

VENTURO
TRUCK MOUNTED CRANES

ET36KX

EQBAAA-00

INSTALLATION & OWNER'S MANUAL

TABLE OF CONTENTS

ET36KX (EQBAAA-*0) OWNER'S MANUAL

SECTION 100

21077	SPECIFICATIONS & OPERATING FEATURES
21078	SPECIFICATIONS & OPERATING FEATURES
21079	INSTALLATION DIMENSIONS; ET36K(X)
21080	MOUNTING DIMENSIONS; BASE PLATE
21081	CAPACITY CHART; ET36KX W/ 10-16-20 FT. BOOM

SECTION 150

850711	<u>SAFETY</u>
15394	SAFETY & HAZARDS - GENERAL
21353	VEHICLE & CRANE ELECTRICAL HAZARD INFORMATION
21384	SAFETY DECALS
21354	SAFETY DECALS
21083	DECALS FOR ET CRANES
	MODEL & CAPACITY DECALS

SECTION 200

711105	<u>INSTALLATION</u>
15660	CABLE & BATTERY REQUIREMENTS - ET & HT CRANES
20906-36	BATTERY CABLE INSTALLATION DRAWING
20907	STABILITY TESTING
22245	STABILITY CHART
	WIRE ROPE INSTALLATION

SECTION 300

21878	<u>MAINTENANCE & SERVICE</u>
19963	LUBRICATION & MAINTENANCE CHART
23229	MINIMUM VOLTAGE TEST
23084	WIRE ROPE & HOOK SPECIFICATIONS
	MANUAL OVERRIDE INSTRUCTIONS

SECTION 400

21084	<u>REPLACEMENT PARTS</u>
21085	REPLACEMENT PARTS DRAWING; ET36KX
21088	REPLACEMENT PARTS LIST; ET36KX
21089	REPLACEMENT PARTS DRAWING; 27197 BOOM
23026	REPLACEMENT PARTS LIST; 27197 BOOM
27029	REPLACEMENT PARTS DRAWING; ANTI-2-BLOCK SYSTEM
21776	ANTI-2-BLOCK WIRING & ADJUSTMENT
21859	REPLACEMENT PARTS DRAWING; 23154-2 ELECTRICAL COMPONENT
21292	WIRING DIAGRAM; ET25/30/36KX W/ OPERATOR CONTROLLED HORN
21293	REPLACEMENT PARTS LIST; 16780 SINGLE / 2-POLE SLIP-RING
23075	REPLACEMENT PARTS DRAWING; 16780 SINGLE / 2-POLE SLIP-RING
21758	21990 PENDANT; REPLACEMENT PARTS DRAWING / LIST (4 FUNCTION)
20156	REPLACEMENT PARTS DRAWING / LIST; HYDRAULIC SYSTEM COMPONENTS
21860	HYDRAULIC SYSTEM SCHEMATIC
21773	REPLACEMENT PARTS DRAWING; 21753 EXTENSION CYLINDER W/ SEAL KIT INFO
21053	REPLACEMENT PARTS DRAWING; 21752 ELEVATION CYLINDER W/ SEAL KIT INFO
21886	REPLACEMENT PARTS DRAWING; 19813 WINCH
21894	REPLACEMENT PARTS DRAWING; 21418 SLEWING RING
21899	DECAL PLACEMENTS
	FIELD SERVICE LABEL KIT; ET25/30/36KX



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
TABLE OF CONTENTS	02-26-20J	-
ET36KX (EQBAAA-*0)	SUPERSEDES 02-10-17H	23028

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°
BOOM HYDEXT	10 - 20 FT
CAPACITY	1800 LBS @ 20 FT REACH
	6000 LBS @ 3 TO 5 FT REACH
WIRE ROPE	5/16" DIA x 80 FT EXTRA HIGH STRENGTH
PENDANT CORD LENGTH	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



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

ET36KX-10/20

DATE
9-30-09A

SUPERCEDES
3-18-08

SECTION
C120

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.



MFG., INC.
CINCINNATI, OHIO

TITLE

INSTALLATION DWG

ET36KX-10/20

DATE

3-18-08

SUPERCEDES

-

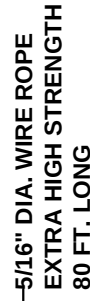
SECTION

C120

21078

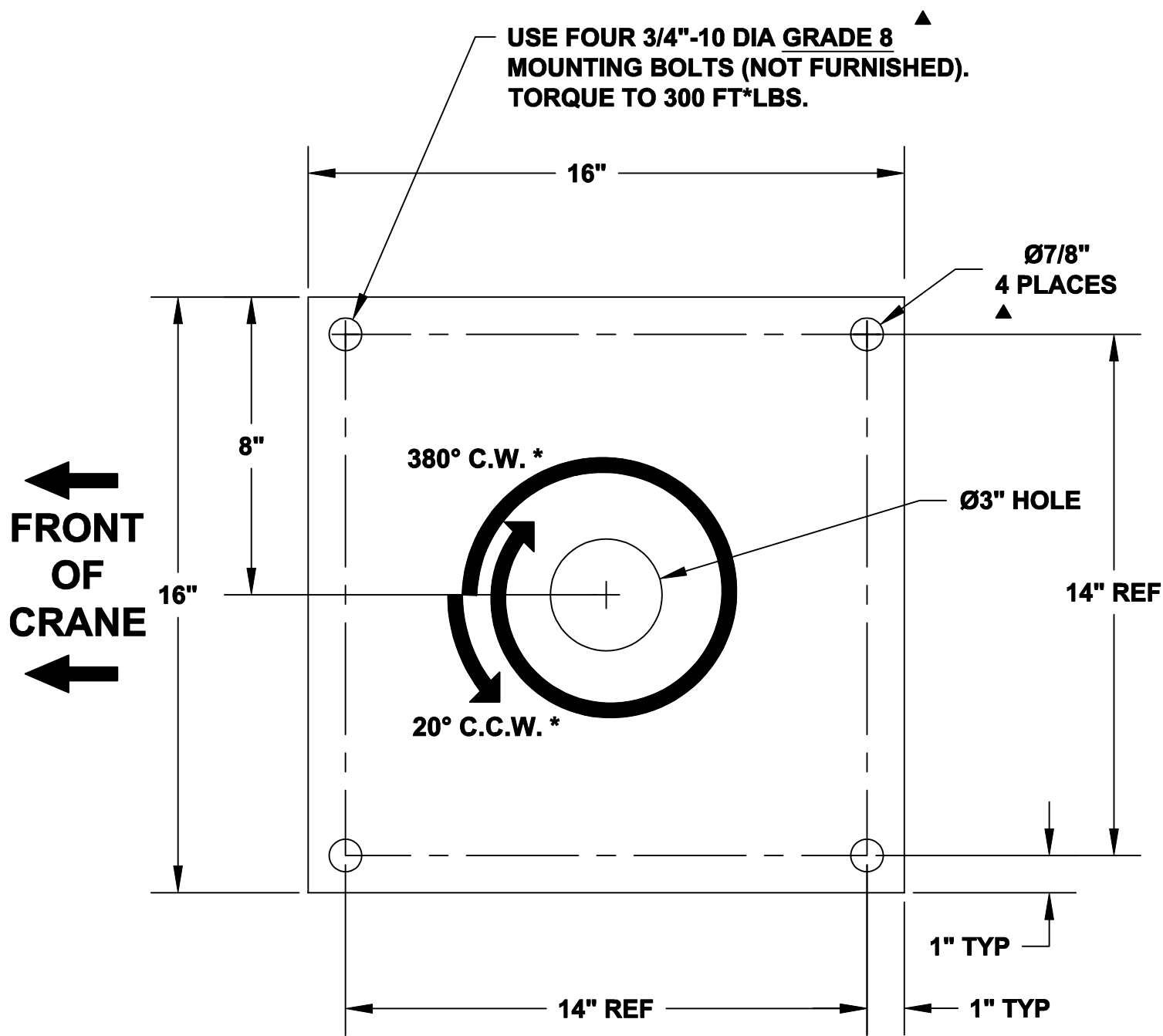
Diagram of a frame structure. The structure consists of a vertical member on the left and a horizontal member on the right. The vertical member has a height of 16 units. The horizontal member has a width of 14 units. A unit load (1) is applied vertically downwards at the free end of the horizontal member. The dimensions are indicated by arrows: 16 for the vertical height and 14 for the horizontal width.

16-13/16" SWING RADIUS



21079

ET/HT25/30/36KX BASE MOUNTING DIMENSIONS



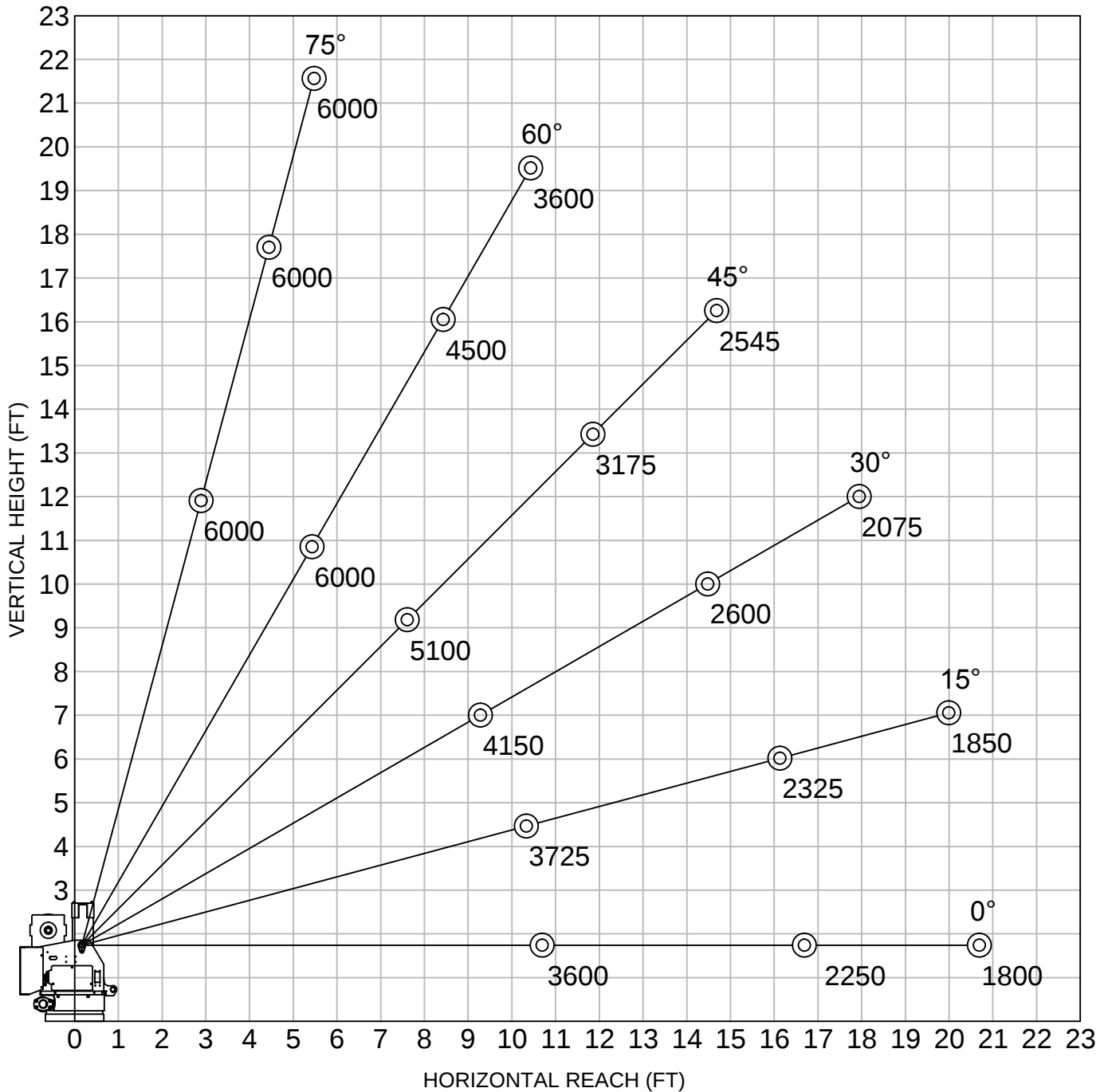
* Rotation limits typically apply to HT cranes only. ET cranes generally have continuous rotation.

TITLE	DATE	SECTION
BASE MOUNTING	02-13-12E	C100
ET/HT25/30/36	SUPERSEDES 12-14-11D	21080

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
MAXIMUM LOAD CAPACITY

ET36KX, 10'-16'-20' BOOM

DATE
05-03-16B

SUPERSEDES
04-30-13A

SECTION
C100

21081

SECTION 150

SAFETY

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 RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS. AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

ELECTROCUTION HAZARD

- THIS MACHINE IS NOT INSULATED.
- MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND 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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SAFETY & HAZARDS

DATE

01-29-15K

SECTION

C150

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SAFETY & HZRDS, CONT.

DATE

01-29-15

SECTION

C150

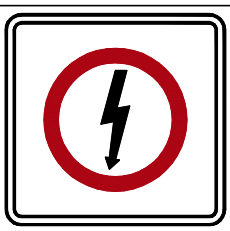
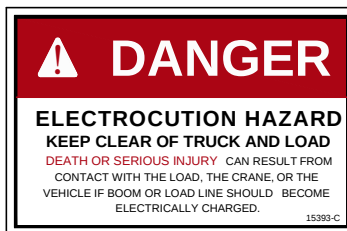
ELECTRIC CRANES

SUPERSEDES

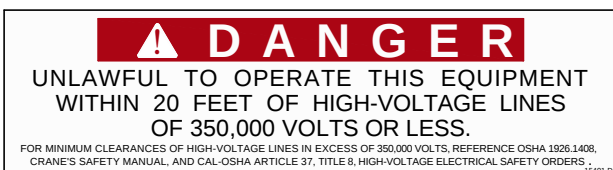
-

850712

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.



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
over 50 - 200.....	15
over 200 - 350.....	20
over 350 - 500.....	25
over 500 - 750.....	35
over 750 - 1000.....	45
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).

Table T - Minimum Clearance Distances While Traveling With No Load

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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

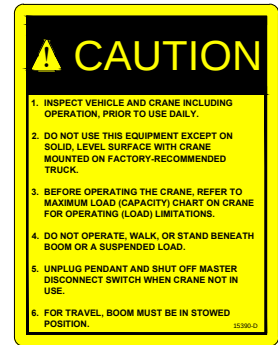
DECAL #: 15390

DESCRIPTION: CAUTION, INSPECT VEHICLE & CRANE...

