

EQBAAB-*0*0

PARTS & INSTALLATION MANUAL ET36KX(P)

Included in this manual:

ET36KX(P)

- 6,000 lbs Electric Telescopic Service Crane
- 10 16 20 ft Powered, Dual-Stage, Boom Extension
- Optional Proportional Controls

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



ET36KX(P)

INST-24413 - 3/27/2024 (Rev: F1)

DESCRIPTION & SPECIFICATIONS 7607100A SPECIFICATIONS & OPERATING FEATURES 21077 SPECIFICATIONS & OPERATING FEATURES 21078

24390 INSTALLATION DIMENSIONS; ET36KX(P) - DUAL-STAGE

MOUNTING DIMENSIONS; BASE PLATE 21080

CAPACITY CHART; ET36KX(P) W/ 10-16-20 FT. BOOM 21081

SAFETY 7607150A

SAFETY & HAZARDS - GENERAL 850711 SAFETY & HAZARDS - CONTINUED 850712

VEHICLE & CRANE ELECTRICAL HAZARD INFORMATION 15394

SAFETY DECALS 21353 SAFETY DECALS 21384

DECALS FOR ET CRANES 21354 ADDITIONAL DECALS 24414 24451 **MODEL & CAPACITY DECALS**

INSTALLATION 7607200A

CABLE & BATTERY REQUIREMENTS - ET & HT CRANES BATTERY CABLE INSTALLATION DRAWING 711105

15660

STABILITY TESTING 20906-36 20907 STABILITY CHART

WIRE ROPE INSTALLATION 22245

7607300A MAINTENANCE & SERVICE

24407 **LUBRICATION & MAINTENANCE CHART** 19963 MINIMUM VOLTAGE TEST

23229

WIRE ROPE & HOOK SPECIFICATIONS
MANUAL OVERRIDE INSTRUCTIONS (NON-PROPORTIONAL)
MANUAL OVERRIDE INSTRUCTIONS (PROPORTIONAL) 23084 24415

7607400A REPLACEMENT PARTS

REPLACEMENT PARTS DRAWING; ET36KX(P) MECH 24392 24395

REPLACEMENT PARTS LIST; ET36KX(P) MECH REPLACEMENT HARDWARE DRAWING; ET36KX(P) MECH 24396 REPLACEMENT HARDWARE LIST; ET36KX(P) MECH 24397 REPLACEMENT PARTS DWG; 28301 BOOM (DUAL-STAGE)
REPLACEMENT PARTS LIST; 28301 BOOM (DUAL-STAGE)
REPLACEMENT HARDWARE DWG; 28301 BOOM (DUAL-STAGE) 24402 24403 24404 24405 REPLACEMENT HARDWARE LIST; 28301 BOOM (DUAL-STAGE)

A2B STOWAGE CUT-OUT 28239

28199 WORK LIGHT INSTALLATION INSTRUCTIONS; COMPACT A2B MOUNT REPLACEMENT PARTS DRAWING; 23154-4 ELECTRICAL COMPONENT 28302

WIRING DIAGRAM, NON-PROP W/ SERIES-WOUND WINCH & 21157 CONTACTOR 26529 WIRING DIAGRAM, NON-PROP W/ PERM MAG WINCH & 21157 CONTACTOR 26560 26562

WIRING DIAGRAM, NON-PROP W/ PERM MAG WINCH 28402 CONTACTOR & RELAY WIRING DIAGRAM, PROP W/ SERIES-WOUND WINCH & 21157 CONTACTOR WIRING DIAGRAM, PROP W/ PERM MAG WINCH & 21157 CONTACTOR 26530 26561 WIRING DIAGRAM, PROP W/ PERM MAG WINCH 28402 CONTACTOR & RELAY 26563

REPLACEMENT PARTS LIST; 16780 SINGLE / 2-POLE SLIP RING REPLACEMENT PARTS DRAWING; 16780 SINGLE / 2-POLE SLIP RING 21990 PENDANT; REPLACEMENT PARTS DRAWING / LIST (4 FUNCTION) 21292 21293 23075

REPLACEMENT PARTS DRAWING; 22158 RADIO REPLACEMENT PARTS DRAWING; 21988 23786

23073

REPLACEMENT PARTS DRAWING; HYDRAULIC SYSTEM COMPONENTS (NON-PROP)
REPLACEMENT PARTS DRAWING; HYDRAULIC SYSTEM COMPONENTS (PROP)
HYDRAULIC SYSTEM SCHEMATIC (NON-PROPORTIONAL)
HYDRAULIC SYSTEM SCHEMATIC (PROPORTIONAL) 21758 24418

20156 24434

REPLACEMENT PARTS DRAWING; 21753 EXTENSION CYLINDER W/ SEAL KIT INFO REPLACEMENT PARTS DRAWING; 21752 ELEVATION CYLINDER W/ SEAL KIT INFO REPLACEMENT PARTS DRAWING; 19813 WINCH REPLACEMENT PARTS DRAWING; 26489 HYDRAULIC POWER UNIT 21860 21773

21053

23787

21886 REPLACEMENT PARTS DRAWING: 21418 SLEWING RING

24452 **DECAL PLACEMENTS**

FIELD SERVICE LABEL KIT; ET25/30/36KX FIELD SERVICE LABEL KIT; ET25/30/36KXP 24453 24454

12-00073_VNT1 WARRANTY PAGE

SECTION 100

DESCRIPTION & SPECIFICATIONS



SPECIFICATIONS AND OPERATING FEATURES

ET36KX-10/20

SPECIFICATIONS

12 VOLT BATTERY OPERATED

36,000 FT-LBS OVERTURNING MOMENT (Or as limited by truck stability)

MOMENT OVERLOAD SYSTEM

TELESCOPIC BOOM	10 / 20
BOOM HYD ELEVATION	-8° TO 75°
BOOMHYDEXT	10 - 20 FT
	1800 LBS @
	20 FT REACH
CAPACITY	6000 LBS @ 3 TO 5 FT REACH
WIRE ROPE	5/16" DIA x 80 FT
	EXTRA HIGH STRENGTH
PENDANTCORDLENGTH	25 FT

WINCH - 3000 LBS SINGLE LINE CAPACITY

With Automatic Load Brake

ELECTRIC HYDRAULIC BOOM ELEVATION

ELECTRIC HYDRAULIC BOOM EXTENSION & RETRACTION - 10 FT STROKE

360° CONTINUOUS POWER ROTATION

REMOTE CONTROL PENDANT

25 ft Straight Cord with Four Environmentally Sealed Toggle Switches Protected by a Guard

MASTER DISCONNECT SWITCH

OUTRIGGERS AVAILABLE

Side Bracket Type Outriggers

Fold Away Type Outriggers

Pullout Type Outrigger System

ENTURO	MFG., INC. CINCINNATI, OHIO
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INSTALLATION DWG	9-30-09A	C120
ET36KX-10/20	3-18-08	21077

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.

CONTROL PRIORITY SYSTEM

The design intent of the electrical and hydraulic system is such that some functions can be operated simultaneously, while others are meant to be operated individually. To summarize the control system see the explanations below.

- Winch up takes priority over all functions.
- Winch Down can be operated with any other single function.
- Hydraulic functions (Rotation Right, Rotation Left, Boom Up, Boom Down, Boom Out and Boom In) are designed to function one at a time.

CABLE DRUM AND SHEAVE DIAMETERS

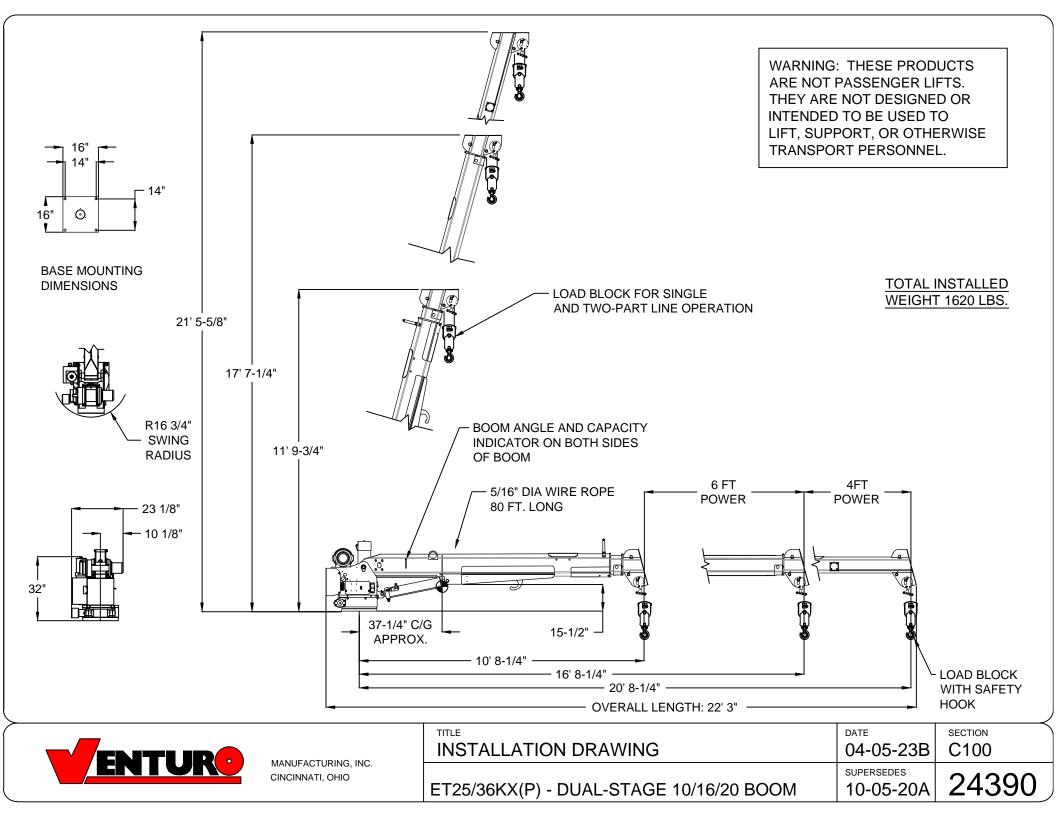
The drum on the ET36KX is 5-5/16" in diameter which provides the first layer wire rope pitch diameter 18 times the rope diameter as required by ANSI B30.5 Hydraulic Crane Standards. The cable sheaves are either 16 (snatch block) or 18 (boom) times the cable diameter which likewise conforms.

MISCELLANEOUS

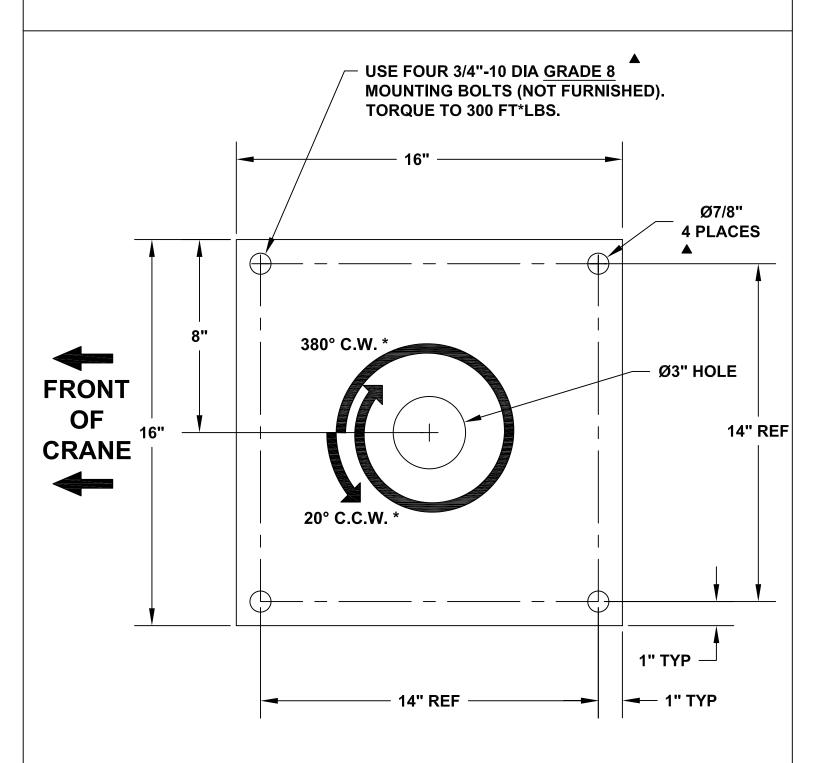
- A. CAPACITY INDICATOR
 - Select boom reach and angle allowable for load by using capacity indicator arrow and chart on either side of boom.
- B. BATTERY HOOKUP
 - A parallel auxiliary battery should be installed near the crane as shown on Dwg. 19947 under "RECOMMENDED INSTALLATION". The parallel auxiliary battery minimum rating should be 450 Cold Cranking Amps (at 0° F) and 100 reserve capacity, or 78 plates and 70 amp hours.



INSTALLATION DWG	3-18-08	C120
ET36KX-10/20	SUPERCEDES	21078



ET/HT25/30/36KX BASE MOUNTING DIMENSIONS



* Rotation limits typically apply to HT cranes only. ET cranes generally have continuous rotation.



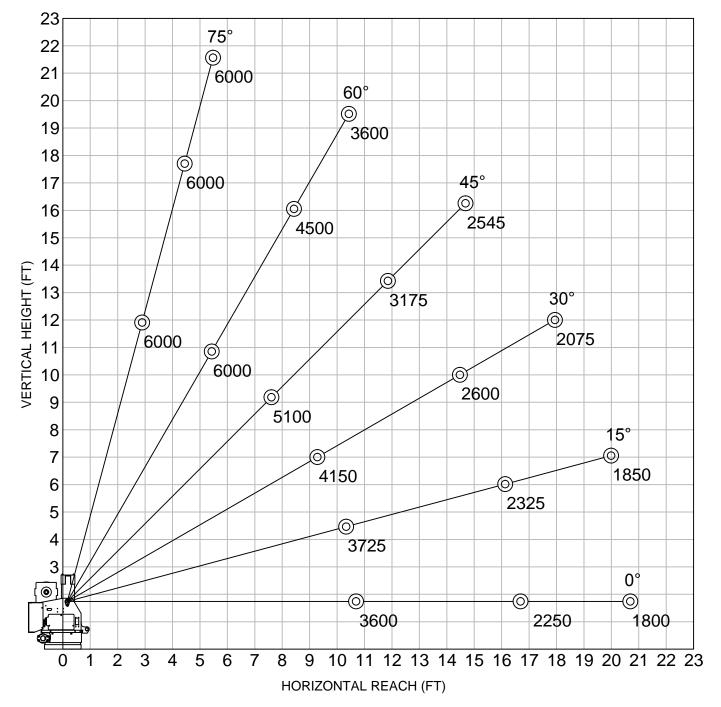
MFG., INC.
CINCINNATI, OHIO

ET/HT25/30/36	12-14-11D 21	080
BASE MOUNTING	02-13-12E SECTION C10	0
	02-13-12E C10	0

ET36KX, 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 3000 LBS 2 PART LINE FOR LOADS OF 3000 LBS AND GREATER

WEIGHT OF LOAD BLOCK = 34 LBS



С	MAXIMUM LOAD CAPACITY	05-03-16B	C100
	ET36KX, 10'-16'-20' BOOM	supersedes 04-30-13A	21081

SECTION 150

SAFETY



CRANE SAFETY AND HAZARDS

CAUTIONS

- 1. INSPECT VEHICLE AND CRANE, INCLUDING OPERATION, PRIOR TO USE DAILY.
- 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

R VENCO VENTURO INDUSTRIES LLC	SAFETY & HAZARDS	01-29-15K	C150
CINCINNATI, OHIO	ELECTRIC CRANES	supersedes 12-20-13J	850711

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



ES LLC	S

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

DECAL #: 15390

CAUTION, INSPECT VEHICLE & CRANE... DESCRIPTION:

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY:

REAR COVER OR SIDE OF CRANE PLACEMENT:

CAUTION MOUNTED ON FACTORY-RECOMMENDED TRUCK. FOR OPERATING (LOAD) LIMITATION DO NOT OPERATE, WALK, OR STAND BENEATH BOOM OR A SUSPENDED LOAD. OR TRAVEL, BOOM MUST BE IN STOWED

DECAL #: 15391

DESCRIPTION: DANGER, NOT A PASSENGER LIFT

PURPOSE: TO INFORM OPERATOR NOT TO LIFT, SUPPORT, OR TRANSPORT

PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.

