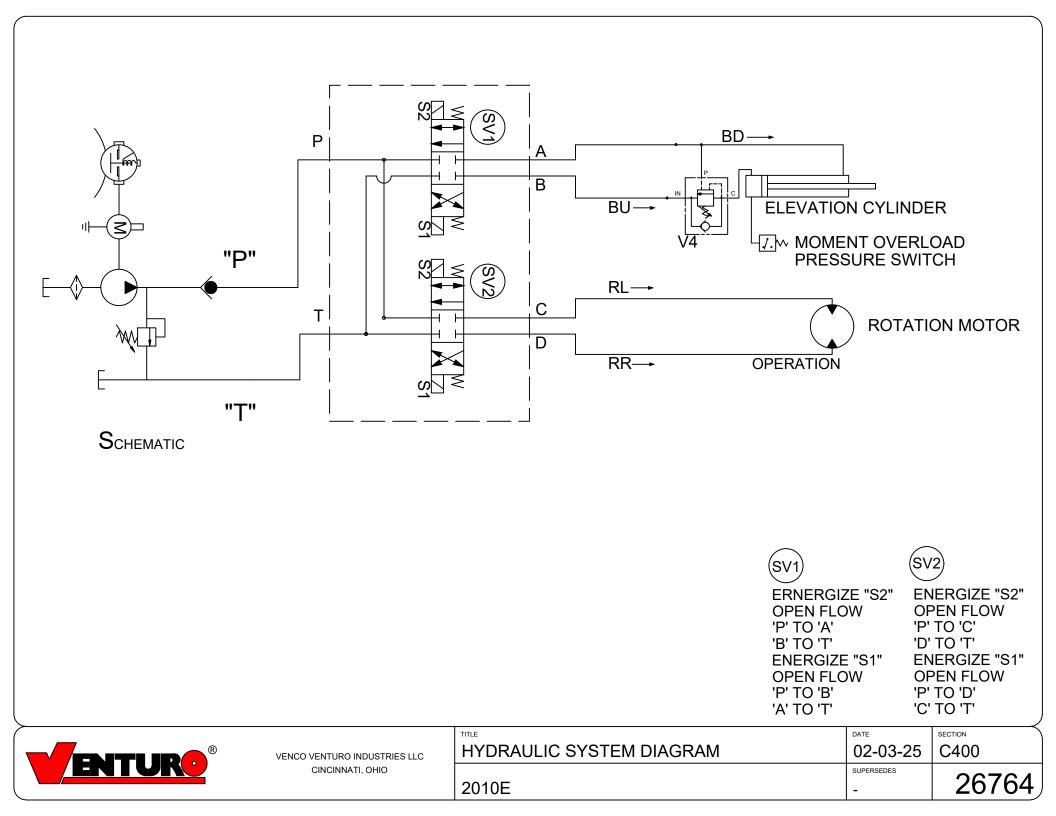




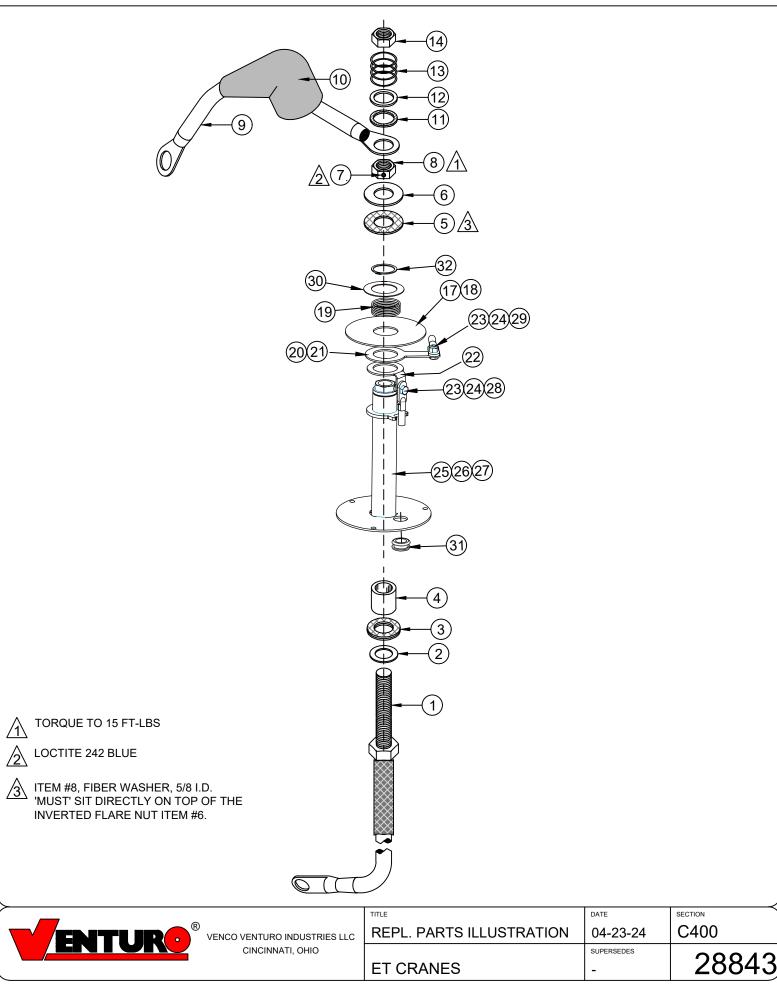






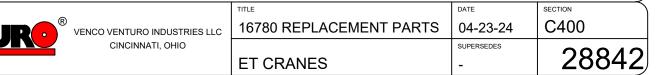


2-Pole Slip-ring Replacement Parts



2-Pole Slip-ring Replacement Parts

6 Slew Rotation 2-Pole Slip-Ring (2010E ONLY)	<pre>8 Slew Rotation 2-Pole Slip-Ring (3215E/351*E/40**E/45**E)</pre>	25 Slew Rotation 2-Pole Slip-Ring (5020E/6020E)	T ALL CRANES	16780 BILLS OF MATERIALS								
16780 - 2P6	16780 - 2P8	16780 - 2P25	16780 - KIT									
				#	PART	DESCRIPTION						
1	1	1	-	1	16783	PIGTAIL AND STUD ASSEMBLY						
1	1	1	1	2	12534-5	ZINC BUSHING; 5/8" I.D. X 1" O.D. X 14 GAUGE						
2	2	2	2	3	14357-1	FIBER WASHER; 5/8" I.D. X 1 1/16" O.D. X 1/16"						
1	- 1	1	1	4	14233	INSULATING BUSHING; 5/8" I.D. X 7/8" O.D. X 7/8"						
1	1	1	1	5								
					14357-2	FIBER WASHER; 5/8" I.D. X 1 1/4" O.D. X 1/16"						
1	1	1	1	6	!FWSH-063SAE	FLAT WASHER; 5/8" SAE						
1	1	1	1	7	ISHCS02528025KC	SET SCREW W/ KNURLED CUP; 1/4"-28 X 1/4"						
1	1	1	1	8	21273	BRASS JAM NUT; 5/8"-11						
_7	-	-	-	9	26035-2	PIGTAIL; SWIVEL TERMINAL						
-	L.	-	-	10	17012	RUBBER BOOT; SWIVEL TERMINAL						
1	1	1	1	11								
1	1	1	1	12	12 5714-113-62 BRASS WASHER							
