



VENTURO
TRUCK MOUNTED CRANES

ET25KX

*ELAAAC-***

INSTALLATION & OWNER'S MANUAL

TABLE OF CONTENTS

ET25KX (EL***AAC**-**) OWNER'S MANUAL

SECTION 100

21891a	<u>DESCRIPTION & SPECIFICATIONS</u>
21891b	SPECIFICATIONS & OPERATING FEATURES
21892	SPECIFICATIONS & OPERATING FEATURES
21080	INSTALLATION DIMENSIONS; ET25K(X)
21893	MOUNTING DIMENSIONS; BASE PLATE
	CAPACITY CHART; ET25KX 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
21895	DECALS FOR ET CRANES
	MODEL & CAPACITY DECALS

SECTION 200

711105	<u>INSTALLATION</u>
15660	CABLE & BATTERY REQUIREMENTS - ET & HT CRANES
20906-25	BATTERY CABLE INSTALLATION DRAWING
20907	STABILITY TESTING
22245	STABILITY CHART
	WIRE ROPE INSTALLATION

SECTION 300

21878	<u>MAINTENANCE & SERVICE</u>
19963	LUBRICATION & MAINTENANCE CHART
23228	MINIMUM VOLTAGE TEST
23084	WIRE ROPE & HOOK SPECIFICATIONS
	MANUAL OVERRIDE INSTRUCTIONS

SECTION 400

21896	<u>REPLACEMENT PARTS</u>
21897	REPLACEMENT PARTS DRAWING; ET25KX
21198	REPLACEMENT PARTS LIST; ET25KX
21199	REPLACEMENT PARTS DWG; 27198 BOOM (SINGLE-STAGE)
21088	REPLACEMENT PARTS LIST; 27198 BOOM (SINGLE-STAGE)
21089	REPLACEMENT PARTS DWG; 27197 BOOM (DUAL-STAGE)
23026	REPLACEMENT PARTS LIST; 27197 BOOM (DUAL-STAGE)
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
22076	REPLACEMENT PARTS DRAWING, 16780, SINGLE / 2-POLE SLIP-RING
23075	REPLACEMENT PARTS DRAWING & LIST; 22060 4-FUNCTION PENDANT CONTROLLER
21758	21990 PENDANT; REPLACEMENT PARTS DRAWING / LIST (4 FUNCTION)
20156	REPLACEMENT PARTS DRAWING & LIST; HYDRAULIC SYSTEM COMPONENTS
21879	HYDRAULIC SYSTEM SCHEMATIC
21860	REPLACEMENT PARTS DWG; 20061 SINGLE-STAGE EXT. CYL. W/ SEAL KIT INFO
21773	REPLACEMENT PARTS DWG; 21753 DUAL-STAGE EXT. CYL. 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 PLACEMENT
	FIELD SERVICE LABEL KIT; 21898 (ET25KX, GEN C)



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
TABLE OF CONTENTS	02-14-20J	-
ET25KX (EL* AAC -**)	SUPERSEDES 03-08-17H	23034

SECTION 100

DESCRIPTION

&

SPECIFICATIONS



SPECIFICATIONS AND OPERATING FEATURES

ET25KX-10/20

SPECIFICATIONS

12 VOLT BATTERY OPERATED

25,000 FT-LBS OVERTURNING MOMENT (Or as limited by truck stability)

MOMENT OVERLOAD SYSTEM

TELESCOPIC BOOM	10 / 20
BOOM HYD ELEVATION	-8° TO 75°
BOOM HYD EXT	10 - 16 FT
BOOM MANUAL EXT	4 FT
CAPACITY	1250 LBS @ 20 FT REACH
	5000 LBS @ 3 TO 5 FT REACH
WIRE ROPE	5/16" DIA x 80 FT
PENDANT CORD LENGTH	25 FT

WINCH - 2500 LBS SINGLE LINE CAPACITY
With Automatic Load Brake

ELECTRIC HYDRAULIC BOOM ELEVATION

ELECTRIC HYDRAULIC BOOM EXTENSION & RETRACTION - 6 FT STROKE

360° CONTINUOUS

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

ET25KX-10/20

DATE
10-9-09

SUPERCEDES
-

SECTION
C120

21891a

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 ET25KX 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 Cranes Standards. The cable sheaves are either 16 (snatch block) or 18 (boom) times the cable diameter which likewise conforms.

MISCELLANEOUS

A. CAPACITY INDICATOR

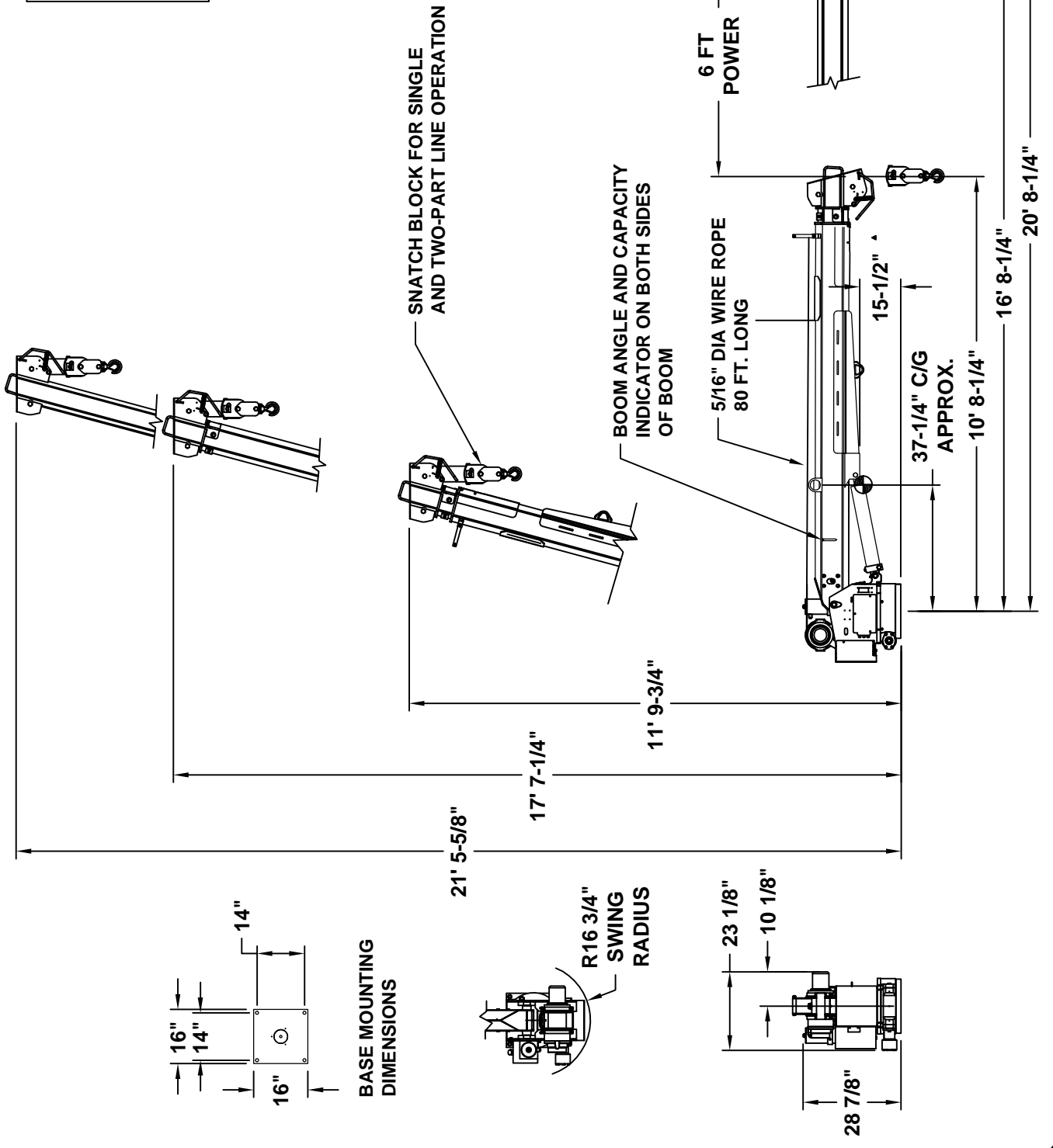
Select boom reach and angle allowable for load by using capacity indicator arrow and chart on either side of boom.


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.

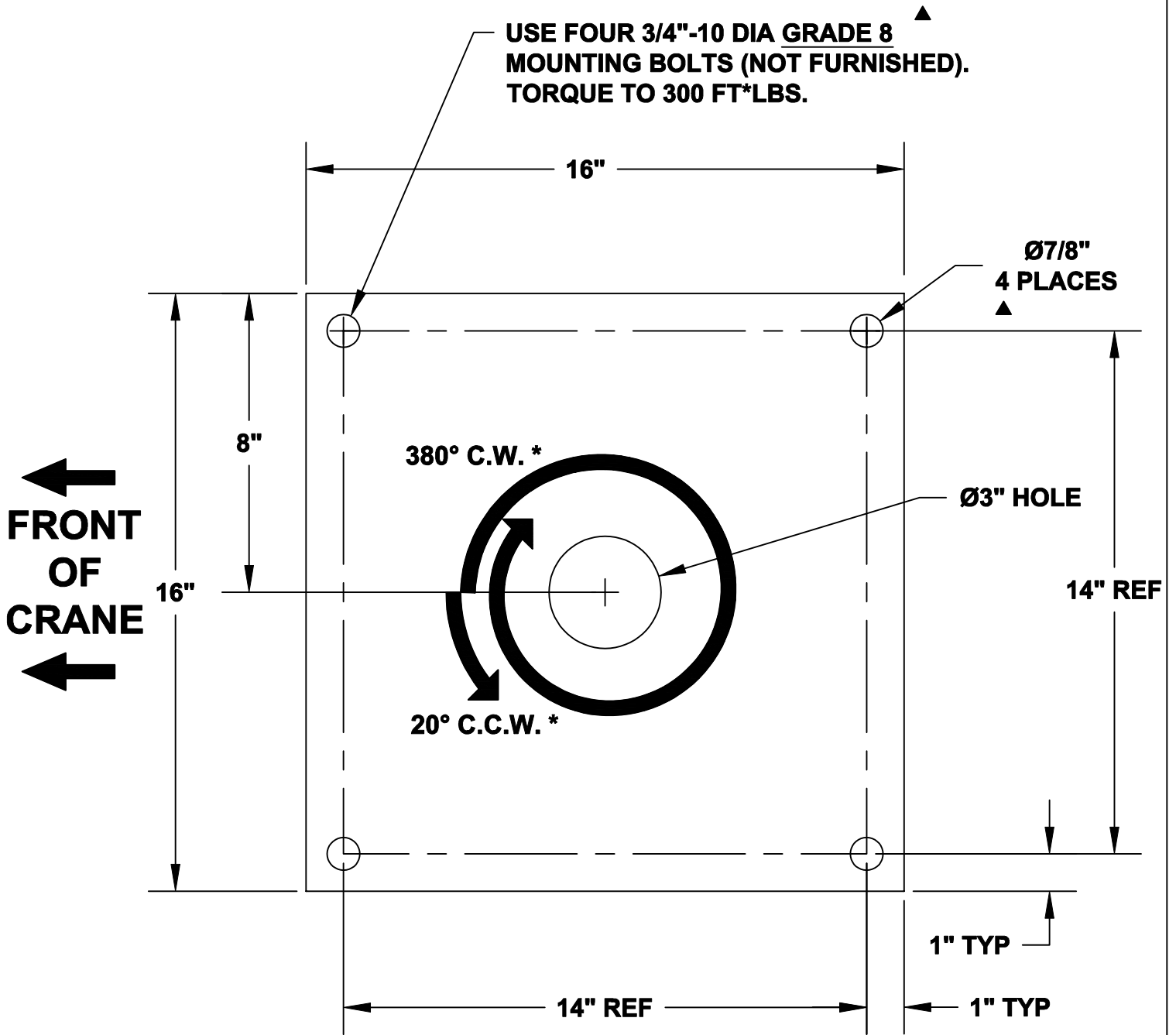
WARNING: THESE PRODUCTS ARE NOT PASSENGER LIFTS. THEY ARE NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT, OR OTHERWISE TRANSPORT PERSONNEL.

TOTAL INSTALLED WEIGHT 1620 LBS.



 <p>MANUFACTURING, INC. CINCINNATI, OHIO</p>	<p>TITLE INSTALLATION DRAWING</p>	<p>DATE 09-08-16A</p>	<p>SECTION C100</p>
	<p>ET25KX - 10/16/20 BOOM</p>	<p>SUPERSEDES 10-09-09</p>	<p>21892</p>

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

TITLE
BASE MOUNTING

ET/HT25/30/36

DATE
02-13-12E

SUPERSEDES
12-14-11D

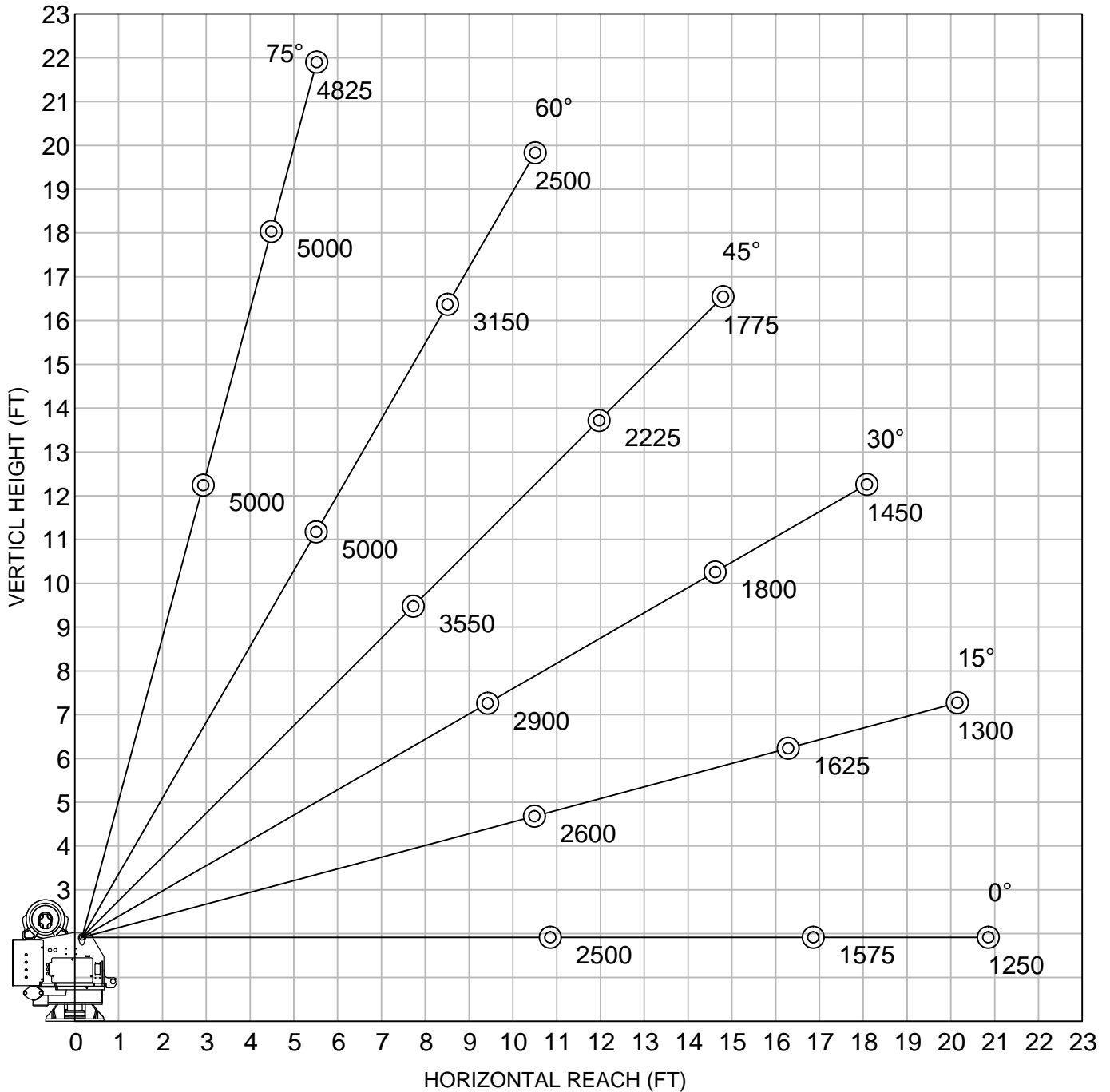
SECTION
C100

21080

ET/HT25KX, 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 2500 LBS

2 PART LINE FOR LOADS OF 2500 LBS AND GREATER

WEIGHT OF LOAD BLOCK = 34 LBS



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
MAXIMUM LOAD CAPACITY
ET/HT25KX, 10'-16'-20' BOOM