QUANTITY:

PLACEMENT: REAR COVER OR SIDE OF CRANE



YOU MUST NOT **OPERATE THIS CRANE UNLESS:**

OPERATE THIS CRANE UNLESS:
YOU HAVE BEEN TRAINED IN THE SAFE
OPERATION OF THIS CRANE; AND
YOU KNOW AND FOLLOW THE SAFETY AND
OPERATING RECOMMENDATIONS CONTAINED I
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.

15392 DECAL #:

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)

PURPOSE: TO INFORM OPERATOR THAT MACHINE (CRANE) REPRESENTS AN

ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT

WITH AN ELECTRICAL VOLTAGE SOURCE.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



THIS MACHINE IS NOT INSULATED **ELECTROCUTION HAZARD**

THIS LIFTING DEVICE DOES NOT PROVIDE PRO-TECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.

TO AN ELECTRICALLY CHARGED CONDUCTOR. YOU MUST MAINTAIN A CLEARANCE OR AT LEAST 10 FEET BETWEEN ANY PART OF THE CRANE, LOAD LINE OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS. ON EFOOT ADDITIONAL CLEARANCE IS REQUIRED FOR EVERY ADDITIONAL 30,000 VOLTS OR LESS.

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

DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

PURPOSE: TO INFORM OPERATOR OF PROPER OPERATION

IN VICINITY OF ELECTRICAL LINES.

QUANTITY:

PLACEMENT: RING COVER OR SIDE OF CRANE

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 1926.140 CRANE'S SAFETY MANUAL, AND CAL-OSHA ARTICLE 37, TITLE 8, HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS

DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

WARNS OF DANGER FROM ELECTRICALLY CHARGED PURPOSE:

VEHICLE, CRANE, OR LOAD.

QUANTITY:

PLACEMENT: EACH SIDE & EACH END OF VEHICLE





SECTION



TITLE

SAFETY DECALS

DATE

C150 04-29-16E

SUPERSEDES 10-24-13D

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

VENTURO CRANES

PART NO.: 15513

DECAL: MASTER DISCONNECT SWITCH

FUNCTION: To inform the operator of location and operation of master disconnect

switch.

QUANTITY: 1

PLACEMENT: On master disconnect switch bracket.

PART NO.: 20927

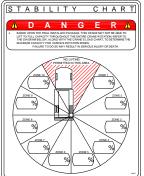
DECAL: **CRANE STABILITY**

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

QUANTITY: 1

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







TITLE	DATE	SECTION
SAFETY DECALS	06-06-14C	C150
	SUPERSEDES	04004
CRANES	04-02-13B	21384

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.

OIL LEVEL

AW46 or DEXRON III ATF

Retract All Cylinders
Prior to Servicing

3397-E

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.

UNPLUG
REMOTE CONTROL
PENDANT WHEN
NOT IN USE

DATE

11-12-19E

12-23-13D

SUPERSEDES



MANUFACTURING, INC.

CINCINNATI, OHIO

DECALS
ET CRANES

SECTION

PART NO.: 23191

DECAL: MANUAL OVERRIDE DECAL

FUNCTION: To show the manual override ports.

QUANTITY: 1 each

PLACEMENT: Left side of housing.

MANUAL OVERRIDE

R

m

PART NO.: 23188

DECAL: MANUAL OVERRIDE DECAL

FUNCTION: To show the manual override ports.

QUANTITY: 1 each

PLACEMENT: Right side of housing.

MANUAL OVERRIDE

RR

PART NO.: 19315-2

DECAL: MANUAL OVERRIDE (PROPORTIONAL)

FUNCTION: To show operator how to override

proportional valve.

QUANTITY:

PLACEMENT: Right side of Mechanism, near valve stem.

CINCINNATI, OHIO

WARNING! KEEP VALVE IN NORMAL POSITION. OVERRIDE POSITION IS INTENDED FOR EMERGENCY USE ONLY. PROPORTIONAL VALVE OVERRIDE **ROTATE STEM** 19315-2



ADDITIONAL DECALS	09-16-19	C150
ET25/30/36KY/P)	SUPERSEDES	24414

PART NO.: 27199-1 & 27199-2

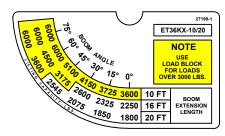
CRANE CAPACITY DECAL:

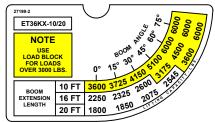
FUNCTION: To show the operator the operating

capacities of the crane.

QUANTITY: 1 each

PLACEMENT: One on each side of boom.





PART NO.: 28533

MODEL DECAL (ET36KX) DECAL:

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

PART NO.: 19788-1

PROPORTIONAL DECAL DECAL:

FUNCTION: To show the crane has proportional

feature.

QUANTITY: 2

PLACEMENT: One on each side of boom.

PROPORTIONAL CONTROL

PART NO.: 17389-4

DECAL: **VENTURO (2.8" x 11")**

PURPOSE: Branding.

QUANTITY: 1

PLACEMENT: Rear cover





MODEL/CAPACITY DECALS

DATE

11-10-23

SECTION C150

SUPERSEDES

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

ET36KX(P)

24451

SECTION 200

INSTALLATION



!! IMPORTANT!!

ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

- 1. PROPER GROUND PATH SEE DWG 15660
- 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	TOTAL LENGTH OF CABLE (FT) * A 12 VOLT AUXILIARY BATTERY REQUIREMENTS									
	0-20	21-25	26-30	31-40	41-50	51-60	61-70	71-80	CCA (A) **	RC (MIN) ***
▲ CE1500 CE6K CT2000 CT2003/4/5 DT7K	#4	#4	#2	#2	#1	#0	#0	#00	350	100
ET5500MPB ET5500R ET6KMPB ET6KR ET6K ET8K ET10K ET12K	#2	#2	#1	#0	#00	NOT R	OT RECOMMENDED		450	100
ET8KX ET10KX ET12KX T12KX	#2	#2	#1	#0	#00	NOT R	ECOMN	MENDED	550	150
ET18K(X) ET25K(X) ET30KX ET36KX ET36KX										

- * 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.

_		TITLE	DATE	SECTION	١
	VENCO VENTURO INDUSTRIES LLC	CABLE & BATTERY	07-30-18X	C200	
	CINCINNATI, OHIO		SUPERSEDES	744405	1
		ELECTRIC CRANES	09-27-17W	<i>1</i> 11105 <i> </i>	

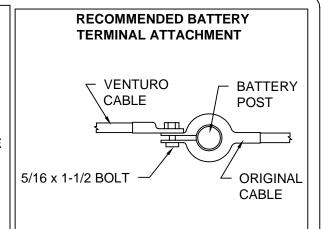
	RECOMME	NDED CIRCUIT BREAKE	R TABLE
	CRANE	DESCRIPTION	PART NO.
	CT310KX	250 AMP, MAN RESET	22946-250
	DT7	250 AMP, MAN RESET	22946-250
	CE-1500-FB	150 AMP, MAN RESET	22946-150
	CE6K	150 AMP, MAN RESET	22946-150
	CT200X	250 AMP, MAN RESET	22946-250
	ET6K	250 AMP, MAN RESET	22946-250
	ET8/12K(X)	250 AMP, MAN RESET	22946-250
•	ET12KXP	300 AMP, MAN RESET	22946-300
	ET16/18KX-16'	250 AMP, MAN RESET	22946-250
_	ET16/18KX-20'	300 AMP, MAN RESET	22946-300
	ET25/30KX	300 AMP, AUTO RESET	22946-300
	ET36KX	300 AMP, AUTO RESET	22946-300
	·	·	

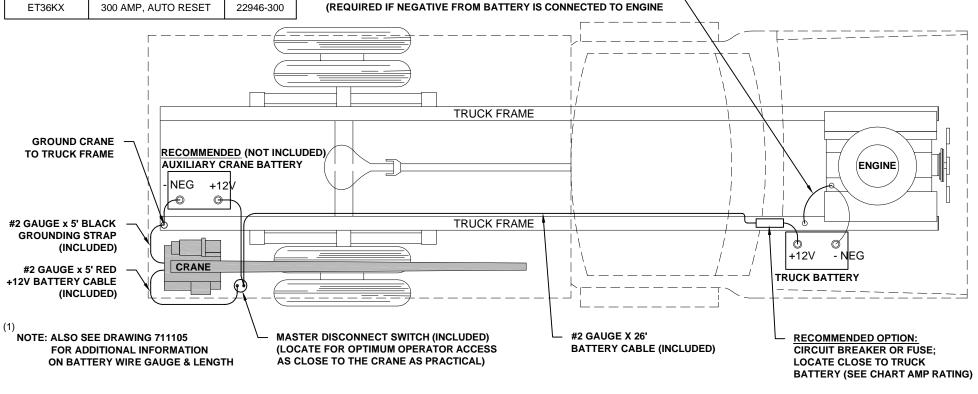
BATTERY REQUIREMENTS

- 12 VOLT *VEHICLE* BATTERY REQUIREMENTS
- •• 625 COLD CRANKING AMPS (AT 0° F)
- •• 160 MINUTES RESERVE CAPACITY
- •• 102 PLATES, 105 AMP-HR
- 12 VOLT *AUXILIARY* BATTERY REQUIREMENTS
- •• SEE MINIMUM WIRE GAUGE AND BATTERY SIZE

NOTE: OPERATING WITH THE VEHICLE BATTERY 'ONLY' IS PERMISSIBLE, BUT *NOT* RECOMMENDED.

INSTALL #2 GAUGE GROUND STRAP FROM ENGINE TO TRUCK FRAME







VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

III LE	DATE	SECTION
BATTERY CABLE & COMPONENT INSTALL	09-03-20M	C200
	SUPERSEDES	45000
ET CRANES	07-30-18L	15660

STABILITY TEST - ET36-20' SERIES

Overview

Venturo follows the guidelines of ANSI B30.5 in defining stability. Generally speaking, a truck is considered stable as long as it is not on the verge of tipping - i.e. with the truck level, at least one tire on each corner of the truck must remain in contact with the ground.

It is important to note that nearly every installation is unique and will, therefore, typically require stability testing.

The procedure outlined below follows ANSI's (B30.5 - 5-1.1.1) specified "maximum load rating" of 85% of truck stability.

Testing Procedure

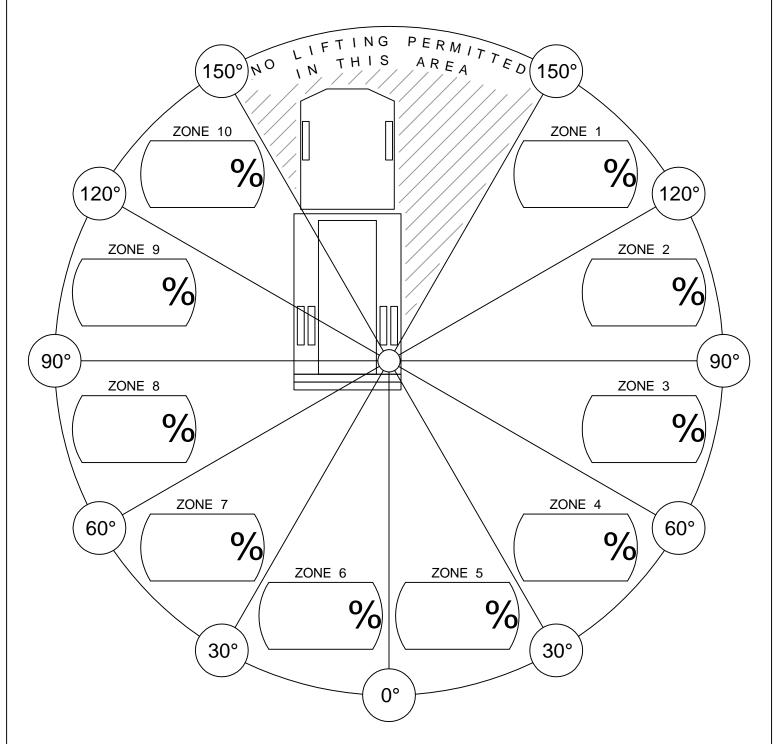
- 1. Locate the truck on firm, level ground and set parking brake.
- 2. Fully deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
- 3. Inspect wire rope and other key components of crane (consult owners manual for more information).
- 4. Conduct an operational check of all crane functions.
- 5. 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 be completed.
- 6. Use a **Test Weight** weighing a **minimum** of **2118 lbs**, (includes load block weight of <u>34</u> lbs.) to a **maximum of 2200 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 (horizontally) from the center of rotation of the crane housing to the lifting load hook.

	"Max Stable Reach" in inches"	
% Rated Capacity =		X 100
	248	

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

® VENCO VENTURO INDUSTRIES LLC	STABILITY TEST	03-17-23E	SECTION C200
CINCINNATI, OHIO	ET36-20' SERIES	SUPERSEDES 11-23-21D	20906-36

CRANE STABILITY



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

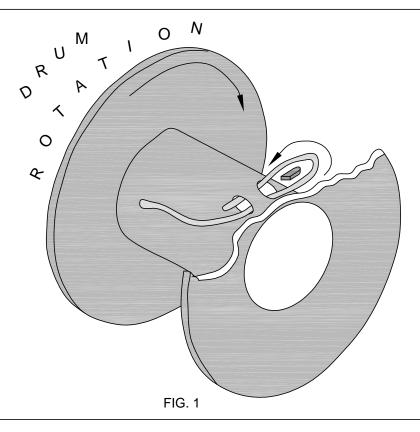
CONDITIONS:

 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

WIRE ROPE INSTALLATION



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

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

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

CAUTION

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

CAUTION

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

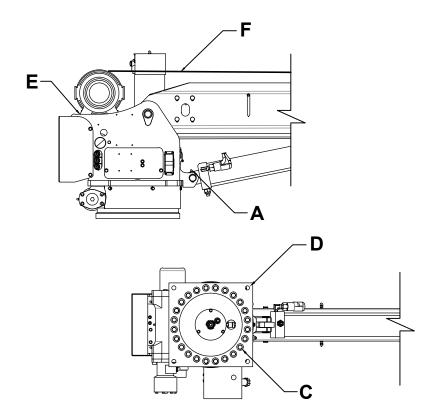
NOTE: SOME WINCHES MAY BE SUPPLIED WITH A HEX NUT IN LIEU OF A WEDGE FOR INSTALLING THE WIRE ROPE.

