

EF*AAC-****

Pages 1-60

PARTS & INSTALLATION MANUAL ET8K(X)P

Included in this manual:

ET8K

- 3,200 lb Hydraulic Telescopic Service Crane
- 14 ft Manual Boom Extension

ET8KX

- 3,200 lb Hydraulic Telescopic Service Crane
- 6-10 ft Powered, Single-Stage, Boom Extension
- 10-14 ft Manual Pullout Boom Extension

ET8KXP

- 3,200 lbs Electric Telescopic Service Crane
- 6 − 10 ft Powered, Single-Stage, Boom Extension
- 10 14 ft Manual Pullout Boom Extension
- Proportional Controls

VENCO VENTURO INDUSTRIES LLC

12110 BEST PLACE | CINCINNATI, OHIO 45241 800-226-2238



INST-28330 - 1/16/2024 (Rev. B2)

DESCRIPTION & SPECIFICATIONS 7607100A

INSTALLATION DIMENSIONS 28056 21592 BASE MOUNTING DIMENSIONS

CAPACITY CHART 21701

TYPICAL REINFORCEMENT FOR MOUNTING CRANE ON TOP OF SERVICE BODY 16941

21571 MOUNTING PEDESTAL 21594

7607150A SAFETY

SAFETY & HAZARDS - GENERAL, 1/2 850711 850712

SAFETY & HAZARDS - GENERAL, 2/2 VEHICLE & CRANE ELECTRIC HAZARD INFORMATION 15394

SAFETY DECALS 21353

DECALS FOR ET CRANES 21354 ADDITIONAL DECALS 28545 28542 MODEL & CAPACITY DECALS

7607200A INSTALLATION

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

15660

20906-8 STABILITY CHART 20907

22245 WIRE ROPE INSTALLATION ADJUSTABLE BOOM REST 20872

7607300A MAINTENANCE & SERVICE

900530a **OPERATION & MAINTENANCE INSTRUCTIONS** OPERATION & MAINTENANCE INSTRUCTIONS OPERATION & MAINTENANCE INSTRUCTIONS LUBRICATION & MAINTENANCE CHART 900530b 900530c

21306

MINIMUM VOLTAGE TEST 19963

23225 WIRE ROPE & HOOK SPECIFICATIONS

MANUAL OVERRIDE INSTRUCTIONS, NON-PROPORTIONAL MANUAL OVERRIDE INSTRUCTIONS, PROPORTIONAL 23084 23775

7607400A REPLACEMENT PARTS

REPLACEMENT PARTS DRAWING; MECHANISM 28063 28064

REPLACEMENT PARTS LIST; MECHANISM
REPLACEMENT FASTENERS DRAWING; MECHANISM
REPLACEMENT FASTENERS LIST; MECHANISM 28066 28067

28331 REPLACEMENT PARTS DRAWING: BOOM ASSEMBLIES REPLACEMENT PARTS LIST; BOOM ASSEMBLIES REPLACEMENT FASTENERS DRAWING; BOOM ASSEMBLIES 28332

28333 REPLACEMENT FASTENERS LIST; BOOM ASSEMBLIES 28334

21515 ELECTRICAL COMPONENT ASSY 21600 26521

26536

26522

WIRING DIAGRAM, ET8/12K SERIES CRANES
WIRING DIAGRAM, ET8/12K SERIES CRANES W/ WINCH CONTACTOR
WIRING DIAGRAM, ET8/12KX SERIES CRANES
WIRING DIAGRAM, ET8/12KX SERIES CRANES
WIRING DIAGRAM, ET8/12KX SERIES CRANES W/ WINCH CONTACTOR 26537

26523 WIRING DIAGRAM, ET8/12KXP SERIES CRANES

WIRING DIAGRAM, ET8/12KXP SERIES CRANES W/ WINCH CONTACTOR 26538 28037

HYDRAULIC SYSTEM COMPONENTS REPLACEMENT PARTS DRAWING HYDRAULIC SYSTEM SCHEMATIC, NON-PROPORTIONAL HYDRAULIC SYSTEM SCHEMATIC, PROPORTIONAL REPLACEMENT PARTS LIST; SINGLE / 2-POLE SLIP-RING 21602 28077 21292 21293

REPLACEMENT PARTS DRAWING; SINGLE / 2-POLE SLIP-RING 21991 PENDANT; REPLACEMENT PARTS DRAWING / LIST (3 FUNCTION) 21990 PENDANT; REPLACEMENT PARTS DRAWING / LIST (4 FUNCTION) 23076

23075 23786 22158 RADIO: REPLACEMENT PARTS DRAWING/LIST

21556 WINCH REPLACEMENT PARTS DRAWING / LIST 21741

20873 HYDRAULIC POWER UNIT REPLACEMENT PARTS DRAWING / LIST 16942

21735 SLEWING REPLACEMENT PARTS DRAWING 21973

28543 **DECAL PLACEMENT**

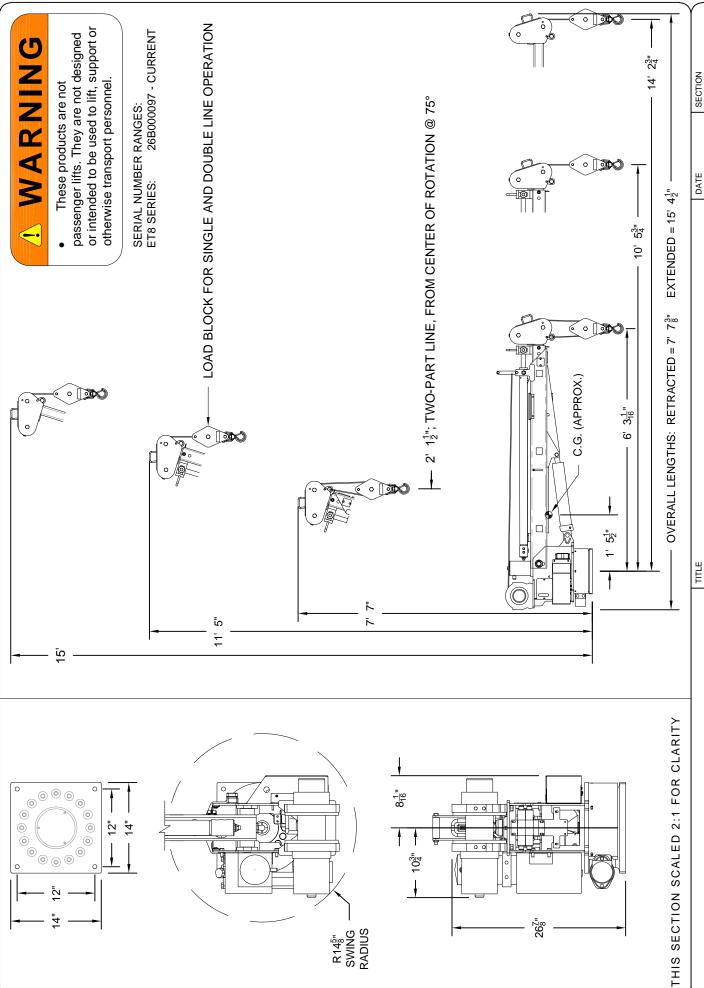
28544 FIELD SERVICE LABEL KITS; ET8 SERIES

12-00073_VNT1 WARRANTY PAGE

SECTION 100

DESCRIPTION & SPECIFICATIONS





 $8\frac{1}{16}$ "

R14§" SWING RADIUS

 $26\frac{7}{8}$ "

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12

4

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

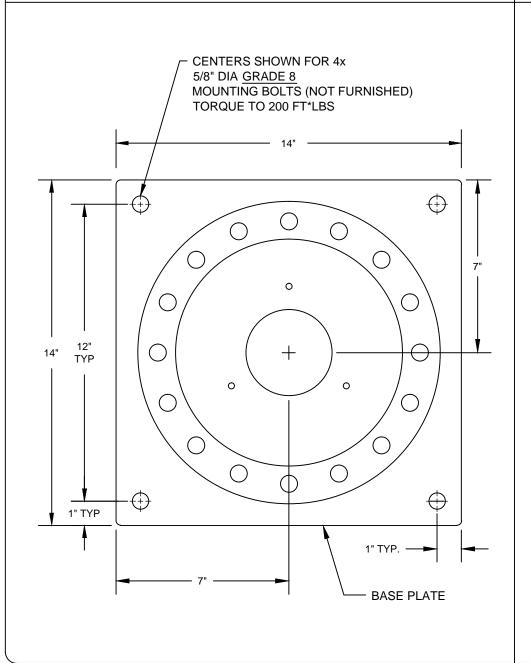
INSTALLATION DIMENSIONS ET8 GEN.

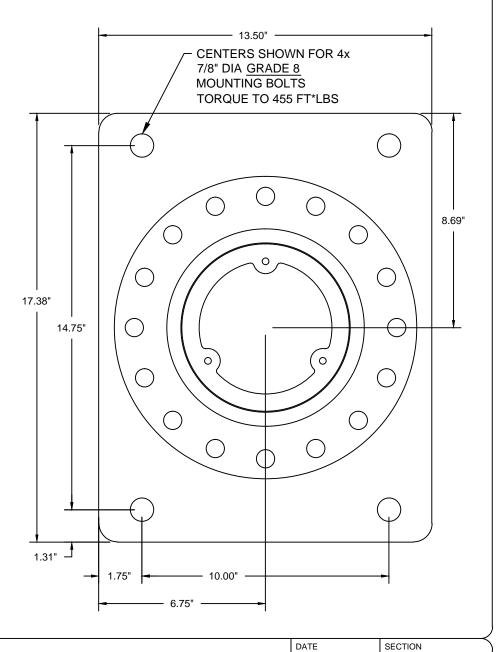
03-08-19A 03-05-19 SUPERSEDES 6' - 10' - 14' BOOM 'C' SERIES,

28056 SECTION C100

21735 - SQUARE

21735-WRB/CRB - RECTANGULAR







VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

21735 BASE MOUNTING DIMENSIONS

03-06-23G C100 SUPERSEDES

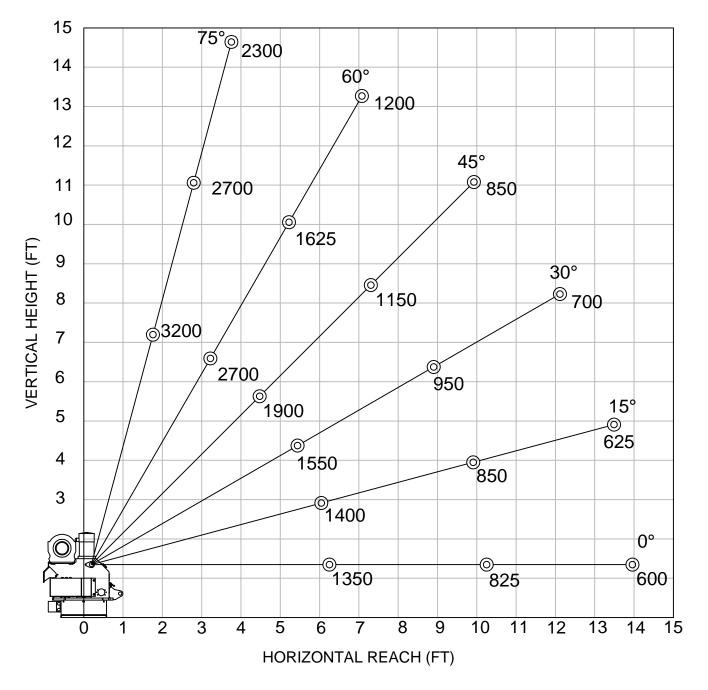
ET8/12/16/18 CRANES

10-22-14F

21592

▲ ET8 SERIES CRANES, 6'-10'-14' BOOM CRANE SERIAL NUMBER:

MAXIMUM LOAD CAPACITY CHART



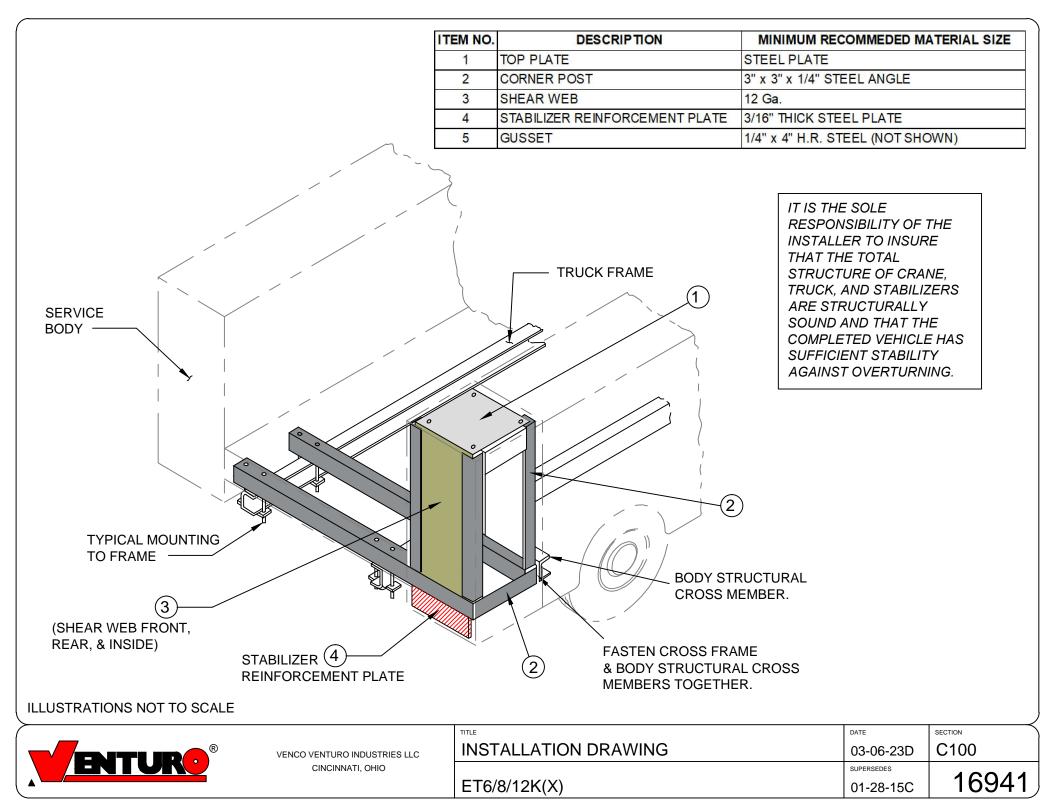
WEIGHT OF LOAD HANDLING DEVICES ARE PART OF THE LOAD AND MUST BE DEDUCTED FROM THE GROSS CAPACITY.

LOAD BLOCK USAGE

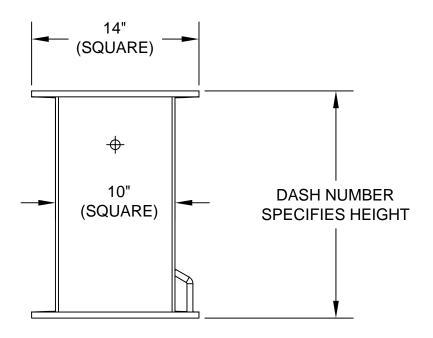
1 PART LINE FOR LOADS LESS THAN 1600 LBS 2 PART LINE FOR LOADS OF 1600 LBS AND GREATER

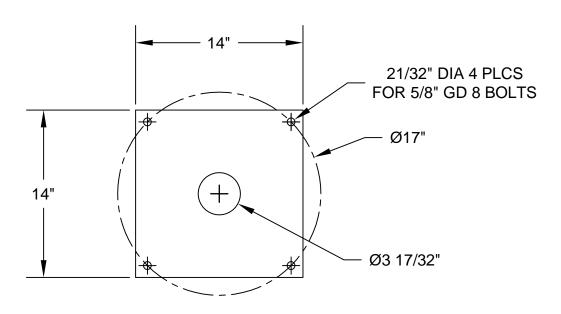
WEIGHT OF LOAD BLOCK = 24 LBS





21571-XX MOUNTING PEDESTAL





| ENTUR® VENE | CO VENTURO INDUSTRIES LLC CINCINNATI, OHIO |
|-------------|---|
|-------------|---|

| TITLE | DATE | SECTION |
|----------------------|------------|---------|
| 21571 MNTNG PEDESTAL | 03-08-19D | C100 |
| <u> </u> | SUPERSEDES | 04504 |
| ET8/12 SERIES CRANES | 11-20-14C | 21594 |

SECTION 150

SAFETY



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

CRANE SAFETY AND HAZARDS

CAUTIONS

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

DANGER

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

YOU MUST NOT OPERATE THIS CRANE, UNLESS:

- 1. YOU HAVE BEEN TRAINED IN THE SAFE OPERATION OF THIS CRANE, AND
- 2. YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONSCONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENT REGULATIONS. AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

ELECTROCUTION HAZARD

- THIS MACHINE IS NOT INSULATED.
- MAINTAIN SAFE CLEARANCES FROM ELECTRICAL LINES AND APPARATUSES.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK, OR SAG, AND ELECTRICAL LINE AND LOAD-LINE SWAYING
- THIS LIFTING DEVICE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.
- YOU MUST MAINTAIN A CLEARANCE OF AT LEAST 10 FEET BETWEEN ANY PART OF THE CRANE, LOAD-LINE, OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS. REFER TO DRAWING 15394 FOR ADDITIONAL INFORMATION.
- DEATH OR SERIOUS INJURY WILL RESULT FROM CONTACT OR INADEQUATE CLEARANCES.

