

PARTS & INSTALLATION MANUAL

3215E

Included in this manual:

3215E

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

| | |
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| 25431 | USER NOTES |
| 12-00073_VNT1 | WARRANTY PAGE |

SECTION 100

DESCRIPTION

&

SPECIFICATIONS



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

SPECIFICATIONS

- 12-volt battery operated
- 10,000 ft-lb overturning moment (or as limited by truck stability)
- Moment overload shut-off system
- Electric winch - 1,600 lb single-line capacity with automatic load brake
- Electric-hydraulic boom elevation
- Electric-hydraulic boom extension - 4 ft stroke
- Electric-hydraulic continuous power rotation
- Corded remote control pendant
- Radio remote control pendant (optional)
- Master disconnect switch
- Accessories (optional):
 - Stabilizers: 18500, 13500, 11822-2
 - Pedestal: 26027
 - Boom Rest: 21440

| | |
|---------------------|----------------|
| TELESCOPIC BOOM | 7 - 15 ft |
| BOOM ELEVATION | -5° TO 75° |
| BOOM HYD EXTENSION | 4 ft |
| BOOM MANUAL EXT | 4 ft |
| CAPACITY | 650 lb @ 15 ft |
| | 3200 lb @ 3 ft |
| WIRE ROPE | 1/4" x 65 ft |
| PENDANT CORD LENGTH | 25 ft |



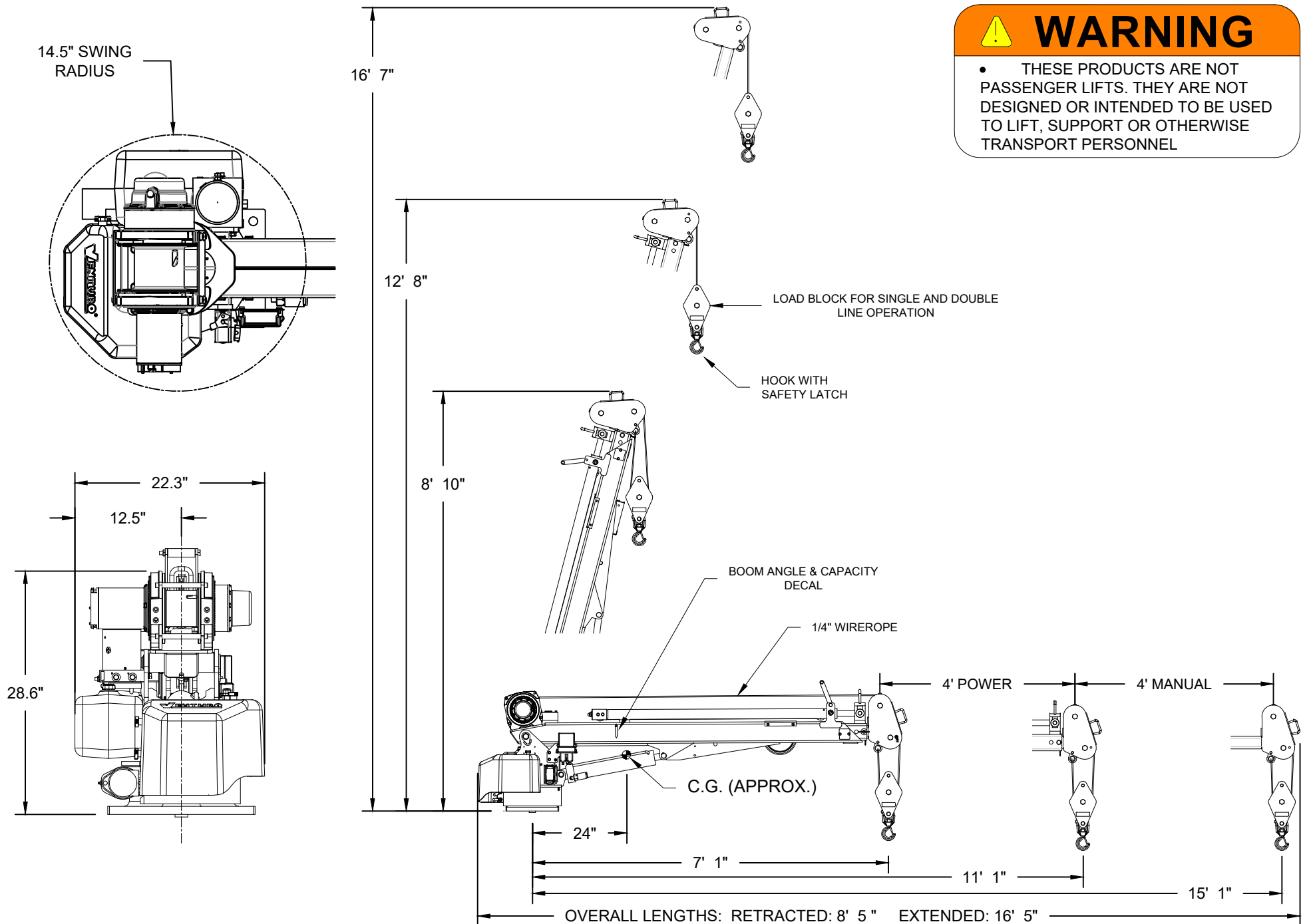
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

| | | |
|----------------------|------------|---------|
| TITLE | DATE | SECTION |
| SPECS & OP. FEATURES | 02-25-25 | C100 |
| 3215E | SUPERSEDES | 25952 |
| | - | |