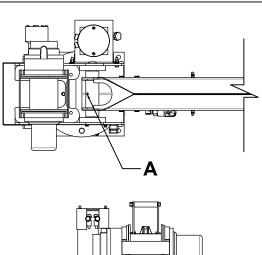
1		TITLE	DATE	SECTION	١
	VENCO VENTURO INDUSTRIES LLC	WIRE ROPE INSTALLTN	02-21-14K	C200	
	CINCINNATI, OHIO		SUPERSEDES	00045	ĺ
		ET6K & LARGER CRANES	12-26-13J	22245	

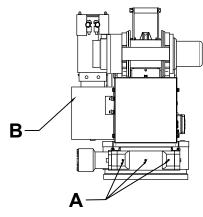
SECTION 300

MAINTENANCE & SERVICE









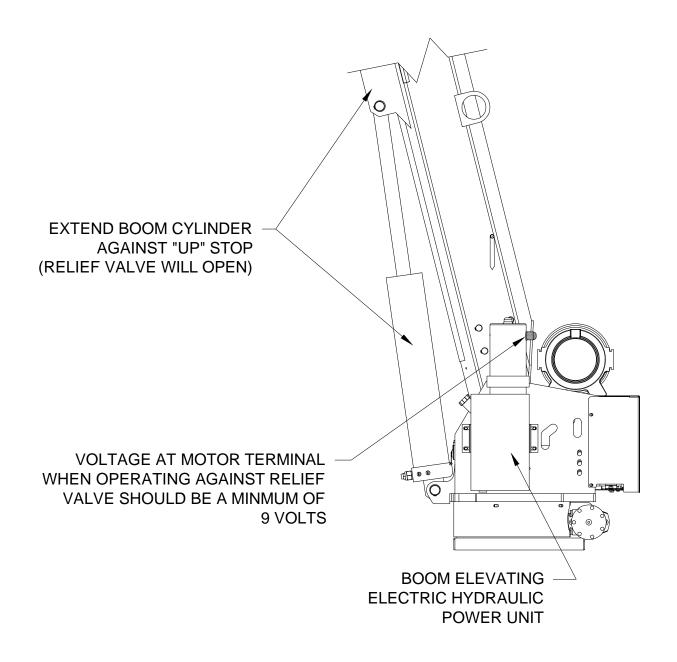
Location	Service Required	Note	Service Interval
A	Grease fitting With Pressure Grease Gun	USE ELECTRICALLY CONDUCTIVE GREASE Failure to use electrically conductive grease may result in intermittent operation of the crane. Example: Fuch's Renolit Aluminum Complex Grease P/N 155250-2 (or equivalent).	Time of Truck Service
В	Fill Oil Reservoir to Oil Level with Boom Down	Use Dextron III ATF or ISO Grade AW 46 for Ambient Temperatures Between -22° F and 30°F Use ISO Grade 68 or Equivalent for Ambient Temperatures Between 10° F and 125° F	Time of Truck Service and as requried by changes in the ambient temperature range
С	Check Torque of Slew. Ring Mntg. Bolts	Bolts should be torqued to 60 ft-lbs	Time of Truck Service
D	Check Torque of Base Mntg. Bolts	Bolts should be torqued to 300 ft-lbs	Time of Truck Service
E	Check Torque of Winch Mntg. Bolts	Bolts should be torqued to 35 ft-lbs	Time of Truck Service
F	Check Wire Rope and Hook	Rope should be free of kinks and fraying	Time of Truck Service



ET25/30/36KX	SUPERSEDES 01-27-23A	2440
LUBRICATION & MAINTENANCE CHART	01-30-23B	C300

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





TITLE	DATE	SECTION
MINIMUM VOLTAGE TEST	12-26-13G	C300
ET SERIES CRANES	supersedes 10-05-09F	19963

WIRE ROPE ASSEMBLY

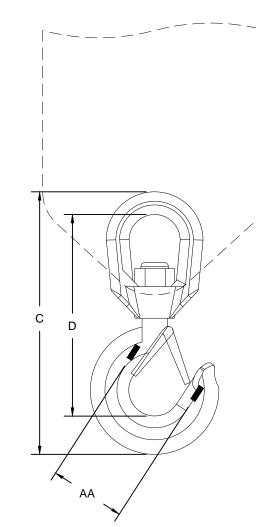
LOAD BLOCK ASSEMBLY

WIRE ROPE:

5/16" DIA, 80' LONG, HIGH-STRENGTH

▲ GAC 7X19 XXIP-RHRL-IWRC, SB 9800 LBS

TERMINATES IN THIMBLE NO HOOK



LOAD BLOCK HOOK:

RATING: 3 TONNE (6615 LBS)

DIMENSIONS:

COLOR	BRAND	AA	С	D
GOLD	CROSBY	2.00"	8.25"	6.50"

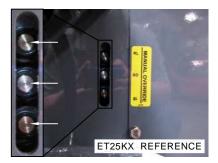


	TITLE	DATE	SECTION
;	WIRE ROPE & HOOK SPECIFICATIONS	05-09-16A	C300
		SUPERSEDES	2222
	ET36KX	08-18-11	23229

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).

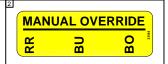


Rot. Right RL Rot. Left RR Boom Up BU BD Boom Down

3-STATION FUNCTIONS include previous functions, plus:

Boom In ВО **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!!



End Plate

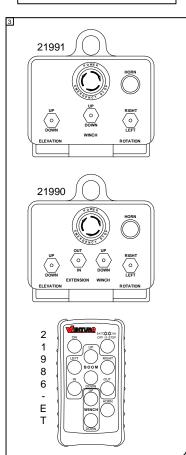
PORT

COIL

SHAFT

Procedure:

- Turn Master disconnect switch to "ON"
- 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
- Using a tool with a diameter of 1/8" or smaller, press the shaft inward and hold 4.
- 5. Reference the functions listed on your pendant or radio (see figure 3)
- Press the switch or button for the same function
- 7. If you need to change function,
 - Release switch or button 7.1.
 - Remove tool from shaft 7.2.
 - 7.3. Go to step 3



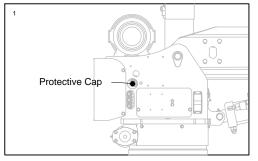
For assistance, please feel free to contact Technical Support at 800-226-2238.

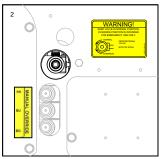
CINCINNATI, OHIO



DATE SECTION C200 MAN. OVERRIDE INSTR. 03-08-19A SUPERSEDES 23084 ET NON-PROP CRANES 02-09-17

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





Aanual

Each valve station incorporates [2] hydraulic ports and [2] coils. Manual override shafts are located in the center of the coils (see figure 4). 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 3 & 5).

3-STATION FUNCTIONS:

RR = Rot. Right RL = Rot. Left
BU = Boom Up BD = Boom Down
BI = Boom In BO = Boom Out

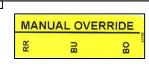
PORT

COIL

PROPORTIONAL COIL: MANUAL

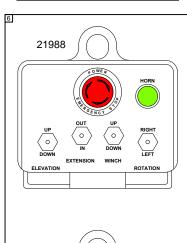
OVERRIDE WITH GUARD

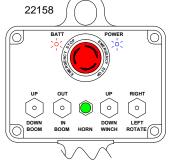
ALWAYS BE SURE TO CHECK HYDRAULIC OIL LEVEL BEFORE PROCEEDING. IT IS RECOMMENDED TO REMOVE ANY ITEM(S) THAT MAY INTERFERE WITH OPERATING THE CRANE MANUALLY. IF POSSIBLE, STRAPS AND/OR HARNESSES SHOULD BE REMOVED BEFORE OPERATING A CRANE IN MANUAL OVERRIDE!!



Procedure:

- Turn Master disconnect switch to "ON"
- 2. Remove Protective cap (see figure 1)
- 3. Rotate Valve Stem Clockwise to close (see figure 2)
- 4. Power up the pendant / radio
 - 4.1. Twist EMERGENCY STOP button clockwise
- 5. On the crane, reference the function you wish to perform using the manual override decal (see figure 3)
- 6. Using a tool with a diameter of 1/8" or smaller, press the shaft inward and hold
- 7. Reference the functions listed on your pendant or radio (see figure 6)
- 8. Press the switch or button for the same function
- 9. If you need to change function,
- 9.1. Release switch or button
- 9.2. Remove tool from shaft
- 9.3. Go to step 5





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



MAN. OVERRIDE INSTR.

09-16-19

SECTION C200

ET25/30/36KXP

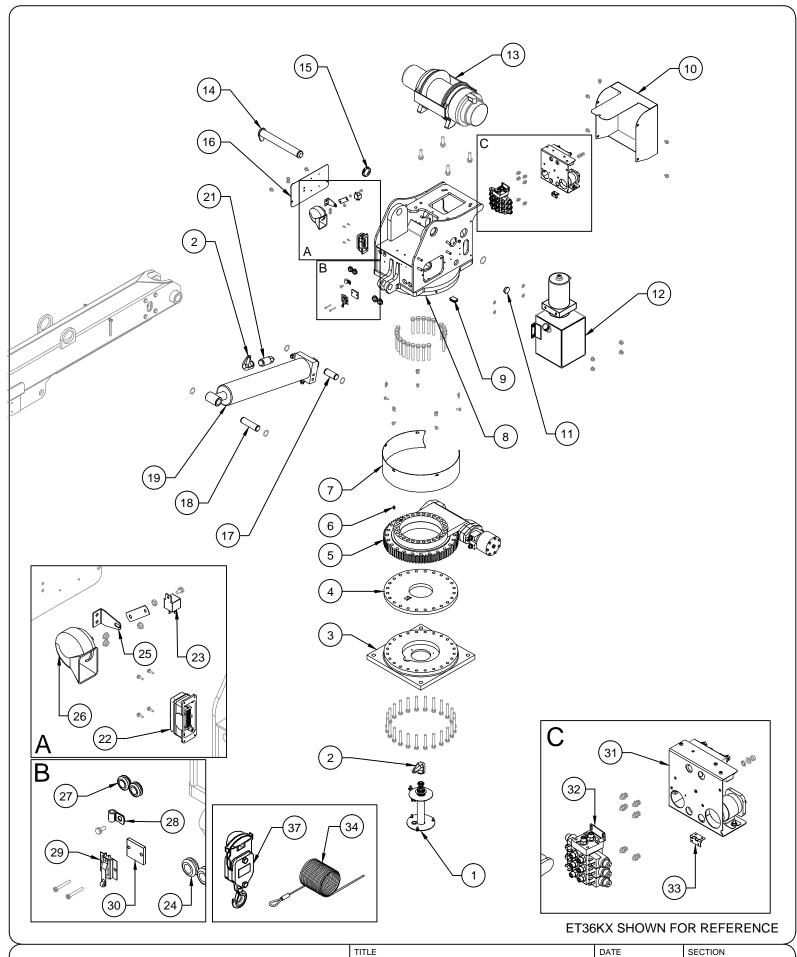
SUPERSEDES

24415

SECTION 400

REPLACEMENT PARTS





TITLE	DATE
RPLCMT PARTS DWG - MECH	11-
	SUPE
ETOF/OO/OOL/Y/D) OFFICE	~~

1-17-23E SECTION C400

UPERSEDES

ET25/30/36KX(P) SERIES 03-15-23D

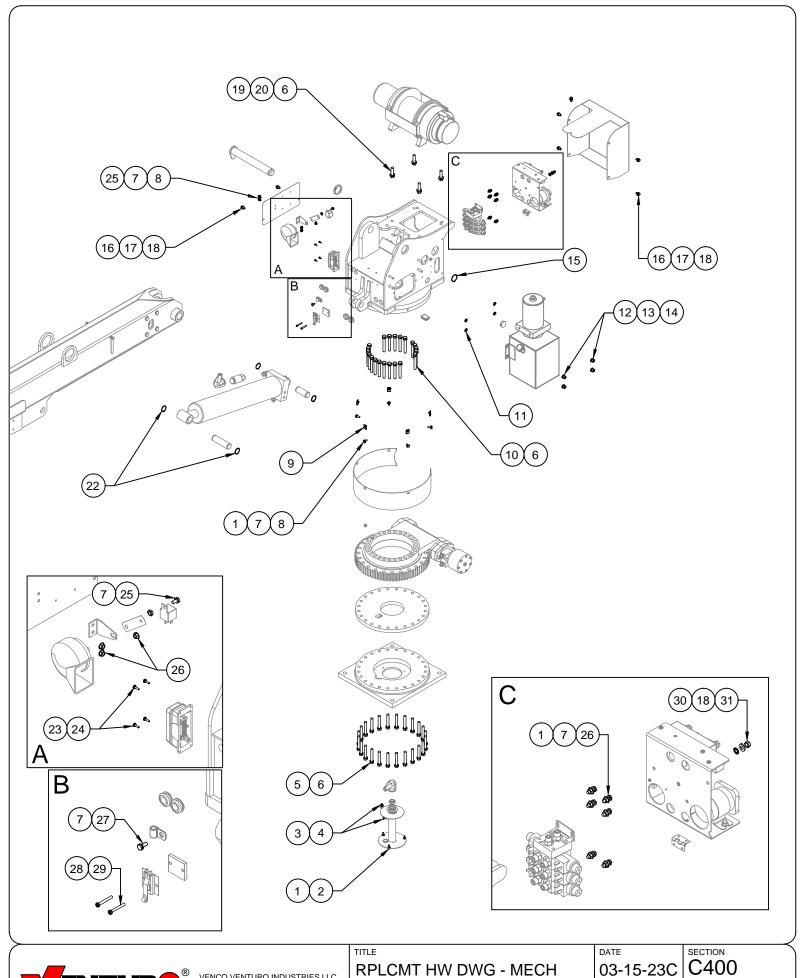
24392

REPLACEMENT PARTS LIST - ET36KX(P) MECH

	ET36KX	ET36KXP		
ITEM NO.	QTY.	QTY.	PART NO.	DESCRIPTION
1	1	1	16780-2P25	SWIVEL TERMINAL ASS'Y.
2	2	2	17012	BOOT COVER
3	1	1	27520m	WELDED ASS'Y.: BASE
4	1	1	27520h	SPACER
5	1	1	21418	SLEWING RING
6	1	1	01327NPT	GREASE FITTING, 1/8-27 NPT
7	1	1	27186	COVER; SLEWING RING
8	1	1	21435	WELDED ASS'Y.: HOUSING
9	1	1	28005	PLUG; RECTANGULAR, HOUSING BASE PLATE
10	1	1	27600	COVER; REAR, MECHANISM
11	1	1	19122	HOLE PLUG; 1-1/4"
12	1	1	26489	HYDRAULIC POWER UNIT
13	1	1	19813	ELECTRIC WINCH
14	1	1	21012	PIVOT PIN, MAIN BOOM PIVOT
15	1	1	26492	PLUG; Ø2", LOCKING
16	1	1	27000	PLATE, SIDE COVER
17	1	1	18768	PIVOT PIN, ELEVATION CYLINDER
18	1	1	18761	PIVOT PIN, ELEVATION CYLINDER
19	1	1	21752	ELEVATION CYLINDER
20	-	-	-	-
21	1	1	17460-2900	PRESSURE SWITCH, 2900 PSI
22	1	1	22480	SOCKET ASS'Y.
23	1	1	22739	RELAY, 12V
24	2	2	20890	GROMMET; RUBBER, Ø1" X 1/4" X 11/16"
25	1	1	22000	BRACKET; HORN
26	1	1	21948	HORN
27	2	2	20889	GROMMET; RUBBER, Ø7/8" X 1/4" X 5/8"
28	1	1	19269	CLAMP, CABLE, 1/4"
29	1	1	19904	BOOM SHUT OFF SWITCH ASS'Y.
30	1	1	20896	UHMW SPACER - TOP POSIT SWITCH
31	1	1	23154-4	SUB-ASSY; ELECTRICAL CMPNNT
	1	-	21614	VALVE BLOCK; 4-3, 3-SPOOL
32	-	1	26479	VALVE BLK ASSY, 3-SPOOL W/ PROP VALVE
33	1	1	23826	HINGE
34	1	1		WIRE ROPE; 5/16 X 80 FT HIGH-STRENGTH
35	1	1	27604	WELDED ASS'Y; MOTOR COVER
36	2	2	28380	SPACER; STAND-OFF, 1/4-20 X 1", 1/2" HEX
37	1	1	27667-1	ASS'Y; LOAD BLOCK, 6000 LBS MAX RATING
٦/		<u> </u>		ING 1, LOAD BLOCK, GOOD LDS WAX NATING