OVERLOAD SENSING SYSTEM - STANDARD ON ALL CRANES

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

NOTICE - WARRANTY VOID IF DISCONNECTED

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

DO NOT DISCONNECT THIS SYSTEM

| ® VENCO VENTURO INDUSTRIES LLC | SAFETY & HAZARDS | 01-29-15K | C150 |
|--------------------------------|------------------|-----------|--------|
| CINCINNATI, OHIO | ELECTRIC CRANES | 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

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TITLE

VEHICLE & CRANE MOUNTED ELECTRICAL HAZARD SIGN APPLICATION & INFORMATION





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

UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS.

FOR MINIMUM CLEARANCES OF HIGH-VOLTAGE LINES IN EXCESS OF 350,000 VOLTS, REFERENCE OSHA 1926.1408. CRANE'S SAFETY MANUAL, AND CAL-OSHA ARTICLE 37, TITLE 8, HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS.

SIGN NO. 15401 PROVIDES ADDITIONAL WARNING OF LEGAL REQUIREMENTS WHEN OPERATING NEAR HIGH VOLTAGE LINES. THIS SIGN IS PLACED ON THE CONTROL PENDANT SIDE OF BOOM.

Table A - Minimum Clearance Distances

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

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

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

CINCINNATI, OHIO



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

DECAL #: 15390

CAUTION, INSPECT VEHICLE & CRANE... DESCRIPTION:

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY:

REAR COVER OR SIDE OF CRANE PLACEMENT:



DECAL #: 15391

DESCRIPTION: DANGER, NOT A PASSENGER LIFT

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

PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.

QUANTITY:

PLACEMENT: REAR COVER OR SIDE OF CRANE



OPERATE THIS CRANE UNLESS:

OPERATE THIS CRANE UNLESS:
YOU HAVE BEEN TRAINED IN THE SAFE
OPERATION OF THIS CRANE; AND
YOU KNOW AND FOLLOW THE SAFETY AND
OPERATING RECOMMENDATIONS CONTAINED I
THE MANUFACTURER'S MANUALS, YOUR
EMPLOYER'S WORK RULES, AND APPLICABLE
GOVERNMENT REGULATIONS.

AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

15392 DECAL #:

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)

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

ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT

WITH AN ELECTRICAL VOLTAGE SOURCE.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



THIS MACHINE IS NOT INSULATED **ELECTROCUTION HAZARD**

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

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

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

DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

PURPOSE: TO INFORM OPERATOR OF PROPER OPERATION

IN VICINITY OF ELECTRICAL LINES.

QUANTITY:

PLACEMENT: RING COVER OR SIDE OF CRANE

UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 20 FEET OF HIGH-VOLTAGE LINES OF 350,000 VOLTS OR LESS.

FOR MINIMUM CLEARANCES OF HIGH-VOLTAGE LINES IN EXCESS OF 350,000 VOLTS, REFERENCE OSHA 1926.140 CRANE'S SAFETY MANUAL, AND CAL-OSHA ARTICLE 37, TITLE 8, HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS

DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

WARNS OF DANGER FROM ELECTRICALLY CHARGED PURPOSE:

VEHICLE, CRANE, OR LOAD.

QUANTITY:

PLACEMENT: EACH SIDE & EACH END OF VEHICLE







SAFETY DECALS

DATE

04-29-16E

SECTION C150

SUPERSEDES 10-24-13D

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

VENTURO CRANES

TITLE

PART NO.: 14473-2

DECAL: CONDUCTIVE GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



PART NO.: 13397

DECAL: OIL LEVEL

FUNCTION: To inform the operator of proper oil level to

maintain.

QUANTITY: 1

PLACEMENT: Side of hydraulic power unit.

OIL LEVEL

AW46 or DEXRON III ATF

Retract All Cylinders
Prior to Servicing

397-E

PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

FUNCTION: To inform the operator to unplug remote

control when not in use.

QUANTITY: 1

PLACEMENT: Near pendant socket.

UNPLUG
REMOTE CONTROL
PENDANT WHEN
NOT IN USE



| MANUFACTURING, INC. | |
|---------------------|--|
| CINCINNATI, OHIO | |

| TITLE | DATE | SECTION |
|-----------|------------|---------|
| DECALS | 11-12-19E | C150 |
| | SUPERSEDES | 21251 |
| ET CRANES | 12-23-13D | Z1354 |

PART NO.: 27007-03a (ET8) / 27007-04a (ET12) DECAL: LOAD BLOCK CAPACITY DECAL

FUNCTION: To show the capacity of the load block.

QUANTITY: 2

PLACEMENT: Each side of load block.

27007-03a

PATRUM LOAD BLOCK SPECIFICATIONS

RATED CAPACITY: WEIGHT: 3,200 lbs 24 lbs

WARNING:

1 PART LINE FOR LOADS LESS THAN 1,600 LBS. 2 PART LINE FOR LOADS 1,600 LBS. & GREATER 27007-04a

WENTURE LOAD BLOCK SPECIFICATIONS

RATED CAPACITY: WEIGHT: 24 lbs 3,500 lbs

WARNING:

1 PART LINE FOR LOADS LESS THAN 1,750 LBS. 2 PART LINE FOR LOADS 1,750 LBS. & GREATER

PART NO.: 17813

DECAL: OVERLOAD SENSING SYSTEM DECAL

FUNCTION: To advise operator of overload sensing system.

QUANTITY: 1

PLACEMENT: Location may vary.

NOTICE - WARRANTY VOID IF DISCONNECTED

PART NO.: 14459 (WITH OPTIONAL ALARM)

DECAL: OVERLOAD ALARM SYSTEM DECAL

FUNCTION: To advise operator of alarm system.

QUANTITY: 1

PLACEMENT: Location may vary.

HIS CRANE IS EQUIPPED WITH AN OVERLOAD ALARM SYSTEM OVERLOAD ALARM HORN SOUNDS IF RATED LOAD IS EXCEEDED AT ANY REACH. FALARM SOUNDS, RAISE BOOM OR LOWER WINCH TO REMOVE OVERLOAD.

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

PART NO.: 28065 (RIGHT) & 23184 (LEFT)

28065 DECAL: MANUAL OVERRIDE DECAL ET8/12KX(P)

FUNCTION: To show the manual override ports.

23184 QUANTITY: 1

PLACEMENT: Right & Left side of housing.

MANUAL OVERRIDE

MANUAL OVERRIDE 굾 面

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| ADDITIONAL D | ECALS |
|--------------|-------|
| TITLE . | |

ET8/12KX(P)

2854 11-16-23

SECTION

PART NO.: 21702 & 21703 (OPPOSITE)

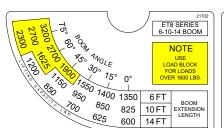
DECAL: CRANE CAPACITY

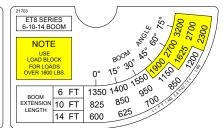
FUNCTION: To show the operator the operating

capacities of crane.

QUANTITY: 1 each

PLACEMENT: One on each side of boom.





PART NO.: 28540

DECAL: MODEL ET8KX

FUNCTION: To show model of crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.



PART NO.: DECAL: 28541

MODEL ET8KXP

FUNCTION:

To show model of crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.



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MANUFACTURING, INC. CINCINNATI, OHIO

MODEL/CAPCTY DECALS

11-14-23 SUPERSEDES C150

SECTION

ET8 SERIES CRANES

28542

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 | | | | | | 71-80 | CCA (A) ** | RC (MIN) *** | |
| ▲ CE1500 CE6K CT2000 CT2003/4/5 DT7K | #4 | #4 | #2 | #2 | #1 | #0 | #0 | #00 | 350 | 100 |
| ET5500MPB ET5500R ET6KMPB ET6KR ET6K ET8K ET10K ET12K | #2 | #2 | #1 | #0 | #00 | NOT R | ECOMN | //ENDED | 450 | 100 |
| ET8KX ET10KX ET12KX • ET12KXP | #2 | #2 | #1 | #0 | #00 | NOT R | ECOMN | MENDED | 550 | 150 |
| ET18K(X) ET25K(X) ET30KX ET36KX | SEE UKAWUWI INDOUEUK LADIE AWU DATTEKT | | | | | | | | | |

- * INCLUDES GROUND CABLE
- ** CCA = COLD CRANKING AMPS AT 0° (F).
- *** RC = RESERVE CAPACITY IN MINUTES AT 25 AMPS AND 80° (F).

 THE RC RATING IS A MEASURE OF THE PERIOD OF TIME THE BATTERY CAN SUPPLY A GIVEN CURRENT WITHOUT RECHARGING.

| | TITLE | DATE | SECTION |
|------------------------------|-----------------|------------|---------|
| VENCO VENTURO INDUSTRIES LLC | CABLE & BATTERY | 07-30-18X | C200 |
| CINCINNATI, OHIO | | SUPERSEDES | 744405 |
| | ELECTRIC CRANES | 09-27-17W | 711105 |

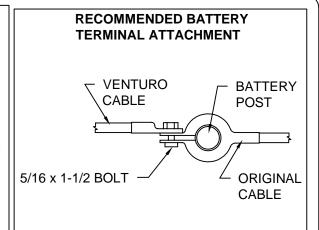
| | RECOMMENDED CIRCUIT BREAKER TABLE | | | |
|---|-----------------------------------|---------------------|-----------|--|
| | CRANE DESCRIPTION | | PART NO. | |
| | CT310KX | 250 AMP, MAN RESET | 22946-250 | |
| | DT7 | 250 AMP, MAN RESET | 22946-250 | |
| | CE-1500-FB | 150 AMP, MAN RESET | 22946-150 | |
| | 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 | 300 AMP, MAN RESET | 22946-300 | |
| | ET16/18KX-16' | 250 AMP, MAN RESET | 22946-250 | |
| _ | ET16/18KX-20' | 300 AMP, MAN RESET | 22946-300 | |
| | ET25/30KX | 300 AMP, AUTO RESET | 22946-300 | |
| | ET36KX | 300 AMP, AUTO RESET | 22946-300 | |
| | · | · | | |

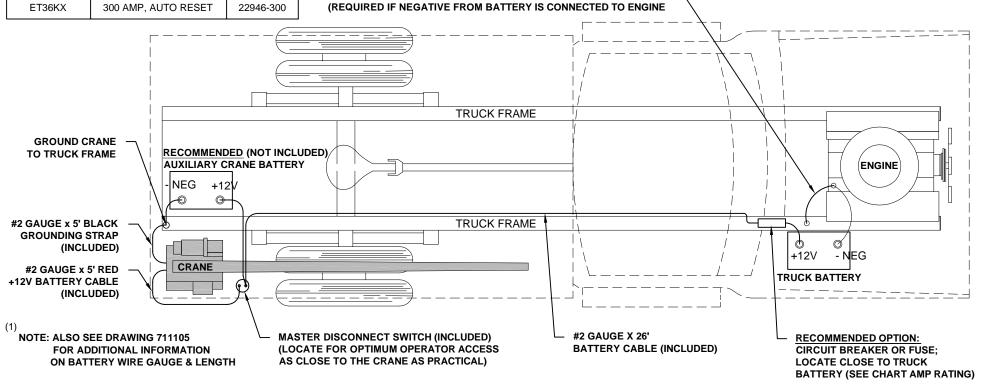
BATTERY REQUIREMENTS

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

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

INSTALL #2 GAUGE GROUND STRAP FROM ENGINE TO TRUCK FRAME







VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

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

STABILITY TEST - ET8-14' SERIES

Overview

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

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

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

Testing Procedure

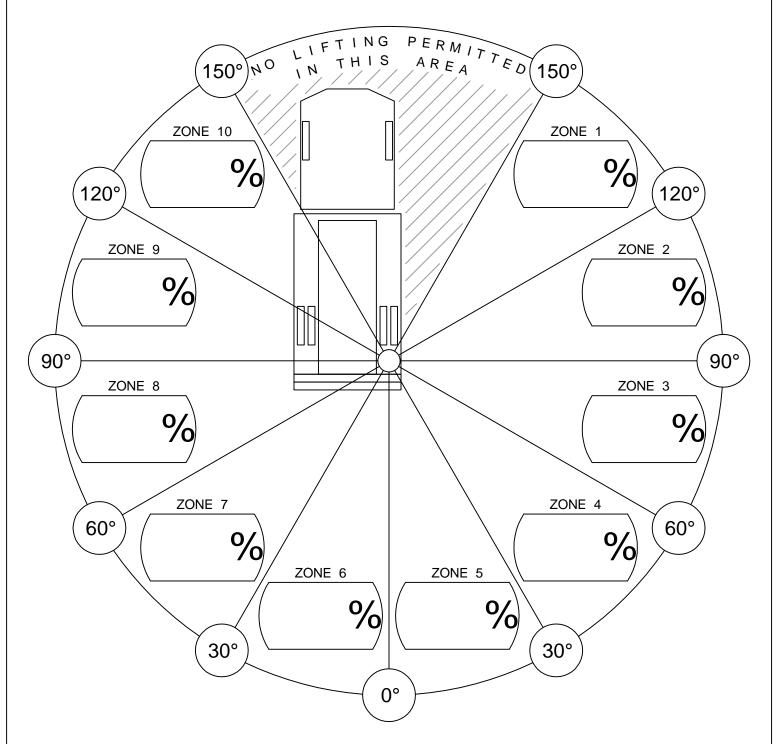
- Locate the truck on firm, level ground and set parking brake.
- 2. Fully deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
- 3. Inspect wire rope and other key components of crane (consult owners manual for more information).
- 4. Conduct an operational check of all crane functions.
- 5. Locate the Overload Pressure Switch at the base of the elevation cylinder
- 5.1. Disconnect the black & white wires from the housing and then connect the black & white wires together to by-pass the Overload Pressure Switch for the stability test. Note: The black & white wires MUST be reconnected to the Overload Pressure Switch after the stability test has been completed.
- Use a Test Weight weighing a minimum of <u>706 lbs</u>, (includes load block weight of <u>24</u> lbs.) to a maximum of 750 lbs.
- 7. Position the boom level and fully retracted.
- 8. Referring to the Stability Chart (drawing 20907) rotate the crane to a position between 1 and 2 o'clock (truck cab is facing 12 o'clock) to begin testing.
- 9. Use the winch to lift the Test Weight; DO NOT allow the weight to be more than 6" off the ground at any time during testing (for safety).
- 10. Using the test weight, extend the boom slowly, until one of the two conditions occurs:
- 10.1. Full extension is reached Mark the ZONE in question 100%
- 10.2. The truck becomes unstable i.e., a tire lifts off the ground
- 10.2.1. Retract the boom until at least one tire on each corner of the truck is making contact with the ground.
- 10.2.2. Use the formula below to determine the allowable % of Rated Capacity for the ZONE in question:
- 11. Note: The "Max Stable Reach in inches" is measured from the center of rotation of the crane housing to the lifting load hook.

| | "Max Stable Reach" in inches" | |
|--------------------|-------------------------------|-------|
| % Rated Capacity = | | X 100 |
| | 171 | |

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

| ® VENCO VENTURO INDUSTRIES LLC | STABILITY TEST | 03-16-23H | C200 |
|--------------------------------|----------------|----------------------|---------|
| ENTUR• CINCINNATI, OHIO | ET8-14' SERIES | SUPERSEDES 11-23-21G | 20906-8 |

CRANE STABILITY



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

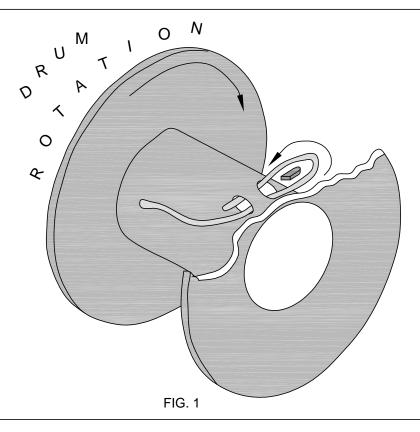
CONDITIONS:

 STABILIZERS FULLY EXTENDED & DOWN, ON FIRM LEVEL GROUND.



| TITLE | DATE | SECTION |
|-----------------|------------|---------|
| STABILITY CHART | 05-11-17F | C200 |
| | SUPERSEDES | 00007 |
| VENTURO CRANES | 02-21-14E | 20907 |

WIRE ROPE INSTALLATION



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

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

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

CAUTION

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

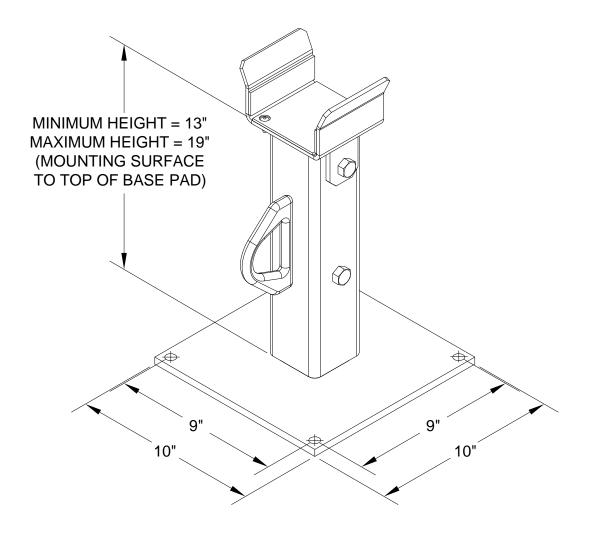
CAUTION

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

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

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

21440 ADJUSTABLE BOOM REST





| TITLE | DATE | SECTION |
|----------------------------|------------|---------|
| 21440 ADJUSTABLE BOOM REST | 03-08-19B | C200 |
| | SUPERSEDES | 000-0 |
| ET6/8/12 SERIES CRANES | 12-26-13A | 20872 |

SECTION 300

MAINTENANCE & SERVICE



CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

SAFETY

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

CRANE INSPECTION

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

CAPACITY

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

LOAD BLOCK

If the load exceeds:

1000 lbs. for the ET6K, or

1600 lbs. for the ET8 Series and ET10K(X), or

1750 lbs. for the ET12 Series,

or if reduced winching speed for better control of smaller loads is required, use the load block to rig the crane for two-part line operation. Refer to your crane's "MAXIMUM LOAD CAPACITY" page within this manual.

CONTROLS

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

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

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

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

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

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

| (, | ENTURO PENCO VENTURO INDUSTRIES LLC | INSTALLATION DWG | 06-22-23K | SECTION C200 | |
|----|-------------------------------------|------------------|------------------------|----------------------|---------|
| | ENION | CINCINNATI, OHIO | ET6/8/12 SERIES CRANES | SUPERSEDES 03-08-19J | 900530A |

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

CONTROL FUNCTIONS

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

<u>POWER EXTENSION</u> - "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.

<u>POWER ROTATION</u> - "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.

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

- a. "WINCH UP" has priority over "BOOM UP", "BOOM OUT", "BOOM IN", and "ROTATION."
- b. "BOOM UP" has priority over "BOOM OUT", "BOOM IN", and "ROTATION."
- c. "BOOM OUT" and "BOOM IN" have priority over "ROTATION."
- d. "BOOM DOWN" and "WINCH DOWN" can be operated with any function.
- ▲ TRIGGER (ET12KXP Only) Varies the flow rate delivered to the crane valve. The farther the trigger is pulled, the faster the selected crane function operates.

OVERLOAD SENSING SYSTEM

This crane is equipped with an Overload Sensing System. If the capacity of the crane is exceeded, the "Winch Up", "Boom Down", and "Boom Out" functions will be shut down. The "Winch Down", "Boom Up", and "Boom In" functions will continue to operate and can be used to relieve the overload condition. The "Rotation" function also will continue to operate.

TWO-BLOCK SENSING SYSTEM

This crane is equipped with an anti two-block device that is mounted at the tip of the boom. If the load block / overhaul weight contacts the device the "Winch Up", "Boom Down", and "Boom Out" functions are disabled. The "Winch Down",

▲ "Boom Up", and "Boom In" functions will continue to operate and can be used to relieve the two-block condition.

CRANE OPERATION

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

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

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



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.

MANUFACTURING, INC.

CINCINNATI, OHIO

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

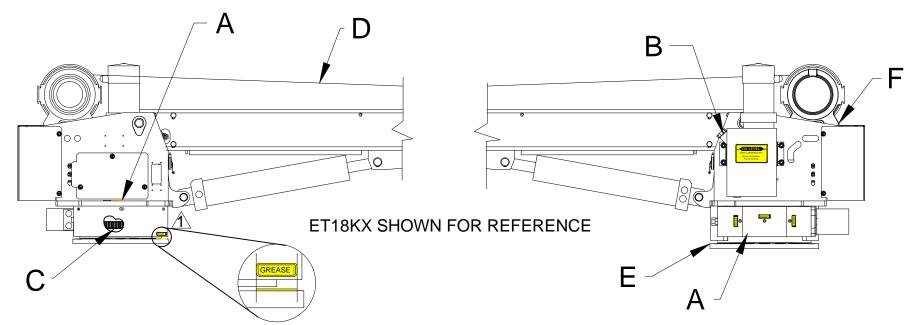


 The pendant (or receiver) plug must be unplugged from the crane socket and the Master Disconnect Switch (power) turned "OFF" when the crane is not in use! Leaving the pendant (or receiver) connected and power on when not in use may result in dangerous, unintentional activation of the crane functions.



INSTALLATION DWG 03-08-19F C200

ET6/8/10/12 SERIES 12-26-13E 900530C



ATTENTION:

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

| Location | Service Required | No | Note | |
|----------|---|--|--|--|
| Α | Grease fitting With Pressure Grease Gun | Use FUCHS Renolit Aluminum | Complex Grease, or equivalent | Time of Truck Service |
| | | ALIGNMENT: To align hole w/ fitting, line up grease decals on lower cover and base gusset. | | |
| В | Fill Oil Reservoir to Oil Level with Boom Down and Boom In. | Use Dextron ATF for Ambient Temperatures Between -22° F and 30° F | Use ISO Viscosity Grade 68 or Equivalent for Ambient Temperatures Between 10°F and 125°F | Time of Truck Service and as required by changes in the ambient temperature range |
| С | Lubricate Gear Teeth | Remove Cover & Use Chassis Grease | | Time of Truck Service |
| D | Check Wire Rope and Hook | Rope should be free | Rope should be free of kinks and fraying | |
| Е | Check Torque of Base Mounting Bolts | Square Base: Torqued to 200 ft-lbs | | Time of Truck Service |
| - | Check Torque of Base Mounting Bolts | Rectangular Base: Torqued to 455 ft-lbs | | Time of Truck Service |
| F | Check Torque of Winch Mounting Bolts | Bolts should be to | Bolts should be torqued to 35 ft-lbs* | |

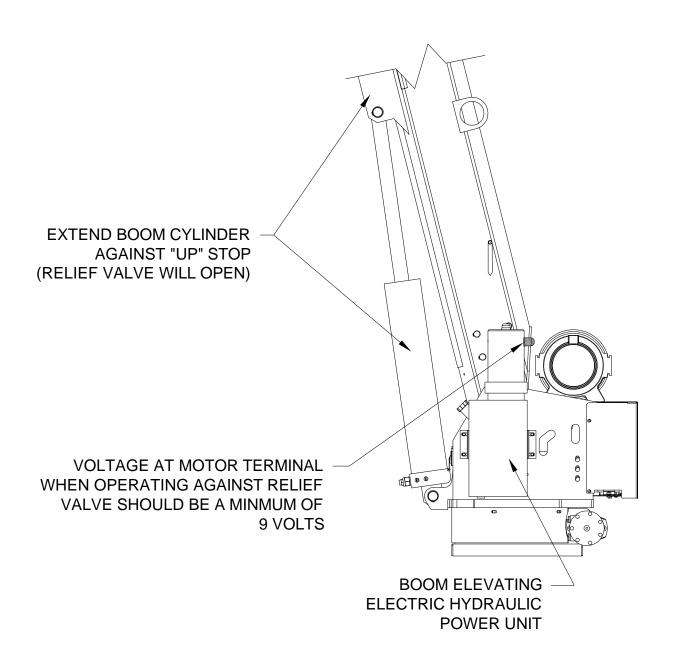
^{* 32} FT-LBS. FOR ET8/12 WITH GTD-2200 COMEUP WINCH. SEE PAGE 21741 FOR WINCH IDENTIFICATION.



| LUBRICATION & MAINTENACE CHART | 03-06-23L | C300 |
|--------------------------------|----------------------|-------|
| ET8/12/16/18 SERIES CRANES | supersedes 01-30-23K | 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





| TITLE | DATE | SECTION |
|----------------------|------------|---------|
| MINIMUM VOLTAGE TEST | 12-26-13G | C300 |
| | SUPERSEDES | 40000 |
| ET SERIES CRANES | 10-05-09F | 19963 |

WIRE ROPE ASSEMBLY

LOAD BLOCK ASSEMBLY

ET6K WIRE ROPE:

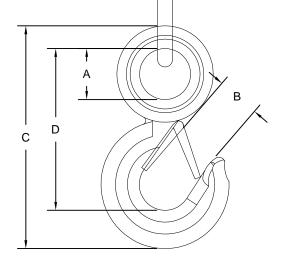
3/16" DIA, 50' LONG

GAC 7X19 LHRL-IWRC, SB 4200 LBS

▲ ET8/12 SERIES WIRE ROPE:

1/4" DIA, 65' LONG

GAC 7X19 IPS-LHRL-IWRC, SB 7000 LBS

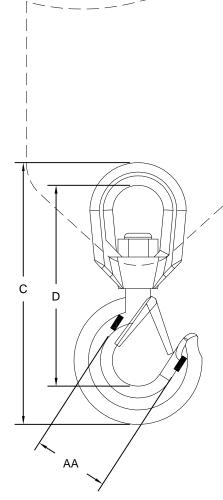


WIRE ROPE HOOK:

RATING: 1 TONNE (2205 LBS)

DIMENSIONS:

| Α | В | С | D |
|-------|-------|-------|-------|
| 0.88" | 1.06" | 4.88" | 3.63" |



ET6K LOAD BLOCK HOOK:

RATING: 1.5 TONNE (3307 LBS)

DIMENSIONS:

| COLOR | BRAND | AA | С | D |
|-------|--------|-------|-------|-------|
| GOLD | CROSBY | 2.00" | 7.75" | 6.12" |

▲ ET8/12 SERIES LOAD BLOCK HOOK:

RATING: 2 TONNE (4410 LBS)

DIMENSIONS:

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

WIRE ROPE & HOOKS SPECIFICATIONS

DATE

03-08-19G

C300

SUPERSEDES

05-09-16F

23225

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).

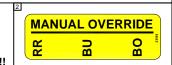
2-STATION FUNCTIONS:

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

3-STATION FUNCTIONS include previous functions, plus:

Boom In ВО **Boom Out**

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



End Plate

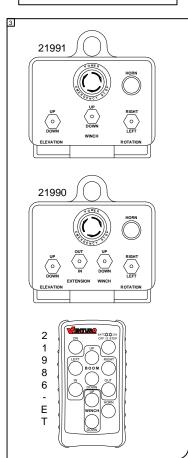
PORT

COIL

SHAFT

Procedure:

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



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

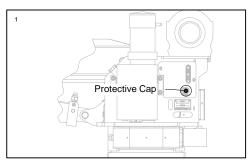
CINCINNATI, OHIO

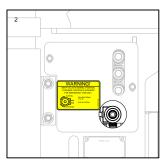


DATE SECTION C200 MAN. OVERRIDE INSTR. 03-08-19A SUPERSEDES 23084 ET NON-PROP CRANES 02-09-17

MANUAL OVERRIDE INSTRUCTIONS ET PROPRTIONAL SERIES CRANES

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

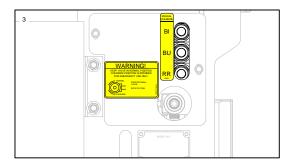


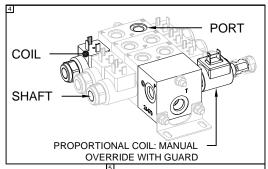


Each valve station incorporates [2] hydraulic ports and [2] coils. Manual override shafts are located in the center of the coils (see figure 4). Manual override decals are placed on each crane near the valve assembly. These decals provide a visual aid that helps the operator determine the function designations (Reference figure 3 & 5).

3-STATION FUNCTIONS:

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







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

Procedure:

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

21988

UP
OUT
UP
OUT
ELEVATION

BATT
POWER

O
DOWN
IN
DOWN
IN
DOWN
IN
DOWN
IN
DOWN
IN
DOWN
IN
BOOM
BOOM
HORN
WINCH
ROTATION

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



MAN. OVERRIDE INSTR.