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



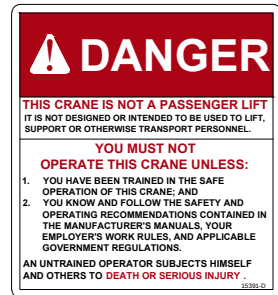
DECAL #: 15391

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: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



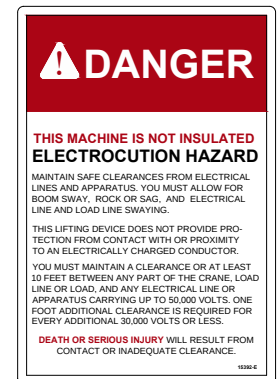
DECAL #: 15392

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



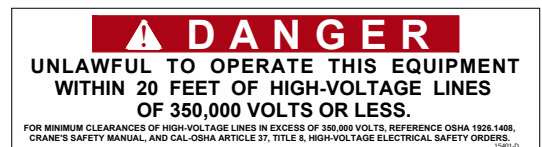
DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

PURPOSE: TO INFORM OPERATOR OF PROPER OPERATION IN VICINITY OF ELECTRICAL LINES.

QUANTITY: 1

PLACEMENT: RING COVER OR SIDE OF CRANE



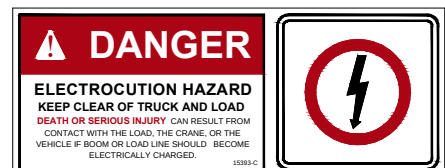
DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

PURPOSE: WARNS OF DANGER FROM ELECTRICALLY CHARGED VEHICLE, CRANE, OR LOAD.

QUANTITY: 4

PLACEMENT: EACH SIDE & EACH END OF VEHICLE



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
SAFETY DECALS

VENTURO CRANES

DATE
04-29-16E

SUPERSEDES
10-24-13D

SECTION
C150

21353

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.



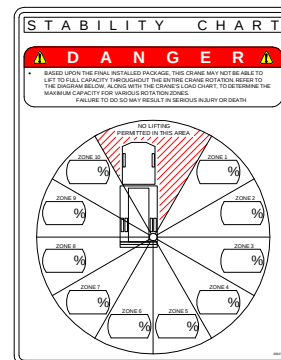
PART NO.: 20927

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.



▲



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
SAFETY DECALS
CRANES

DATE
06-06-14C
SUPERSEDES
04-02-13B

SECTION
C150
21384

PART NO.: 14473-2

DECAL: GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



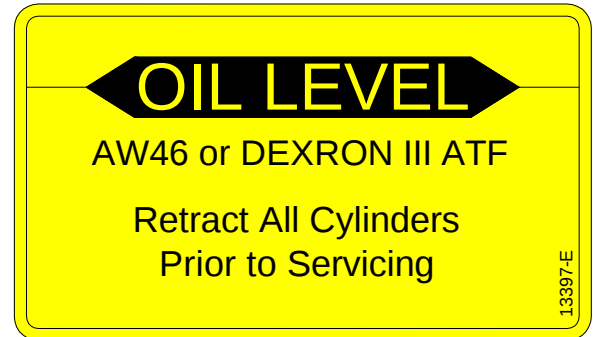
PART NO.: 13397

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.



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
DECALS
ET CRANES

DATE
12-23-13D
SUPERSEDES
04-19-13C

SECTION
C150
21354

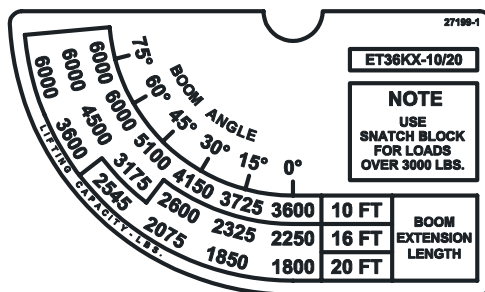
PART NO.: 27199-1 & 27199-2 (OPPOSITE)

DECAL: CRANE CAPACITY

FUNCTION: To show the operator the operating capacities of crane.

QUANTITY: 1 each

PLACEMENT: One on each side of boom.



PART NO.: 21868

DECAL: MODEL NUMBER (ET36KX)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

ET 36K X



MFG., INC.
CINCINNATI, OHIO

TITLE
MODEL & CAPACITY DECALS

ET36KX

DATE
2-11-09

SUPERSEDES
-

SECTION
C150

21083

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

▲ MINIMUM WIRE GAUGE AND AUXILIARY BATTERY SIZE										
MODEL	TOTAL LENGTH OF CABLE (FT) *								▲ 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 RECOMMENDED			450	100
ET8KX ET10KX ET12KX ▲ ET12KXP	#2	#2	#1	#0	#00	NOT RECOMMENDED			550	150
ET18K(X) ET25K(X) ET30KX ET36KX	SEE DRAWING 15660 FOR CABLE AND BATTERY REQUIREMENTS									

* 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.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

CABLE & BATTERY

DATE

07-30-18X

SECTION

C200

ELECTRIC CRANES

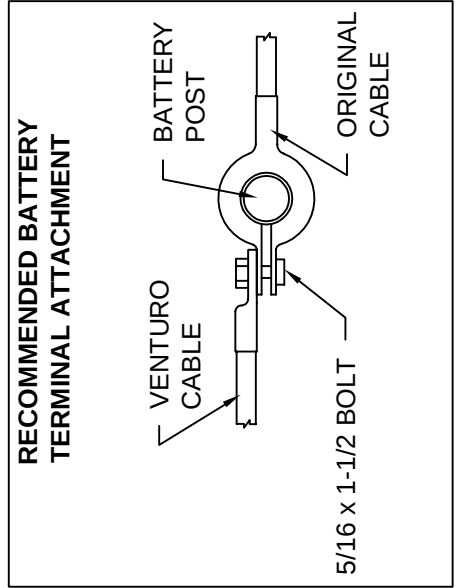
SUPERSEDES

09-27-17W

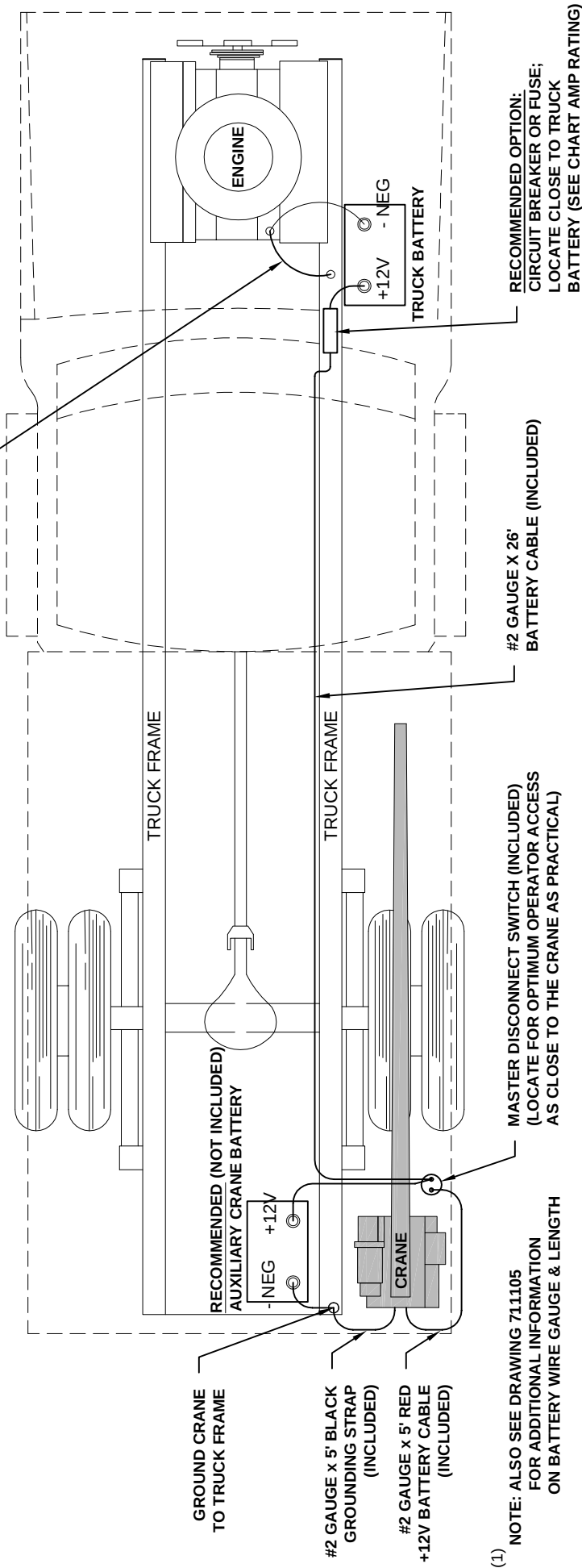
711105

RECOMMENDED CIRCUIT BREAKER 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	250 AMP, MAN RESET	22946-250
ET16/18KX	250 AMP, MAN RESET	22946-250
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
 - (1) • 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
(REQUIRED IF NEGATIVE FROM BATTERY IS CONNECTED TO ENGINE)



(1) NOTE: ALSO SEE DRAWING 711105 FOR ADDITIONAL INFORMATION ON BATTERY WIRE GAUGE & LENGTH

	VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	BATTERY CABLE & COMPONENT INSTALL		DATE	SECTION
				ET CRANES		07-30-18L	C200
						SUPERSEDES 07-31-15K	15660

STABILITY TESTING – ET36KX

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%.

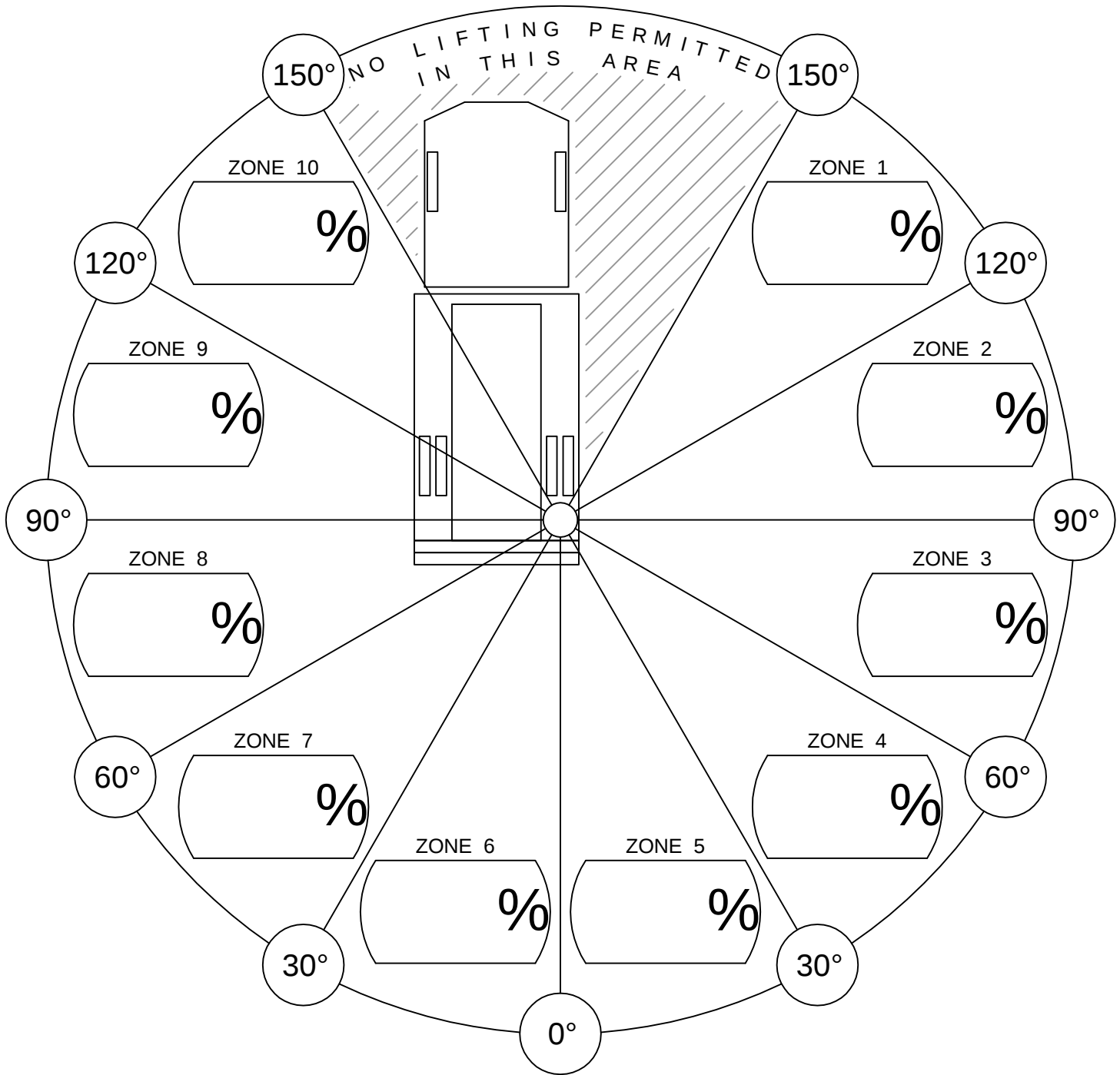
Testing Procedure

1. Locate the truck on level ground and set the parking brake.
2. Deploy outriggers, making sure they are firmly in contact with supportive ground; use outrigger pads as required. The tires of the truck should remain in full contact with the ground.
3. Inspect the wire rope and other key components of crane (consult owners manual for more information).
4. Conduct an operational check of all crane functions.
5. Use a test weight of 2085 lbs in conjunction with the ET36KX's snatch block (weight = 32 lb).
6. Do NOT allow the weight to be more than 6 inches from the ground at any time during testing – this insures that if the truck does become unstable and tip, it will not tip far.
7. Rotate the crane to a position between 1 and 2 o'clock (the truck cab is facing 12 o'clock).
8. Be sure that the boom is horizontal (0° elevation) with the hydraulic sections fully retracted; the boom should begin at a length of 10 feet.
9. Use the winch to lift the test weight, keeping it within 6 inches of the ground.
10. Extend the boom slowly until the boom reaches full extension (240 inches) or until the truck becomes unstable. As you extend, use the winch to keep the weight within 6 inches of the ground.
 - a. If the boom reaches full extension, the % of Rated Capacity is 100% for the tested region.
 - b. If, however, the truck becomes unstable (both tires leave the ground) prior to full extension, record (in inches) the horizontal distance from the center of rotation to the wire rope at this point (e.g. 220 inches). This is the Maximum Stable Reach. Determine the % of Rated Capacity using the following formula:

$$\% \text{ Rated Capacity} = \frac{\text{"Max. Stable Reach" in inches}}{\text{240}} \times 100$$

11. Record the % of Rated Capacity in the appropriate blank on the Crane Stability chart and/or decal.
12. Repeat Steps 7–11 for each of the remaining regions (2–3 o'clock, 3–4 o'clock, etc.).