ENTURO®

С	RPLCMT PARTS LIST- MECH	11-17-23F	C400
	ET36KX(P) SERIES CRANES	SUPERSEDES 11-01-23E	24395



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VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMT HW DWG - MECH ET25/30/36KX(P) SERIES

03-15-23C SUPERSEDES

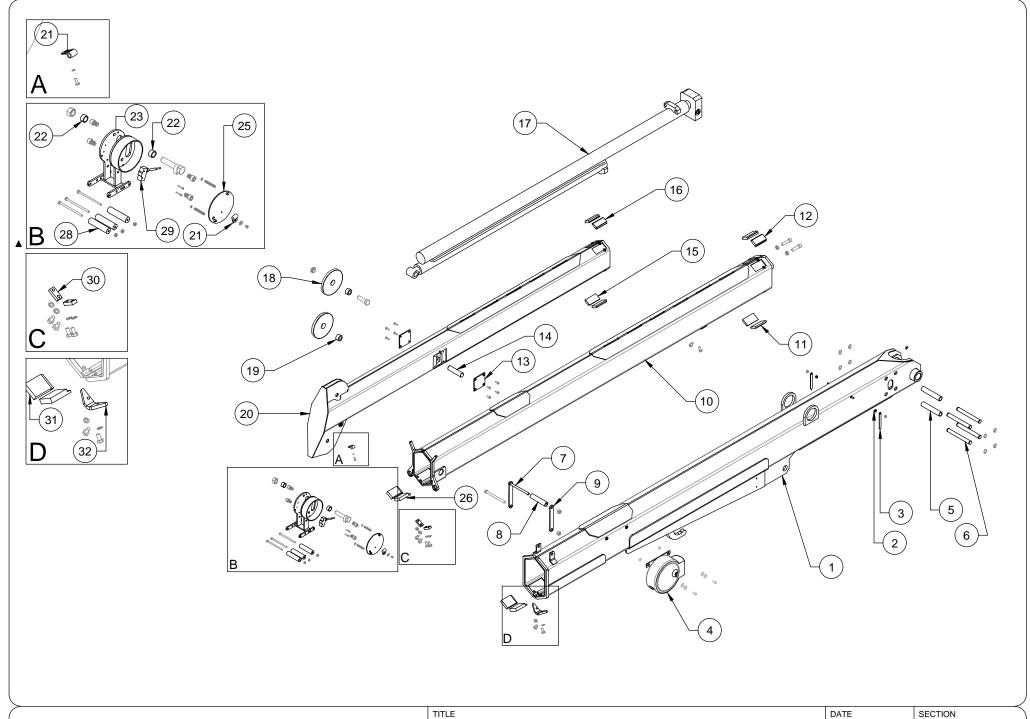
09-28-22B

24396

REPLACEMENT H/W LIST - ET25/30/36KX(P) MECH

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	14	!HHCS02520075S	HEX HEAD CAP SCREW, 1/4-20 X .75 LG, STAINLESS
2	6	!LWSH-025-STAR-SS	LOCK WSHR, 1/4, EXT STAR , STAINLESS STEEL
3	2	!HHCS03118075-B	HHCS; 5/16-18 X 3/4, BRASS
4	2	!HNUT-03118-B	HEX NUT; 5/16-18, BRASS
5	24	!HHCSM12175080-8.8	HEX HEAD CAP SCREW; 12MM-1.75MM X 80MM LG, GR. 8.8
6	45	!LWSH-M12-8.8	LOCK WASHER; M12, GRADE 8.8
7	15	!LWSH-025S	LOCK WASHER 1/4 S/S
8	7	!FWSH-025S	FLAT WASHER 1/4 S/S
9	5	!UNUT-02520-LKG	U-NUT; 1/4-20, LCKNG TYPE
10	21	!HHCSM12175090-8.8	HHCS; 12MM-1.75 X 90MM GR. 8.8, ZINC
11	4	!LWSH-038-STAR	LOCK WSHR; 3/8, GR. 5, ZINC, X-TOOTH
12	4	!FWSH-038SAE	WASHER; FLAT, 3/8 SAE, ZNC PLTD
13	4	!LWSH-038	LOCK WSHR; 3/8, GR. 5, ZINC
14	4	!LNUT-03816	LOCK NUT; 3/8-16, GR. 5, ZINC, NYL-NSRT
15	1	!SRNG-150	SNAP RING FOR 1.5 SHAFT, ZINC PLATED
16 7 !HHCS03118063		!HHCS03118063S	HEX HEAD CAP SCREW, 5/16-18 X 5/8 LG, STAINLESS
17	7	!LWSH-031S	LOCK WASHER 5/16 S/S
18	7	!FWSH-031S	FLAT WASHER 5/16 S/S
19	4	25921	SHCS; M12-175 X 50MM, GR. 12.9
20 4 !FWSh		!FWSH-M12	WASHER; FLAT, M12
21	-	-	-
22	4	!SRNG-125	SNAP RING 1-1/4 IN - PLATED
23	4	!SHPMS#0832050S	SLOT HEAD, PAN, MACH SCREW #8-32 X 1/2 LG STAINLESS
24	4	!LWSH-#08S	LOCK WASHER, #8 STAINLESS
25	1	!HHCS02520050S	HEX HEAD CAP SCREW, 1/4-20 X 1/2 LG, STAINLESS
26	9	!FNUT-02520-SS	FLANGE NUT; 1/4-20, STAINLESS STEEL
27	7	!HHCS02520063S	HEX HEAD CAP SCREW, 1/4-20 X 5/8LG, STAINLESS
28	2	!PHPMS#1024150S	PHILLIPS HEAD PAN, MACH SCREW, # 10-24 X 1-1/2LG, S/S
29	2	!LWSH-#10S	LOCK WASHER, #10, STAINLESS
30	1	!LWSH-031-STAR-SS	LOCK WSHR, 5/16 EXT STAR , STAINLESS STEEL
31	1	!HNUT-03118S	HEX NUT 5/16-18 STAINLES S

ENTURO (B) VENCO VENTURO INDUSTRIES CINCINNATI, OHIO	VENCO VENTURO INDUSTRIES LLC	RPLCMNT HW LIST - MECH	03-15-23C	C400	
	, , , , ,	ET25/30/36KX(P) SERIES	SUPERSEDES 09-28-22B	24397	





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPLACEMENT PARTS DWG - 28301 BOOM

02-08-21B C400
SUPERSEDES

ET25/30/36KX SERIES CRANES

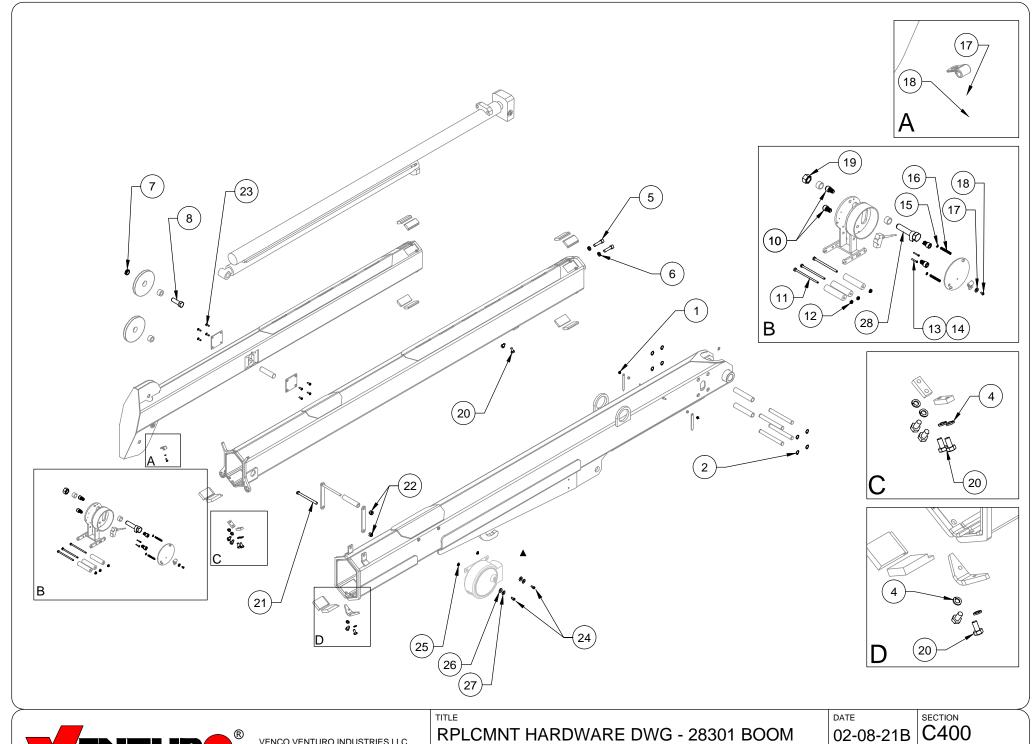
01-08-20A 24402

REPLACEMENT PARTS LIST - 28301 BOOM

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	21472	PRIMARY BOOM WELDED ASSEMBLY
2	2	22490	SPACER-BOOM ARROW
3	2	13459	ARROW - 3 INCH
4	1	28190-2	COMPLETE CORD REEL
5	2	21498	ROLLER - EXT CYLINDER
6	4	21497	THRUST PIN - EXTENSION CYLINDER
7	1	21935	WIRE ROPE GUIDE - WELDED
8	1	21560	ROLLER, UHMW GUIDE
9	1	21936	FLAT, MOUNT; WIRE ROPE GUIDE
10	1	27165	SECONDARY BOOM WELDED ASSEMBLY
11	2	23217-9	UHMW, A,3.19,1.75,0.44
12	2	23217-8	UHMW, A,3.19,1.75,0.50
13	2	23116	PIN BLOCK REINFORCING
14	1	21941	PIN; EXTENSION CYLINDER
15	2	23217-7	UHMW, A,3.19,1.50,0.44
16	2	23217-6	UHMW, A,3.19,1.50,0.50
17	1	21753	EXTENSION CYLINDER - DUAL
18	2	27001	POLY CABLE SHEAVE
19	2	23924	SPACER, SHEAVE
20	1	27167	TERTIARY BOOM ASSEMBLY
21	2	19269	CLAMP,CABLE - 1/4 IN.
22	2	27476	SPACER/PIVOT, COMPACT A2B
23	2	27468	WLDMNT - COMPACT A2B FRAME
24	1	-	-
25	2	27473	COVER PLATE; COMPACT A2B
26	2	23217-10	UHMW, B,3.19,1.75,063
27	1	-	-
28	3	27475	WIRE ROPE GUIDE ROLLER Ø7/8 BLK DELRIN, COMPACT A2B
29	1	19376	ANTI TWO BLOCK SWITCH
30	2	23119	BEARING RETAINING BLOCK
31	2	23217-3	UHMW, B,3.19,2.13,0.63
32	1	23183	V-BLOCK SLIDER



LC	RPLCMT PART LIST - 28301	03-26-24C	C400
	ET25/30/36KX SERIES	SUPERSEDES 02-08-21B	24403





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMNT HARDWARE DWG - 28301 BOOM

ET25/30/36KX

02-08-21B SUPERSEDES

01-08-20A

24404

REPLACEMENT HARDWARE LIST - 28301 BOOM

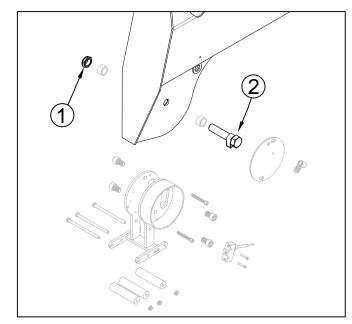
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	!ANUT-02520S	ACORN NUT; 1/4-20, SS
2	8	!SRNG-075	SNAP RING, PLATED 3/4
3	-	-	-
4	6	!LWSH-038	LOCK WSHR; 3/8, GR. 5, ZINC
5	2	!SHCS05013200	SHCS; 1/2-13 X 2
6	2	!LWSH-050-HC	LOCK WSHR; 1/2, GR. 5, ZINC, HI-CLLR
7	1	!LNUT-07510	NYLOC LOCK NUT, FULL, 3/4-10, GR5, ZINC PLATED
8	1	17059-6	SHEAVE AXLE; SS, HHCS 07510200, 1"
9	1	!HHCS07510350	HHCS; 3/4-10 X 3-1/2, GR. 5, ZINC
10	4	27467	SHCS, NYLON, BLACK, 1/2-13 X 3/4 LONG
11	3	!HHCS02520450	HHCS 1/4-20 X 4-1/2 LG
12	3	!JNUT-02520N	JAM NUT 1/4-20 W/ NYLON INSERT
13	2	!PHCS#0632100	PHCS 6-32 X 1
14	2	!LWSH-#06	LOCK WSHR; #06, GR. 5, ZINC
15	2	23379	WASHER, NYLON, BLACK
16	2	!SHCS02520200SS	SHCS 1/4-20 X 2.00" LG, STAINLESS STEEL
17	2	!FWSH-025	WASHER; FLAT, 1/4 USS, ZNC PLTD
18	2	!PHCS#1032038	PHCS; 10-32 X 3/8, GR. 5, ZINC, SLOT
19	1	!JNUT-07510N	JAM NUT; 3/4-10, GR. 5
20	8	!HHCS03816075	HHCS 3/8-16 X 3/4 GR.5
21	1	!HHCS04414550	HHCS 7/16-14 X 5-1/2 GR5
22	2	!LNUT-04414	LOCK NUT; 7/16-14, GR. 5 ZINC, NYL-NSRT
23	8	!CACS02520063-N	CNTRSNK ALLN HED CAP SCREW; 1/4-20 X 5/8
24	2	!SHCS03118063S	SHCS; 5/16-18 X 5/8" LG, S/S
25	2	28198	INSULATING SLEEVE WASHER - 5/16"
26	2	01016	FIBER WASHER
27	2	!FWSH-031	WASHER, FLAT; 5/16" SAE
28	1	28362	ASSY, WELDED, CAM & HHCS CA2B CUT-OUT