TITLE

03-08-19A

C200

ET PROPORTIONAL CRANES

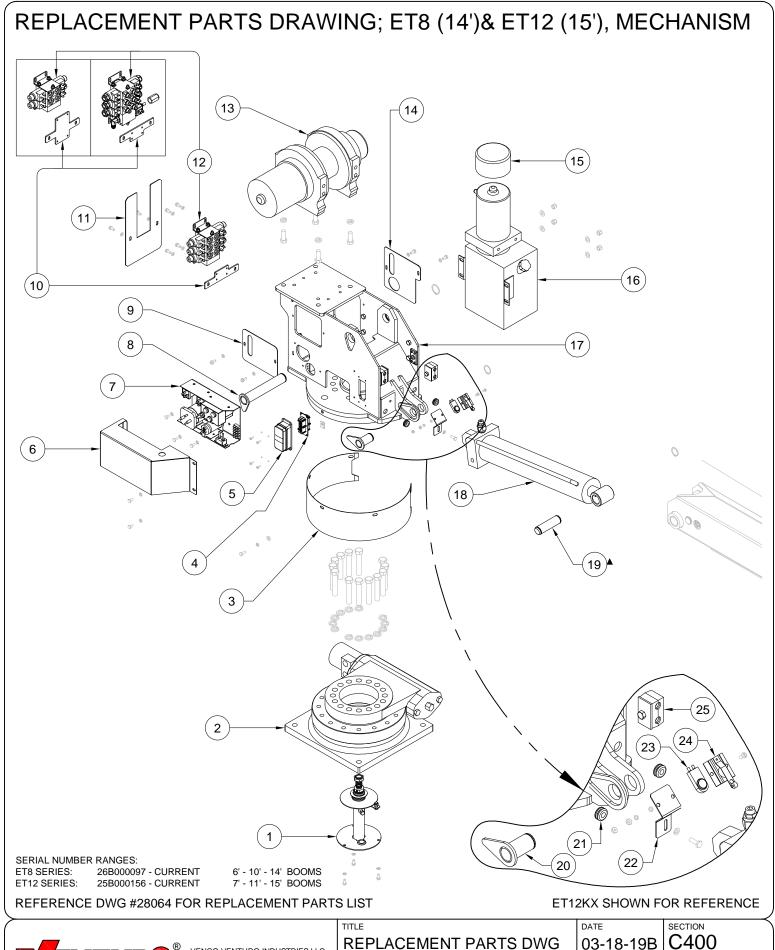
SUPERSEDES **07-30-18**

23775

SECTION 400

REPLACEMENT PARTS







VENCO VENTURO INDUSTRIES LLC

REPLACEMENT PARTS DWG

ET8 (14') & ET12 (15') SERIES

03-18-19B

SUPERSEDES 03-08-19A

28063

REPLACEMENT PARTS LIST; ET8 (14') & ET12 (15') SERIES - MECHANISM

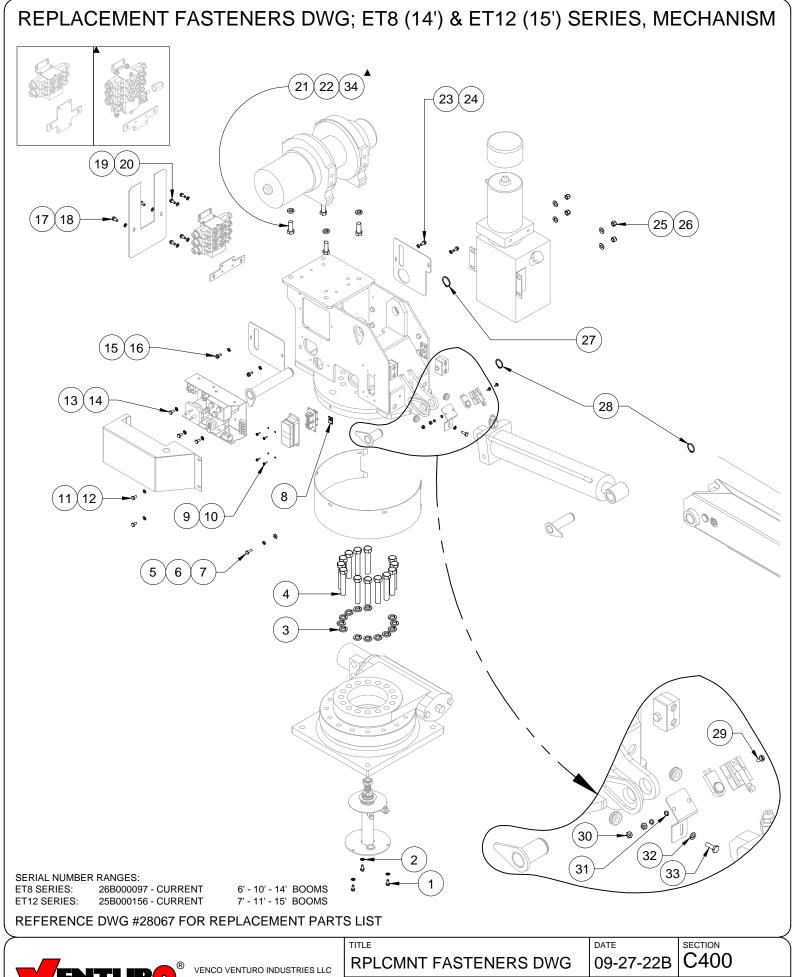
NON - PROPORTIONAL PROPORTIONAL

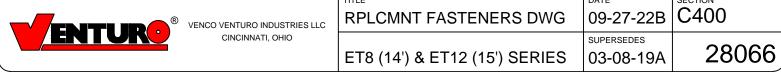
| | ITEM | ET8K QTY | ET8KX QTY | ET12KX QTY | ET8KX QTY | E12KX QTY | PART NO. | DESCRIPTION |
|---|------|-------------|--------------|---------------|--------------|--------------|-----------|--|
| Ī | 1 | 1 | 1 | 1 | 1 | 1 | 16780-2P8 | SLIP RING; 2-POLE, SWIVEL ASSY |
| | 0.1 | | _ | _ | | | 21735 | SLEW DRIVE; SQUARE BASE |
| | 2* | 1 | 1 | 1 | 1 | 1 | 21735-1 | SLEW DRIVE; RECTANGULAR BASE |
| Ī | 3 | 1 | 1 | 1 | 1 | 1 | 21185 | ROTATION GEAR GUARD |
| Ī | 4 | 1 | 1 | 1 | 1 | 1 | 22482 | FEMALE INSERT; 16 + 1 POLE |
| Ī | 5 | 1 | 1 | 1 | 1 | 1 | 22481 | SOCKET CASE W/ HOOD |
| Ī | 6 | 1 | 1 | 1 | 1 | 1 | MB21621 | ELECTRICAL ENCLOSURE W/ INSULATOR |
| ſ | 7 | 1 | 1 | 1 | 1 | 1 | 21515 | ASSY; ELECTRICAL COMPONENT PANEL |
| Ī | 8 | 1 | 1 | 1 | 1 | 1 | 21540 | PIVOT PIN; PRIMARY BOOM, MAIN |
| | 9 | 1 | 1 | 1 | 1 | 1 | 28113 | COVER PLATE; RIGHT SIDE |
| | 40 | - | 1 | 1 | 1 | 1 | 28110 | ADAPTER PLATE; HYD. CONTROL VALVE (ET8/12KX) |
| | 10 | 1 | - | - | - | - | 28110-1 | ADAPTER PLATE; HYD. CONTROL VALVE (ET8K ONLY) |
| | 11 | 1 | 1 | 1 | 1 | 1 | 28112 | COVER PLATE; REAR |
| ſ | | - | 1 | 1 | - | - | 21614 | ASSY; VALVE BLOCK, 3-SPOOL, NON-PROP (ET8/12KX ONLY) |
| | 12 | 1 | - | - | - | - | 21615 | ASSY; VALVE BLOCK, 2-SPOOL, NON-PROP (ET8K ONLY) |
| | | - | - | - | 1 | 1 | 26479 | ASSY; VALVE BLOCK, 3-SPOOL, PROPORTIONAL |
| Ī | 13 | 1 | 1 | 1 | 1 | 1 | 21556 | WINCH; DC1600 |
| Ī | 14 | 1 | 1 | 1 | 1 | 1 | 28114 | COVER PLATE; LEFT SIDE |
| Ī | 15 | 1 | 1 | 1 | 1 | 1 | 16143-3 | MOTOR COVER; 2 HOLES |
| Ī | 16 | 1 | 1 | 1 | 1 | 1 | 20873 | HYDRAULIC POWER UNIT; 2600 PSI |
| | 17 | 1 | 1 | 1 | 1 | 1 | 28122 | WELDED ASSY; UNIVERSAL UPPER HSNG |
| | 10 | - | - | 1 | - | 1 | 23059 | ASSY; ELEV. CYL., COMPOSITE BRNGS (ET12 SERIES) |
| | 18 | 1 | 1 | - | 1 | - | 21788 | ASSY; ELEV. CYL., COMPOSITE BRNGS (ET8 SERIES) |
| Ī | 19 | 1 | 1 | 1 | 1 | 1 | 21547 | PIN; ELEVATION CYL., OUTBOARD |
| ſ | 20 | 1 | 1 | 1 | 1 | 1 | 23703 | WELDMENT; ELEVATION CYL. PIN, INBOARD |
| | 21 | 2 | 2 | 2 | 2 | 2 | 14883 | GROMMET; 3/8" ID, 5/8" OD, 3/16" GROOVE |
| | 22 | 1 | 1 | 1 | 1 | 1 | 21545 | BRACKET; BOOM SHUT-OFF SWITCH |
| | 23 | 1 | 1 | 1 | 1 | 1 | 19918 | SWITCH; TOP POSITION |
| | 24 | 1 | 1 | 1 | 1 | 1 | 19917 | BRACKET; TOP POSITION SWITCH |
| | 25 | 2 | 2 | 2 | 2 | 2 | 21612 | ASSY; HOSE CLAMP |
| | 26 | 1 | 1 | 1 | 1 | 1 | 23700 | BOOM FINAL ASSY; ET12KXP 9.5' - 16' |
| | 27 | 1 | 1 | 1 | 1 | 1 | 20670 | ASSY; SWIVEL LOAD BLOCK, 3500 LBS. |

^{*} EITHER 21735 OR 2175-1 DEPENDING ON CONFIGURATION ITEMS 26 & 27 NOT SHOWN ON DRAWING

REFERENCE DWG #28063 FOR REPLACEMENT PARTS DWG







REPLACEMENT FASTENER LIST; ET8 (14') & ET12 (15') SERIES, MECHANISM

| - | | | | | |
|-----|-------|---------------------|---|-----|---------------------------------------|
| | ITEM# | PART# | DESCRIPTION | QTY | INSTALLATION / LOCATION |
| | 1 | !HHCS02520063S | HEX HEAD CAP SCREW; 1/4-20 X 5/8 S/S | 3 | CANDLESTICK TO CRANE BASE |
| | 2 | !LWSH-025-STAR-SS | LOCK WASHER; 1/4", EXTERNAL STAR, S/S | 3 | CANDLESTICK TO CRANE BASE |
| | 3 | !LWSH-063 | LOCK WASHER; 5/8", GR. 5, ZINC | 13 | HOUSING TO SLEW RING |
| | 4 | !HHCS06311350 | HEX HEAD CAP SCREW; 5/8-11 x 3-1/2, GR. 5, ZINC | 13 | HSNG TO SLEW RING (TORGUE 160 LBS.) |
| | 5 | !HHCS02520075S | HEX HEAD CAP SCREW; 1/4-20 X 3/4, S/S | 5 | ROTATION GEAR GUARD TO HOUSING |
| | 6 | !LWSH-025S | LOCK WASHER; 1/4", S/S | 5 | ROTATION GEAR GUARD TO HOUSING |
| | 7 | !FWSH-025S | FLAT WASHER; 1/4", S/S | 5 | ROTATION GEAR GUARD TO HOUSING |
| | 8 | !UNUT-02520-LKG | U-NUT; 1/4-20, LOCKING | 5 | LOWER GUARD MOUNTING RING (HSNG) |
| | 9 | !SHPMS#0832050S | SLOT-HEAD PAN MACHINE SCREW; #8-32 X 1/2, S/S | 4 | SOCKET CASE W/ HOOD TO HOUSING |
| | 10 | !LWSH-#08S | LOCK WASHER; #08, S/S | 4 | SOCKET CASE W/ HOOD TO HOUSING |
| | 11 | !HHCS02520063S | HEX HEAD CAP SCREW; 1/4-20 X 5/8, S/S | 2 | ELECTRIC PANEL COVER TO HOUSING |
| | 12 | !LWSH-025S | LOCK WASHER; 1/4, S/S | 2 | ELECTRIC PANEL COVER TO HOUSING |
| | 13 | !HHCS02520063 | HEX HEAD CAP SCREW; 1/4-20 X 5/8, S/S | 3 | ELECTRICAL COMPONENT PANEL TO HSNG |
| | 14 | !LWSH-025-STAR | LOCK WASHER; 1/4, EXTERNAL STAR | 3 | ELECTRICAL COMPONENT PANEL TO HSNG |
| | 15 | !HHCS02520050S | HEX HEAD CAP SCREW; 1/4-20 X 1/2, S/S | 2 | RIGHT SIDE COVER PLATE TO HOUSING |
| | 16 | !LWSH-025-S | LOCK WASHER; 1/4, S/S | 2 | RIGHT SIDE COVER PLATE TO HOUSING |
| | 17 | !HHCS02520063S | HEX HEAD CAP SCREW; 1/4-20 X 5/8, S/S | 2 | REAR COVER & ADAPTER PLATE TO HOUSING |
| | 18 | !LWSH-025-S | LOCK WASHER; 1/4, S/S | 2 | REAR COVER & ADAPER PLATE TO HOUSING |
| | 19 | !HHCS02520063S | HEX HEAD CAP SCREW; 1/4-20 X 5/8, S/S | 4 | VALVE BLOCK TO ADAPTER PLATE & HSNG |
| | 20 | !LWSH-025-S | LOCK WASHER; 1/4, S/S | 4 | VALVE BLOCK TO ADAPTER PLATE & HSNG |
| | 21° | 25922 | SHCS; M12-175 X 35MM, GR. 12.9 | 4 | WARN WINCH TO HOUSING |
| | 21* | 25920 | SHCS; M10-150 X 50MM, GR. 12.9 | 6 | COMEUP WINCH TO HOUSING |
| , [| 22° | !LWSH-M12-8.8 | LOCK WASHER; M12, GRADE 8.8 | 4 | WARN WINCH TO HOUSING |
| | 22* | !LWSH-M10-18.1MM-OD | LOCK WASHER; M10, 18.1MM OD | 6 | COMEUP WINCH TO HOUSING |
| | 23 | !HHCS02520063S | HEX HEAD CA SCREW; 1/4-20 X 5/8, S/S | 2 | LEFT SIDE COVER PLATE TO HOUSING |
| | 24 | !LWSH-025-S | LOCK WASHER; 1/4, S/S | 2 | LEFT SIDE COVER PLATE TO HOUSING |
| | 25 | !LNUT-03816 | LOCK NUT; 3/8-16, NYLON INSERT | 4 | HYDRAULIC POWER UNIT TO HOUSING |
| | 26 | !FWSH-038SAE | FLAT WASHER; 3/8 SAE, ZINC PLATED | 4 | HYDRAULIC POWER UNIT TO HOUSING |
| | 27 | !SRNG-125 | SNAP RING; 1-1/4, PLATED | 1 | MAIN BOOM PIVOT PIN |
| | 28 | !SRNG-113 | SNAP RING; 1-1/8, PLATED | 2 | ELEVATION CYLINDER PIVOT PINS |
| | 29 | !PHPMS#1024050S | PHILLIPS HEAD PAN MACH. SCREW; 10-24 X 1/2, S/S | 2 | TOP POS. BRCKT TO BOOM SHUT-OFF BRCKT |
| | 30 | !LWSH-#10S | LOCK WASHER; #10, S/S | 2 | TOP POS. BRCKT TO BOOM SHUT-OFF BRCKT |
| | 31 | !HNUT-#1024S | HEX NUT; #10-24, S/S | 2 | TOP POS. BRCKT TO BOOM SHUT-OFF BRCKT |
| | 32 | !LWSH-025-S | LOCK WASHER; 1/4, S/S | 1 | BOOM SHUT-OFF SWITCH BRACKET TO HSNG |
| | 33 | !HHCS02520075S | HEX HEAD CAP SCREW; 1/4-20 X 3/4, S/S | 1 | BOOM SHUT-OFF SWITCH BRACKET TO HSNG |
| | 34° | !FWSH-M12 | FLAT WASHER; M12 | 4 | WARN WINCH TO HOUSING |
| - | 34* | !FWSH-M10-18MM-OD | FLAT WASHER; M10, 18MM OD | 6 | COMEUP WINCH TO HOUSING |
| - | | | | | |

^{° =} WARN DC2500 WINCH MOUNTING

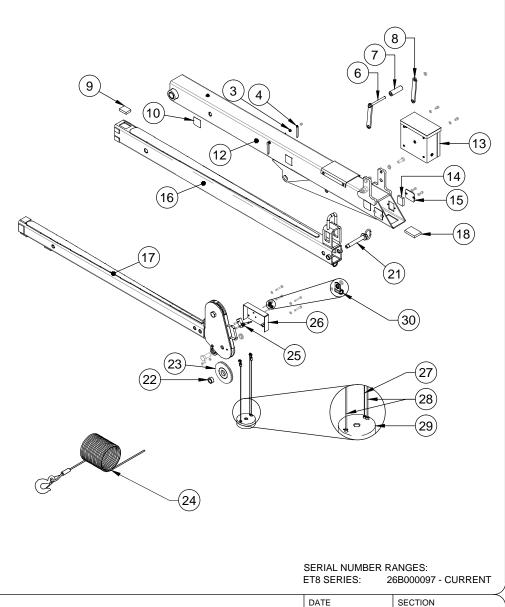
REFERENCE DWG #28066 FOR REPLACEMENT FASTENER DRAWING



^{* =} COMEUP GTD-2800 WINCH MOUNTING

28022-1; ET8KX(P)

28022; ET8K



REFERENCE #28058 FOR REPLACEMENT PARTS LIST

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPLACEMENT PARTS DWG - 28022-1 & 28022 04-19-21