CRANE STABILITY



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

CONDITIONS:

- STABILIZERS FULLY EXTENDED & DOWN, ON FIRM LEVEL GROUND.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
STABILITY CHART

VENTURO CRANES

DATE
05-11-17F

SUPERSEDES
02-21-14E

SECTION
C200

20907

WIRE ROPE INSTALLATION

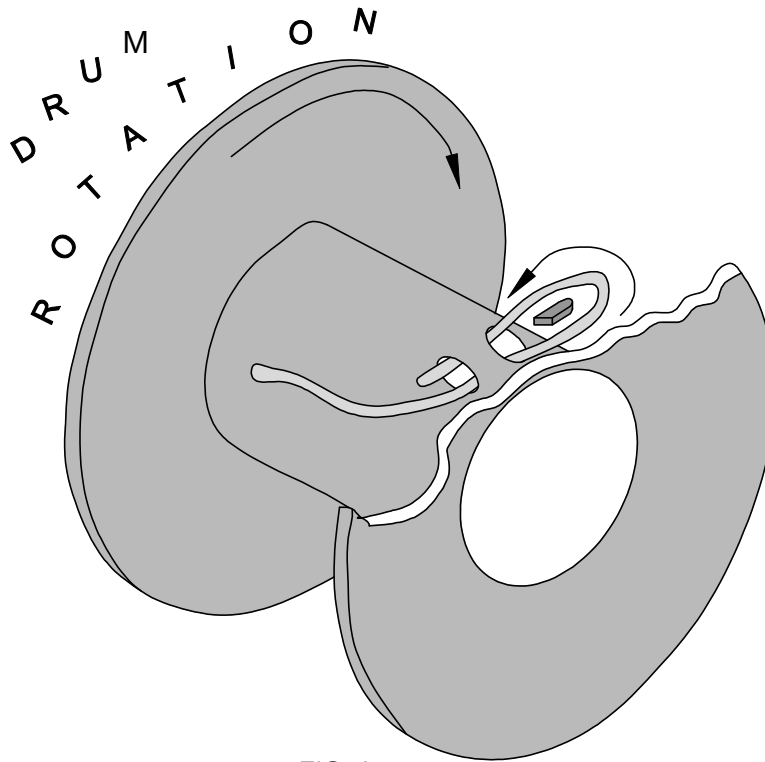


FIG. 1

- 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.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

WIRE ROPE INSTALLTN

DATE

02-21-14K

SECTION

C200

ET6K & LARGER CRANES

SUPERSEDES

12-26-13J

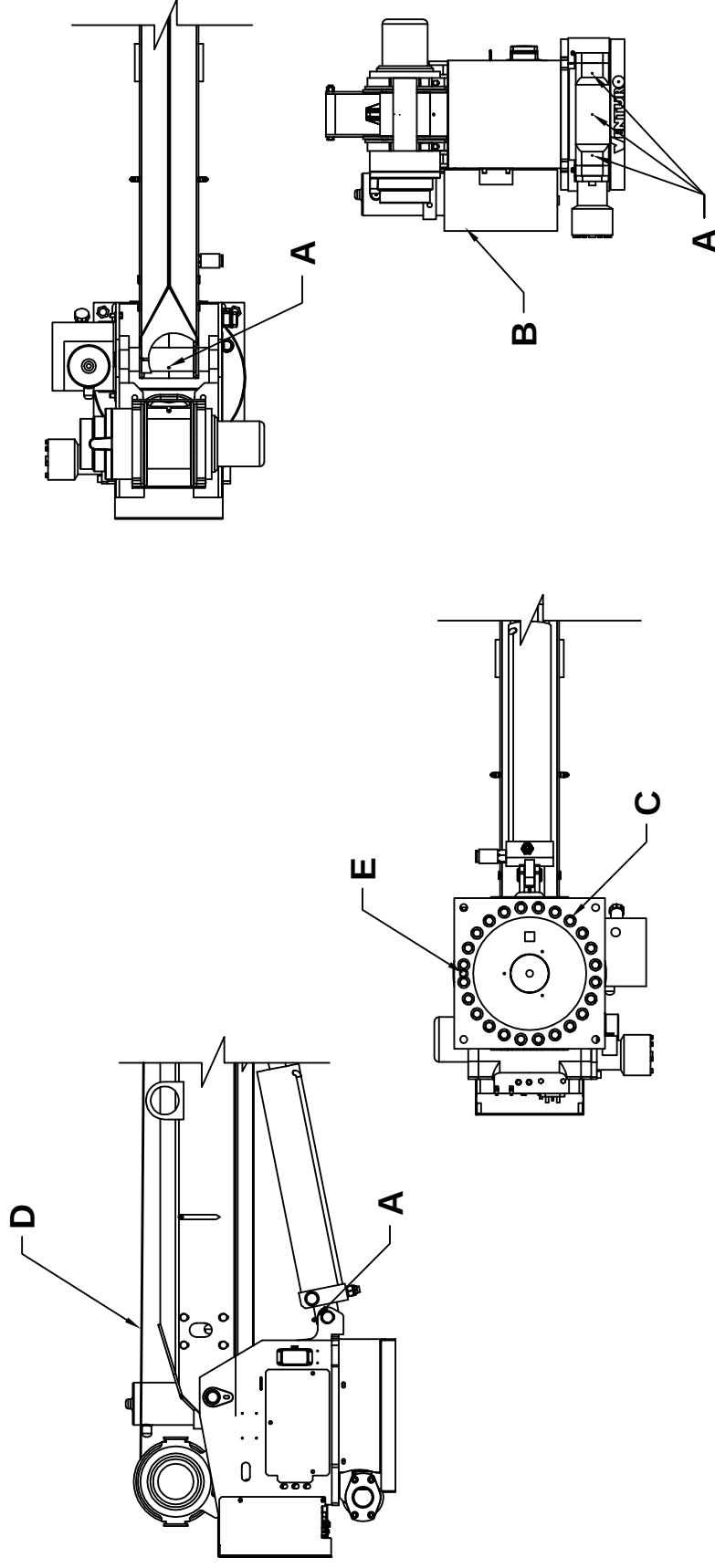
22245

SECTION 300

MAINTENANCE

&

SERVICE

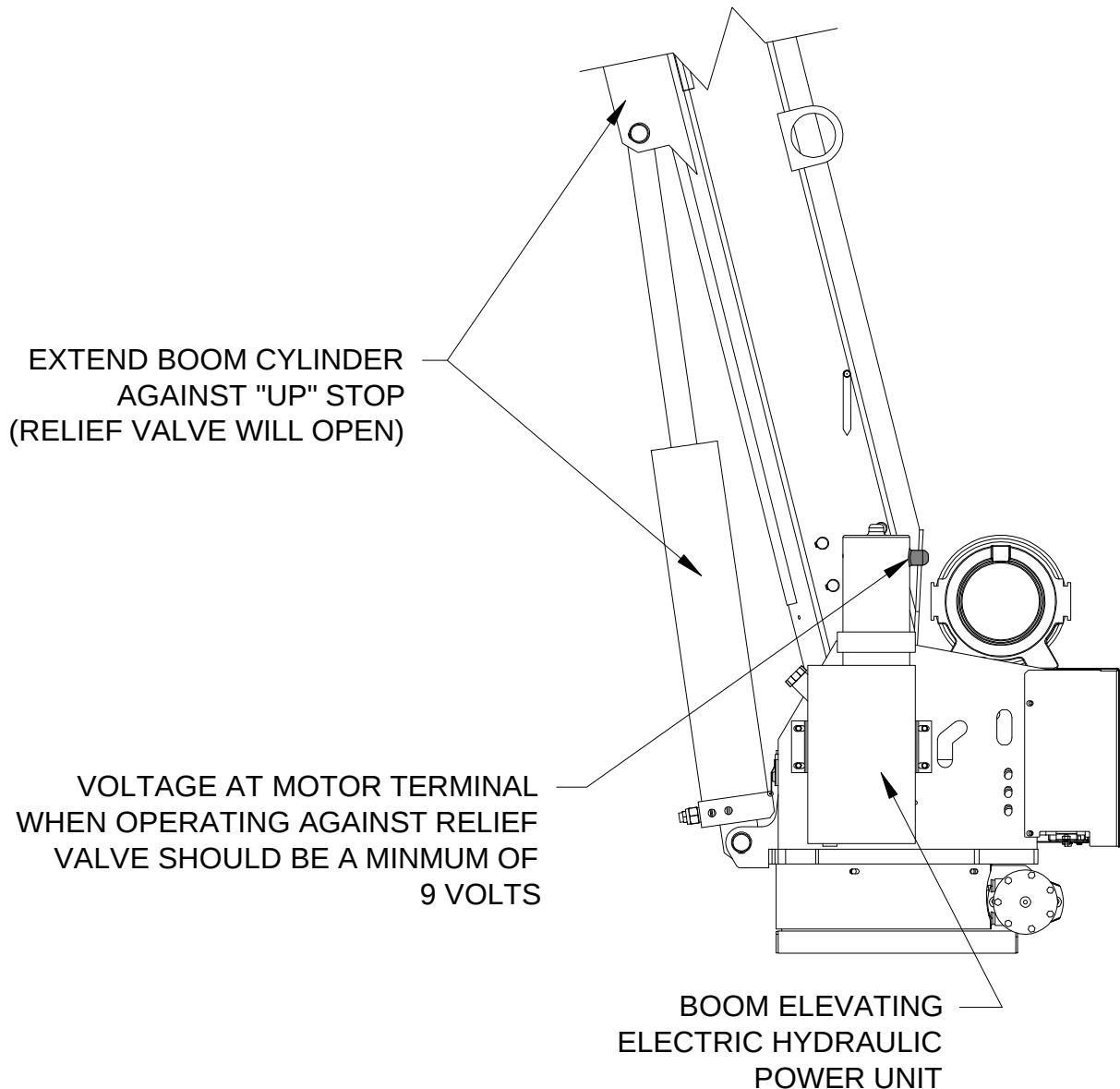


Location	Service Required	Note	Service Interval
A	Grease fitting With Pressure Grease Gun	USE ELECTRICALLY CONDUCTIVE GREASE Example: Fuch's Renolit Aluminum Complex Grease P/N 155250-2 (or equivalent).	Time of Truck Service
B	Fill Oil Reservoir to Oil Level with Boom Down	Use Dextron III ATF or ISO Grade AW 46 for Ambient Temperatures Between -22° F and 30° F	Time of Truck Service and as required by changes in the ambient temperature range
C	Check Torque of bolts	Bolts should be torqued to 60 ft-lbs	Time of Truck Service
D	Check Wire Rope and Hook	Rope should be free of kinks and fraying	Time of Truck Service
E	Grease Fitting With Pressure Grease Gun	USE ELECTRICALLY CONDUCTIVE GREASE Example: Fuch's Renolit Aluminum Complex Grease P/N 155250-2 (or equivalent).	Every 6 months

 VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE		DATE	SECTION
	LUBRICATION & MAINTENANCE CHART		07-29-19A	-
ET25/30/36KX(X)		SUPERSEDES		21878
		08-11-09		

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

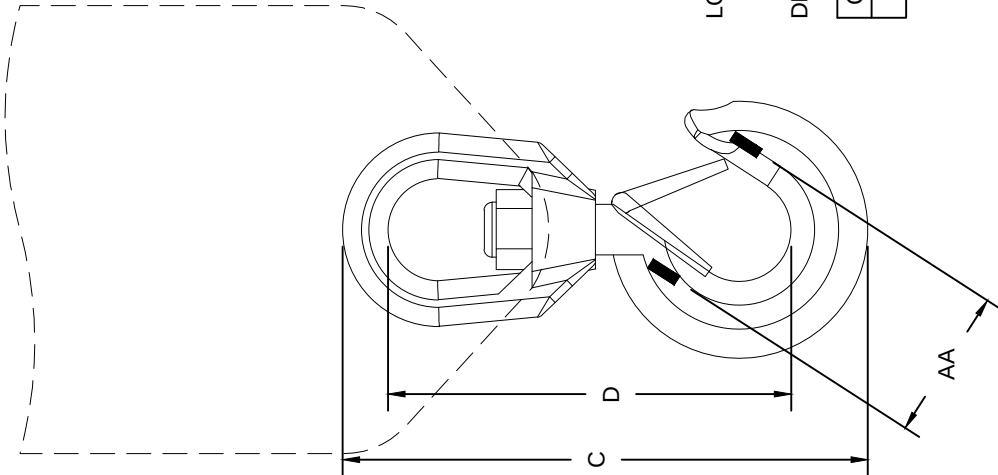


MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE	MINIMUM VOLTAGE TEST
ET SERIES CRANES	

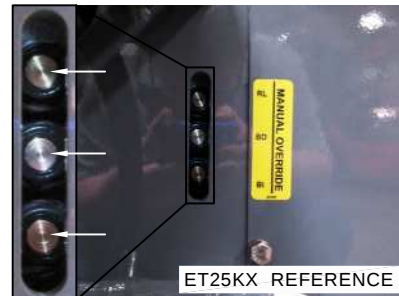
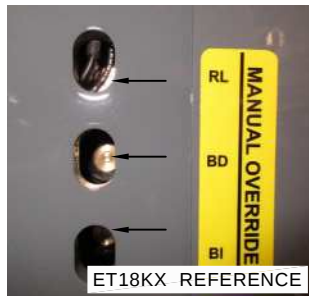
DATE	12-26-13G
SUPERSEDES	10-05-09F

SECTION	C300
	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: <table><tr><td>COLOR</td><td>BRAND</td><td>AA</td><td>C</td><td>D</td></tr><tr><td>GOLD</td><td>CROSBY</td><td>2.00"</td><td>8.25"</td><td>6.50"</td></tr></table>		COLOR	BRAND	AA	C	D	GOLD	CROSBY	2.00"	8.25"	6.50"
COLOR	BRAND	AA	C	D									
GOLD	CROSBY	2.00"	8.25"	6.50"									
VENTURO® VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE WIRE ROPE & HOOK SPECIFICATIONS ET36KX											
		DATE 05-09-16A SUPERSEDES 08-18-11											
		SECTION C300 23229											

MANUAL OVERRIDE INSTRUCTIONS
ET NON-PROPORTIONAL 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).