1	1	1	1	13	LC-098K-00	SPRING; 0.845" O.D. X 0.098" WIRE X 1.00 F.L.						
1	1	1	1	14	IJNUT-06311N	JAM NUT; 5/8"-11, NYLON NUT						
1	1	1	1	15	LOCTITE-24205	REMOVABLE THREAD LOCKER; 0.5ML						
1	1	1	1	16	19368	IDWG; 16780 SWIVEL TERMINAL						
1	L	1	1	17	27456	UHMW WATER SHIELD, (ET6K ONLY)						
-	1	1	-	18	27456-1	UHMW WATER SHIELD, (ET8 - ET36)						
1	1	1	-	19	27461	SPRING. (-) SLIP-RING ASSY.						
-	1	1	-	20	27441-1	COPPER SLIP-RING, (ET8 - ET36)						
1	-	-	-	21	27441	COPPER SLIP-RING, (ET6K ONLY)						
1	1	1	-	22	27449-1	BRASS SLIP-RING (ET6 - ET36)						
1	1	1	-	23	IHHCS03118075-B	BRASS HHCS						
1	1	1	-	24	IHNUT-03118-B							
1	- 1	-	-	25 26	23255 23255-1	SLIP-RING, WELDED ASSY, ET6K SLIP-RING, WELDED ASSY, ET8 - 18K(X)						
-	-	- 1	-	20	23255-2	SLIP-RING, WELDED ASS1, ET8 - Tak(X) SLIP-RING, WELDED ASSY, ET25 - 36K(X)						
1	1	1	-	28	02025-2*96.5INX	(-) WELDING CABLE ASSY, BRASS SLIP-RING						
1	1	1	-	29	02025-2*22.5INX	(-) WELDING CABLE ASSY, COPPER SLIP-RING						
1	1	1	-	30	27463	SHIM, WIDE RIM, 18GA, 2-1/4 O.D. X 1-1/2 I.D.						
1	1	1	-	31	20889	RUBBER GROMMET						
1	1	1	-	32	ISRNG-150	SNAP-RING, EXTERNAL, 1-1/2"						