DATE
05-03-16C
SUPERSEDES
04-30-13B

SECTION
C100
21893

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	DATE	SECTION
SAFETY & HAZARDS	01-29-15K	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

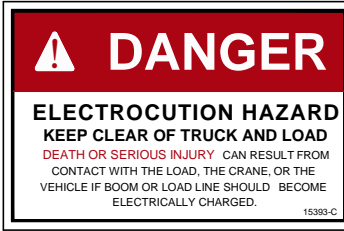
ELECTRIC CRANES

SUPERSEDES

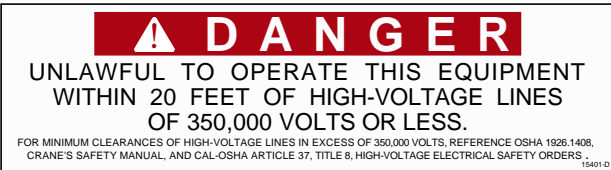
-

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).

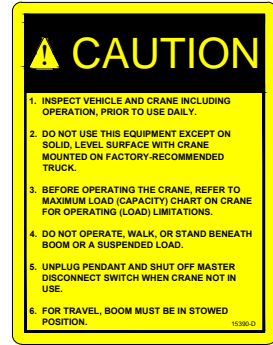
* NOTE: ENVIRONMENTAL CONDITIONS SUCH AS FOG, SMOKE, OR PRECIPITATION MAY REQUIRE INCREASED CLEARANCES



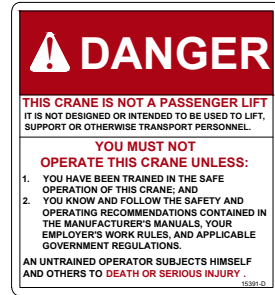
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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



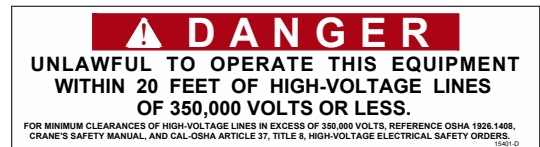
DECAL #: 15391
 DESCRIPTION: DANGER, NOT A PASSENGER LIFT
 PURPOSE: TO INFORM OPERATOR NOT TO LIFT, SUPPORT, OR TRANSPORT PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.
 QUANTITY: 1
 PLACEMENT: REAR COVER OR SIDE OF CRANE



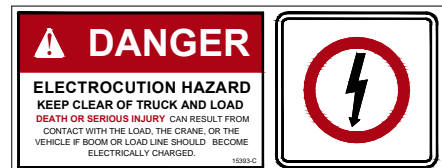
DECAL #: 15392
 DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)
 PURPOSE: TO INFORM OPERATOR THAT MACHINE (CRANE) REPRESENTS AN ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT WITH AN ELECTRICAL VOLTAGE SOURCE.
 QUANTITY: 1
 PLACEMENT: REAR COVER OR SIDE OF CRANE



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.



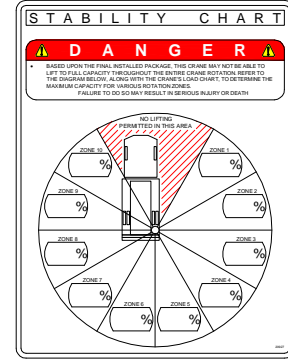
PART NO.: 20927

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

PART NO.: 14473-2

DECAL: GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



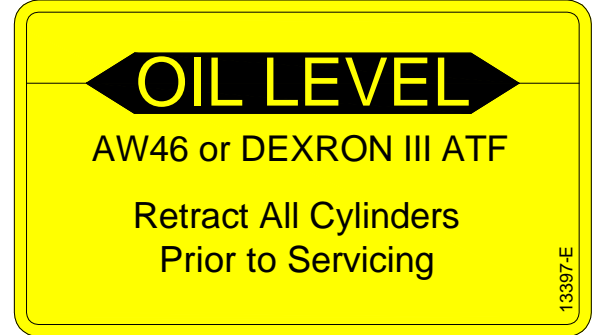
PART NO.: 13397

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

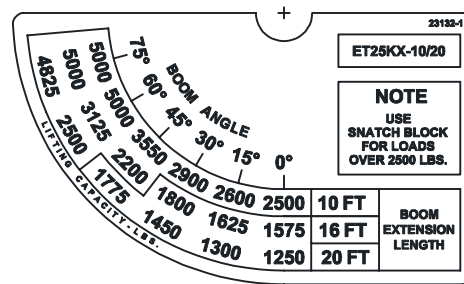
PART NO.: 23132-1 & 23132-2 (OPPOSITE)

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.: 19743

DECAL: MODEL NUMBER (ET25KX)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.



MANUFACTURING INC.
CINCINNATI, OHIO

TITLE
MODEL & CAPACITY DECALS

DATE
10-9-09

SECTION
C150

ET25KX

SUPERSEDES
-

21895

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) *								▲ 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

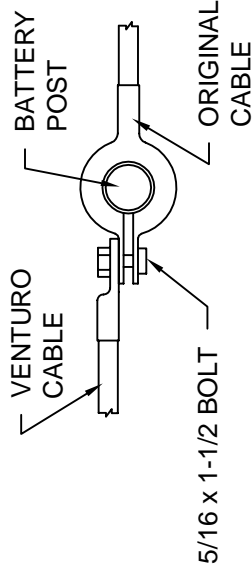
CRANE	DESCRIPTION	PART NO.
CT310KX	250 AMP, MAN RESET	22946-250
DT7	250 AMP, MAN RESET	22946-250
CE-1500-FB	150 AMP, MAN RESET	22946-150
CE6K	150 AMP, MAN RESET	22946-150
CT200X	250 AMP, MAN RESET	22946-250
ET6K	250 AMP, MAN RESET	22946-250
ET8/12K(X)	250 AMP, MAN RESET	22946-250
ET12KXP	250 AMP, MAN 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

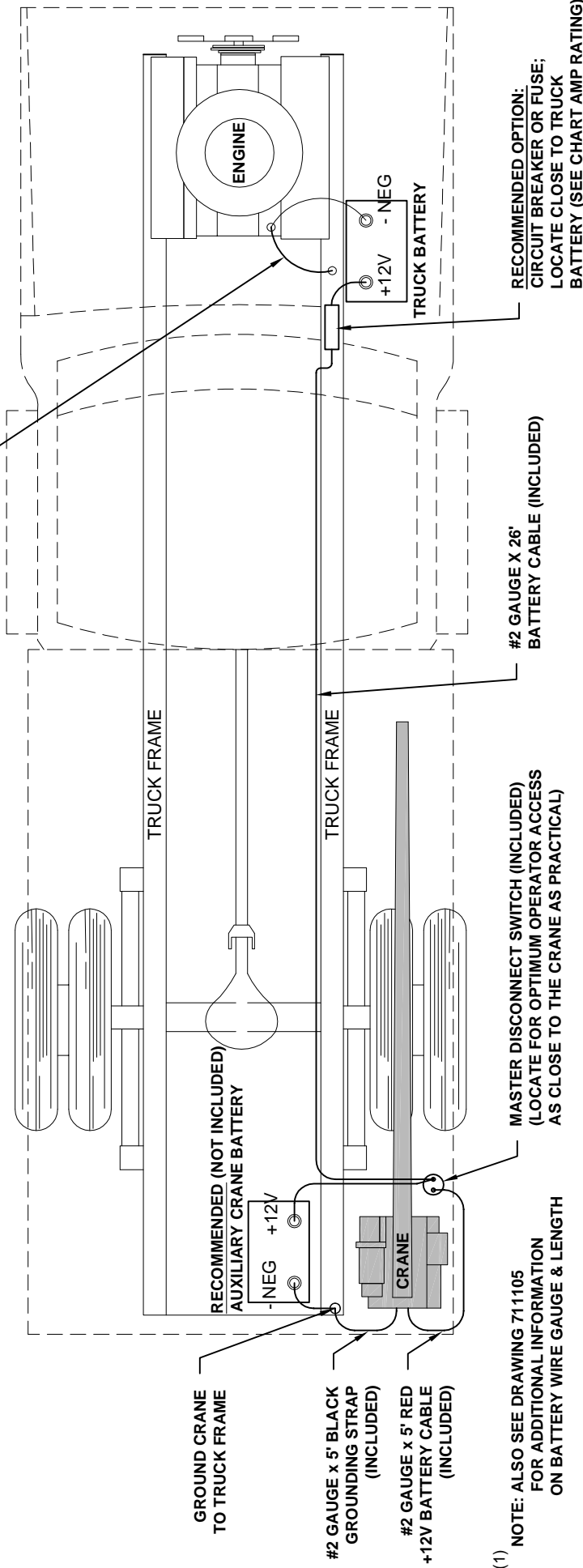
- 12 VOLT VEHICLE BATTERY REQUIREMENTS
 - 625 COLD CRANKING AMPS (AT 0° F)
 - 160 MINUTES RESERVE CAPACITY
 - 102 PLATES, 105 AMP-HR
- (1) • 12 VOLT AUXILIARY BATTERY REQUIREMENTS
 - SEE MINIMUM WIRE GAUGE AND BATTERY SIZE

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

RECOMMENDED BATTERY TERMINAL ATTACHMENT



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

TITLE
BATTERY CABLE & COMPONENT INSTALL

VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

DATE
07-30-18L

SUPERSEDES
07-31-15K

SECTION

C200

ET CRANES

15660



STABILITY TESTING – ET/HT25KX

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%.

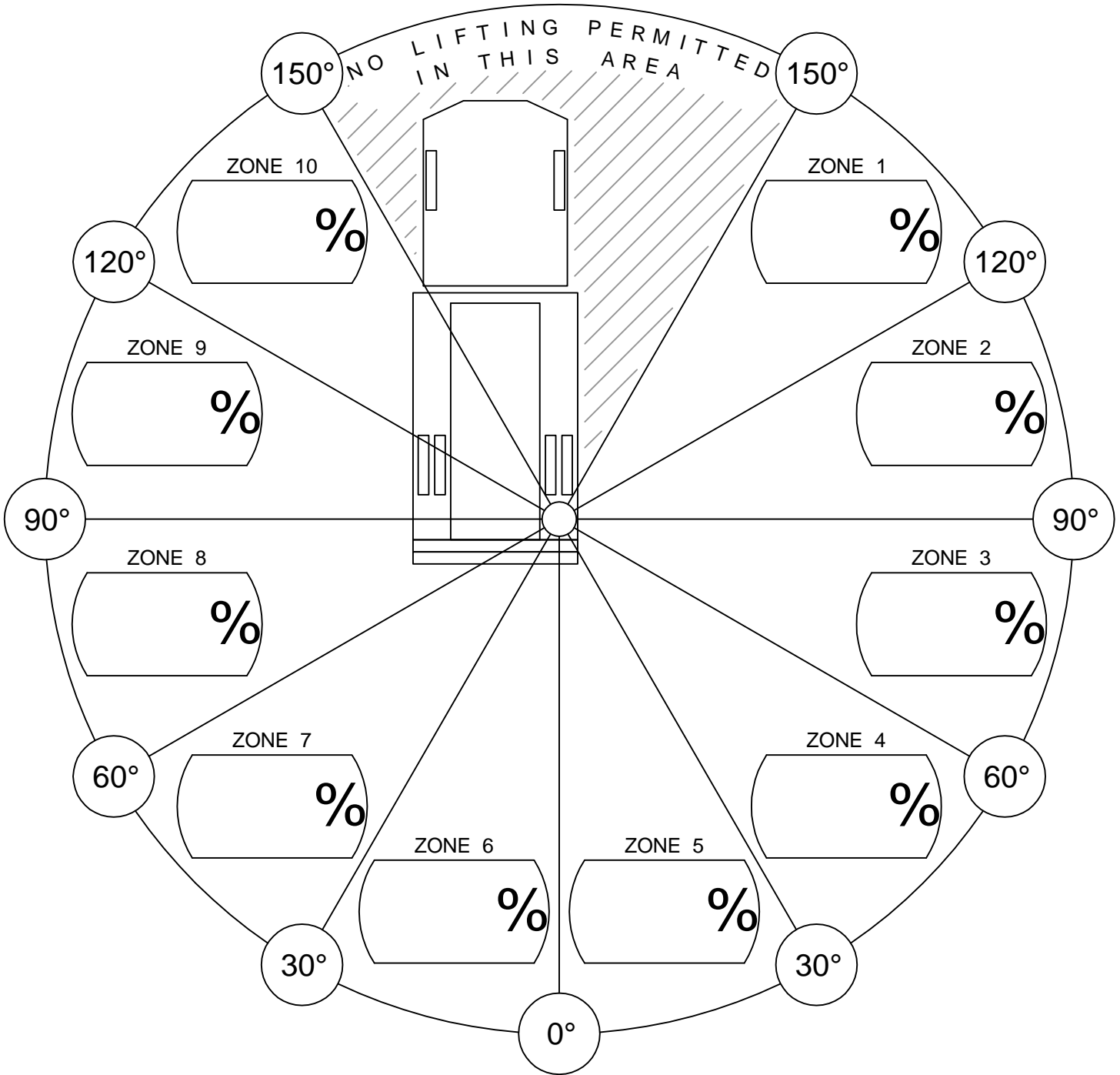
Testing Procedure

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 1450 lbs in conjunction with the ET25KX'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 section fully retracted and the manual section fully extended; the boom should begin at a length of 16 feet. Note: If extension is full-hydraulic, testing should begin at 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:

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

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

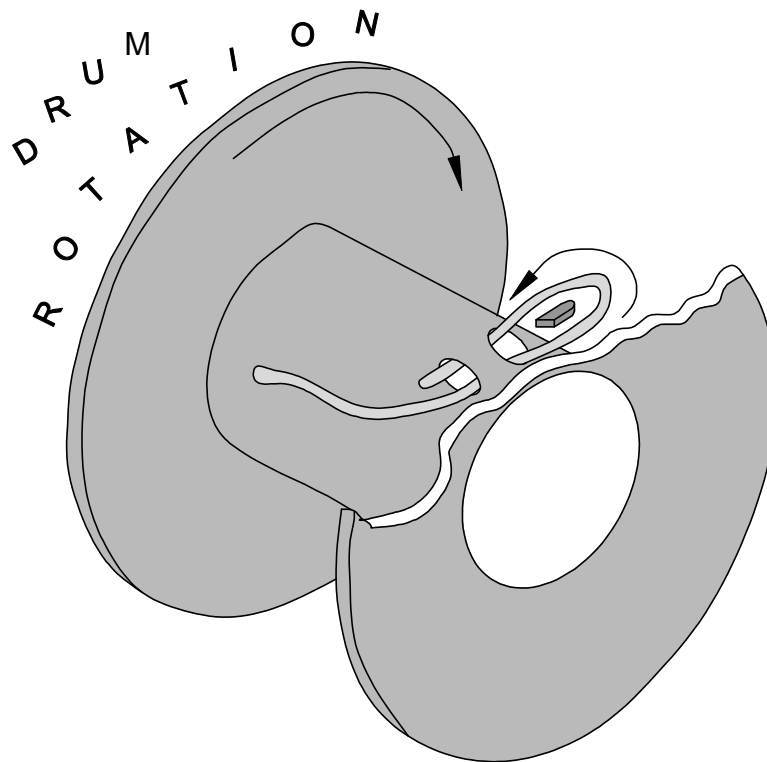


FIG. 1

- 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

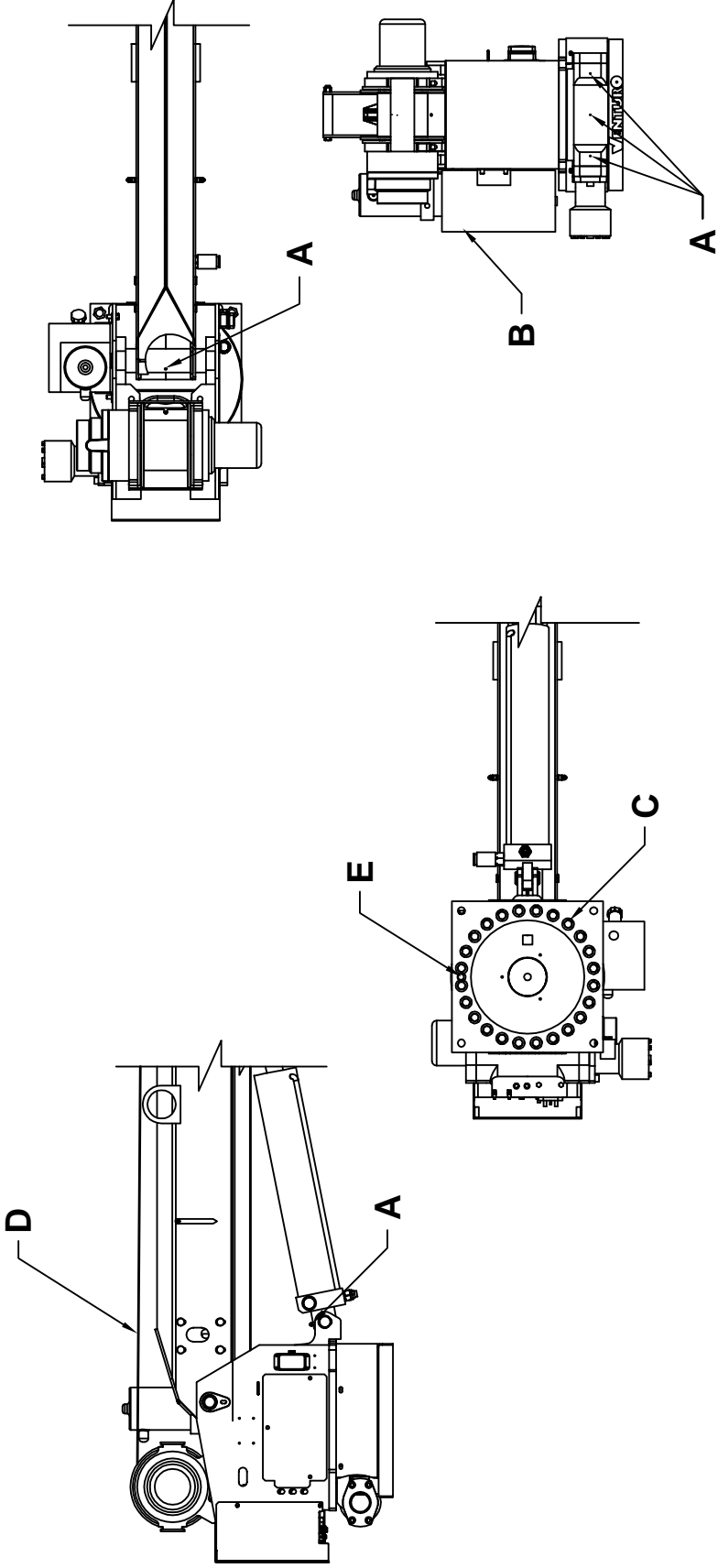
22245

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: **LUBRICATION & MAINTENANCE CHART**

DATE: **07-29-19A**

SECTION: **-**

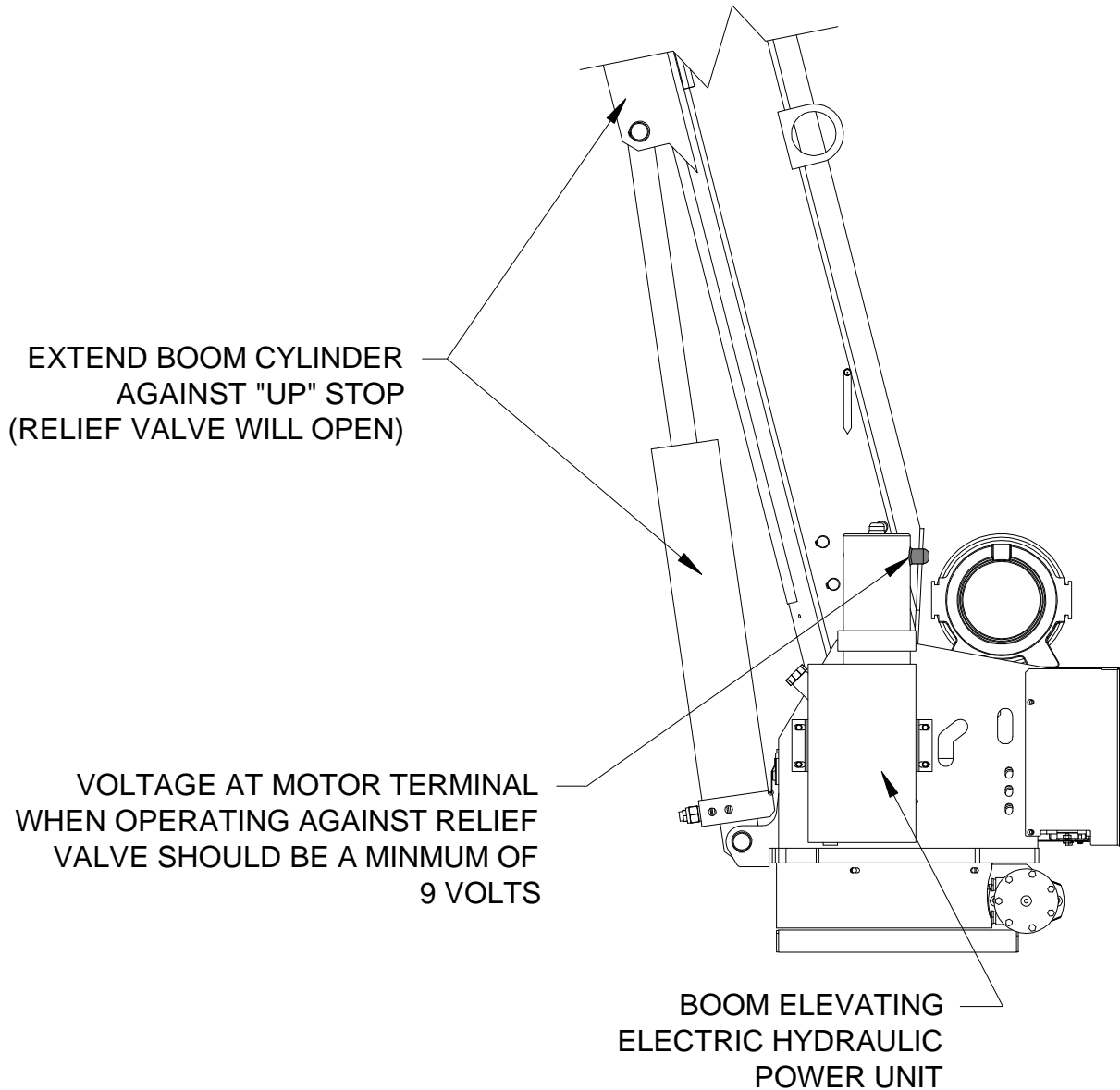
SUPERSEDES: **08-11-09**

ET25/30/36KX(X)

21878

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

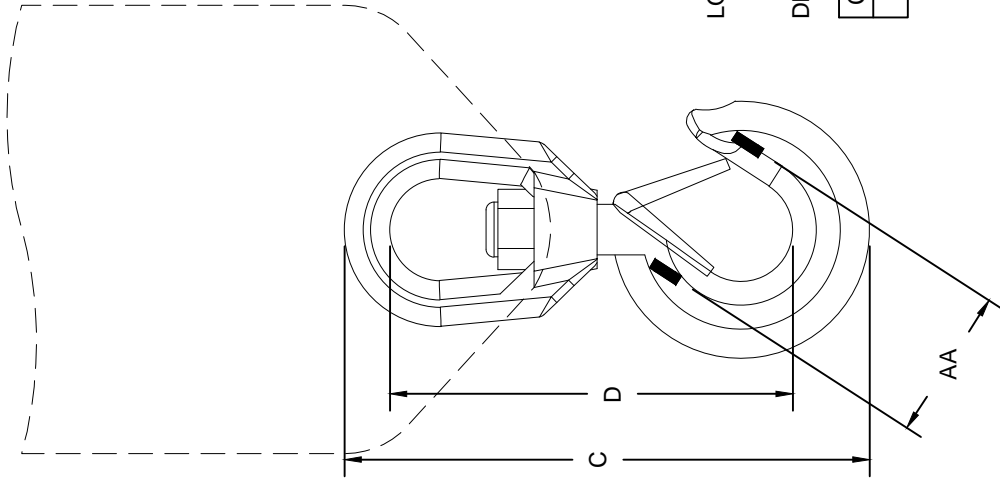
WIRE ROPE ASSEMBLY

WIRE ROPE:
 5/16" DIA, 80' LONG
 ▲ GAC 7X19 XIP-RHRL-IWRC, SB 9800 LBS



TERMINATES IN THIMBLE
 NO HOOK

LOAD BLOCK ASSEMBLY



LOAD BLOCK HOOK:
 RATING: 3 TONNE (6615 LBS)
 DIMENSIONS:

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

VENCO VENTURO INDUSTRIES LLC
 CINCINNATI, OHIO



TITLE
 WIRE ROPE & HOOK SPECIFICATIONS

ET/HT25/30KX

DATE
 05-09-16B

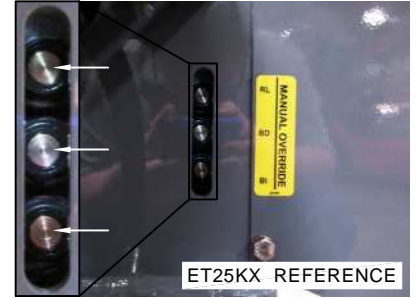
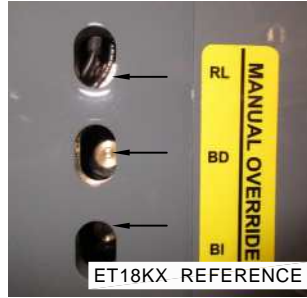
SUPERSEDES
 03-13-12A

SECTION
 C300

23228

MANUAL OVERRIDE INSTRUCTIONS
 ET NON-PROPRIONAL 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).

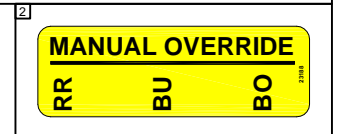
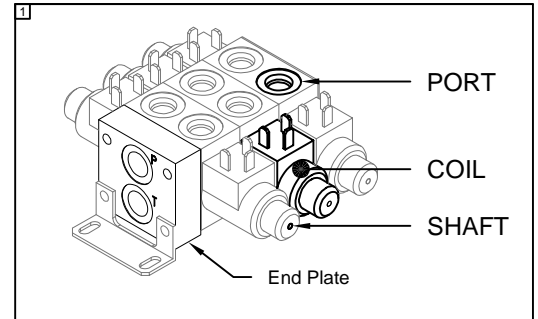
2-STATION FUNCTIONS:

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

3-STATION FUNCTIONS include previous functions, plus:

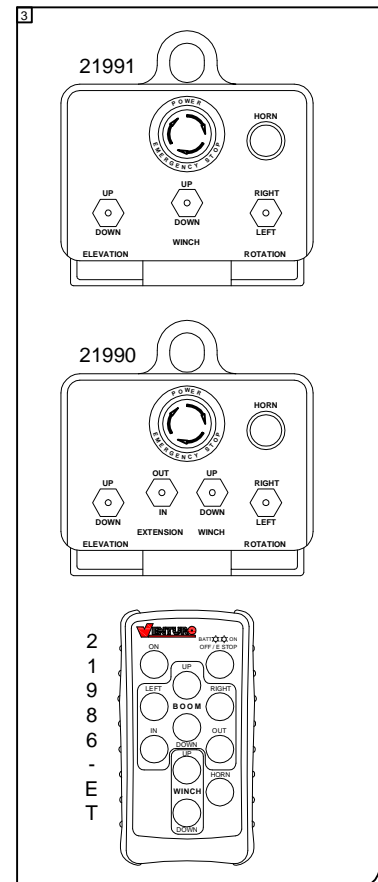
BI = Boom In BO = Boom Out

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 HARNESES 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