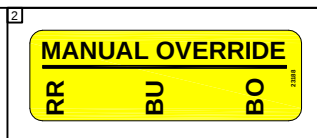
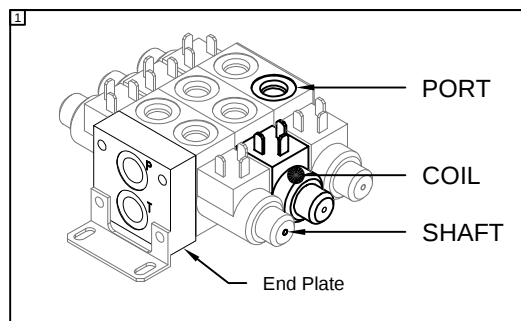
2-STATION FUNCTIONS:

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

3-STATION FUNCTIONS include previous functions, plus:

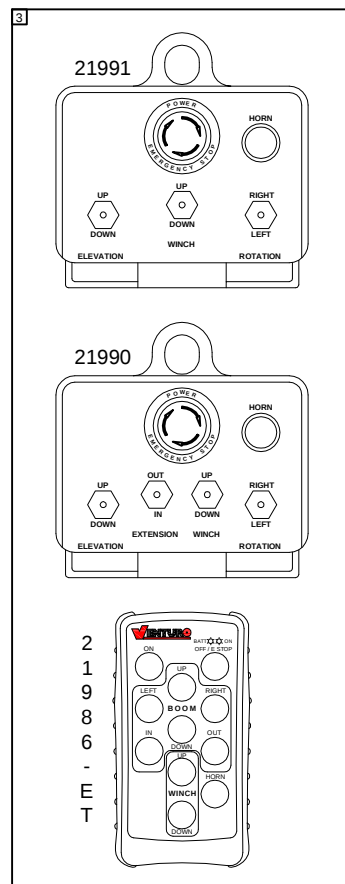
BI = Boom In BO = Boom Out

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 HARNESSSES 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.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
MAN. OVERRIDE INSTR.
ET NON-PROP CRANES

DATE
03-08-19A
SUPERSEDES
02-09-17

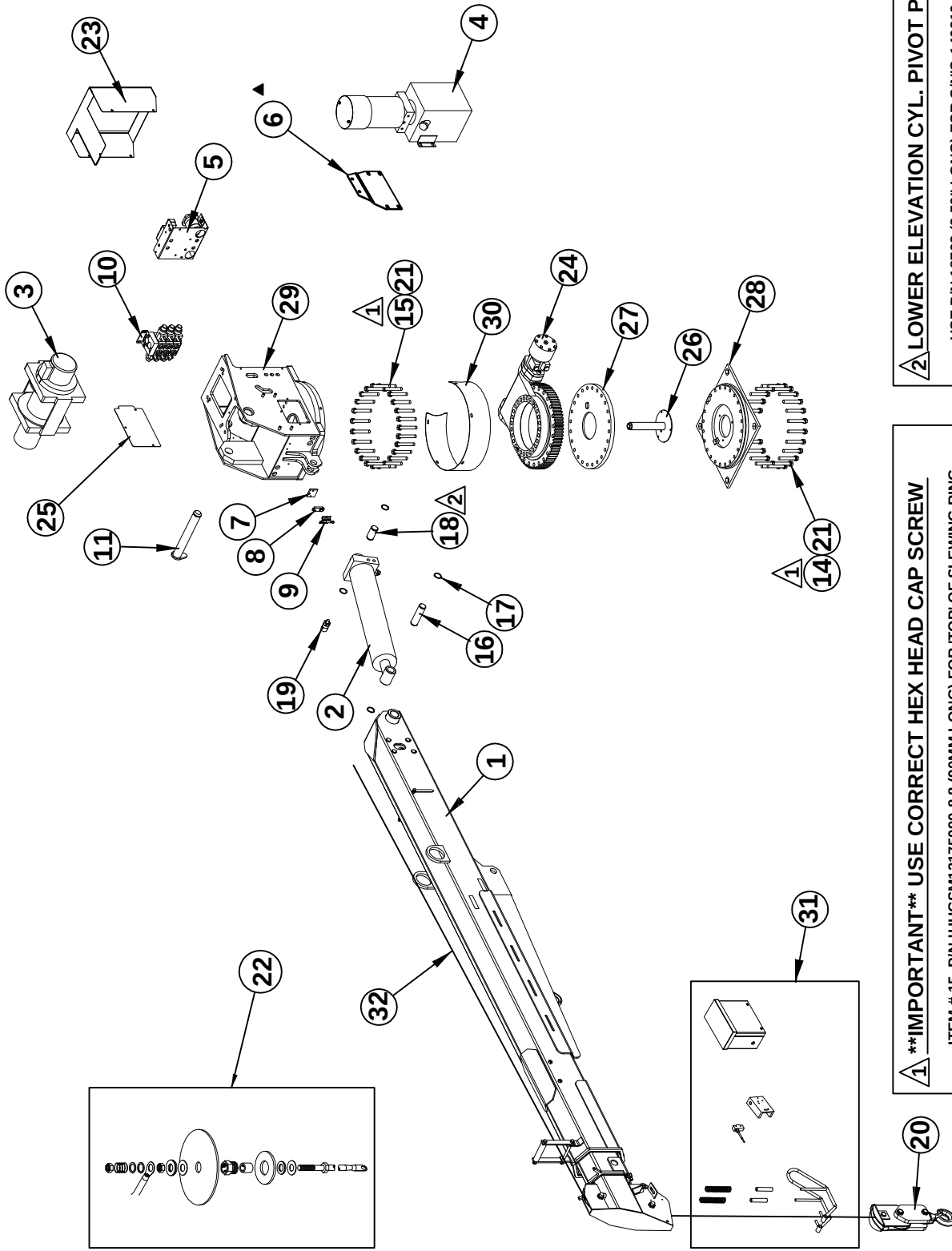
SECTION
C200
23084

SECTION 400

PARTS



REPLACEMENT PARTS LIST - REF 21085



1 **IMPORTANT USE CORRECT HEX HEAD CAP SCREW**

- ITEM # 15, P/N IHCSM12175090-8.8 (90MM LONG) FOR 'TOP' OF SLEWING RING
- ITEM # 14, P/N IHCSM12175080-8.8 (80MM LONG) FOR 'BOTTOM' OF SLEWING RING

2 LOWER ELEVATION CYL. PIVOT PIN, ITEM # 18

- USE P/N 18762 (2.59" LONG) FOR S/N'S 140319 AND BELOW
- USE P/N 18768 (3.09" LONG) FOR S/N'S 140320 AND ABOVE



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS DWG

ET36KX

DATE

11-30-18F

SECTION

C400

SUPERSEDES

05-16-16E

21084

REPLACEMENT PARTS LIST; ET36KX

32	1	27669	5/16-80 HIGH STRENGTH WIRE ROPE
31	1	27738	ANTI-2-BLOCK MECHANICAL ASS'Y.
30	1	27186	COVER; SLEWING RING
29	1	27184-1	WELDED ASS'Y.; HOUSING (ET36KX)
28	1	27520M-2-R	WELDED ASS'Y.; BASE
27	1	27520H	SPACER
26	1	27568	CANDLESTICK ASS'Y.; SWIVEL PIGTAIL
25	1	27000	SIDE COVER; HOUSING
24	1	21418	SLEWING RING
23	1	27600	REAR COVER; HOUSING
22	1	16780-1	SWIVEL TERMINAL ASS'Y.
21	50	!LWSH-050	LOCK WASHER; 1/2"
20	1	27667-1	LOAD BLOCK - 6000 LBS.
19	1	17460-2900-21	OVERLOAD PRESSURE SWITCH
18	1	▲ SEE NOTE 2 BELOW	PIVOT PIN; ELEVATION CYLINDER
17	4	!SRNG-125	RETAINING RING; 1 1/4" SHAFT DIA.
16	1	18761	PIVOT PIN; ELEVATION CYLINDER
15	26	!HHCSM12175090-8.8	HHCS; 12MM-1.75MM X 90MM LG, GR. 8.8
14	24	!HHCSM12175080-8.8	HHCS; 12MM-1.75MM X 80MM LG, GR. 8.8
13	1	27342	KIT; HYRAULIC HOSE / FITTINGS, ET36KX
12	1	21106	KIT; ELECTRIC, ET18/25/30/36KX
11	1	21012	PIVOT PIN; MAIN BOOM PIVOT
10	1	21614	VALVE BLOCK, 4-3
9	1	19917	SWITCH BRACKET; BOOM SHUT-OFF
8	1	19918	SWITCH; BOOM SHUT-OFF
7	1	20896	MOUNTING BLOCK; BOOM SWITCH
6	1	27412	REINFORCING PLATE; POWER UNIT
5	1	23154-2	ELECTRICAL COMPONENT ASS'Y.
4	1	27512	HYDRAULIC POWER UNIT
3	1	19813	ELECTRIC WINCH
2	1	21752	ELEVATION CYLINDER
1	1	27197	BOOM FINAL ASS'Y.
ITEM NO.	QTY.	PART NO.	DESCRIPTION

▲ 2 LOWER ELEVATION CYL. PIVOT PIN, ITEM # 18

- USE P/N 18762 (2.59" LONG) FOR S/N'S 140319 AND BELOW

-USE P/N 18768 (3.09" LONG) FOR S/N'S 140320 AND ABOVE

REPLACEMENT PARTS DRAWING - REFERENCE 21084



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
RPLCMNT PARTS LIST

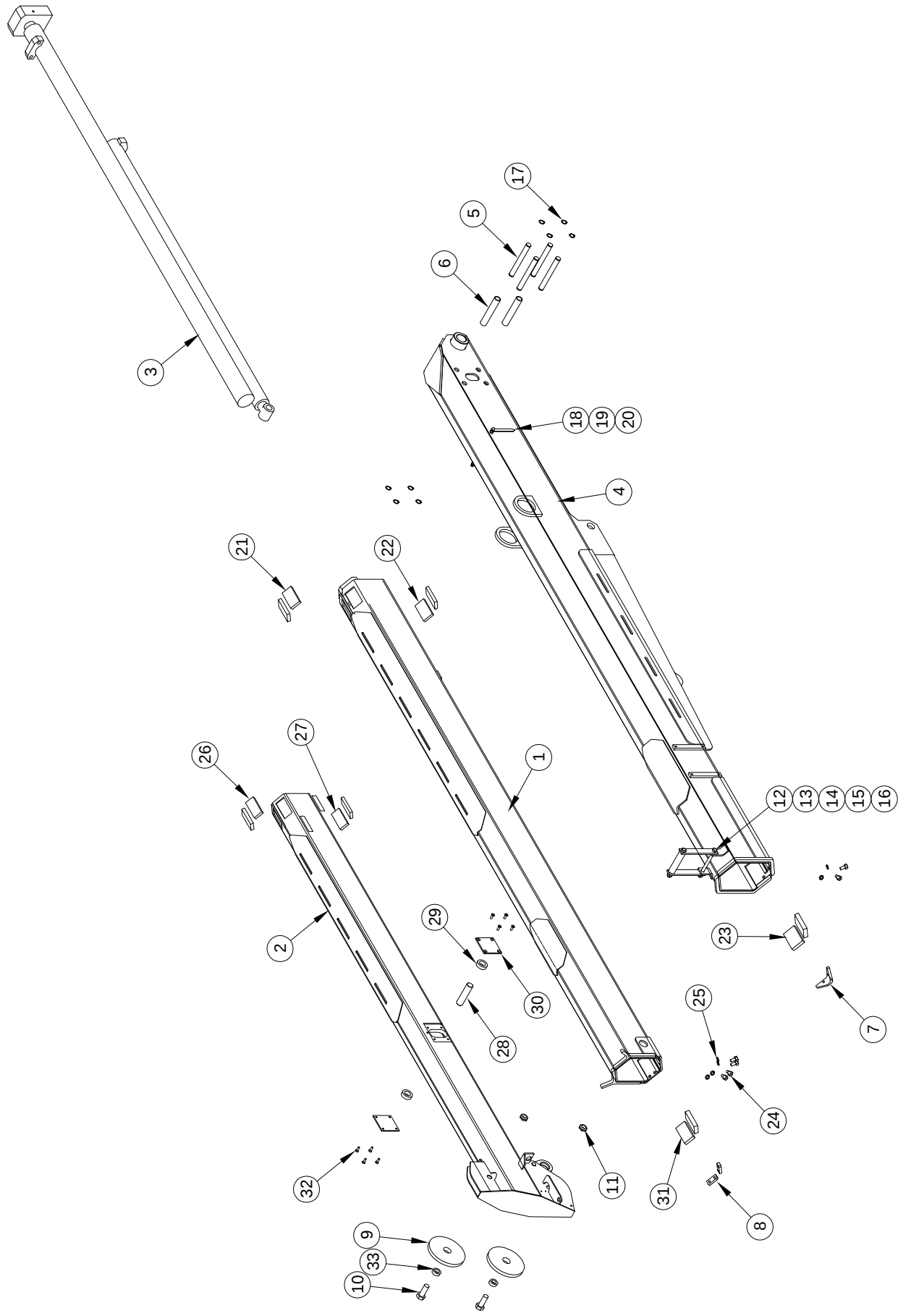
ET36KX

DATE
11-30-18J

SUPERSEDES
05-16-16H

SECTION
C400

21085



REFERENCE REPLACEMENT PARTS LIST #21089

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE		REPLACEMENT PARTS DWG, 27197 BOOM	SECTION	
	DATE		03-08-17B	C400	
	SUPERSEDES		12-20-11A	21088	
ET25-36KX SERIES CRANES					

