



**VENTURO**  
TRUCK MOUNTED CRANES

**ET8K(X)**

*EF\*AAB-\*\**  
**INSTALLATION & OWNER'S MANUAL**



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VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE	DATE	SECTION
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ET8K(X) (EF*AAB-00)	SUPERSEDES 10-08-14F	<b>28030</b>



**SECTION 100**

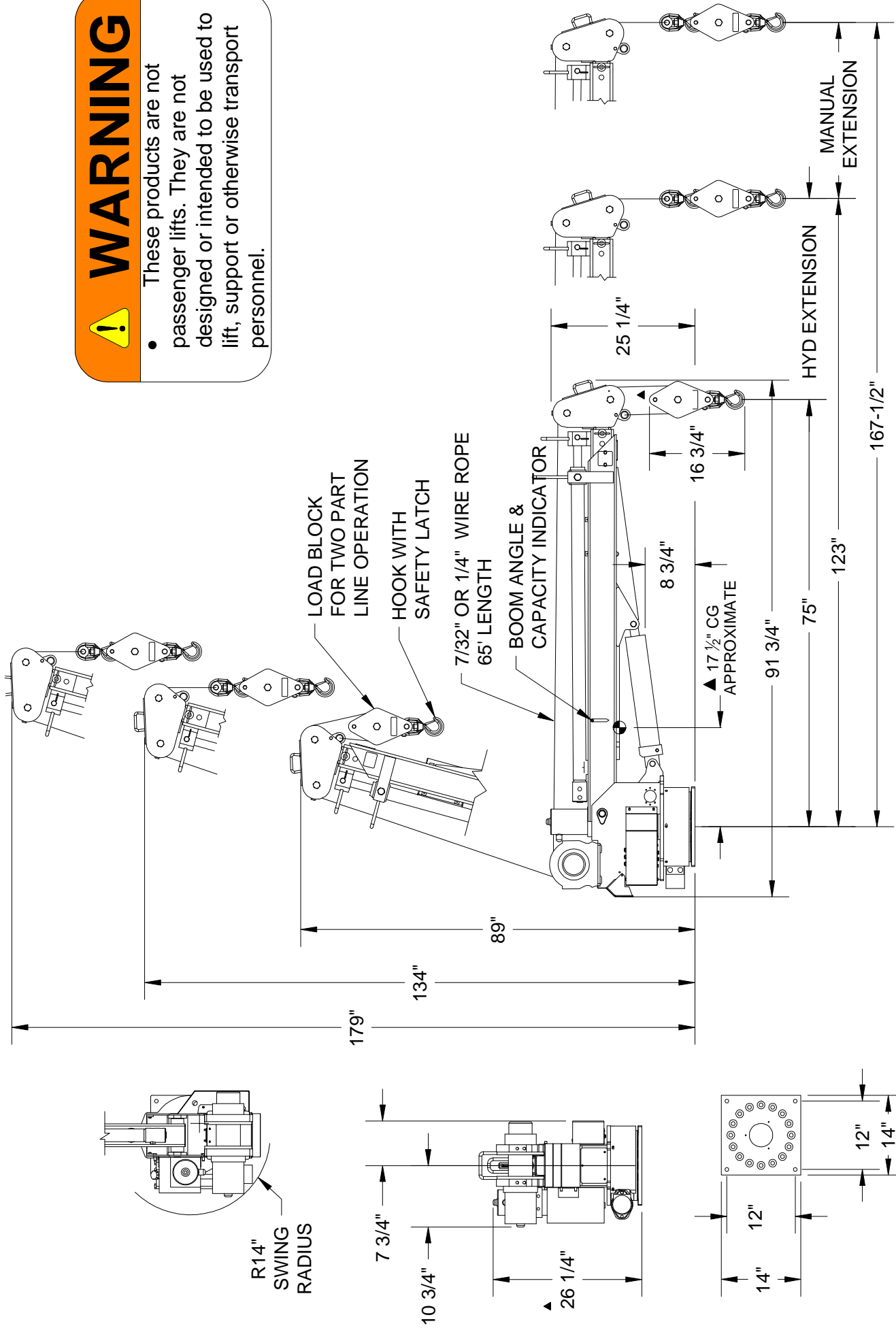
**DESCRIPTION**

**&**

**SPECIFICATIONS**

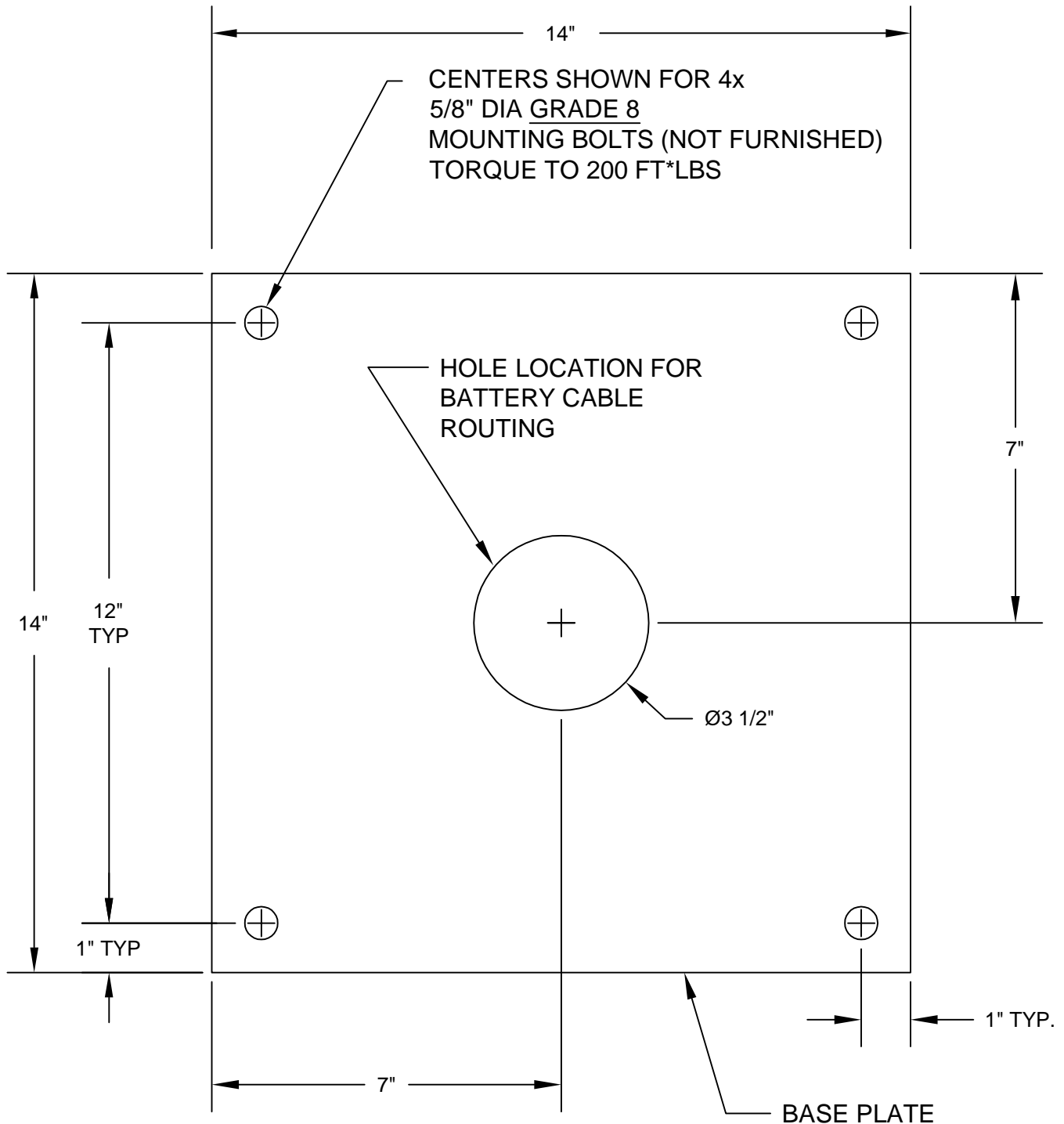
# WARNING

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



 <b>VENTURO</b> <sup>®</sup> MANUFACTURING, INC. CINCINNATI, OHIO	TITLE <b>INSTALLATION DRAWING</b>		SECTION <b>C100</b>
	DATE <b>12-20-13E</b> <small>SUPERSEDES</small> <b>02-23-12D</b>		<b>21821</b>
▲ <b>ET6/8K(X), W/ 6 - 10 - 14 FT BOOM</b>			

# 21571 MOUNTING HOLE TEMPLATE



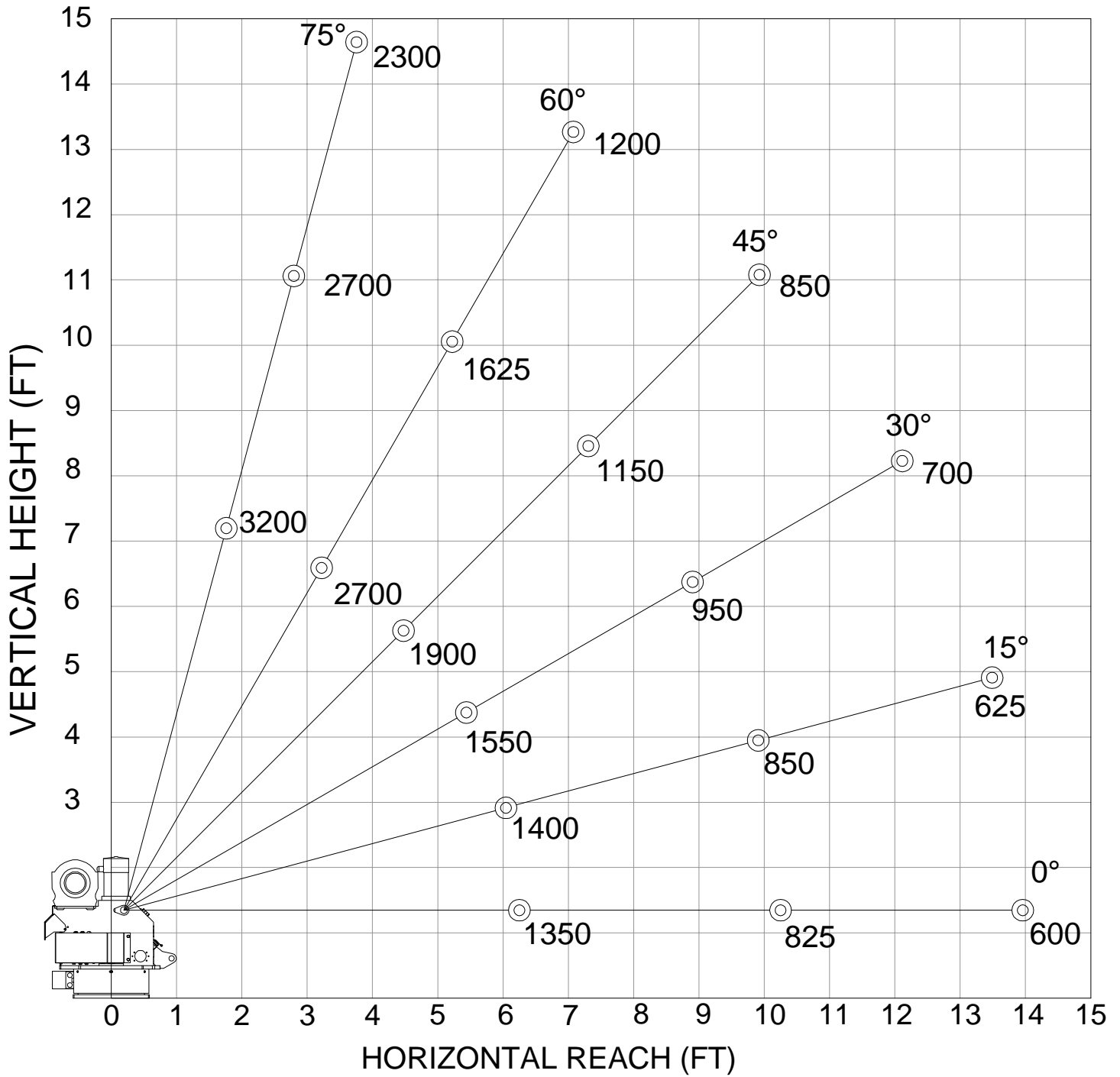
VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE	21571 BASE MNTNG DIMS
ET8/12/16/18 CRANES	

DATE	10-22-14F
SUPERSEDES	12-20-13E

SECTION	C100
	21592

ET8K(X), 6 - 10 - 14 FT. BOOM  
 MAXIMUM 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 1600 lbs.
- 2 part line for loads of 1600 lbs. and greater.

Weight of Load Block = 24 lbs.



MANUFACTURING, INC.  
 CINCINNATI, OHIO

TITLE  
**CAPACITY CHART**  
 ET8K(X), 6'-10'-14' BOOM

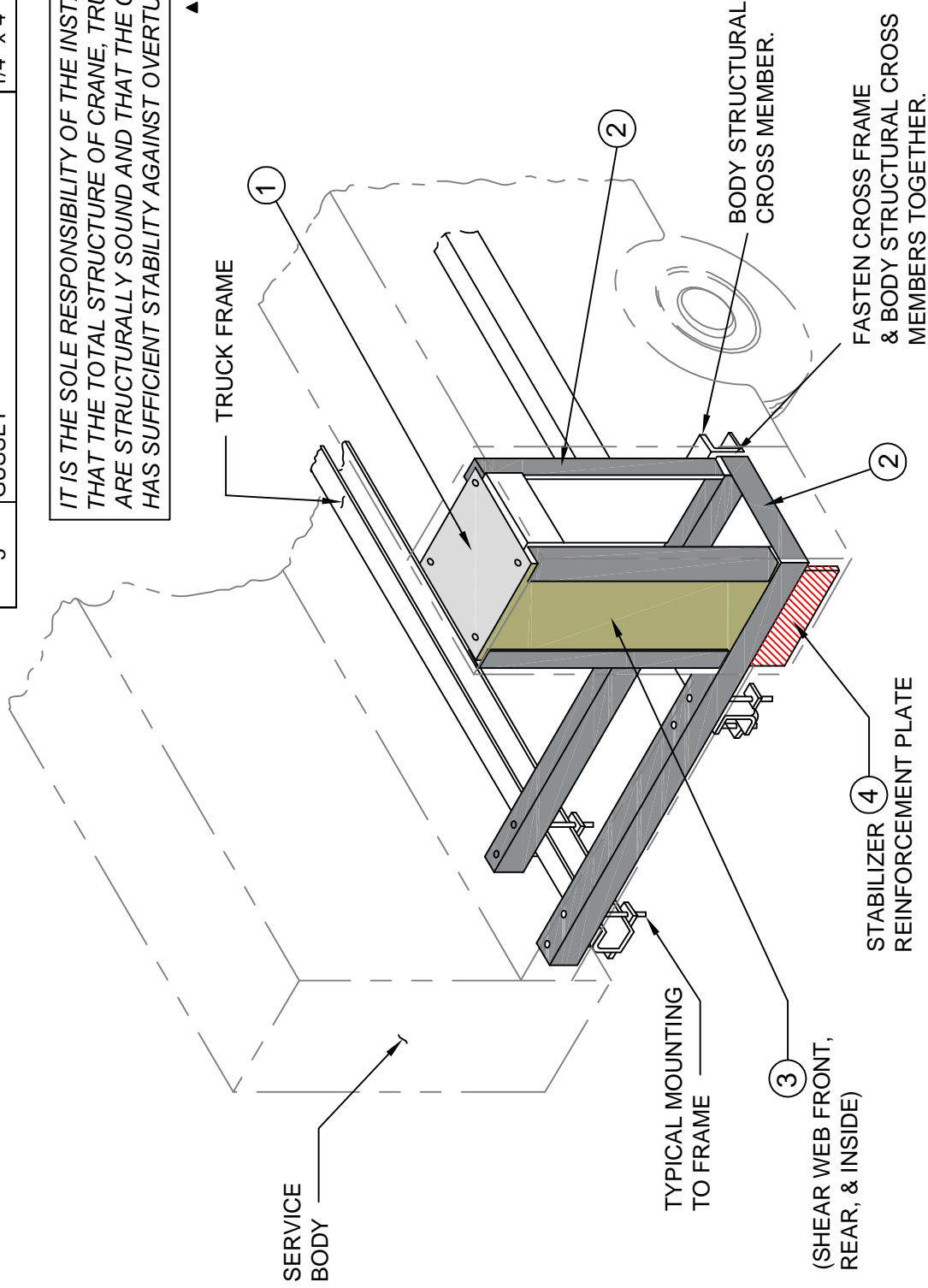
DATE  
 09-09-13C  
 SUPERSEDES  
 04-30-13B

SECTION  
 C100  
**21701**



ITEM NO.	DESCRIPTION	MINIMUM RECOMMENDED MATERIAL SIZE
1	TOP PLATE	STEEL PLATE
2	CORNER POST	3" x 3" x 1/4" STEEL ANGLE
3	SHEAR WEB	12 Ga.
4	STABILIZER REINFORCEMENT PLATE	3/16" THICK STEEL PLATE
5	GUSSET	1/4" x 4" H.R. STEEL (NOT SHOWN)

IT IS THE SOLE RESPONSIBILITY OF THE INSTALLER TO INSURE THAT THE TOTAL STRUCTURE OF CRANE, TRUCK, AND STABILIZERS ARE STRUCTURALLY SOUND AND THAT THE COMPLETED VEHICLE HAS SUFFICIENT STABILITY AGAINST OVERTURNING.



ILLUSTRATIONS NOT TO SCALE



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
**INSTALLATION DRAWING**

ET6/8/12K(X)

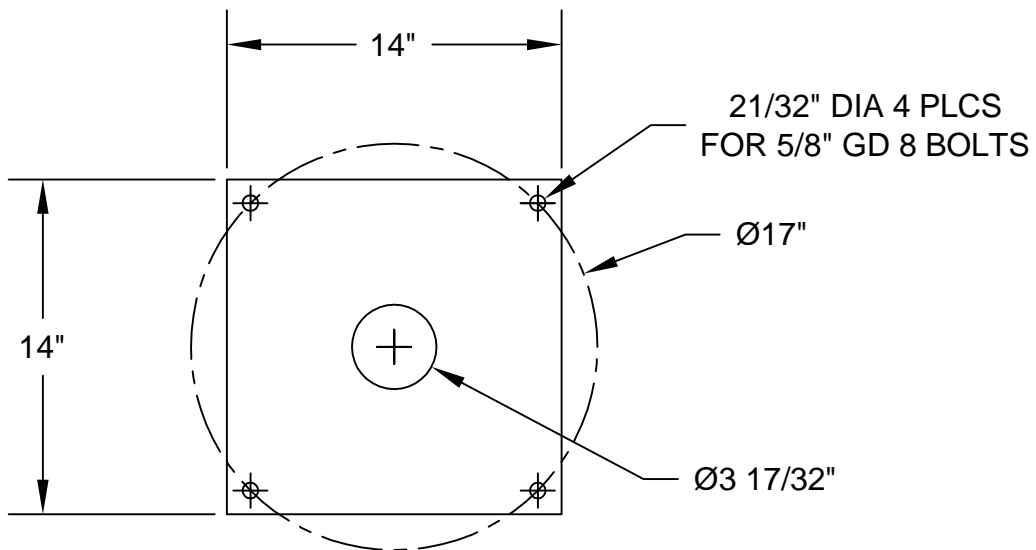
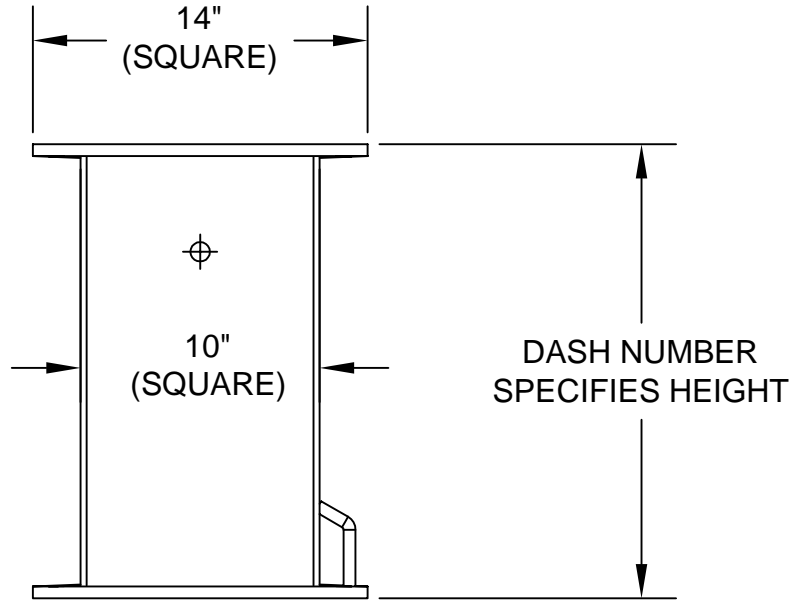
DATE  
01-28-15C

