

EJBAAC-*0*0

Pages 1-60

PARTS & INSTALLATION MANUAL ET18KXX(P)-20'

Included in this manual:

ET18KXX-20'

- 4,500 lbs Electric Telescopic Service Crane
- 10 16 20 ft Powered, Dual-Stage, Boom Extension

ET18KXXP-20'

- 4,500 lbs Electric Telescopic Service Crane
- 10 16 20 ft Powered, Dual-Stage, Boom Extension
- Proportional Controls

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

VENCO VENTURO INDUSTRIES LLE D

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12-00073 VNT1 WARRANTY PAGE

SECTION 100

DESCRIPTION & SPECIFICATIONS



SPECIFICATIONS & OPERATING FEATURES ET18KXX-20' (EJBAAC-*0)

SPECIFICATIONS

12 VOLT BATTERY OPERATED
18,000 FT-LBS OVERTURNING MOMENT (or as limited by truck stability)
MOMENT OVERLOAD SYSTEM

| TELESCOPIC BOOM | 10/16/20 |
|---------------------|--------------------------------|
| BOOM HYD ELEVATION | -8° TO 75° |
| BOOM HYD EXTENSION | 10 - 16 - 20 FT |
| BOOM MANUAL EXT | - |
| CAPACITY | 850 LBS @ 20 FT REACH |
| | 4500 LBS @ 2 - 3 FT REACH |
| WIRE ROPE | 5∕ ₁₆ " DIA X 80 FT |
| PENDANT CORD LENGTH | 25 FT |

WINCH -- 2250 LBS SINGLE LINE CAPACITY WITH AUTOMATIC LOAD BRAKE

ELECTRIC HYDRAULIC BOOM ELEVATION

ELECTRIC HYDRAULIC BOOM EXTENSION & RETRACTION -- 10 FT. STROKE

CONTINUOUS POWER ROTATION

REMOTE CONTROL PENDANT

25 FT straight cord with four [4] environmentally-sealed toggle switches protected by a guard

MASTER DISCONNECT SWITCH

OUTRIGGERS AVAILABLE

Side bracket type outriggers

Fold-away type outriggers

Pullout type outriggers

| VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO | ET18KXX-20' (EJBAAC-*0) | SUPERSEDES | 24050 |
|---|-------------------------|------------|--------------|
| ® | SPECS & OP. FEATURES | 03-02-20 | section C100 |

SPECIFICATIONS & OPERATING FEATURES ET16/18KX

OVERLOAD SENSING SYSTEM

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

CONTROL PRIORITY SYSTEM

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

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

CABLE DRUM AND SHEAVE DIAMETERS

The drums on the ET16/18KX cranes are 5 1/4" in diameter, which is 18 times the 5/16" wire rope diameter as required by ANSI B30.15 Hydraulic Crane standards. The cable sheaves are either 16 or 18 times the cable diameter, which likewise conforms.

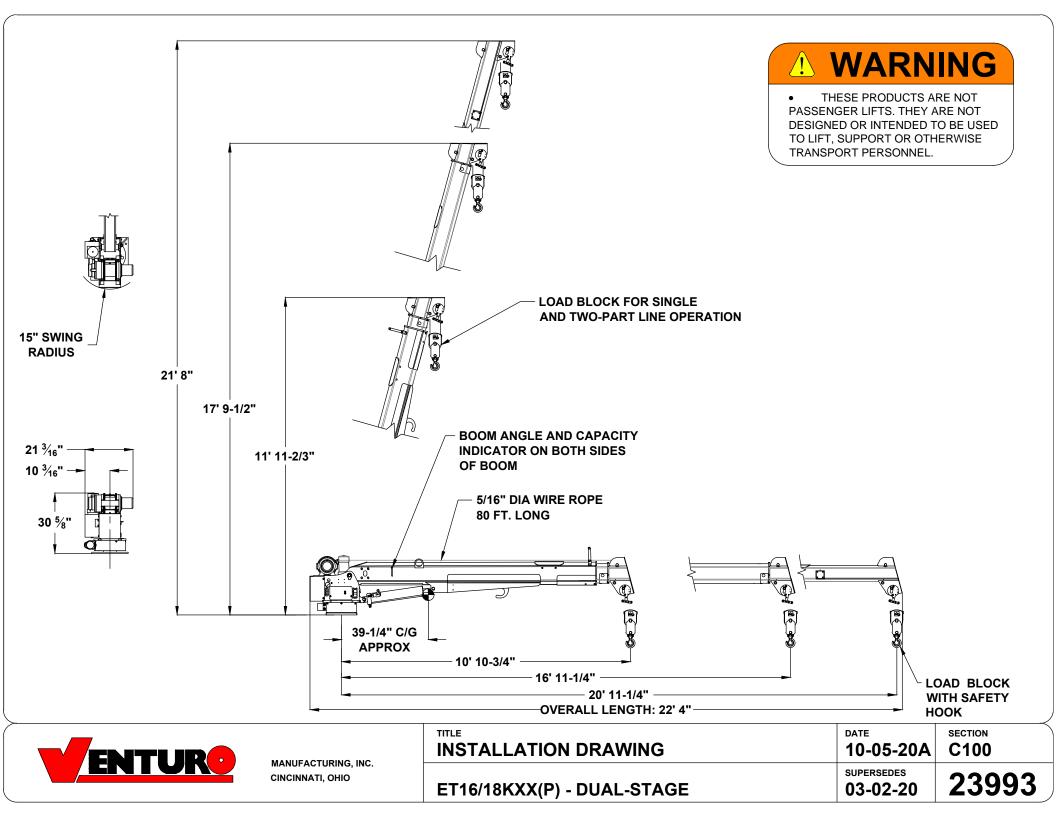
MISCELLANEOUS

CAPACITY INDICATOR

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

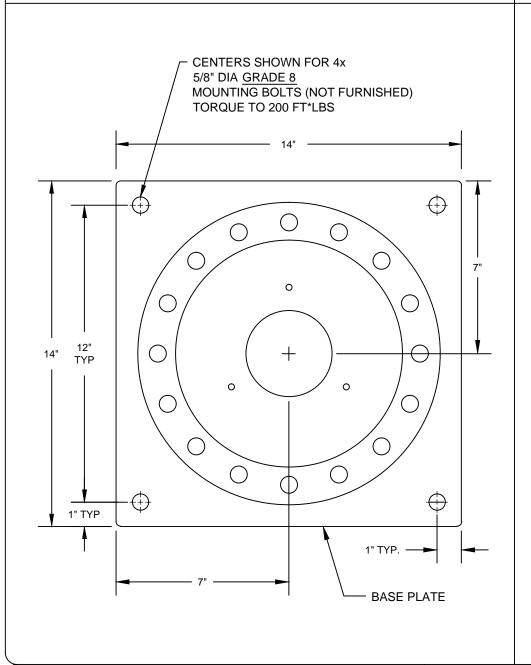
BATTERY HOOKUP

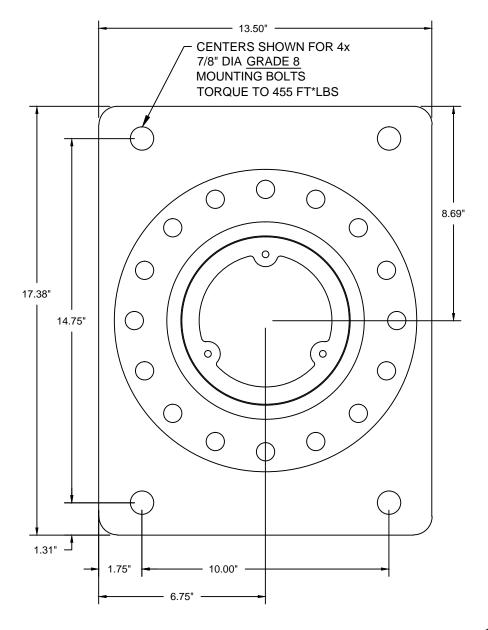
A parallel auxiliary battery should be installed near the crane as shown on DWG 19947 under "RECOMMENDED INSTALLATION." The parallel auxiliary battery minimum rating should be 450 Cold Cranking Amps (at 0° F) and 100 reserve capacity, or 78 plates and 70 amp hours.



21735 - SQUARE

21735-WRB/CRB - RECTANGULAR







VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

21735 BASE MOUNTING DIMENSIONS

SECTION 03-06-23G C100 SUPERSEDES

ET8/12/16/18 CRANES

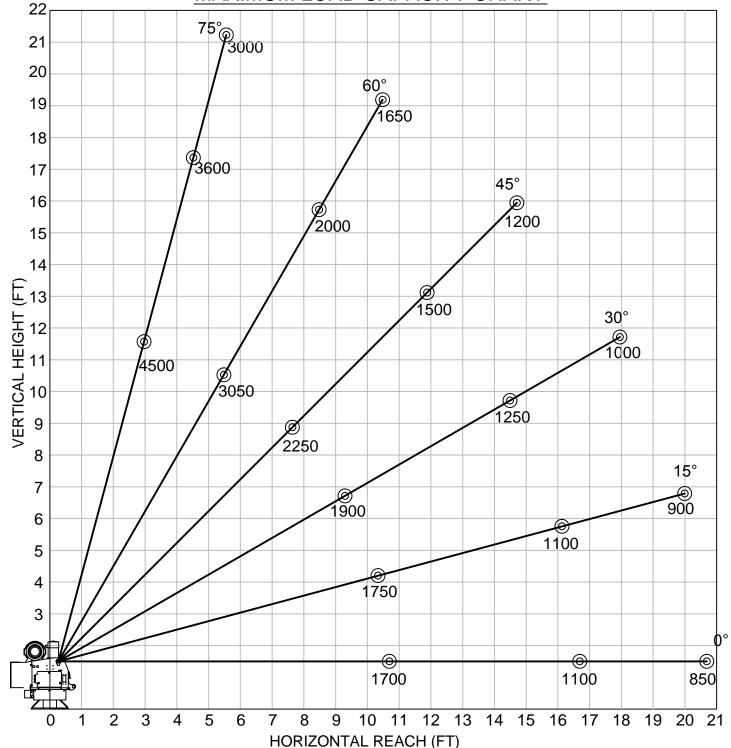
10-22-14F

21592

ET18KXX(P), 10'-16'-20' BOOM

CRANE SERIAL NUMBER:





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 2250 LBS 2 PART LINE FOR LOADS OF 2250 LBS AND GREATER

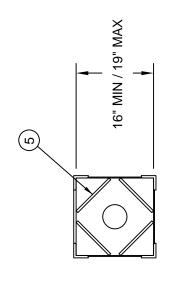
WEIGHT OF LOAD BLOCK = 34 LBS

CINCINNATI, OHIO



| ET18KXX(P), 10'-16'-20' BOOM | SUPERSEDES | 24050 |
|------------------------------|------------|-------|
| MAXIMUM LOAD CAPACITY | 03-12-20A | C100 |

TYPICAL SERVICE BODY REINFORCEMENT

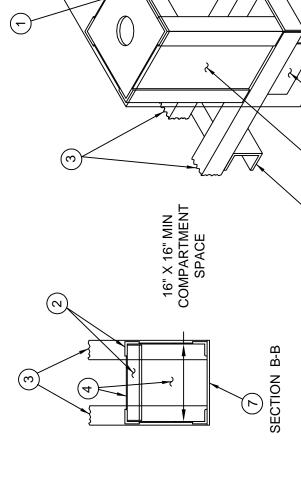


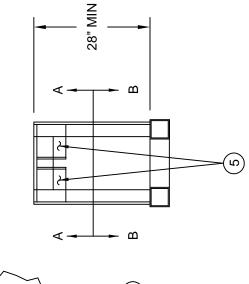
SECTION A-A

| - ELCN | | |
|--------------------|---------------|--|
| IT IS THE SOLE RES | PONSIBILITY O | IT IS THE SOLE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THE TOTAL |
| STRUCTURE OF CR. | ANE, TRUCK, A | STRUCTURE OF CRANE, TRUCK, AND STABILIZERS ARE STRUCTURALLY SOUND AND |
| THAT THE COMPLE | TED VEHICLE H | THAT THE COMPLETED VEHICLE HAS SUFFICIENT STABILITY AGAINST OVERTURNING. |
| NOITEM | | MINIMI IM RECOMMENDED MATERIAL SIZE |

| | | | - |
|-----|---|--|---|
| EM. | DESCRIPTION | MINIMUM RECOMMENDED MATERIAL SIZE | |
| | TOP PLATE | 1/2" STEEL | |
| | CORNER POST | 3" X 3" X 1/2" STEEL ANGLE | |
| | CROSS FRAME | 4" X 4" X 5/16" SQUARE TUBING, SPAN FULL WIDTH | |
| | SHEAR WEB | 3/16" STEEL PLATE | |
| | TOP PLT REINFORCEMENT | TOP PLT REINFORCEMENT 1/2" X 6" OR 3/4" X 5" STEEL BAR | |
| | OUTRIGGER RNFRCMNT PLT 1/4" THICK STEEL PLATE | 1/4" THICK STEEL PLATE | |
| | GUSSET | 1/2" X 4" H.R. STEEL | |
| | BODY TOP BEINEOBCEMENT | 10 GA SMOOTH OR DIAMOND PLATE W/ 1" LIP OVER | |
| | | SIDE OF BODY | |
| | | | |

(8)