REPLACEMENT PARTS LIST, 27197 BOOM
ET25-36KX SERIES CRANES

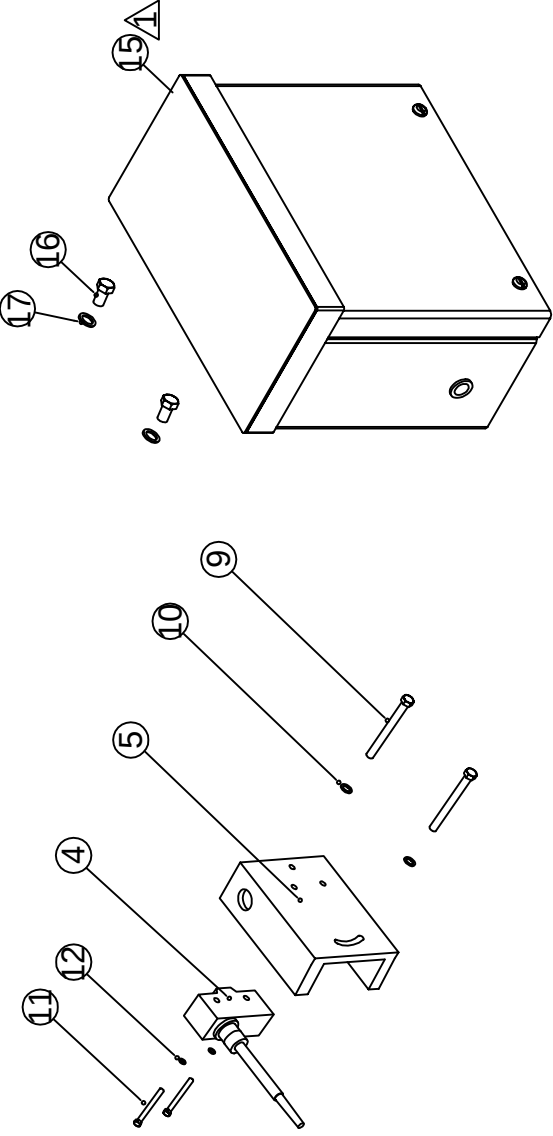
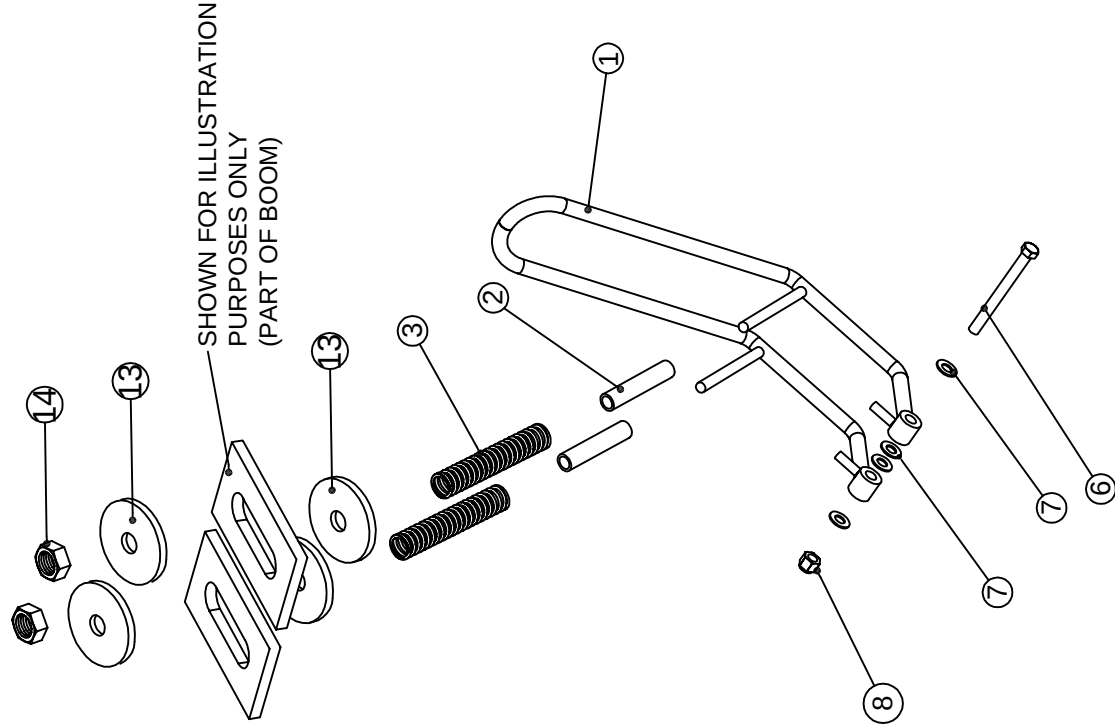
33	2	23924	SPACER; SHEAVES
32	8	!CACS02520063-N	CNTR SNK ALLEN HEAD CAP SCREW; 1/4-20 X 5/8" LONG W/ PATCH
31	2	23217-10	UHMW PAD; CONFIG. 'B', 3.19" X 1.75" X 0.63" THICK, 0.26" STEP
30	2	23116	PIN BLOCK, REINFORCING
29	2	21428	BUSHING
28	1	21941	PIN; EXTENSION CYLINDER
27	2	23217-7	UHMW PAD; CONFIG. 'A', 3.19" X 1.50" X 0.44" THICK, 0.20" STEP
26	2	23217-6	UHMW PAD; CONFIG. 'A', 3.19" X 1.50" X 0.50" THICK, 0.20" STEP
25	6	!LWSH-038	LOCK WASHER; 3/8"
24	6	!HHCS03816075	HEX HEAD CAP SCREW; 3/8-16 X 3/4" LONG, GR. 5 ZINC-PLTD
23	2	23217-3	UHMW PAD; CONFIG. 'B', 3.19" X 2.13" X 0.44" THICK, 0.26" STEP
22	2	23217-9	UHMW PAD; CONFIG. 'A', 3.19" X 1.75" X 0.44" THICK, 0.26" STEP
21	2	23217-8	UHMW PAD; CONFIG. 'A', 3.19" X 1.75" X 0.50" THICK, 0.26" STEP
20	2	!ANUT-02520S	ACORN NUT; 1/4-20
19	2	13459-2	BOOM ARROW; 4-7/16" LONG
18	2	22490	SPACER; BOOM ARROW, 1/2" O.D.
17	8	!SRNG-075	RETAINING RING; 3/4" SHAFT DIAMETER
16	1	!HHCS04414550	HEX HEAD CAP SCREW; 7/16-14 X 5-1/2" LONG, GR. 5 ZINC-PLTD
15	2	!LNUT-04414	LOCK NUT; 7/16-14, NYLON INSERT
14	1	21560	ROLLER; UHMW GUIDE
13	1	21936	FLAT MOUNT; WIRE ROPE GUIDE
12	1	21935	WELDED ASS'Y; WIRE ROPE GUIDE
11	2	!LNUT-07510	LOCK NUT; 3/4-10
10	2	17059-6	SHEAVE AXLE; 3/4" X 2" W/ SHANK
9	2	27001	SHEAVE; BOOM
8	2	23119	BEARING RETAINING BLOCK
7	1	23183	V-BLOCK SLIDER
6	2	21498	ROLLER; EXTENSION CYLINDER
5	4	21497	THRUST PIN; EXTENSION CYLINDER
4	1	21472	WELDED ASS'Y; PRIMARY BOOM
3	1	21753	EXTENSION CYLINDER
2	1	27167	WELDED ASS'Y; TERTIARY BOOM
1	1	27165	WELDED ASS'Y; SECONDARY BOOM
ITEM	QTY	PART NO.	DESCRIPTION

REFERENCE REPLACEMENT PARTS DRAWING #21088



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
RPLCMNT PRTS LIST, 27197	03-08-17C	C400
ET25-36KX SERIES CRANES	SUPERSEDES 12-20-11B	21089



A FOR RT-HAND MNGT. USE CORD REEL P/N 27034-1

17	2	ILWSH-031	LOCK WASHER 5/16 SPLIT
16	2	IHCSS03118050-5	HEX HEAD CAP SCREW 5/16-18 X 1/2"
15	1	22683	CORD REEL W/MOUNTING BRACKET
14	2	ILNUT-04414	LOCKNUT W/NYLON INSERT - 7/16-14
13	4	IFWSH-050	FLAT WASHER -1/2 USS
12	2	ILWSH-#06-STAR	EXTERNAL STAR LOCK - #6
11	2	IPHCS#0632100	PAN CAP SCREW - #6-32 X 1
10	2	ILWSH-#10	LOCK WASHER - #10
9	2	IPHCS#1024125	PAN HD CAP SCREW - #10-24 X 1-1/2"
8	1	ILNUTM12X175	NYLOK NUT12MM-1.75
7	4	IFWSH-044SAE	FLAT WASHER - 7/16 SAE
6	1	IHCSSM12M120	HEX HEAD CAP SCREW 12MM X 120MM LONG
5	1	21237	SWITCH HOUSING (BLACK CAST NYLON)
4	1	19376	ANTI-TWO BLOCK SWITCH
3	2	27586	SPRING
2	2	27579b	SPRING LOCATING TUBE
1	1	21870	ANTI TWO BLOCK CAGE ASSEMBLY
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
RPLCMNT PARTS - LH CORD REEL (STNDRD)

DATE
02-03-15A

SECTION
C400

ET/HT25/30 & ET36 ANTI-2-BLOCK SYSTEM

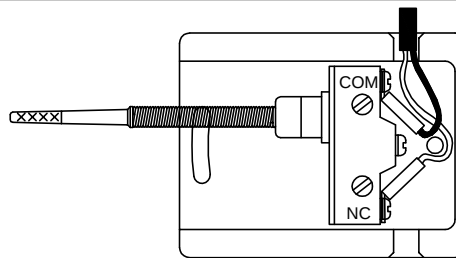
SUPPERSEDES
04-28-11

23026

STEP 1

ANTI-TWO BLOCK (A2B) SWITCH WIRING

Connect the Black wire to the 'COM' (Common) terminal and the White wire to the 'NC' (Normally Closed) terminal. The center terminal is not used.



CUT-AWAY VIEW

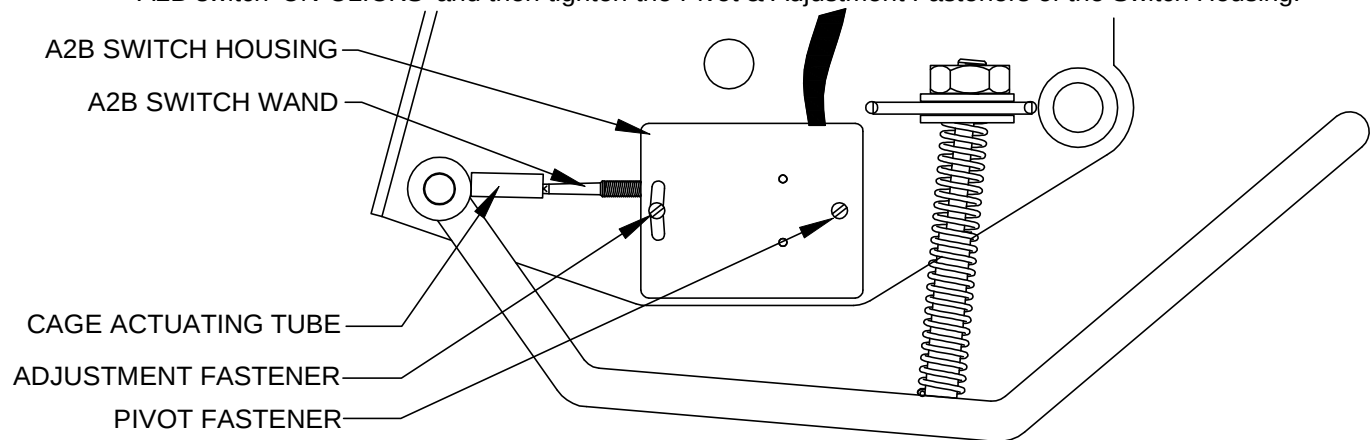
STEP 2

ANTI-TWO BLOCK (A2B) SWITCH ADJUSTMENT

The A2B switch is adjusted by loosening the Pivot & Adjustment Fasteners of the A2B switch housing.

Once loosened the A2B switch and housing move freely pivoting on the 'Pivot Fastener' allowing the 'Switch Wand' to be adjusted to the 'Cage Actuating Tube'.

With the A2B Switch Wand inserted into the Cage Actuating Tube rotate the A2B switch housing Counter-Clockwise until you hear the 'click' of the A2B switch then rotate Clockwise 'just until' the A2B switch 'UN-CLICKS' and then tighten the Pivot & Adjustment Fasteners of the Switch Housing.

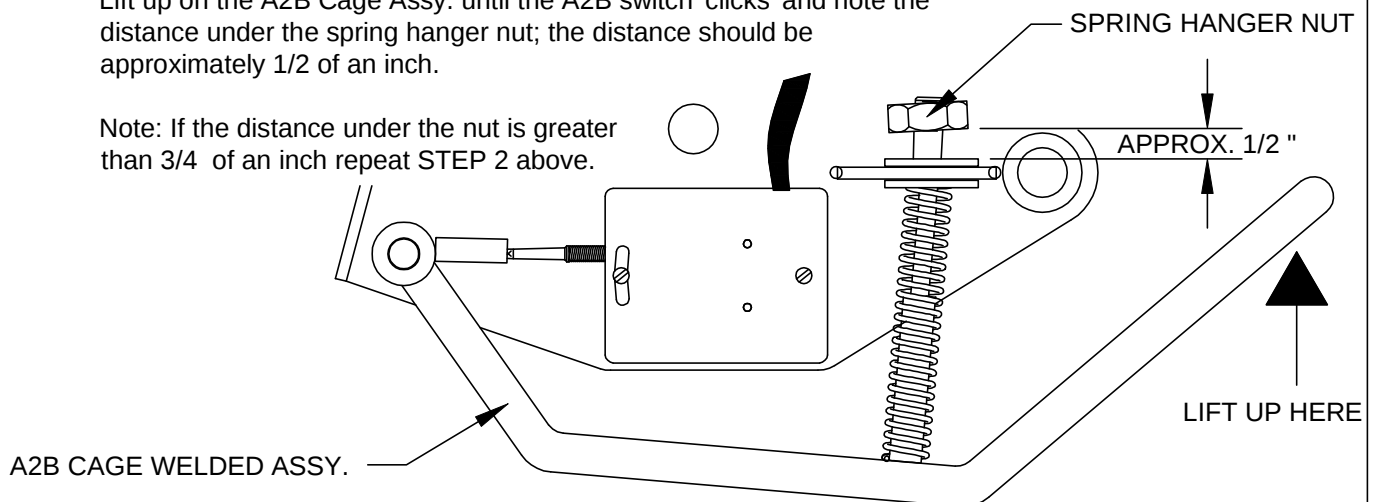


STEP 3

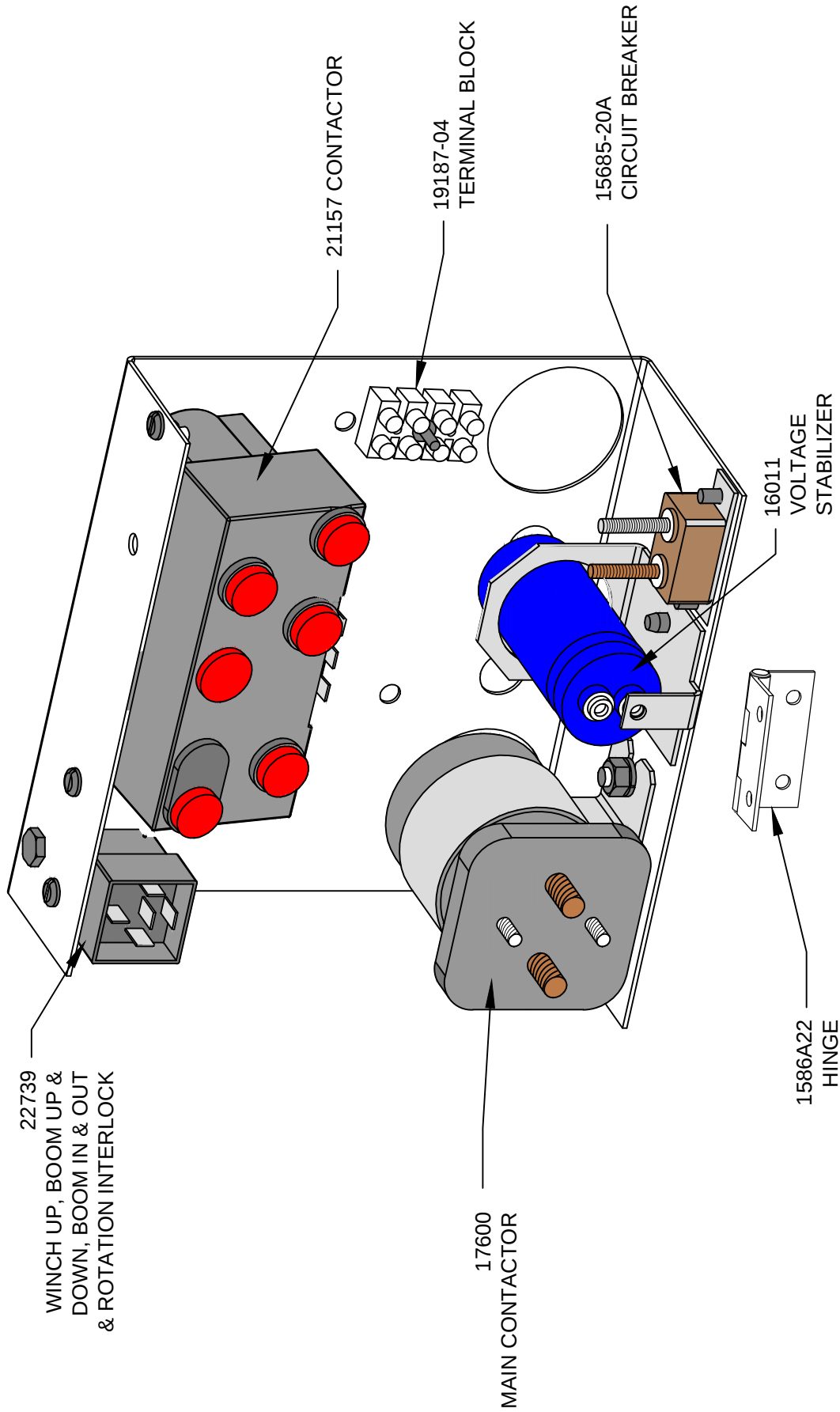
TESTING ADJUSTMENT

Lift up on the A2B Cage Assy. until the A2B switch 'clicks' and note the distance under the spring hanger nut; the distance should be approximately 1/2 of an inch.