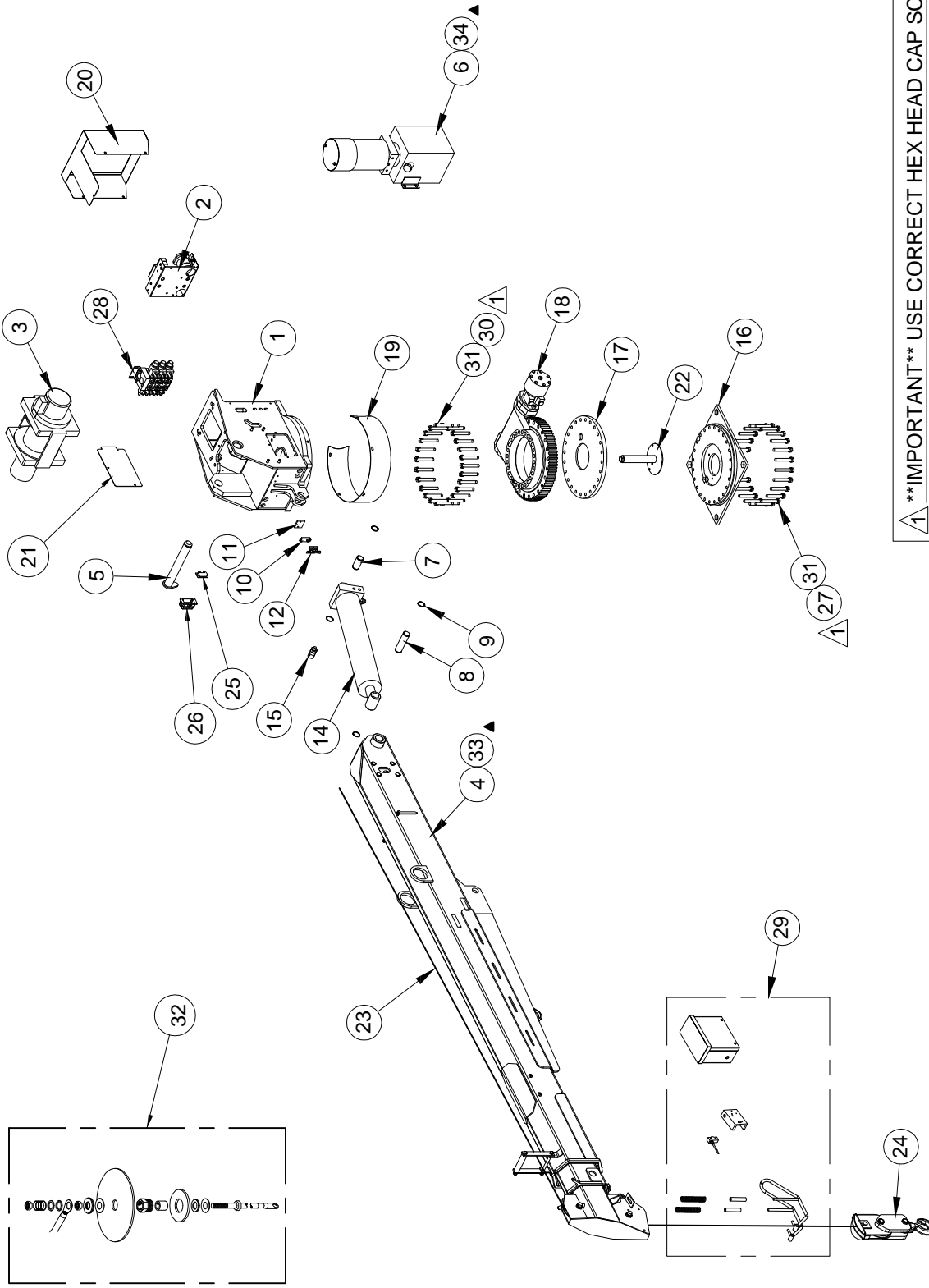
DATE
03-08-19A
 SUPERSEDES
02-09-17

SECTION
C200
23084

SECTION 400

PARTS





⚠ **IMPORTANT USE CORRECT HEX HEAD CAP SCREW**
 - ITEM # 30, P/N IHHCSM12175090-8.8 (90MM LONG) FOR TOP OF SLEWING RING
 - ITEM # 27, P/N IHHCSM12175080-8.8 (80MM LONG) FOR BOTTOM OF SLEWING RING

REPLACEMENT PARTS LIST - REF 21897

 VENTURO® VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	REPLACEMENT PARTS DRAWING	DATE	SECTION
		ET25KX SERIES CRANES	03-07-17E SUPERSEDES 01-29-13D	C400
				21896

▲	34	1	27512	HYDRAULIC POWER UNIT; DUAL-STAGE BOOM
▲	33	1	27197	BOOM FINAL ASS'Y (DUAL-STAGE)
	32	1	16780-1	SWIVEL TERMINAL ASS'Y.
	31	50	!LWSH-050	LOCK WASHER; 1/2"
	30	26	!HHCSM12175090-8.8	HHCS; 12MM-1.75MM X 90MM LG, GR. 8.8
	29	1	27738	ANTI-2-BLOCK; MECHANICAL ASS'Y.
	28	1	21614	VALVE BLOCK; 4-3
	27	24	!HHCSM12175080-8.8	HHCS; 12MM-1.75MM X 80MM LG, GR. 8.8
	26	1	19425	SOCKET CASE
	25	1	19428	INSERT; 10 PIN FEMALE
	24	1	27667	LOAD BLOCK; 6000 LBS.
	23	1	27668-5/16-80	WIRE ROPE; 5/16" X 80 FT.
	22	1	27568	CANDLESTICK ASS'Y.; SWIVEL PIGTAIL
	21	1	27000	SIDE COVER; HOUSING
	20	1	27600	REAR COVER; HOUSING
	19	1	27186	COVER; SLEWING RING
	18	1	21418	SLEWING RING
	17	1	27520H	SPACER
	16	1	27520M-2-R	WELDED ASS'Y.; BASE
	15	1	17460-2400-21	OVERLOAD PRESSURE SWITCH
	14	1	21752	ELEVATION CYLINDER
	13	1	19269	CABLE CLAMP; 1/4"
	12	1	19917	SWITCH BRACKET; BOOM SHUT-OFF
	11	1	20896	MOUNTING BLOCK; BOOM SWITCH
	* 10	1	19918	SWITCH; BOOM SHUT-OFF
	9	4	!SRNG-125	RETAINING RING; 1/4" SHAFT DIA.
	8	1	18761	PIVOT PIN; ELEVATION CYLINDER
	7	1	18762	PIVOT PIN; ELEVATION CYLINDER
	6	1	27009	HYDRAULIC POWER UNIT; SINGLE-STAGE BOOM
	5	1	21012	PIVOT PIN; MAIN BOOM PIVOT
	4	1	27198	BOOM FINAL ASS'Y (SINGLE-STAGE)
	3	1	19813	ELECTRIC WINCH
	2	1	23154-2	ELECTRICAL COMPONENT ASS'Y.
	1	1	27184	WELDED ASS'Y.; HOUSING
	ITEM NO.	QTY.	PART NO.	DESCRIPTION

(*) NOT ILLUSTRATED

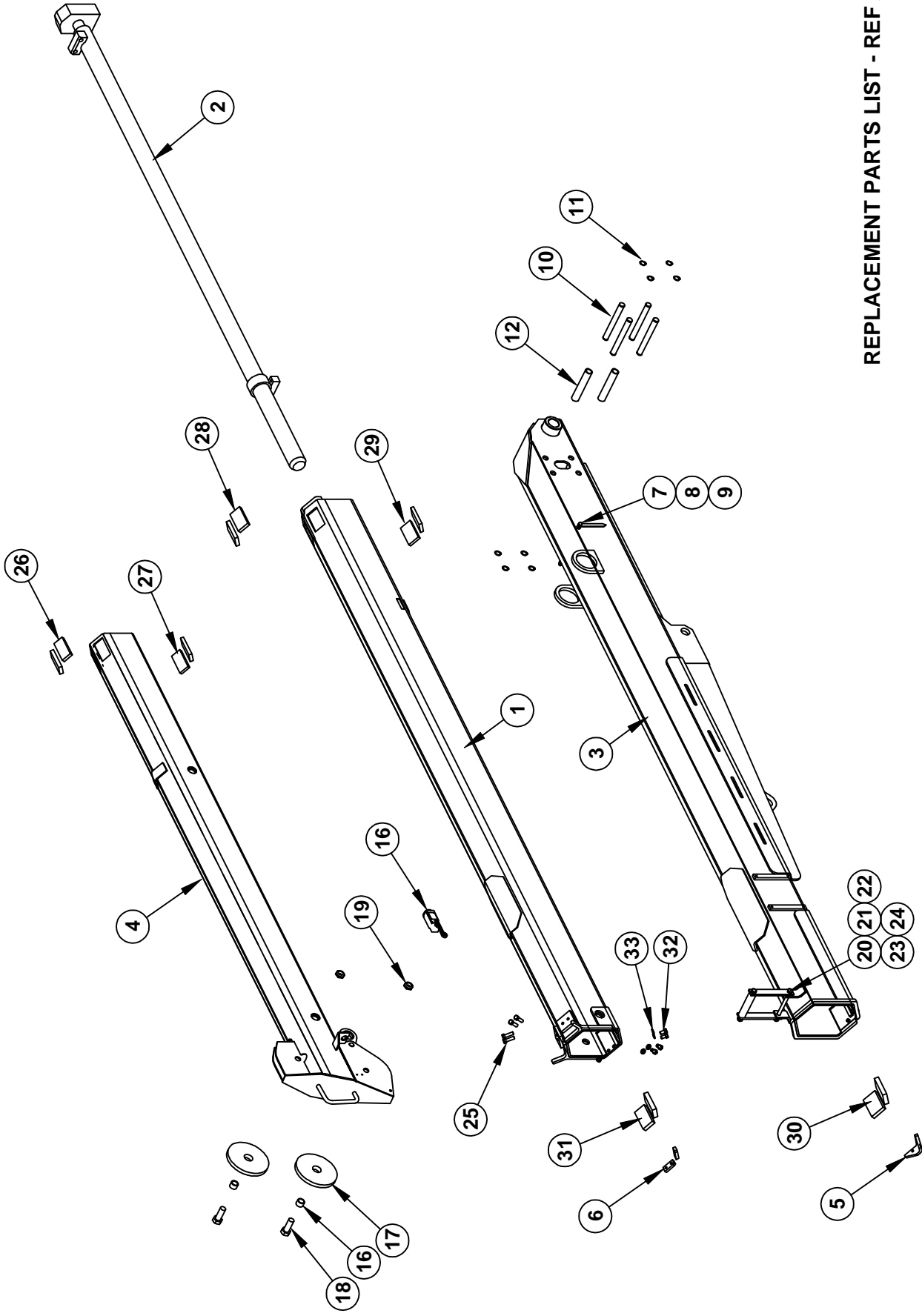
REFERENCE REPLACEMENT PARTS DRAWING 21896



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE	DATE	SECTION
REPLACEMENT PARTS LIST	03-07-17J	C400
ET25KX SERIES CRANES	SUPERSEDES 12-09-15H	21897

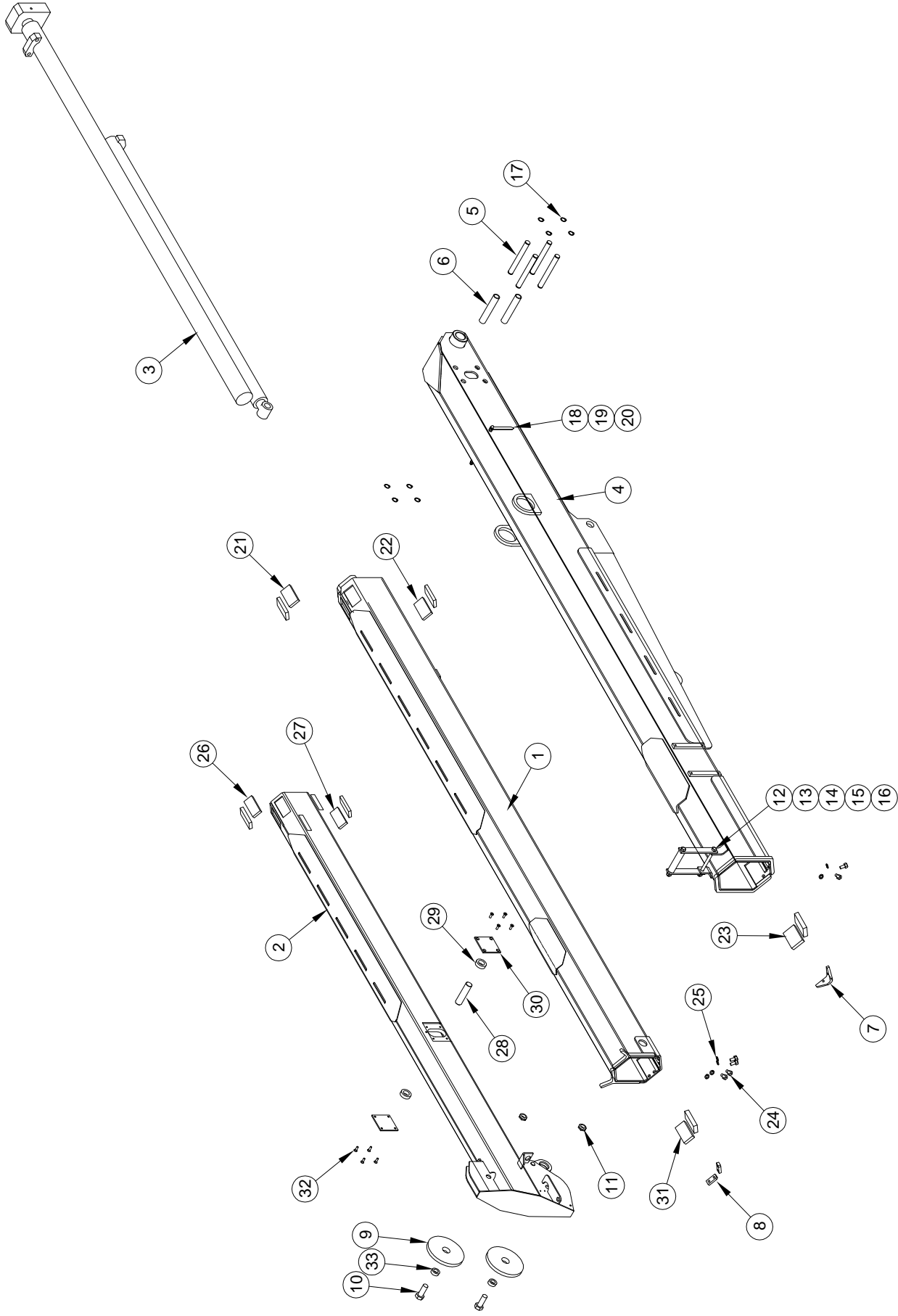
27198 BOOM REPLACEMENT PARTS




REPLACEMENT PARTS LIST - REF 21199

33	6	!LW SH-038	LOCK WASHER 3/8"
32	6	!HHCS03816063	HEX HEAD CAP SCREW 3/8-16 X 5/8 LG
31	2	23217-10	UHMW PAD
30	2	23217-3	UHMW PAD
29	2	23217-9	UHMW PAD
28	2	23217-8	UHMW PAD
27	2	23217-7	UHMW PAD
26	2	23217-6	UHMW PAD
25	4	!CACSO3816075	C-SINK CAP SCREW 3/8-16 X 3/4 LG
24	2	!LNUT-04414	NYLON INSERT LOCK NUT - 7/16-14
23	1	21560	ROLLER,UHMW GUIDE
22	1	21936	FLAT,MOUNT;WIRE ROPE GUIDE
21	1	!HHCS04414550	HHCS - 7/16-14 X 5-1/2 LG
20	1	21935	WIRE-ROPE GUIDE WELDED
19	2	!LNUT-07510	LOCKNUT 3/4-10
18	2	17059-6	SHEAVE AXLE 3/4 X 2 W / 1" SHANK
17	2	27001	SHEAVE - BOOM
16	2	23924	SPACER - SHEAVE
15	-	-	-
14	-	-	-
13	-	-	-
12	2	21498	EXTENSION CYLINDER ROLLER
11	8	!SRNG-075	RETAINING RING - 3/4" SHAFT DIA.
10	4	21497	THRUST PIN - EXTENSION CYLINDER
9	2	!ANUT-02520S	ACORN NUT 1/4-20 STAINLESS
8	2	13459-2	BOOM ARROW 4-7/16 LONG
7	2	22490	SPACER, BOOM ARROW 1/2" O.D.
6	2	23119	BEARING RETAINING BLOCK
5	1	23183	V-BLOCK SLIDER
4	1	27110	TERTIARY BOOM WELDED ASSEMBLY
3	1	21472	PRIMARY BOOM WELDED ASSEMBLY
2	1	20061	EXTENSION CYLINDER - HOLLOW ROD
1	1	27108	SECONDARY BOOM WELDED ASSEMBLY
ITEM NO.	EXPLODE/QTY.	PART NUMBER	DESCRIPTION