SUPERSEDES  
12-20-13B

SECTION  
C100

16941

# 21571-XX MOUNTING PEDESTAL

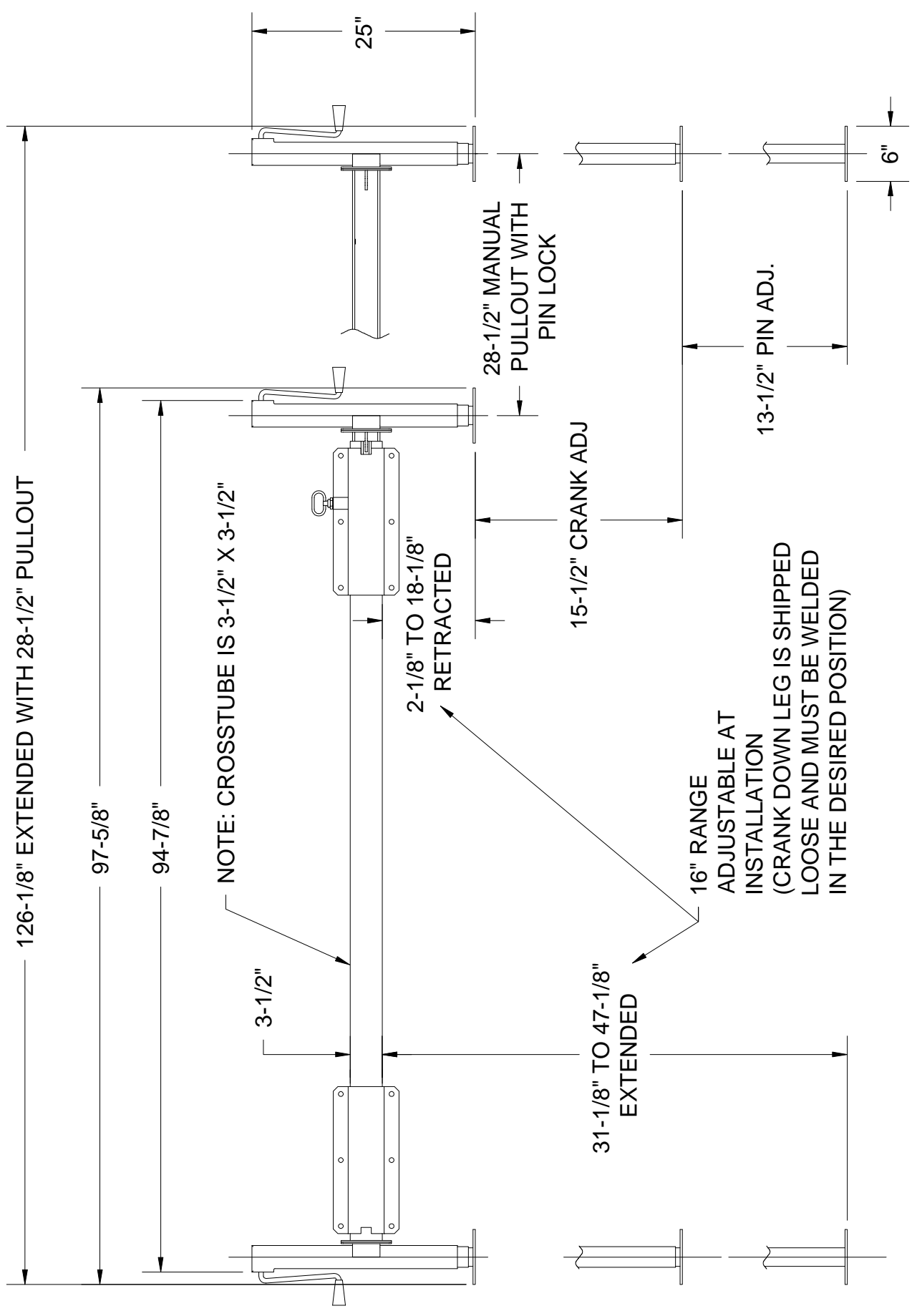


VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE	21571 MNTNG PEDESTAL
ET8/12K(X) CRANES ▲	

DATE	11-20-14C
SUPERSEDES	12-20-13B

SECTION	C100
	21594



126-1/8" EXTENDED WITH 28-1/2" PULLOUT

97-5/8"

94-7/8"

NOTE: CROSSTUBE IS 3-1/2" X 3-1/2"

3-1/2"

2-1/8" TO 18-1/8"

RETRACTED

28-1/2" MANUAL  
PULLOUT WITH  
PIN LOCK

25"

15-1/2" CRANK ADJ

31-1/8" TO 47-1/8"  
EXTENDED

16" RANGE  
ADJUSTABLE AT  
INSTALLATION  
(CRANK DOWN LEG IS SHIPPED  
LOOSE AND MUST BE WELDED  
IN THE DESIRED POSITION)

13-1/2" PIN ADJ.

6"



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
INSTALLATION DRAWING

18500-CD STABILIZER

DATE

12-20-13B

SUPERSEDES

01-13-05A

SECTION

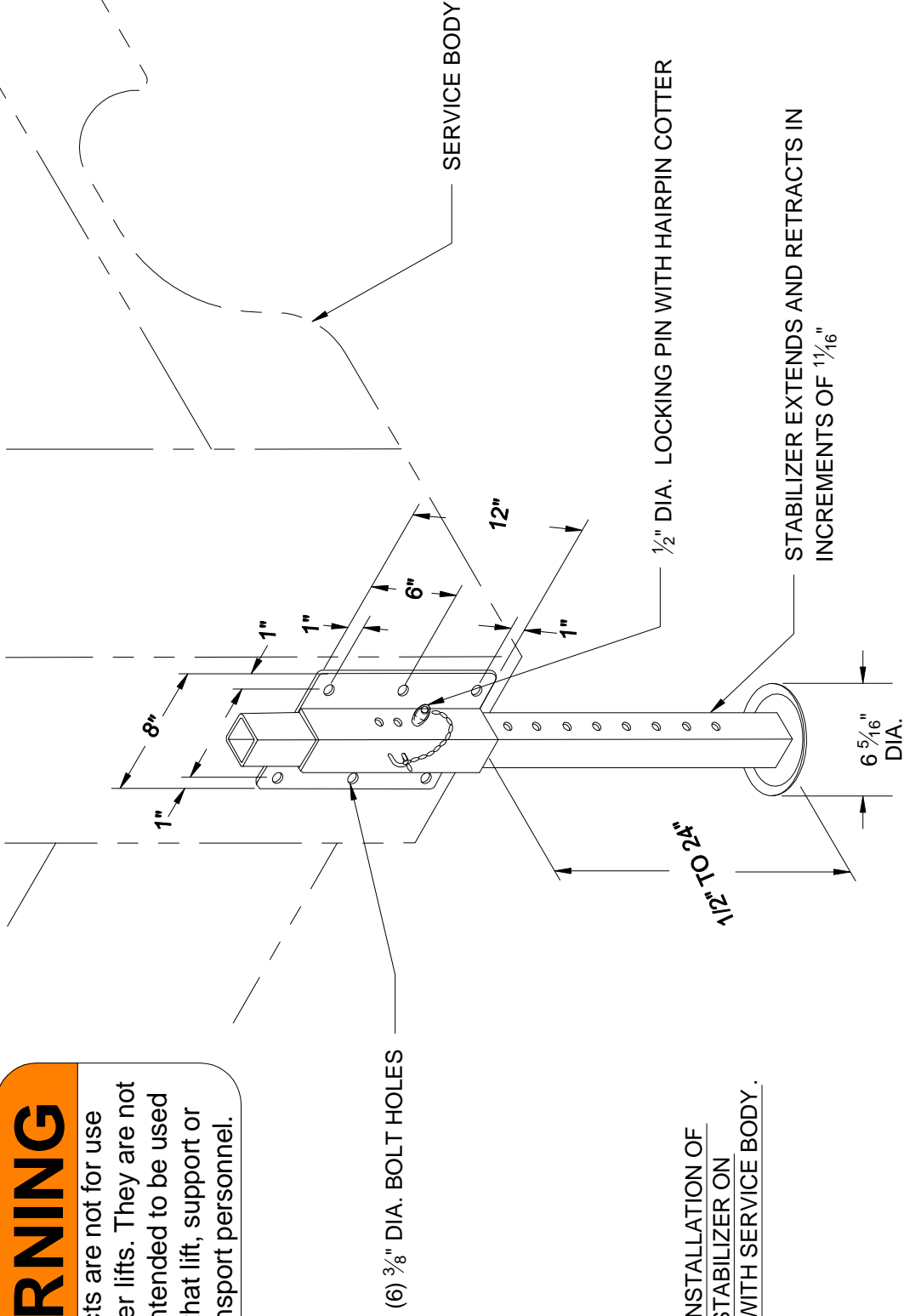
C100

22686

# 13500 STABILIZER

## **! WARNING**

- These products are not for use with passenger lifts. They are not designed or intended to be used with devices that lift, support or otherwise transport personnel.



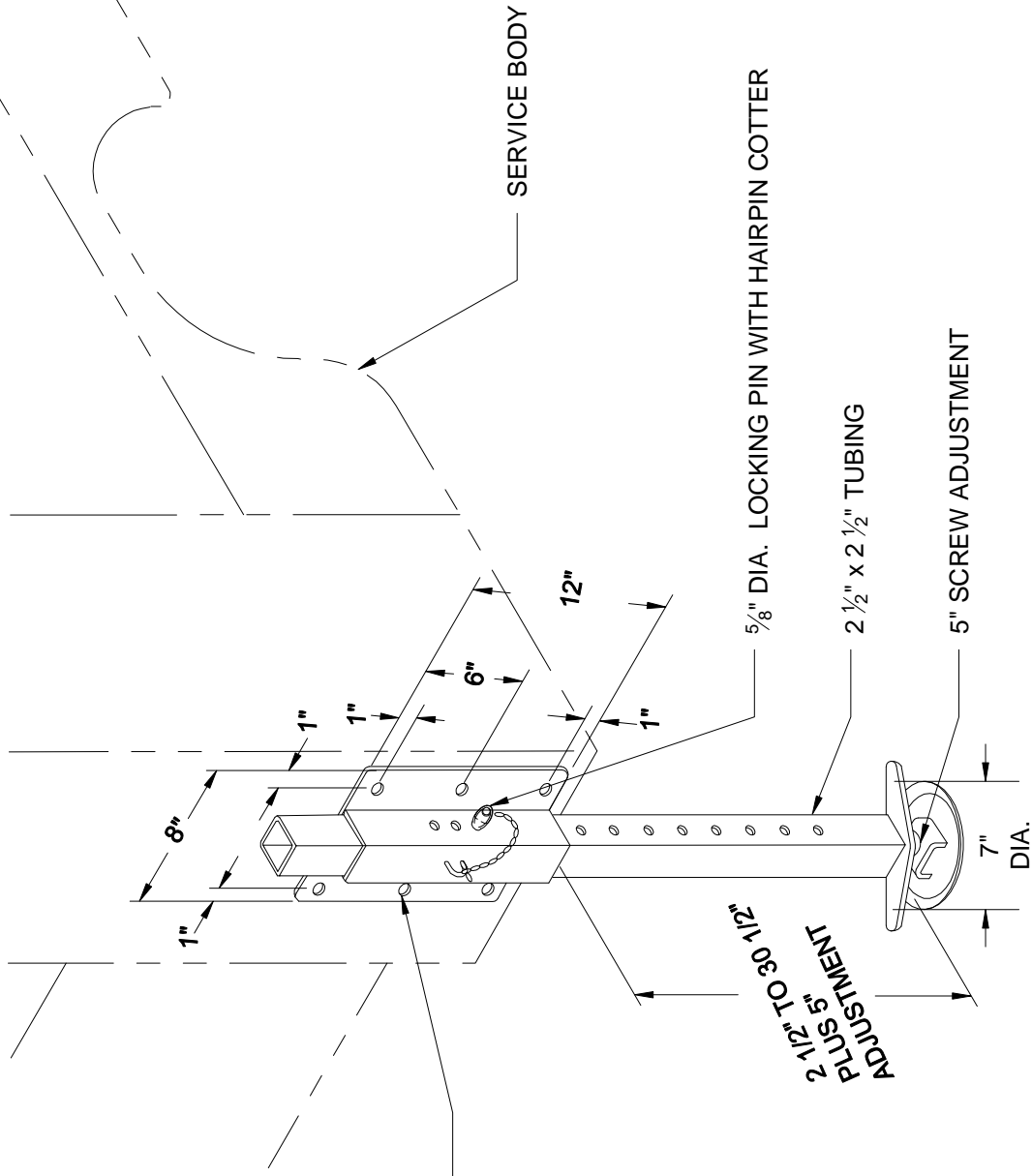
TYPICAL INSTALLATION OF  
MANUAL STABILIZER ON  
VEHICLE WITH SERVICE BODY.

 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	INSTALLATION DRAWING	SECTION	C100
		ET6/8/12K(X)	DATE	12-20-13F
		SUPERSEDES	10-02-12E	13509

# 23961 STABILIZER

## **! WARNING**

- These products are not for use with passenger lifts. They are not designed or intended to be used with devices that lift, support or otherwise transport personnel.

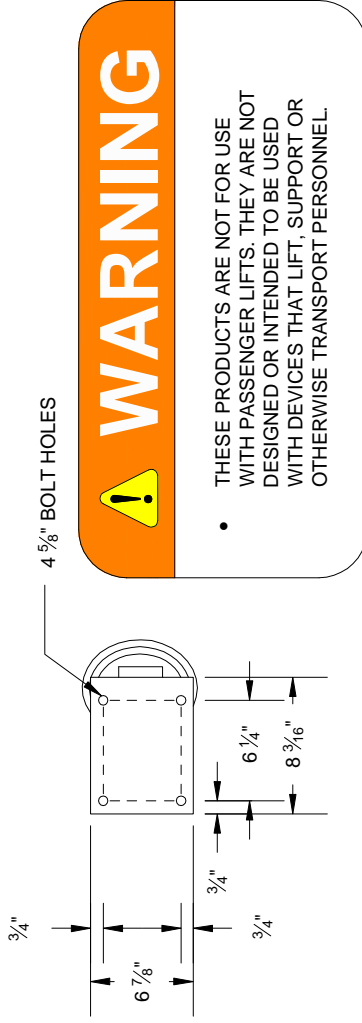


TYPICAL INSTALLATION OF 23961  
 MANUAL STABILIZER ON VEHICLE  
 WITH SERVICE BODY EQUIPPED  
 WITH ET/HT25 SERIES CRANES.

 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	INSTALLATION DRAWING	SECTION	C100
		ET6/8/10/12/25K(X), HT25KX	DATE	12-20-13H
		SUPERSEDES	04-25-12G	123961

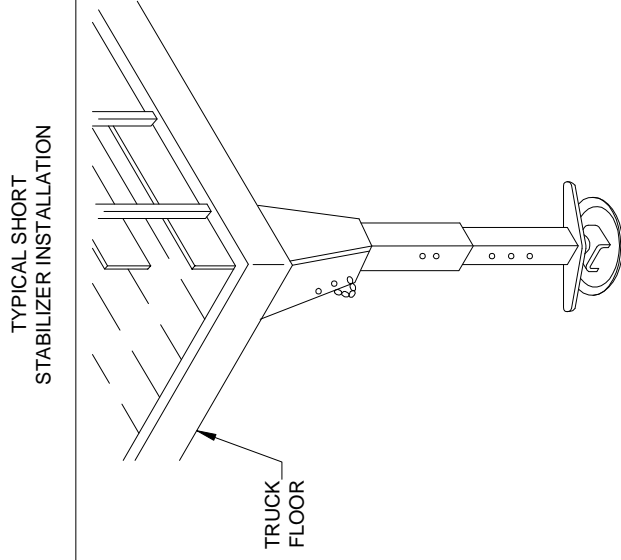
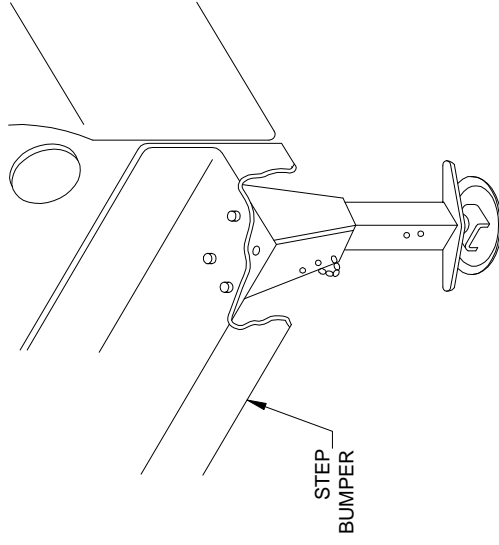
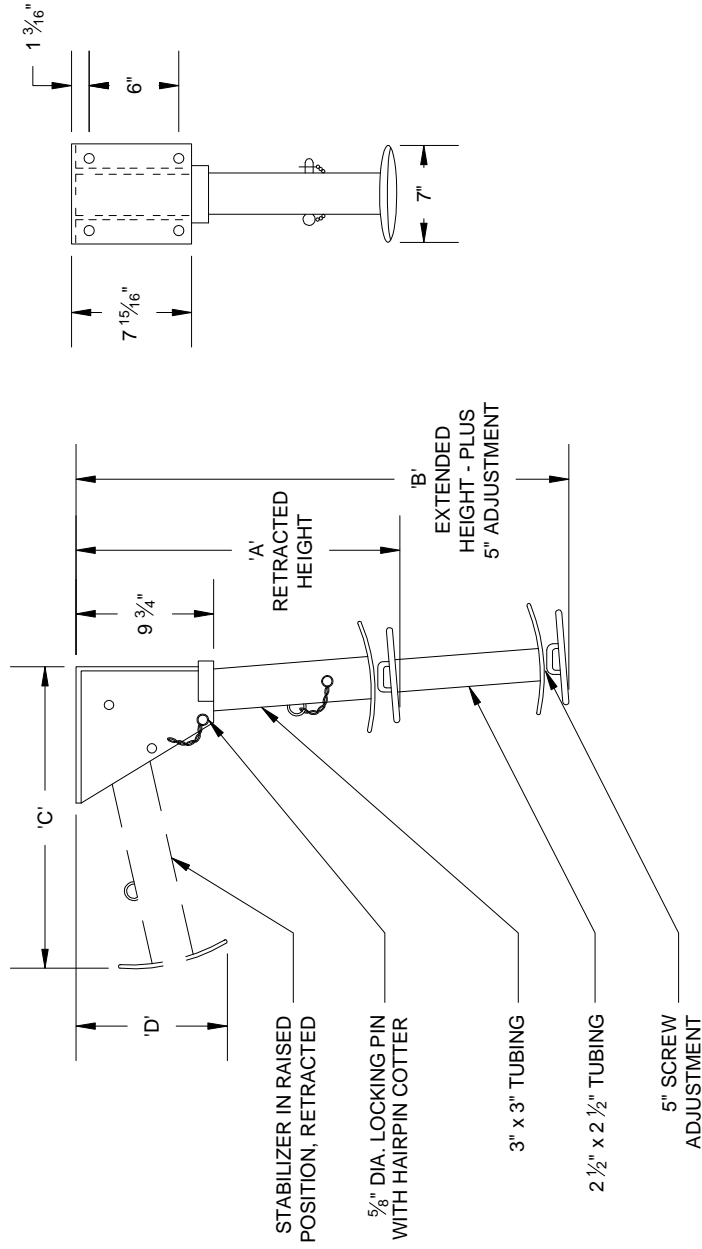
# 23960 STABILIZER SERIES, ET/HT25 SERIES CRANES

PART NO.	DESCRIPTION	'A'	'B'	'C'	'D'
23960-1	SHORT STABILIZER	20 1/2"	28 1/2"	21"	7 1/4"
23960-2	LONG STABILIZER	28 1/2"	44 1/2"	29"	10 1/2"



**! WARNING**

- THESE PRODUCTS ARE NOT FOR USE WITH PASSENGER LIFTS. THEY ARE NOT DESIGNED OR INTENDED TO BE USED WITH DEVICES THAT LIFT, SUPPORT OR OTHERWISE TRANSPORT PERSONNEL.



TITLE  
**INSTALLATION DRAWING**  
 ET6/8/10/12/25K(X), HT25KX

MANUFACTURING, INC.  
 CINCINNATI, OHIO



DATE  
 12-20-13H  
 SUPERSEDES  
 04-25-12G

SECTION  
 C100

**123960**

# 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

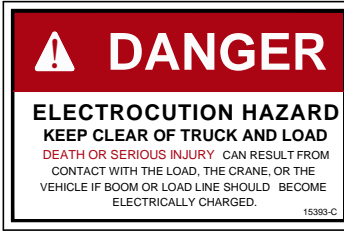
ELECTRIC CRANES

SUPERSEDES

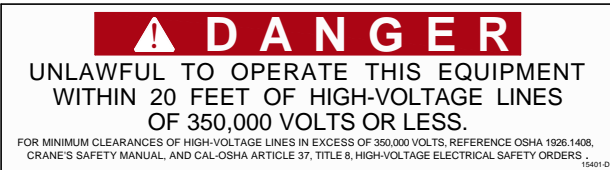
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850712

# 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

PART NO.: 15390

DECAL: CAUTION - INSPECT VEHICLE & CRANE

FUNCTION: To inform the operator of key operating requirements.

QUANTITY: 1

PLACEMENT: Rear cover.



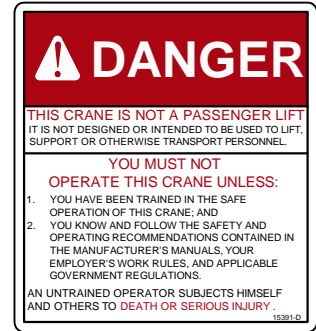
PART NO.: 15391

DECAL: DANGER - NOT PASSENGER LIFT

FUNCTION: To inform the operator not to lift, support or transport personnel, and to ensure that crane operator is adequately trained.

QUANTITY: 1

PLACEMENT: Rear cover.



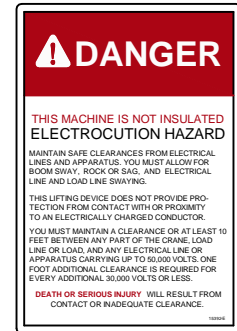
PART NO.: 15392

DECAL: DANGER - ELECTROCUTION HAZARD

FUNCTION: To inform the operator that the machine (crane) represents an electrocution hazard should it come close to or in contact with electrical voltage source.