Note: If the distance under the nut is greater than 3/4 of an inch repeat STEP 2 above.



23154-2 ELECTRICAL COMPONENT ASSEMBLY



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

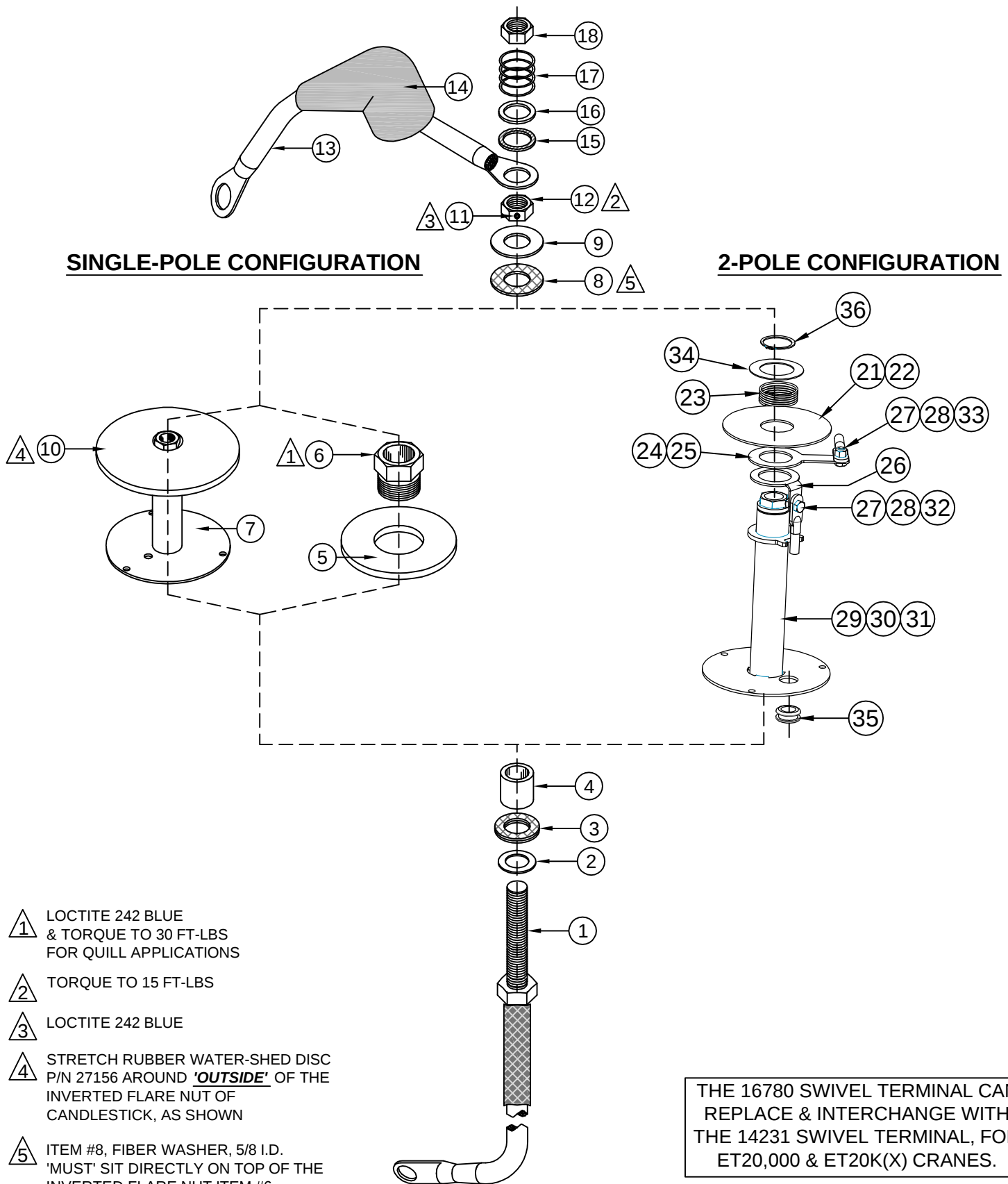
						16780 BILLS OF MATERIALS		
Quill Rotation	Slew Rotation Single Pole Slip-Ring	Slew Rotation 2-Pole Slip-Ring (ET6K ONLY)	Slew Rotation 2-Pole Slip-Ring (ET8-18KX)	Slew Rotation 2-Pole Slip-Ring (ET25-36KX)	ALL CRANES			
16780	16780 - 1	16780 - 2P6	16780 - 2P8	16780 - 2P25	16780 - KIT			
QTY						#	PART	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	-	-	-	-	-	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	IFWSH-063SAE	FLAT WASHER; 5/8" SAE
-	1	-	-	-	-	10	27156	RUBBER WATER SHIELD; 1/8" THICK
1	1	1	1	1	1	11	ISHCS02528025KC	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
-	-	-	-	-	-	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	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	-	-	-	21	27456	UHMW WATER SHIELD, (ET6K ONLY)
-	-	-	1	1	-	22	27456-1	UHMW WATER SHIELD, (ET8 - ET36)
-	-	1	1	1	-	23	27461	SPRING, (-) SLIP-RING ASSY.
-	-	-	1	1	-	24	27441-1	COPPER SLIP-RING, (ET8 - ET36)
-	-	1	-	-	-	25	27441	COPPER SLIP-RING, (ET6K ONLY)
-	-	1	1	1	-	26	27449-1	BRASS SLIP-RING (ET6 - ET36)
-	-	1	1	1	-	27	!HHCS03118075-B	BRASS HHCS
-	-	1	1	1	-	28	!HNUT-03118-B	BRASS NYLOC NUT
-	-	1	-	-	-	29	23255	SLIP-RING, WELDED ASSY, ET6K
-	-	-	1	-	-	30	23255-1	SLIP-RING, WELDED ASSY, ET8 - 18K(X)
-	-	-	-	1	-	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	-	33	02025-2*22.5INX	(-) WELDING CABLE ASSY, COPPER SLIP-RING
-	-	1	1	1	-	34	27463	SHIM, WIDE RIM, 18GA, 2-1/4 O.D. X 1-1/2 I.D.
-	-	1	1	1	-	35	20889	RUBBER GROMMET
-	-	1	1	1	-	36	!SRNG-150	SNAP-RING, EXTERNAL, 1-1/2"



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
16780 REPLACEMENT PARTS	03-29-19A	C400
ET6/8/12/16/18/25/30/36K(X)	SUPERSEDES 04-27-18	21292

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



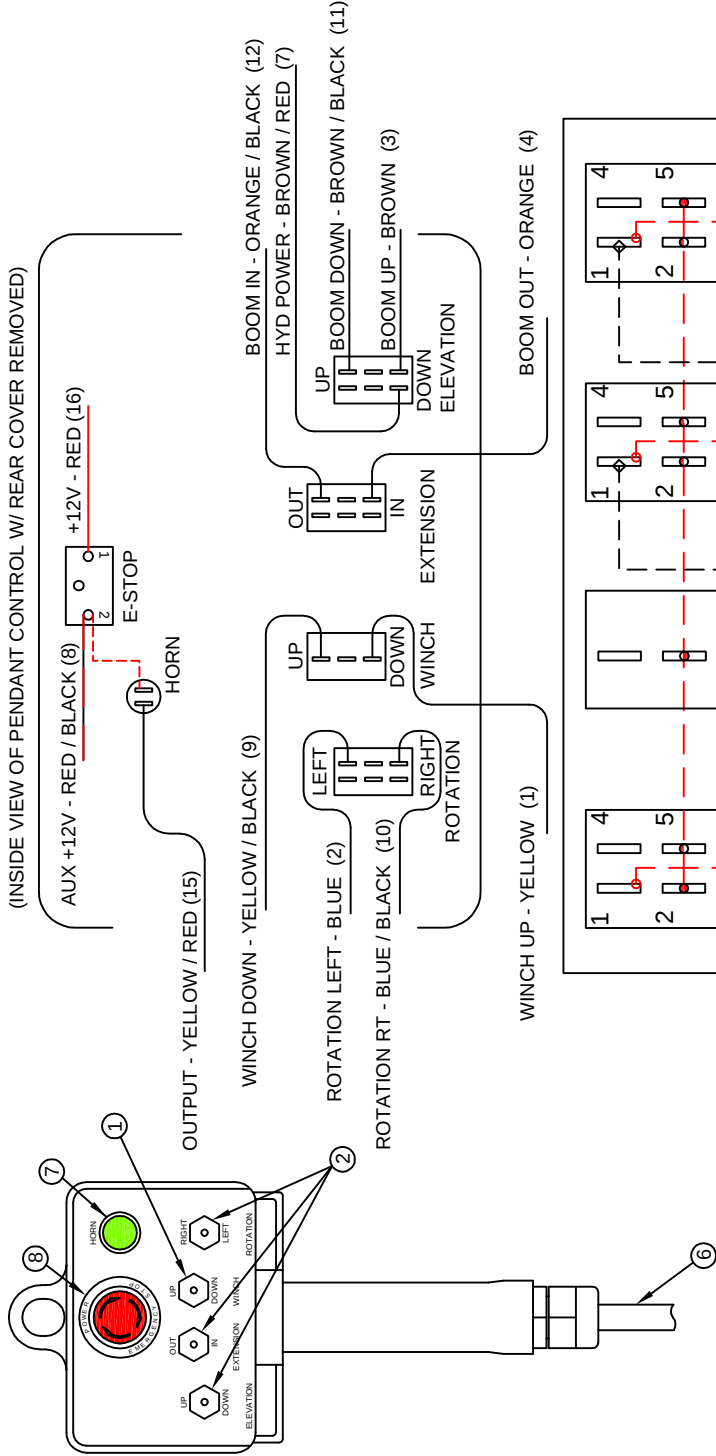
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPL. PARTS ILLUSTRATION
ET6/8/12/16/18/25/30/36K(X)

DATE
04-27-18
SUPERSEDES
-

SECTION
C400
21293

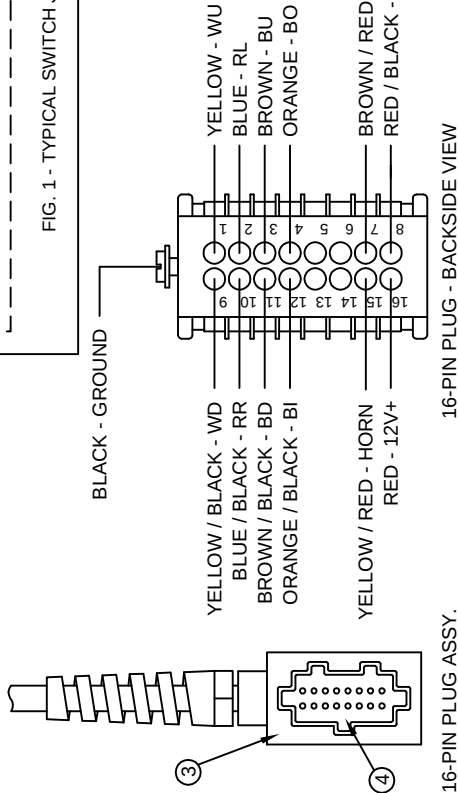
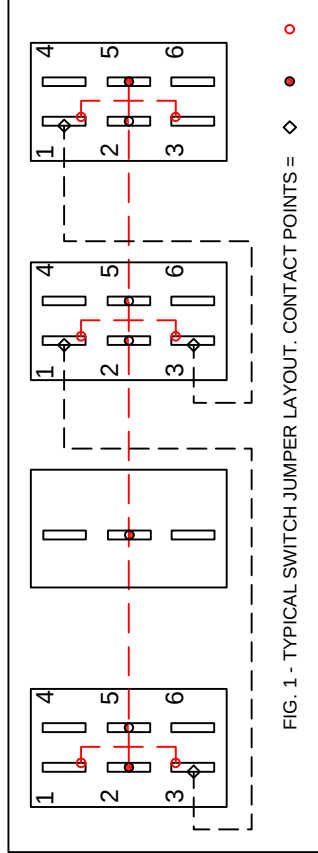
21990 PENDANT; 4 FUNCTION ET CRANES, E-STOP / HORN



NOTE 1:
WIRE TERMINALS TO BE INSTALLED 'AFTER'
ROUTING REPLACEMENT CORD ASSY
THROUGH PENDANT HEAD AND PLUG
HOUSING.

NOTE 2:
STOW OR CUT BACK UNUSED WIRES.