WARNING

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE INSTALLATION DIMENSIONS

3215E/3515E

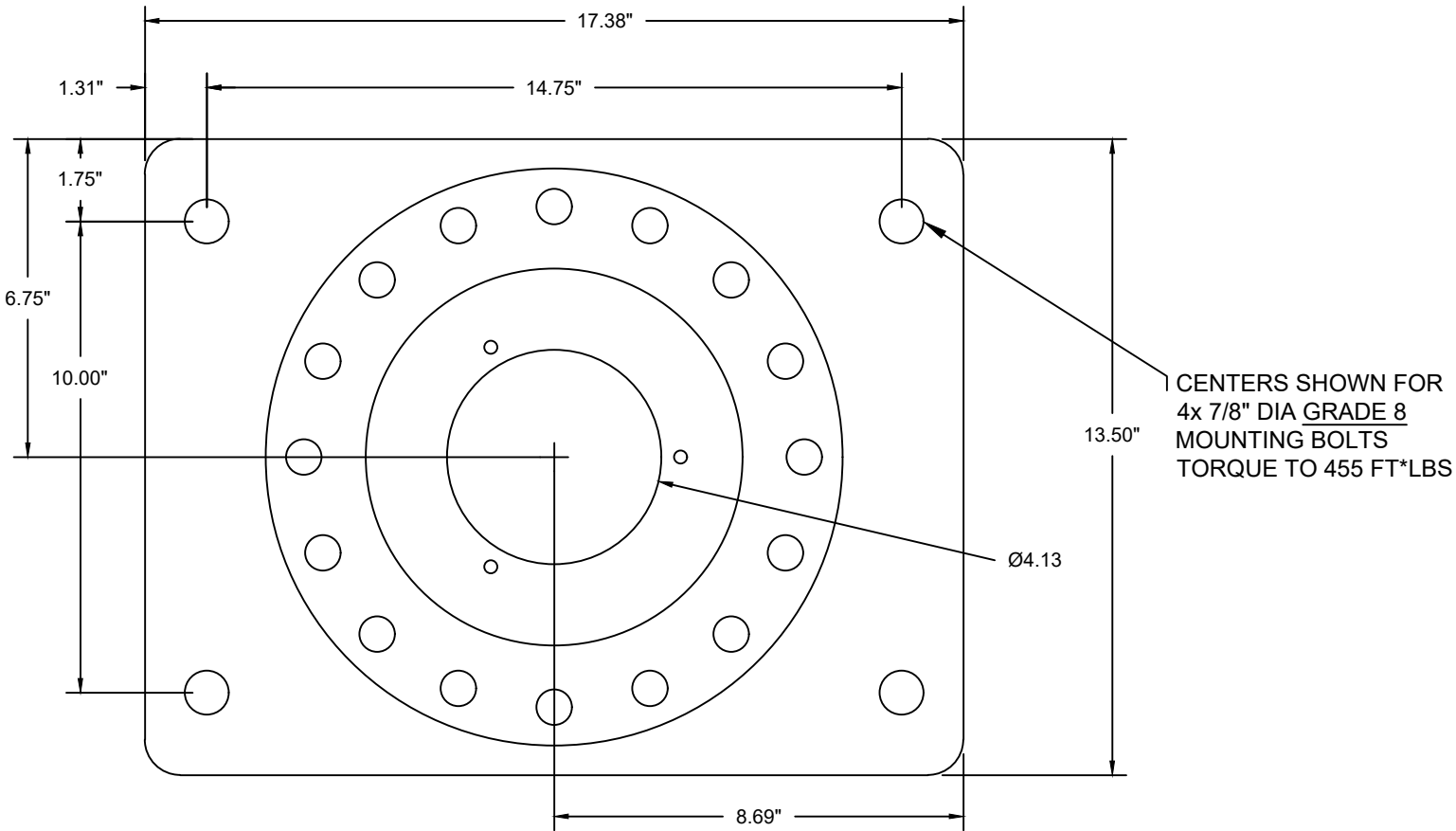
DATE
10-02-24

SUPERSEDES
-

SECTION
C100

28960

21735-WRB/CRB - RECTANGULAR



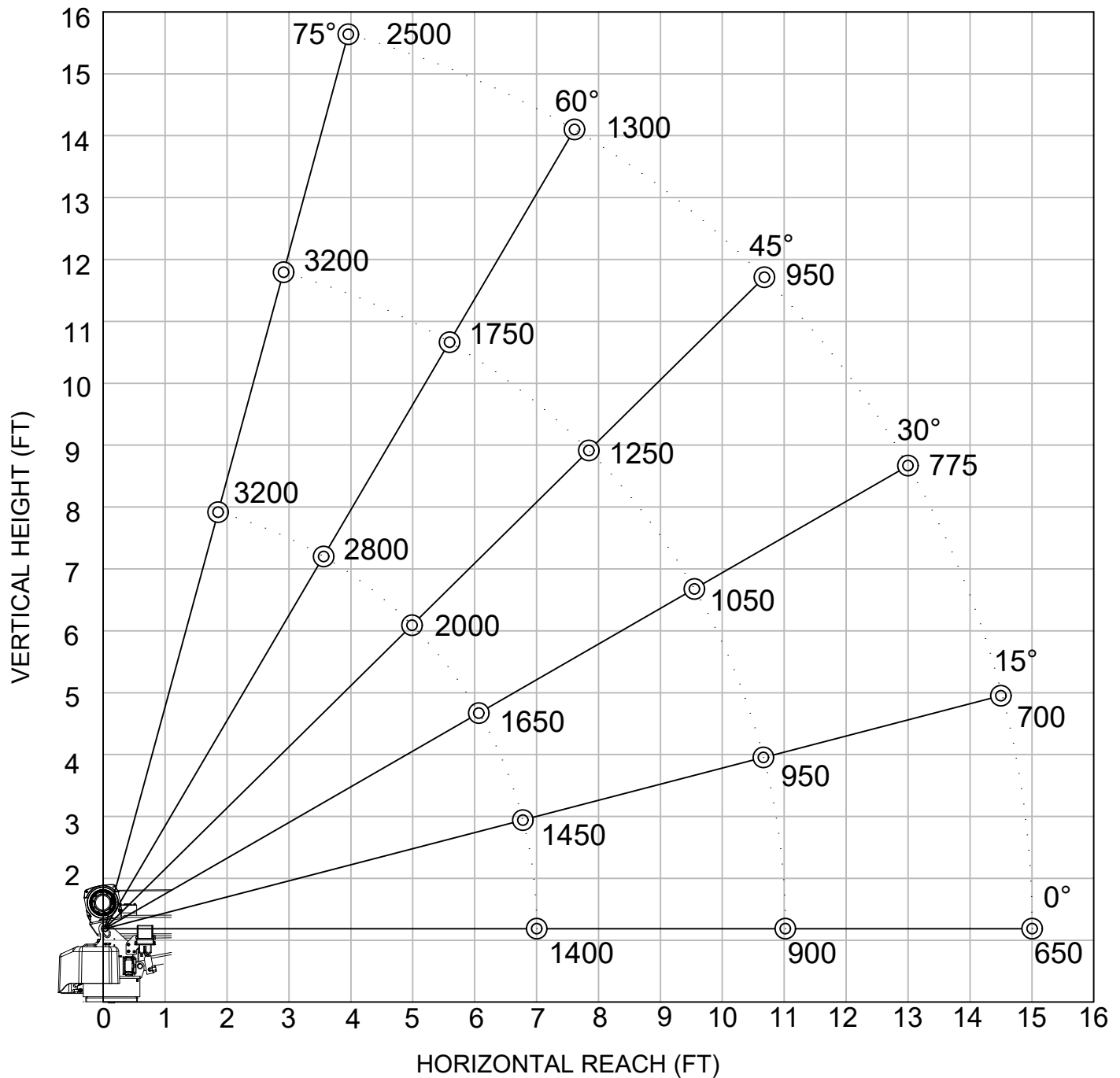
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

| | | |
|--------------------------------|------------------------|---------|
| TITLE | DATE | SECTION |
| 21735 BASE MOUNTING DIMENSIONS | 11-12-24A | C100 |
| 3215E/351*E/40**E/45**E | SUPERSEDES 04-05-24 | 28814 |

3215E

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

| | |
|-------|-----------------------|
| TITLE | MAXIMUM LOAD CAPACITY |
| 3215E | |

| | |
|------------|----------|
| DATE | 10-11-24 |
| SUPERSEDES | - |

| | |
|---------|-------|
| SECTION | C100 |
| | 28971 |

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

DANGER

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

YOU MUST NOT OPERATE THIS CRANE, UNLESS:

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

ELECTROCUTION HAZARD

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

OVERLOAD SENSING SYSTEM - STANDARD ON ALL CRANES

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

NOTICE - WARRANTY VOID IF DISCONNECTED

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

DO NOT DISCONNECT THIS SYSTEM



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SAFETY & HAZARDS

DATE

01-29-15K

SECTION

C150

ELECTRIC CRANES

SUPERSEDES

12-20-13J

850711

CRANE SAFETY AND HAZARDS - CONT'D