QUANTITY: 1

PLACEMENT: Rear cover.



PART NO.: 15401

DECAL: UNLAWFUL TO OPERATE

FUNCTION: To inform the operator of proper operation in vicinity of power lines.

QUANTITY: 1

PLACEMENT: Right side of housing.



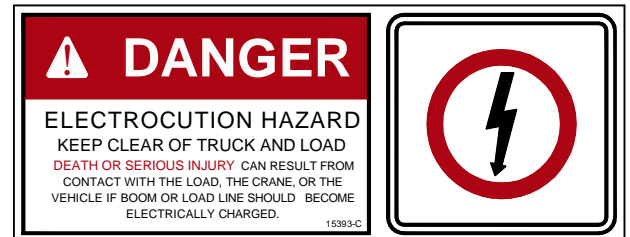
PART NO.: 15393A

DECAL: DANGER - ELECTROCUTION HAZARD

FUNCTION: Warns of danger from electrically charged vehicle, crane or lead.

QUANTITY: 4

PLACEMENT: One on each side and each end of vehicle.



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**SAFETY DECALS**

**CRANES**

DATE  
**04-02-13C**

SUPERSEDES  
**08-10-09B**

SECTION  
**C150**

**21353**

PART NO.: 14473-2

DECAL: GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



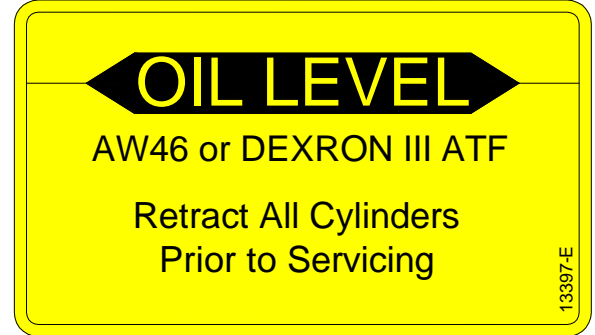
PART NO.: 13397

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.



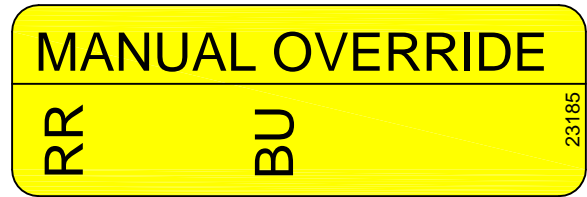
MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
DECALS  
ET CRANES

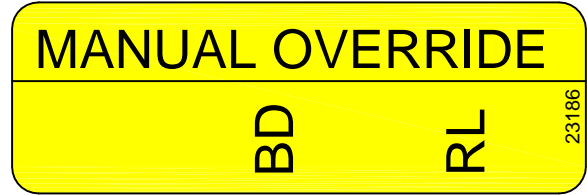
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12-23-13D  
SUPERSEDES  
04-19-13C

SECTION  
C150  
21354

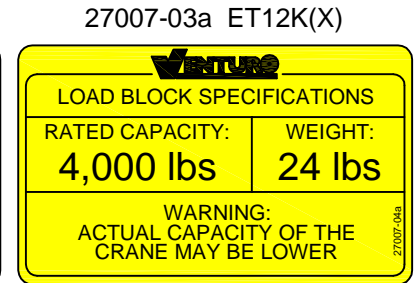
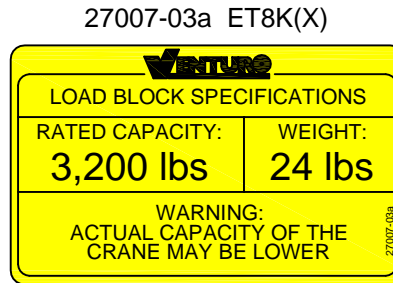
PART NO.: 23185  
 DECAL: MANUAL OVERRIDE DECAL (ET8/12K)  
 FUNCTION: To show the manual override ports.  
 QUANTITY: 1  
 PLACEMENT: Right side of housing.



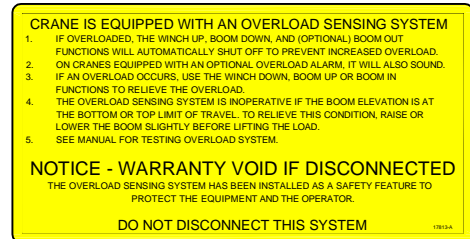
PART NO.: 23186  
 DECAL: MANUAL OVERRIDE DECAL (ET8/12K)  
 FUNCTION: To show the manual override ports.  
 QUANTITY: 1  
 PLACEMENT: Left side of housing.



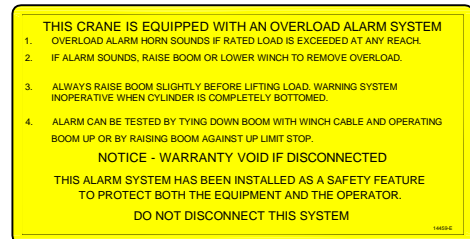
▲  
 PART NO.: 27007-03a (ET8) / 27007-04a (ET12)  
 DECAL: LOAD BLOCK CAPACITY DECAL  
 FUNCTION: To show the capacity of load block.  
 QUANTITY: 2  
 PLACEMENT: Each side of load block.



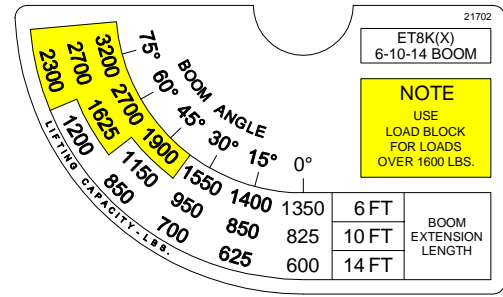
PART NO.: 17813  
 DECAL: OVERLOAD SENSING SYSTEM DECAL  
 FUNCTION: To advise operator of overload sensing system.  
 QUANTITY: 1  
 PLACEMENT: Right side of housing.



PART NO.: 14459 (WITH OPTIONAL ALARM)  
 DECAL: OVERLOAD ALARM SYSTEM DECAL  
 FUNCTION: To advise operator of overload alarm system.  
 QUANTITY: 1  
 PLACEMENT: Right side of housing.



PART NO.: 21702 & 21703 (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.: 21824  
 DECAL: MODEL NUMBER (ET8K)  
 FUNCTION: To show the model of the crane.  
 QUANTITY: 2  
 PLACEMENT: One on each side of boom.



PART NO.: 21823  
 DECAL: MODEL NUMBER (ET8KX)  
 FUNCTION: To show the model of the crane.  
 QUANTITY: 2  
 PLACEMENT: One on each side of boom.



PART NO.: 23188  
 DECAL: MANUAL OVERRIDE RIGHT (ET8/12KX)  
 FUNCTION: To show the manual override ports.  
 QUANTITY: 1  
 PLACEMENT: Right side of housing.



PART NO.: 23184  
 DECAL: MANUAL OVERRIDE LEFT (ET8/12KX)  
 FUNCTION: To show the manual override ports.  
 QUANTITY: 1  
 PLACEMENT: Left side of housing.



MANUFACTURING, INC.  
 CINCINNATI, OHIO

TITLE  
 MODEL/CAPCTY DECALS  
 ET8K(X)

DATE  
 09-09-13B  
 SUPERSEDES  
 04-13-13A

SECTION  
 C150  
 21825

# 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 BATTERY SIZE

MODEL	TOTAL LENGTH OF CABLE (FT) *								12 VOLT BATTERY REQUIREMENTS	
	0-20	21-25	26-30	31-40	41-50	51-60	61-70	71-80	CCA (A) **	RC (MIN) ***
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	#2	#2	#1	#0	#00	NOT RECOMMENDED			550	150
ET18K(X) ET25K(X) ET30KX ET36KX	SEE DRAWING 19947 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  
01-27-15U

SECTION  
C200

ELECTRIC CRANES

SUPERSEDES  
12-23-13T

711105



**RECOMMENDED CIRCUIT BREAKER TABLE**

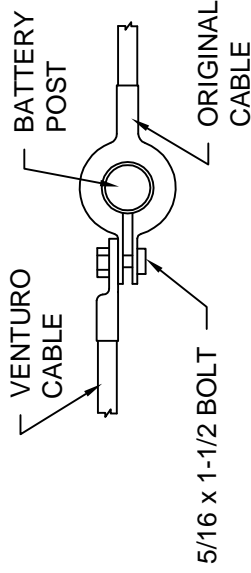
CRANE	DESCRIPTION	PART NO.
CT310KX	250 AMP, MAN RESET	22946-250
DT7	250 AMP, MAN RESET	22946-250
CE-1500-FB	150 AMP, MAN RESET	22946-150
CE6K	150 AMP, MAN RESET	22946-150
CT200X	250 AMP, MAN RESET	22946-250
ET6K	250 AMP, MAN RESET	22946-250
ET8/12K(X)	250 AMP, MAN RESET	22946-250
ET16/18KX	250 AMP, MAN 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
- 12 VOLT AUXILIARY BATTERY REQUIREMENTS
- 450 COLD CRANKING AMPS (AT 0° F)
- 100 MINUTES RESERVE CAPACITY
- 78 PLATES, 70 AMP-HR

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

**RECOMMENDED BATTERY TERMINAL ATTACHMENT**



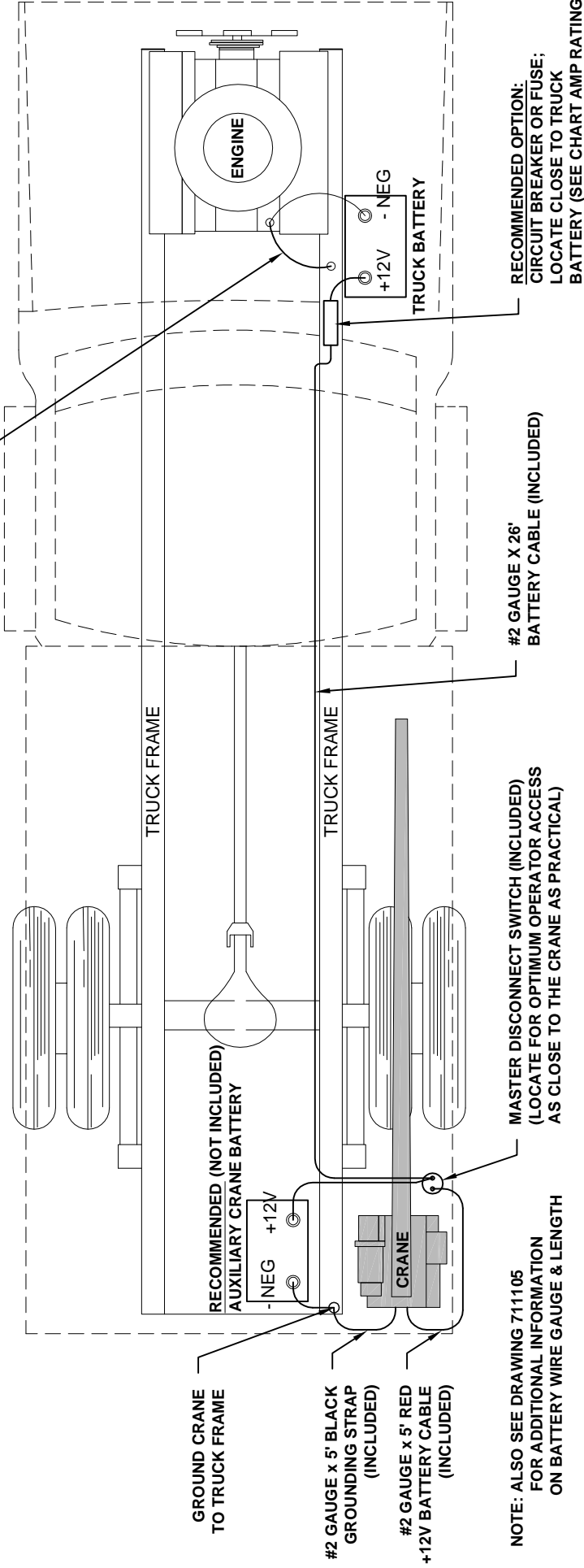
5/16 x 1-1/2 BOLT

VENTURO CABLE

BATTERY POST

ORIGINAL CABLE

INSTALL #2 GAUGE GROUND STRAP FROM ENGINE TO TRUCK FRAME (REQUIRED IF NEGATIVE FROM BATTERY IS CONNECTED TO ENGINE)



GROUND CRANE TO TRUCK FRAME

#2 GAUGE x 5' BLACK GROUNDING STRAP (INCLUDED)

#2 GAUGE x 5' RED +12V BATTERY CABLE (INCLUDED)

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

MASTER DISCONNECT SWITCH (INCLUDED) (LOCATE FOR OPTIMUM OPERATOR ACCESS AS CLOSE TO THE CRANE AS PRACTICAL)

#2 GAUGE X 26' BATTERY CABLE (INCLUDED)

RECOMMENDED OPTION: CIRCUIT BREAKER OR FUSE; LOCATE CLOSE TO TRUCK BATTERY (SEE CHART AMP RATING)



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
**BATTERY CABLE & COMPONENT INSTALL**

DATE  
07-31-15K

SECTION  
C200

ET CRANES

SUPPERSEDES  
10-17-14J

15660

# STABILITY TESTING - ET8K(X)

## 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 firm level ground and set the parking brake.
2. ▲ Deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
3. Inspect the wirerope 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 650 lbs in conjunction with the ET8K(X)'s load block (weight = 23 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 10 feet. Note: On the ET8K, testing will be more difficult, because it will require an iterative ("trial and error") approach; please call technical support for more information.
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 ( 168 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 wirerope at this point (e.g. 140 inches). This is the Maximum Stable Reach. Determine the % of Rated Capacity using the following formula:

$$\% \text{ Rated Capacity} = \frac{\text{"Max. Stable Reach" in inches}}{168} \times 100$$

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.).



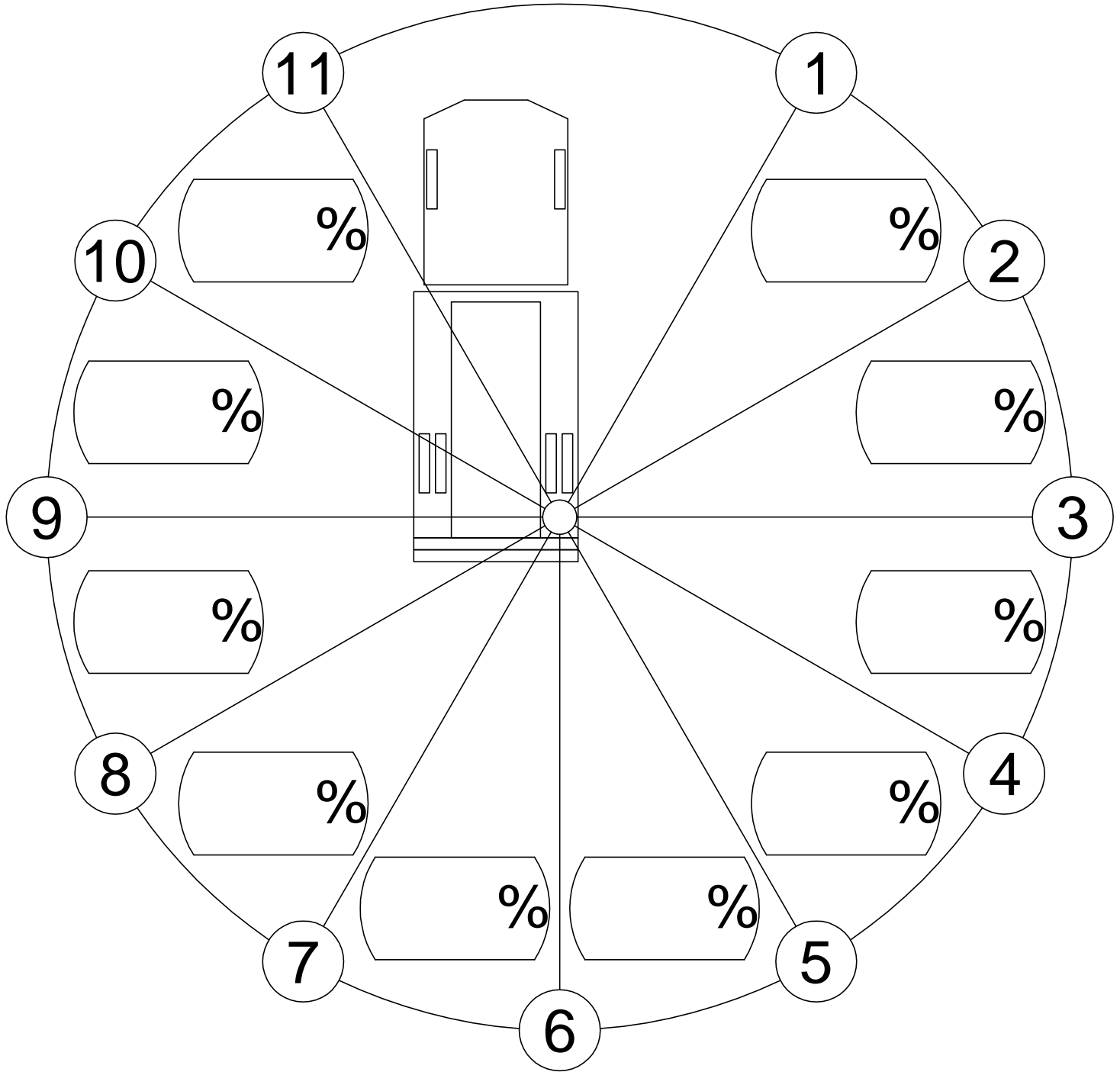
MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE	STABILITY TEST
	ET8K(X)

DATE	09-09-13B
SUPERSEDES	08-15-11A

SECTION	C200
	20906-8

# 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  
02-21-14E  
SUPERSEDES  
12-26-13D

SECTION  
C200  
**20907**

# CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

## SAFETY

Before operating this crane, read and understand these instructions, the 850711 Crane Safety and Hazards Information Sheet, and review all safety and instruction labels on the crane.

## CRANE INSPECTION

Before operating this crane, inspect for wear, damage, and oil leakage. After the wire rope has been run out, check for wear, kinks, and broken strands. Check the hook and safety latch for damage. Correct problems before using the crane.

## CAPACITY

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

## LOAD BLOCK

- ▲ If the load exceeds:
  - 1000 lbs. for the ET6K, or
  - 1600 lbs. for the ET8K(X) and ET10K(X), or
  - 1750 lbs. for the ET12K(X),or if reduced winching speed for better control of smaller loads is required, use the load block to rig the crane for two-part line operation. Refer to drawing 27423, 21701, 17450, or 21575, respectively.

## CONTROLS

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

Before plugging the pendant in, inspect the plug, socket, cord, oandant head, and switches for damage. Actuate all four [4] switches both directions to verify that they all have the same feel and sound, and that they return to the center position.

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

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

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

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



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE	DATE	SECTION
INSTALLATION DWG	01-15-15G	C200
ET6/8/10/12K(X)	SUPERSEDES 12-26-13F	900530A

# CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

## CONTROL FUNCTIONS

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

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

- ▲ POWER ROTATION - "L" and "R" control the direction of rotation. The ET6K, ET8K(X), ET10K(X) or ET12K(X) can be rotated continuously thru 360° or more. There are no restrictions on the number of rotations in any direction.

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

- a. "WINCH UP" has priority over "BOOM UP", "BOOM OUT", "BOOM IN", and "ROTATION."
- b. "BOOM UP" has priority over "BOOM OUT", "BOOM IN", and "ROTATION."
- c. "BOOM OUT" and "BOOM IN" have priority over "ROTATION."
- d. "BOOM DOWN" and "WINCH DOWN" can be operated with any function.

## CRANE OPERATION

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

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

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



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE	DATE	SECTION
INSTALLATION DWG	01-15-15F	C200
ET6/8/10/12K(X)	SUPERSEDES 12-26-13E	900530B

# CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

## OVERLOAD ALARM SYSTEMS (OPTIONAL)

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

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

## MANUAL TELESCOPIC BOOM


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

## TRUCK SETUP & STABILIZERS

1. The truck should be parked on firm level ground when using the crane.
2. The center of the crane should be positioned close enough to the job so that it can be operated at a reach that puts the load within the rated capacity of the crane.
3. Set the vehicle parking brake and put the vehicle transmission in "park" (automatic transmission) or low gear (manual transmission), unless the engine is to be left running.
4. Deploy the stabilizers to stabilize the vehicle against rocking or overturning when lifting with the crane.