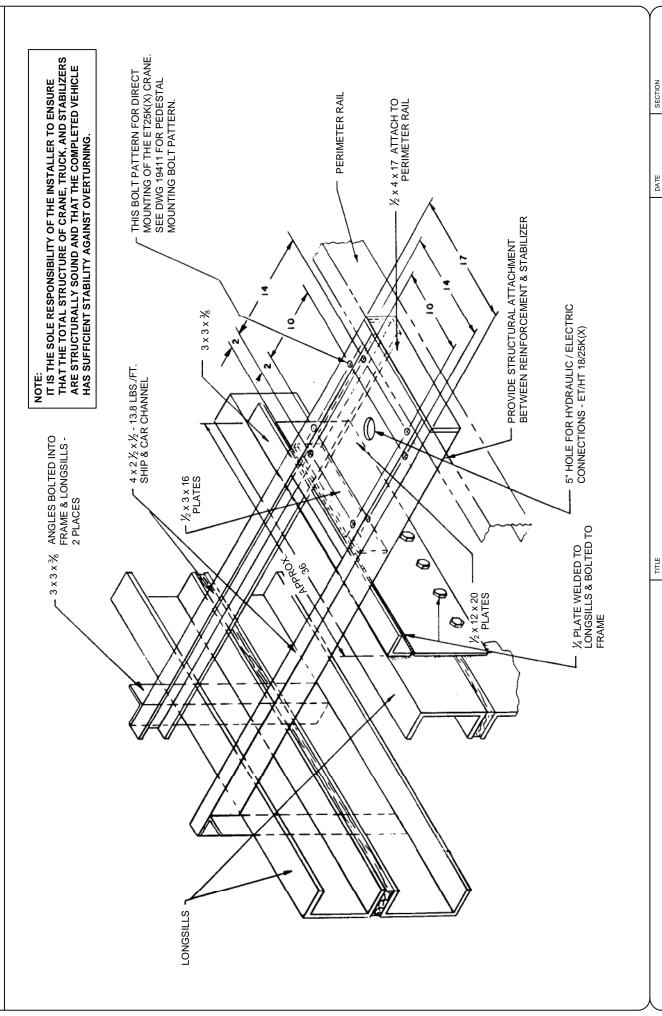
TRUCK FRAME

| тпе | DATE | |
|------------------------------------|------------|--|
| TYPICAL SERVICE BODY REINFORCEMENT | 10-22-14H | |
| | SUPERSEDES | |
| ET16/18KX | 12-20-10G | |

19288

C100

TYPICAL FLATBED MOUNTING REINFORCEMENT





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

10-22-14N TYPICAL FLATBED MNTNG REINFORECMENT

ET16/18KX

07-29-03M

C100

14510

SECTION 150

SAFETY



CRANE SAFETY AND HAZARDS

CAUTIONS

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

DANGER

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

YOU MUST NOT OPERATE THIS CRANE, UNLESS:

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

ELECTROCUTION HAZARD

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

OVERLOAD SENSING SYSTEM - STANDARD ON ALL CRANES

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

NOTICE - WARRANTY VOID IF DISCONNECTED

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

DO NOT DISCONNECT THIS SYSTEM

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

CRANE SAFETY AND HAZARDS - CONT'D

OVERLOAD ALARM SYSTEM - OPTIONAL

- 1. OVERLOAD ALARM HORN SOUNDS IF RATED LOAD IS EXCEEDED AT ANY REACH.
- 2. IF ALARM SOUNDS, RAISE BOOM OR LOWER WINCH TO REMOVE OVERLOAD.
- 3. ALWAYS RAISE BOOM SLIGHTLY BEFORE LIFTING LOAD. WARNING SYSTEM INOPERATIVE WHEN CYLINDER IS COMPLETED BOTTOMED.
- 4. ALARM CAN BE TESTED BY TYING DOWN BOOM WITH WINCH CABLE AND OPERATING BOOM UP OR BY RAISING BOOM AGAINST UP LIMIT STOP.

NOTICE - WARRANTY VOID IF DISCONNECTED

THIS ALARM SYSTEM HAS BEEN INSTALLED AS A SAFETY FEATURE TO PROTECT BOTH THE EQUIPMENT AND THE OPERATOR.

DO NOT DISCONNECT THIS SYSTEM

INTENTIONALLY LEFT BLANK



| SLLC | S |
|------|---|
| | |

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



HAZARD APPS & INFO ET/HT CRANES

C150 02-21-14M SUPERSEDES 15394 12-20-13L

SECTION

DECAL #: 15390

CAUTION, INSPECT VEHICLE & CRANE... DESCRIPTION:

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY:

REAR COVER OR SIDE OF CRANE PLACEMENT:

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

DECAL #: 15391

DESCRIPTION: DANGER, NOT A PASSENGER LIFT

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

PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.

QUANTITY:

PLACEMENT: REAR COVER OR SIDE OF CRANE



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

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

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

15392 DECAL #:

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)

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

ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT

WITH AN ELECTRICAL VOLTAGE SOURCE.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



THIS MACHINE IS NOT INSULATED **ELECTROCUTION HAZARD**

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

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

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

DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

PURPOSE: TO INFORM OPERATOR OF PROPER OPERATION

IN VICINITY OF ELECTRICAL LINES.

QUANTITY:

PLACEMENT: RING COVER OR SIDE OF CRANE

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

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

DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

WARNS OF DANGER FROM ELECTRICALLY CHARGED PURPOSE:

VEHICLE, CRANE, OR LOAD.

QUANTITY:

PLACEMENT: EACH SIDE & EACH END OF VEHICLE





SECTION



TITLE

SAFETY DECALS

DATE

C150 04-29-16E

SUPERSEDES 10-24-13D

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

VENTURO CRANES

PART NO.: 15513

DECAL: MASTER DISCONNECT SWITCH

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

switch.

QUANTITY: 1

PLACEMENT: On master disconnect switch bracket.

PART NO.: 20927

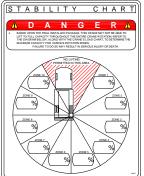
DECAL: **CRANE STABILITY**

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

QUANTITY: 1

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







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

PART NO.: 14473-2

DECAL: CONDUCTIVE GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



PART NO.: 13397

DECAL: OIL LEVEL

FUNCTION: To inform the operator of proper oil level to

maintain.

QUANTITY: 1

PLACEMENT: Side of hydraulic power unit.

OIL LEVEL

AW46 or DEXRON III ATF

Retract All Cylinders
Prior to Servicing

3397-E

PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

FUNCTION: To inform the operator to unplug remote

control when not in use.

QUANTITY: 1

PLACEMENT: Near pendant socket.

UNPLUG
REMOTE CONTROL
PENDANT WHEN
NOT IN USE

DATE

11-12-19E

12-23-13D

SUPERSEDES



MANUFACTURING, INC.

CINCINNATI, OHIO

DECALS
ET CRANES

SECTION

PART NO.: 24029-1 & 24029-2

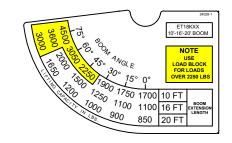
DECAL: CRANE CAPACITY

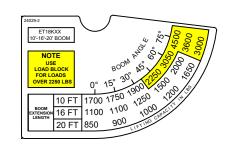
FUNCTION: To show the operator the operating

capacities of crane.

QUANTITY: 1 each

PLACEMENT: One on each side of boom.





PART NO.: 28571

DECAL: MODEL NUMBER (ET18KX)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

PART NO.: 27007-05a

DECAL: LOAD BLOCK CAPACITY

FUNCTION: To show the capacity of the load block.

QUANTITY: 2

PLACEMENT: One on each side of load block.

LOAD BLOCK SPECIFICATIONS

RATED CAPACITY: WEIGHT:

4,500 lbs 28 lbs

WARNING:

1 PART LINE FOR LOADS LESS THAN 2250 LBS.
2 PART LINE FOR LOADS 2250 LBS. & GREATER

PART NO.: 19788-1

DECAL: PROPORTIONAL Decal (ET16/18KXXP)

FUNCTION: To show the crane has proportional feature.

QUANTITY: 2

PLACEMENT: One on each side of boom.

PROPORTIONAL CONTROL

INTENTIONALLY LEFT BLANK



VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO MODEL/CAPCTY DECALS

11-28-23

SECTION C150

ET18KX(P)-20'

SUPERSEDES 285

PART NO.: 17813

DECAL: OVERLOAD SENSING SYSTEM DECAL

FUNCTION: To advise operator of overload sensing system.

QUANTITY: 1

PLACEMENT: Location may vary.

CRANE IS EQUIPPED WITH AN OVERLOAD SENSING SYSTEM

- ON CRAINES EQUIPPED WITH AN OPTIONAL OVERLOAD ALARM, IT WILL ALSO SOUN IF AN OVERLOAD OCCURS, USE THE WINCH DOWN, BOOM UP OR BOOM IN FUNCTIONS TO RELIEVE THE OVERLOAD.

 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 LITTING THE LOAD.

 SEE MANUAL FOR TESTING OVERLOAD SYSTEM.

NOTICE - WARRANTY VOID IF DISCONNECTED

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

DO NOT DISCONNECT THIS SYSTEM

PART NO.: 14459 (WITH OPTIONAL ALARM)

DECAL: OVERLOAD ALARM SYSTEM DECAL

FUNCTION: To advise operator of overload alarm system.

QUANTITY: 1

PLACEMENT: Location may vary.

THIS CRANE IS EQUIPPED WITH AN OVERLOAD ALARM SYSTEM OVERLOAD ALARM HORN SOUNDS IF RATED LOAD IS EXCEEDED AT ANY REACH.

IF ALARM SOUNDS, RAISE BOOM OR LOWER WINCH TO REMOVE OVERLOAD.

ALWAYS RAISE BOOM SLIGHTLY BEFORE LIFTING LOAD. WARNING SYSTEM INOPERATIVE WHEN CYLINDER IS COMPLETELY BOTTOMED.

ALARM CAN BE TESTED BY TYING DOWN BOOM WITH WINCH CABLE AND OPERATING

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.: 23188 (RIGHT) & 23191 (LEFT)

23191 DECAL: MANUAL OVERRIDE DECAL (ET16/18KX)

FUNCTION: To show the manual override ports.

QUANTITY: 1

PLACEMENT: Right & Left side of housing.

MANUAL OVERRIDE BD

MANUAL OVERRIDE

BD

23188

| ADDITIONAL DECALS | 11-12-19 | SECTIO C1 |
|-------------------|------------|--------------|
| FT16KX(P) | SUPERSEDES | |

50

SECTION 200

INSTALLATION



!! IMPORTANT!!

ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

- 1. PROPER GROUND PATH SEE DWG 15660
- 2. CURRENT DRAW IS SEVERAL HUNDRED AMPERES ADEQUATE WIRE SIZE AND BATTERY CAPACITY IS ABSOLUTELY ESSENTIAL (SEE CHART BELOW).

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

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

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

| _ | | TITLE | DATE | SECTION |
|---|------------------|-----------------|------------|---------|
| VENCO VENTURO INDUSTRIES LLO CINCINNATI, OHIO | CABLE & BATTERY | 07-30-18X | C200 | |
| | CINCINNATI, OHIO | | SUPERSEDES | 744400 |
| | | ELECTRIC CRANES | 09-27-17W | 711105 |

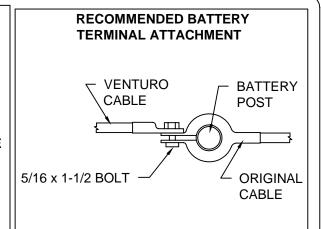
| | RECOMMENDED CIRCUIT BREAKER TABLE | | | | | | | | |
|---|-----------------------------------|---------------------|-----------|--|--|--|--|--|--|
| | CRANE | DESCRIPTION | PART NO. | | | | | | |
| | CT310KX | 250 AMP, MAN RESET | 22946-250 | | | | | | |
| | DT7 | 250 AMP, MAN RESET | 22946-250 | | | | | | |
| | 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 | | | | | | |
| | · | · | | | | | | | |