OVERLOAD ALARM SYSTEM - OPTIONAL

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

NOTICE - WARRANTY VOID IF DISCONNECTED

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

DO NOT DISCONNECT THIS SYSTEM

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VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SAFETY & HZRDS, CONT.

DATE

01-29-15

SECTION

C150

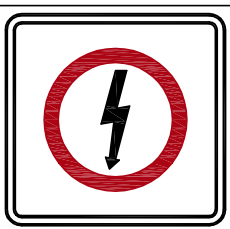
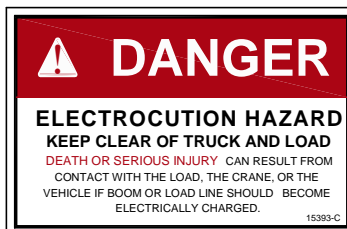
ELECTRIC CRANES

SUPERSEDES

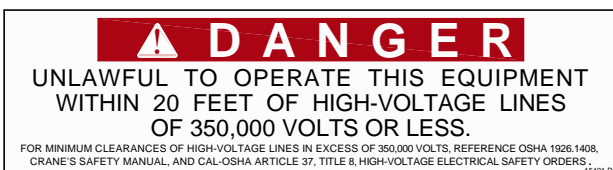
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850712

VEHICLE & CRANE MOUNTED ELECTRICAL HAZARD SIGN APPLICATION & INFORMATION



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



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

Table A - Minimum Clearance Distances

| Voltage (nominal, kV, alternating current) | Minimum clearance distance (feet) * |
|---|--|
| Up to 50..... | 10 |
| over 50 - 200..... | 15 |
| over 200 - 350..... | 20 |
| over 350 - 500..... | 25 |
| over 500 - 750..... | 35 |
| over 750 - 1000..... | 45 |
| Over 1000..... | (as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution). |

Table T - Minimum Clearance Distances While Traveling With No Load

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

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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

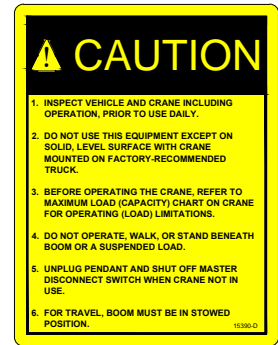
DECAL #: 15390

DESCRIPTION: CAUTION, INSPECT VEHICLE & CRANE...