## PREPARATION FOR TRAVEL

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

 **WARNING**

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



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
INSTALLATION DWG  
ET6/8/10/12K(X)

DATE  
12-26-13E  
SUPERSEDES  
05-27-06D

SECTION  
C200  
900530C

# WIRE ROPE INSTALLATION

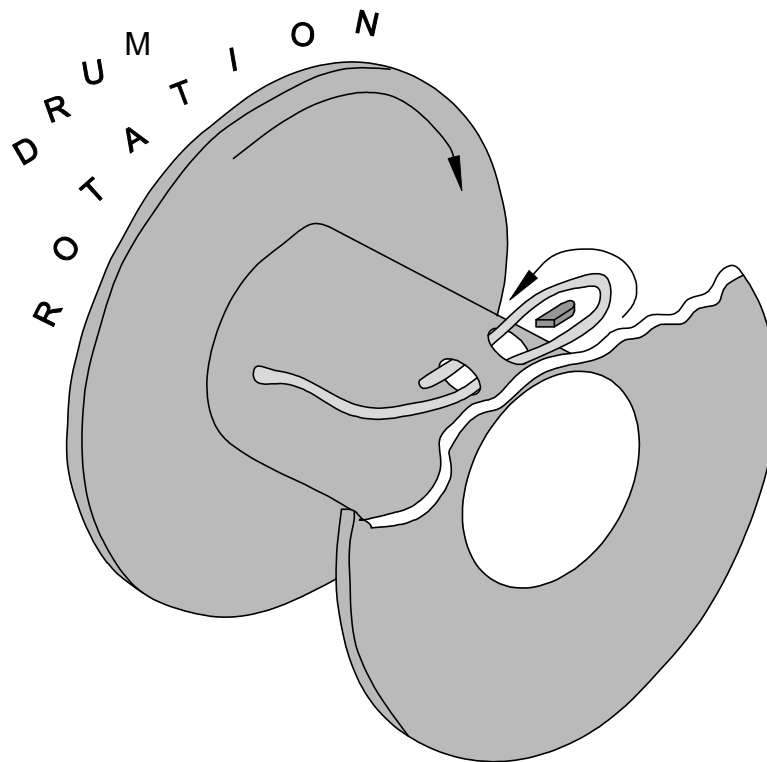


FIG. 1

- 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

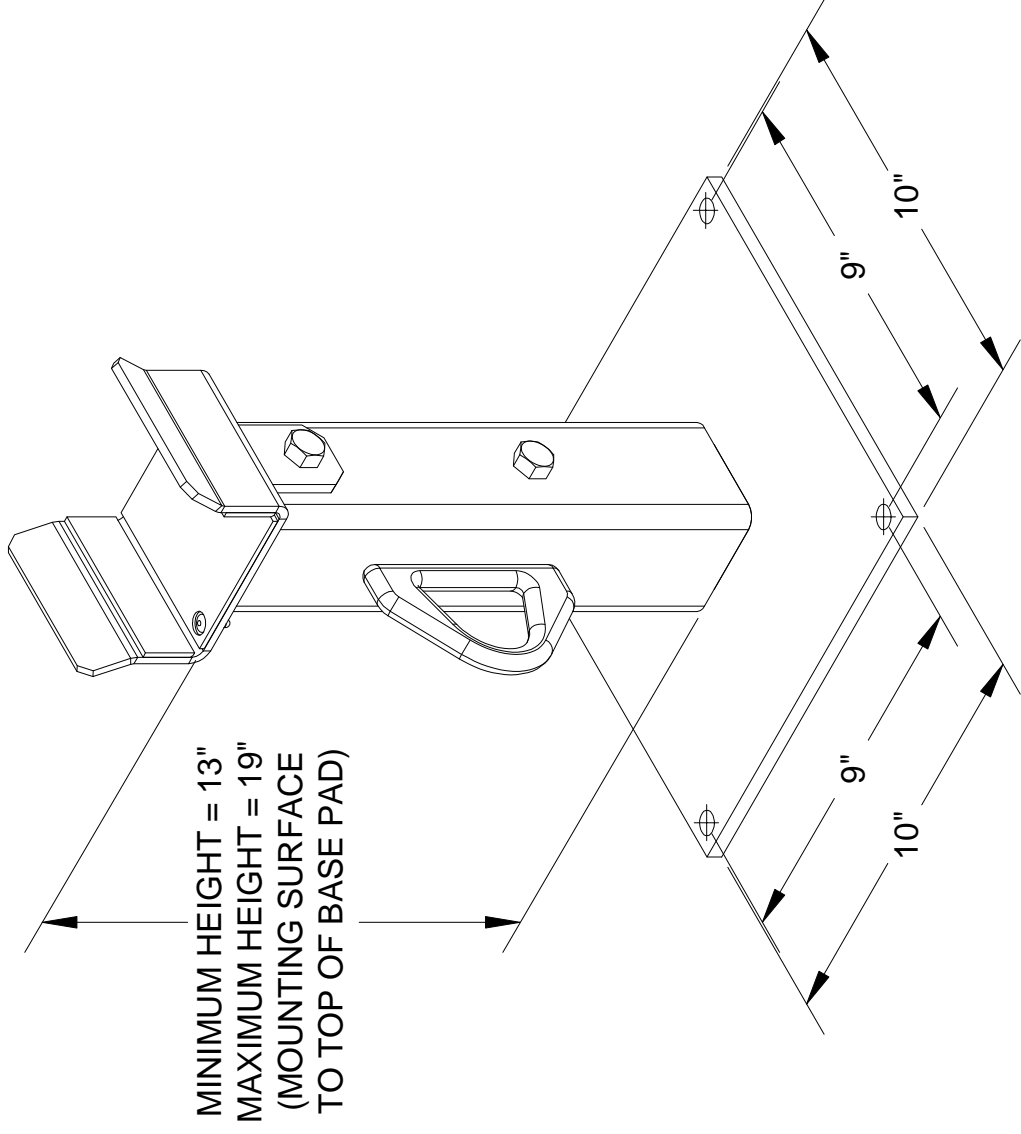
ET6K & LARGER CRANES

SUPERSEDES

12-26-13J

22245

# 21440 ADJUSTABLE BOOM REST



TITLE	INSTALLATION DRAWING	DATE	12-26-13A	SECTION	C200
	ET6/8/12K(X)	SUPERSEDES	03-06-07		20872
MANUFACTURING, INC. CINCINNATI, OHIO					



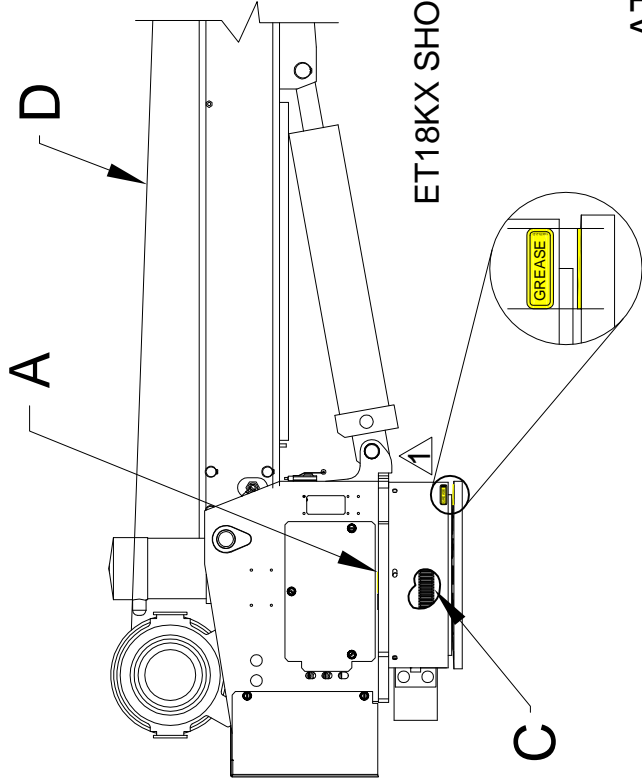


# **SECTION 300**

**MAINTENANCE**

**&**

**SERVICE**



ET18KX SHOWN FOR REFERENCE

**ATTENTION:**

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

Location	Service Required	Note	Service Interval
A	Grease fitting With Pressure Grease Gun	Use FUCHS Renolit Aluminum Complex Grease, or equivalent ▲ <b>ALIGNMENT:</b> To align hole w/ fitting, line up grease decals on lower cover and base gusset.	Time of Truck Service
B	Fill Oil Reservoir to Oil Level with Boom Down and Boom In.	Use Dextron ATF for Ambient Temperatures Between -22° F and 30° F Use ISO Viscosity Grade 68 or Equivalent for Ambient Temperatures Between 10°F and 125°F	Time of Truck Service and as required by changes in the ambient temperature range
C	Lubricate Gear Teeth	Remove Cover & Use Chassis Grease	Time of Truck Service
D	Check Wire Rope and Hook	Rope should be free of kinks and fraying	Time of Truck Service
E	Check Torque of bolts	Bolts should be torqued to 200 ft-lbs	Time of Truck Service



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
**LUBRICATION & MAINTENANCE CHART**

ET8/12K(X) AND ET16/18KX ▲

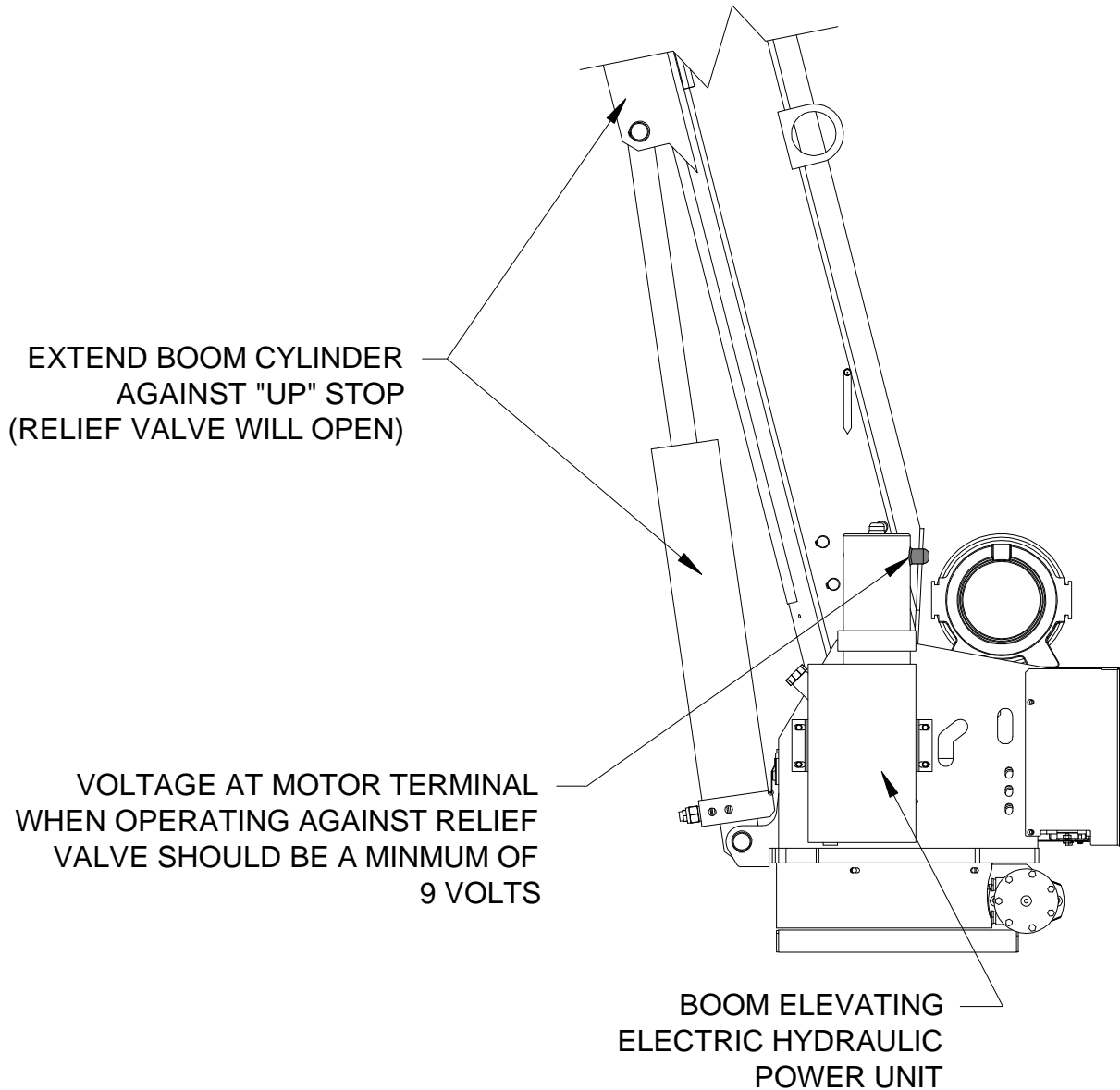
DATE  
11-18-14H  
SUPERSEDES  
10-22-14G

SECTION  
C300

**21306**

# 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

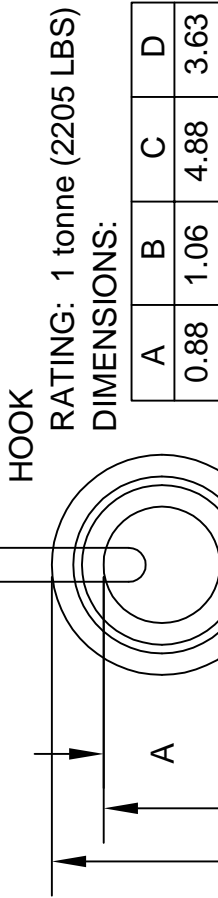
DATE  
12-26-13G  
SUPERSEDES  
10-05-09F

SECTION  
C300  
**19963**

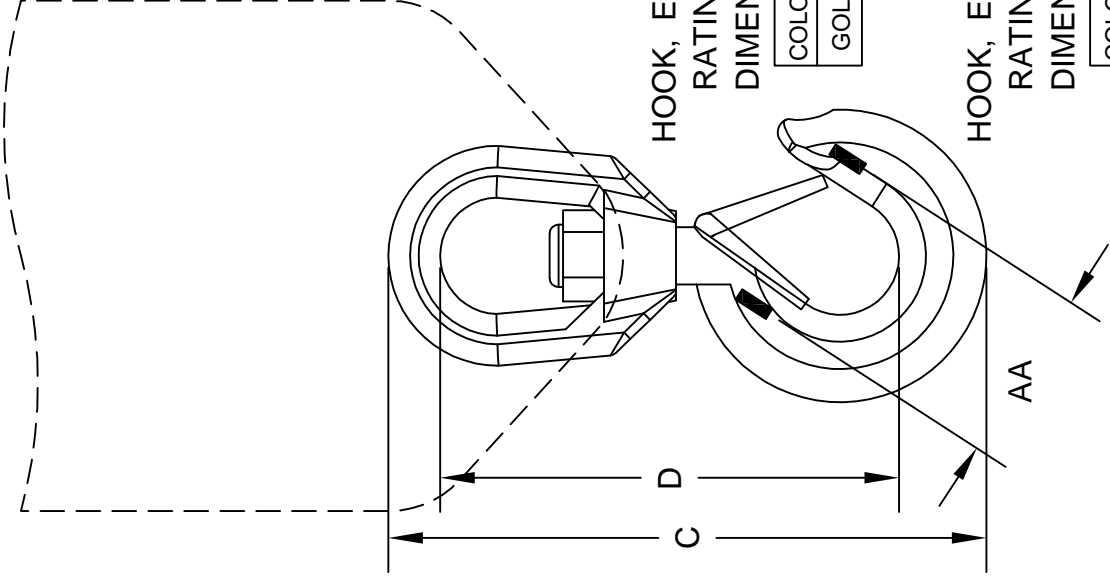
# WIREROPE ASSEMBLY

ET6K WIREROPE:  
TYPE: 3/16" DIAMETER  
7 x 19, GALVANIZED

ET8/12K(X) WIREROPE:  
TYPE: 1/4" DIAMETER  
7 x 19, GALVANIZED



# LOAD BLOCK ASSEMBLY



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
WIREROPE & HOOK SPECIFICATIONS

DATE  
01-15-15E

SECTION  
C300

ET6/8/12K(X)

SUPPERSEDES  
03-10-14D

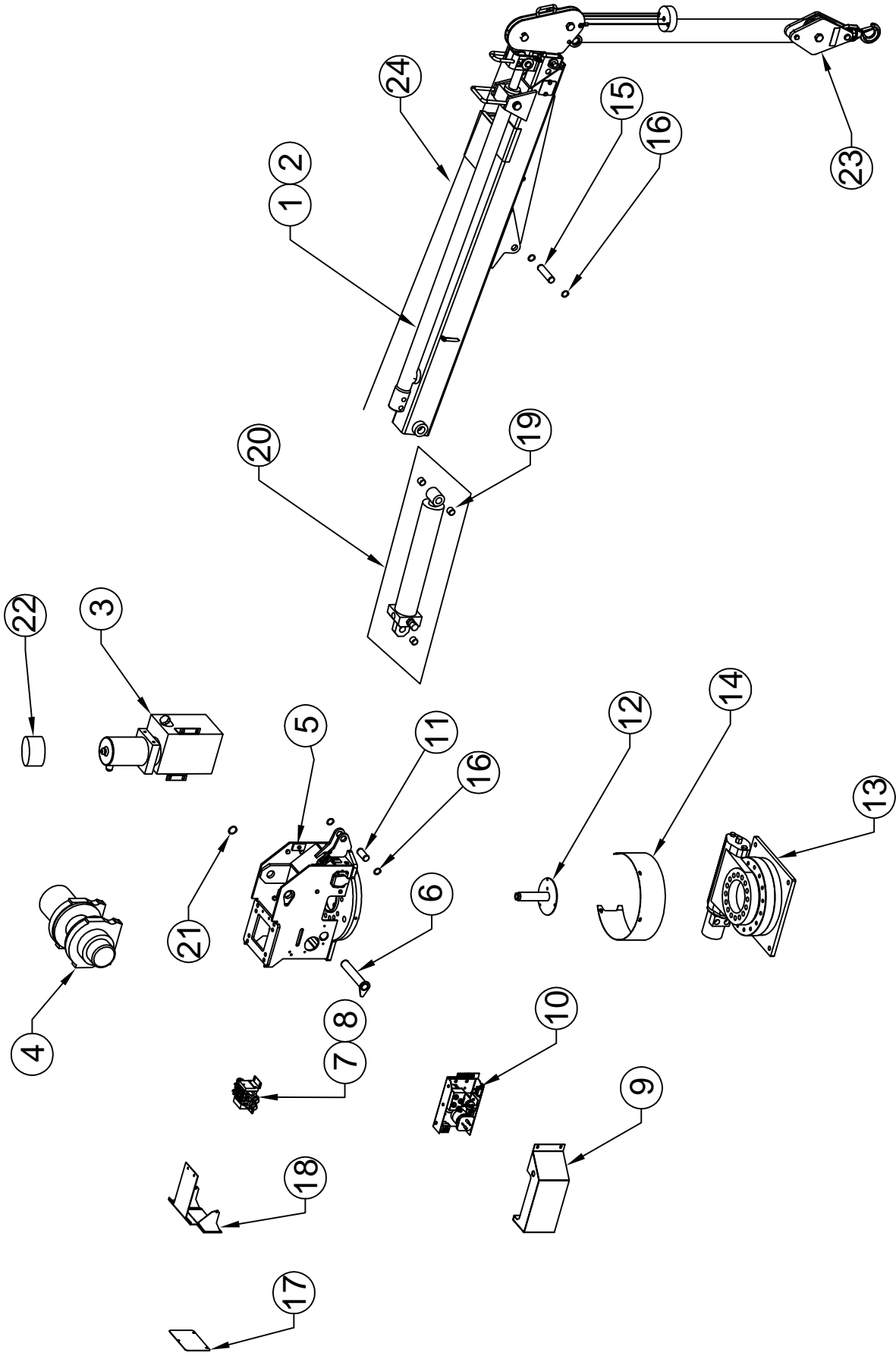
23225

# SECTION 400

## PARTS



# REPLACEMENT PARTS DRAWING



▲ REPLACEMENT PARTS LIST 28035



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
REPLACEMENT PARTS DRAWING

ET8K(X) GEN. B ▲

DATE  
01-15-15C  
SUPERSEDES  
12-26-13B

SECTION  
C400

28034

# REPLACEMENT PARTS LIST

24	1	21639	Wire rope Assembly - 1/4" x 65'
23	1	20670	Load Block
22	1	16143-3	Motor Boot
21	1	ISRNG-125	Snap Ring - 1-1/4
20	1	21788	Elevation Cyl. Assy - Includes Comp. Bearings
19	1	21789	Composite Bearing - 3ea / Cylinder Required
18	1	27626	Upper Rear Cover
17	1	21624	Lower Rear Cover Plate
16	4	ISRNG-113	Snap Ring - 1-1/8
15	1	21547	Pin - Elevation Cylinder Rod End
14	1	21185	Rotation Gear Cover
13	1	21735	Rotation Drive System
12	1	21506	'Candlestick' for Electrical Swivel
11	1	21546	Pin - Elevation Cylinder Base End
10	1	21515	Electrical Components Assembly
9	1	21621	Side Cover
8	1	21615	Manifold w/ 2 Valves/Coils - ET8K
7	1	21614	Manifold w/ 3 Valves/Coils - ET8KX
6	1	21540	Pivot Pin - Main Boom Pivot
5	1	21811	Housing Welded Assembly
4	1	21556	Winch
3	1	20873	Hydraulic Power Unit
2	1	28022	Boom Final Assembly - ET8K
1	1	28022-1	Boom Final Assembly - ET8KX
ITEM	QTY	PART NO.	DESCRIPTION

FOR REPLACEMENT PARTS DRAWING SEE 28034



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
RPLCMNT PARTS LIST  
ET8K(X), GEN. B