MODEL	STARTING S/N
ET8KX	73800
ET12KX	69800
ET16KX	170000
ET18KX	95900
ET25KX	125300
ET30KX	130300
ET36KXX	140300



ITEM	QTY	PART NO.	DESCRIPTION
8	1	22156	SWITCH; E-STOP
7	1	22155	SWITCH; PUSHBUTTON, HORN
6	1	22135	KIT; REPLACEMENT CORD ASSY
5	-	-	-
4	1	22472	INSERT; MALE, 16 + 1 POLE
3	1	22471	PLUG CASE; 16 + 1 POLE
2	3	22152	SWITCH; DPDT, MOMENTARY
1	1	22081	SWITCH; SPDT, MOMENTARY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

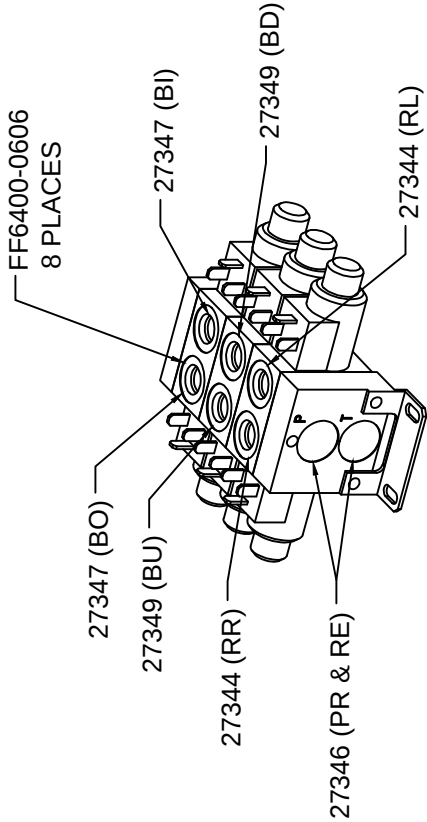
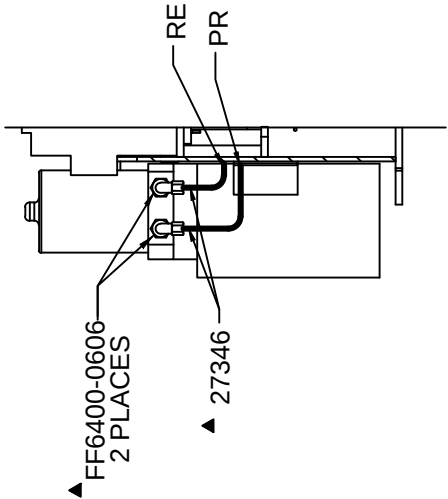
REPLACEMENT PARTS DWG & LIST

21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

DATE	SECTION
01-12-17B	C400
SUPSEDES	
10-20-14A	

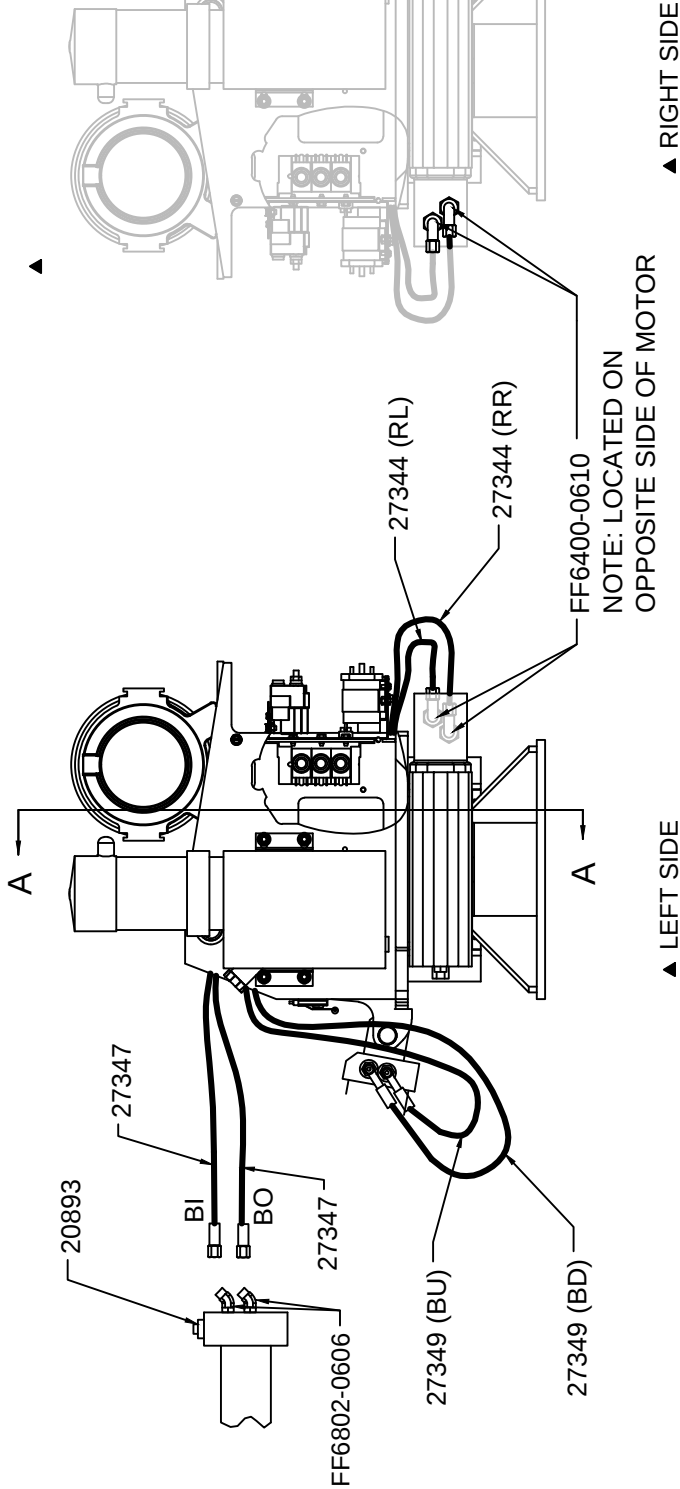
23075

RR	ROTATION RIGHT
RL	ROTATION LEFT
BO	BOOM OUT
BI	BOOM IN
BU	BOOM UP
BD	BOOM DOWN
PR	PRESSURE
RE	RETURN



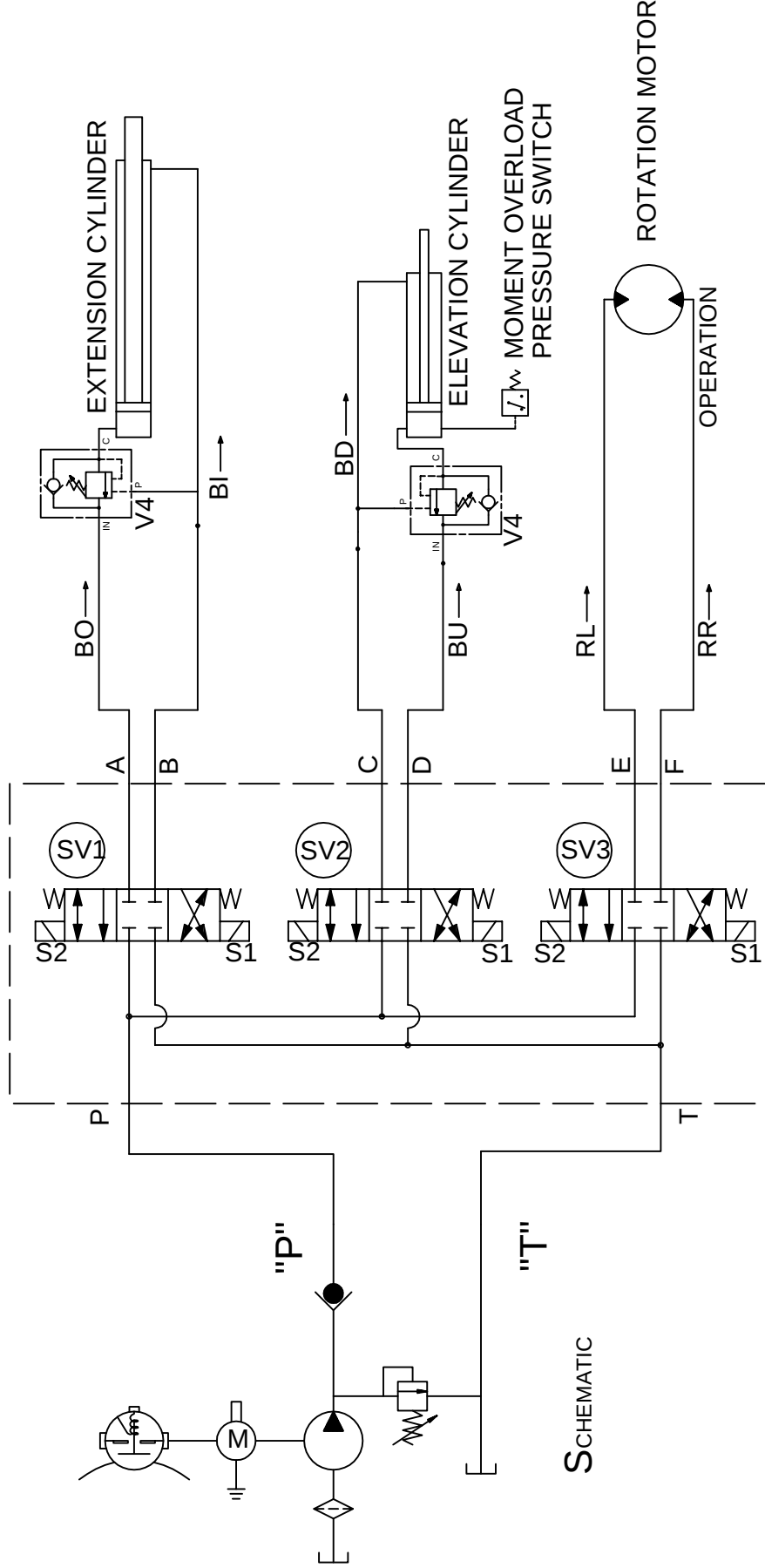
SECTION VIEW A-A

NOTE:
FOR REPLACEMENT
COILS SEE P/N 23134



 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE		REPLACEMENT PARTS; HYD. COMPONENTS		DATE		SECTION	
		ET25/30/36KX				SUPERSEDES		C400	
						10-07-19D		21758	

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



SV1	SV2	SV3
ENERGIZE "S2" OPEN FLOW 'P' TO 'A' 'B' TO 'T'	ENERGIZE "S2" OPEN FLOW 'P' TO 'C' 'D' TO 'T'	ENERGIZE "S2" OPEN FLOW 'P' TO 'E' 'F' TO 'T'
ENERGIZE "S1" OPEN FLOW 'P' TO 'B' 'A' TO 'T'	ENERGIZE "S1" OPEN FLOW 'P' TO 'D' 'C' TO 'T'	ENERGIZE "S1" OPEN FLOW 'P' TO 'F' 'E' TO 'T'



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
HYDRAULIC SYSTEM DIAGRAM

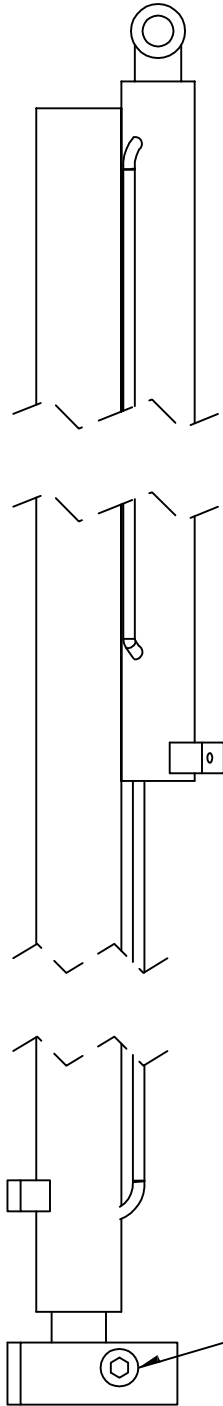
DATE
10-23-14D
SUPERSEDES
01-31-05C

SECTION
C400

ET16/18/25/30/36KX ▲

20156

21753 DUAL-STAGE EXTENSION CYLINDER

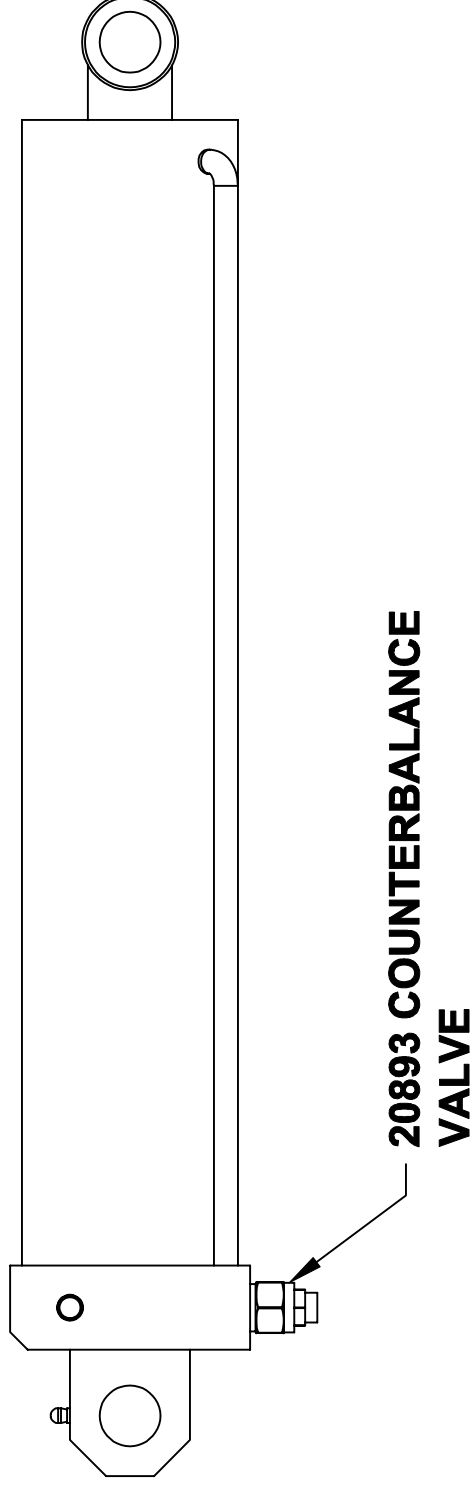


20893 - COUNTERBALANCE VALVE

SEAL KIT P/N: 21775

 VENTURO[®] VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE		DATE	SECTION
	EXTENSION CYLINDER, DUAL-STAGE		03-08-17B	C400
	ET25-36KX & HT25/30 SERIES CRANES		SUPERSEDES	
			04-30-09A	
			21860	