PURPOSE: TO INFORM THE OPERATOR OF KEY OPERATING REQUIREMENTS.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



DECAL #: 15391

DESCRIPTION: DANGER, NOT A PASSENGER LIFT

PURPOSE: TO INFORM OPERATOR NOT TO LIFT, SUPPORT, OR TRANSPORT PERSONNEL, AND TO ENSURE OPERATOR IS ADEQUATELY TRAINED.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



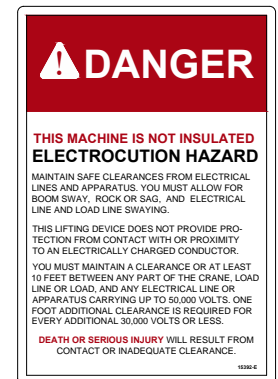
DECAL #: 15392

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, MACHINE (CRANE)

PURPOSE: TO INFORM OPERATOR THAT MACHINE (CRANE) REPRESENTS AN ELECTROCUTION HAZARD SHOULD IT COME CLOSE TO OR IN CONTACT WITH AN ELECTRICAL VOLTAGE SOURCE.

QUANTITY: 1

PLACEMENT: REAR COVER OR SIDE OF CRANE



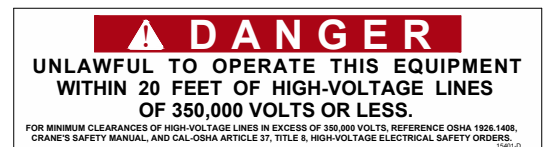
DECAL #: 15401

DESCRIPTION: DANGER, UNLAWFUL TO OPERATE

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

QUANTITY: 1

PLACEMENT: RING COVER OR SIDE OF CRANE



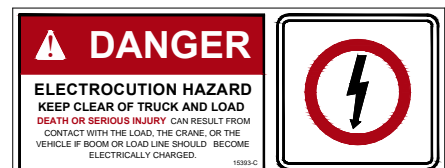
DECAL #: 15393

DESCRIPTION: DANGER, ELECTROCUTION HAZARD, VEHICLE (TRUCK)

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

QUANTITY: 4

PLACEMENT: EACH SIDE & EACH END OF VEHICLE



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SAFETY DECALS

VENTURO CRANES

DATE

04-29-16E

SUPERSEDES

10-24-13D

SECTION

C150

21353

PART NO.: 15513

DECAL: MASTER DISCONNECT SWITCH

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

QUANTITY: 1

PLACEMENT: On master disconnect switch bracket.



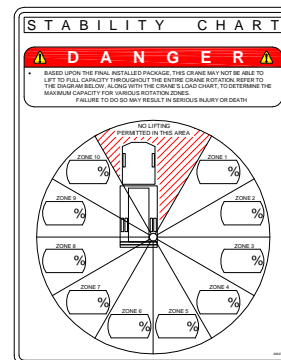
PART NO.: 20927

DECAL: CRANE STABILITY

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

QUANTITY: 1

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
SAFETY DECALS

CRANES

DATE
06-06-14C

SUPERSEDES
04-02-13B

SECTION
C150

21384

PART NO.: 14473-2

DECAL: CONDUCTIVE GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



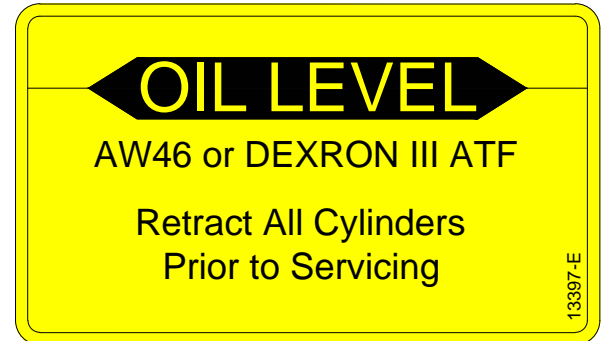
PART NO.: 13397

DECAL: OIL LEVEL

FUNCTION: To inform the operator of proper oil level to maintain.

QUANTITY: 1

PLACEMENT: Side of hydraulic power unit.



PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

FUNCTION: To inform the operator to unplug remote control when not in use.

QUANTITY: 1

PLACEMENT: Near pendant socket.