C400

ET8 GEN. 'C' SERIES, 6' - 10' - 14' BOOMS

| | REF | PLACEMENT PARTS LI | ST; 28022-1, ET8KX(P) |
|-------|-----|--------------------|-------------------------------------|
| ITEM# | QTY | PART# | DESCRIPTION |
| 1 | 1 | 21754 | EXTENSION CYLINDER |
| 2 | 1 | 20285 | BUMPER; BOOM |
| 3 | 2 | 22490 | SPACER; BOOM ARROW |
| 4 | 2 | 13459-1 | ARROW; 3.19" LONG |
| 5 | 2 | 21734 | BEARING; UHMW, EXTENSION PIN |
| 6 | 1 | 27089 | WELDED ASSY; WIRE ROPE GUIDE |
| 7 | 1 | 27088 | ROLLER; UHMW, WIRE ROPE GUIDE |
| 8 | 1 | 21936 | FLAT MOUNT; WIRE ROPE GUIDE |
| 9 | 1 | 21538 | BEARING; UHMW, BOOM, 2 X 1.5 X 0.5 |
| 10 | 6 | 28024 | DECAL; BOOM, SLOT COVER |
| 11 | - | - | - |
| 12 | 1 | 28023 | WELDED ASSY; PRIMARY BOOM |
| 13 | 1 | 22683 | ASSY; CORD REEL, LEFT |
| 14 | 2 | 21209 | BEARING; UHMW, BOOM, 2 X 1.5 X 0.44 |
| 15 | 2 | 21528 | BEARING CAP |
| 16 | 1 | 28012 | WELDED ASSY; SECONDARY BOOM |
| 17 | 1 | 21716 | WELDED ASSY; TERTIARY BOOM |
| 18 | 1 | 21208 | BEARING; UHMW, BOOM, 3 X 2 X 0.5 |
| 19 | - | - | - |
| 20 | - | - | - |
| 21 | 1 | 23042-B-14-14 | ASSY; PIN / LANYARD |
| 22 | 2 | 20536 | SPACER; SHEAVE |
| 23 | 2 | 21630 | SHEAVE W/ BUSHING |
| 24 | 1 | 21639 | WIRE ROPE; 1/4 X 65 FT W/ EYEHOOK |
| 25 | 1 | 19376 | SWITCH; ANTI-2-BLOCK |
| 26 | 1 | 21291 | HOUSING; ANTI-2-BLOCK |
| 27 | 1 | 20929 | CABLE HANGER; ANTI-TWO BLOCK |
| 28 | 2 | 20951-1 | CABLE HANGER; 16 ½" LG |
| 29 | 1 | 20950 | WEIGHT; ANTI-TWO BLOCK |
| 30 | 1 | 19269 | CLAMP; 1/4" |

| | REPLACEMENT PARTS LIST; 28022-1, ET8KX(P) | | | | | | | |
|-------|---|---------------|--|--|--|--|--|--|
| ITEM# | QTY | PART# | DESCRIPTION | | | | | |
| - | - | - | - | | | | | |
| - | - | - | - | | | | | |
| 3 | 2 | 22490 | SPACER; BOOM ARROW | | | | | |
| 4 | 2 | 13459-1 | ARROW; 3.19" LONG | | | | | |
| - | - | - | - | | | | | |
| 6 | 1 | 27089 | WELDED ASSY; WIRE ROPE GUIDE | | | | | |
| 7 | 1 | 27088 | ROLLER; UHMW, WIRE ROPE GUIDE | | | | | |
| 8 | 1 | 21936 | FLAT MOUNT; WIRE ROPE GUIDE | | | | | |
| 9 | 1 | 21538 | BEARING; UHMW, BOOM, 2 X 1.5 X 0.5 | | | | | |
| 10 | 6 | 28024 | DECAL; BOOM, SLOT COVER | | | | | |
| 11 | - | - | - | | | | | |
| 12 | 1 | 28023 | WELDED ASSY; PRIMARY BOOM | | | | | |
| 13 | 1 | 22683 | ASSY; CORD REEL, LEFT | | | | | |
| 14 2 | | 21209 | BEARING; UHMW, BOOM, 2 X 1.5 X 0.44 | | | | | |
| 15 | 2 | 21528 | BEARING CAP | | | | | |
| 16 | 1 | 28012 | WELDED ASSY; SECONDARY BOOM | | | | | |
| 17 | 1 | 21716 | WELDED ASSY; TERTIARY BOOM | | | | | |
| 18 | 1 | 21208 | BEARING; UHMW, BOOM, 3 X 2 X 0.5 | | | | | |
| 19 | - | - | - | | | | | |
| 20 | - | - | - | | | | | |
| 21 | 1 | 23042-B-14-14 | ASSY; PIN / LANYARD | | | | | |
| 22 | 2 | 20536 | SPACER; SHEAVE | | | | | |
| 23 | 2 | 21630 | SHEAVE W/ BUSHING | | | | | |
| 24 | 1 | 21639 | WIRE ROPE; 1/4 X 65 FT W/ EYEHOOK | | | | | |
| 25 | 1 | 19376 | SWITCH; ANTI-2-BLOCK | | | | | |
| 26 | 1 | 21291 | HOUSING; ANTI-2-BLOCK | | | | | |
| 27 | 1 | 20929 | CABLE HANGER; ANTI-TWO BLOCK | | | | | |
| 28 | 2 | 20951-1 | CABLE HANGER; 16 ½" LG | | | | | |
| 29 | 1 | 20950 | WEIGHT; ANTI-TWO BLOCK | | | | | |
| 30 | 1 | 19269 | CLAMP; 1/4" | | | | | |
| | | ET8 SERIES SE | ERIAL NUMBER RANGES: 26B000097 - CURRENT | | | | | |

REFERENCE #28057 FOR REPLACEMENT PARTS DRAWING

DATE



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

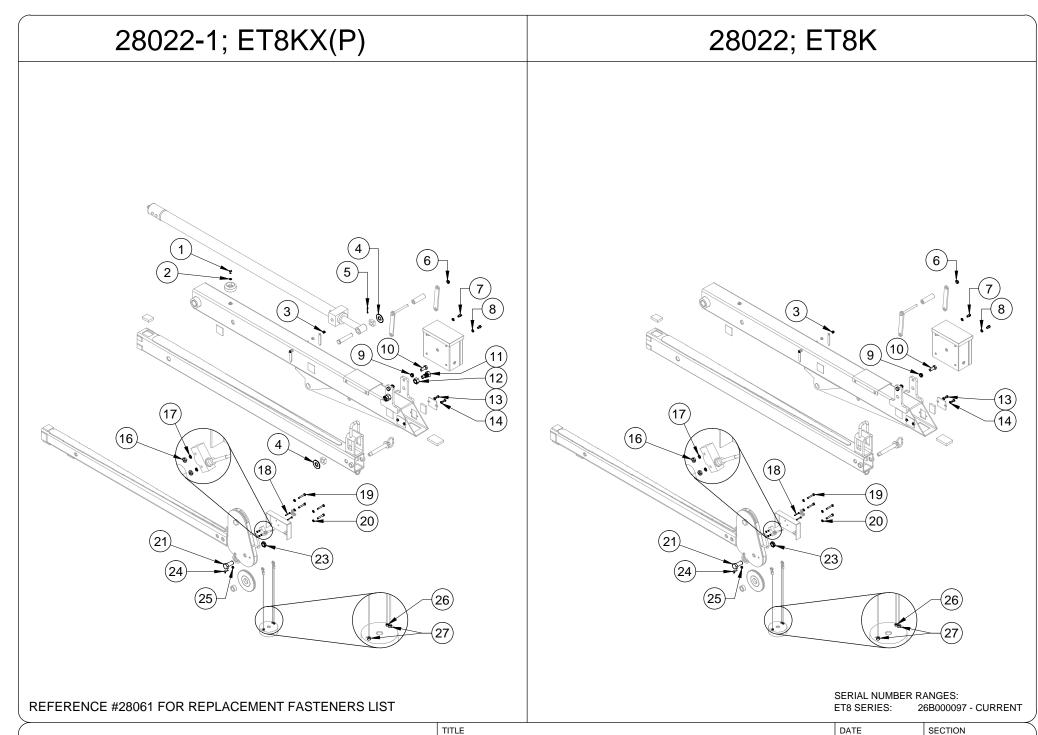
REPLACEMENT PARTS LIST - 28022-1 & 28022

04-19-21

C400

ET8 GEN. 'C' SERIES, 6' - 10' - 14' BOOMS

SUPERSEDES





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO RPLCMNT FASTENERS DWG - 28022-1 & 28022

04-19-21

C400

ET8 GEN. 'C' SERIES, 6' - 10' - 14' BOOMS

SUPERSEDES

| | | REPLACEMENT FAS | STENERS LIST; 28022-1, ET8KX(P) |
|-------|-----|------------------|---|
| ITEM# | QTY | PART# | DESCRIPTION |
| 1 | 1 | !HHCS02520063S | HEX HEAD CAP SCREW; 1/4-20 X 5/8", S/S |
| 2 | 1 | !FWSH-025S | FLAT WASHER; 1/4", S/S |
| 3 | 2 | !ANUT-02520S | ACORN NUT; 1/4-20, S/S |
| 4 | 2 | !FWSH-075S | FLAT WASHER; 3/4", S/S |
| 5 | 1 | !RPIN-016150 | ROLL PIN; 5/32 X 1-1/2" |
| 6 | 1 | !JNUT-04414N | JAM NUT; 7/16-14, NYLON |
| 7 | 2 | !SHCS03118050-SS | SOCKET HEAD CAP SCREW; 5/16-18 X 1/2", S/S |
| 8 | 2 | !LWSH-031S | LOCK WASHER; 5/16", S/S |
| 9 | 2 | !JNUT-05013N | JAM NUT; 1/2-13, NYLON |
| 10 | 2 | !HHCS05013125 | HEX HEAD CAP SCREW; 1/2-13 X 1-1/4", ZINC |
| 11 | 2 | 17487 | ECCENTRIC PIVOT BOLT; 3/4-16 |
| 12 | 2 | !HNUT-07516S | HEX NUT; 3/4-16, S/S |
| 13 | 4 | !HHCS02520050S | HEX HEAD CAP SCREW; 1/4-20 X 1/2", S/S |
| 14 | 4 | !LWSH-025S | LOCK WASHER; 1/4", S/S |
| 15 | 1 | - | - |
| 16 | 2 | !HNUT-#0632S | HEX NUT; #06-32, S/S |
| 17 | 2 | !LWSH-#06S | LOCK WASHER; #06, S/S |
| 18 | 2 | !PHMS#0632125 | PHILIPS HEAD MACHINE SCREW; #06-32 X 1-1/4" |
| 19 | 4 | !HHCS02520175S | HEX HEAD CAP SCREW; 1/4-20 X 1-3/4", S/S |
| 20 | 4 | !LWSH-025S | LOCK WASHER; 1/4", S/S |
| 21 | 2 | 17059-4 | SHEAVE AXLE; HHCS07510169, SPCL SHLDR, S/S |
| 22 | - | - | - |
| 23 | 2 | !JNUT-07510N | JAM NUT; 3/4-10, NYLON |
| 24 | 1 | !HHCS02520075S | HEX HEAD CAP SCREW; 1/4-20 X 3/4", S/S |
| 25 | 1 | !HNUT-025S | HEX NUT; 1/4", S/S |
| 26 | 2 | 19302 | SET COLLAR; 3/32" DIA. |
| 27 | 2 | 20952 | SET COLLAR; 5/32" DIA. |
| | | | |

| REPLACEMENT FASTENERS LIST; 28022-1, ET8KX(P) | | | | | | | |
|---|-----|------------------|---|--|--|--|--|
| ITEM# | QTY | PART# | DESCRIPTION | | | | |
| 1 | - | - | - | | | | |
| 2 | - | - | - | | | | |
| 3 | 2 | !ANUT-02520S | ACORN NUT; 1/4-20, S/S | | | | |
| 4 | - | - | - | | | | |
| 5 | - | - | - | | | | |
| 6 | 1 | !JNUT-04414N | JAM NUT; 7/16-14, NYLON | | | | |
| 7 | 2 | !SHCS03118050-SS | SOCKET HEAD CAP SCREW; 5/16-18 X 1/2", S/S | | | | |
| 8 | 2 | !LWSH-031S | LOCK WASHER; 5/16", S/S | | | | |
| 9 | 2 | !JNUT-05013N | JAM NUT; 1/2-13, NYLON | | | | |
| 10 | 2 | !HHCS05013125 | HEX HEAD CAP SCREW; 1/2-13 X 1-1/4", ZINC | | | | |
| 11 | - | - | - | | | | |
| 12 | - | - | - | | | | |
| 13 | 4 | !HHCS02520050S | HEX HEAD CAP SCREW; 1/4-20 X 1/2", S/S | | | | |
| 14 | 4 | !LWSH-025S | LOCK WASHER; 1/4", S/S | | | | |
| 15 | - | - | - | | | | |
| 16 | 2 | !HNUT-#0632S | HEX NUT; #06-32, S/S | | | | |
| 17 | 2 | !LWSH-#06S | LOCK WASHER; #06, S/S | | | | |
| 18 | 2 | !PHMS#0632125 | PHILIPS HEAD MACHINE SCREW; #06-32 X 1-1/4" | | | | |
| 19 | 4 | !HHCS02520175S | HEX HEAD CAP SCREW; 1/4-20 X 1-3/4", S/S | | | | |
| 20 | 4 | !LWSH-025S | LOCK WASHER; 1/4", S/S | | | | |
| 21 | 2 | 17059-4 | SHEAVE AXLE; HHCS07510169, SPCL SHLDR, S/S | | | | |
| 22 | - | - | - | | | | |
| 23 | 2 | !JNUT-07510N | JAM NUT; 3/4-10, NYLON | | | | |
| 24 | 1 | !HHCS02520075S | HEX HEAD CAP SCREW; 1/4-20 X 3/4", S/S | | | | |
| 25 | 1 | !HNUT-025S | HEX NUT; 1/4", S/S | | | | |
| 26 | 2 | 19302 | SET COLLAR; 3/32" DIA. | | | | |
| 27 | 2 | 20952 | SET COLLAR; 5/32" DIA. | | | | |