® VENCO VENTURO INDUSTRIES LLC	RPLCMNT HW LIST - 28301 BOOM	02-08-21B	C400
CINCINNATI, OHIO	ET25/30/36KX SERIES CRANES	SUPERSEDES 01-08-20A	24405

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

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

- Initially, apply a light torque to the nyloc full nut Item #1 (P/N !LNUT-07510), such that the axle bolt & cam welded assembly can be rotated / adjusted in the steps below.
- 2. Position the cam *lobe* Item #2 (P/N 28362) so that it is pointing towards the housing / mechanism
- 3. Hang the load block on the open stowage hook under the primary boom.
- 4. Thread the wire rope through the load block in a two-line configuration; the wire rope end / eyelet is pinned in the standard position on the tertiary boom tip
- 5. Actuate the Winch Up function until the load block and wire rope are *taut* enough to prevent the load block from bouncing during transit, *but do not tighten excessively so as to prevent damage to the wire rope.*
- 6. Rotate the axle bolt & cam welded assembly towards the housing (clockwise in standard configuration) until the cam lobe makes contact with and trips the wobble micro switch and actuates the A2B function.
- 7. Once adjusted, torque the nyloc full nut (Item #1) to 100 ft*lbs to prevent further rotational movement of the axle bolt & cam welded assembly.
- 8. Test the A2B trip-point by slackening and tightening the wire rope / load block assembly by actuating Winch Up/Down. NOTE: The point at which the A2B trips WILL vary to some degree, depending upon the winch up speed. It is recommended to actuate the winch up function slowly, which will yield a consistent and repeatable result, in terms of wire rope tension when stowed.



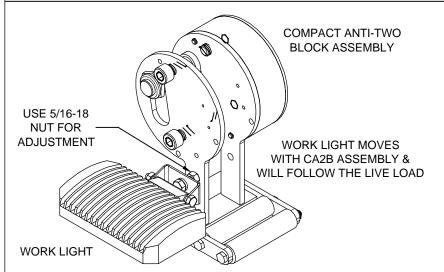


Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124

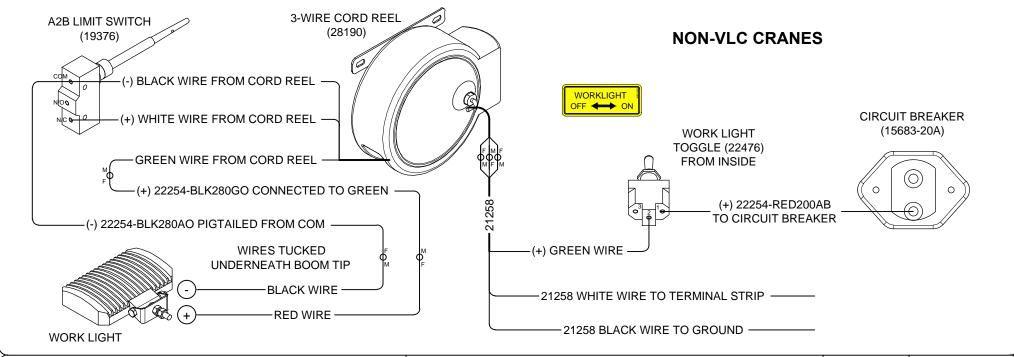


A2B Stowage Cut-out	10-04-21B	C400
ET/HT Cranes w/ Comp. A2B	SUPERSEDES 08-03-21A	28239

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



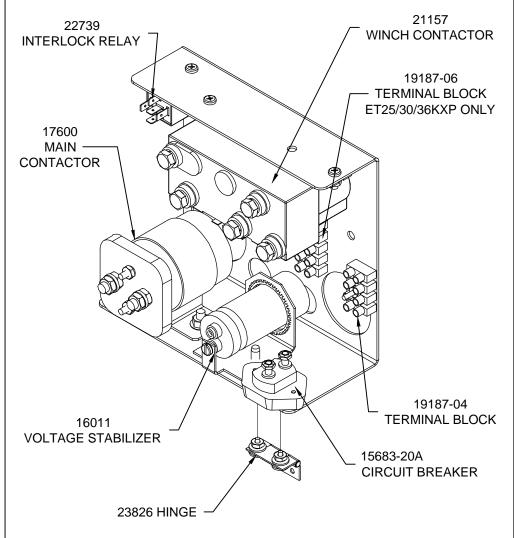


VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

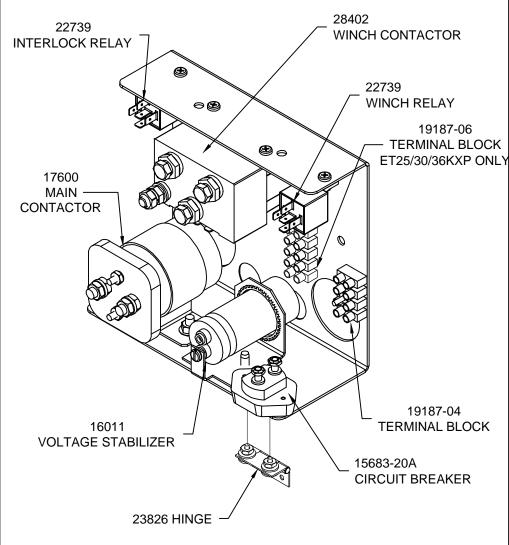
WORK LIGHT INSTALLATION, 3-WIRE CORD REEL	02-10-21	C400
NON-VLC CRANES	SUPERSEDES -	28199

23154-4 ELECTRICAL COMPONENT ASSEMBLY

WITH 21157 WINCH CONTACTOR FOR SERIES-WOUND OR PERMANENT MAGNET MOTOR



WITH 28402 WINCH CONTACTOR AND RELAY FOR PERMANENT MAGNET MOTOR ONLY





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

23154-4 ELECTRICAL COMPONENT ASS'Y

04-26-22A

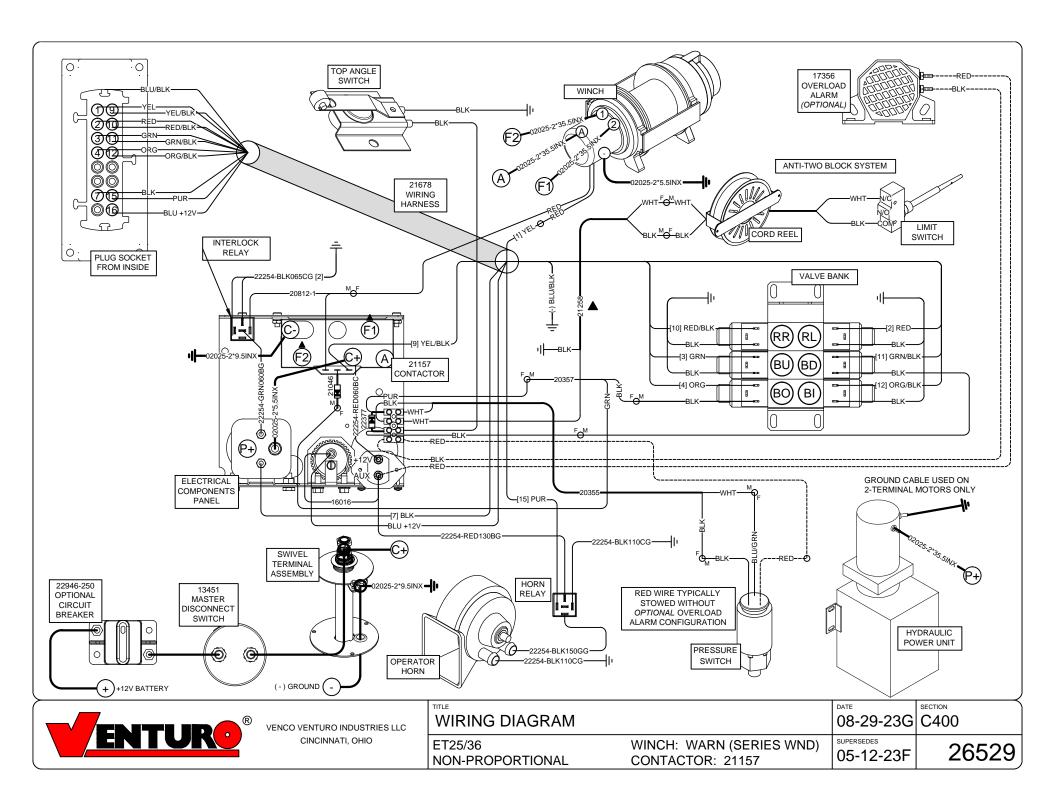
C400

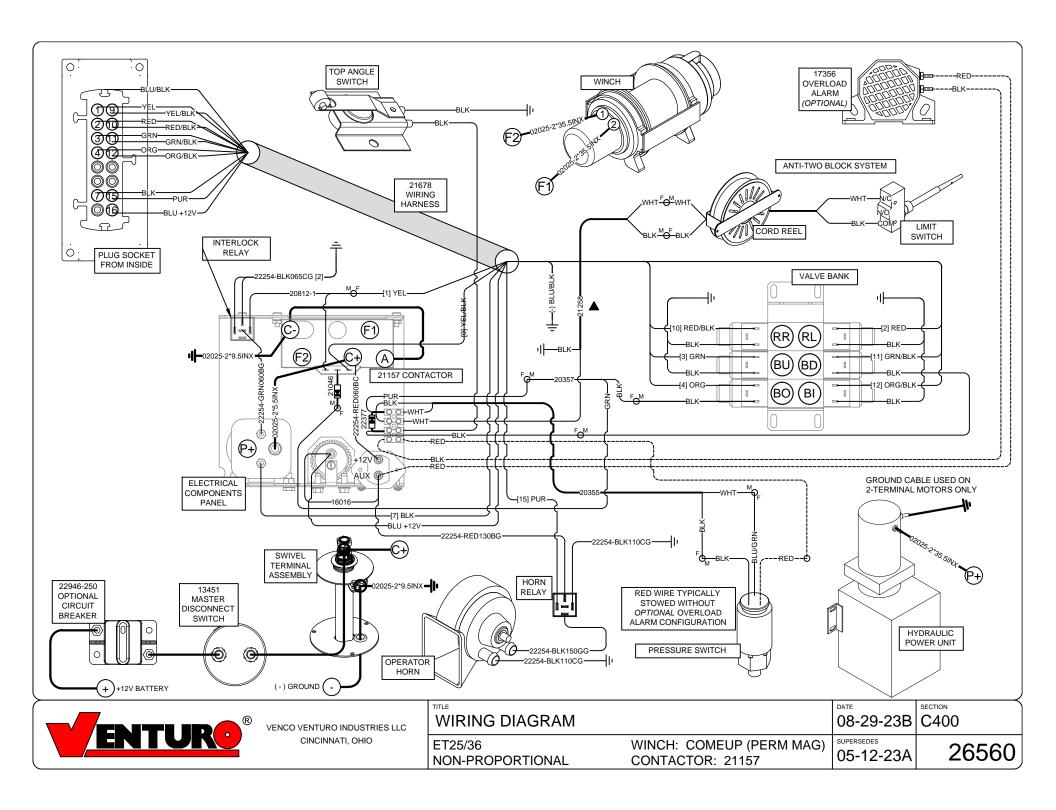
SECTION

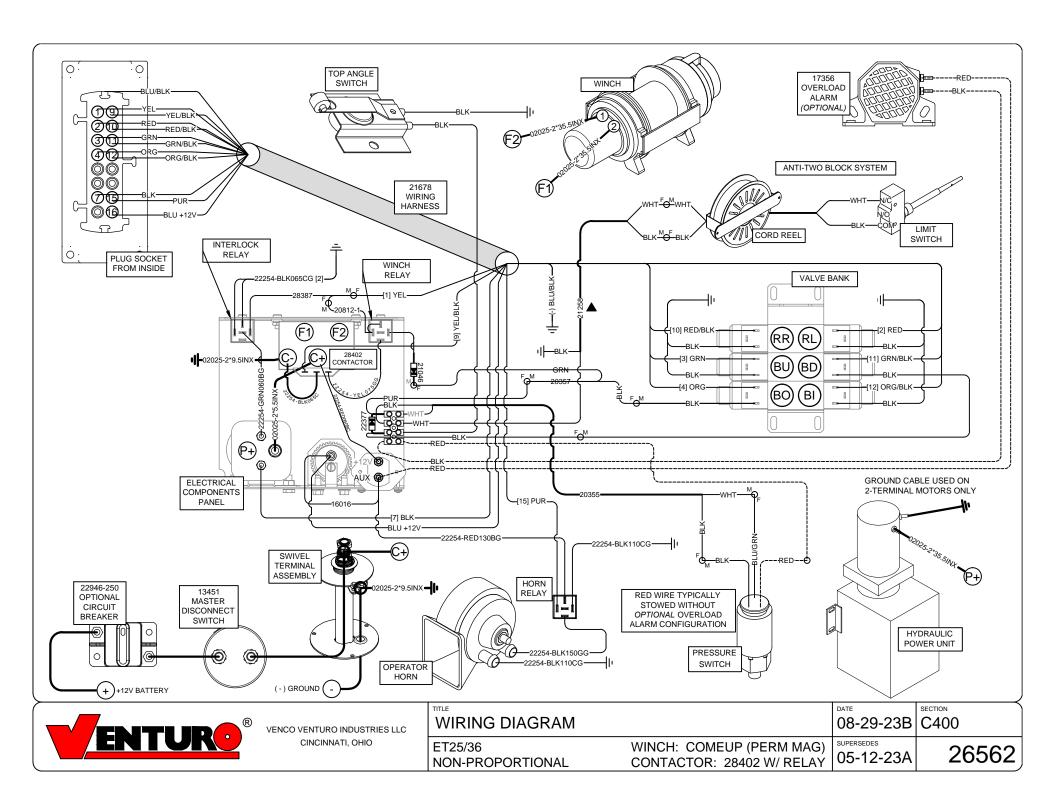
ET25/30/36KX(P)