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
DECALS

ET CRANES

DATE
11-12-19E

SUPERSEDES
12-23-13D

SECTION
C150

21354

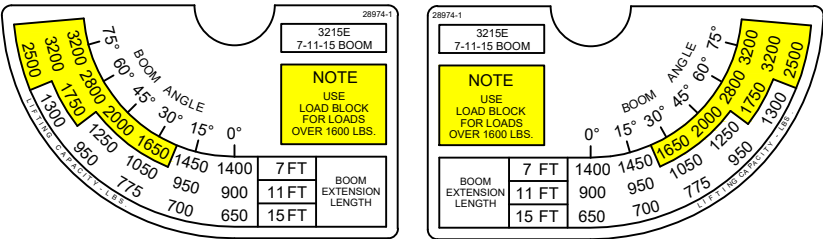
PART NO.: 28974-1 & 28974-2

DECAL: CRANE CAPACITY 3215E

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

QUANTITY: 1

PLACEMENT: One on each side of boom.



PART NO.: 28973

DECAL: MODEL 3215E

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.



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MANUFACTURING, INC.
CINCINNATI, OHIO

| | | |
|---------------------|------------|---------|
| TITLE | DATE | SECTION |
| MODEL/CAPCTY DECALS | 10-11-24 | C150 |
| 3215E | SUPERSEDES | 28972 |
| | - | |

PART NO.: 27007-03a

DECAL: LOAD BLOCK CAPACITY DECAL

FUNCTION: To show the capacity of load block.

QUANTITY: 2

PLACEMENT: Each side of load block.

VENTURO

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

27007-03a

PART NO.: 19315-2

DECAL: MANUAL OVERRIDE (PROPORTIONAL)

FUNCTION: To show operator how to override proportional valve

QUANTITY: 1

PLACEMENT: Inside rear cover

WARNING!

KEEP VALVE IN NORMAL POSITION.
OVERRIDE POSITION IS INTENDED
FOR EMERGENCY USE ONLY.

NORMAL

PROPORTIONAL
VALVE

ROTATE STEM

OVERRIDE

19315-2 Rev B

PART NO.: 28870-1 (RIGHT) & 28870-2 (LEFT)

DECAL: MANUAL OVERRIDE DECAL

FUNCTION: To show the manual override ports.

QUANTITY: 1

PLACEMENT: Inside rear cover.

28870-2

28870-1

VALVE
MANUAL
OVERRIDE

BOOM
←
IN

BOOM
←
DOWN

ROTATION
←
LEFT

VALVE
MANUAL
OVERRIDE

BOOM
→
OUT

BOOM
→
UP

ROTATION
→
RIGHT

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

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 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

17813-A

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

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 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

14459-E

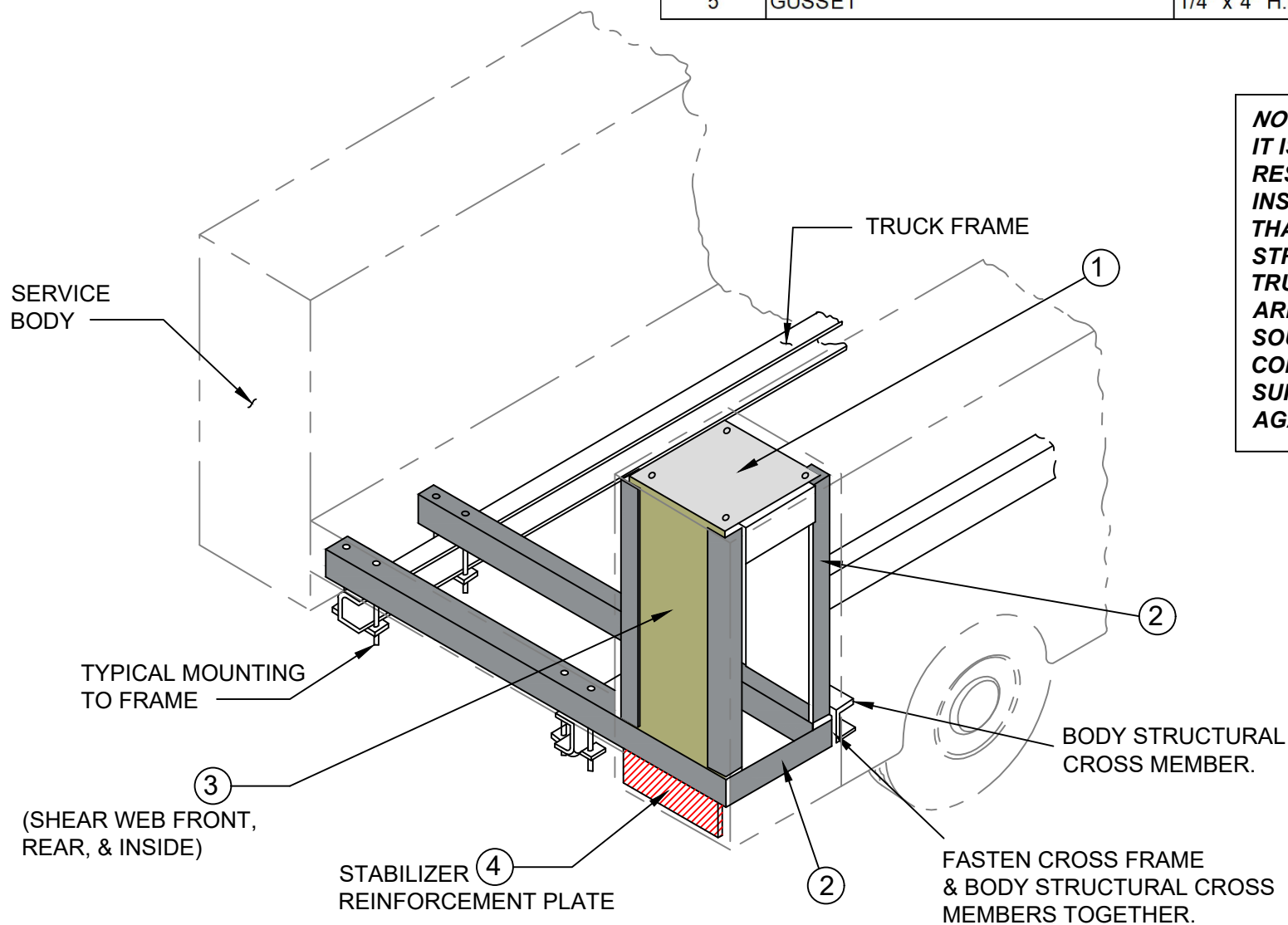
SECTION 200

INSTALLATION



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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