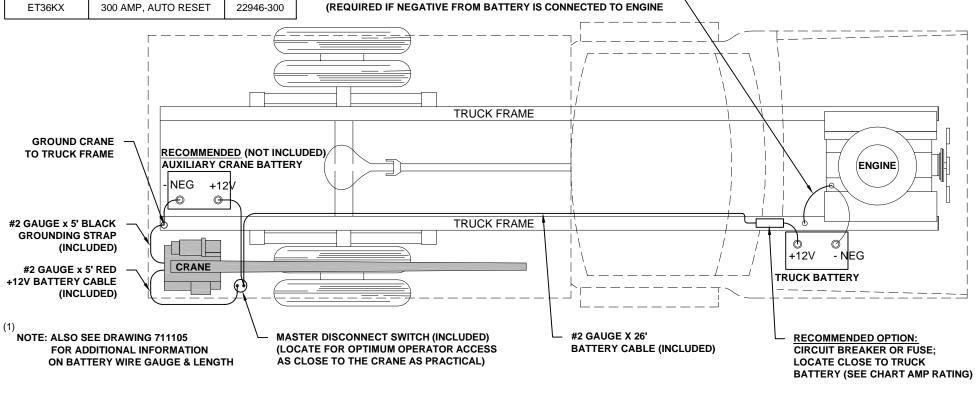
BATTERY REQUIREMENTS

- 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

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

STABILITY TEST - ET18-20' SERIES

Overview

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

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

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

Testing Procedure

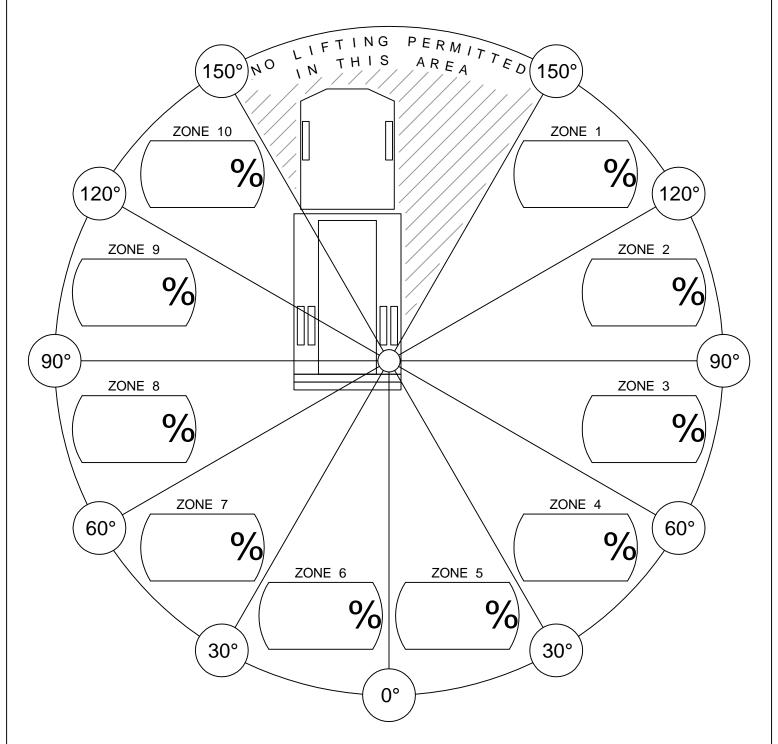
- 1. Locate the truck on firm, level ground and set parking brake.
- 2. Fully deploy stabilizers, making sure they are firmly in contact with supportive ground; use stabilizer pads as required. The tires of the truck should remain in full contact with the ground.
- 3. Inspect wire rope and other key components of crane (consult owners manual for more information).
- 4. Conduct an operational check of all crane functions.
- Locate the Overload Pressure Switch at the base of the elevation cylinder
- 5.1. Disconnect the black & white wires from the housing and then connect the black & white wires together to by-pass the Overload Pressure Switch for the stability test. Note: The black & white wires MUST be reconnected to the Overload Pressure Switch after the stability test has be completed.
- 6. Use a *Test Weight* weighing a *minimum* of <u>1000 lbs</u>, (includes load block weight of <u>34</u> lbs.) to a *maximum of* 1050 lbs.
- 7. Position the boom level and fully retracted.
- 8. Referring to the Stability Chart (drawing 20907) rotate the crane to a position between 1 and 2 o'clock (truck cab is facing 12 o'clock) to begin testing.
- 9. Use the winch to lift the Test Weight; DO NOT allow the weight to be more than 6" off the ground at any time during testing (for safety).
- 10. Using the test weight, extend the boom slowly, until one of two conditions occur:
 - 10.1. Full extension is reached Mark the ZONE in guestion 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 contract with the gound
 - 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 |
| | 251 | |

- 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.

| ENTURO PENTURO INDUSTRIES LLC CINCINNATI, OHIO | STABILITY TEST | 03-17-23D | C200 |
|--|-----------------|----------------------|-----------|
| | ET18-20' SERIES | SUPERSEDES 11-23-21C | 20906-18B |

CRANE STABILITY



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

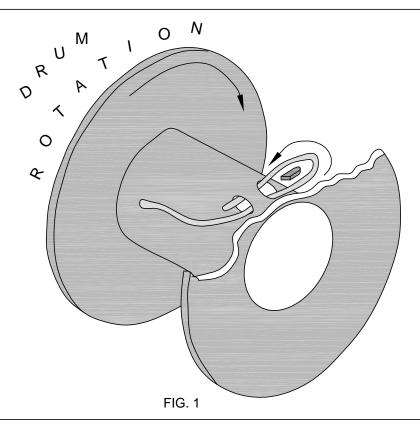
CONDITIONS:

 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.

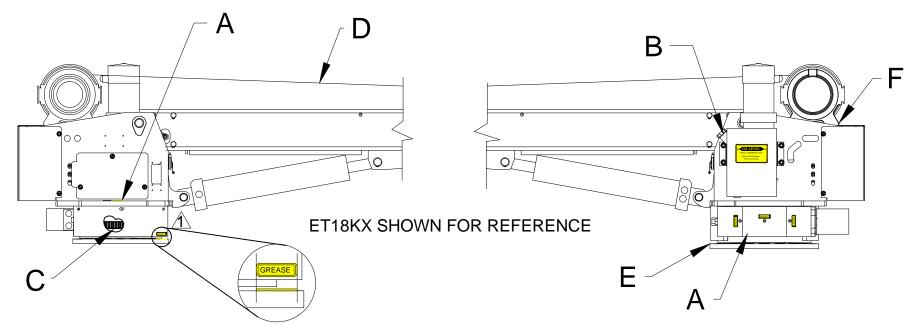
NOTE: SOME WINCHES MAY BE SUPPLIED WITH A HEX NUT IN LIEU OF A WEDGE FOR INSTALLING THE WIRE ROPE.

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

SECTION 300

MAINTENANCE & SERVICE





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 of kinks and fraying | | Time of Truck Service |
| 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 Bolts should be torqued to 35 ft-lbs* | | Time of Truck Service |
| F | Check Torque of Winch Mounting Bolts | | | Time of Truck Service |

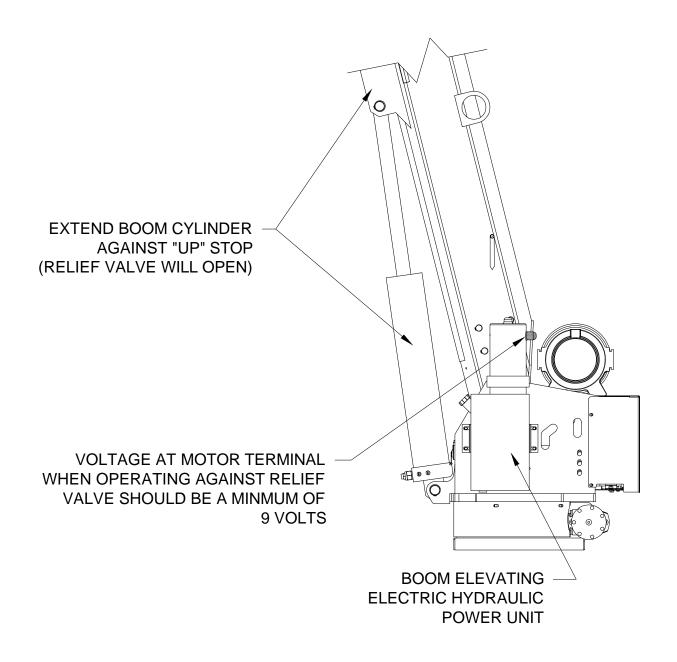
^{* 32} FT-LBS. FOR ET8/12 WITH GTD-2200 COMEUP WINCH. SEE PAGE 21741 FOR WINCH IDENTIFICATION.



| ET8/12/16/18 SERIES CRANES | SUPERSEDES 01-30-23K | 21306 |
|--------------------------------|----------------------|-------|
| LUBRICATION & MAINTENACE CHART | 03-06-23L | C300 |

MINIMUM VOLTAGE TEST

ONE OF THE MOST COMMON ELECTRICAL PROBLEMS ENCOUNTERED ON 12 VOLT ELECTRICAL CRANES IS INSUFFICIENT VOLTAGE AT THE MOTOR WHEN DRAWING THE LARGE CURRENT THAT EXISTS AT FULL LOAD





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

6.50" Ω 8.25" C RATING: 3 TONNE (6615 LBS) 2.00" AA LOAD BLOCK ASSEMBLY LOAD BLOCK HOOK: COLOR BRAND GOLD CROSBY DIMENSIONS: ▲ GAC 7X19 XIP-RHRL-IWRC, SB 9800 LBS WIRE ROPE ASSEMBLY **TERMINATES IN THIMBLE** 5/16" DIA, 80' LONG WIRE ROPE: NO HOOK

WIRE ROPE & HOOK SPECIFIC

ΑĄ

® VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

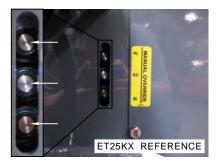
ET/HT25/30KX

| NK SPECIFICATIONS | в в в в в в в в в в в в в в в в в в в | C300 |
|-------------------|---------------------------------------|-------|
| | SUPERSEDES | |
| | 03-13-12A | 73778 |

READ ALL INSTRUCTIONS BEFORE PERFORMING MANUAL OVERRIDE PROCEDURES !!







Each valve station incorporates [2] hydraulic ports and [2] coils. Manual override shafts are located in the center of the coils (see figure 1). Manual override decals are placed on each crane near the valve assembly. These decals provide a visual aid that helps the operator determine the function designations (Reference figure 2).

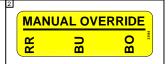


Rot. Right RL Rot. Left RR Boom Up BU BD Boom Down

3-STATION FUNCTIONS include previous functions, plus:

Boom In ВО **Boom Out**

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



End Plate

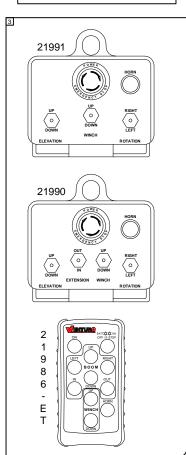
PORT

COIL

SHAFT

Procedure:

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



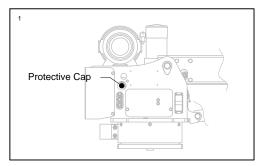
For assistance, please feel free to contact Technical Support at 800-226-2238.

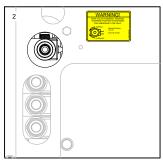
CINCINNATI, OHIO



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

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

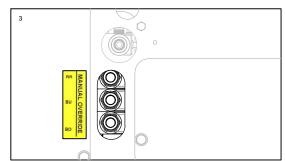


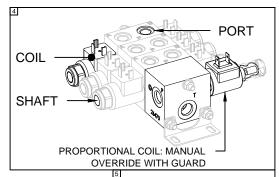


Each valve station incorporates [2] hydraulic ports and [2] coils. Manual override shafts are located in the center of the coils (see figure 4). Manual override decals are placed on each crane near the valve assembly. These decals provide a visual aid that helps the operator determine the function designations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

3-STATION FUNCTIONS:

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



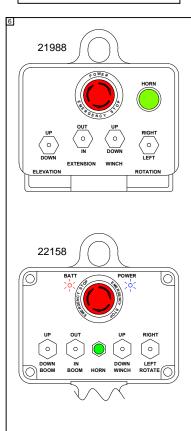


MANUAL OVERRIDE BD m

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)
- Rotate Valve Stem Clockwise to close (see figure 2)
- Power up the pendant / radio
- Twist EMERGENCY STOP button clockwise 4.1.
- On the crane, reference the function you wish to perform using the manual override decal (see figure 3)
- 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)
- Press the switch or button for the same function
- If you need to change function,
- 9.1. Release switch or button
- 9.2. Remove tool from shaft
- 9.3. Go to step 5



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



MAN. OVERRIDE INSTR.