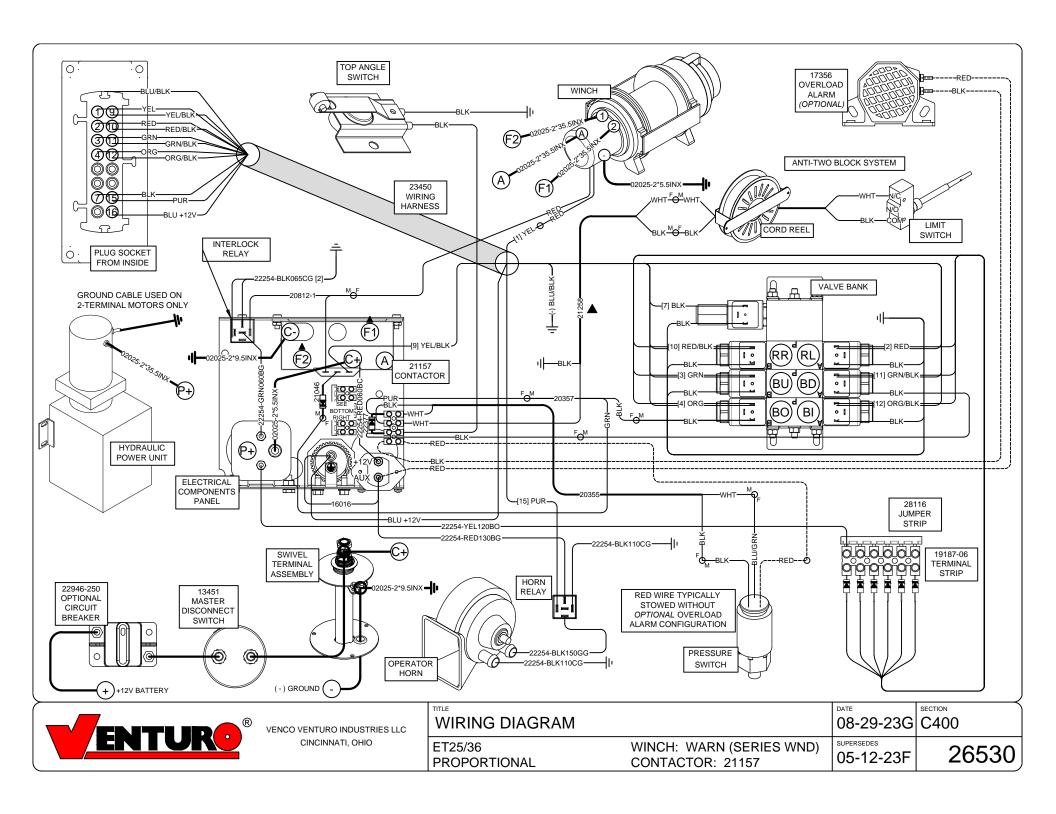
SUPERSEDES 01-07-20

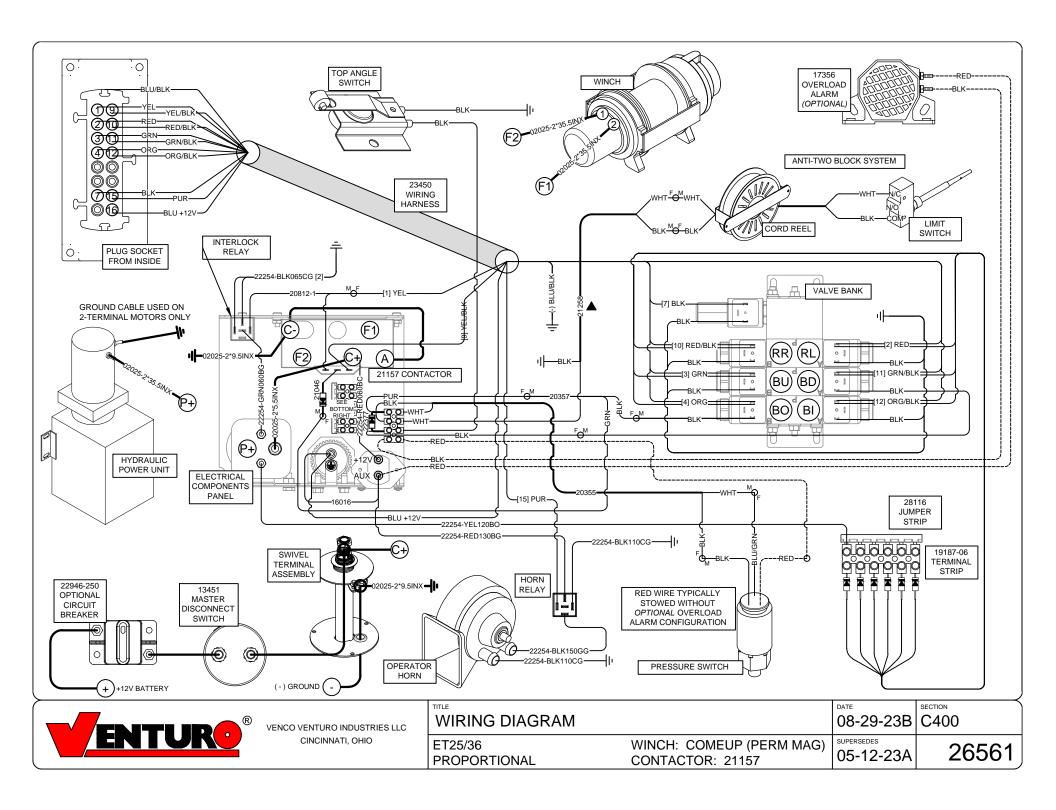
28302

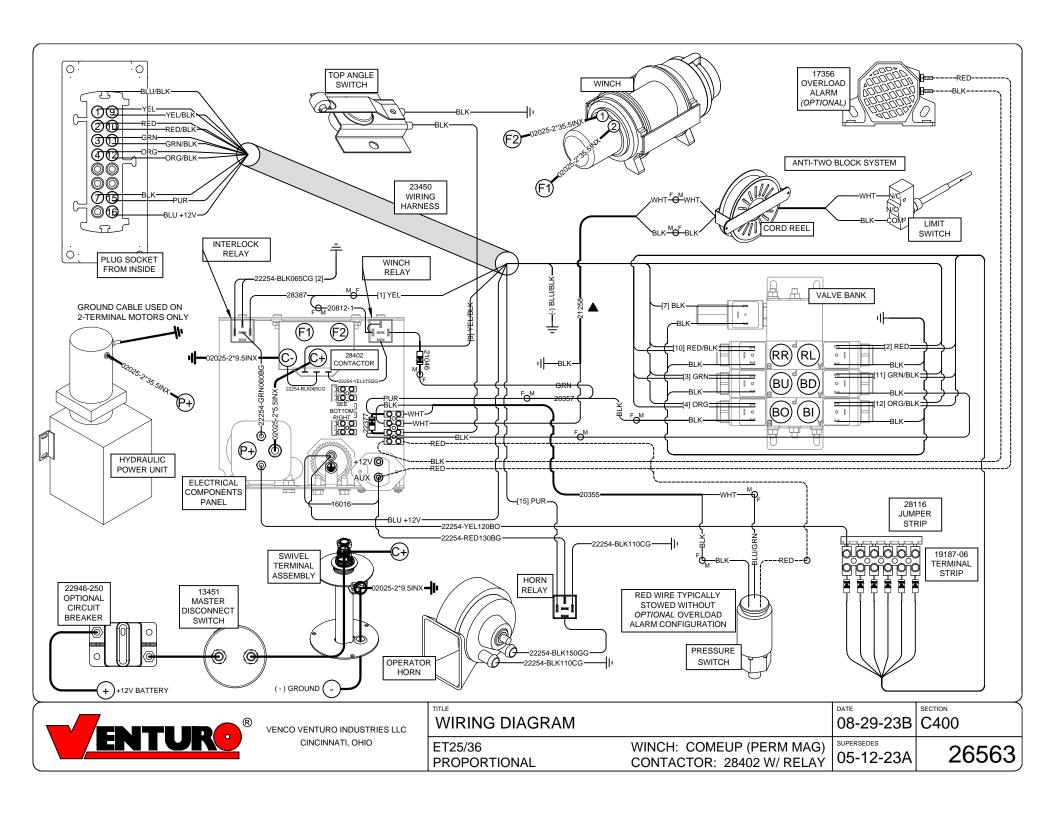












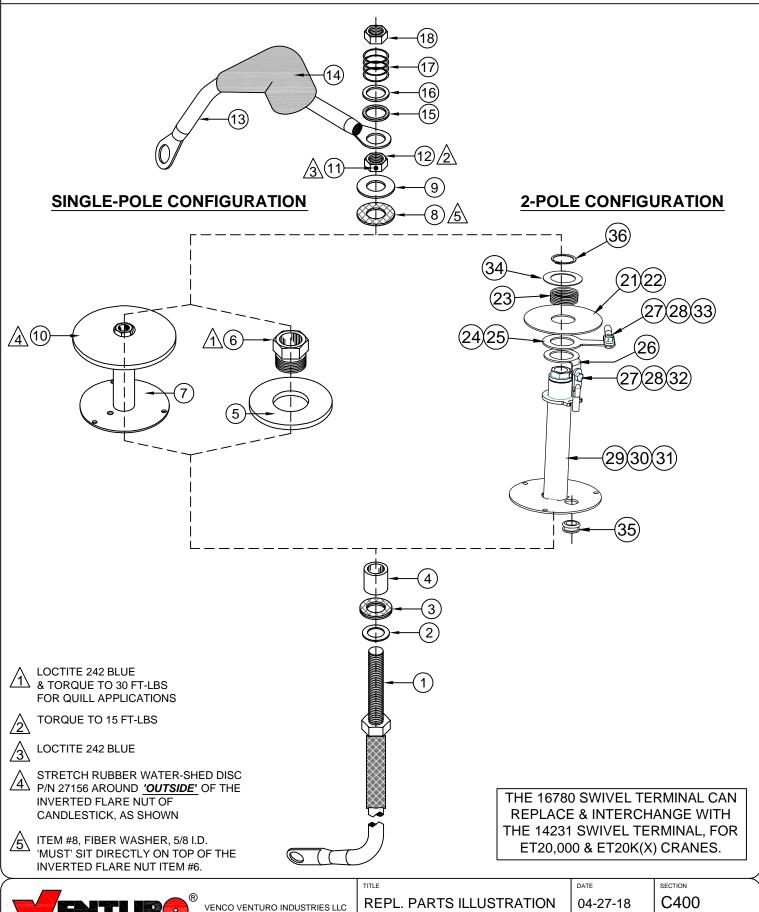
Single & 2-Pole Slip-ring Replacement Parts (1 of 2)

Quill Rotation	Slew Rotation Single Pole Slip-Ring	Slew Rotation 2-Pole Slip- Ring (ET6K ONLY)	Slew Rotation 2-Pole Slip- Ring (ET8-18KX)	Slew Rotation 2-Pole Slip- Fing (ET25-36KX)	F ALL CRANES	16780 BILLS OF MATERIALS				
16780	16780 - 1	16780 - 2P6	16780 - 2P8	16780 - 2P25	16780 - KIT					
		Q	TY			#	PART	DESCRIPTION		
1	1	1	1	1	-	1	16783	PIGTAIL AND STUD ASSEMBLY		
1	1	1	1	1	1	2	12534-5	ZINC BUSHING; 5/8" I.D. X 1" O.D. X 14 GAUGE		
2	2	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	1	1	4	14233	INSULATING BUSHING; 5/8" I.D. X 7/8" O.D. X 7/8"		
1	2	-	-	12	2	5	14318	FLAT WASHER; 1 3/16" I.D. X 2 3/4" O.D. X 3/16"		
1	=	-	-	(=)		6	14232	INVERTED FLARE NUT; 1 3/16"-16		
-	-	-	-	-	-	7	27568	WELDED ASSY. CANDLESTICK		
1	1	1	1	1	1	8	14357-2	FIBER WASHER; 5/8" I.D. X 1 1/4" O.D. X 1/16"		
1	1	1	1	1	1	9	!FWSH-063SAE	FLAT WASHER; 5/8" SAE		
_	1	-	-	10-		10	27156	RUBBER WATER SHIELD; 1/8" THICK		
1	1	1	1	1	1	11	!SHCS02528025KC	SET SCREW W/ KNURLED CUP; 1/4"-28 X 1/4"		
1	1	1	1	1	1	12	21273	BRASS JAM NUT; 5/8"-11		
- "	-	-	-	-	-	13 26035-2 PIGTAIL; SWIVEL TERMINAL				
	_	-		152		14 17012 RUBBER BOOT; SWIVEL TERMINAL				
1	1	1	1	1	1	15	5612-162-62	TEFLON WASHER		
1	1	1	1	1	1	16	5714-113-62	a a page a management and appropriate and appr		
					-			BRASS WASHER		
1	1	1	1	1	1	17	LC-098K-00	SPRING; 0.845" O.D. X 0.098" WIRE X 1.00 F.L.		
1	1	1	1	1	1	18	!JNUT-06311N	JAM NUT; 5/8"-11, NYLON NUT		
1	1	1	1	1	1	19	LOCTITE-24205	REMOVABLE THREAD LOCKER; 0.5ML		
1	1	1	1	1	1	20	19368	IDWG; 16780 SWIVEL TERMINAL		
-	-	1 -	1	1	-	21	27456 27456-1	UHMW WATER SHIELD, (ET6K ONLY) UHMW WATER SHIELD, (ET8 - ET36)		
-	-	1	1	1		23	27461	SPRING, (-) SLIP-RING ASSY.		
-	-		1	1	-	24	27441-1	COPPER SLIP-RING, (ET8 - ET36)		
-	ij	1	=	-	-	25	27441	COPPER SLIP-RING, (ET6K ONLY)		
-	-	1	1	1	-	26	27449-1	BRASS SLIP-RING (ET6 - ET36)		
-	-	1	1	1	-	27 28	!HHCS03118075-B !HNUT-03118-B	BRASS HHCS BRASS NYLOC NUT		
=	-	1	-	-		29	23255	SLIP-RING, WELDED ASSY, ET6K		
-		•	1	(I II)		30	23255-1	SLIP-RING, WELDED ASSY, ET8 - 18K(X)		
=	H	=	=	1	T	31	23255-2	SLIP-RING, WELDED ASSY, ET25 - 36K(X)		
	-	1	1	1		32	02025-2*96.5INX	(-) WELDING CABLE ASSY, BRASS SLIP-RING		
-	-	1	1	1	÷	34	02025-2*22.5INX 27463	(-) WELDING CABLE ASSY, COPPER SLIP-RING SHIM, WIDE RIM, 18GA, 2-1/4 O.D. X 1-1/2 I.D.		
-	-	1	1	1	Ė	35	20889	RUBBER GROMMET		
-	-	1	1	1	=	36	!SRNG-150	SNAP-RING, EXTERNAL, 1-1/2"		



TITLE	DATE	SECTION
16780 REPLACEMENT PARTS	03-29-19A	C400
	SUPERSEDES	21202
ET6/8/12/16/18/25/30/36K(X)	04-27-18	Z1Z9Z

Single & 2-Pole Slip-ring Replacement Parts (2 of 2)