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

ILLUSTRATIONS NOT TO SCALE



VENCO VENTURO INDUSTRIES LLC
 CINCINNATI, OHIO

TITLE
 INSTALLATION DRAWING

3215E/351*E

DATE
 09-10-24

SUPSEDES
 -

SECTION
 C100

28933

!! IMPORTANT !!

ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

1. PROPER GROUND PATH - SEE DWG 28821
2. CURRENT DRAW IS SEVERAL HUNDRED AMPERES - ADEQUATE WIRE SIZE AND BATTERY CAPACITY IS ABSOLUTELY ESSENTIAL (SEE CHART BELOW).

MINIMUM WIRE GAUGE AND AUXILIARY BATTERY SIZE

| MINIMUM WIRE GAUGE AND AUXILIARY BATTERY SIZE | | | | | | | | | | |
|--|--|-------|-------|-------|-------|-----------------|-------|-------|--|--------------|
| MODEL | TOTAL LENGTH OF CABLE (FT) * | | | | | | | | 12 VOLT AUXILIARY BATTERY REQUIREMENTS | |
| | 0-20 | 21-25 | 26-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 | CCA (A) ** | RC (MIN) *** |
| 2010E | #2 | #2 | #1 | #0 | #00 | NOT RECOMMENDED | | | 450 | 100 |
| 3215E 3515E 3516E | #2 | #2 | #1 | #0 | #00 | NOT RECOMMENDED | | | 550 | 150 |
| 4016E 4020E 4516E 4520E 5020E 6020E | SEE DRAWING 28821 FOR CABLE AND BATTERY REQUIREMENTS | | | | | | | | | |

* INCLUDES GROUND CABLE

** CCA = COLD CRANKING AMPS AT 0° (F).

*** RC = RESERVE CAPACITY IN MINUTES AT 25 AMPS AND 80° (F).
THE RC RATING IS A MEASURE OF THE PERIOD OF TIME THE BATTERY CAN
SUPPLY A GIVEN CURRENT WITHOUT RECHARGING.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

CABLE & BATTERY

ELECTRIC CRANES

DATE

02-19-24

SUPERSEDES

-

SECTION

C200

28820

RECOMMENDED CIRCUIT BREAKER TABLE

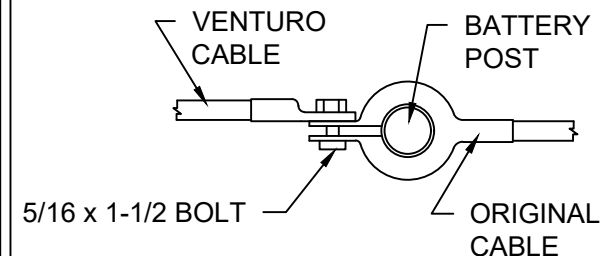
| CRANE | DESCRIPTION | PART NO. |
|-------------|---------------------|-----------|
| 2010E | 300 AMP, MAN RESET | 22946-300 |
| 3215E | 300 AMP, MAN RESET | 22946-300 |
| 3515E/3516E | 300 AMP, MAN RESET | 22946-300 |
| 4016E/4020E | 300 AMP, MAN RESET | 22946-300 |
| 4516E/4520E | 300 AMP, MAN RESET | 22946-300 |
| 5020E | 300 AMP, AUTO RESET | 22946-300 |
| 6020E | 300 AMP, AUTO RESET | 22946-300 |