DATE 11-12-19

SUPERSEDES

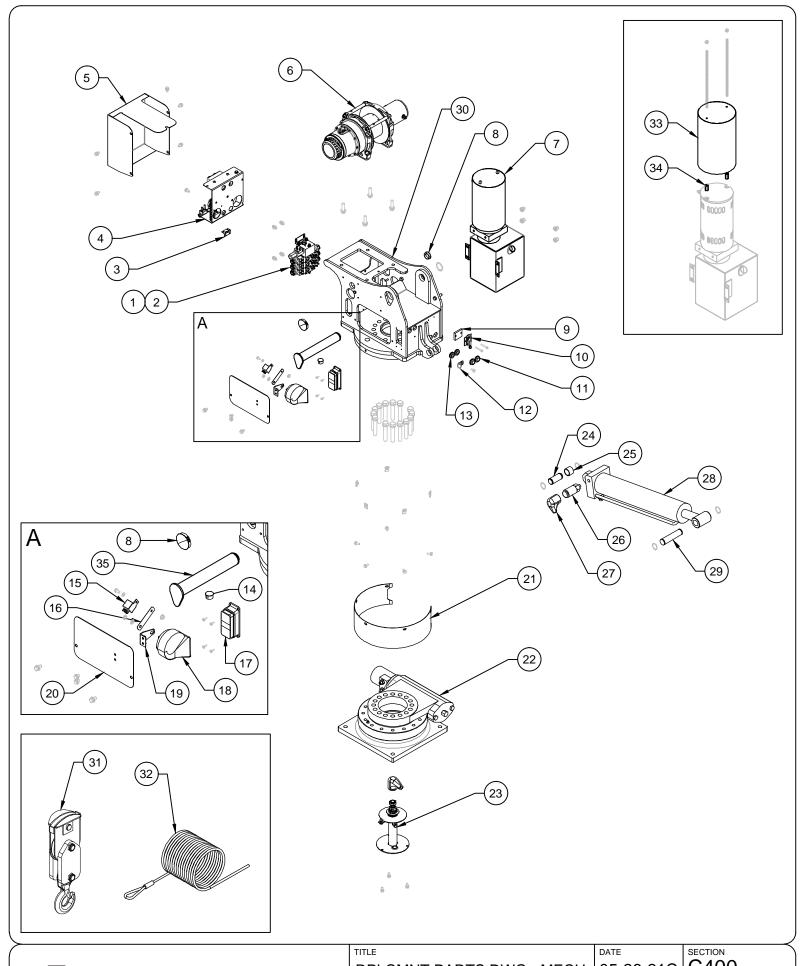
SECTION C200

ET16/18KX PROPORTIONAL

SECTION 400

REPLACEMENT PARTS





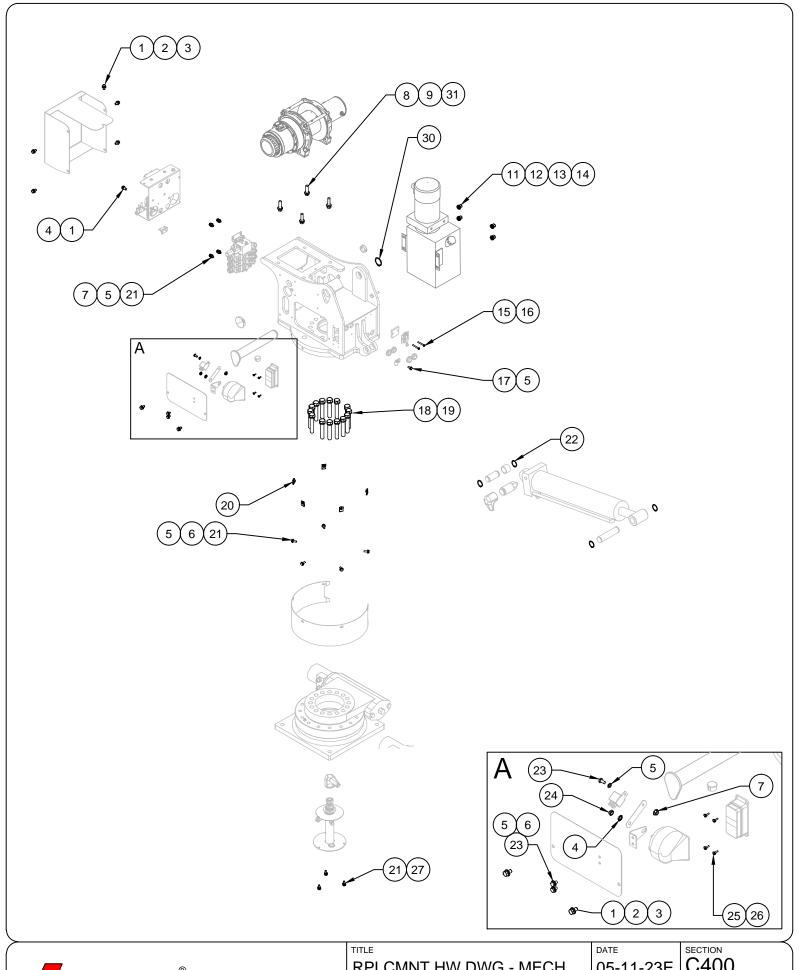
| ENTURO® | CINCINNATI, OHIO | RPLCMNT PARTS DWG - MECH | 05-26-21C | C400 |
|---------|------------------|--------------------------|----------------------|-------|
| | | ET16/18KXX(P)-20' | SUPERSEDES 05-18-21B | 25210 |

ET18KXX(P)-20' - REPLACEMENT PARTS LIST- MECH

| ITEM NO. | KX | KXP | PART NO. | DESCRIPTION |
|----------|----|-----|---------------|--------------------------------------|
| 1 | 1 | - | 21614 | VALVE BLOCK; 3-SPOOL |
| 2 | - | 1 | 26479 | VALVE BLOCK; 3-SPOOL PROP VALVE |
| 3 | 1 | 1 | 1586A22 | HINGE |
| 4 | 1 | 1 | 23154 | ELECTRICAL PANEL |
| 5 | 1 | 1 | 23173 | REAR COVER, MECHANISM |
| 6 | 1 | 1 | 21215 | WINCH, PERMANENT MOTOR |
| 7 | 1 | 1 | 26489 | HYDRAULIC POWER UNIT |
| 8 | 2 | 1 | 26492 | PLUG; Ø2", LOCKING |
| 9 | 1 | 1 | 20896 | UHMW SPACER - TOP POSITION SWITCH |
| 10 | 1 | 1 | 19904 | BOOM SHUT OFF SWITCH ASSEMBLY |
| 11 | 2 | 2 | 20889 | GROMMET 5/8" ID |
| 12 | 1 | 1 | 19269 | CLAMP,CABLE - 1/4 IN. |
| 13 | 2 | 2 | 14775 | GROMMET 1/2" ID |
| 14 | 1 | 1 | 25019 | PLUG; HOLE, 7/8", PLASTIC |
| 15 | 1 | 1 | 22739 | RELAY. 12VDC |
| 16 | 1 | 1 | - | RELAY BRACKET (INCLUDED WITH 21948) |
| 17 | 1 | 1 | 22480 | SOCKET ASSY-16+1 POLE |
| 18 | 1 | 1 | 21948 | HORN, OPERATOR CONTROLLED 12V |
| 19 | 1 | 1 | 22000 | BRACKET; HORN |
| 20 | 1 | 1 | 23155 | PLATE; COVER, RIGHT SIDE |
| 21 | 1 | 1 | 21185 | ROTATION GEAR GUARD |
| 22* | 1 | 1 | 21735 | SLEW DRIVE; SQUARE BASE |
| 22 | 1 | 1 | 21735-1 | SLEW DRIVE; RECTANGULAR BASE |
| 23 | 1 | 1 | 16780-2P8 | ASSY; SWIVEL TERMINAL, 2-POLE |
| 24 | 1 | 1 | 21172 | PIN; ELEV CYLINDER BASE |
| 25 | 3 | 3 | 21124 | MRP COMPOSITE BEARING |
| 26 | 1 | 1 | 17460-2900-21 | OVERLOAD PRESSURE SWITCH |
| 27 | 2 | 2 | 17012 | BOOT COVER |
| 28 | 1 | 1 | 21743 | ELEVATION CYLINDER |
| 29 | 1 | 1 | 21127 | PIN; ELEV CYLINDER ROD |
| 30 | 1 | 1 | 23149 | HOUSING; WELDED ASSEMBLY |
| 31 | 1 | 1 | 27667 | LOAD BLOCK ASSEMBLY |
| 32 | 1 | 1 | 27668-5/16-80 | WIRE ROPE, 5/16" x 80' |
| 33 | 1 | 1 | 27604 | WELDED ASS'Y, MOTOR COVER |
| 34 | 2 | 2 | 28380 | SPACER; STAND-OFF, 1/4-20 X 1", 1/2" |
| 35 | 1 | 1 | 21160 | PIN; BOOM, MAIN PIVOT |

▲ * EITHER 21735 OR 21735-1 DEPENDING ON CONFIGURATION



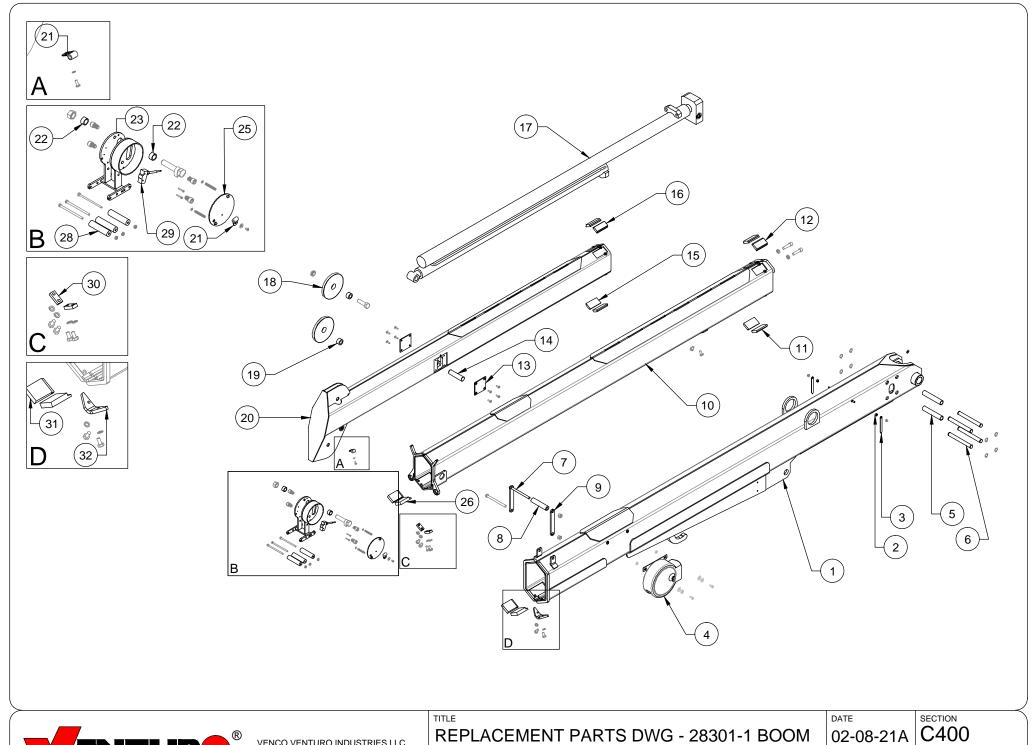


| ENTURO EN VENCO VENTURO CINCINN | VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO | RPLCMNT HW DWG - MECH | 05-11-23E | C400 |
|---------------------------------|--|-----------------------|----------------------|-------|
| CINCINN | | ET16/18KX(P), GEN. B | SUPERSEDES 09-28-22D | 23991 |

REPLACEMENT H/W LIST - ET16/18KX(P) MECH

| ITEM NO. | QTY | PART NO. | DESCRIPTION |
|----------|-----|-------------------|---|
| 1 | 8 | !HHCS03118063S | HEX HEAD CAP SCREW, 5/16-18 X 5/8 LG, STAINLESS |
| 2 | 7 | !LWSH-031S | LOCK WASHER 5/16 S/S |
| 3 | 7 | !FWSH-031S | FLAT WASHER 5/16 S/S |
| 4 | 2 | !LWSH-031-STAR-SS | LOCK WSHR, 5/16 EXT STAR, STAINLESS STEEL |
| 5 | 12 | !LWSH-025S | LOCK WASHER 1/4 S/S |
| 6 | 7 | !FWSH-025 | FLAT WASHER 1/4 S/S |
| 7 | 5 | !FNUT-02520-SS | FLANGE NUT; 1/4-20, STAINLESS STEEL |
| 8 | 4 | 25921 | SHCS; M12-175x50mm Gr. 12.9 |
| 9 | 4 | !FWSH-M12 | FLAT WASHER; M12 |
| 10 | 4 | !LWSH-050 | LOCK WSHR; 1/2, GR. 5, ZINC |
| 11 | 4 | !LNUT-03816 | LOCK NUT; 3/8-16, GR. 5, ZINC, NYL-NSRT |
| 12 | 4 | !LWSH-038 | LOCK WSHR; 3/8, GR. 5, ZINC |
| 13 | 4 | !FWSH-038 | FLAT WSHR; 3/8, GR. 5, ZINC |
| 14 | 5 | !LWSH-038-STAR | LOCK WSHR; 3/8, GR. 5, ZINC, X-TOOTH |
| 15 | 2 | !PHPMS#1024150S | PHILLIPS HEAD PAN, MACH SCREW, # 10-24 X 1-1/2LG, S/S |
| 16 | 2 | !LWSH-#10 | LOCK WSHR; #10, GR. 5, ZINC |
| 17 | 1 | !HHCS02520063S | HEX HEAD CAP SCREW, 1/4-20 X 5/8LG, STAINLESS |
| 18 | 14 | !HHCS06311350 | HHCS 5/8-11 X 3-1/2 GR.2 |
| 19 | 14 | !LWSH-063 | LOCK WSHR; 5/8, GR. 5, ZINC |
| 20 | 5 | !UNUT-02520-LKG | U-NUT; 1/4-20, LOCKING TYPE |
| 21 | 12 | !HHCS02520075S | HEX HEAD CAP SCREW, 1/4-20 X .75 LG, STAINLESS |
| 22 | 4 | !SRNG-113 | EXT. RET. RING, 1-1/8 ZINC PLATED |
| 23 | 3 | !HHCS02520050 | HHCS; 1/4-20 X 1/2, GR. 5, ZINC |
| 24 | 1 | !HNUT-03124 | HEX NUT; 5/16-24, GR. 5, ZINC |
| 25 | 4 | !SHPMS#0832050S | SLOT HEAD, PAN, MACH SCREW #8-32 X 1/2 LG STAINLESS |
| 26 | 4 | !LWSH-#08 | LOCK WSHR; #08, GR. 5, ZINC |
| 27 | 6 | !LWSH-025-STAR | LOCK WSHR; 1/4, GR. 5, ZINC, X-TOOTH |
| 28 | - | - | - |
| 29 | _ | - | - |
| 30 | 1 | !SRNG-138 | SNAP RING 1-3/8 IN - PLATED |
| 31 | 4 | !LWSH-M12-8.8 | LOCK WASHER; M12, GRADE 8.8 |

| | VENCO VENTURO INDUSTRIES LLC | RPLCMNT HW LIST- MECH | 05-11-23E | C400 | |
|-------|------------------------------|-----------------------|----------------------|-------|--|
| ENTUR | CINCINNATI, OHIO | ET16/18KX(P) SERIES | SUPERSEDES 10-17-22D | 23992 | |





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

REPLACEMENT PARTS DWG - 28301-1 BOOM

02-08-21A SUPERSEDES

ET16/18KXX-20'