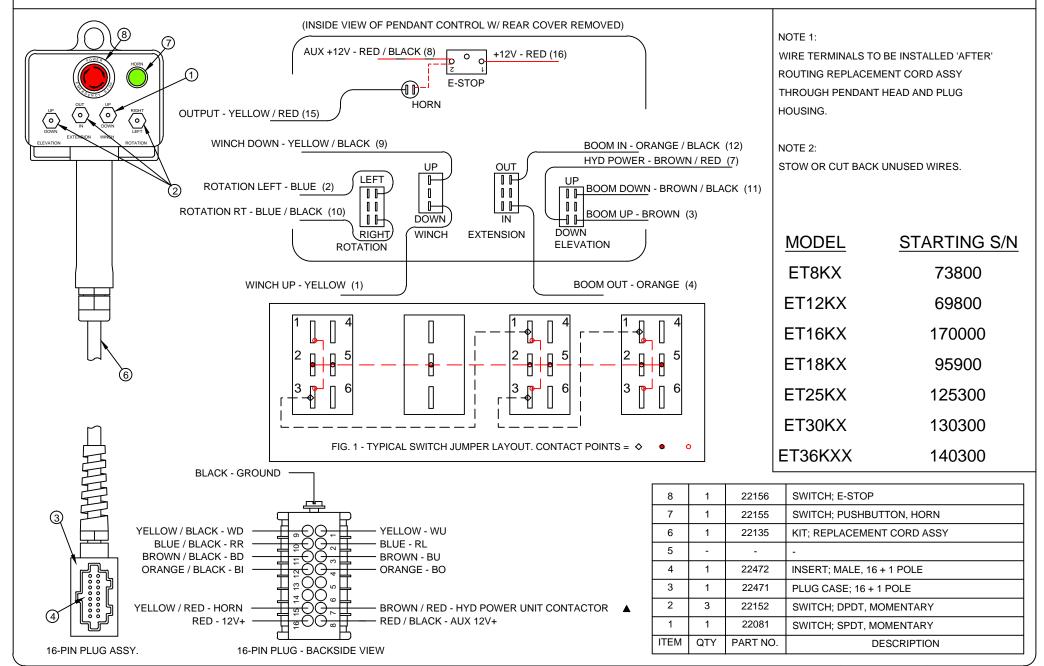


	ENTURO)
A		

/ENCO VENTURO INDUSTRIES LI CINCINNATI, OHIO

ET6/8/12/16/18/25/30/36K(X)	SUPERSEDES	21293
REPL. PARTS ILLUSTRATION	04-27-18	C400
TITLE	DATE	SECTION

21990 PENDANT; 4 FUNCTION ET CRANES, E-STOP / HORN





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO REPLACEMENT PARTS DWG & LIST

01-12-17B

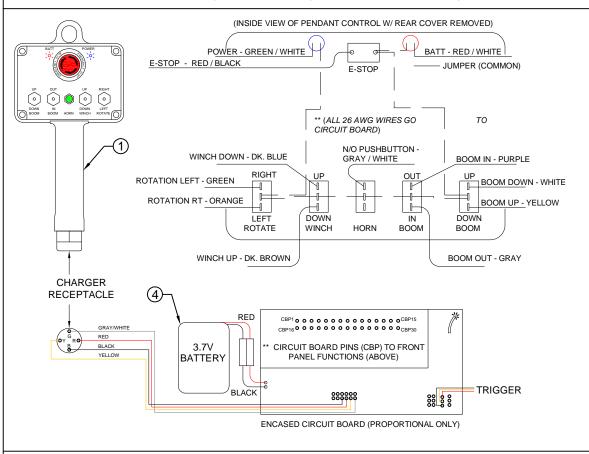
C400

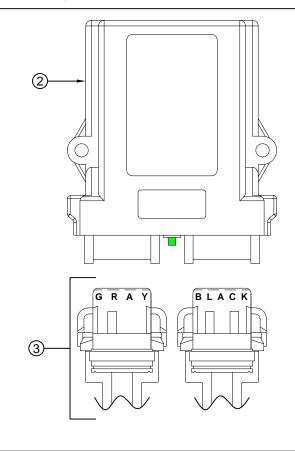
21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

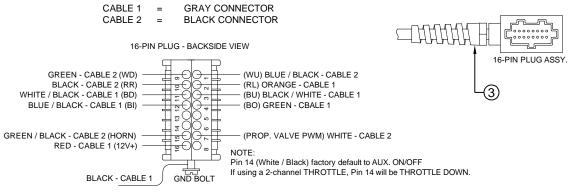
10-20-14A

23075

22158 RADIO; PROP, NON-CAN, NO ENG CNTRLS, E-STOP/HORN







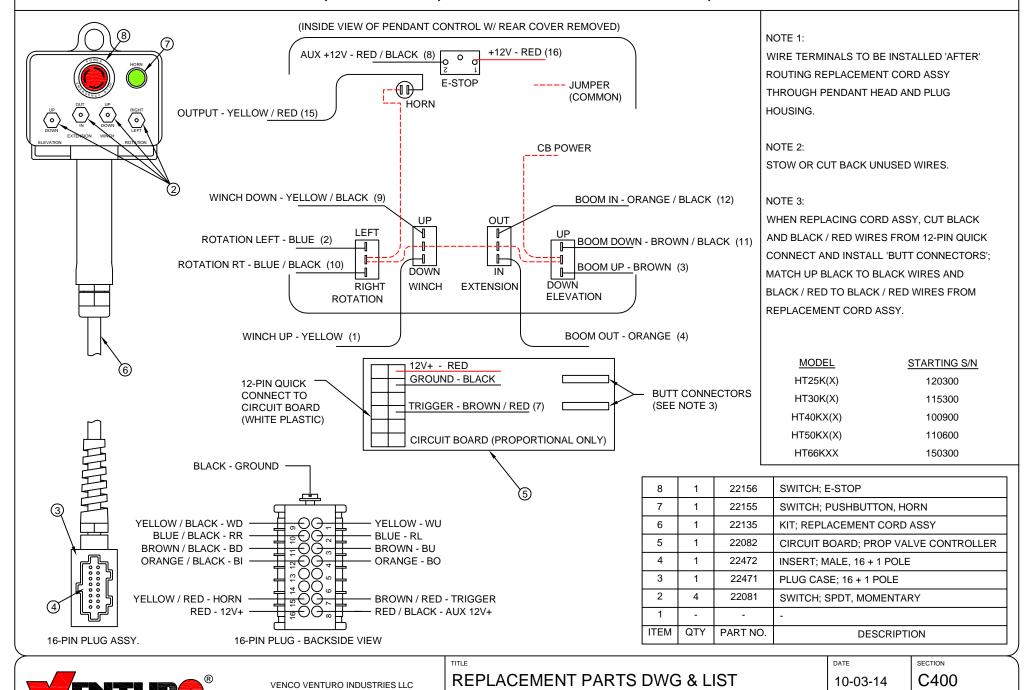
COMPONENTS						
ITEM NO.	PART NO.	DESCRIPTION				
1	22158-TX	TRANSMITTER				
2	22158-RX	RECEIVER				
3	21983-HN	HARNESS				
4	22965-BATT	BATTERY				
5	22965-CHGR	CHARGER (NOT SHOWN)				



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

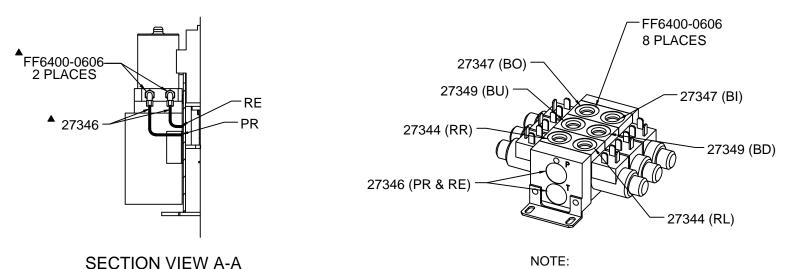
TITLE			DATE	SECTION
REPLACEMENT PARTS	DWG & LIST		03-11-19A	C400
			SUPERSEDES	00-00
ET PROPORTIONAL SE	RIES CRANES	A	07-31-18	23786

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

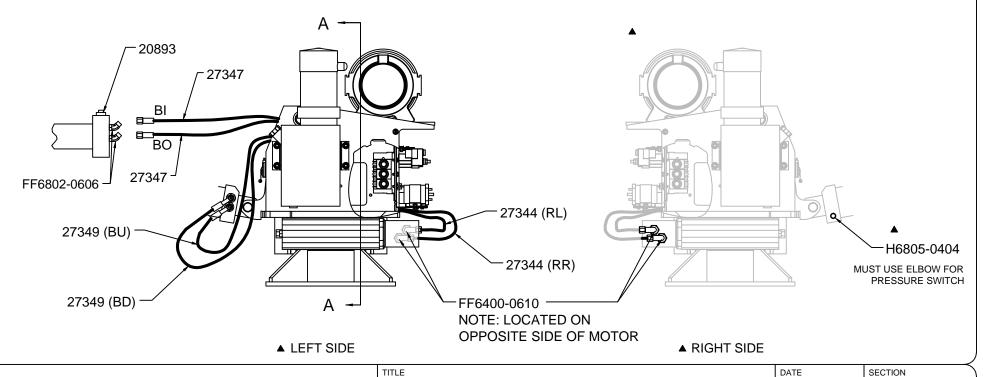


21988 PNDNT; PROP, NO ENG CNT, ESTP/HRN

CINCINNATI, OHIO



NOTE: FOR REPLACEMENT COILS SEE P/N 23134





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPLACEMENT PARTS; HYD. COMPONENTS

02-10-20E C400 SUPERSEDES

21758

RR ROTATION RIGHT RL ROTATION LEFT

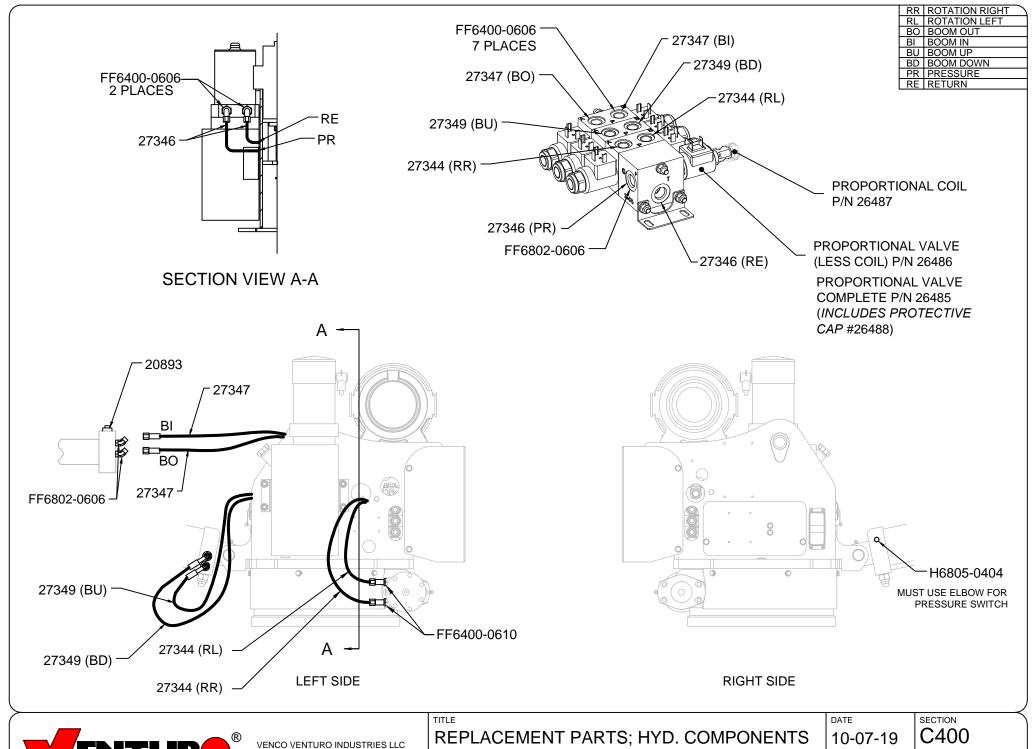
BI BOOM IN

RE RETURN

BD BOOM DOWN PR PRESSURE

ET25/30/36KX

10-07-19D





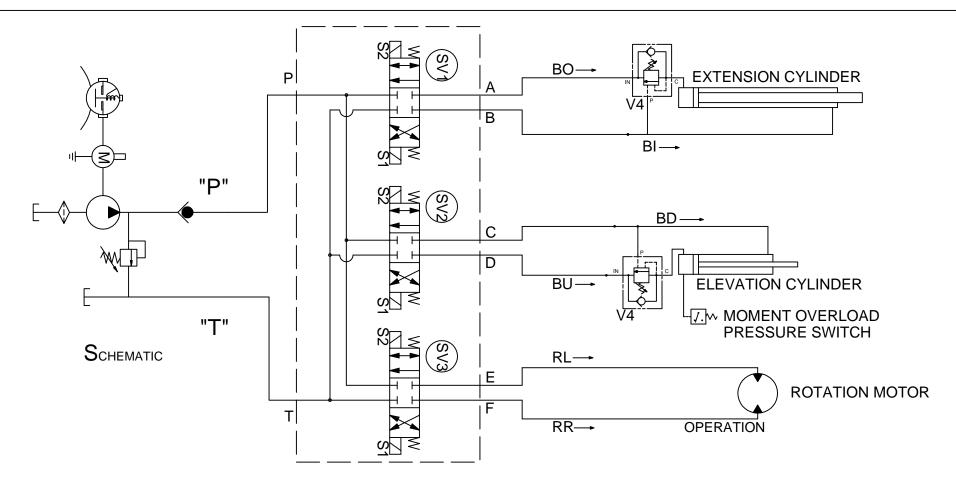
CINCINNATI, OHIO

SUPERSEDES

ET25/30/36KXP

24418

ET16/18/25/30/36KX HYDRAULIC COMPONENT DIAGRAM



ERNERGIZE "S2"
OPEN FLOW
'P' TO 'A'
'B' TO 'T'
ENERGIZE "S1"

'B' TO 'T'
ENERGIZE "S1"
OPEN FLOW
'P' TO 'B'
'A' TO 'T'

(SV2)

ENERGIZE "S2"
OPEN FLOW
'P' TO 'C'
'D' TO 'T'
ENERGIZE "S1"
OPEN FLOW
'P' TO 'D'
'C' TO 'T'

(sva)

ENERGIZE "S2"
OPEN FLOW
'P' TO 'E'
'F' TO 'T'
ENERGIZE "S1"
OPEN FLOW
'P' TO 'F'
'E' TO 'T'