BATTERY REQUIREMENTS

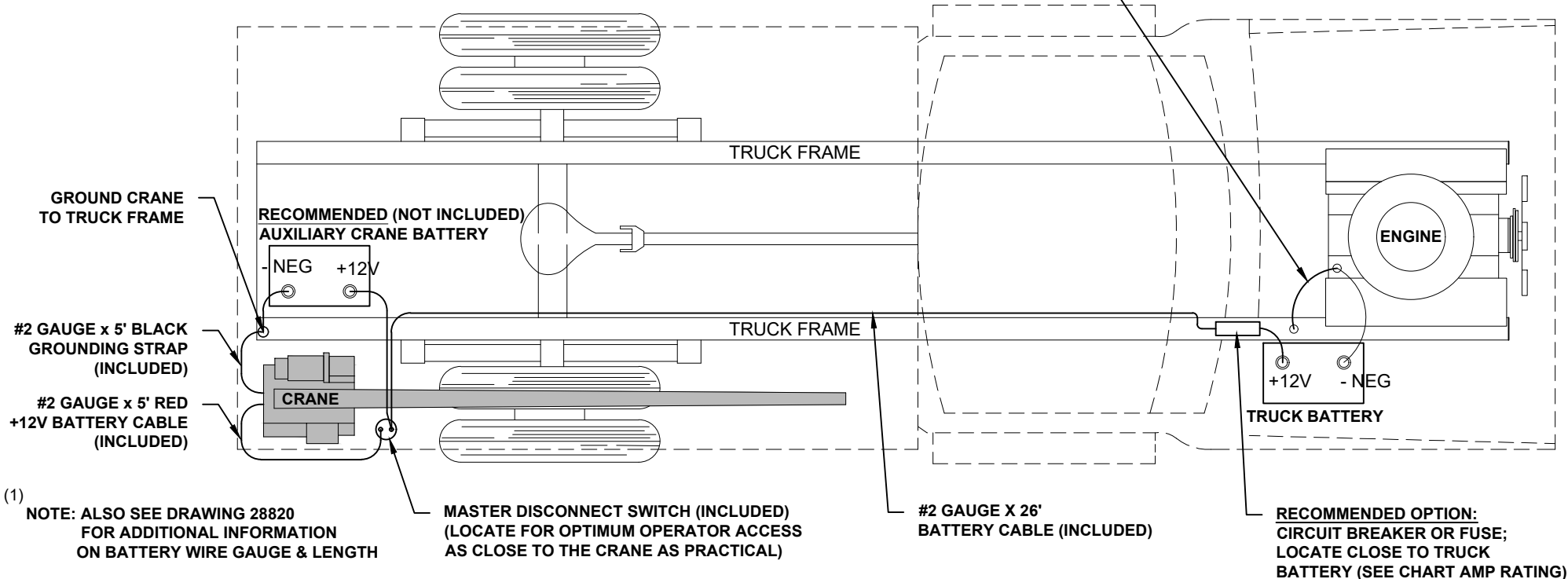
- 12 VOLT VEHICLE BATTERY REQUIREMENTS
 - 625 COLD CRANKING AMPS (AT 0° F)
 - 160 MINUTES RESERVE CAPACITY
 - 102 PLATES, 105 AMP-HR
- (1) 12 VOLT AUXILIARY BATTERY REQUIREMENTS
 - SEE MINIMUM WIRE GAUGE AND BATTERY SIZE

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

RECOMMENDED BATTERY TERMINAL ATTACHMENT



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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

BATTERY CABLE & COMPONENT INSTALL

ET CRANES

DATE

02-19-24

SUPERSEDES

-

SECTION

C200

28821

STABILITY TEST - 3215E

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.
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.**
6. Use a **Test Weight** weighing a **minimum** of **764 lbs**, (includes load block weight of 24 lbs.) to a **maximum of 800 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 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 (horizontally) from the **center of rotation** of the crane housing to the **lifting load hook**.
$$\% \text{ Rated Capacity} = \frac{\text{"Max Stable Reach" in inches}}{181} \times 100$$
12. Record the **% of Rated Capacity** 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
CINCINNATI, OHIO