REPLACEMENT PARTS
DRAWING - REF 21198



REFERENCE REPLACEMENT PARTS LIST #21089

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

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

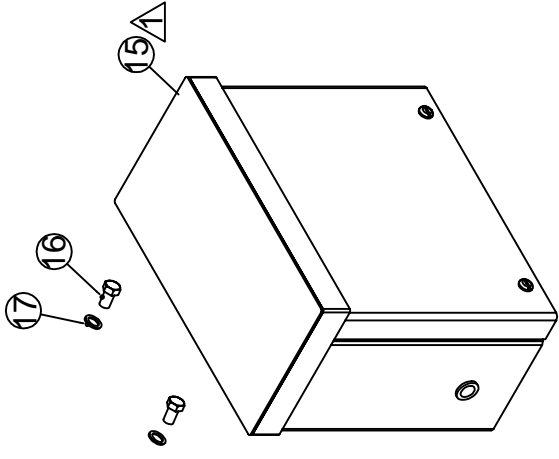
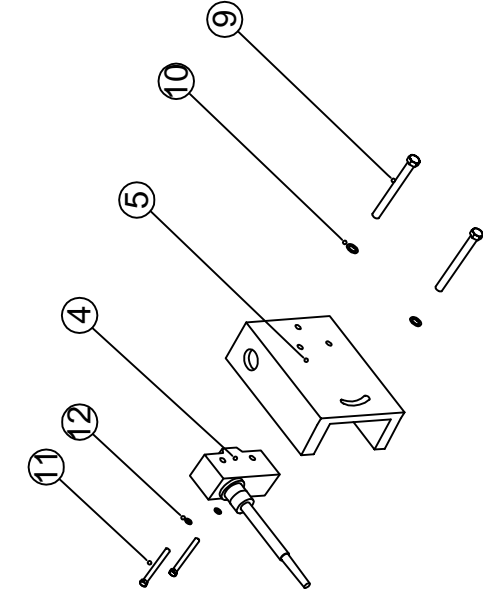
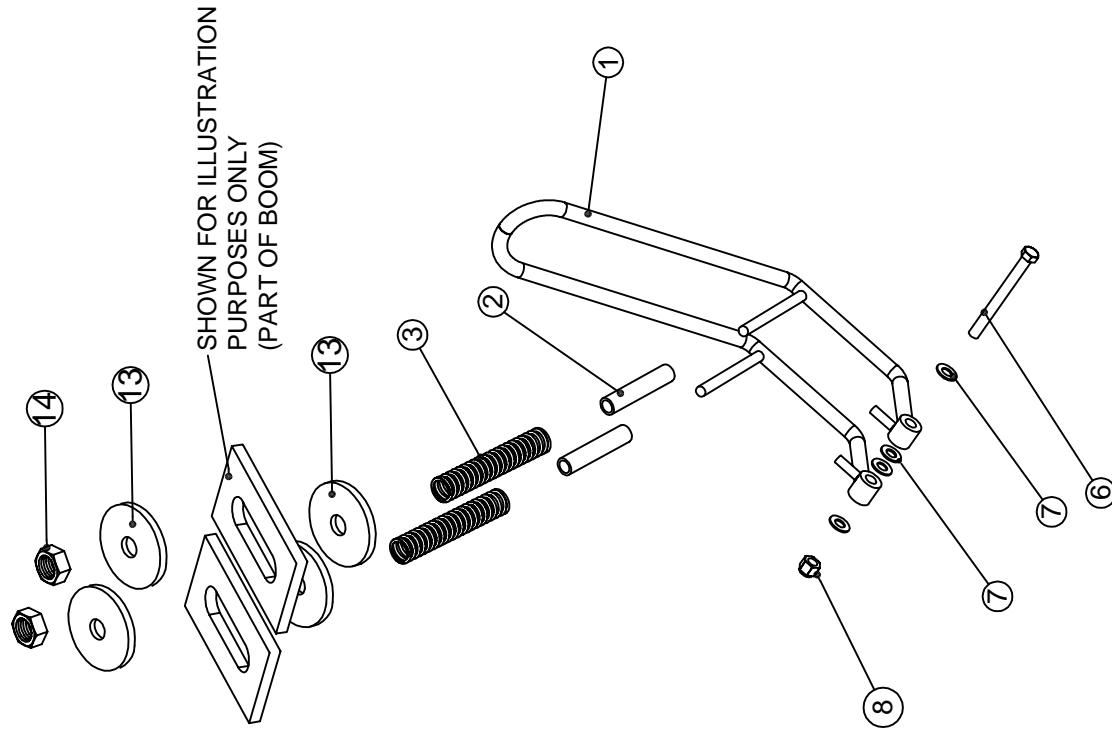
33	2	23924	SPACER; SHEAVES
32	8	!CACS02520063-N	CNTR SNK ALLEN HEAD CAP SCREW; 1/4-20 X 5/8" LONG W/ PATCH
31	2	23217-10	UHMW PAD; CONFIG. 'B', 3.19" X 1.75" X 0.63" THICK, 0.26" STEP
30	2	23116	PIN BLOCK, REINFORCING
29	2	21428	BUSHING
28	1	21941	PIN; EXTENSION CYLINDER
27	2	23217-7	UHMW PAD; CONFIG. '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



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

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
17	2	!LWSH-031	LOCK WASHER 5/16 SPLIT
16	2	!HHCS03118050-5	HEX HEAD CAP SCREW 5/16-18 X 1/2"
15	1	22683	CORD REEL W/MOUNTING BRACKET
14	2	!LNUT-04414	LOCKNUT W/NYLON INSERT - 7/16-14
13	4	!FWSH-050	FLAT WASHER -1/2 USS
12	2	!LWSH-#06-STAR	EXTERNAL STAR LOCK - #6
11	2	!PHCS#0632100	PAN CAP SCREW - #6-32 X 1
10	2	!LWSH-#10	LOCK WASHER - #10
9	2	!PHCS#1024125	PAN HD CAP SCREW - #10-24 X 1-1/2"
8	1	!LNUTM12X175	NYLOK NUT12MM-1.75
7	4	!FWSH-044SAE	FLAT WASHER - 7/16 SAE
6	1	!HHCSM12M120	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
			DESCRIPTION

VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO



TITLE RPLCMNT PARTS - LH CORD REEL (STNDRD)

DATE 02-03-15A
SUPERSEDES 04-28-11

SECTION C400

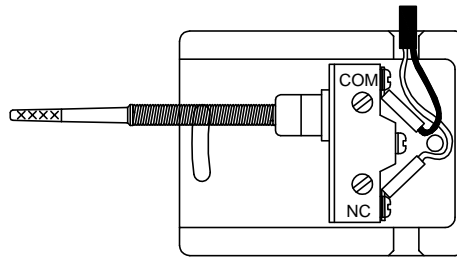
ET/HT25/30 & ET36 ANTI-2-BLOCK SYSTEM

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

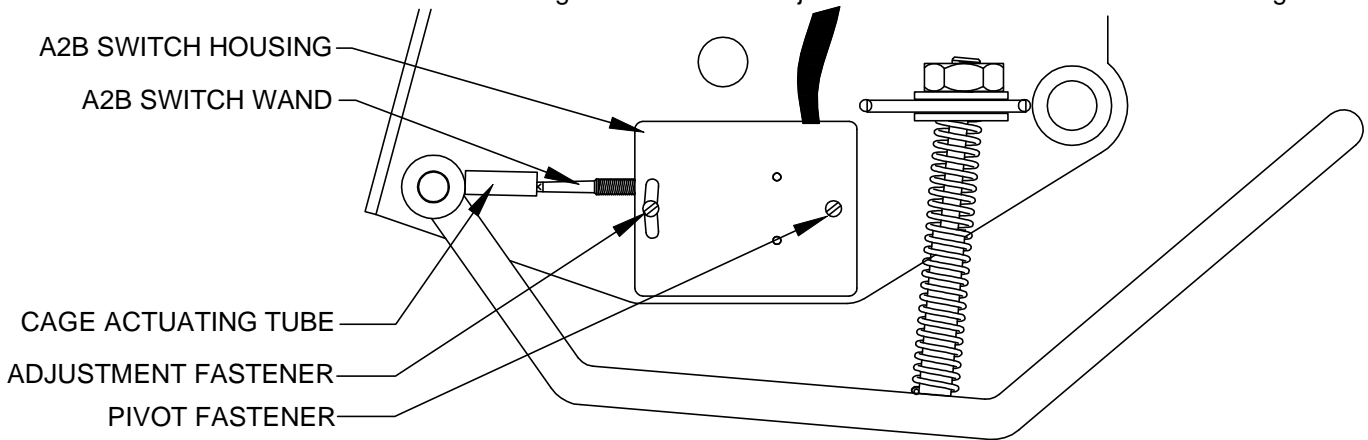
STEP 2

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.

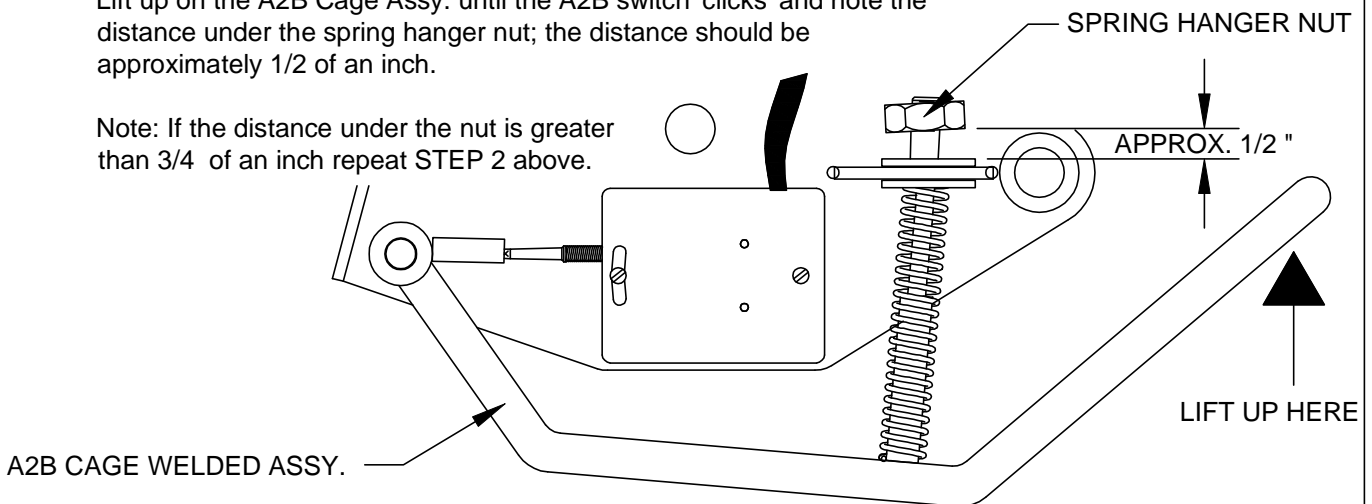


STEP 3

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.



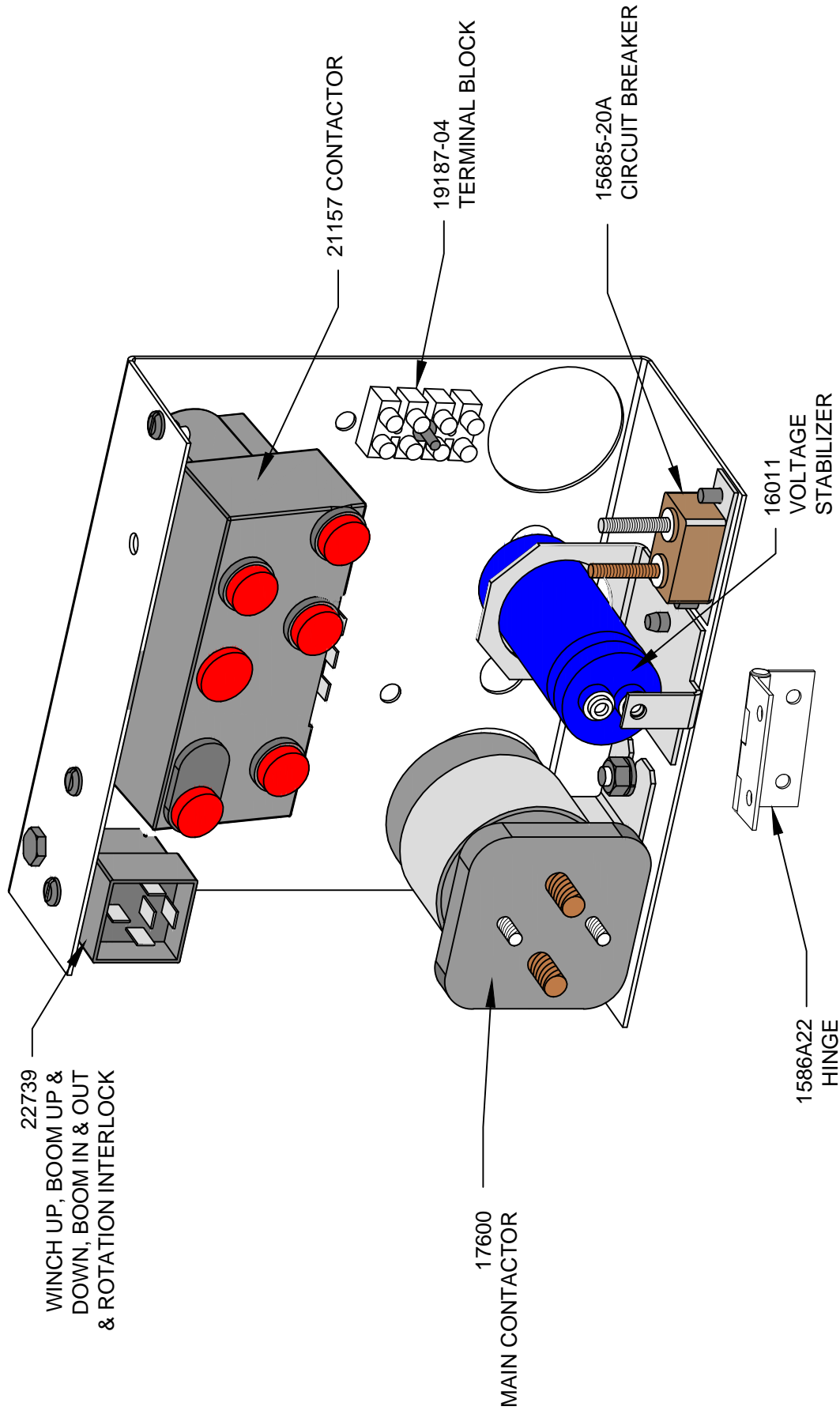
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO


TITLE
WIRING & ADJUSTMENT
A2B SYSTEM

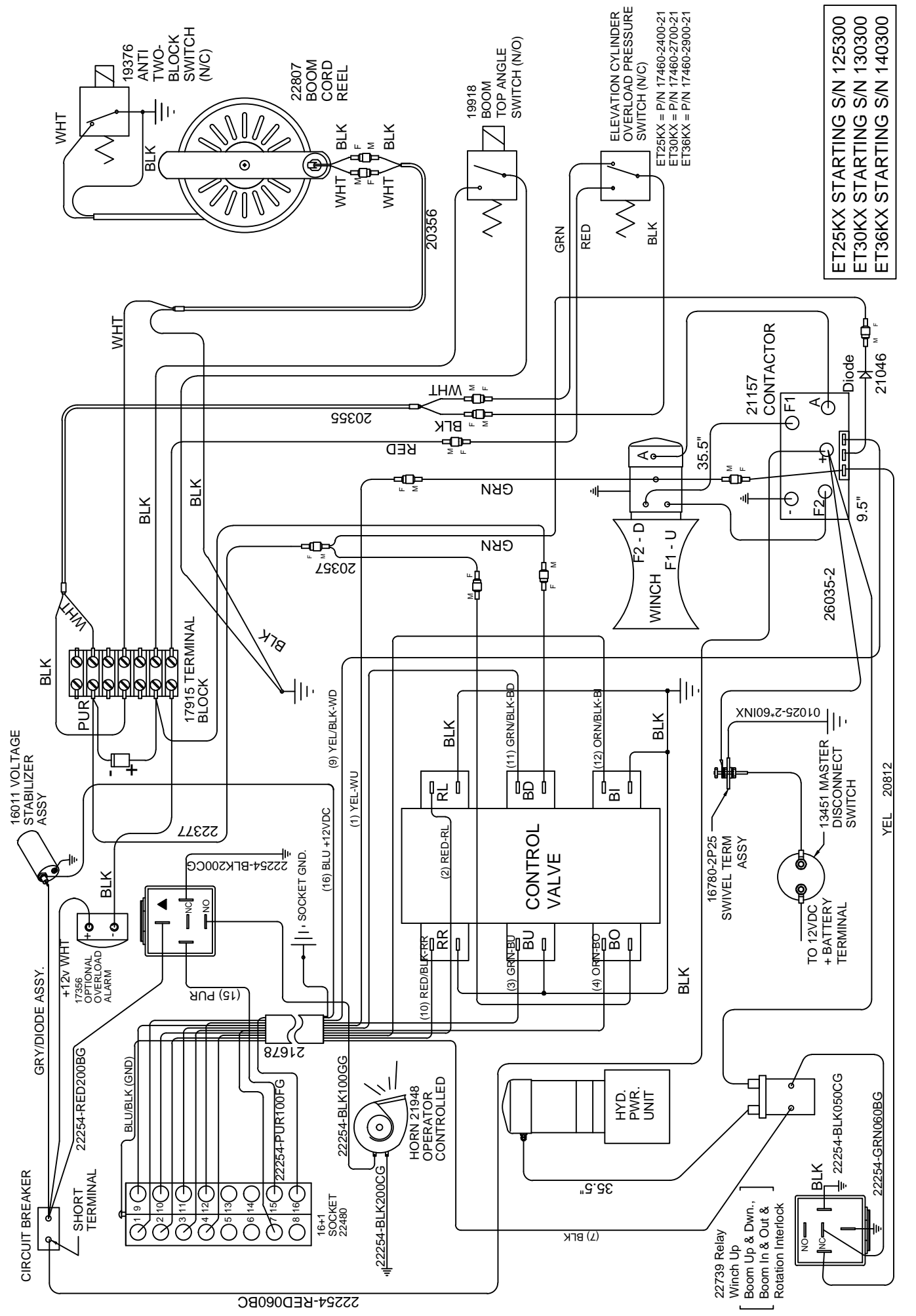
DATE
02-21-14A
SUPERSEDES
04-12-11

SECTION
C400
27029

23154-2 ELECTRICAL COMPONENT ASSEMBLY



	Venco VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	23154-2 ELECTRICAL COMPONENT ASSY		
			DATE	02-19-20E	SECTION	C400
			SUPERSEDES	02-10-20D		21776



ET25KX STARTING S/N 125300
 ET30KX STARTING S/N 130300
 ET36KX STARTING S/N 140300

SECTION	C400
DATE	02-07-20J
SUPERSEDES	09-18-19H

TITLE	WIRING DIAGRAM
ET25/30/36KX	

VENCO VENTURO INDUSTRIES LLC
 CINCINNATI, OHIO

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

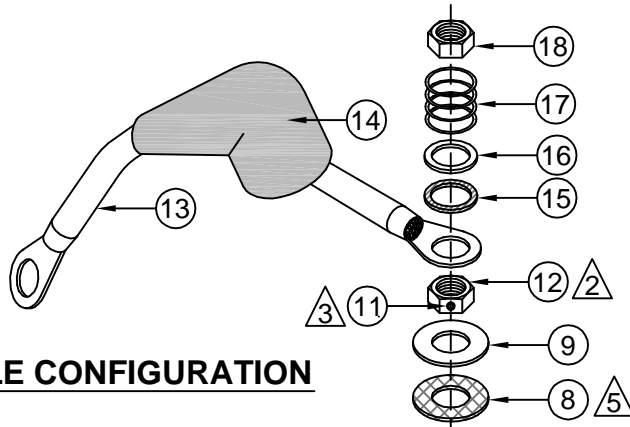
						16780 BILLS OF MATERIALS		
Quill Rotation	Slew Rotation Single Pole Slip-Ring	Slew Rotation 2-Pole Slip-Ring (ET6K ONLY)	Slew Rotation 2-Pole Slip-Ring (ET8-18KX)	Slew Rotation 2-Pole Slip-Ring (ET25-36KX)	ALL CRANES			
16780	16780 - 1	16780 - 2P6	16780 - 2P8	16780 - 2P25	16780 - KIT			
QTY						#	PART	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

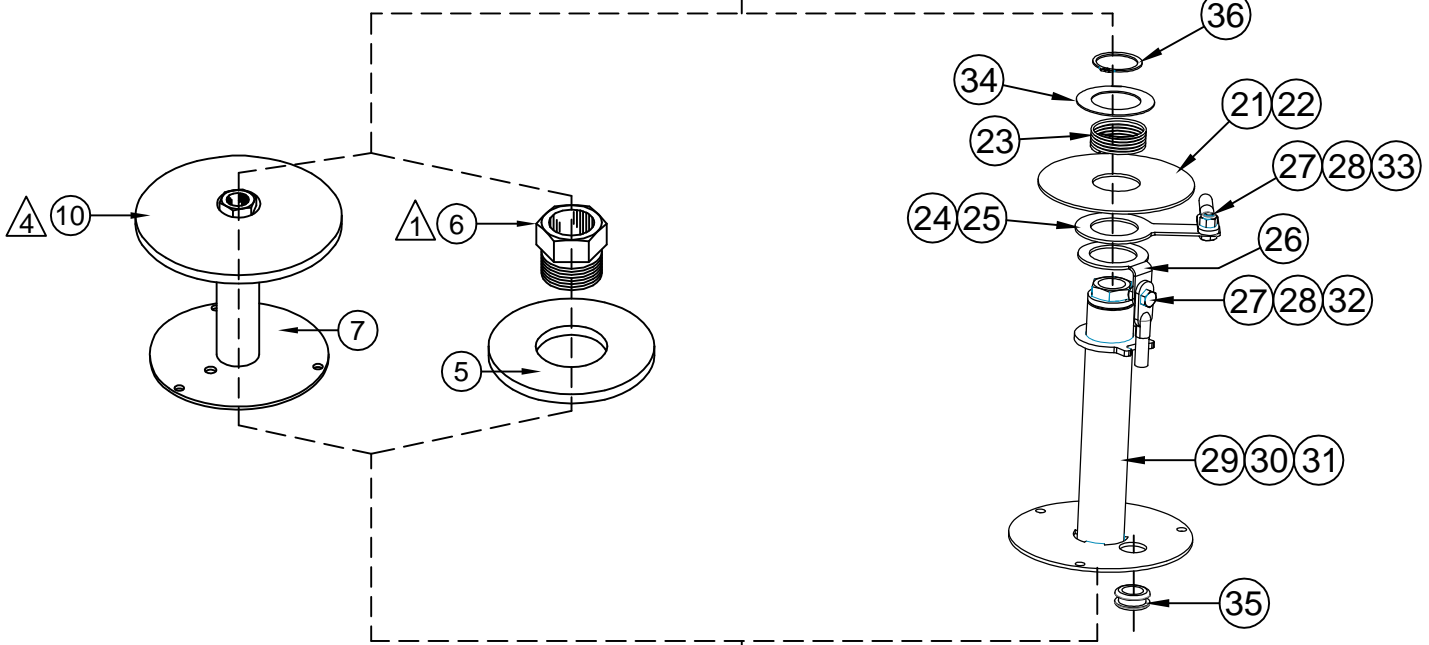
TITLE	DATE	SECTION
16780 REPLACEMENT PARTS	03-29-19A	C400
ET6/8/12/16/18/25/30/36K(X)	SUPERSEDES 04-27-18	21292

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

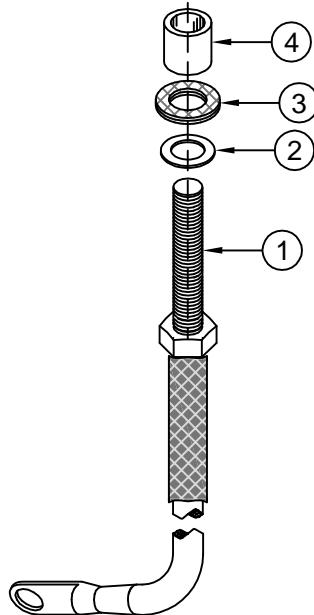


SINGLE-POLE CONFIGURATION

2-POLE CONFIGURATION



- ① LOCTITE 242 BLUE & TORQUE TO 30 FT-LBS FOR QUILL APPLICATIONS
- ② TORQUE TO 15 FT-LBS
- ③ LOCTITE 242 BLUE
- ④ STRETCH RUBBER WATER-SHED DISC P/N 27156 AROUND **'OUTSIDE'** OF THE INVERTED FLARE NUT OF CANDLESTICK, AS SHOWN
- ⑤ ITEM #8, FIBER WASHER, 5/8 I.D. **'MUST'** SIT DIRECTLY ON TOP OF THE INVERTED FLARE NUT ITEM #6.



THE 16780 SWIVEL TERMINAL CAN REPLACE & INTERCHANGE WITH THE 14231 SWIVEL TERMINAL, FOR ET20,000 & ET20K(X) CRANES.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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

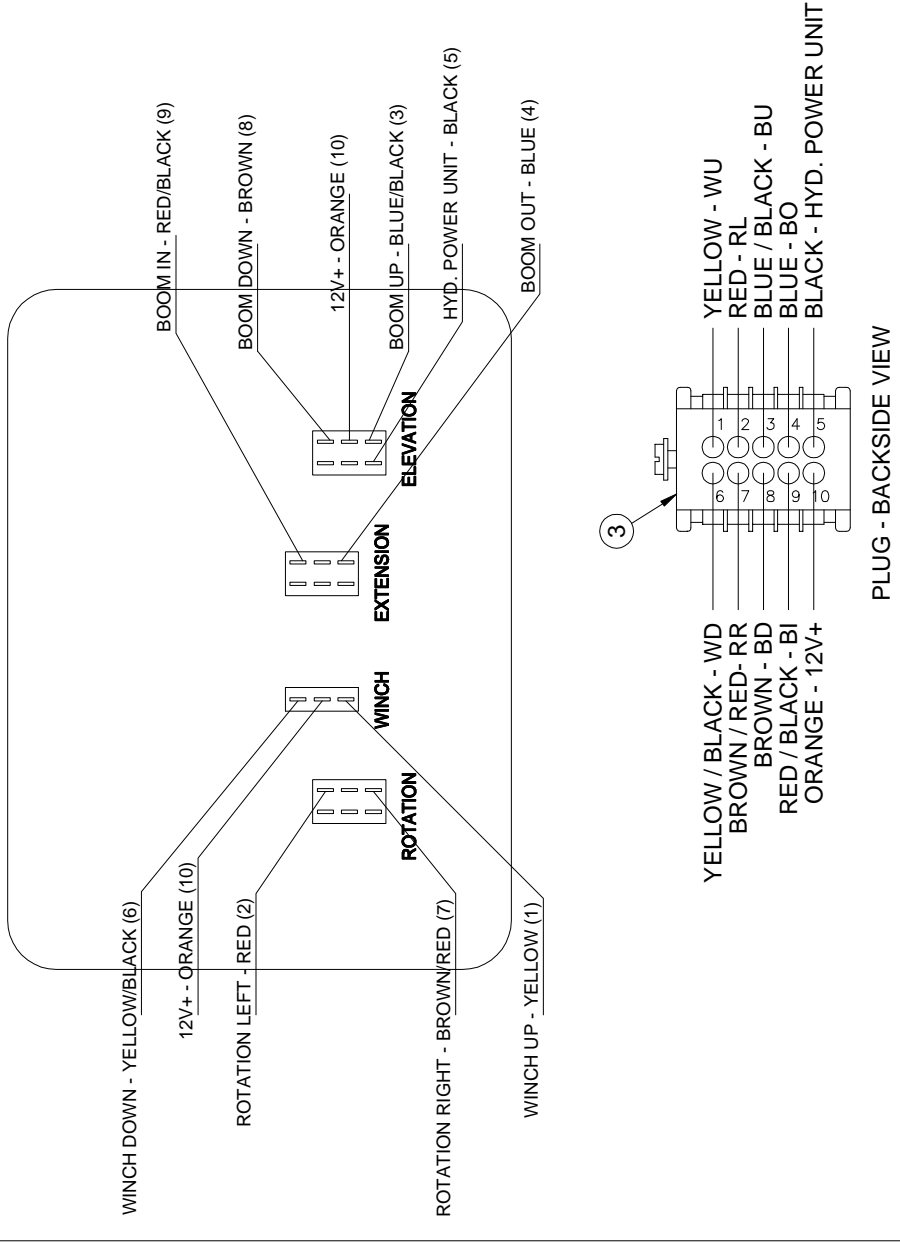
DATE
04-27-18
SUPERSEDES
-

SECTION
C400
21293

22060 PENDANT (4 - SWITCH)

CORD REPLACEMENT INSTRUCTIONS

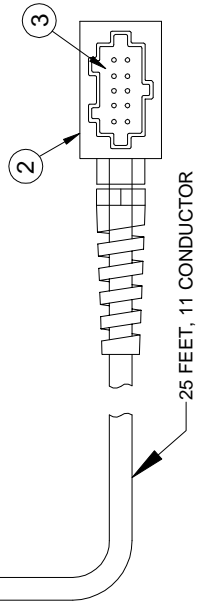
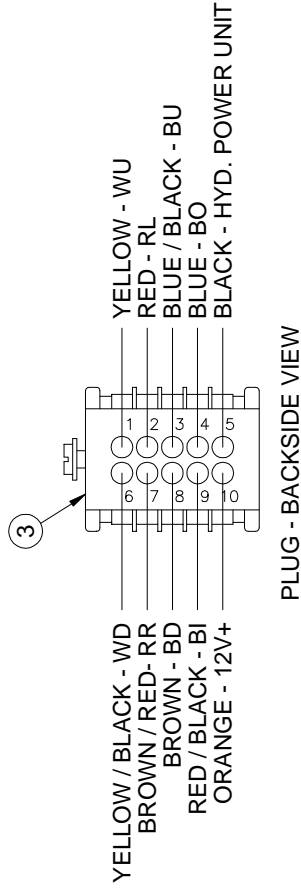
(INSIDE VIEW OF PENDANT CONTROL W/ REAR COVER REMOVED)



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

NOTE 2)
TOGGLE SWITCH JUMPER
WIRES NOT SHOWN FOR
CLARITY.