DATE  
09-09-13C  
SUPERSEDES  
10-26-12B

SECTION  
C400  
28035

# FASTENER LIST FOR ET8K(X)

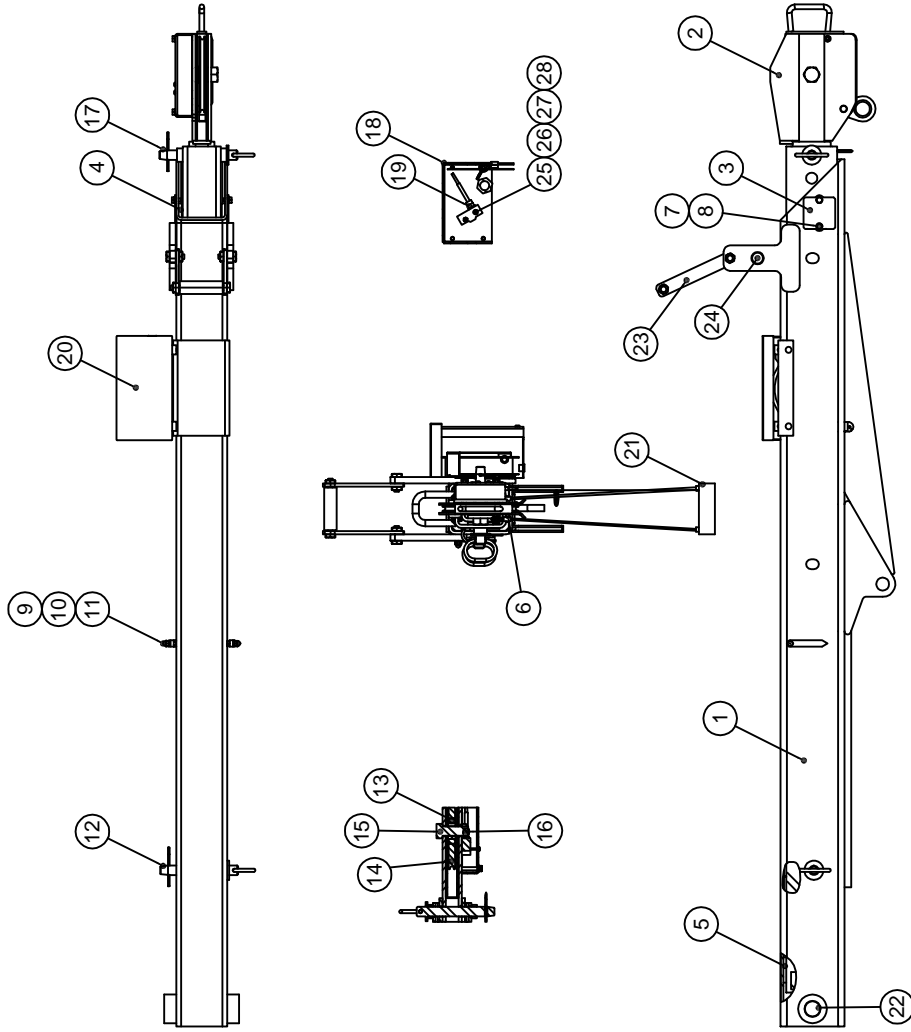
PART NO.	DESCRIPTION	QTY	LOCATION / FUNCTION
IHHCS03118063	HEX HEAD CAP SCREW; 5/16-18 x 5/8"	1	GROUND STRAP ON CANDLESTICK
ILWSH-031	LOCK WASHER; 5/16"	1	GROUND STRAP ON CANDLESTICK
ILWSH-031-STAR	LOCK WSHER; 5/16", EXTERNAL STAR	1	GROUND STRAP ON CANDLESTICK
IHHCS02520063-F	HEX HEAD CAP SCREW; 1/4-20 x 5/8", SELF-TAP	3	CANDLESTICK TO BASE
ILWSH-025-STAR	LOCK WASHER; 1/4", EXTERNAL STAR	6	CANDLESTICK TO BASE
IZERK-01327BPT	GREASE FITTING	1	SLEWING RING
IHHCS06311275	HEX HEAD CAP SCREW; 5/8-11 x 2 3/4"	13	UPPER HOUSING TO RING (TORQUE = 150 FT/LBS.)
ILWSH-063	LOCK WASHER; 5/8"	13	UPPER HOUSING TO RING
IHHCS03816125	HEX HEAD CAP SCREW; 3/8-16 x 1 3/4"	4	HYDRAULIC POWER UNIT
IFWSH-038	FLAT WASHER; 3/8"	4	HYDRAULIC POWER UNIT
ILWSH-038	LOCK WASHER; 3/8"	4	HYDRAULIC POWER UNIT
IHNUT-03816	HEX NUT; 3/8-16	4	HYDRAULIC POWER UNIT
IHHCS02520075	HEX HEAD CAP SCREW; 1/4-20 x 3/4"	4	VALVE BLOCK (STANDARD)
ILWSH-025	LOCK WASHER; 1/4"	4	VALVE BLOCK (STANDARD)
IFNUT02520	FLANGE NUT; 1/4-20, FLANGE	4	VALVE BLOCK (STANDARD)
IHHCSM6M12-8.8	HEX HEAD CAP SCREW; 6MM x 12MM, GR. 8.8	2	VALVE BLOCK (MODULAR)
ILWSH-025	LOCK WASHER; 1/4"	2	VALVE BLOCK (MODULAR)
IHHCS03118100	HEX HEAD CAP SCREW; 5/16-18 x 1"	2	GROUND POST (HSG - VALVE BLOCK)
ILWSH-031-STAR	LOCK WASHER; 5/16", STAR	4	GROUND POST (HSG - VALVE BLOCK)
IFWSH-031	FLAT WASHER; 5/16"	2	GROUND POST (HSG - VALVE BLOCK)
IHNUT-03118	HEX NUT; 5/16-18	2	GROUND POST (HSG - VALVE BLOCK)
IHHCS#1024125	HEX HEAD CAP SCREW; #10-24 x 1 1/4"	2	TOP ANGLE SWITCH
ILWSH-#10	LOCK WASHER; #10	2	TOP ANGLE SWITCH
IHNUT-#1024	HEX NUT; #10-24	2	TOP ANGLE SWITCH
IHHCS02520075	HEX HEAD CAP SCREW; 1/4-20 x 3/4"	1	TOP ANGLE SWITCH BRACKET - HOUSING
ILWSH-025	LOCK WASHER; 1/4"	1	TOP ANGLE SWITCH BRACKET - HOUSING
IUNUT-02520	U-NUT; 1/4-20	5	COVER; ROTATION
IHHCS02520075	HEX HEAD CAP SCREW; 1/4-20 x 3/4"	5	COVER; ROTATION
IFWSH-025	FLAT WASHER; 1/4"	5	COVER; ROTATION
ILWSH-025	LOCK WASHER; 1/4"	5	COVER; ROTATION
IHHCS02520038-F	HEX HEAD CAP SCREW; 1/4-20 x 3/8", SELF-TAP	3	COVER; LOWER REAR
IHHCS03118075-F	HEX HEAD CAP SCREW; 5/16-18 x 3/4", SELF-TAP	3	COVER; UPPER REAR
IHHCS02520063-F	HEX HEAD CAP SCREW; 1/4-20 x 5/8", SELF-TAP	2	COVER; ELECTRICAL PANEL
IPHCS#0832050	PAN HEAD CAP SCREW; #08-32 x 1/2"	4	PENDANT PLUG CASE
ILWSH-#08	LOCK WASHER; #08	4	PENDANT PLUG CASE
IHNUT-02520	HEX NUT; 1/4-20	2	WINCH TERMINAL SPACER
14883	GROMMET; RUBBER, 3/8" ID	2	HOUSING; FRONT, BOOM SIDE
25019	PLUG; 7/8" DIAMETER	1	ELECTRICAL PANEL; TOP

FOR REPLACEMENT PARTS DRAWING SEE 28034

 <b>VENCO VENTURO INDUSTRIES LLC</b> CINCINNATI, OHIO	TITLE	DATE	SECTION
	REPLCMNT FASTENERS	01-20-15B	C400
	ET8K(X) GEN. B ▲	SUPERSEDES 12-26-13A	<b>28036</b>



# 28022 BOOM PARTS DRAWING



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	28023	WELDED ASSY; PRIMARY BOOM
2	1	21728	SECONDARY & TERTIARY BOOM
3	2	21528	BEARING CAP
4	2	21209	BOOM BEARING; 2 x 1.5 x 0.44
5	1	21208	BOOM BEARING; 3 x 2 x 0.5
6	1	21538	BOOM BEARING; 2 x 1.5 x 0.5
7	4	!HHCS02520050	HEX HEAD CAP SCREW; 1/4-20 x 1/2
8	4	!LWSH-025	LOCK WASHER; 1/4
9	2	22490	SPACER; BOOM ARROW
10	2	13459-1	ARROW; 3.19" LONG
11	2	!ANUT-02520S	ACORN NUT; 1/4-20
12	1	23042-B-34-34	ASSY; PIN / LANYARD
13	1	20536	SPACER; 20537 SHEAVE
14	1	20537	POLY CABLE SHEAVE
15	1	17059-6	SHEAVE AXLE
16	1	!JNUT-07510N	JAM NUT; 3/4-10, NYLON INSERT
17	1	23042-B-14-14	ASSY; PIN / LANYARD
18	1	21291	ANIT-2-BLOCK HOUSING
19	1	19376	SWITCH; ANTI-2-BLOCK
20	1	22683	ASSY; CORD REEL, LEFT
21	1	19377-1	ASSY; WEIGHT, ANTI-2-BLOCK
22	2	21785	FIBER BEARING; PRIMARY BOOM
23	1	27090	ASSY; WIRE ROPE GUIDE
24	4	28019	PLUG; 11/16 HOLE
25	2	!FWSH-#06	FLAT WASHER; #06
26	2	!LWSH-#06	LOCK WASHER; #06
27	2	!HNUT-#0632	HEX NUT; #06-32
28	2	!PHMS#0632125	PAN HEAD MACHINE SCREW; #06-32 x 1.25

NOTE: FOR ANTI-2-BLOCK PARTS, SEE 28040



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
28022 BOOM PARTS DRAWING

DATE  
01-20-15B

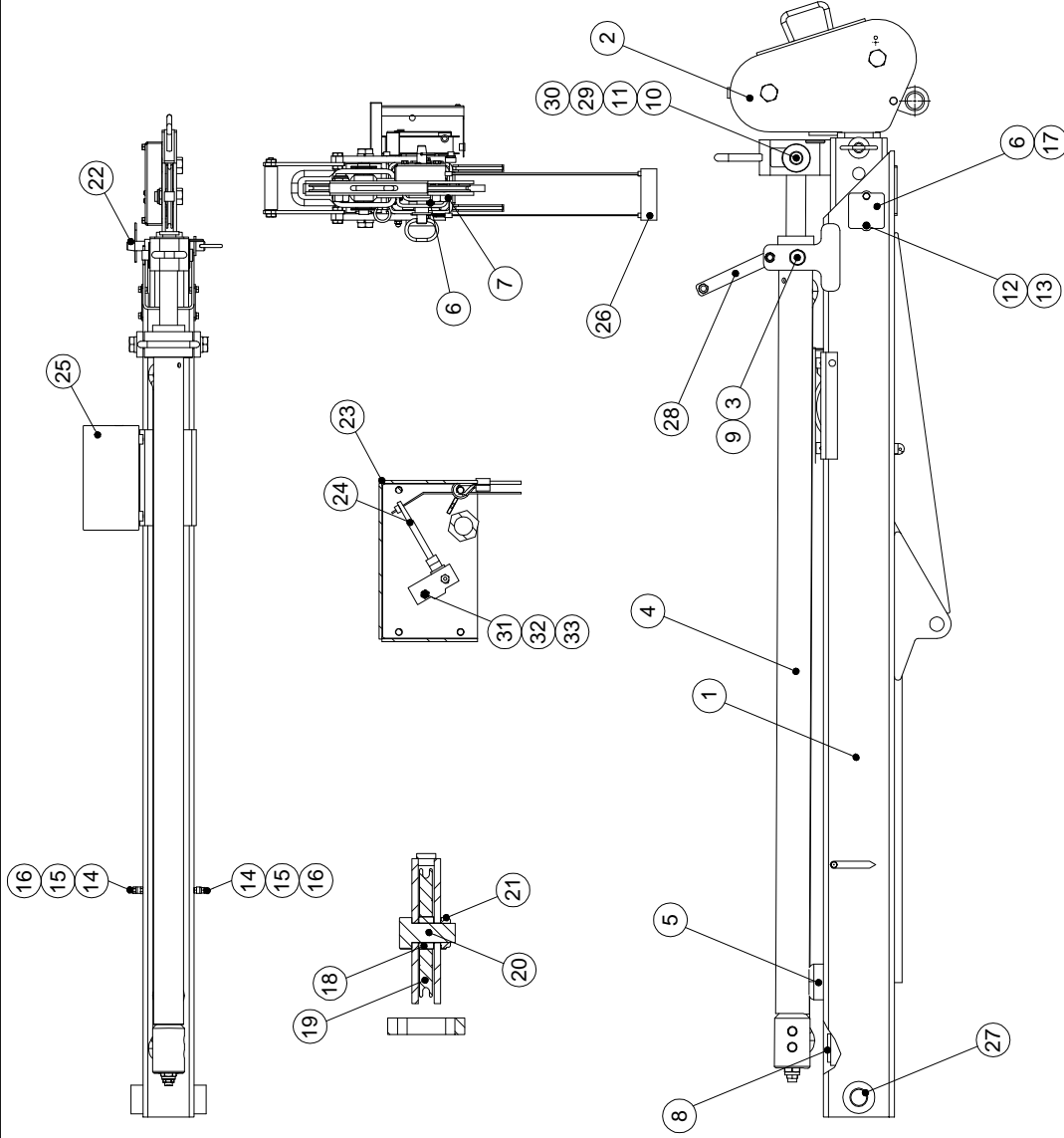
SUPERSEDES  
12-26-13A

SECTION  
C400

21790

ET8K ▲

# 28022-1 BOOM PARTS DRAWING



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	28023	WELDED ASSY; PRIMARY BOOM
2	1	28011	SECONDARY & TERTIARY BOOM
3	2	!HNUT-07516	HEX NUT; 3/4-16
4	1	21754	EXTENSION CYLINDER
5	1	20285	BUMPER BOOM
6	2	21209	BOOM BEARING; 2 x 1.5 x 0.44
7	1	21208	BOOM BEARING; 3 x 2 x 0.5
8	1	21538	BOOM BEARING; 2 x 1.5 x 0.5
9	2	17487	PIVOT BOLT; ADJ. (EXTENSION CYL.)
10	1	13401-2A	CYL. PIVOT PIN; 3/4 x 3 3/4
11	1	!RPIN-016150	ROLL PIN; 5/32 x 1 1/2
12	4	!HCS02520050	HEX HEAD CAP SCREW; 1/4-20 x 1/2
13	4	!LWSH-025	LOCK WASHER; 1/4
14	2	22490	SPACER; BOOM ARROW
15	2	13459-1	ARROW; 3,19" LONG
16	2	!ANUT-02520S	ACORN NUT; 1/4-20
17	2	21528	BEARING CAP
18	2	20536	SPACER; 20537 SHEAVE
19	2	21630	POLY CABLE SHEAVE W/ BUSHING
20	2	17059-4	SHEAVE AXLE
21	2	!LNUT-07510N	JAM NUT; 3/4-10; NYLON INSERT
22	1	23042-B-14-14	ASSY; PIN / LANYARD
23	1	21291	ANIT-2-BLOCK HOUSING
24	1	19376	SWITCH; ANTI-2-BLOCK
25	1	22683	ASSY; CORD REEL, LEFT
26	1	19377-1	ASSY; WEIGHT, ANTI-2-BLOCK
27	2	21785	COMPOSITE BEARING; PRIMARY BOOM
28	1	27090	ASSY; WIRE ROPE GUIDE
29	2	21734	BEARING (UHMW); EXTENSION PIN
30	2	!FWSH-075	FLAT WASHER; 3/4"
31	2	!LWSH-#06	LOCK WASHER; #06
32	2	!HNUT-#0632	HEX NUT; #06-32
33	2	!PHMS#0632125	PAN HEAD MACHINE SCREW; #06-32 x 1.25

NOTE: FOR ANIT-2-BLOCK PARTS, SEE 28040

VENTURO<sup>®</sup>  
 MANUFACTURING, INC.  
 CINCINNATI, OHIO

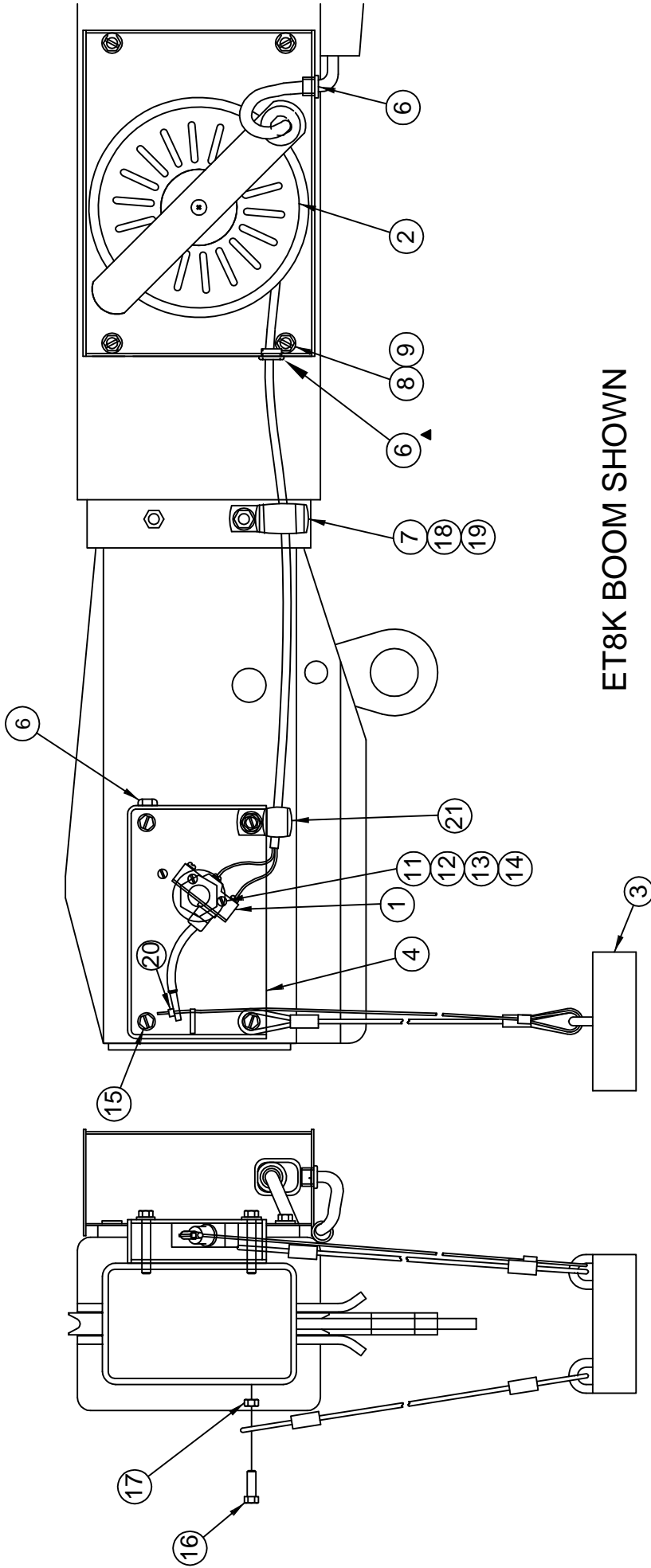
TITLE  
 28022-1 BOOM PARTS DRAWING

ET6/8KX

DATE  
 12-26-13B  
 SUPERSEDES  
 01-24-13A

SECTION  
 C400

21791



ET8K BOOM SHOWN

ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
21	1	19269	CABLE CLAMP; SMALL	10	1	-	-
20	1	19302	SET COLLAR; 3/32"	9	4	ILWSH-031	LOCK WASHER; 5/16"
19	1	ILWSH-025	LOCK WASHER; 1/4"	8	4	ISHCS03118050-5	SOCKET HEAD CAP SCREW; 5/16-18 x 1/2"
18	1	ANUT-02520	ACORN NUT; 1/4-20	7	1	19275	CABLE CLAMP; LARGE
17	1	HNUT-02520	HEX NUT; 1/4-20	▲ 6	3	19270	SNAP BUSHING; 9/16" I.D.
16	1	!HHCS02520075-5	HEX HEAD CAP SCREW; 1/4-20 x 3/4" GR. 5	▲ 5	-	-	-
15	4	!HHCS02520175	HEX HEAD CAP SCREW; 1/4-20 x 1 3/4"	4	1	21291	ANTI TWO-BLOCK HOUSING
14	2	!LWSH-#06	LOCK WASHER; #6	3	1	19377-1	ASSY; WEIGHT, ANTI-2-BLOCK
13	2	!FWSH-#06	FLAT WASHER; #6	2	1	22683	ASSY; CORD REEL, LEFT
12	2	HNUT-#0632	HEX NUT; #6-32	1	1	19376	SWITCH; ANTI-2-BLOCK
11	2	!PHMS#632125	PAN HEAD MACHINE SCREW; #6-32 x 1 1/4"				
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
REPLACEMENT PARTS DRAWING