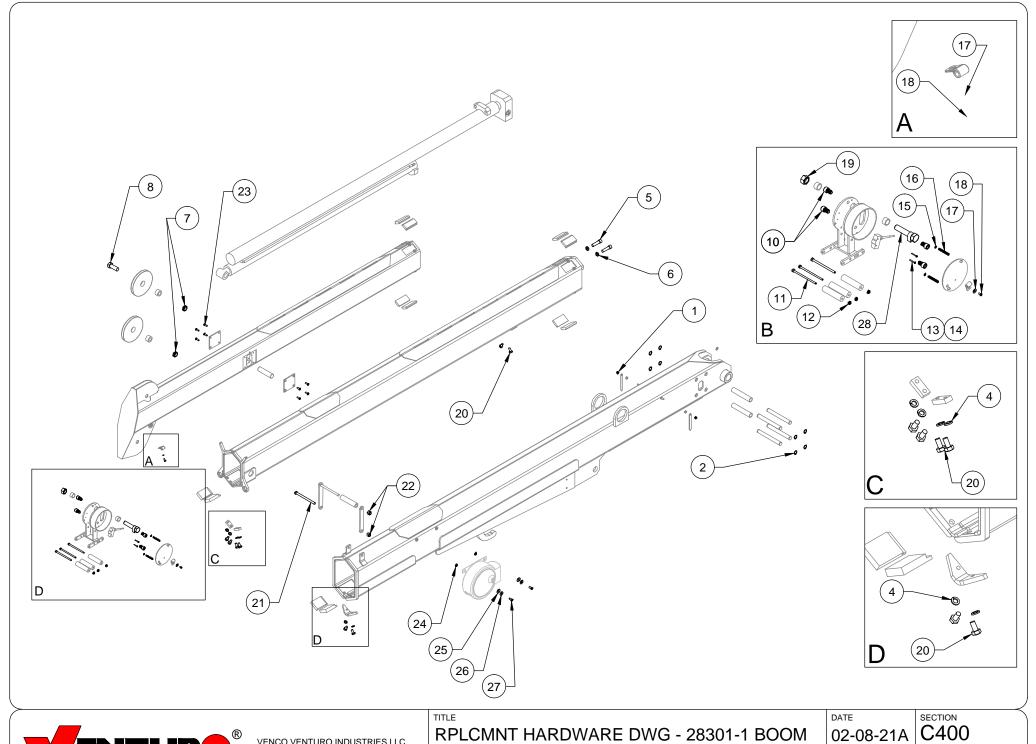
03-02-20

REPLACEMENT PARTS LIST - 28301-1 BOOM

| ITEM NO. | QTY. | PART NO. | DESCRIPTION | |
|----------|------|----------|---|--|
| 1 | 1 | 23795 | PRIMARY BOOM WELDED ASSEMBLY | |
| 2 | 2 | 22490 | SPACER-BOOM ARROW | |
| 3 | 2 | 13459 | ARROW - 3 INCH | |
| 4 | 1 | 28190 | COMPLETE CORD REEL; REELCRAFT | |
| 5 | 2 | 21498 | ROLLER - EXT CYLINDER | |
| 6 | 4 | 21497 | THRUST PIN - EXTENSION CYLINDER | |
| 7 | 1 | 21935 | WIRE ROPE GUIDE - WELDED | |
| 8 | 1 | 21560 | ROLLER, UHMW GUIDE | |
| 9 | 1 | 21936 | FLAT, MOUNT; WIRE ROPE GUIDE | |
| 10 | 1 | 27165 | SECONDARY BOOM WELDED ASSEMBLY | |
| 11 | 2 | 23217-9 | UHMW, A,3.19,1.75,0.44 | |
| 12 | 2 | 23217-8 | UHMW, A,3.19,1.75,0.50 | |
| 13 | 2 | 23116 | PIN BLOCK REINFORCING | |
| 14 | 1 | 21941 | PIN; EXTENSION CYLINDER | |
| 15 | 2 | 23217-7 | UHMW, A,3.19,1.50,0.44 | |
| 16 | 2 | 23217-6 | 6 UHMW, A,3.19,1.50,0.50 | |
| 17 | 1 | 21753 | EXTENSION CYLINDER - DUAL | |
| 18 | 2 | 27001 | POLY CABLE SHEAVE | |
| 19 | 2 | 23924 | SPACER, SHEAVE | |
| 20 | 1 | 27167 | TERTIARY BOOM ASSEMBLY | |
| 21 | 2 | 19269 | CLAMP,CABLE - 1/4 IN. | |
| 22 | 2 | 27476 | SPACER/PIVOT, COMPACT A2B | |
| 23 | 2 | 27468 | WLDMNT - COMPACT A2B FRAME | |
| 24 | - | - | - | |
| 25 | 2 | 27473 | COVER PLATE; COMPACT A2B | |
| 26 | 2 | 23217-10 | UHMW, B,3.19,1.75,063 | |
| 27 | - | - | - | |
| 28 | 3 | 27475 | WIRE ROPE GUIDE ROLLER Ø7/8 BLK DELRIN, COMPACT A2B | |
| 29 | 1 | 19376 | ANTI TWO BLOCK SWITCH | |
| 30 | 2 | 23119 | BEARING RETAINING BLOCK | |
| 31 | 2 | 23217-3 | UHMW, B,3.19,2.13,0.63 | |
| 32 | 1 | 23183 | V-BLOCK SLIDER | |



| 5 | RPLCMT PART LIST - 28301-1 | 02-08-21A | SECTION C400 |
|---|----------------------------|---------------------|--------------|
| | ET16/18KXX-20' | SUPERSEDES 03-02-20 | 24061 |





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

RPLCMNT HARDWARE DWG - 28301-1 BOOM

ET16/18KXX-20'

02-08-21A

SUPERSEDES

03-02-20

REPLACEMENT HARDWARE LIST - 28301-1 BOOM

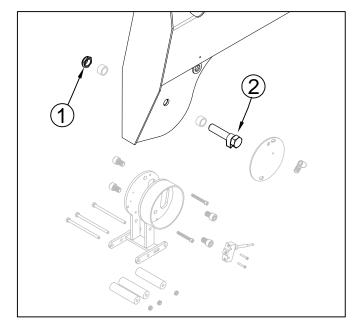
| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
|----------|------|-----------------|--|
| 1 | 2 | !ANUT-02520S | ACORN NUT; 1/4-20, SS |
| 2 | 8 | !SRNG-075 | SNAP RING; PLATED 3/4 |
| 3 | - | - | - |
| 4 | 6 | !LWSH-038 | LOCK WSHR; 3/8, GR. 5, ZINC |
| 5 | 2 | !SHCS05013200 | SHCS; 1/2-13 X 2 |
| 6 |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

| ® VENCO | VENTURO INDUSTRIES LLC | RPLCMNT HW LIST - 28301-1 | 02-08-21A | C400 | |
|---------|------------------------|---------------------------|---------------------|-------|--|
| ENTUR | CINCINNATI, OHIO | ET16/18KXX-20' | SUPERSEDES 03-02-20 | 24063 | |

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

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

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



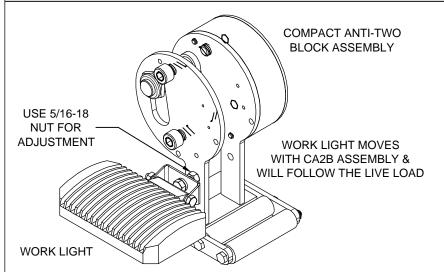


Contact Venturo Tech Support for assistance. 1-800-226-2238 ext. 124

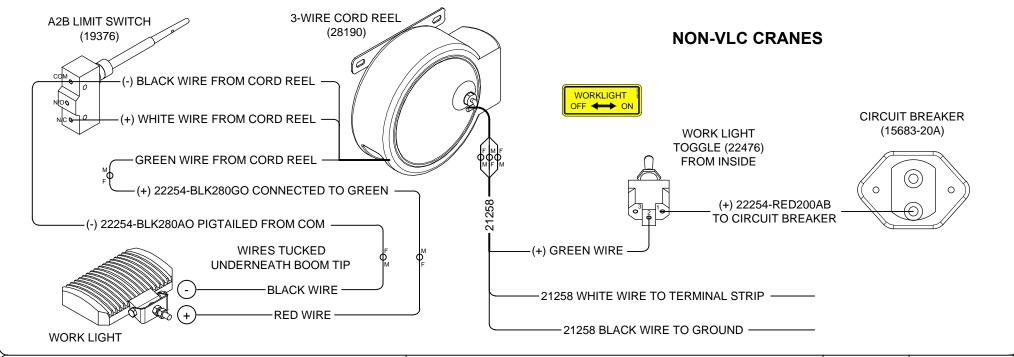


| A2B Stowage Cut-out | 10-04-21B | C400 |
|---------------------------|----------------------|-------|
| ET/HT Cranes w/ Comp. A2B | SUPERSEDES 08-03-21A | 28239 |

WORK LIGHT INSTALLATION: 28240-1 (3-WIRE CORD REEL ON NON-VLC CRANES)



| | BILL OF MATERIALS | -1 | 28240 |
|----|---|----|-----------------|
| # | DESCRIPTION | | PART NUMBER |
| 1 | IDWG; WORK LIGHT INSTALLATION, NON-VLC CRANES | 1 | 28199 |
| 2 | LED WORK LIGHT | 1 | 27483 |
| 3 | TERMINAL; 16G, FEMALE, QUICK-CONNECT | 3 | ITERM16G250QCFI |
| 4 | TERMINAL; 16G, MALE, QUICK-CONNECT | 4 | ITERM16G250QCM |
| 5 | WIRE ASS'Y; 16G, BLACK, 28", #6 RING - STRIPPED END | 1 | 22254-BLK280AO |
| 6 | WIRE ASS'Y; 16G, BLACK, 28", QCF - STRIPPED END | 1 | 22254-BLK280GO |
| 7 | TOGGLE SWITCH; ON / OFF, IP-RATED | 1 | 22476 |
| 8 | HALF-BOOT, FOR IP-RATED TOGGLE SWITCH | 1 | 19793 |
| 9 | DECAL; ON/OFF, OPTIONAL WORK LIGHT W/ TOGGLE | 1 | 28307 |
| 10 | WIRE ASS'Y; 16G, RED, 20", #6 RING - #10 RING | 1 | 22254-RED200AB |
| 11 | TERMINAL; 16G, #6 RING, CLOSED-END | 1 | !TERM16G#6RG |