NOTE 3)
STOW OR CUT-BACK
UNUSED WIRES.



ITEM	QTY	PART NO.	DESCRIPTION
4	3	22152	DPDT MOMENTARY TOGGLE SWITCH
3	1	19427	MALE INSERT - 10 + 1 POLE
2	1	19426	PLUG CASE - 10 + 1 POLE
1	1	22081	SPDT MOMENTARY TOGGLE SWITCH

TITLE
REPLACEMENT PARTS DRAWING & LIST

22060 PENDANT (STANDARD CONTROL)

DATE
12-10-13C

SUPERSEDES
09-28-12B

SECTION
C400

22076

VENTURO[®]
MANUFACTURING, INC.
CINCINNATI, OHIO

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

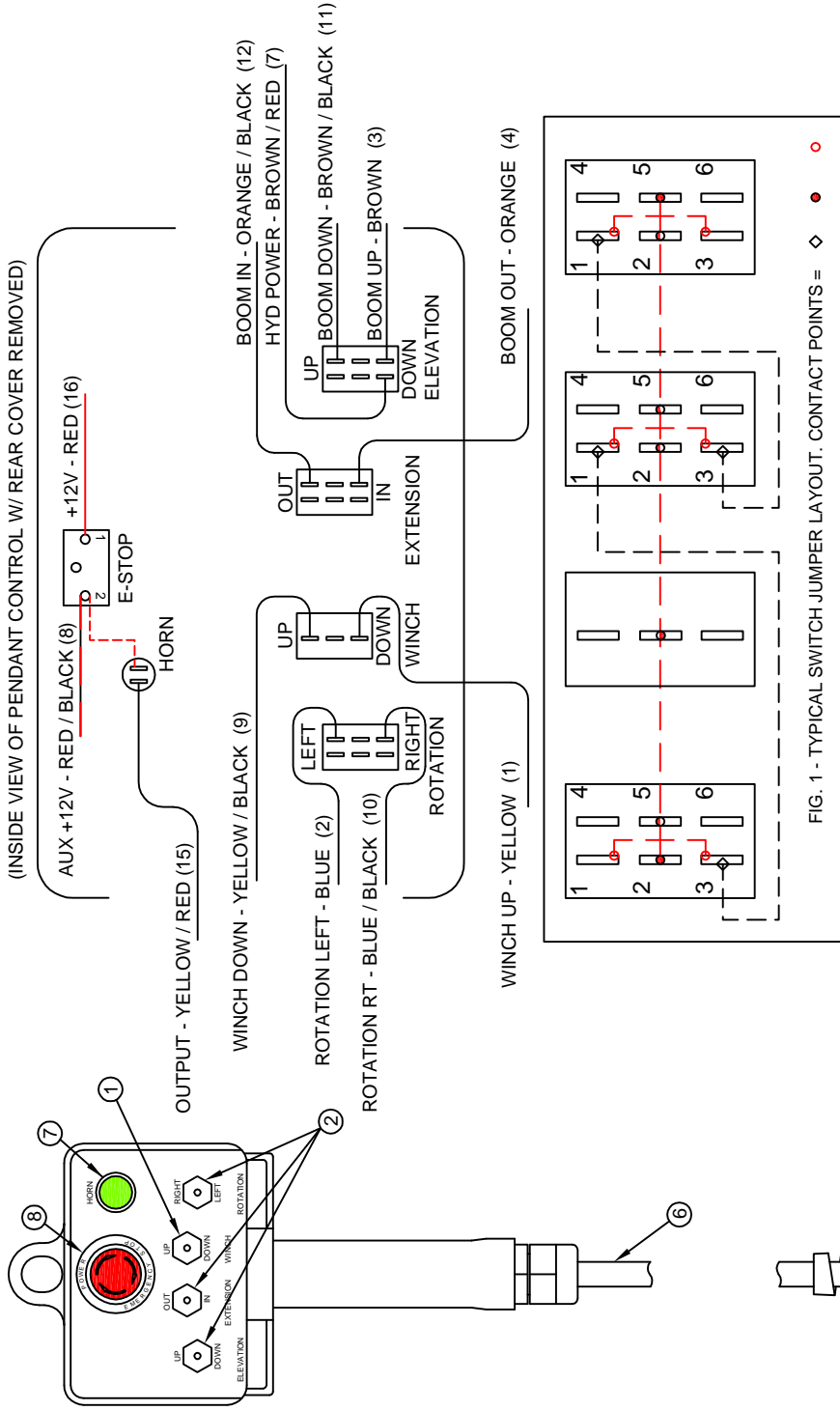
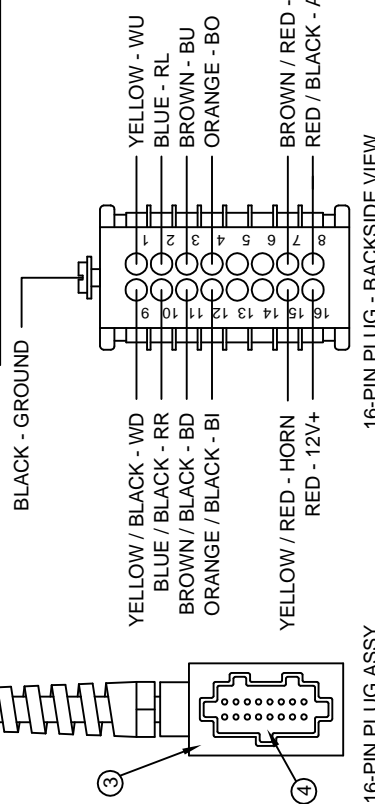


FIG. 1 - TYPICAL SWITCH JUMPER LAYOUT. CONTACT POINTS =



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

TITLE
REPLACEMENT PARTS DWG & LIST

21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

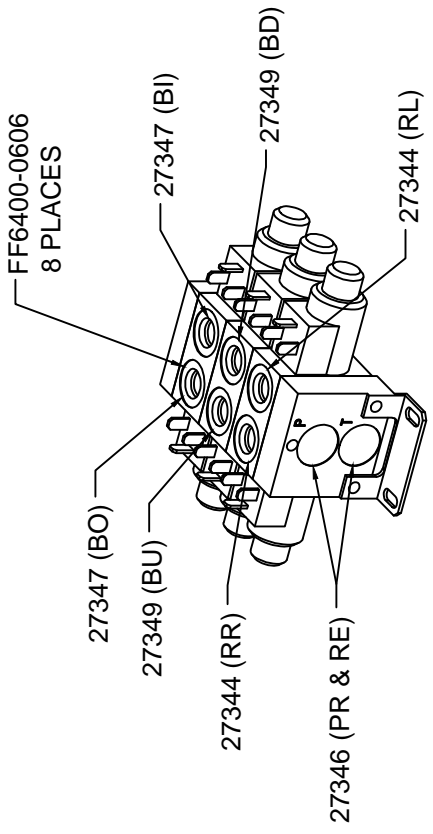
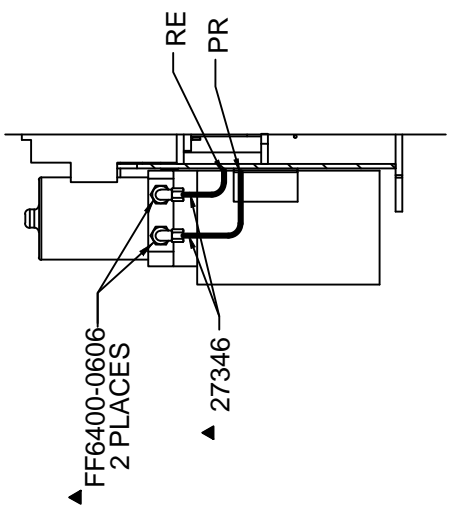
DATE
01-12-17B

SUPPERSEDES
10-20-14A

SECTION
C400

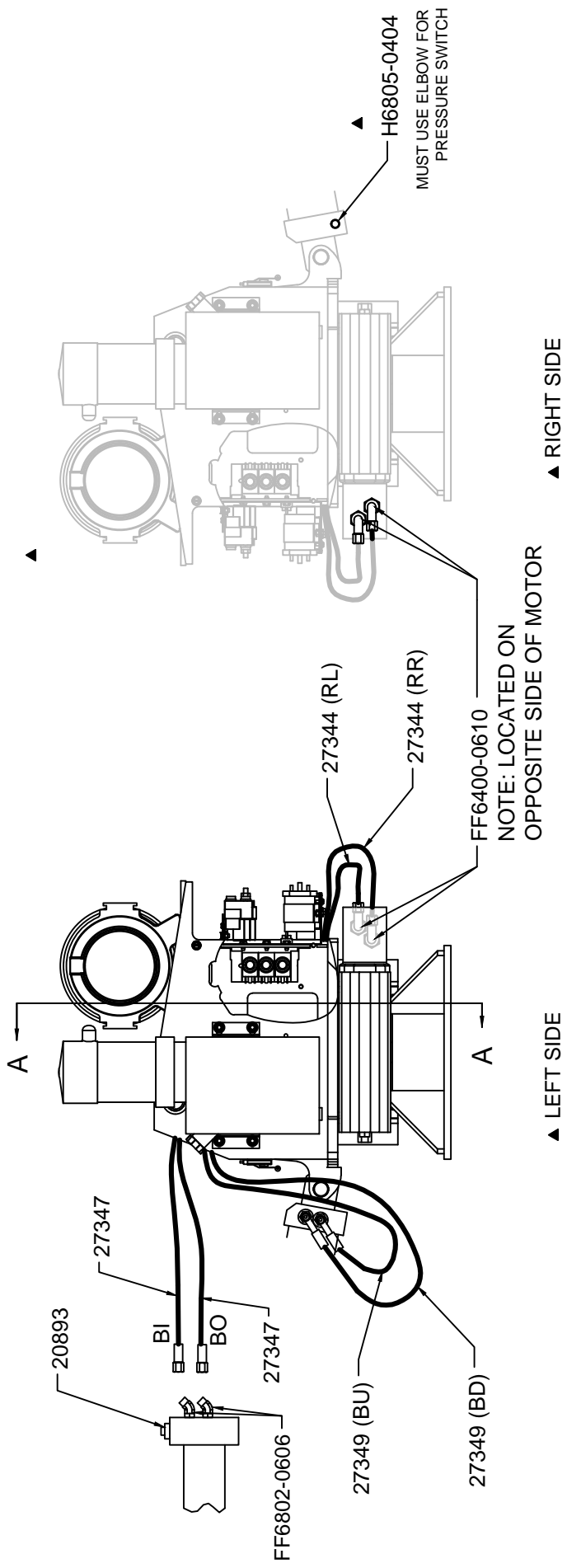
23075

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



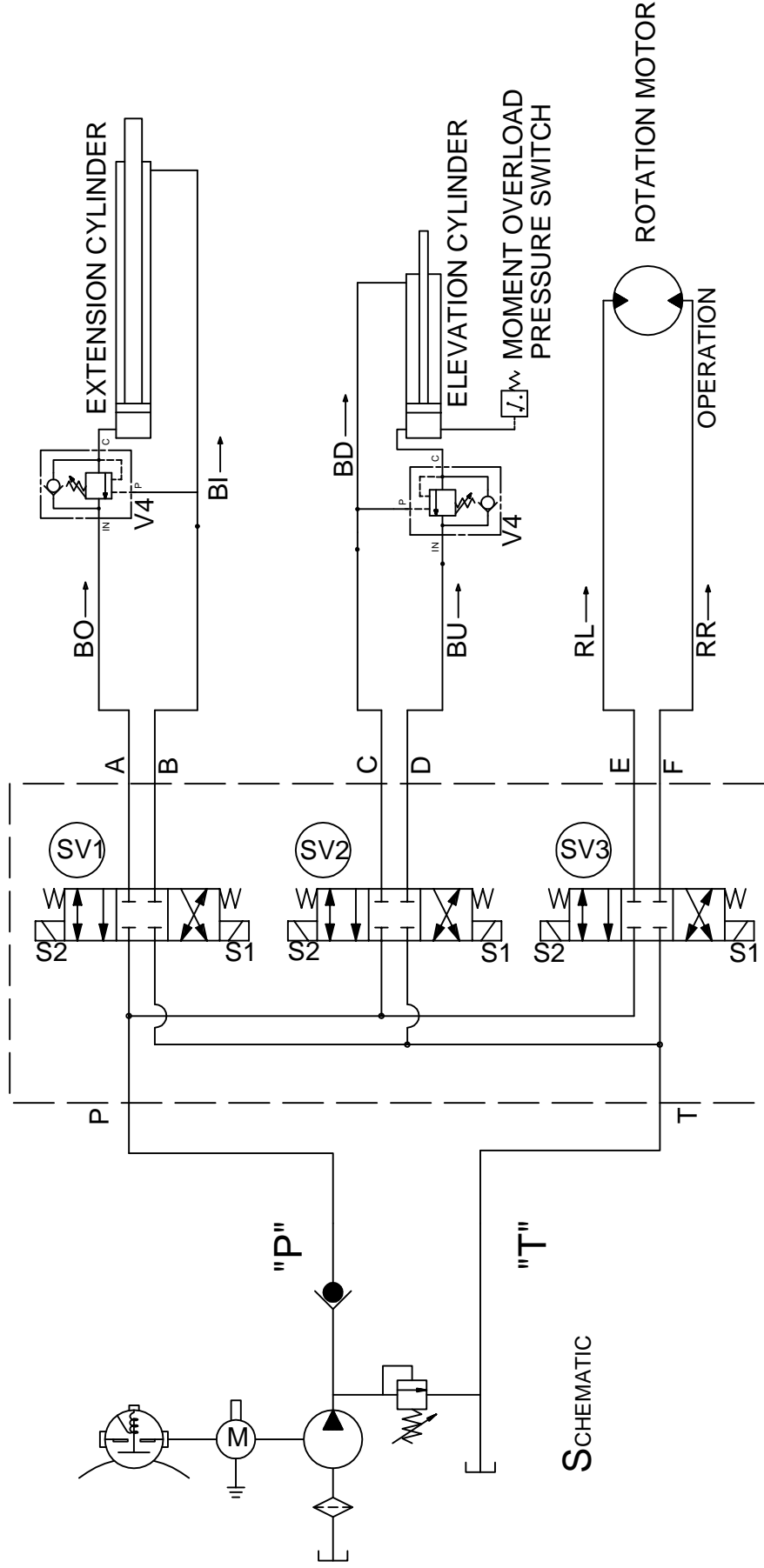
SECTION VIEW A-A

NOTE:
FOR REPLACEMENT
COILS SEE P/N 23134



	VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO		TITLE	REPLACEMENT PARTS; HYD. COMPONENTS	SECTION	C400
	ET25/30/36KX		DATE	02-10-20E SUPERSEDES 10-07-19D		21758