REFERENCE #28059 FOR REPLACEMENT FASTENERS DRAWING

ET8 SERIES SERIAL NUMBER RANGES: 26B000097 - CURRENT



RP

RPLCMNT FASTENERS LIST - 28022-1 & 28022

04-19-21

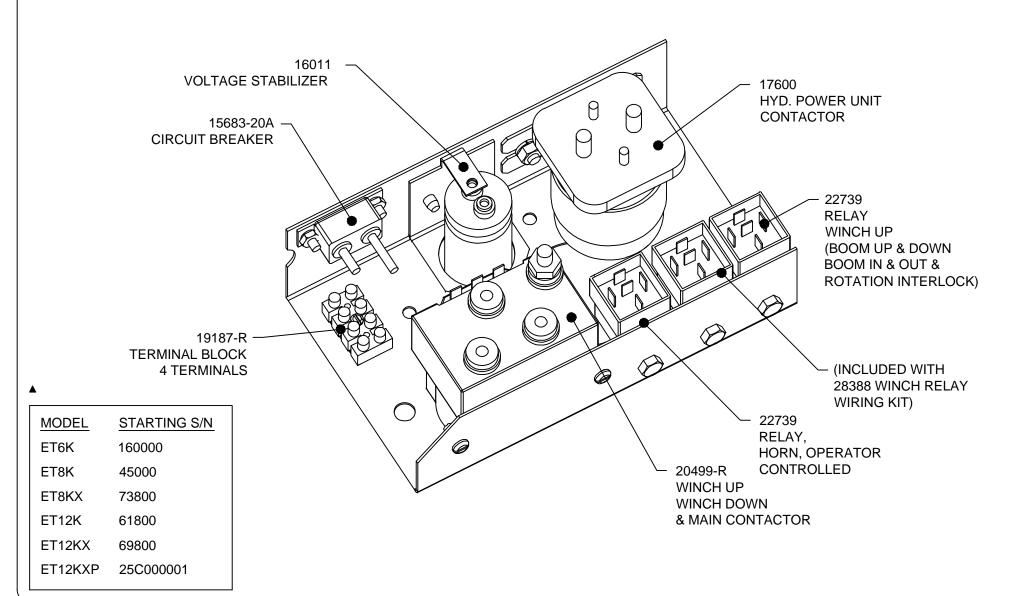
DATE

C400

ET8 GEN. 'C' SERIES, 6' - 10' - 14' BOOMS

supersedes 28334

21515 ELECTRICAL COMPONENT ASSEMBLY

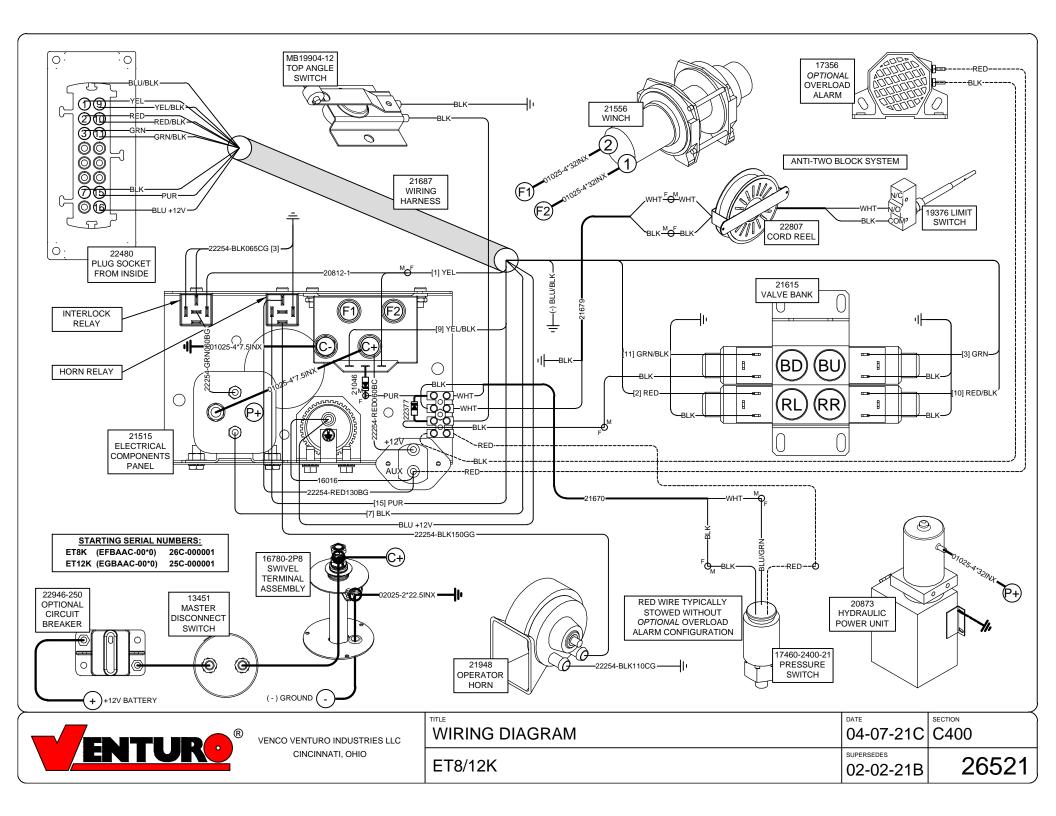


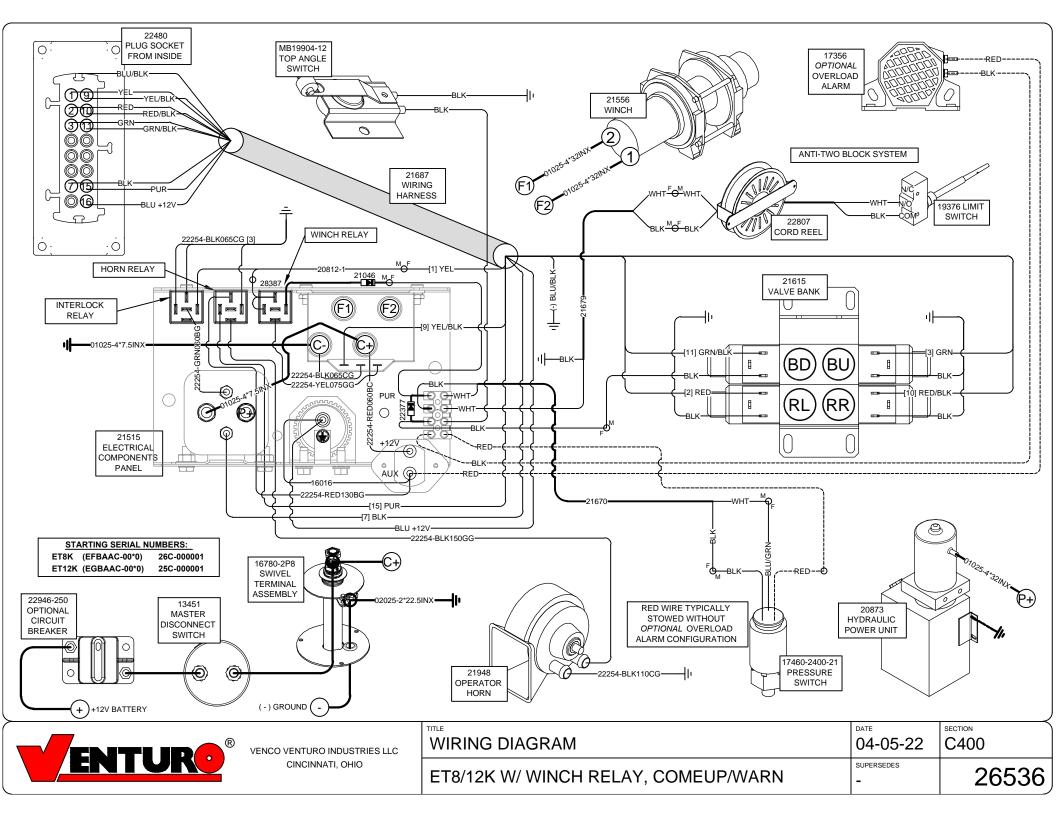


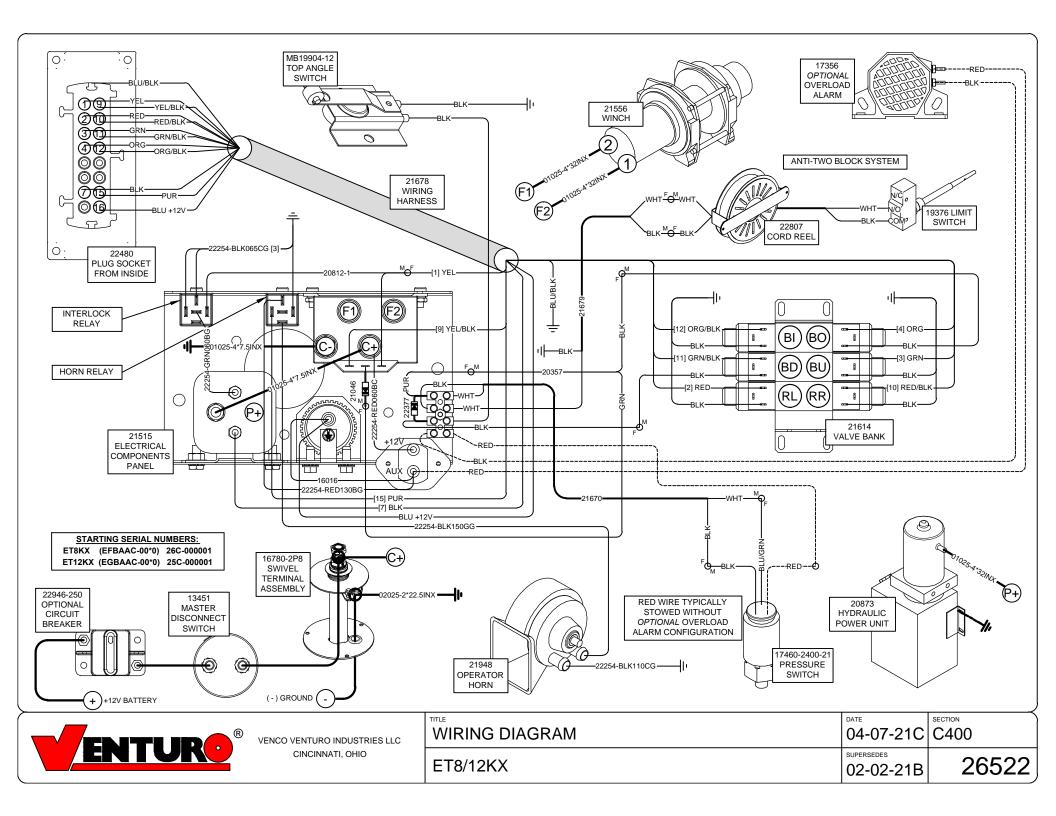
VENCO VENTURO INDUSTRIES LLC

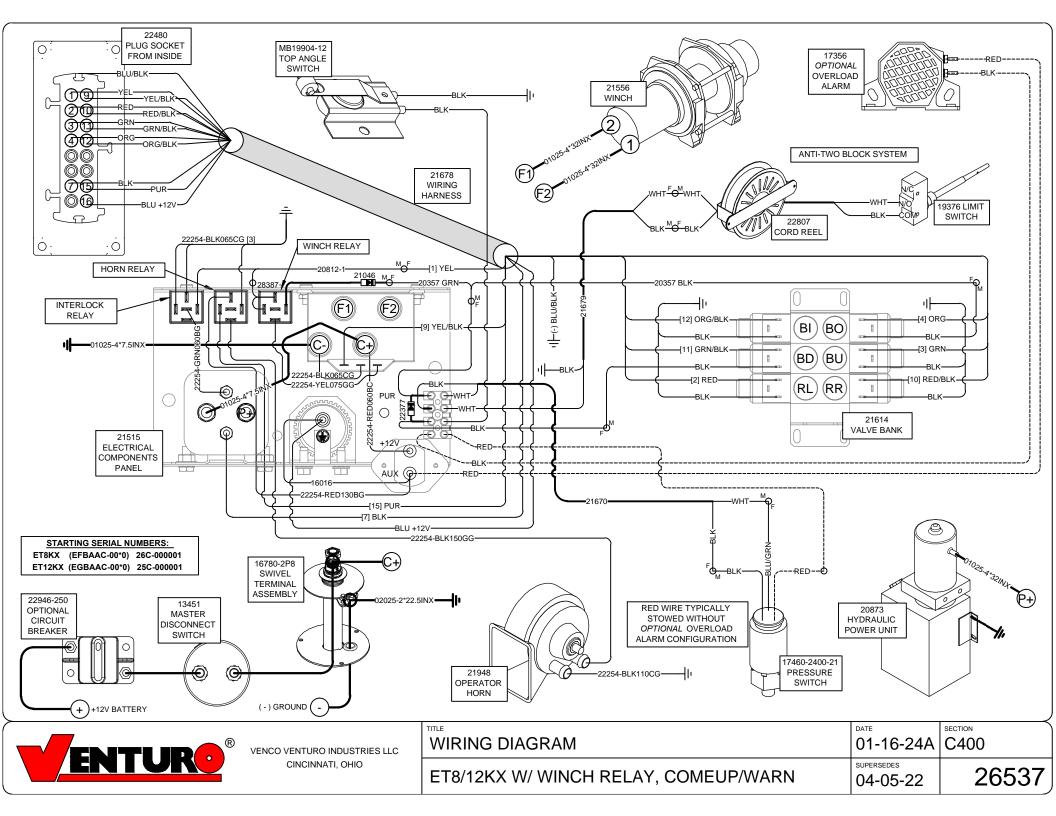
CINCINNATI, OHIO

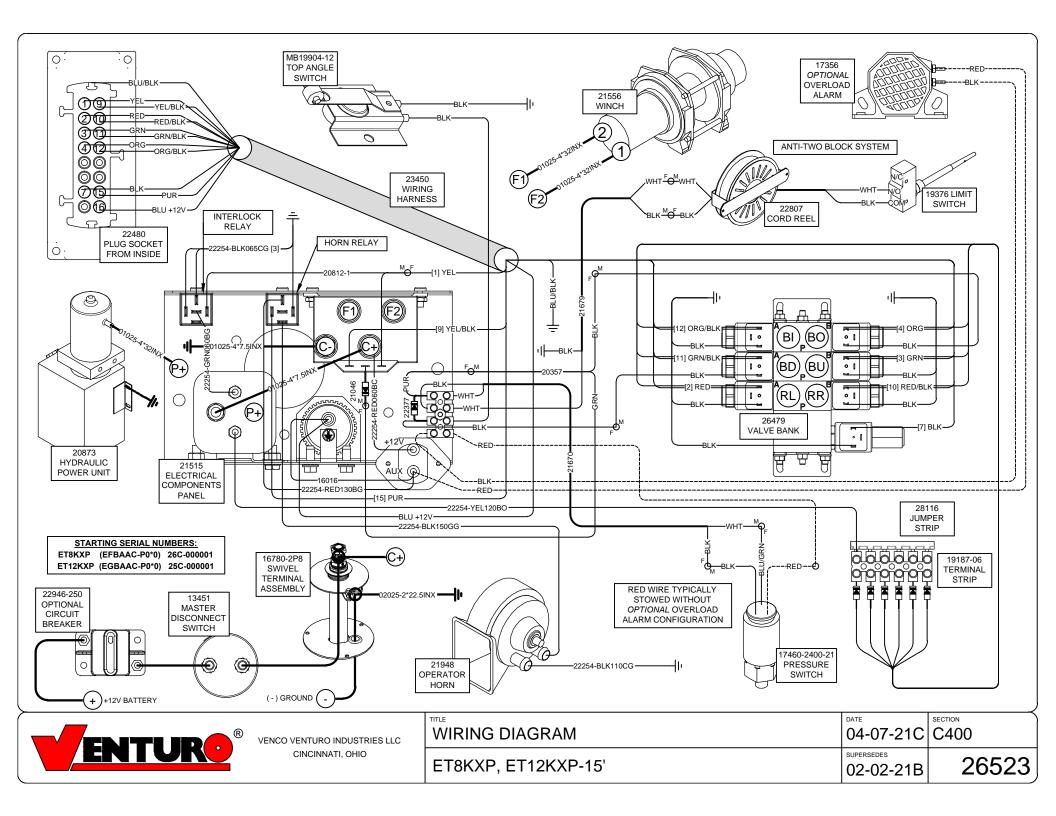
SECTION **ELECTRICAL COMPONENT ASSEMBLY** C400 03-02-23G SUPERSEDES 21600 ET6K, ET8/12K(X), ET12KXP 07-31-18F

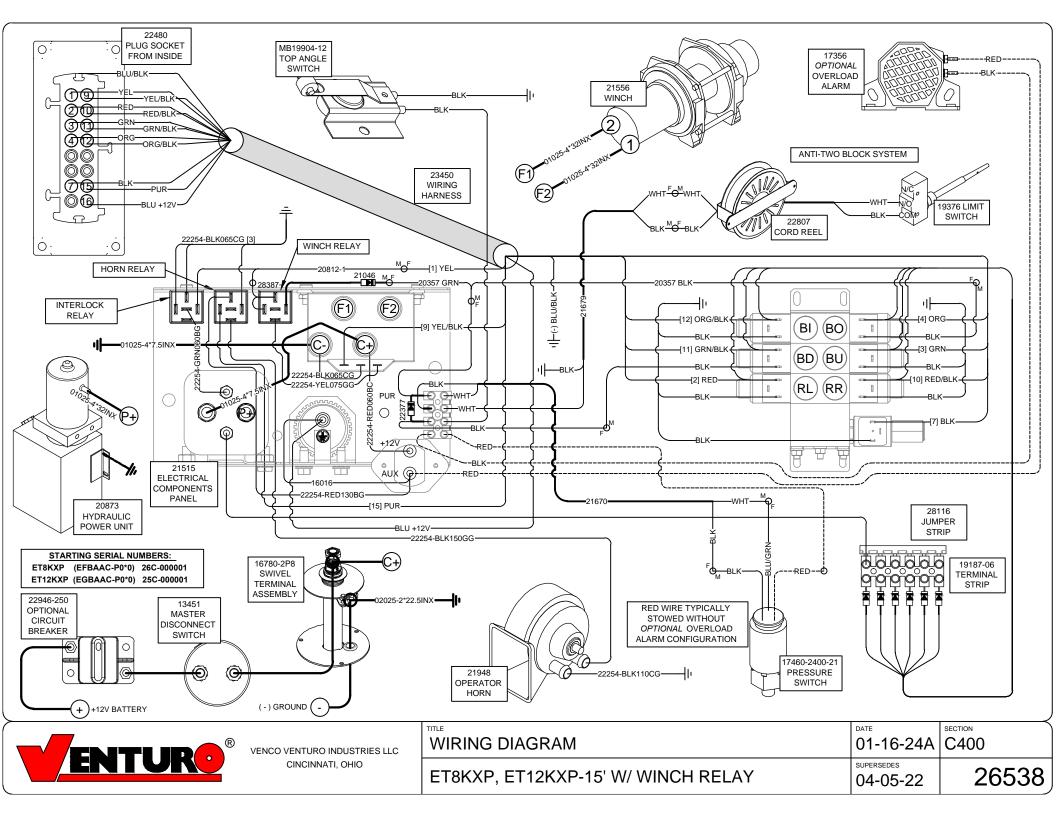




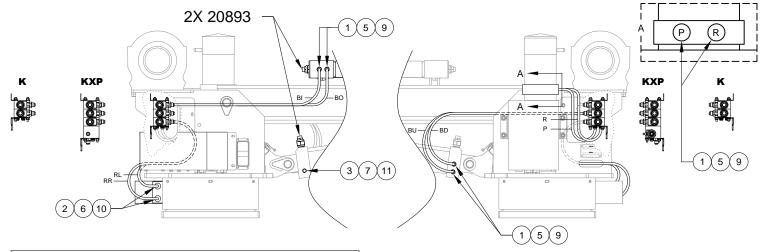








REPLACEMENT PARTS; HYDRAULIC COMPONENTS, ET8 (6-10-14) & ET12 (7-11-15) GEN 'C' SERIES

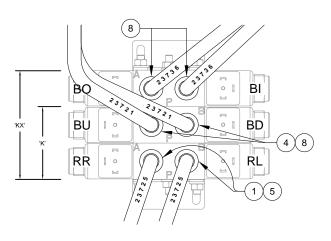


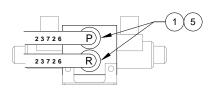
| 23737 - ET8K GENERATION 'C', NON-PROPORTIONAL, 6' - 10' - 14' | | | | | | |
|---|-------------|-----|---|--|--|--|
| ITEM | PART# | QTY | DESCRIPTION | | | |
| 1 | FF6400-0606 | 8 | FITTING; ADAPTER, STRAIGHT, 6OFS-6MO | | | |
| 2 | FF6400-0610 | 2 | FITTING; ADAPTER, STRAIGHT, 6OFS-10MO | | | |
| 3 | H6805-0404 | 1 | FITTING; ADAPTER, 90° ELBOW, 4MO-4FP | | | |
| 4 | FF6802-0606 | 2 | FITTING; ADAPTER, 45° SWIVEL, 6MOFS-6MORB | | | |

| 23734 | 4 - ET8KX (6'-10'-1 | 4') & ET | 12KX (7'-11'-15') GEN. 'C', NON-PROPORTIONAL |
|-------|---------------------|----------|--|
| ITEM | PART# | QTY | DESCRIPTION |
| 5 | FF6400-0606 | 10 | FITTING; ADAPTER, STRAIGHT, 60FS-6MO |
| 6 | FF6400-0610 | 2 | FITTING; ADAPTER, STRAIGHT, 6OFS-10MO |
| 7 | 7 H6805-0404 | | FITTING; ADAPTER, 90° ELBOW, 4MO-4FP |
| 8 | FF6802-0606 | 4 | FITTING; ADAPTER, 45° SWIVEL, 6MOFS-6MORB |

| 23735 - ET8KXP (6'-10'-14') & ET12KXP (7'-11'-15'), GEN. 'C', PROPORTION | | | | | | |
|--|-------------|-----|---|--|--|--|
| ITEM | PART# | QTY | DESCRIPTION | | | |
| 9 | FF6400-0606 | 10 | FITTING; ADAPTER, STRAIGHT, 60FS-6MO | | | |
| 10 | FF6400-0610 | 2 | FITTING; ADAPTER, STRAIGHT, 60FS-10MO | | | |
| 11 | H6805-0404 | 1 | FITTING; ADAPTER, 90° ELBOW, 4MO-4FP | | | |
| 12 | FF6802-0606 | 4 | FITTING; ADAPTER, 45° SWIVEL, 6MOFS-6MORB | | | |