DATE  
01-21-15B

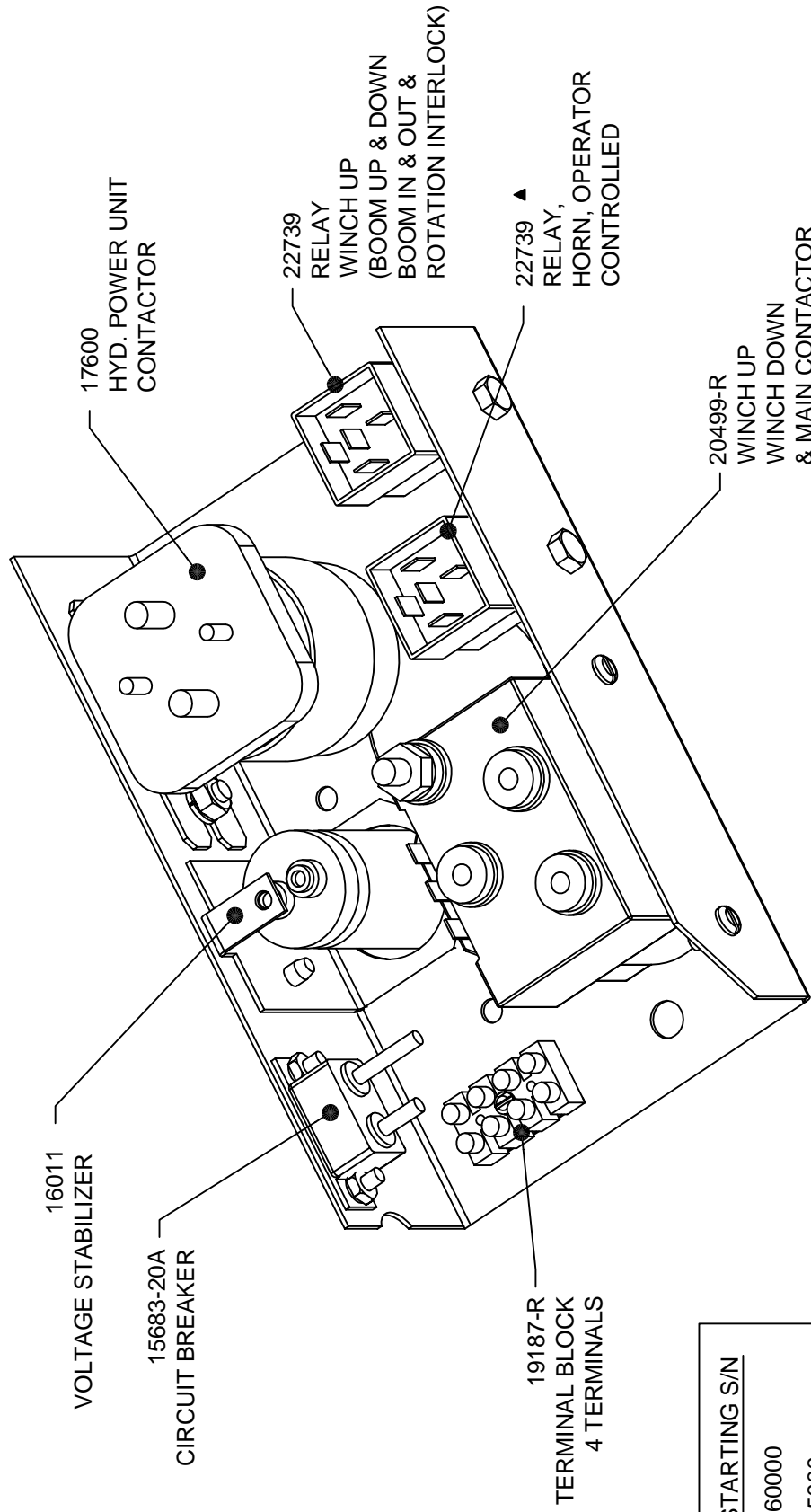
SECTION  
C400

SUPERSEDES  
12-26-13A

A2B SYSTEM (ET8/12K(X) GEN. B) ▲

28040

# 21515 ELECTRICAL COMPONENT ASSEMBLY



MODEL	STARTING S/N
ET6K	160000
ET8K	45000
ET8KX	73800
ET12K	61800
ET12KX	69800



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
ELECTRICAL COMPONENT ASSEMBLY

ET6K, ET8/12K(X)

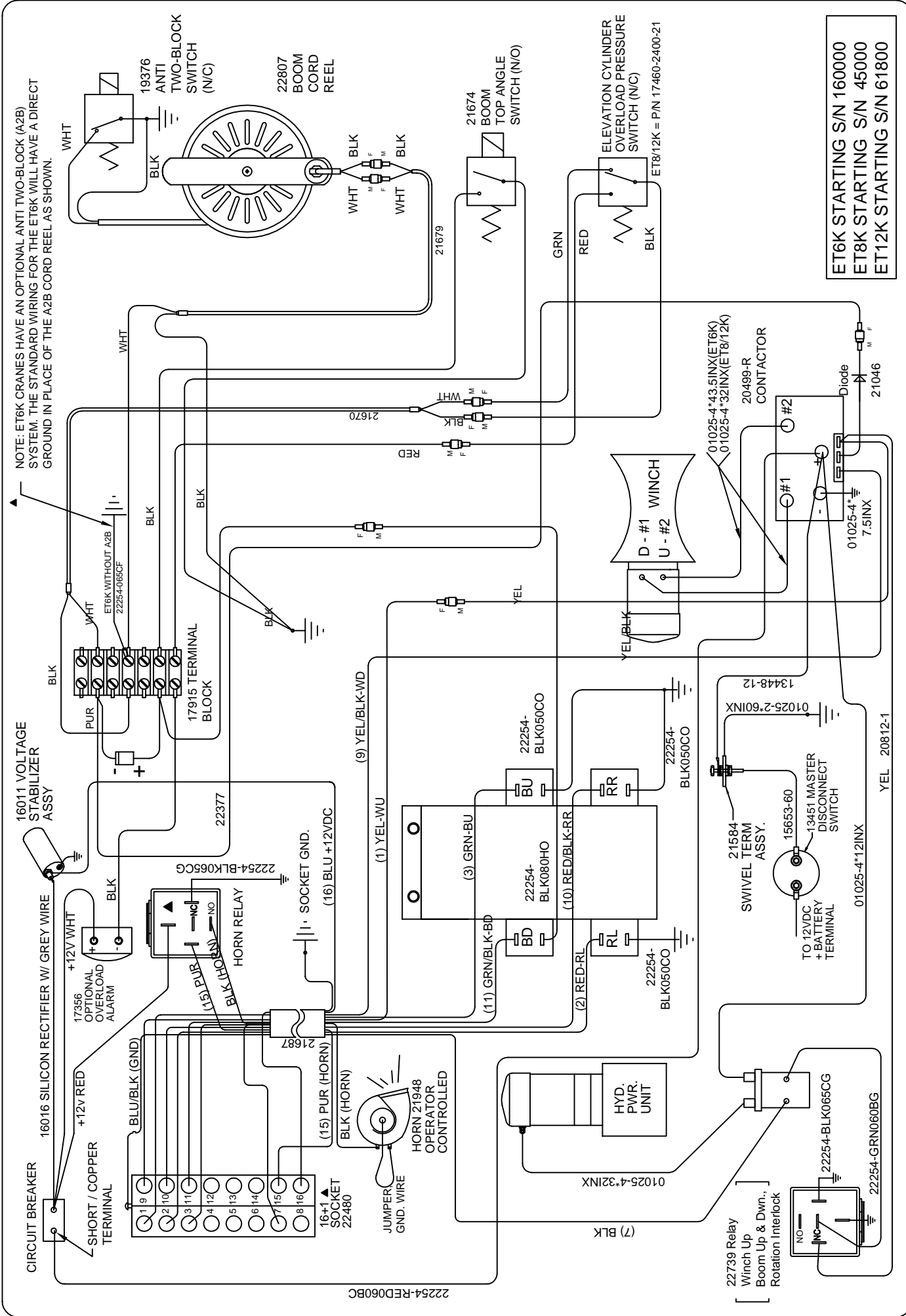
DATE  
02-10-15E


SUPPERSEDES  
01-22-15D

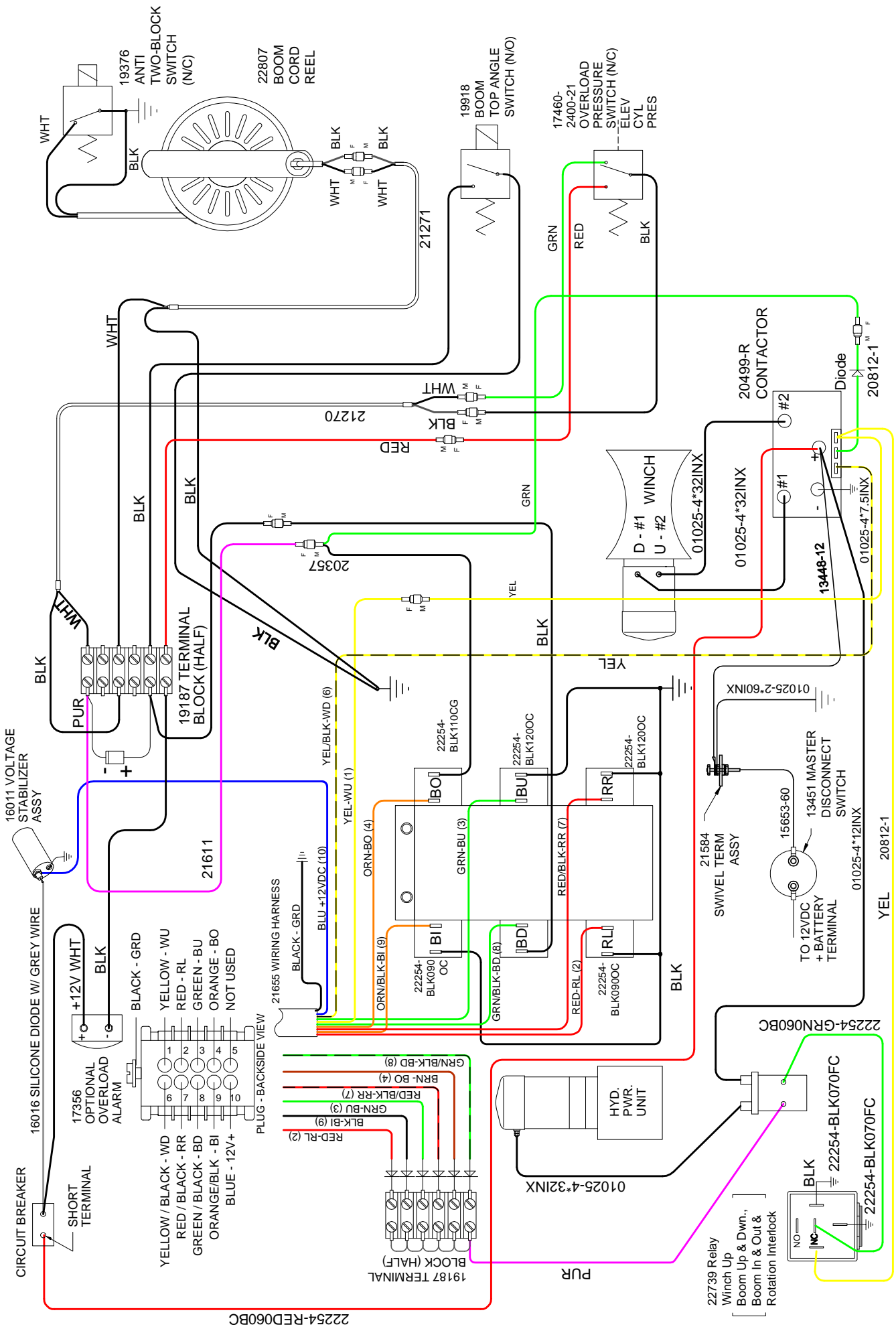
SECTION  
C400


21600





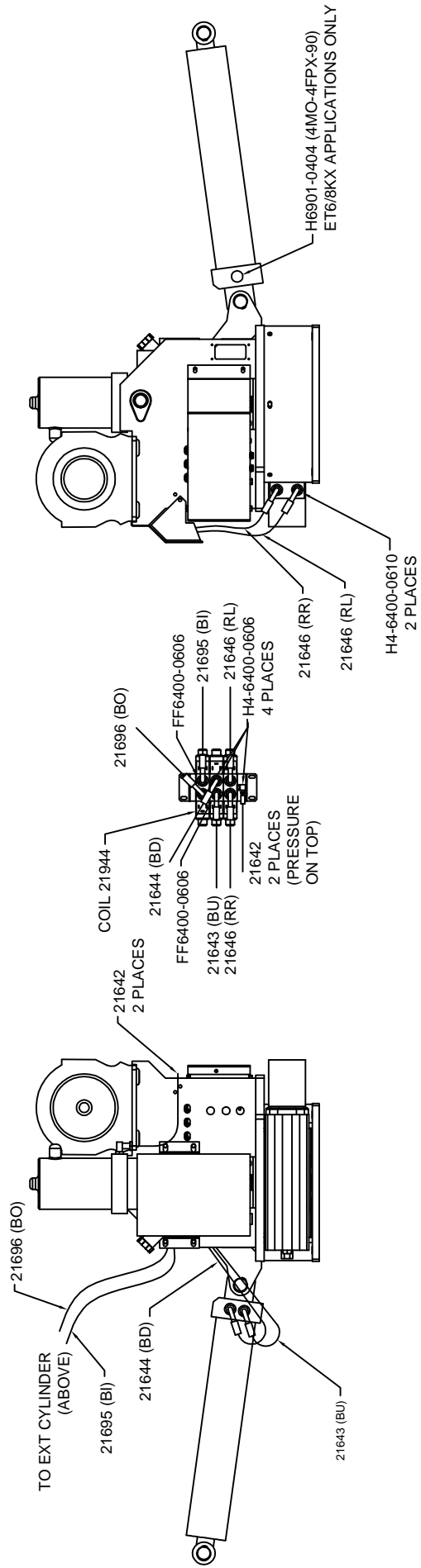
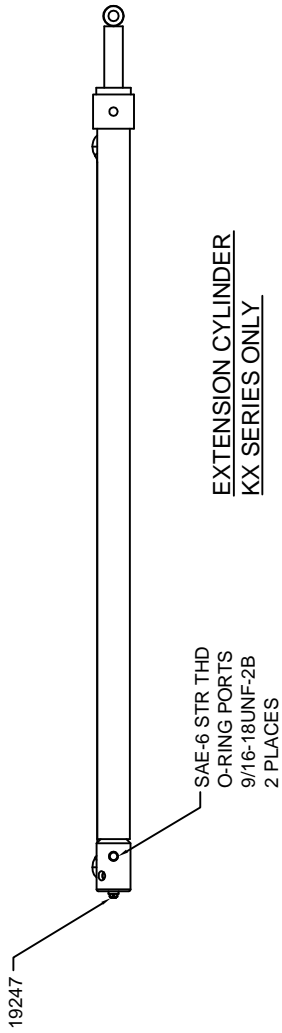
	VENCOR INDUSTRIES LLC CINCINNATI, OHIO		TITLE <b>WIRING DIAGRAM</b>	
	ET6/8/12K W/ HORN		DATE 02-16-15D	
		SECTION -		SUPERSEDES 02-02-15C
				<b>21949</b>



 <b>VENTURO</b> <sup>®</sup> MANUFACTURING, INC. CINCINNATI, OHIO	<b>WIRING DIAGRAM</b> ET8KX		SECTION <b>C400</b>	DATE <b>09-09-13J</b> SUPERSEDES <b>04-18-12H</b>	<b>21658</b>
	TITLE <b>WIRING DIAGRAM</b> <b>ET8KX</b>				





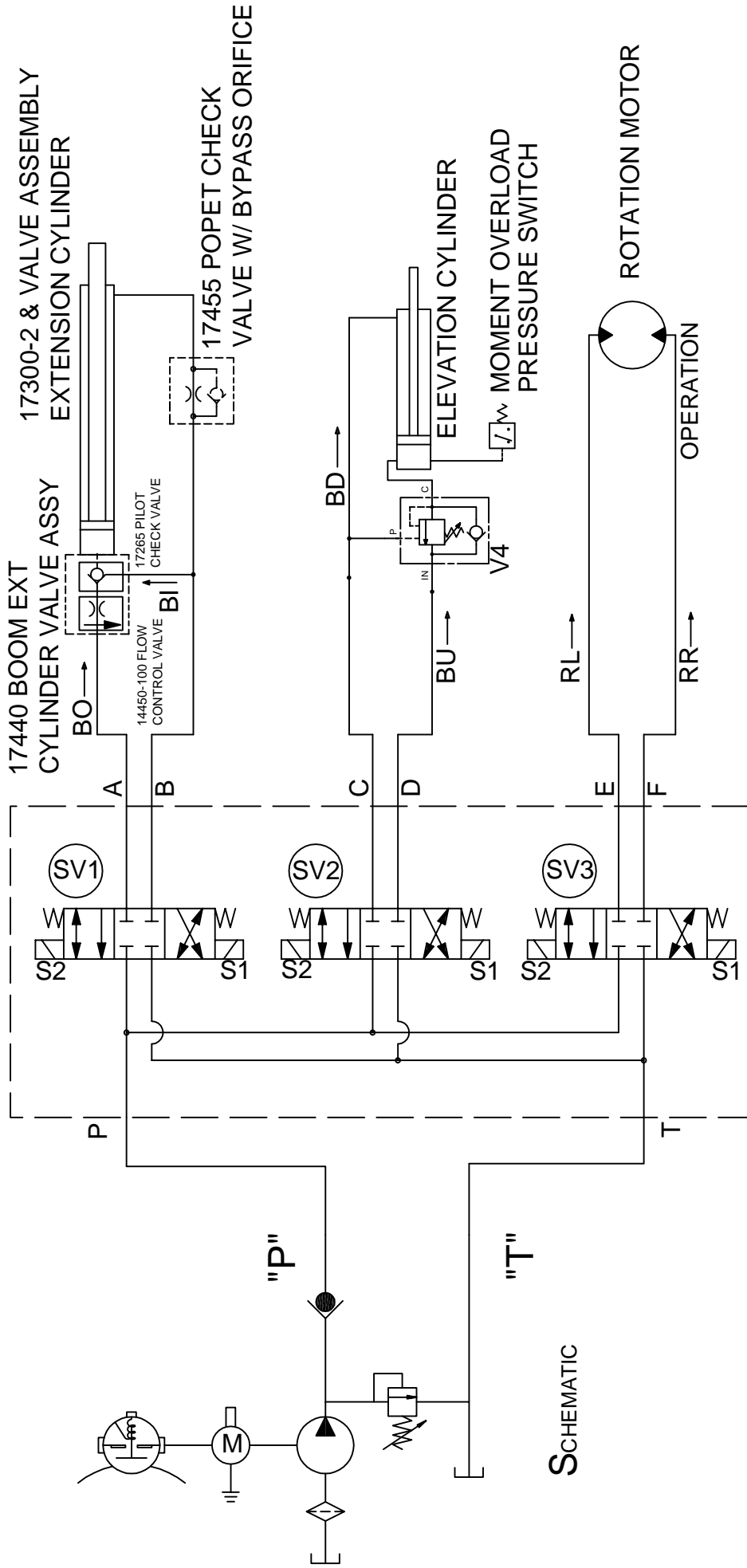


VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
**REPLACEMENT PARTS DRAWING**  
**ET8/12KX (GEN B) HYD COMPONENTS**

DATE  
01-22-15B  
SUPERSEDES  
12-26-13A

SECTION  
C400  
28037

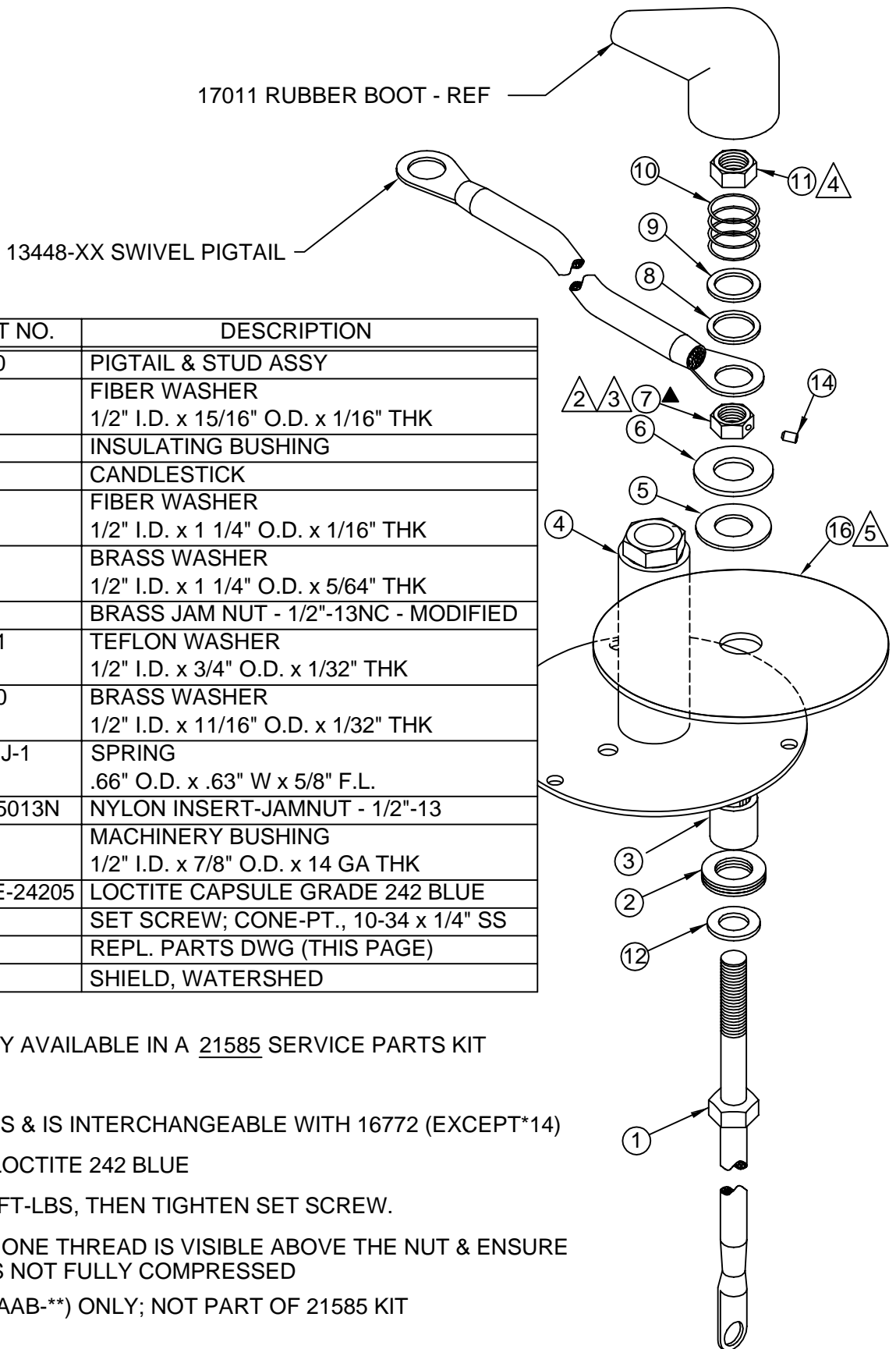


NOTE:  
 17440 CYLINDER & SV1 VALVE NOT AVAILABLE ON 'K' SERIES CRANES

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

 VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	HYDRAULIC SYSTEM DIAGRAM	
	SECTION	C400	21602
	DATE	01-26-15C	
	SUPPERSEDES	12-26-13B	