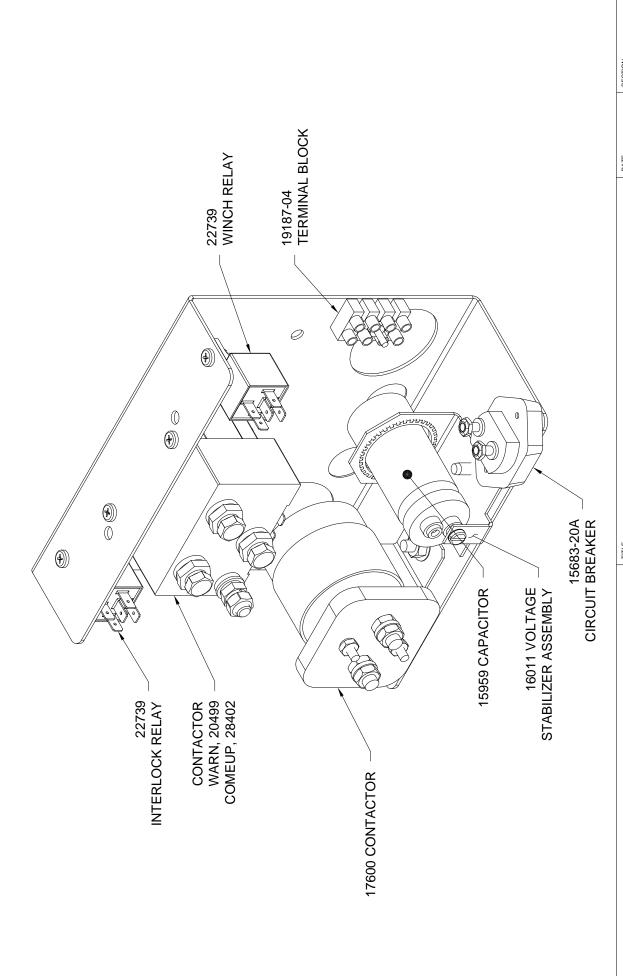




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

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

23154-3 ELECTRICAL COMPONENT ASSEMBLY



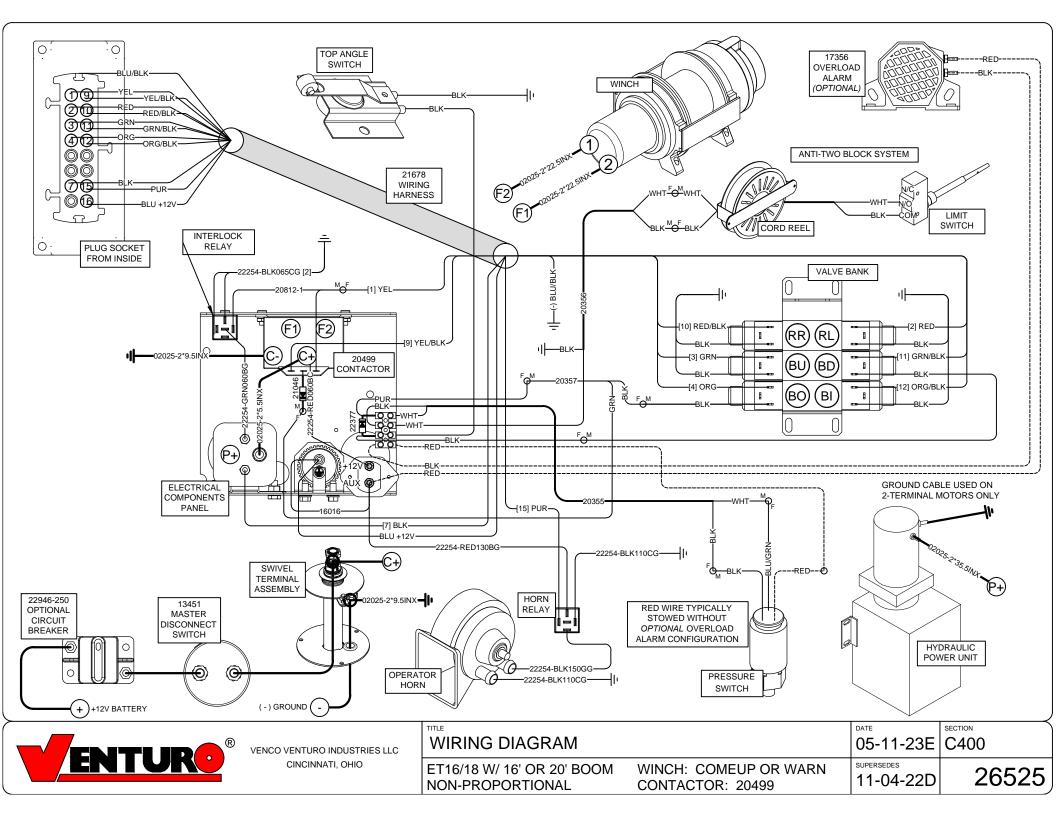


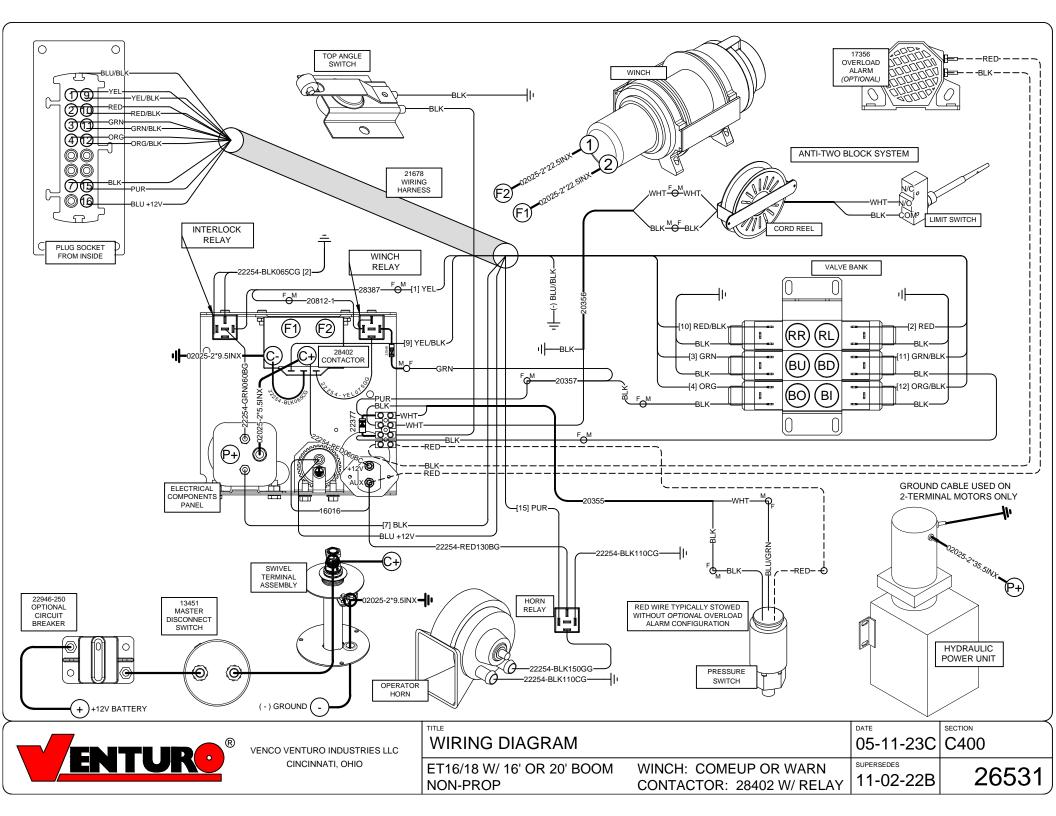
VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

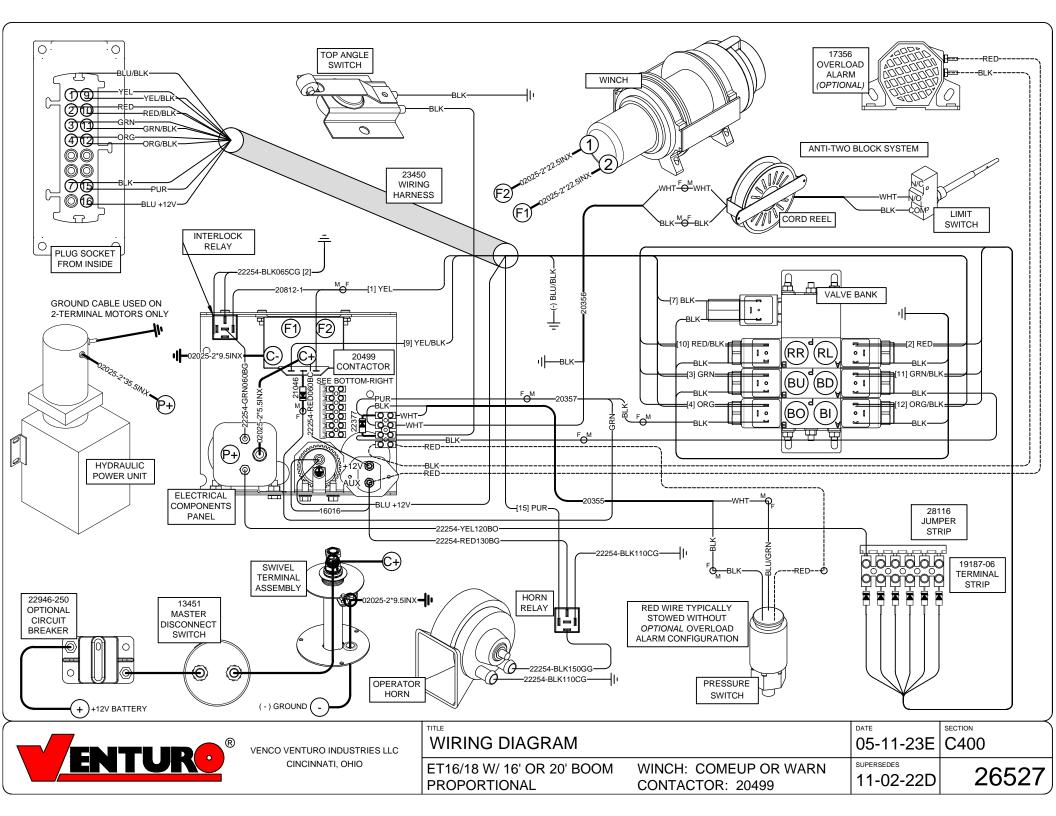
ET16/18KX

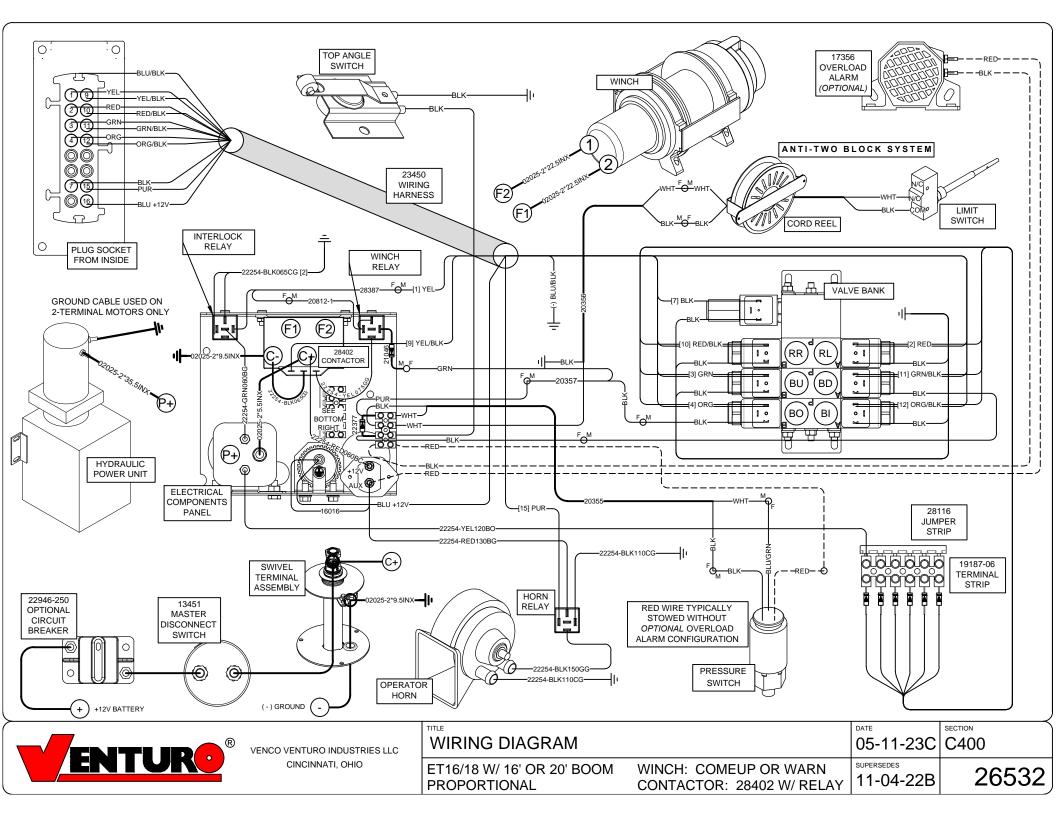
ELECTRICAL COMPONENT ASSEMBLY

10-21-21 C40









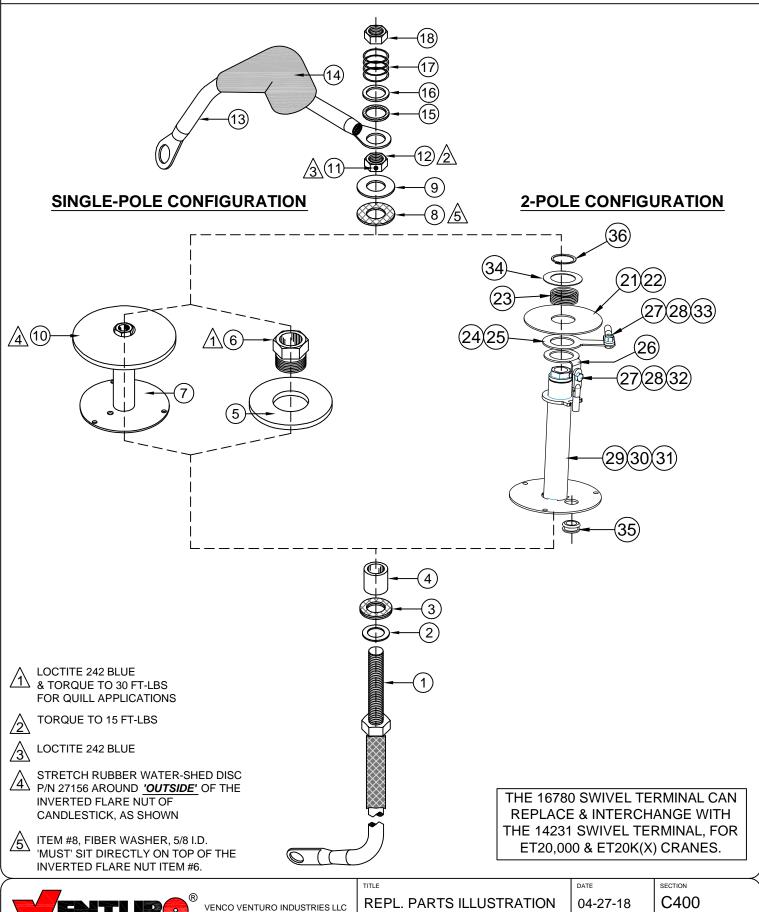
Single & 2-Pole Slip-ring Replacement Parts (1 of 2)

| Quill Rotation | Slew Rotation Single Pole Slip-Ring | Slew Rotation 2-Pole Slip- Ring (ET6K ONLY) | Slew Rotation 2-Pole Slip- Ring (ET8-18KX) | Slew Rotation 2-Pole Slip- Fing (ET25-36KX) | r ALL CRANES | 16780 BILLS OF MATERIALS | | | |
|----------------|--|--|---|--|--------------|--------------------------|----------------------------------|--|--|
| 16780 | 16780 - 1 | 16780 - 2P6 | 16780 - 2P8 | 16780 - 2P25 | 16780 - KIT | | | | |
| | | Q | TY | | | # | PART | DESCRIPTION | |
| 1 | 1 | 1 | 1 | 1 | 0 | 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 | - | 5 | 14318 | FLAT WASHER; 1 3/16" I.D. X 2 3/4" O.D. X 3/16" | |
| 1 | = | - | - | (=) | | 6 | 14232 | INVERTED FLARE NUT; 1 3/16"-16 | |
| - | - | - | - | - | | 7 | 27568 | WELDED ASSY. CANDLESTICK | |
| 1 | 1 | 1 | 1 | 1 | 1 | 8 | 14357-2 | FIBER WASHER; 5/8" I.D. X 1 1/4" O.D. X 1/16" | |
| 1 | 1 | 1 | 1 | 1 | 1 | 9 | !FWSH-063SAE | FLAT WASHER; 5/8" SAE | |
| _ | 1 | - | - | | | 10 | 27156 | RUBBER WATER SHIELD; 1/8" THICK | |
| 1 | 1 | 1 | 1 | 1 | 1 | 11 | !SHCS02528025KC | SET SCREW W/ KNURLED CUP; 1/4"-28 X 1/4" | |
| 1 | 1 | 1 | 1 | 1 | 1 | 12 | 21273 | BRASS JAM NUT; 5/8"-11 | |
| - " | - | - | - | - | - | 13 | 26035-2 | PIGTAIL; SWIVEL TERMINAL | |
| | _ | - | | 152 | | 14 | 17012 | RUBBER BOOT; SWIVEL TERMINAL | |
| 1 | 1 | 1 | 1 | 1 | 1 | 15 | 5612-162-62 | TEFLON WASHER | |
| 1 | 1 | 1 | 1 | 1 | 1 | 16 | 5714-113-62 | a property of the second secon | |
| | | | | | - | | | BRASS WASHER | |
| 1 | 1 | 1 | 1 | 1 | 1 | 17 | LC-098K-00 | SPRING; 0.845" O.D. X 0.098" WIRE X 1.00 F.L. | |
| 1 | 1 | 1 | 1 | 1 | 1 | 18 | !JNUT-06311N | JAM NUT; 5/8"-11, NYLON NUT | |
| 1 | 1 | 1 | 1 | 1 | 1 | 19 | LOCTITE-24205 | REMOVABLE THREAD LOCKER; 0.5ML | |
| 1 | 1 | 1 | 1 | 1 | 1 | 20 | 19368 | IDWG; 16780 SWIVEL TERMINAL | |
| - | - | 1 - | 1 | 1 | - | 21 | 27456 27456-1 | UHMW WATER SHIELD, (ET6K ONLY) UHMW WATER SHIELD, (ET8 - ET36) | |
| - | - | 1 | 1 | 1 | - | 23 | 27461 | SPRING, (-) SLIP-RING ASSY. | |
| - | - | | 1 | 1 | - | 24 | 27441-1 | COPPER SLIP-RING, (ET8 - ET36) | |
| - | ij | 1 | = | - | 1 | 25 | 27441 | COPPER SLIP-RING, (ET6K ONLY) | |
| - | - | 1 | 1 | 1 | 1 | 26 | 27449-1 | BRASS SLIP-RING (ET6 - ET36) | |
| - | - | 1 | 1 | 1 | - | 27 28 | !HHCS03118075-B !HNUT-03118-B | BRASS HHCS BRASS NYLOC NUT | |
| = | - | 1 | - | - | - | 29 | 23255 | SLIP-RING, WELDED ASSY, ET6K | |
| - | | • | 1 | (I II) | | 30 | 23255-1 | SLIP-RING, WELDED ASSY, ET8 - 18K(X) | |
| = | H | = | = | 1 | I | 31 | 23255-2 | SLIP-RING, WELDED ASSY, ET25 - 36K(X) | |
| | - | 1 | 1 | 1 | = | 32 | 02025-2*96.5INX | (-) WELDING CABLE ASSY, BRASS SLIP-RING | |
| - | - | 1 | 1 | 1 | | 34 | 02025-2*22.5INX 27463 | (-) WELDING CABLE ASSY, COPPER SLIP-RING SHIM, WIDE RIM, 18GA, 2-1/4 O.D. X 1-1/2 I.D. | |
| - | - | 1 | 1 | 1 | Ė | 35 | 20889 | RUBBER GROMMET | |
| - | - | 1 | 1 | 1 | н | 36 | !SRNG-150 | SNAP-RING, EXTERNAL, 1-1/2" | |