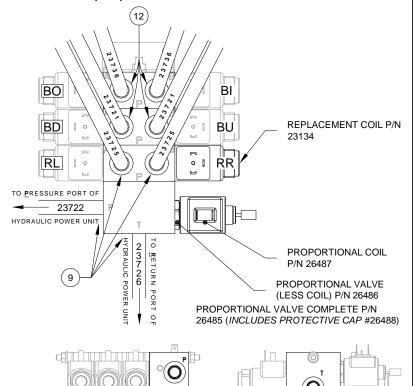
21615 (K) or 21614 (KX) NON-PROPRTIONAL VALVE BLOCK





HOSE ROUTINGS ARE FOR REFERENCE ONLY

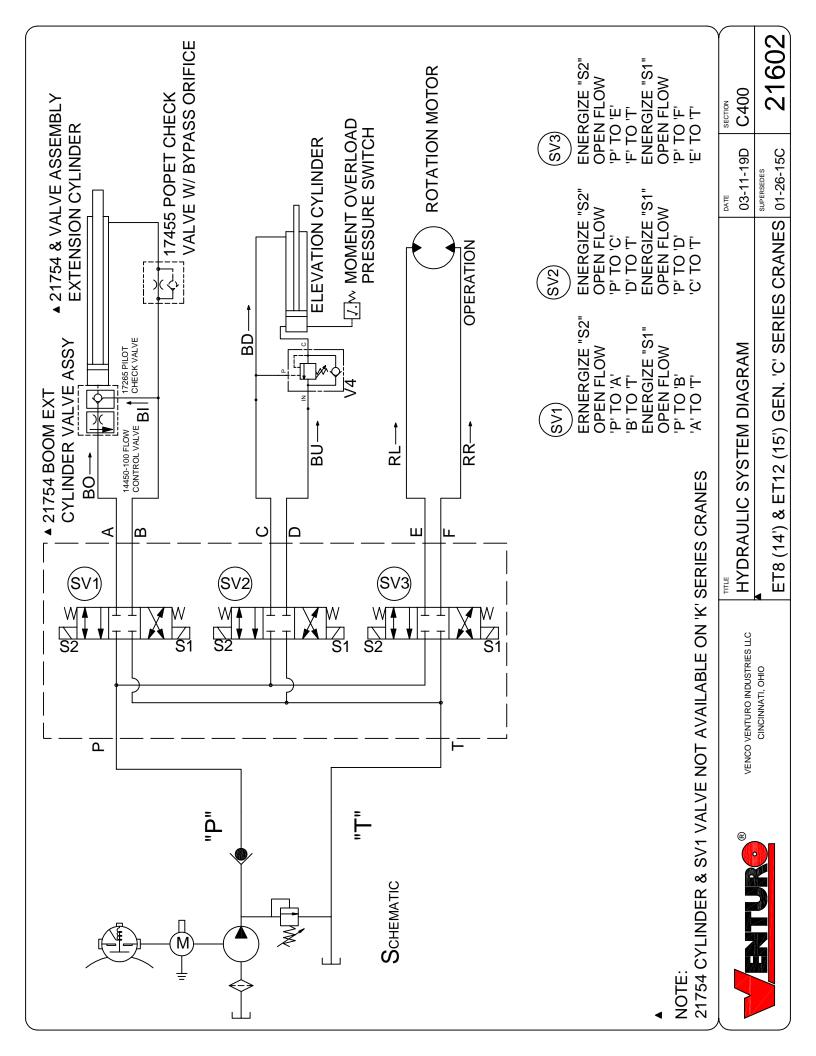
26479 (KXP) PROPORTIONAL VALVE BLOCK

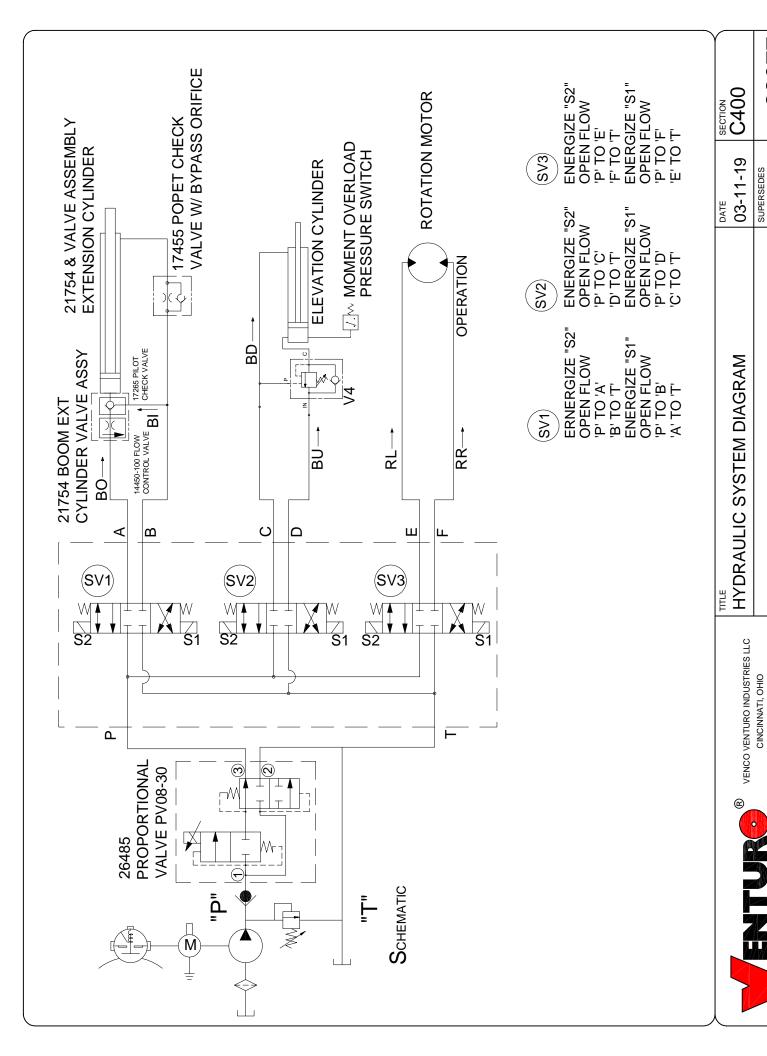




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

| | 03-08-19F | SECTION C400 |
|-------------------------------|-----------|--------------|
| ET8 (14') & ET12 (15') SERIES | 12-16-16E | 28037 |





28077

ET8KXP (6-10-14), ET12KXP (7-11-15), GEN. 'C'

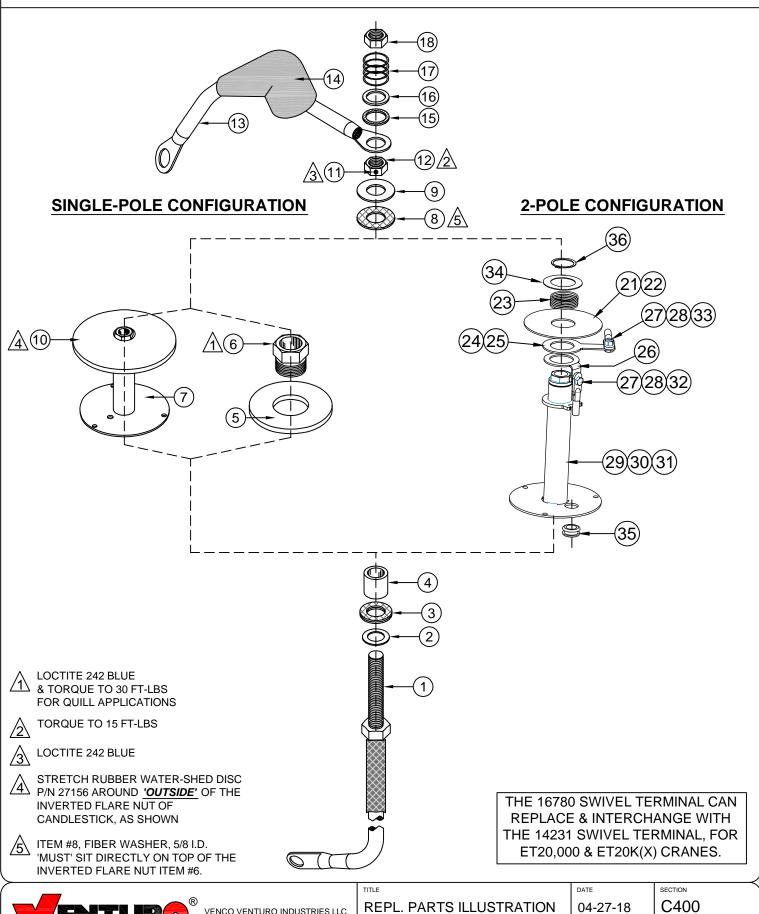
Single & 2-Pole Slip-ring Replacement Parts (1 of 2)

| Quill Rotation | Slew Rotation Single Pole Slip-Ring | Slew Rotation 2-Pole Slip- Ring (ET6K ONLY) | Slew Rotation 2-Pole Slip- Ring (ET8-18KX) | Slew Rotation 2-Pole Slip- Ring (ET25-36KX) | ALL CRANES | | 16780 BILLS OF MATERIALS | | | |
|----------------|--|--|---|--|-------------|----------|----------------------------|--|--|--|
| 16780 | 16780 - 1 | 16780 - 2P6 | 16780 - 2P8 | 16780 - 2P25 | 16780 - KIT | | | | | |
| o | | Q | TY | | | # | PART | DESCRIPTION | | |
| 1 | 1 | 1 | 1 | 1 | - | 1 | 16783 | PIGTAIL AND STUD ASSEMBLY | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 2 | 12534-5 | ZINC BUSHING; 5/8" I.D. X 1" O.D. X 14 GAUGE | | |
| 2 | 2 | 2 | 2 | 2 | 2 | 3 | 14357-1 | FIBER WASHER; 5/8" I.D. X 1 1/16" O.D. X 1/16" | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 4 | 14233 | INSULATING BUSHING; 5/8" I.D. X 7/8" O.D. X 7/8" | | |
| 1 | 2 | - | - | 12 | 2 | 5 | 14318 | FLAT WASHER; 1 3/16" I.D. X 2 3/4" O.D. X 3/16" | | |
| 1 | | - | - | | | 6 | 14232 | INVERTED FLARE NUT; 1 3/16"-16 | | |
| - | - | - | - | - | - | 7 | 27568 | WELDED ASSY. CANDLESTICK | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 8 | 14357-2 | FIBER WASHER; 5/8" I.D. X 1 1/4" O.D. X 1/16" | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 9 | !FWSH-063SAE | FLAT WASHER; 5/8" SAE | | |
| _ | 1 | - | - | 1 - | - | 10 | 27156 | RUBBER WATER SHIELD; 1/8" THICK | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 11 | !SHCS02528025KC | SET SCREW W/ KNURLED CUP; 1/4"-28 X 1/4" | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 12 | 21273 | BRASS JAM NUT; 5/8"-11 | | |
| _ | - | | - | - | - | 13 | 26035-2 | PIGTAIL; SWIVEL TERMINAL | | |
| | _ | _ | - | Fi_1 | - | 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 | 20 | 19368 | IDWG: 16780 SWIVEL TERMINAL | | |
| 1 - | - | 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 | 1 | 1 | - | 25 26 | 27441 27449-1 | COPPER SLIP-RING, (ET6K ONLY) BRASS SLIP-RING (ET6 - ET36) | | |
| - | - | 1 | 1 | 1 | | 27 | !HHCS03118075-B | BRASS SLIP-RING (E 16 - E 136) BRASS HHCS | | |
| - | _ | 1 | 1 | 1 | - | 28 | !HNUT-03118-B | BRASS NYLOC NUT | | |
| - | Ē | 1 | - | := | - | 29 | 23255 | SLIP-RING, WELDED ASSY, ET6K | | |
| - | | • | 1 | - 4 | - | 30 | 23255-1 | SLIP-RING, WELDED ASSY, ET8 - 18K(X) | | |
| - | - | 1 | 1 | 1 | - | 31 | 23255-2 02025-2*96.5INX | SLIP-RING, WELDED ASSY, ET25 - 36K(X) (-) 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. | | |
| j . | = | 1 | 1 | 1 | - | 35 | 20889 | RUBBER GROMMET | | |
| - | = | 1 | 1 | 1 | = | 36 | !SRNG-150 | SNAP-RING, EXTERNAL, 1-1/2" | | |



| TITLE | DATE | SECTION |
|-----------------------------|------------|---------|
| 16780 REPLACEMENT PARTS | 03-29-19A | C400 |
| | SUPERSEDES | 21202 |
| ET6/8/12/16/18/25/30/36K(X) | 04-27-18 | 21292 |

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

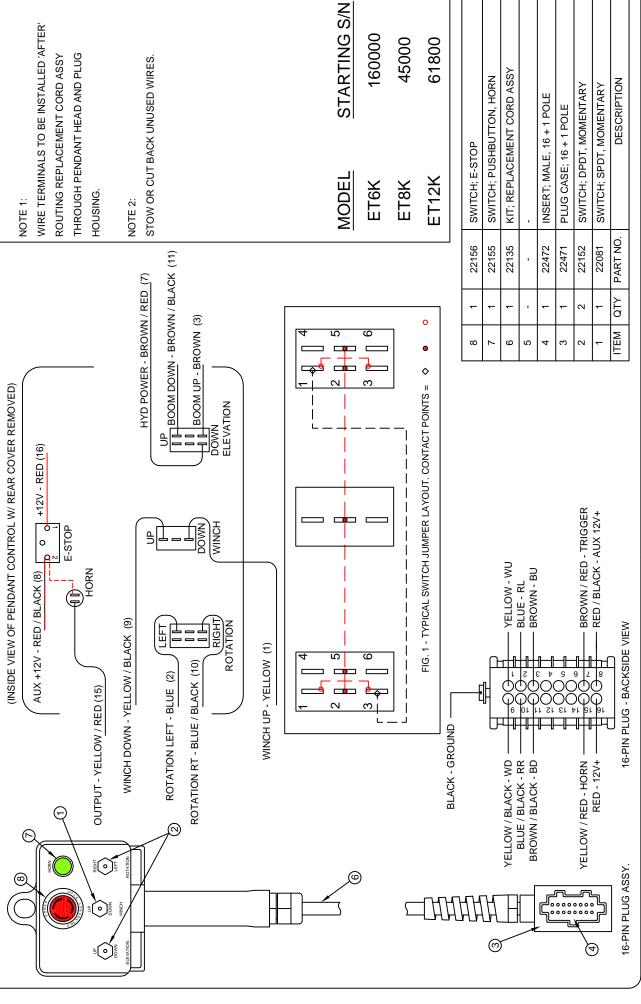


| ENTURO® | ١ |
|----------|---|
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'ENCO VENTURO INDUSTRIES LL CINCINNATI, OHIO