# 21584 SWIVEL TERMINAL ASSY



ITEM	QTY	PART NO.	DESCRIPTION
1	1	15653-60	PIGTAIL & STUD ASSY
* 2	3	16771-1	FIBER WASHER 1/2" I.D. x 15/16" O.D. x 1/16" THK
* 3	1	13410	INSULATING BUSHING
4	1	21506	CANDLESTICK
* 5	1	16771-2	FIBER WASHER 1/2" I.D. x 1 1/4" O.D. x 1/16" THK
* 6	1	16770*7	BRASS WASHER 1/2" I.D. x 1 1/4" O.D. x 5/64" THK
* 7	1	19800	BRASS JAM NUT - 1/2"-13NC - MODIFIED
* 8	1	16770*11	TEFLON WASHER 1/2" I.D. x 3/4" O.D. x 1/32" THK
* 9	1	16770*10	BRASS WASHER 1/2" I.D. x 11/16" O.D. x 1/32" THK
* 10	1	LC-063HJ-1	SPRING .66" O.D. x .63" W x 5/8" F.L.
* 11	1	!JNUT-05013N	NYLON INSERT-JAMNUT - 1/2"-13
* 12	1	12534-4	MACHINERY BUSHING 1/2" I.D. x 7/8" O.D. x 14 GA THK
* 13	1	LOCTITE-24205	LOCTITE CAPSULE GRADE 242 BLUE
* 14	1	21029	SET SCREW; CONE-PT., 10-34 x 1/4" SS
* 15	1	21584i	REPL. PARTS DWG (THIS PAGE)
16	1	27156-1	SHIELD, WATERSHED

\* ITEMS ARE ONLY AVAILABLE IN A 21585 SERVICE PARTS KIT

- △ 1 21585 REPLACES & IS INTERCHANGEABLE WITH 16772 (EXCEPT\*14)
- △ 2 SECURE WITH LOCTITE 242 BLUE
- △ 3 TORQUE TO 30 FT-LBS, THEN TIGHTEN SET SCREW.
- △ 4 TIGHTEN UNTIL ONE THREAD IS VISIBLE ABOVE THE NUT & ENSURE THAT SPRING IS NOT FULLY COMPRESSED
- △ 5 FOR ET6K (ECBAAB-\*\*) ONLY; NOT PART OF 21585 KIT



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
**REPLACEMENT PARTS**

ET6K, ET8/12K(X)

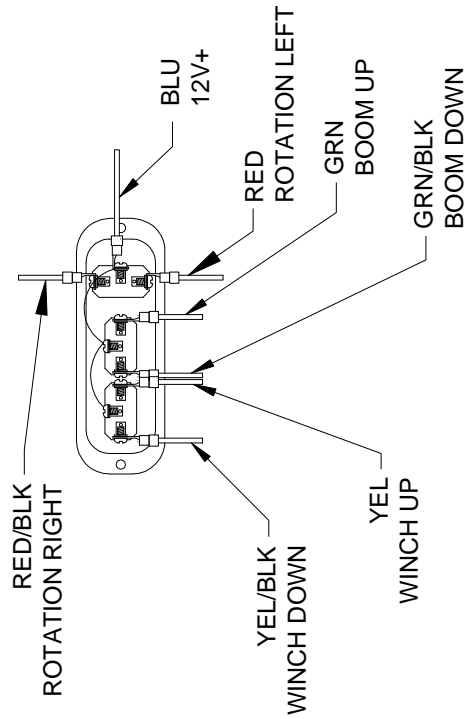
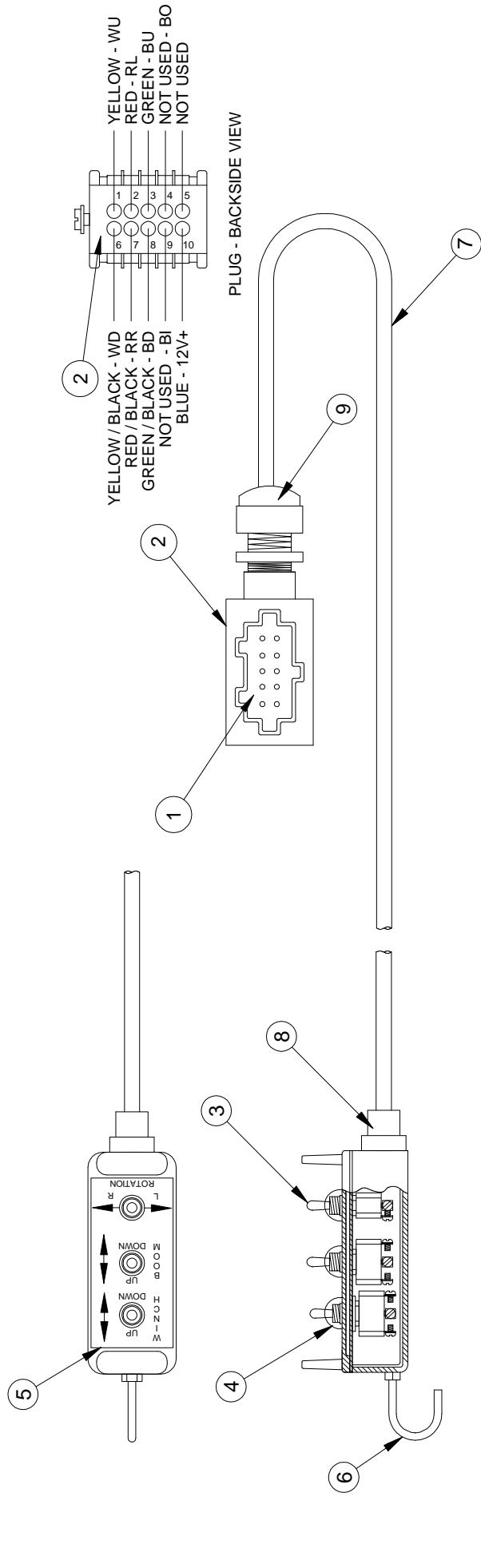
DATE  
02-17-15E

SUPERSEDES  
12-26-13D

SECTION  
C400

**21584i**

# 20910 3-SWITCH PENDANT



ITEM	QTY	PART NO.	DESCRIPTION
9	1	27093	CORD RESTRAINT - PLUG END
8	1	20165	GASKET / CORD RESTRAINT
7	1	17151-XX	CORD ASSY (XX = LENGTH IN FT)
6	1	11557	HOOK
5	1	25538	DECAL
4	3	19793	TOGGLE BOOT
3	3	13763	TOGGLE SWITCH
2	1	27094	PLUG CASE - 10+1 POLE
1	1	19427	MALE INSERT - 10+1 POLE

**VENTURO**<sup>®</sup>  
MANUFACTURING, INC.  
CINCINNATI, OHIO

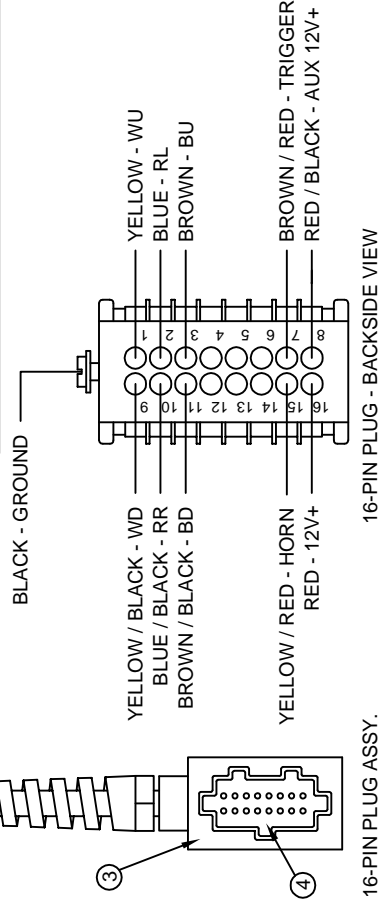
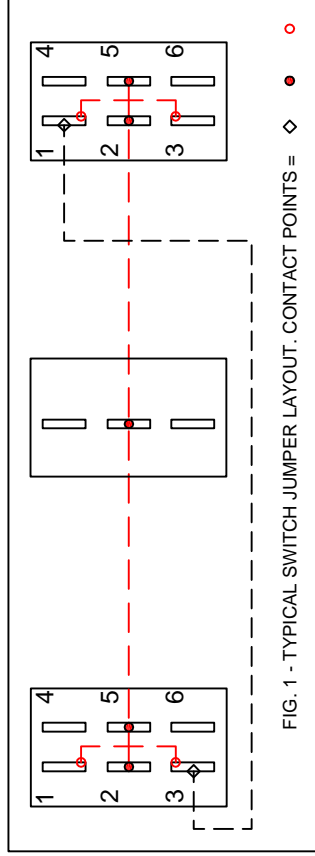
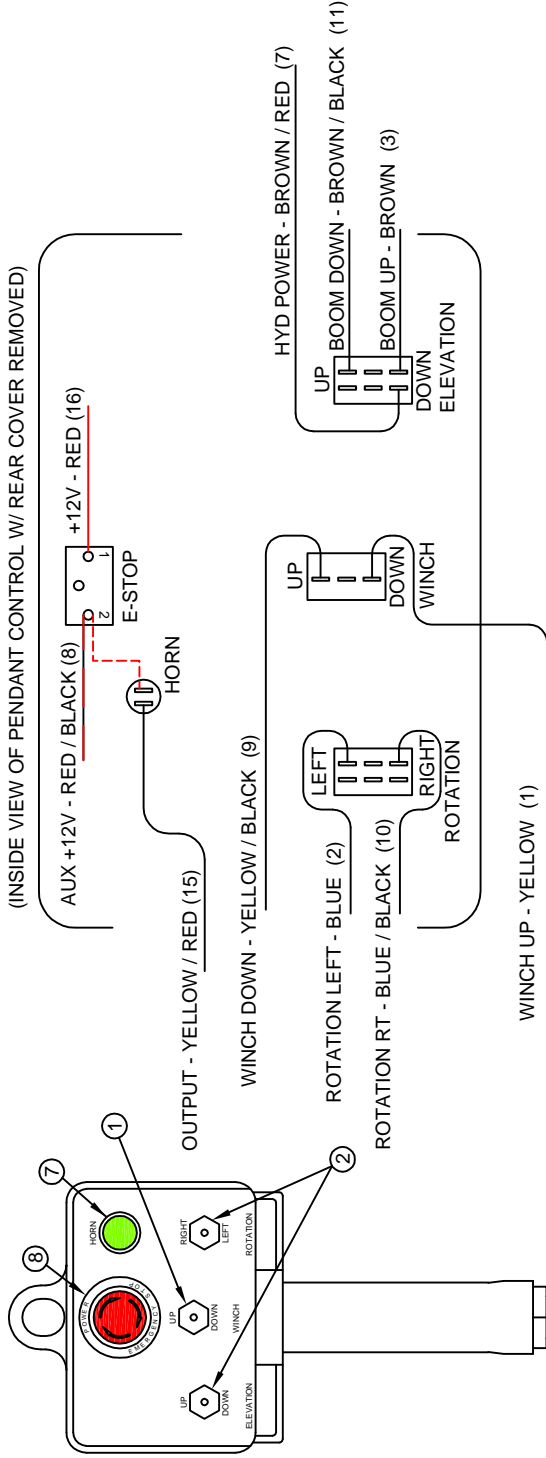
TITLE: **REPLACEMENT PARTS DRAWING**

DATE: 12-26-13A  
SUPERSEDES: 10-27-11

SECTION: C400

28038

# 21991 PENDANT; 3 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**

ET8K                      45000

ET12K                     61800

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	2	22152	SWITCH; DPDT, MOMENTARY
1	1	22081	SWITCH; SPDT, MOMENTARY

**TITLE**  
REPLACEMENT PARTS DWG & LIST

VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO



**DATE**  
10-03-14

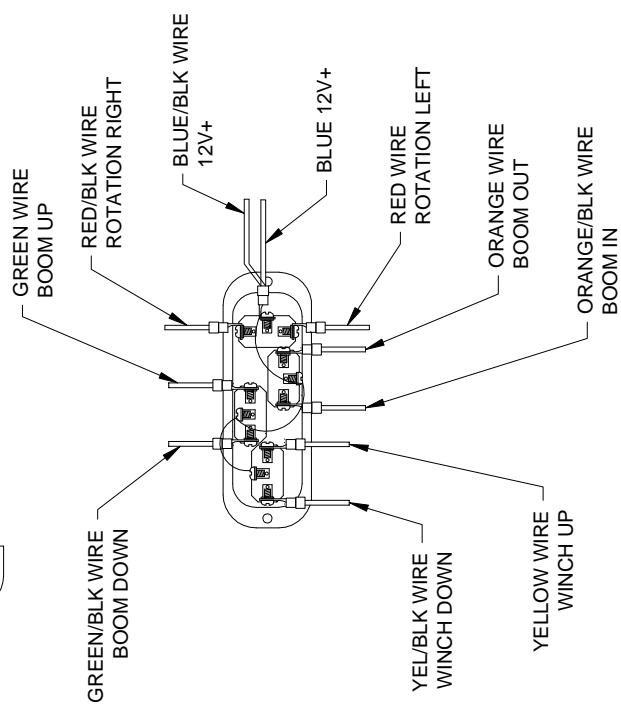
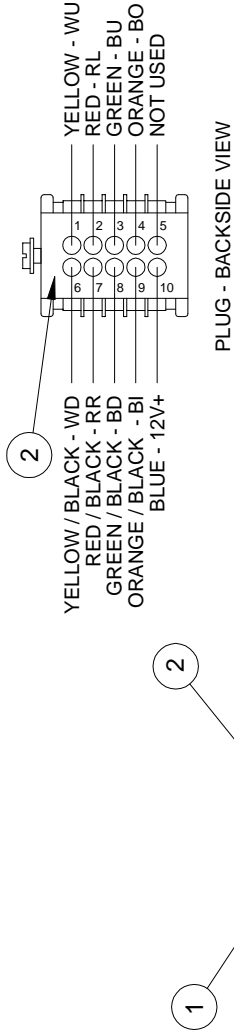
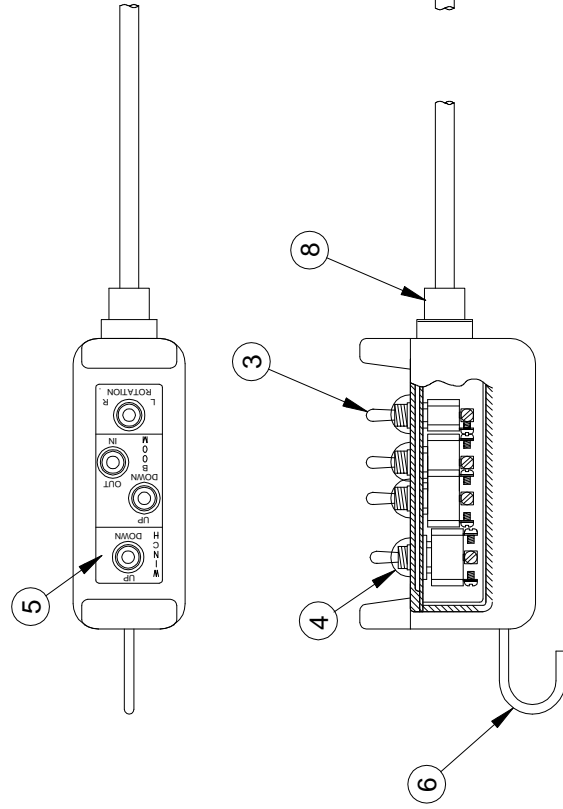
**SECTION**  
C400

21991 PNDNT; 3 FNCTN ET CRNS, ESTP/HRN

SUPPERSEDES  
-

**23076**

# 20909 4-SWITCH PENDANT



ITEM	QTY	PART NO.	DESCRIPTION
9	1	27093	CORD RESTRAINT - PLUG END
8	1	20165	GASKET / CORD RESTRAINT
7	1	26262-XX	CORD ASSY (XX = LENGTH IN FT)
6	1	11557	HOOK
5	1	17363	DECAL
4	3	19793	TOGGLE BOOT
3	3	13763	TOGGLE SWITCH
2	1	27094	PLUG CASE - 10+1 POLE
1	1	19427	MALE INSERT - 10+1 POLE

**VENTURO®**  
MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE: **REPLACEMENT PARTS DRAWING**

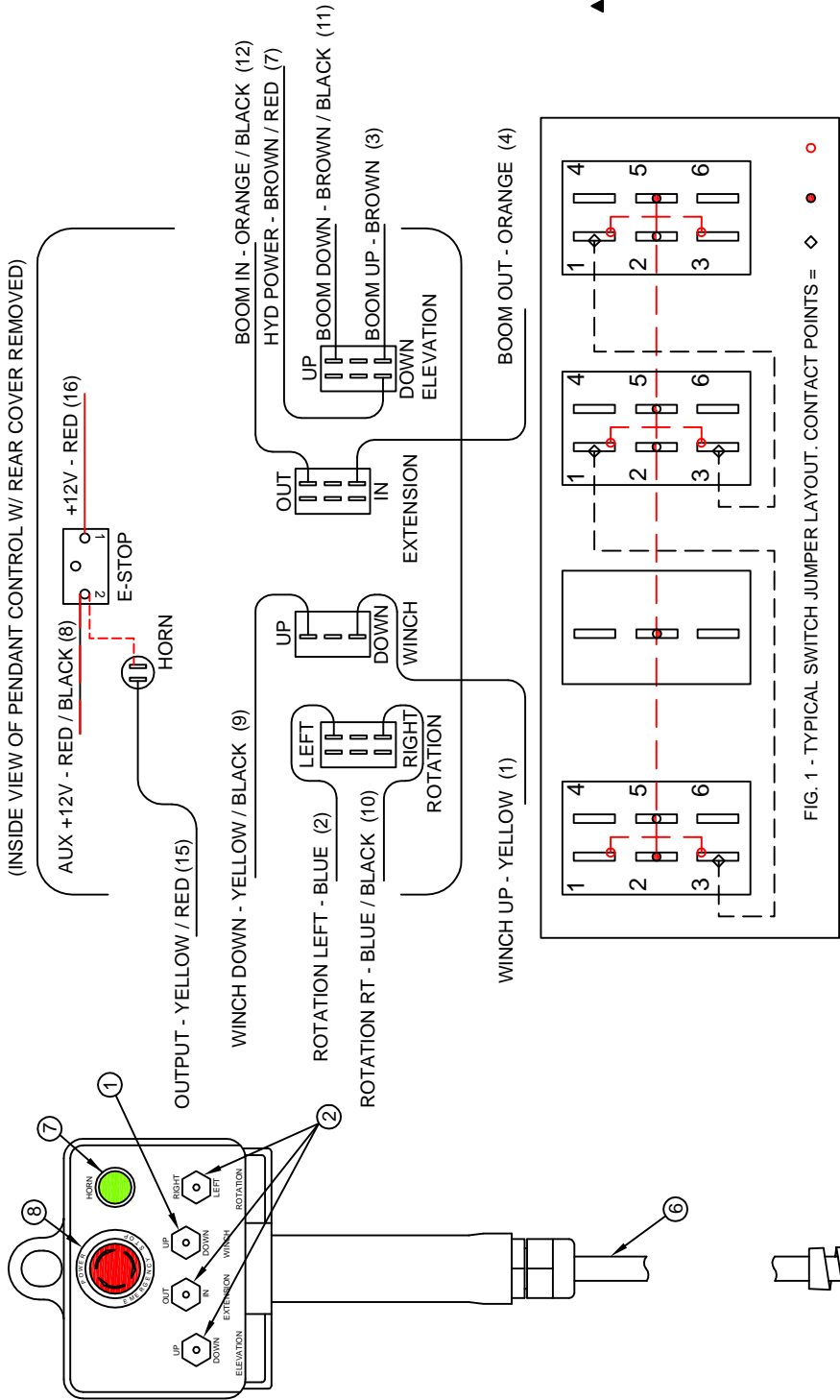
DATE: 12-26-13A  
SUPERSEDES: 10-27-11

SECTION: C400

DESCRIPTION: **4 FUNCTION CRANES**

28039

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



NOTE 1:

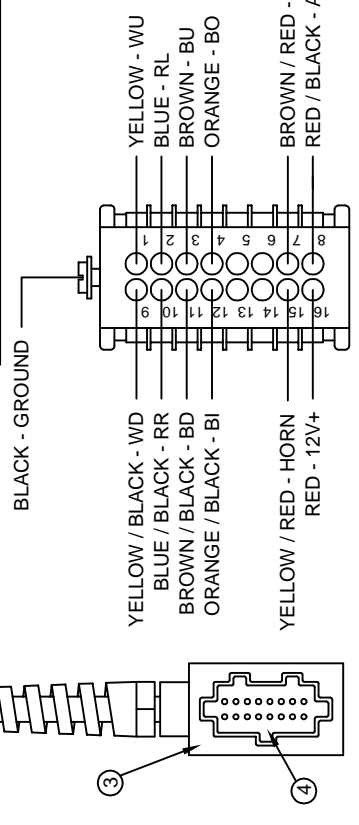
WIRE TERMINALS TO BE INSTALLED 'AFTER' ROUTING REPLACEMENT CORD ASSY THROUGH PENDANT HEAD AND PLUG HOUSING.