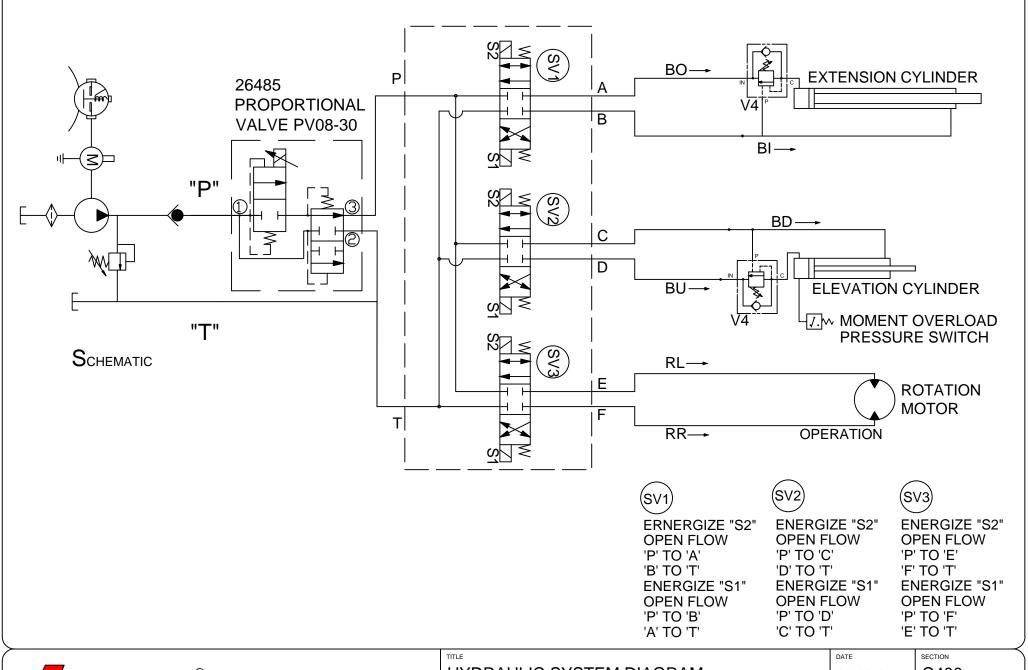
SECTION C400

20156



TITLE	DATE
HYDRAULIC SYSTEM DIAGRAM	10-23-14D
	SUPERSEDES
ET16/18/25/30/36KX A	01-31-05C

ET16/18/25/30/36KXP HYDRAULIC COMPONENT DIAGRAM





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

HYDRAULIC SYSTEM DIAGRAM

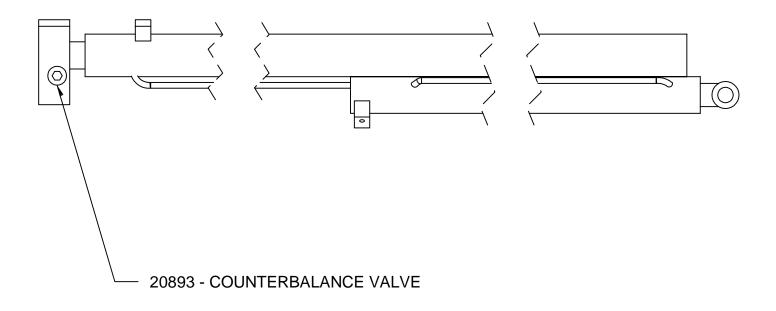
10-14-19

C400

ET16/18/25/30/36KXP

- 24434

21753 DUAL-STAGE EXTENSION CYLINDER

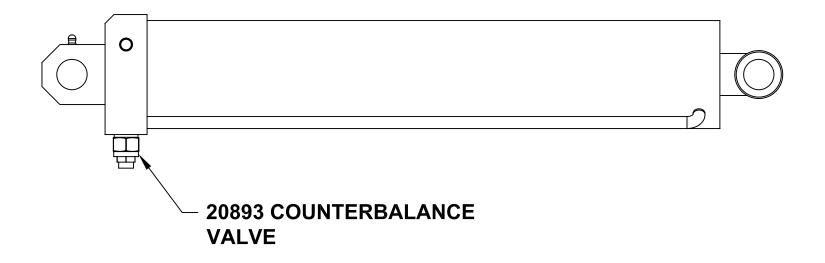


SEAL KIT P/N: 21775



SLLC	EX

21752 ELEVATION CYLINDER



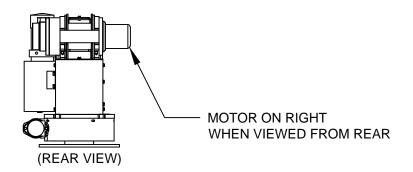
SEAL KIT P/N: 21774

ELEVATION CYLINDER	8-12-09	SECTION C400
ET/HT25/30/36KX(X)	SUPERSEDES	21773

19813 WINCH REPLACEMENT PARTS

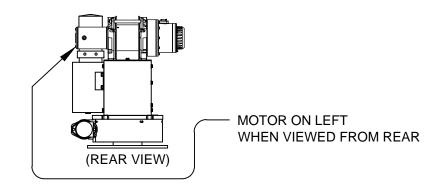
WARN DC3000

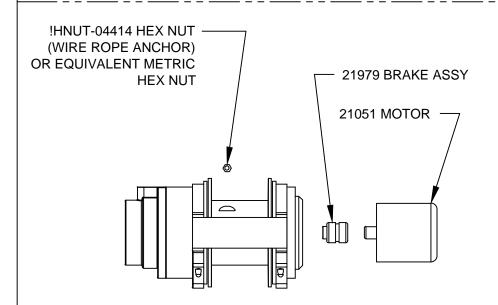
SERIES-WOUND MOTOR

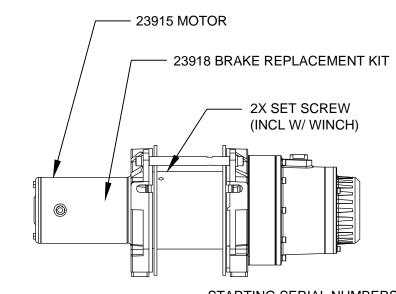


COMEUP GTD-3300

PERMANENT MAGNET MOTOR







STARTING SERIAL NUMBERS:

ET25 SERIES 22D000003 ET30 SERIES

ET36 SERIES

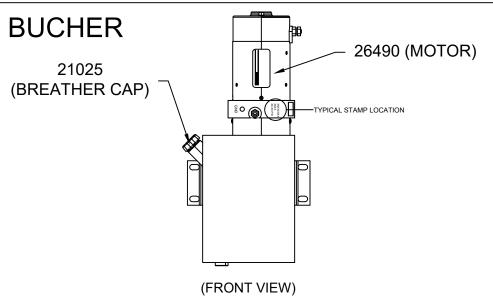
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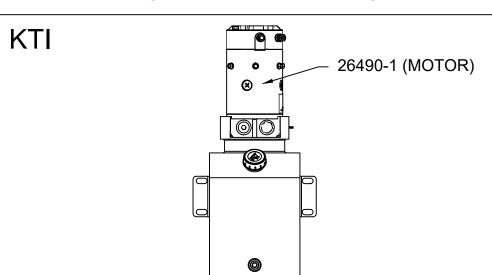
ENTURO ®

VENCO VENTURO INDUSTRIES LLC CINCINNATI. OHIO

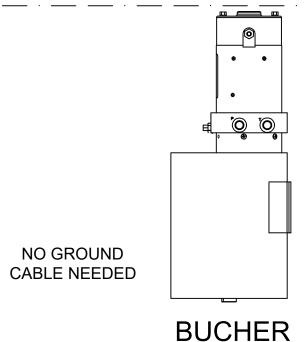
TITLE	DATE	SECTION
WINCH REPLACEMENT PARTS	04-26-22E	C400
	SUPERSEDES	04050
ET25/30/36K	04-13-22D	21053

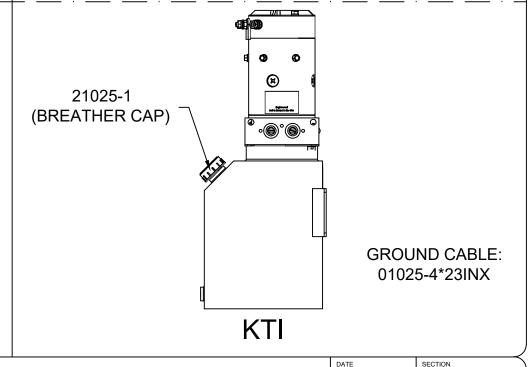
26489 HYD. POWER UNIT REPLACEMENT PARTS





(FRONT VIEW)







VENCO VENTURO INDUSTRIES LLC

CINCINNATI, OHIO

HYDRAULIC POWER UNIT REPLACEMENT PARTS

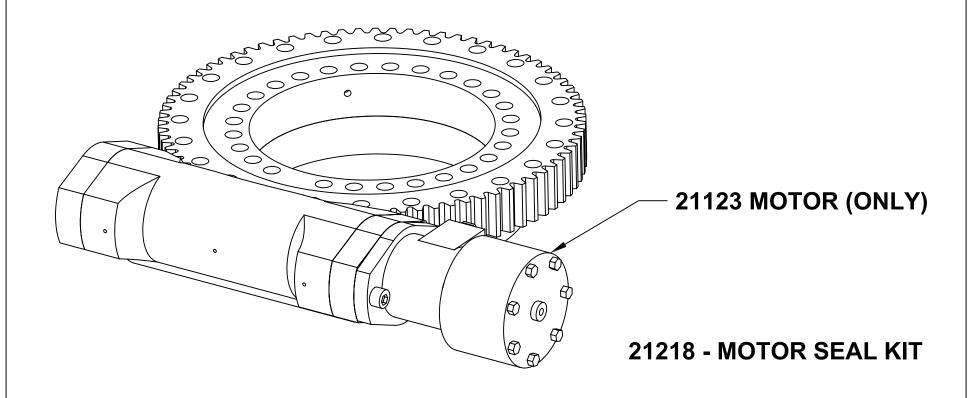
03-06-23 A

C400

ET12KX-16' PROP, ET16/18/25/30/36

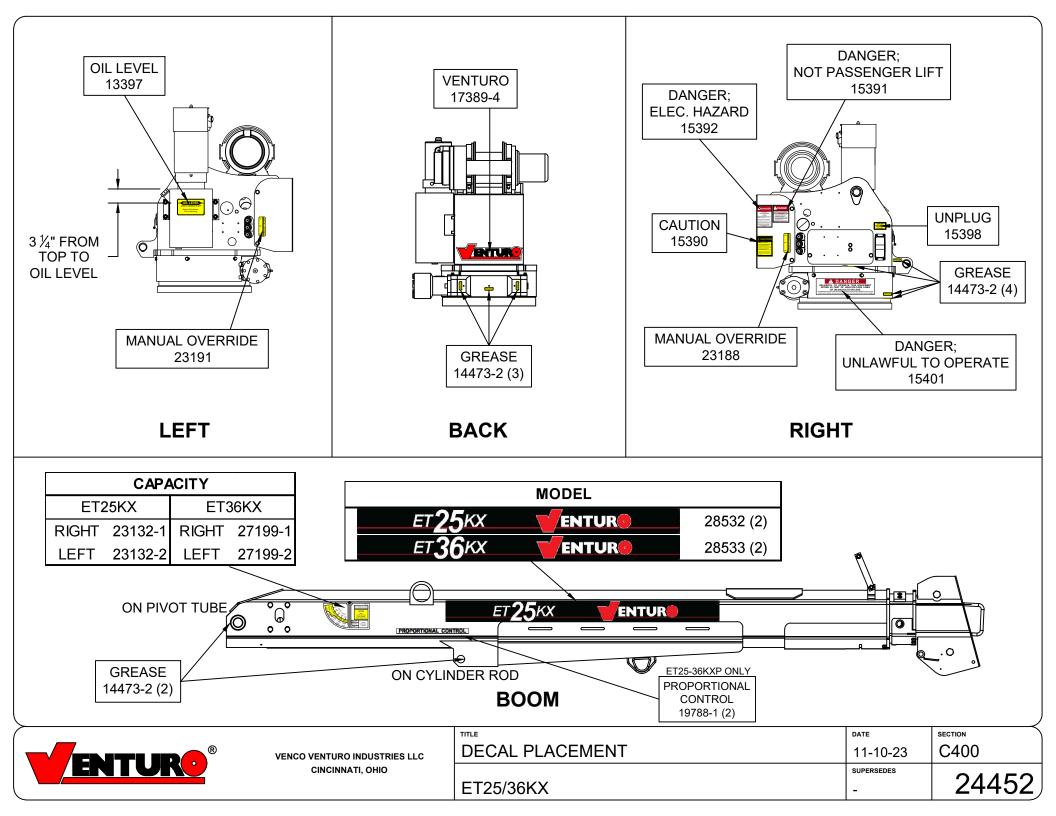
23787 07-31-18

21418 SLEWING SYSTEM REPLACEMENT PARTS





SLEWING REPLACEMENT PARTS	08-24-09	SECTION
ET25/30KX	SUPERSEDES	21886



ET25/36KX FIELD SERVICE LABEL KITS

21898; FIELD SERVICE LABEL KIT, ET25KX

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
28532	2	MODEL DECAL; ET25KX
17389-4	1	DECAL; VENTURO, SMALL
23132-1	1	DECAL; BOOM CAPACITY, RIGHT, ET/HT25KX
23132-2	1	DECAL; BOOM CAPACITY, LEFT, ET/HT25KX
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
16184-1	1	DECAL; HORN RELAY
24453	1	IDWG; FIELD SERVICE LABEL KIT
24452	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

21866; FIELD SERVICE LABEL KIT, ET36KX

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
28533	2	MODEL DECAL; ET36KX
17389-4	1	DECAL; VENTURO LOGO, SMALL
27199-1	1	DECAL; BOOM CAPACITY, RIGHT, ET36KX
27199-2	1	DECAL; BOOM CAPACITY, LEFT, ET36KX
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
16184-1	1	DECAL; HORN RELAY
24453	1	IDWG; FIELD SERVICE LABEL KIT LIST
24452	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS



ET25/36KX	SUPERSEDES	24453
FIELD SERVICE LABEL KIT	11-10-23	C400
TITLE	DATE	SECTION

ET25/36KXP FIELD SERVICE LABEL KITS

24440; FIELD SERVICE LABEL KIT, ET25KXP

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
28532	2	MODEL DECAL; ET25KXP
17389-4	1	DECAL; VENTURO, SMALL
23132-1	1	DECAL; BOOM CAPACITY, RIGHT, ET/HT25KX
23132-2	1	DECAL; BOOM CAPACITY, LEFT, ET/HT25KX
19788	2	DECAL; 'PROPORTIONAL CONTROL'
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
19315-2	1	DECAL; PROP. VALVE MANUAL OVERRIDE
17813	1	DECAL; OVERLOAD SENSING SYSTEM
16184-1	1	DECAL; HORN RELAY
24454	1	IDWG; FIELD SERVICE LABEL KIT
24452	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

24442; FIELD SERVICE LABEL KIT, ET36KXP

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
28533	2	MODEL DECAL; ET36KXP
17389-4	1	DECAL; VENTURO LOGO, SMALL
27199-1	1	DECAL; BOOM CAPACITY, RIGHT, ET36KX
27199-2	1	DECAL; BOOM CAPACITY, LEFT, ET36KX
19788	2	DECAL; 'PROPORTIONAL CONTROL'
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
19315-2	1	DECAL; PROP. VALVE MANUAL OVERRIDE
17813	1	DECAL; OVERLOAD SENSING SYSTEM
16184-1	1	DECAL; HORN RELAY
24454	1	IDWG; FIELD SERVICE LABEL KIT LIST
24452	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS



	TITLE	DATE	SECTION
)	FIELD SERVICE LABEL KIT	11-10-23	C400
	ET25/36KXP	SUPERSEDES	24454

VENTURO CRANES LIMITED WARRANTY POLICY



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

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

1-Year Limited Warranty Policy

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

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

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

Warranty Claims

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

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

VENCO VENTURO INDUSTRIES LLC

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

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