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

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



| 8 | - | 22156 | SWITCH; E-STOP |
|------|-----|----------|----------------------------|
| 7 | 1 | 22155 | SWITCH; PUSHBUTTON, HORN |
| 9 | - | 22135 | KIT; REPLACEMENT CORD ASSY |
| 2 | | | - |
| 4 | - | 22472 | INSERT; MALE, 16 + 1 POLE |
| ဗ | _ | 22471 | PLUG CASE; 16 + 1 POLE |
| 2 | 2 | 22152 | SWITCH; DPDT, MOMENTARY |
| - | - | 22081 | SWITCH; SPDT, MOMENTARY |
| ITEM | QTY | PART NO. | DESCRIPTION |



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

R

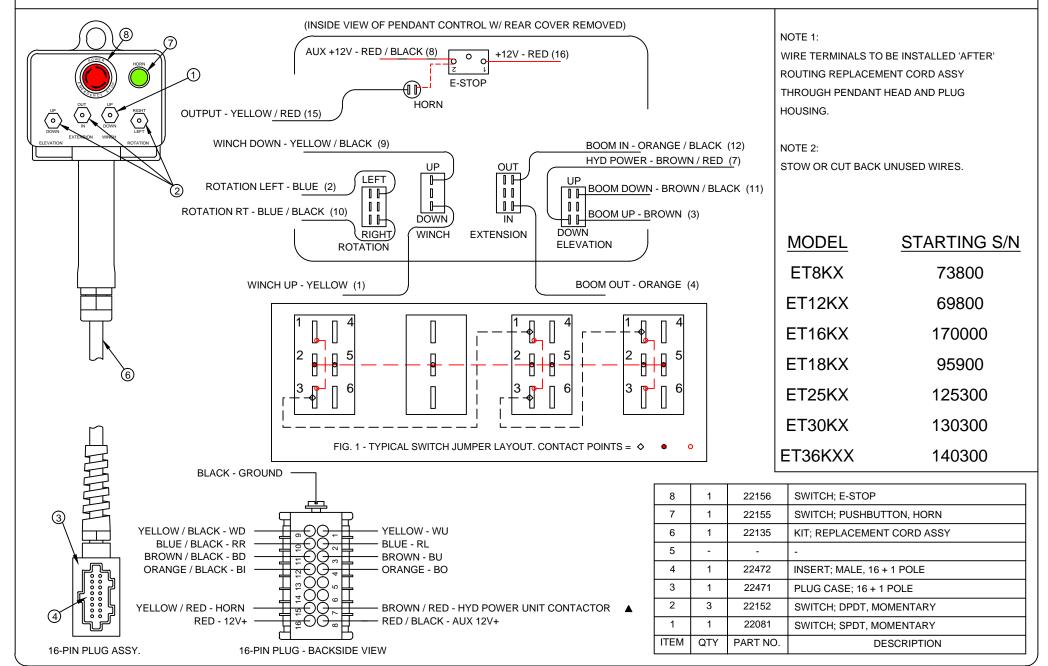
| EPLACEMENT PARTS DWG & LIST | 10-03-14 |
|-------------------------------------|------------|
| | SUPERSEDES |
| 991 PNDNT: 3 FNCTN FT CRNS FSTP/HRN | 1 |

23076

C400

DATE

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

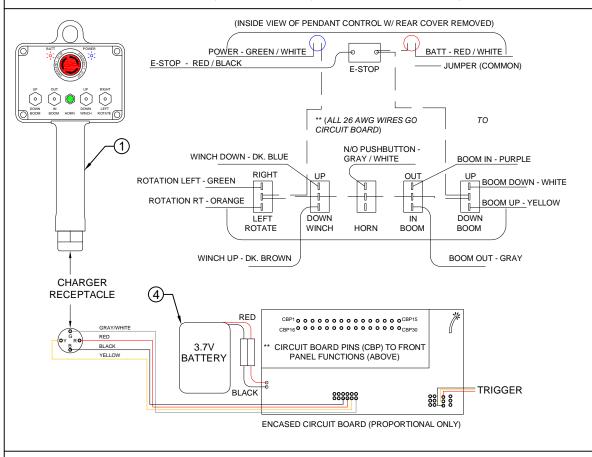


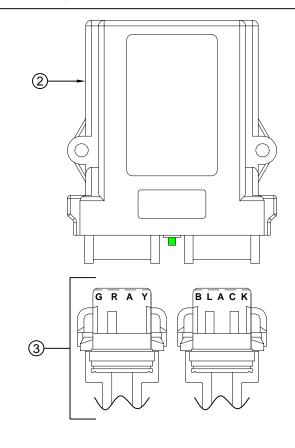


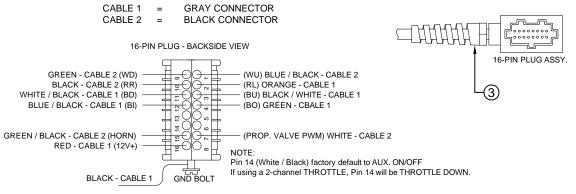
VENCO VENTURO INDUSTRIES LLC CINCINNATI. OHIO

| REPLACEMENT PARTS DWG & LIST | 01-12-17B | C400 |
|--|------------|-------|
| | SUPERSEDES | 22075 |
| 21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN | 10-20-14A | 23075 |

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







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



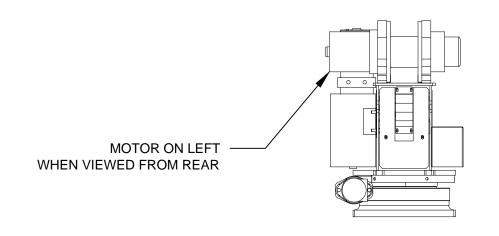
VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

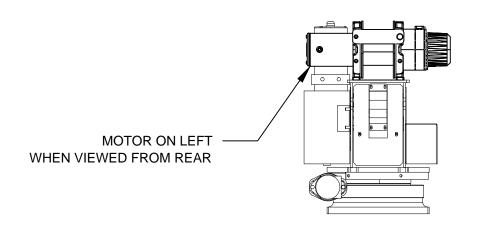
| TITLE | | | DATE | SECTION |
|--------------------|-------------|----------|------------|---------|
| REPLACEMENT PARTS | DWG & LIST | | 03-11-19A | C400 |
| | | | SUPERSEDES | 00-00 |
| ET PROPORTIONAL SE | RIES CRANES | A | 07-31-18 | 23786 |

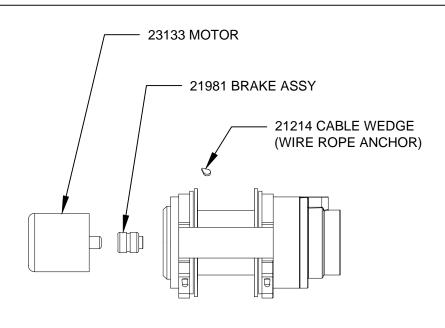
21556 WINCH REPLACEMENT PARTS

WARN DC1600

COMEUP GTD-2200

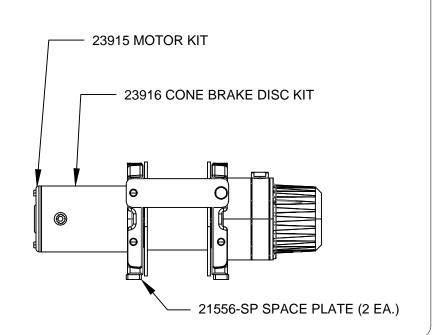






MANUFACTURING, INC.

CINCINNATI, OHIO



C400

21741



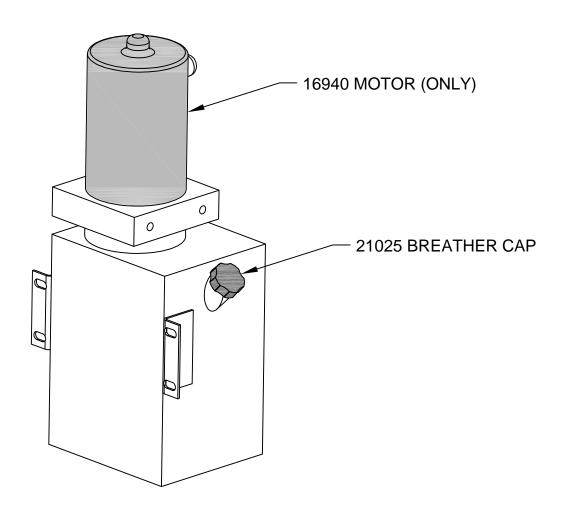
WINCH REPLACEMENT PARTS (DC1600)

10-24-22E

SUPERSEDES

06-16-22D

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



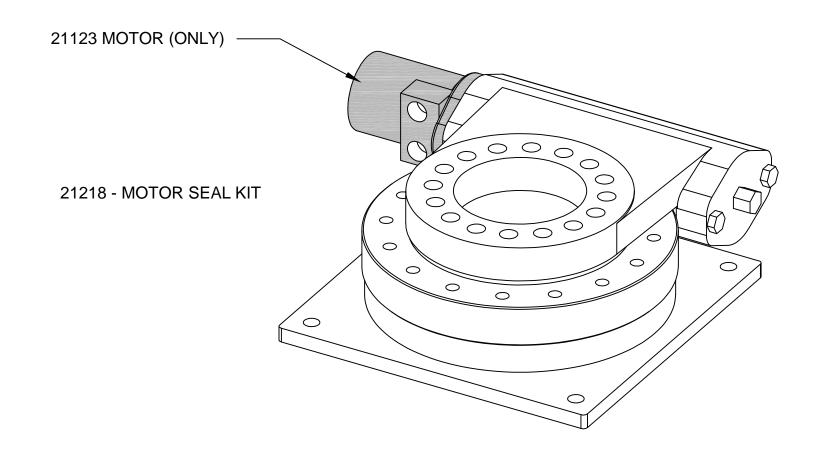
NOTE:

HYDRAULIC POWER UNIT SETTINGS ARE AS FOLLOWS:

▲ ET8/12K(X) PRESSURE = 2600 PSI

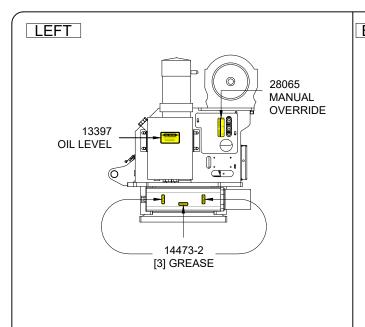
| | ENTURO | VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO | H.P.U. RPLCMNT PARTS | 01-26-15B SUPERSEDES | C400 |
|---|----------|--|----------------------|-------------------------|-------|
| ı | A | | ET8/12K(X) ▲ | 12-27-13A | 16947 |

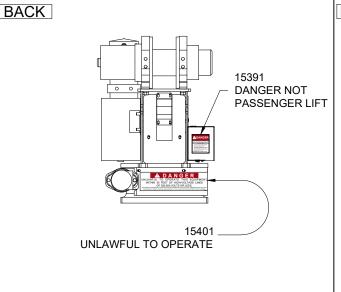
21735 SLEWING SYSTEM REPLACEMENT PARTS

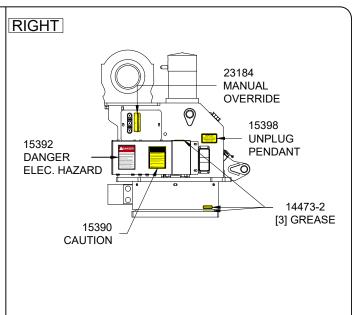




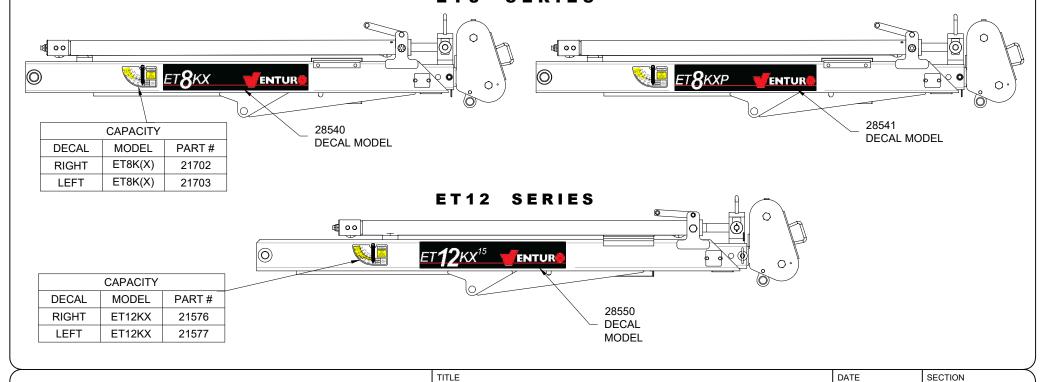
| SLEWING SYSTEM REPLACEMENT PARTS | 10-23-14B | C400 |
|----------------------------------|-------------------------|-------|
| ET8/12K & ET8/12/16/18KX | SUPERSEDES 12-27-13A | 21973 |













VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

DECAL PLACEMENT

11-14-23

C400

ET8 & ET12-15' SERIES

FIELD SERVICE LABEL KITS; ET8 SERIES CRANES

| 21832; FIELD SERVICE LABEL KIT, ET8KX | | | | |
|---------------------------------------|---|---|--|--|
| PART # QTY DESCRIPTION | | DESCRIPTION | | |
| 14473-2 | 6 | DECAL; GREASE | | |
| 28541 | 2 | DECAL; VENTURO, ET8KX | | |
| 21702 | 1 | DECAL; BOOM CAPACITY, ET8 SERIES, RIGHT | | |
| 21703 | 1 | DECAL; BOOM CAPACITY, ET8 SERIES, LEFT | | |
| 13397 | 1 | DECAL; OIL LEVEL | | |
| 28065 | 1 | DECAL; MANUAL OVERRIDE, RIGHT | | |
| 23184 | 1 | DECAL; MANUAL OVERRIDE, LEFT | | |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM | | |
| 16184-1 | 1 | DECAL; HORN RELAY | | |
| 28544 | 1 | IDWG; FIELD SERVICE LABEL KIT LIST | | |
| 28543 | 1 | IDWG; DECAL PLACEMENT | | |
| INST-23233 | 1 | SAFETY MANUAL, VENTURO CRANES | | |
| 15397 | 1 | KIT; ACCIDENT PREVENTION SIGNS | | |

| 28069; FIELD SERVICE LABEL KIT, ET8KXP | | | | |
|--|-----|---|--|--|
| , , | | | | |
| PART # | QTY | DESCRIPTION | | |
| 14473-2 | 6 | DECAL; GREASE | | |
| 28541 | 2 | DECAL; VENTURO, ET8KXP | | |
| 21702 | 1 | DECAL; BOOM CAPACITY, ET8 SERIES, RIGHT | | |
| 21703 | 1 | DECAL; BOOM CAPACITY, ET8 SERIES, LEFT | | |
| 13397 | 1 | DECAL; OIL LEVEL | | |
| 28065 | 1 | DECAL; MANUAL OVERRIDE, RIGHT | | |
| 23184 | 1 | DECAL; MANUAL OVERRIDE, LEFT | | |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM | | |
| 16184-1 | 1 | DECAL; HORN RELAY | | |
| 28544 | 1 | IDWG; FIELD SERVICE LABEL KIT LIST | | |
| 28543 | 1 | IDWG; DECAL PLACEMENT | | |
| INST-23233 | 1 | SAFETY MANUAL, VENTURO CRANES | | |
| 15397 | 1 | KIT; ACCIDENT PREVENTION SIGNS | | |



| | SUPERSEDES | |
|---|------------|---------------------------------|
| _ | | C400 |
| E | | ELD SERVICE LABEL KITS 11-15-23 |

VENTURO CRANES LIMITED WARRANTY POLICY



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

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

1-Year Limited Warranty Policy

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

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

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

Warranty Claims

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

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

VENCO VENTURO INDUSTRIES LLC

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

Revised: January 2015 12-00073_VNT1-D