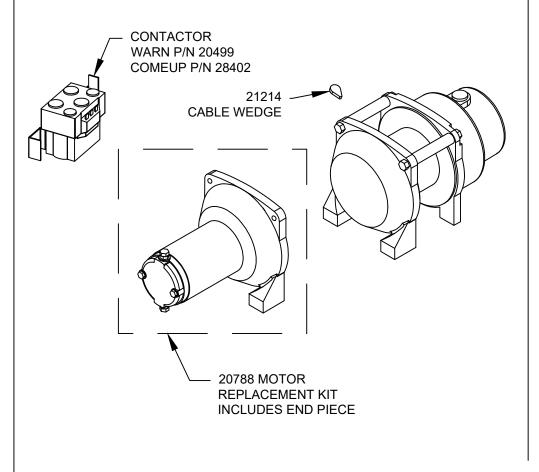


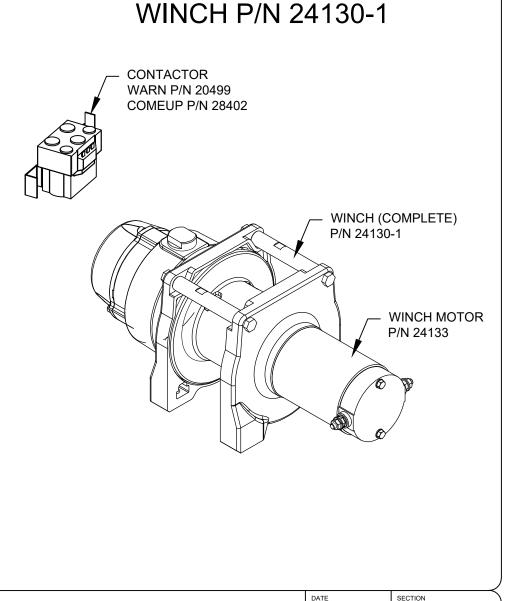
21991 PENDANT; 3 FUNCTION ET CRANES, E-STOP / HORN

OUTPUT - YELLOW / RED (15) HORN WINCH BOWN - YELLOW / BLACK (9)	D O O +12V - RED (16) E-STOP	HYD POWER - BR		R <u>ED (</u> 7)	ROUTING RE THROUGH P HOUSING. NOTE 2:	NALS TO BE INST PLACEMENT CO ENDANT HEAD AI JT BACK UNUSEE	RD ASSY ND PLUG	
2 ROTATION LEFT - BLUE (2) 2 ROTATION RT - BLUE (2) ROTATION RT - BLUE / BLACK (10) RIGHT ROTATION WINCH UP - YELLOW (1)				BLACK (11) └				
			4 5 6					
FIG. 1 - TYPICAL SWITCH JUMPER LAYOUT. CONTACT POINTS = $\diamond \bullet \circ$								
BLACK - GROUND		ITEM	QTY	PART NO.	DESCF			
		1	1	22081		H; SPDT, MO	MENTARY	
	J	2	2	22152	SWITC	H; DPDT, MO	MENTARY	
BLUE / BLACK - RR		3	1	22471	PLUG (PLUG CASE; 16 + 1 POLE		
		4	1	22472	INSER	Γ; MALE , 16 +	1 POLE	
		5	-	-	-			
Image: Approximate and the second) - TRIGGER	6	1	22135	KIT; REPLACEMENT CORD ASSY			
		7	1	22155	SWITCH; PUSHBUTTON, HORN SWITCH; E-STOP		TON, HORN	
16-PIN PLUG ASSY. 16-PIN PLUG - BACKSIDE VIEW		8	1	22156				
>						DATE	SECTION	
				LIST		02-03-25	C400	
ENTURO VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO						SUPERSEDES		
	21991 PNDNT; 3 FNCTN ET CRNS, EST			P/HRN	-	26765		