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

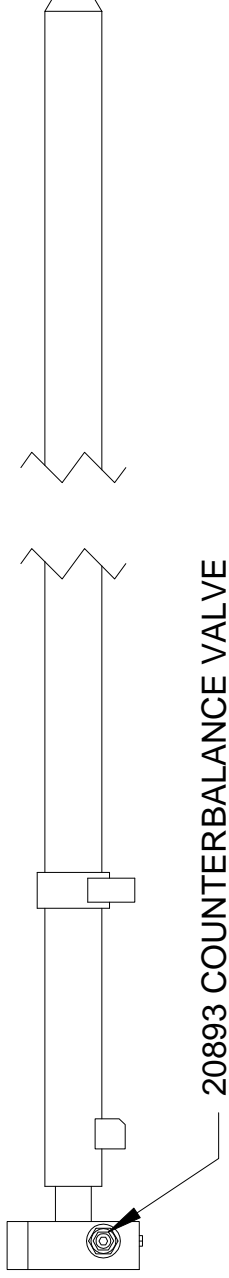


SCHMATIC

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

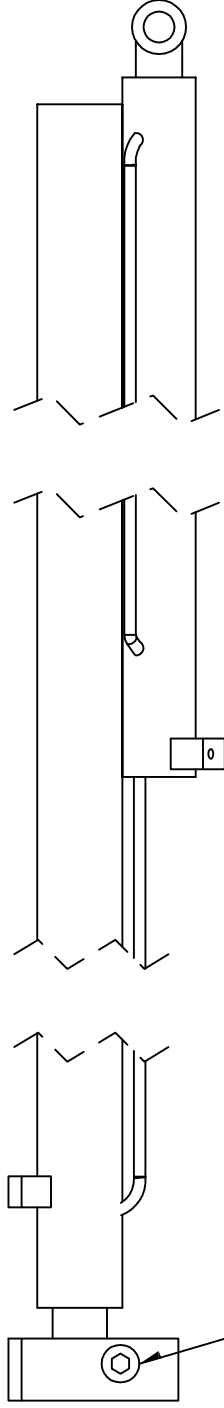
20061 EXTENSION CYLINDER



SEAL KIT P/N: 19887


 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	EXTENSION CYLINDER	DATE	01-07-14A	SECTION	C400
		ET/HT25/30KX	SUPERSEDES	08-20-09		21879

21753 DUAL-STAGE EXTENSION CYLINDER

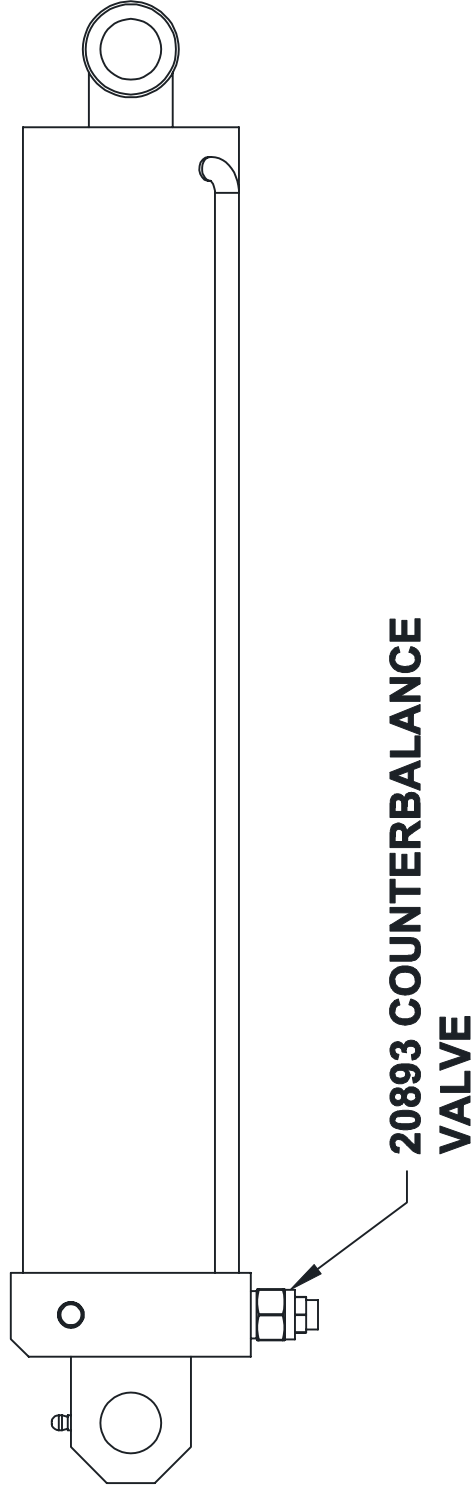


20893 - COUNTERBALANCE VALVE

SEAL KIT P/N: 21775

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

21752 ELEVATION CYLINDER



SEAL KIT P/N: 21774

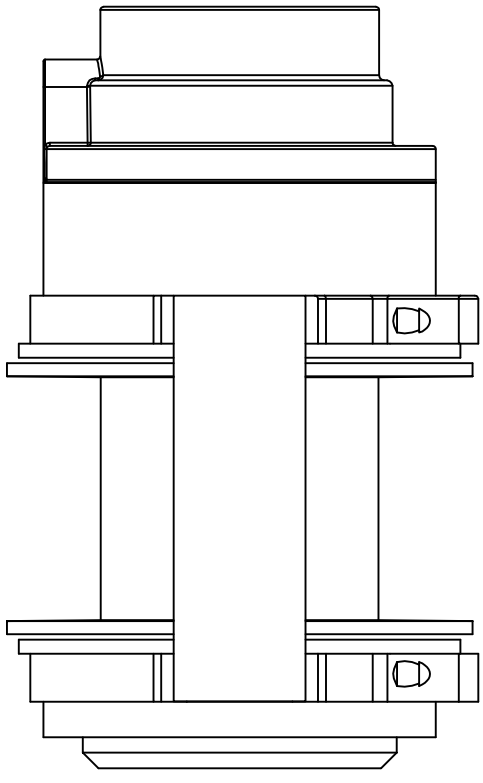
 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	DATE	SECTION
	ELEVATION CYLINDER ET/HT25/30/36KX(X)	8-12-09 SUPERSEDES -	C400 21773

19813 WINCH REPLACEMENT PARTS

21979 BRAKE ASSY

21051 MOTOR

21979
!HNUT-04414 HEX NUT
(WIRE ROPE ANCHOR)



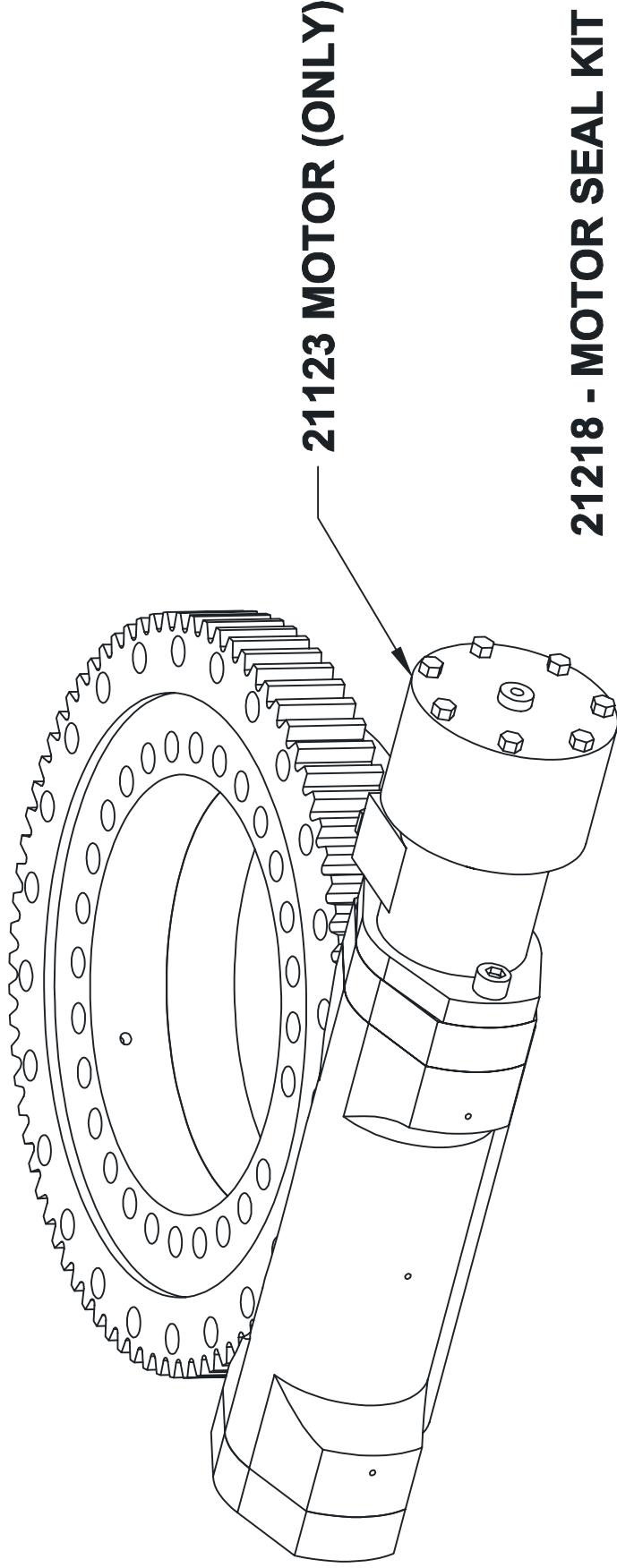
TITLE
WINCH REPL. PARTS (DC3000)
ET25/30/36K(X)

DATE
5-1-13B
SUPERSEDES
6-30-05A

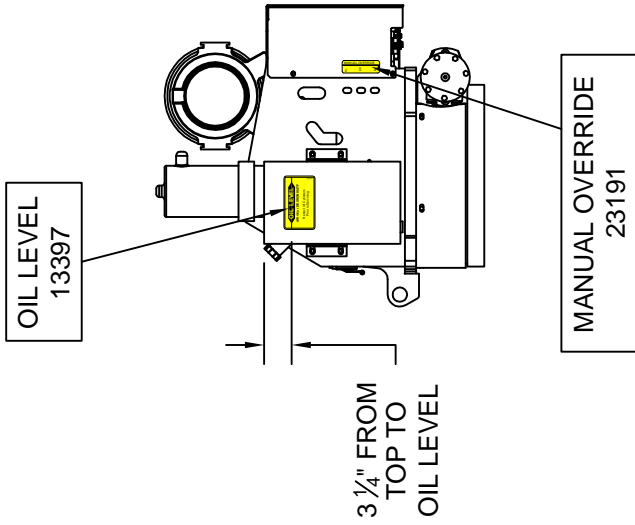
SECTION
400

21053

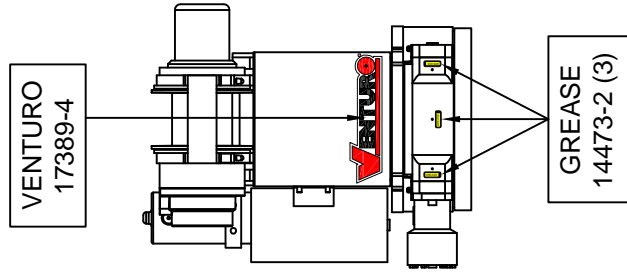
21418 SLEWING SYSTEM REPLACEMENT PARTS



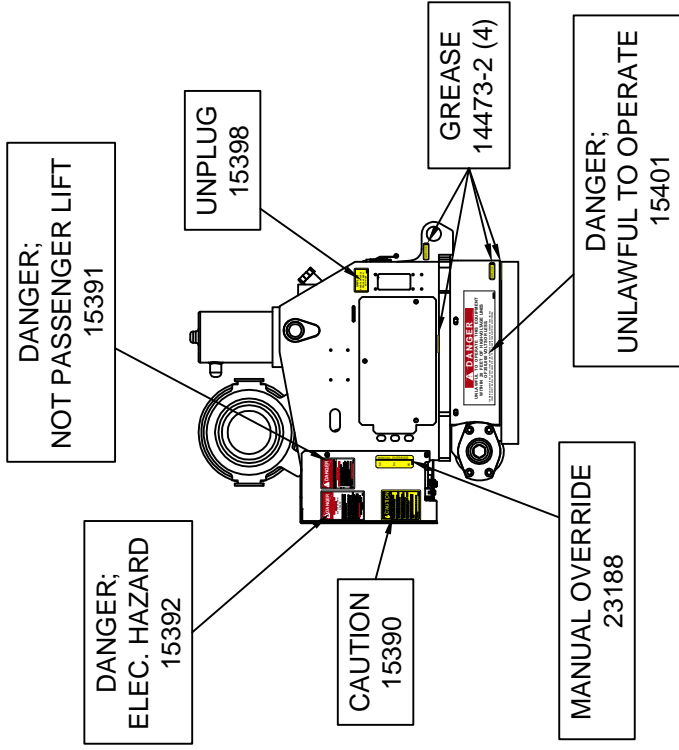
VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	SLEWING REPLACEMENT PARTS	DATE	08-24-09	SECTION	-
		ET25/30KX	SUPERSEDES	-		21886



LEFT



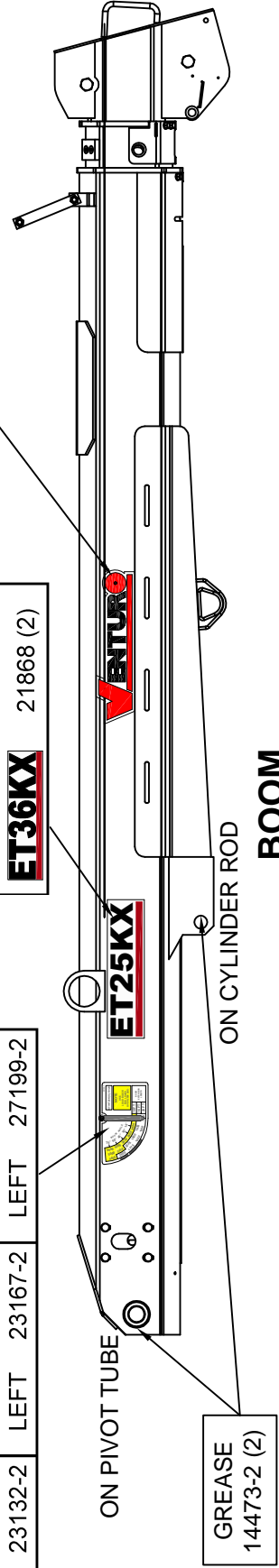
BACK



RIGHT

CAPACITY		ET36KX	
ET25KX	ET30KX	RIGHT	LEFT
RIGHT 23132-1	RIGHT 23167-1	RIGHT 27199-1	LEFT 27199-2
LEFT 23132-2	LEFT 23167-2	RIGHT 27199-1	LEFT 27199-2

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



BOOM



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
DECAL PLACEMENT

ET25/30/36KX

DATE
05-19-15D

SUPPERSEDES
08-08-12C

SECTION
C400

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

▲ 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

▲ 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

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	DATE	SECTION
FIELD SERVICE LABEL KIT	05-22-15D	C400
ET25/30/36KX ▲	SUPERSEDES 05-15-13C	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.

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