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

FIG. 1 - TYPICAL SWITCH JUMPER LAYOUT. CONTACT POINTS =  $\diamond$   $\bullet$   $\circ$



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

16-PIN PLUG ASSY.

16-PIN PLUG - BACKSIDE VIEW

VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE: **REPLACEMENT PARTS DWG & LIST**

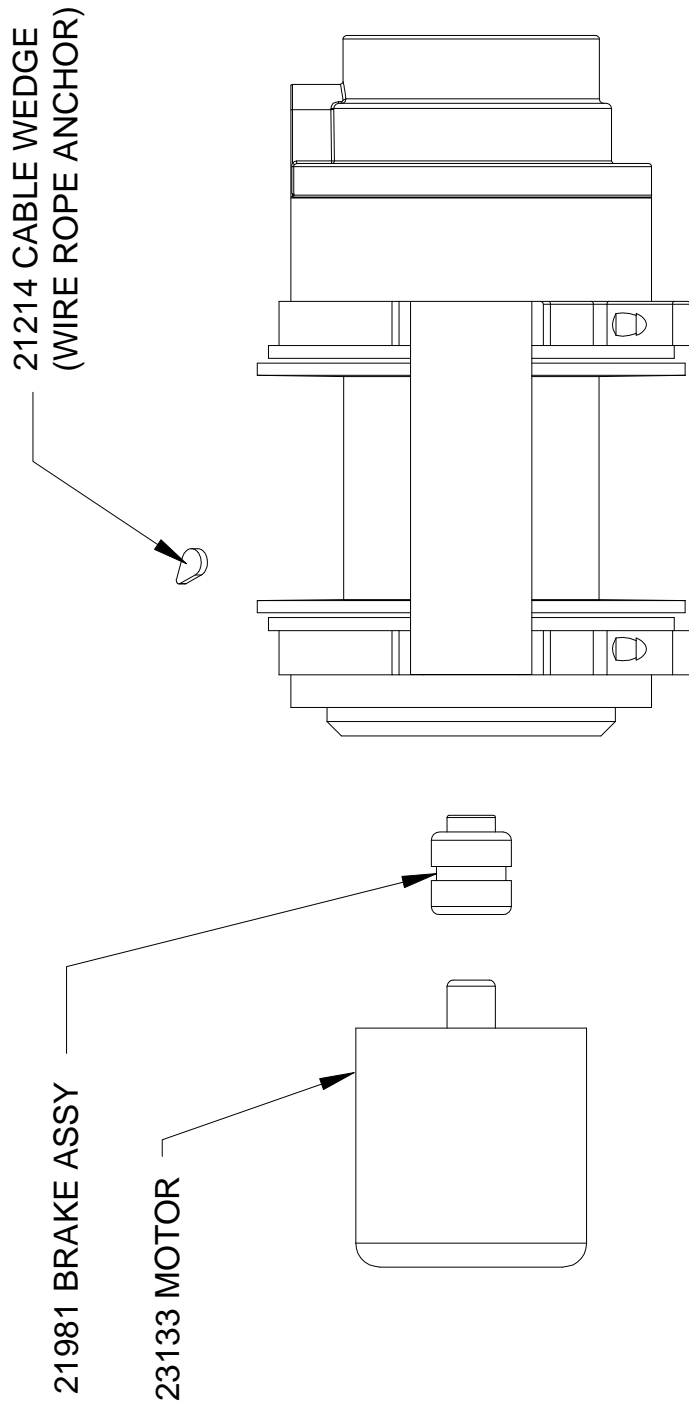
DATE: 10-20-14A  
SUPERSEDES: 10-03-14

SECTION: C400

21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

23075

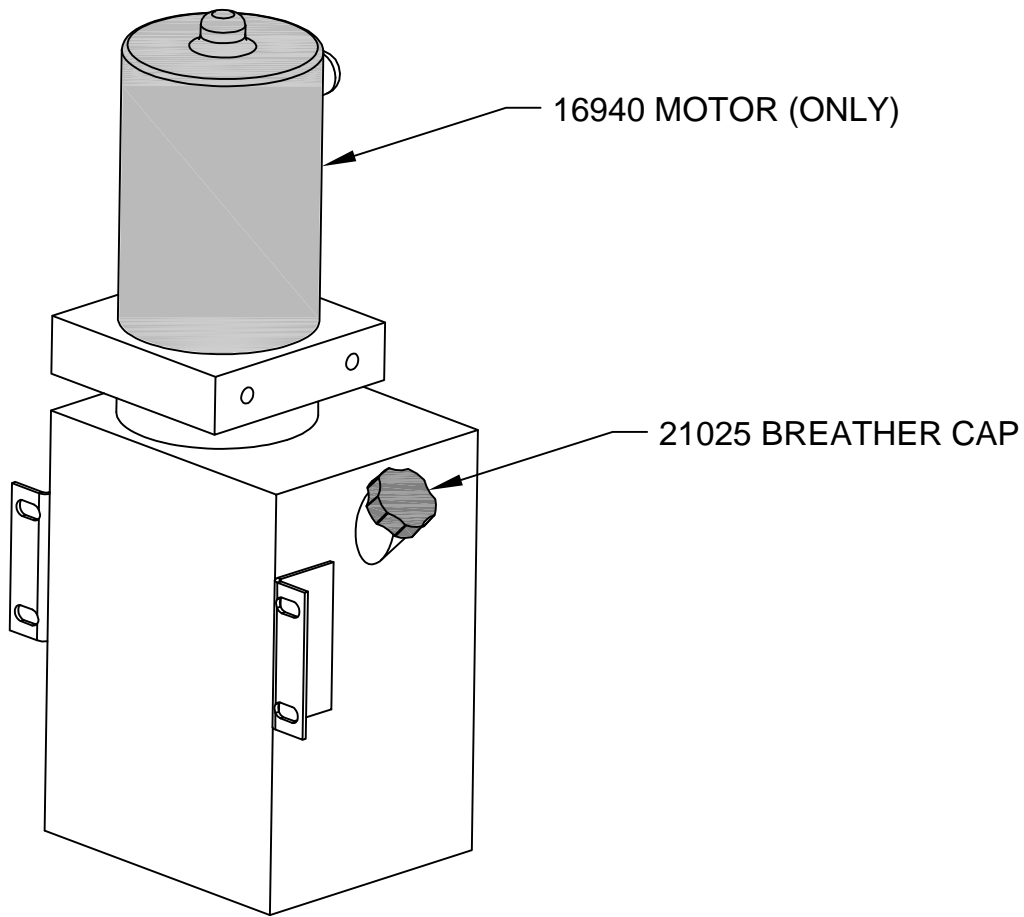
# 21556 WINCH REPLACEMENT PARTS



 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	WINCH REPLACEMENT PARTS (DC1600)		SECTION	C400
		DATE	09-09-13B	SUPERSEDES	05-01-13A
					21741



# 20873 HYDRAULIC POWER UNIT (H.P.U.)



NOTE:  
HYDRAULIC POWER UNIT SETTINGS ARE AS FOLLOWS:

- ▲ ET8/12K(X) PRESSURE = 2600 PSI



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE

H.P.U. RPLCMNT PARTS

DATE

01-26-15B

SECTION

C400

ET8/12K(X) ▲

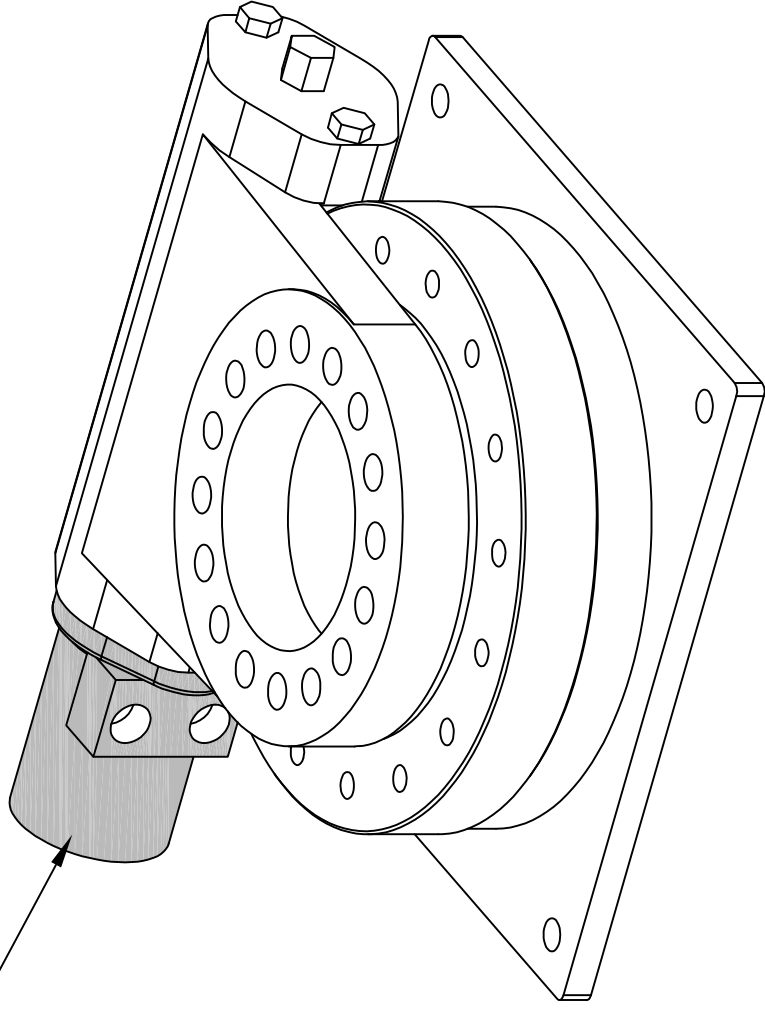
SUPERSEDES

12-27-13A

16942

# 21735 SLEWING SYSTEM REPLACEMENT PARTS

21123 MOTOR (ONLY)



21218 - MOTOR SEAL KIT



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE

SLEWING SYSTEM REPLACEMENT PARTS

ET8/12K & ET8/12/16/18KX ▲

DATE

10-23-14B

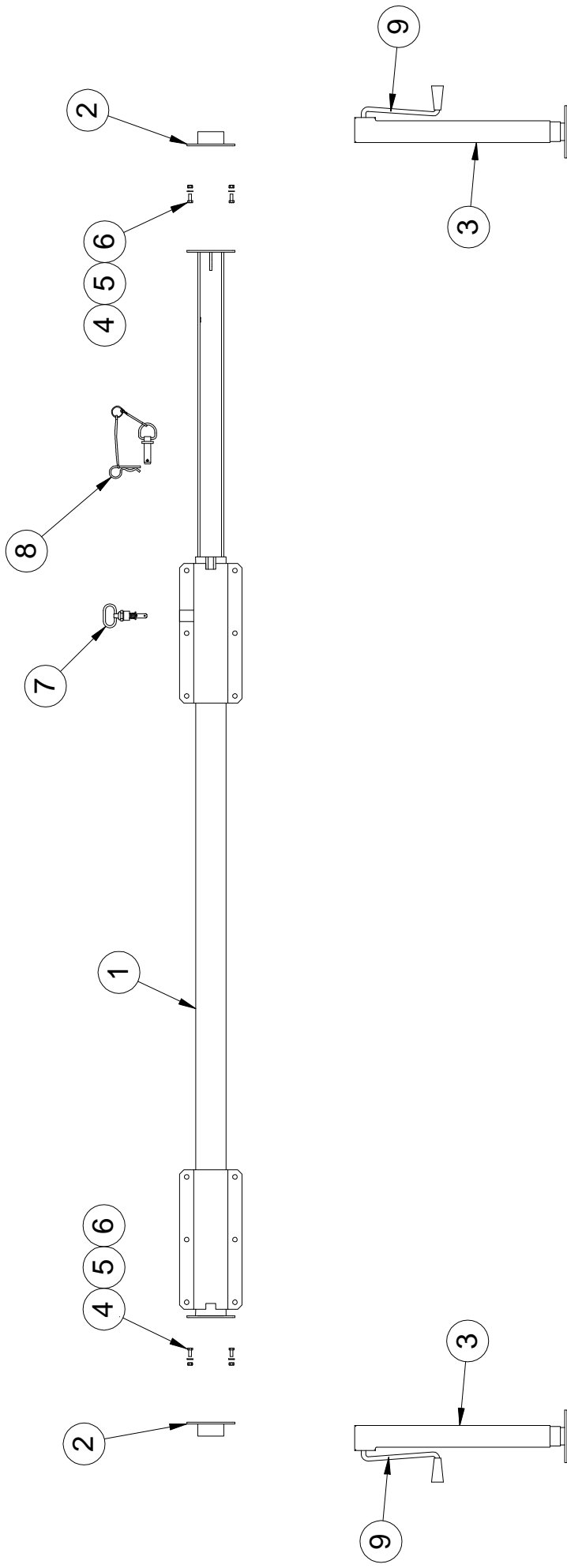
SUPERSEDES

12-27-13A

SECTION

C400

21973



ITEM	QTY	PART NO	DESCRIPTION
9	2	18586-HANDLE	HANDLE, CRANK-DOWN LEG
8	1	24981	STABILIZER SECURITY PIN
7	1	18520	SPRING LOADED ASSEMBLY
6	8	!LWSH-031	LOCKWASHER - 5/16
5	8	!HNUT-03118	HEX NUT - 5/16-18
4	8	!HHCS03118075	HEX HEAD CAP SCREW - 5/16-18 X 3/4" LONG
3	2	18586	CRANKDOWN LEG
2	2	18587	CRANKDOWN LEG ADAPTER
1	1	18501	TUBE - STABILIZER ASSEMBLY
ITEM	QTY	PART NO	DESCRIPTION

TITLE

REPLACEMENT PARTS DRAWING & LIST

DATE

12-27-13D

SECTION

C400

SUPERSEDES

07-28-10C

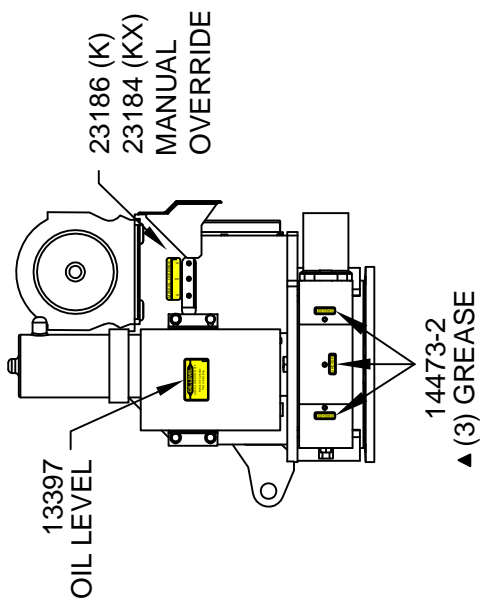
18500-CD MANUAL STABILIZERS

VENTURO®  
MANUFACTURING, INC.  
CINCINNATI, OHIO

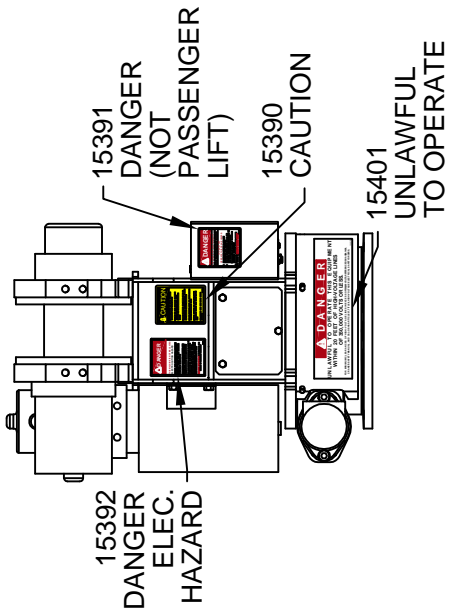


22689

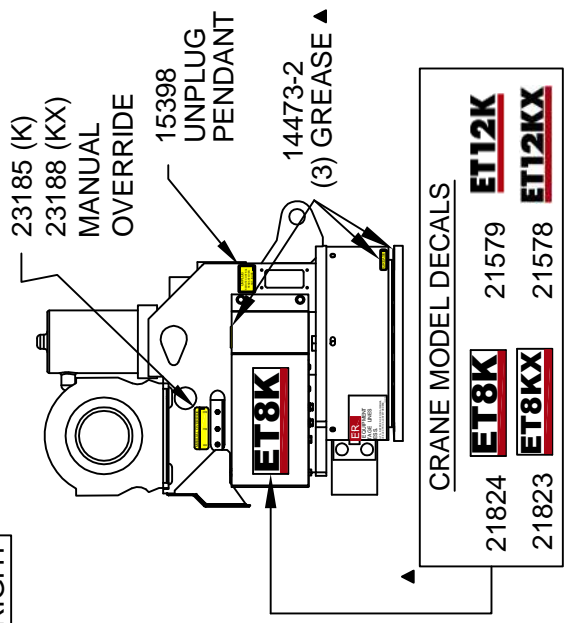
LEFT



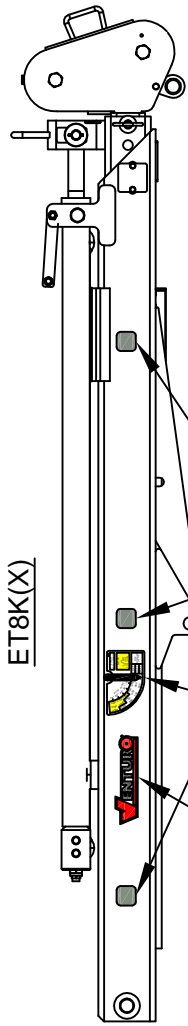
BACK



RIGHT



ET8K(X)



▲ 17389-4  
SMALL VENTURO

28024  
(6) HOLE COVERS  
(ET8KX ONLY)

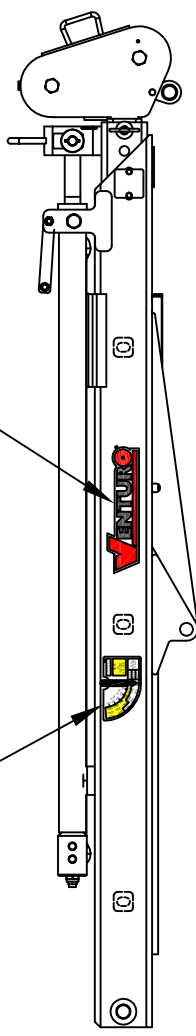
CAPACITY		MODEL	PART NO.
RIGHT	ET8K(X)	ET8K(X)	21702
LEFT	ET8K(X)	ET8K(X)	21703

▲ ET12K(X)

▲ ET12K = 17389-4  
SMALL VENTURO  
ET12KX = 17389  
MEDIUM VENTURO

CAPACITY		MODEL	PART NO.
RIGHT	ET12K(X)	ET12K(X)	21576
LEFT	ET12K(X)	ET12K(X)	21577

▲ BOOM



VENCO VENTURO INDUSTRIES LLC  
CINCINNATI, OHIO

TITLE  
DECAL PLACEMENT

ET8/12K(X)

DATE  
04-09-15E

SUPERSEDES  
09-09-13D

SECTION  
C400

21822

# ET8K(X) FIELD SERVICE LABEL KITS

## ▲ 21832; FIELD SERVICE LABEL KIT, ET8KX

PART NO.	QTY.	DESCRIPTION
14473-2	6	DECAL, GREASE
17389-4	2	DECAL, VENTURO - SMALL
21702	1	DECAL, BOOM CAPACITY ET8K(X) RIGHT
21703	1	DECAL, BOOM CAPACITY ET8K(X) LEFT
21823	2	DECAL, MODEL NAME DECAL - ET8KX
13397	1	DECAL, OIL LEVEL
23188	1	MANUAL OVERRIDE - RIGHT
23184	1	MANUAL OVERRIDE - LEFT
28024	6	HOLE COVER - BOOM EXT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
21833	1	FIELD SERVICE LABEL KIT LIST
21822	1	IDWG; DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

### ▲ NOTE:

APPLICABLE SERIAL NUMBERS: 73450 - CURRENT

## ▲ 21839; FIELD SERVICE LABEL KIT, ET8K

PART NO.	QTY.	DESCRIPTION
14473-2	6	DECAL, GREASE
17389-4	2	DECAL, VENTURO - SMALL
21702	1	DECAL, BOOM CAPACITY ET8K(X) RIGHT
21703	1	DECAL, BOOM CAPACITY ET8K(X) LEFT
21824	2	DECAL, MODEL NAME DECAL - ET8K
13397	1	DECAL, OIL LEVEL
23185	1	MANUAL OVERRIDE - RIGHT
23186	1	MANUAL OVERRIDE - LEFT
17813	1	DECAL; OVERLOAD SENSING SYSTEM
21833	1	IDWG; FIELD SERVICE LABEL KIT LIST
21822	1	INST. DWG DECAL PLACEMENT
INST-23233	1	SAFETY MANUAL, VENTURO CRANES
15397	1	KIT; ACCIDENT PREVENTION SIGNS

### ▲ NOTE:

APPLICABLE SERIAL NUMBERS: 44500 - 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

ET8K(X)

DATE

04-16-15F

SUPERSEDES

09-09-13E

SECTION

C400

21833







## 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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