21752 ELEVATION CYLINDER



SEAL KIT P/N: 21774



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
ELEVATION CYLINDER

DATE
8-12-09

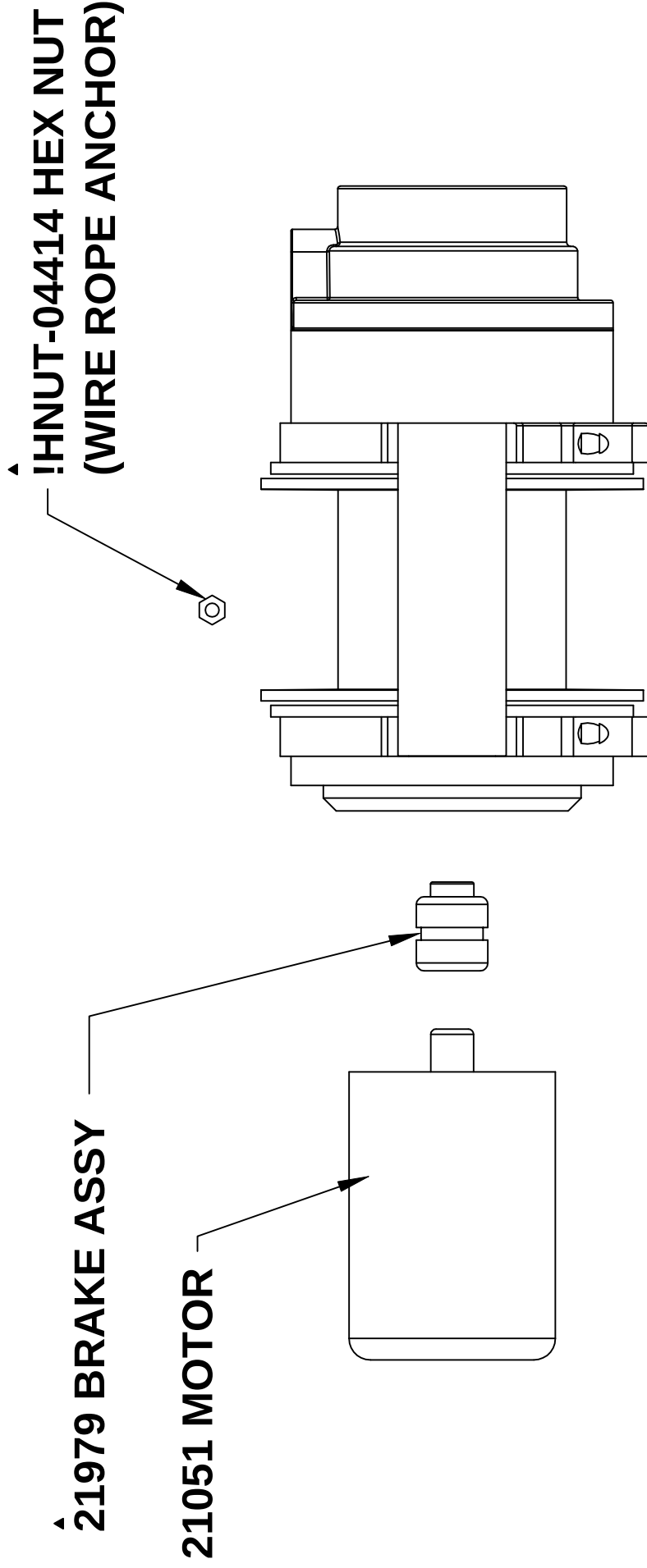
SECTION
C400

ET/HT25/30/36KX(X)

SUPERSEDES
-

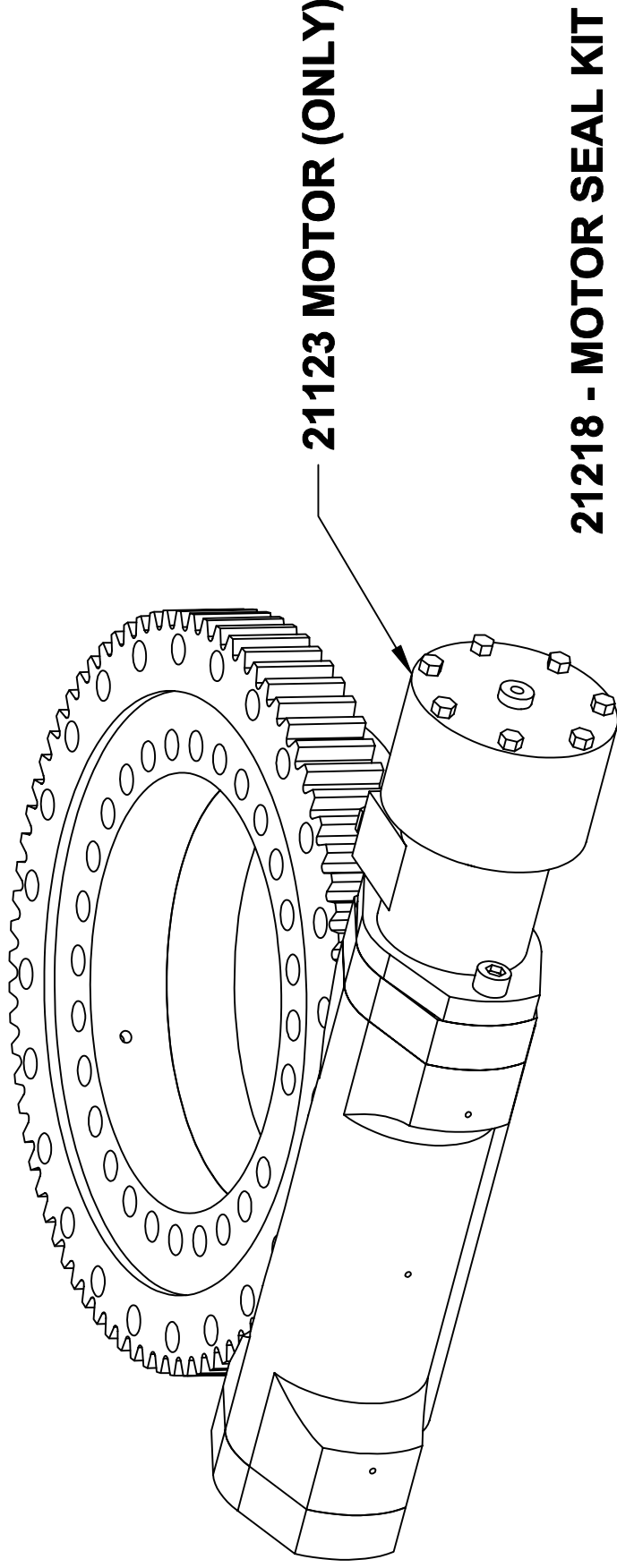
21773

19813 WINCH REPLACEMENT PARTS

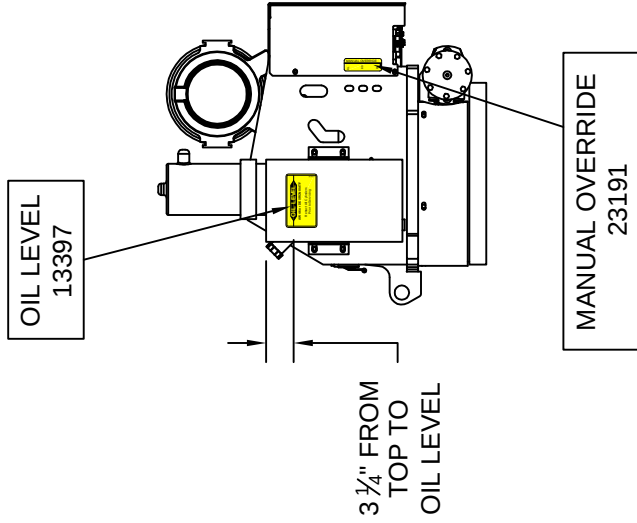


21418 SLEWING SYSTEM

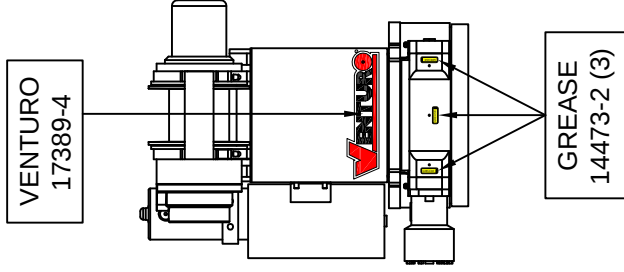
REPLACEMENT PARTS



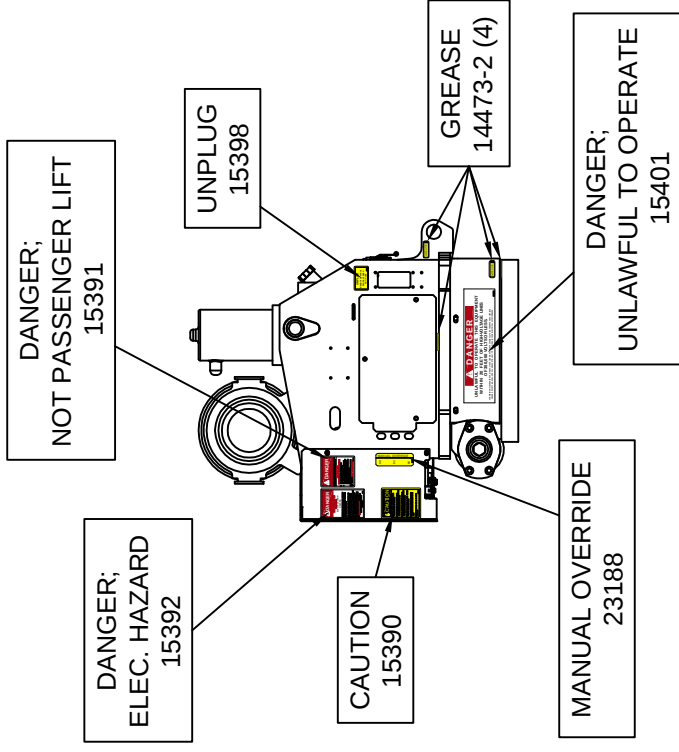
VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE SLEWING REPLACEMENT PARTS		DATE 08-24-09	SECTION -
	ET25/30KX		SUPERSEDES -	21886



LEFT



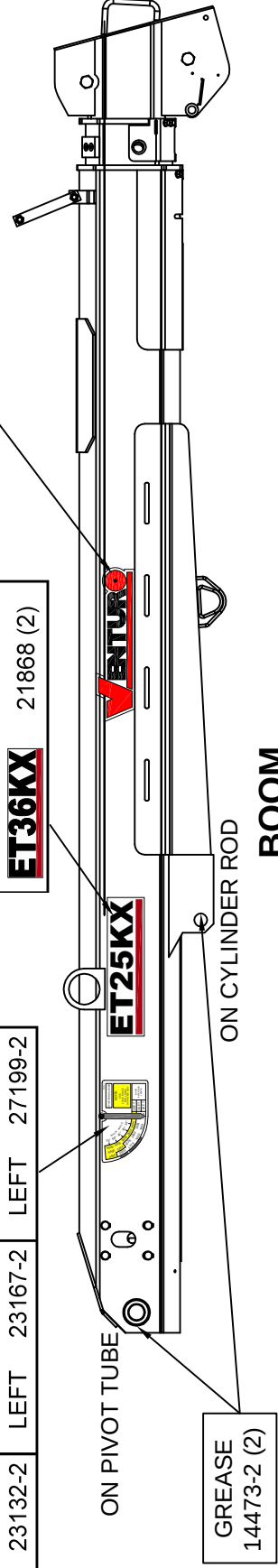
BACK



RIGHT

CAPACITY			
ET25KX	ET36KX	ET36KX	
RIGHT 23132-1	RIGHT 23167-1	RIGHT 27199-1	
LEFT 23132-2	LEFT 23167-2	LEFT 27199-2	

MODEL	
ET25KX	19743 (2)
ET30KX	23168 (2)
ET36KX	21868 (2)



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
DECAL PLACEMENT

ET25/30/36KX

DATE
05-19-15D

SECTION
C400

SUPERSEDES
08-08-12C

21894

▲ ET25/30/36KX FIELD SERVICE LABEL KITS

▲ 21898; FIELD SERVICE LABEL KIT, ET25KX

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
17389	2	DECAL; VENTURO, MEDIUM
17389-4	1	DECAL; VENTURO, SMALL
23132-1	1	DECAL; BOOM CAPACITY, RIGHT, ET/HT25KX
23132-2	1	DECAL; BOOM CAPACITY, LEFT, ET/HT25KX
19743	2	DECAL; MODEL NAME, ET25KX
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
21899	1	IDWG; FIELD SERVICE LABEL KIT
21894	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

APPLICABLE SERIAL NUMBERS: 125000 - CURRENT

▲ 21866; FIELD SERVICE LABEL KIT, ET36KX

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
17389	2	DECAL; VENTURO LOGO, MEDIUM
17389-4	1	DECAL; VENTURO LOGO, SMALL
27199-1	1	DECAL; BOOM CAPACITY, RIGHT, ET36KX
27199-2	1	DECAL; BOOM CAPACITY, LEFT, ET36KX
21868	2	DECAL; MODEL NAME, ET36KX
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
21899	1	IDWG; FIELD SERVICE LABEL KIT LIST
21894	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

APPLICABLE SERIAL NUMBERS: 140000 - CURRENT

▲ 21863; FIELD SERVICE LABEL KIT, ET30KX

PART NO.	QTY.	DESCRIPTION
14473-2	9	DECAL; GREASE
17389	2	DECAL; VENTURO LOGO, MEDIUM
17389-4	1	DECAL; VENTURO LOGO, SMALL
23167-1	1	DECAL; BOOM CAPACITY, RIGHT, ET/HT30K(X)
23167-2	1	DECAL; BOOM CAPACITY, LEFT, ET/HT30K(X)
23168	2	DECAL; MODEL NAME, ET30KX
13397	1	DECAL; OIL LEVEL
23188	1	DECAL; MANUAL OVERRIDE, RIGHT
23191	1	DECAL; MANUAL OVERRIDE, LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
21899	1	IDWG; FIELD SERVICE LABEL KIT LIST
21894	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

APPLICABLE SERIAL NUMBERS: 130000 - CURRENT

15397 ACCIDENT PREVENTION SIGNS		
PART NO.	QTY.	DESCRIPTION
15390	1	DECAL; CAUTION, OPERATIONS
15391	1	DECAL; DANGER, NOT PASSENGER LIFT
15392	1	DECAL; DANGER, ELECTRICAL HAZARD SIGN
15393	4	DECAL; DANGER, ELECTRICAL HAZARD
15394	1	APPLICATION INSTRUCTIONS
15398	1	DECAL; UNPLUG PENDANT
15401	1	DECAL; UNLAWFUL TO OPERATE
15513	1	DECAL; MASTER DISCONNECT
22317	1	DECAL SHEET; VENTURO, COMPLEMENTARY
20927	1	DECAL; CRANE STABILITY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
FIELD SERVICE LABEL KIT

ET25/30/36KX ▲

DATE
05-22-15D

SUPERSEDES
05-15-13C

SECTION
C400

21899



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