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

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

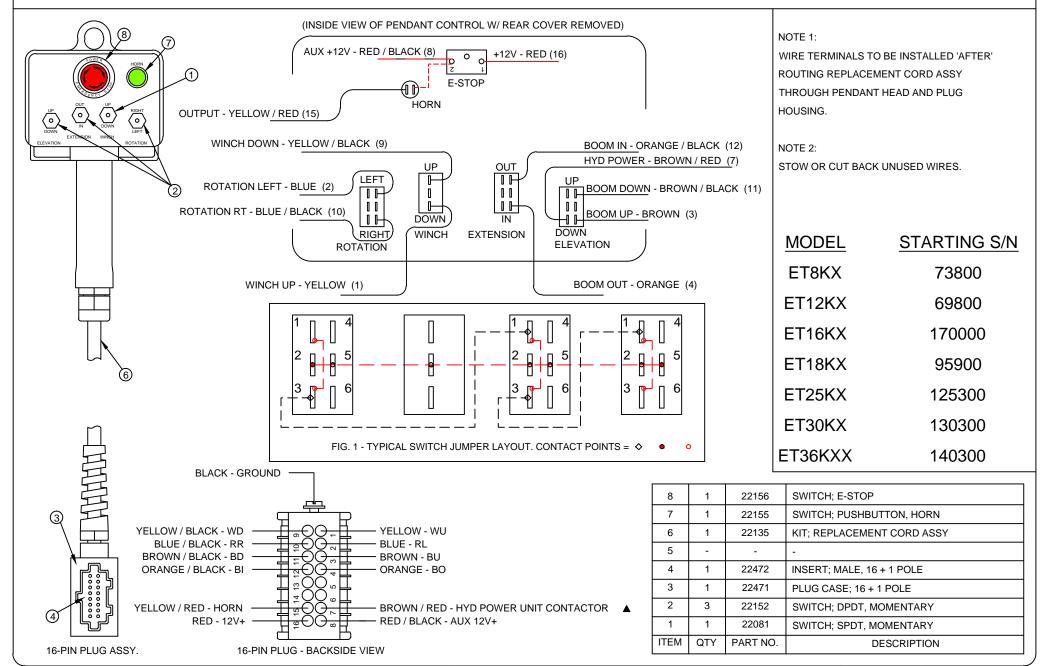


| | ENTURO |) |
|----------|--------|---|
| A | | |

/ENCO VENTURO INDUSTRIES LI CINCINNATI, OHIO

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

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





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

01-12-17B

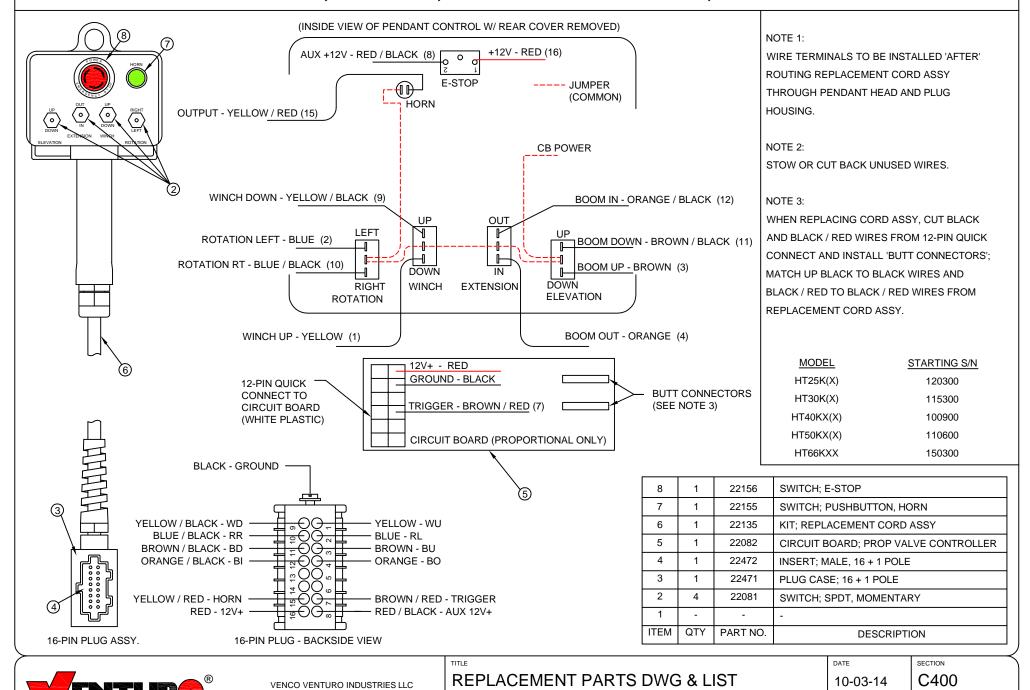
C400

21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

10-20-14A

23075

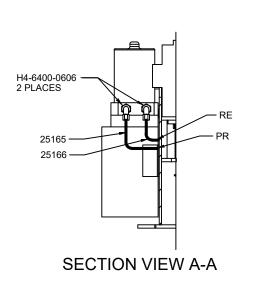
21988 PENDANT; PROP, NO ENG CNTRL, E-STOP / HORN

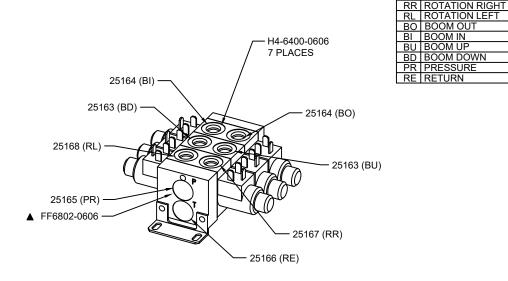


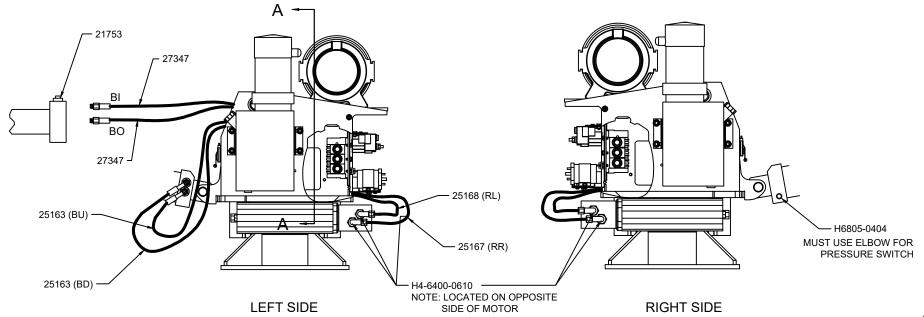
21988 PNDNT; PROP, NO ENG CNT, ESTP/HRN

CINCINNATI, OHIO

ET16/18KXX-20' HYDRAULIC COMPONENTS DRAWING





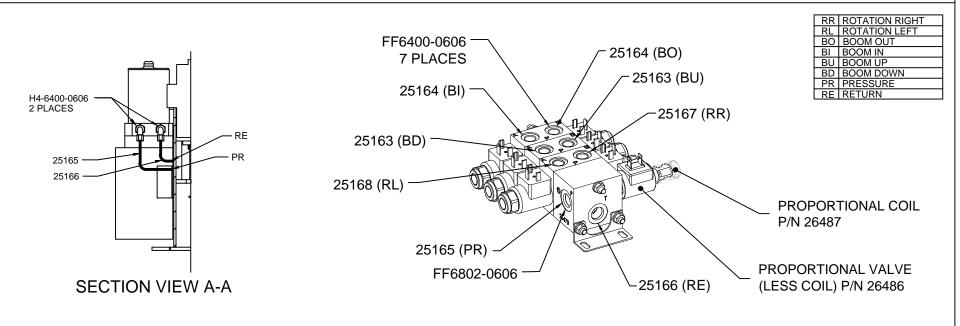


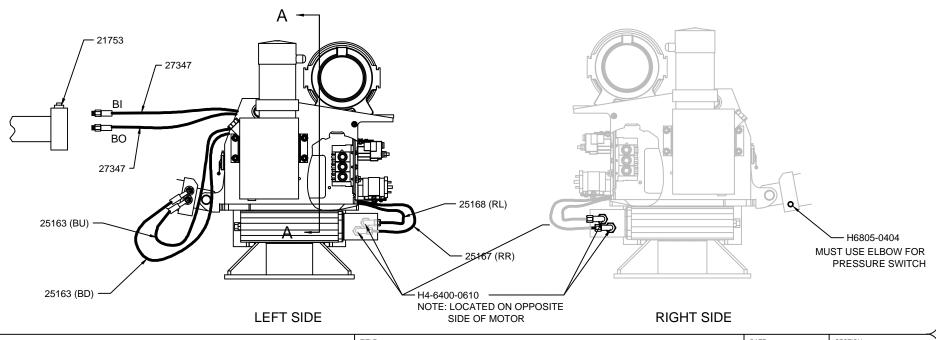


VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

| TITLE | DATE | SECTION |
|----------------------------------|------------|---------|
| HYDRAULIC COMPONENTS DRAWING | 03-05-24B | C400 |
| | SUPERSEDES | 04074 |
| ET16/18KXX-20', NON-PROPORTIONAL | 12-22-22A | 24071 |

ET16/18KXXP-20' HYDRAULIC COMPONENTS DRAWING



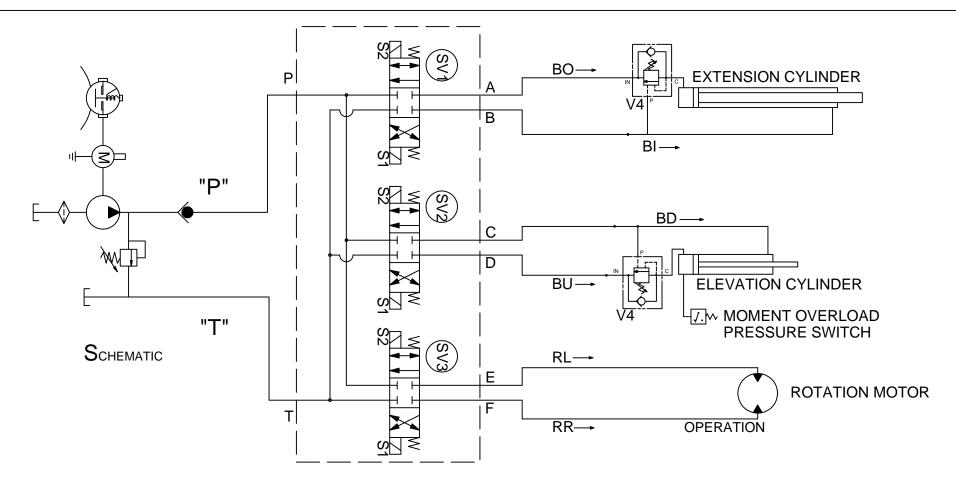




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

| TITLE | DATE | SECTION |
|-------------------------------|------------|---------|
| HYDRAULIC COMPONENTS DRAWING | 12-22-22A | C400 |
| | SUPERSEDES | 0.4070 |
| ET16/18KXXP-20', PROPORTIONAL | 11-19-19 | 24070 |

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



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

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

(SV2)

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

(sva)