WINCH REPLACEMENT PARTS

WARN DC1200 WINCH P/N 20586





COMEUP GTD-1200



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

TITLE

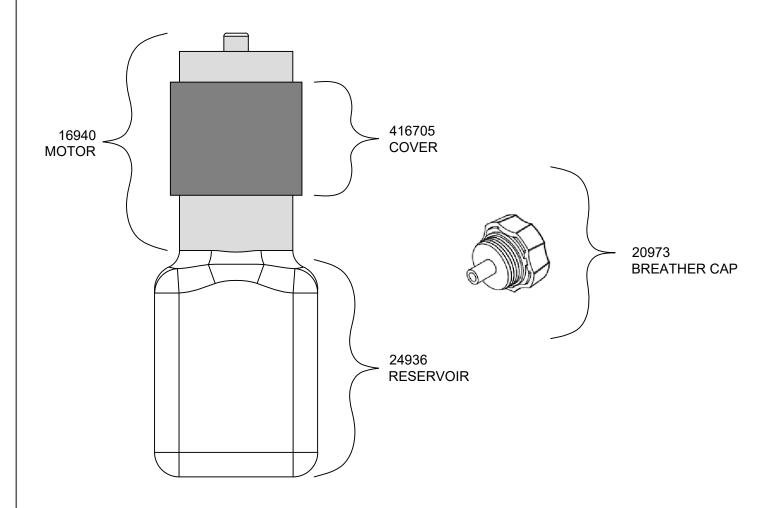
REPLACEMENT PARTS DRAWING

CT310KX & 2010E (ET6K) ▲

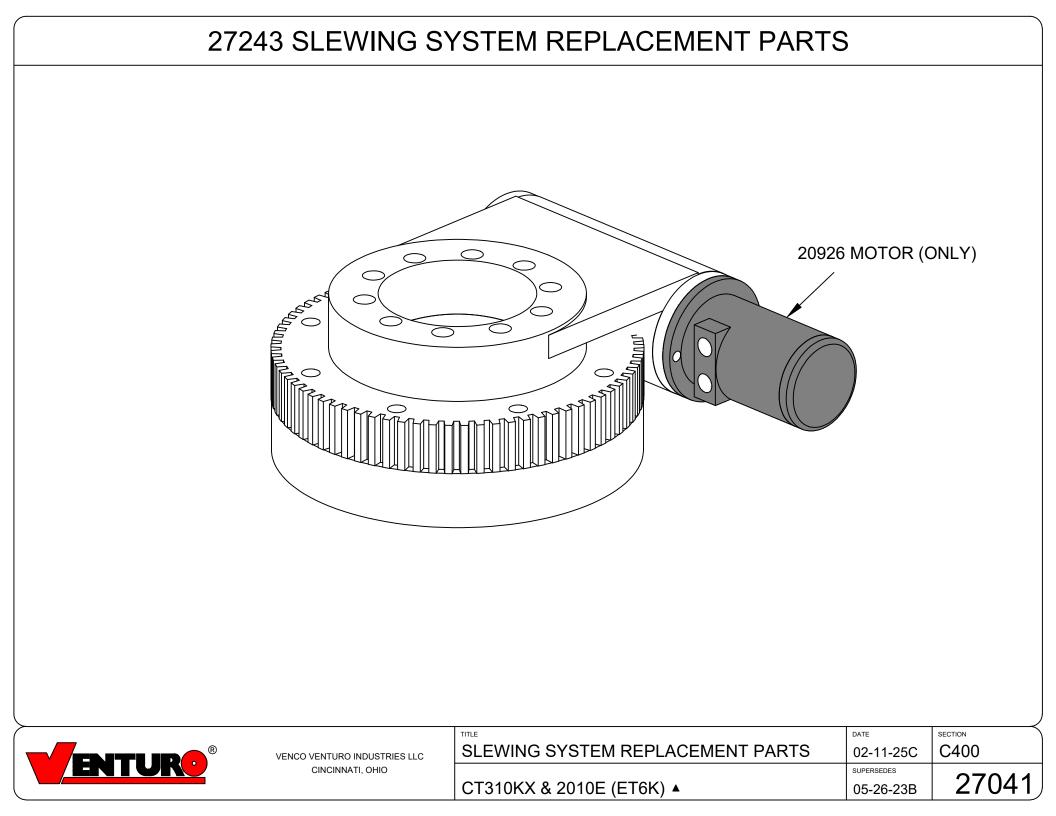
DATE 02-11-25F

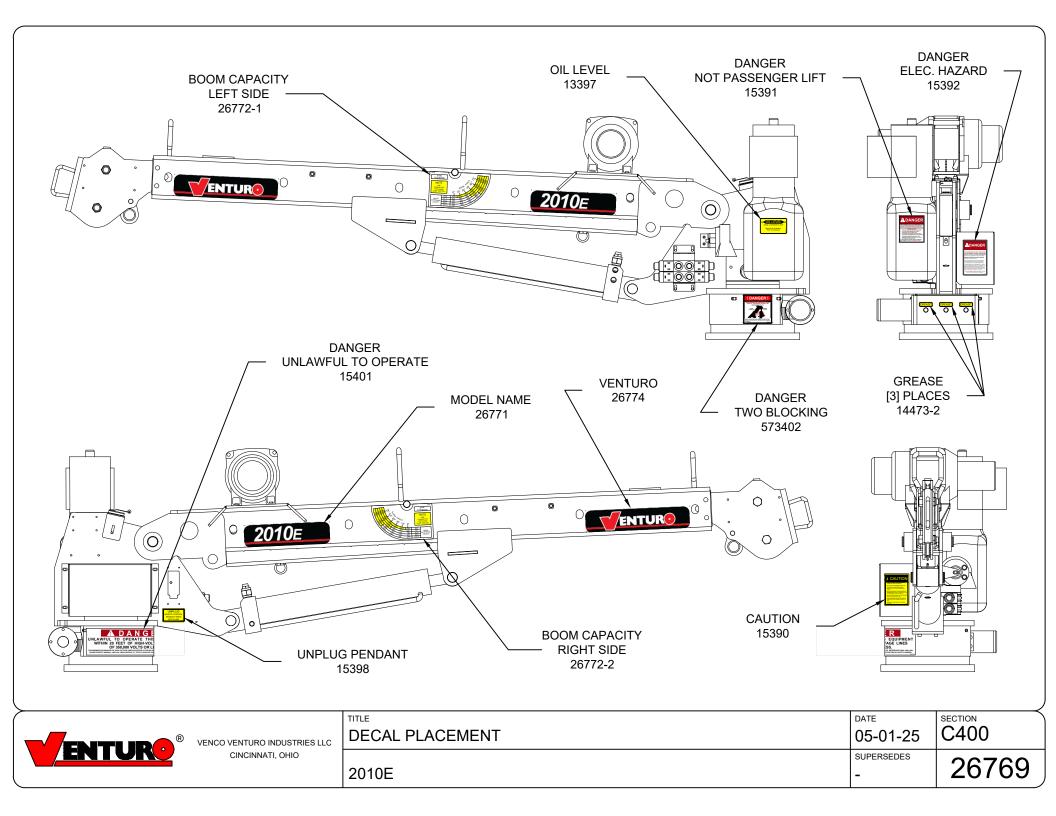
_ SUPERSEDES 20837 02-17-22E

20456 REPLACEMENT PARTS DWG/LIST









PART NO.	QTY.	DESCRIPTION
14473-2	3	DECAL, GREASE
26774	2	DECAL, VENTURO
26772-1	1	DECAL, BOOM CAPACITY 2010E RIGHT
26772-2	1	DECAL, BOOM CAPACITY 2010E LEFT
26771	2	DECAL, MODEL NAME DECAL - 2010E
13397	1	DECAL, OIL LEVEL
16184-1	1	DECAL; HORN RELAY
26833	1	FIELD SERVICE LABEL KIT LIST
26770	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

VENCO VENTURO INDUSTRIES LLC	FIELD SERVICE LABEL KIT	I I	C400
CINCINNATI, OHIO	2010E	SUPERSEDES	26770

VENTURO CRANES LIMITED WARRANTY POLICY



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

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

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

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

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

Warranty Claims

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

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

VENCO VENTURO INDUSTRIES LLC

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