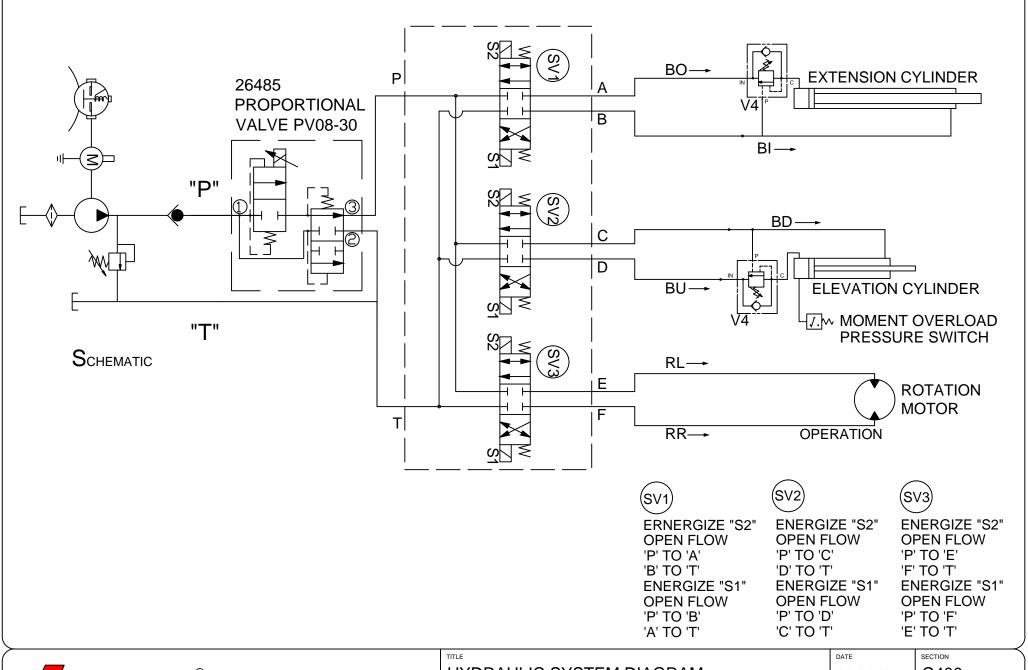
ENERGIZE "S2"
OPEN FLOW
'P' TO 'E'
'F' TO 'T'
ENERGIZE "S1"
OPEN FLOW
'P' TO 'F'
'E' TO 'T'

SECTION C400



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

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





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

HYDRAULIC SYSTEM DIAGRAM

10-14-19

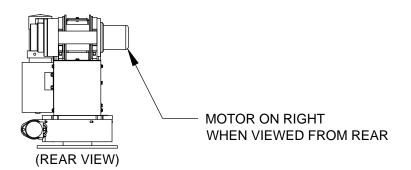
C400

ET16/18/25/30/36KXP

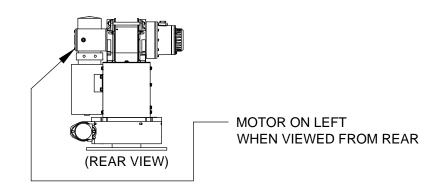
- 24434

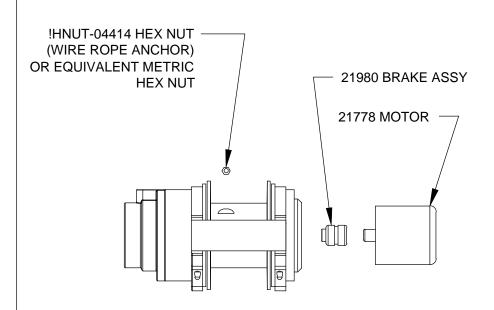
21215 WINCH REPLACEMENT PARTS

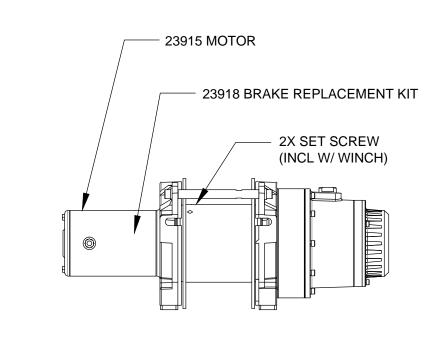
WARN DC2500



COMEUP GTD-2800





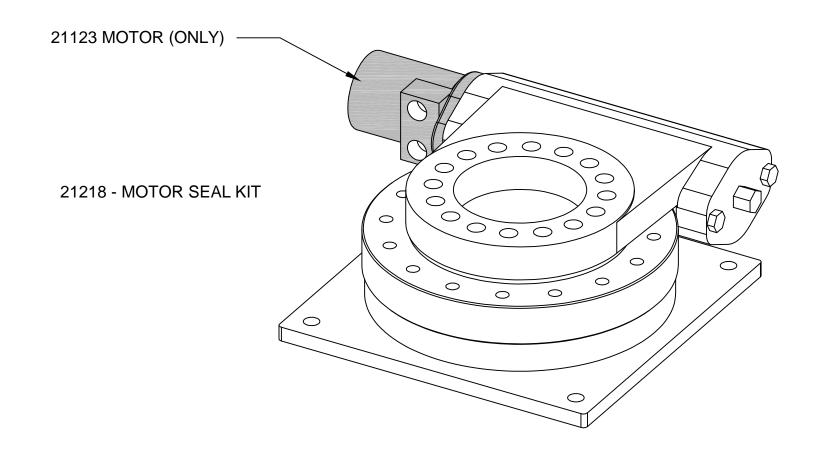




VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

| TITLE | DATE | SECTION |
|-------------------------|------------|---------|
| WINCH REPLACEMENT PARTS | 03-19-21G | C400 |
| | SUPERSEDES | 04054 |
| ET16/18KX | 10-23-14F | 21054 |

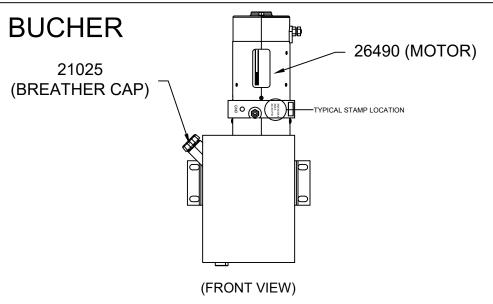
21735 SLEWING SYSTEM REPLACEMENT PARTS

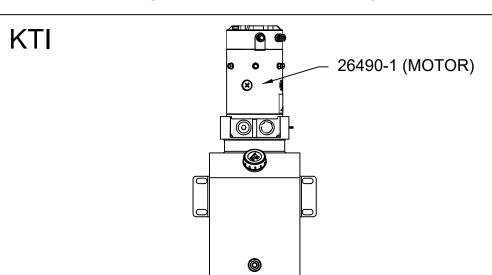




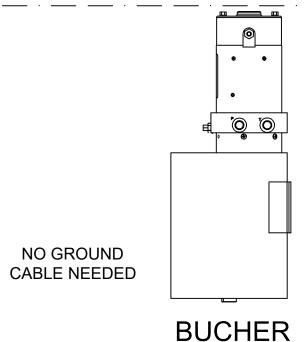
| TITLE | DATE | SECTION |
|----------------------------------|----------------------|---------|
| SLEWING SYSTEM REPLACEMENT PARTS | 10-23-14B | C400 |
| ET8/12K & ET8/12/16/18KX | SUPERSEDES 12-27-13A | 21973 |

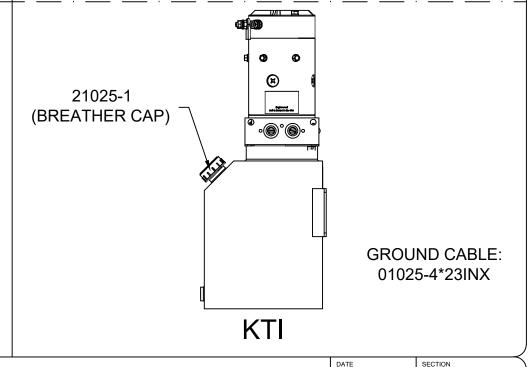
26489 HYD. POWER UNIT REPLACEMENT PARTS





(FRONT VIEW)







VENCO VENTURO INDUSTRIES LLC

CINCINNATI, OHIO

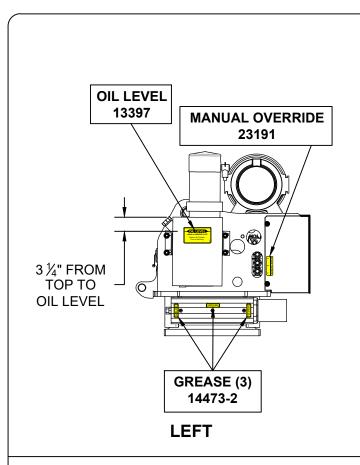
HYDRAULIC POWER UNIT REPLACEMENT PARTS

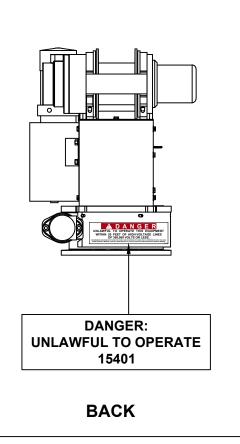
03-06-23 A

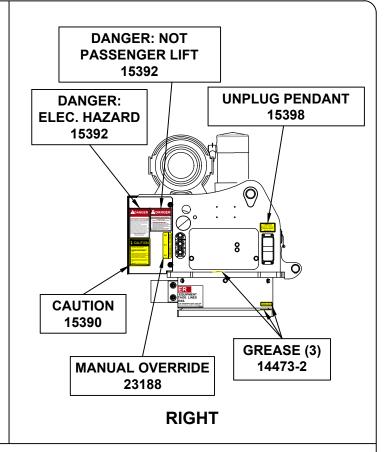
C400

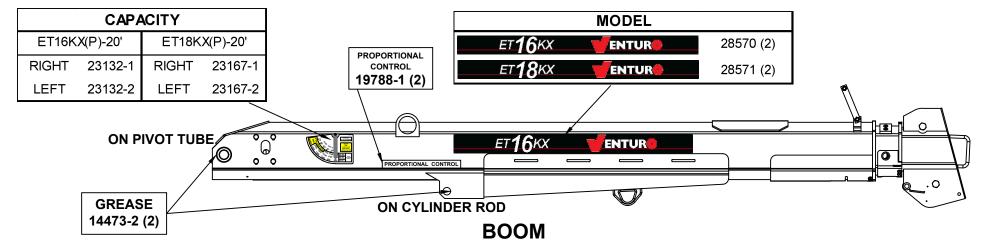
ET12KX-16' PROP, ET16/18/25/30/36

23787 07-31-18











VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

| TITLE | DATE | SECTION |
|------------------|--------------|---------|
| DECAL PLACEMENT | 11-28-23 | C400 |
| ET16/18KX(P)-20' | SUPERSEDES - | 28574 |

ET18KXX(P) FIELD SERVICE LABEL KITS

24028; FSLK ET18KXX-20'

| PART NO. | QTY | DESCRIPTION |
|------------|-----|--|
| 14473-2 | 6 | DECAL; GREASE |
| 28571 | 2 | DECAL; MODEL ET18KX-20' |
| 24029-1 | 1 | DECAL; BOOM CAPACITY, RIGHT, ET18KXX(P) 20' BOOM |
| 24029-2 | 1 | DECAL; BOOM CAPACITY, LEFT, ET18KXX(P) 20' BOOM |
| 13397 | 1 | DECAL; OIL LEVEL |
| 23188 | 1 | DECAL; DIRECTIONAL VALVE, MANUAL OVERRIDE, RIGHT |
| 23191 | 1 | DECAL; DIRECTIONAL VALVE, MANUAL OVERRIDE, LEFT |
| 16184-1 | 1 | DECAL; HORN RELAY |
| 28576 | 1 | IDWG; FIELD SERVICE LABEL KIT (ET16/18KXX(P) - 20' BOOM) |
| 28574 | 1 | IDWG; DECAL PLACEMENT (ET16/18KXX(P) - 20' BOOM) |
| INST-23233 | 1 | SAFETY MANUAL; VENTURO CRANES |
| 15397 | 1 | KIT; ACCIDENT PREVENTION SIGNS |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM |

24039; FSLK ET18KXXP-20'

| PART NO. | QTY | DESCRIPTION |
|------------|-----|---|
| 14473-2 | 6 | DECAL; GREASE |
| 28571 | 2 | DECAL; MODEL ET18KX-20' |
| 24029-1 | 1 | DECAL; BOOM CAPACITY, RIGHT, ET18KXX(P) 20' BOOM |
| 24029-2 | 1 | DECAL; BOOM CAPACITY, LEFT, ET18KXX(P) 20' BOOM |
| 19788-1 | 2 | DECAL; 'PROPORTIONAL' (INSTALL UNDER MODEL DECAL) |
| 13397 | 1 | DECAL; OIL LEVEL |
| 23188 | 1 | DECAL; DIRECTIONAL VALVE, MANUAL OVERRIDE, RIGHT |
| 23191 | 1 | DECAL; DIRECTIONAL VALVE, MANUAL OVERRIDE, LEFT |
| 19315-2 | 1 | DECAL; PROPORTIONAL VALVE MANUAL OVERRIDE |
| 16184-1 | 1 | DECAL; HORN RELAY |
| 28576 | 1 | IDWG; FIELD SERVICE LABEL KIT (ET16/18KXXP - 20') |
| 28574 | 1 | IDWG; DECAL PLACEMENT (ET16/18KXXP - 20') |
| INST-23233 | 1 | SAFETY MANUAL; VENTURO CRANES |
| 15397 | 1 | KIT; ACCIDENT PREVENTION SIGNS |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM |



| TITLE | DATE | SECTION |
|--------------------------|------------|---------|
| FIELD SERVICE LABEL KITS | 11-28-23 | C400 |
| ET18KXX(P) - 20' BOOM | SUPERSEDES | 28576 |

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

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Revised: January 2015 12-00073_VNT1-D