TITLE
STABILITY TEST

3215E

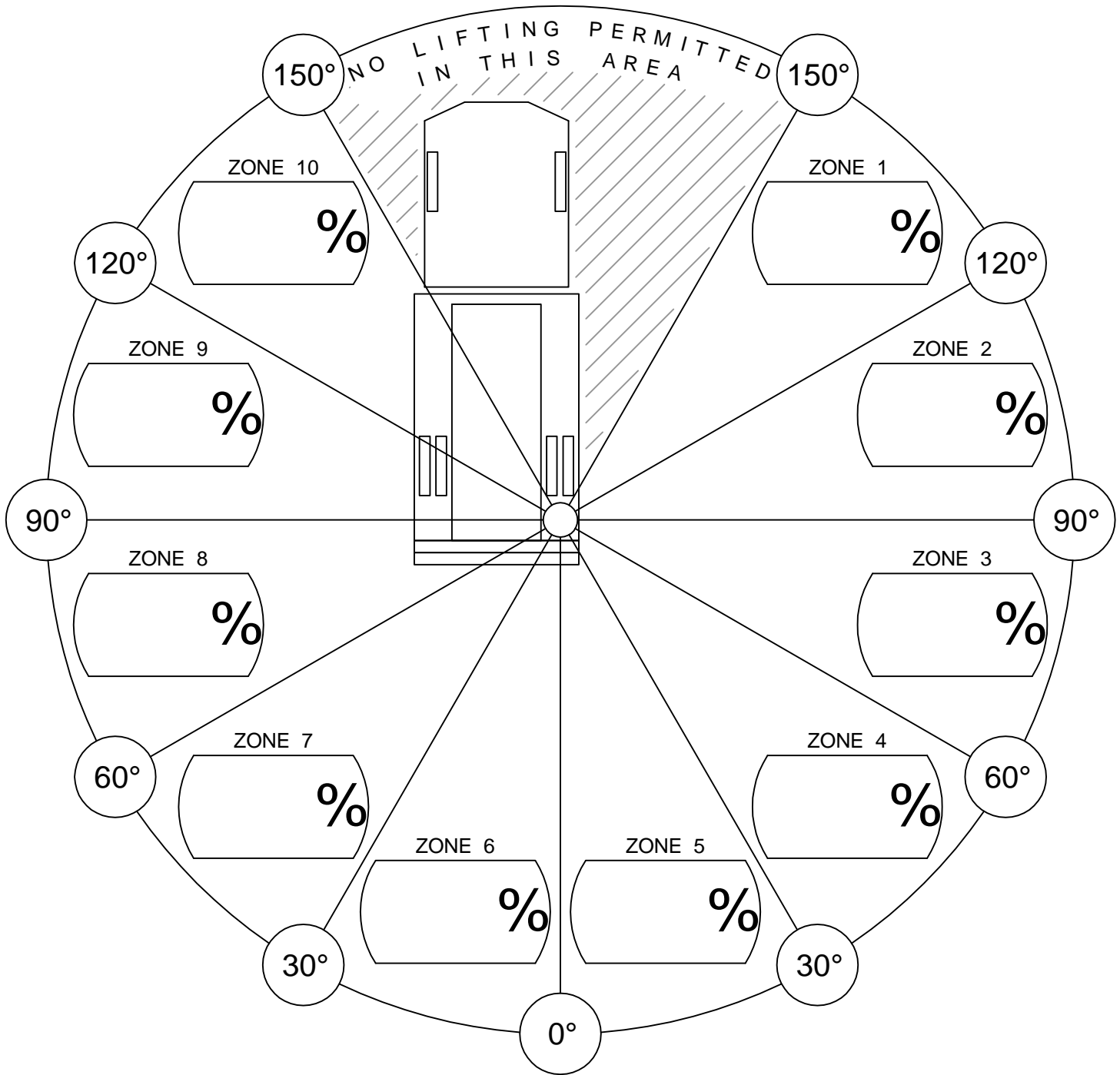
DATE
10-11-24

SUPERSEDES
-

SECTION
C200

20906-3215E

CRANE STABILITY



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

CONDITIONS:

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
STABILITY CHART

VENTURO CRANES

DATE
05-11-17F

SUPERSEDES
02-21-14E

SECTION
C200

20907

WIRE ROPE INSTALLATION

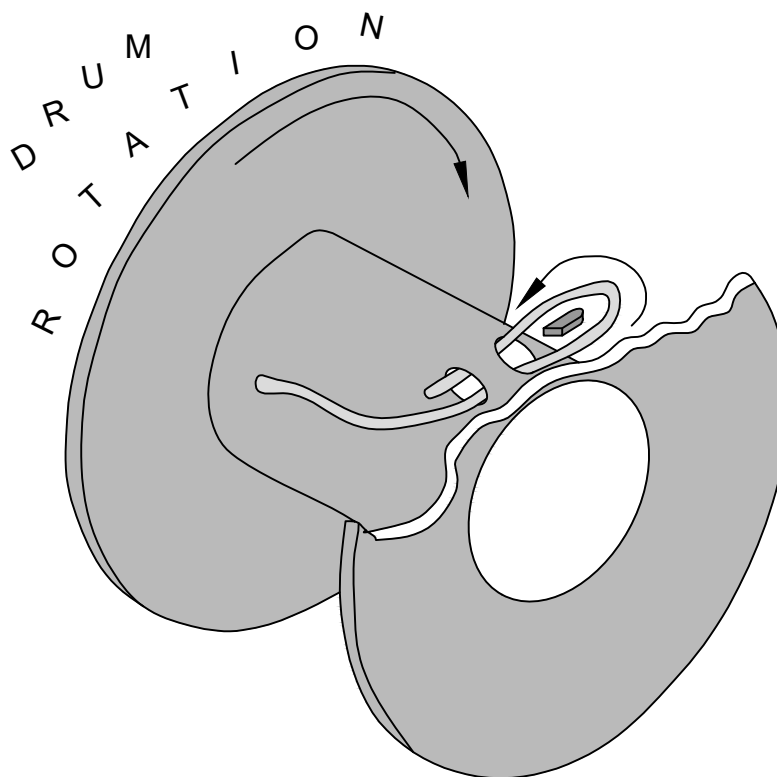


FIG. 1

- STEP 1: UNWIND COIL OF WIRE ROPE BY 'ROLLING' ALONG THE FLOOR. THIS WILL PREVENT 'KINKING'.
- STEP 2: INSERT WIRE ROPE END UP THROUGH ANTI-2-BLOCK (A2B) ASSEMBLY, BETWEEN CHEEK PLATES, OVER THE TOP SHEAVE, AND THROUGH WIRE ROPE GUIDE.
- STEP 3: INSERT WIRE ROPE END INTO POCKET OPENING ON WINCH, WRAP AROUND WEDGE, AND BACK THROUGH POCKET OPENING AS SHOWN IN FIGURE 1.



CAUTION

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



CAUTION

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

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
WIRE ROPE INSTALLTN
2010E & LARGER CRANES

DATE
02-20-24
SUPERSEDES
-

SECTION
C200

28822

SECTION 300

OPERATION

&

MAINTENANCE



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

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 2010E, or

1600 lbs. for the 3215E, or

1750 lbs. for the 3515E/3516E 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.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

2010E/3215E/351*E

DATE
09-12-24

SUPERSEDES
-

SECTION
C200

28939

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

CONTROL FUNCTIONS

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

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

POWER ROTATION - "L" and "R" control the direction of rotation. The 2010E, 3215E or 351*E can be rotated continuously thru 360° or more. There are no restrictions on the number of rotations in any direction.

CONTROL PRIORITY SYSTEM (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 (351*E) - 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 functions. The boom has much lower bending strength sideways than in a vertical direction.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

2010E/3215E/351*E

DATE
09-12-24

SUPERSEDES
-

SECTION
C200

28940

CRANE OPERATION AND MAINTENANCE INSTRUCTIONS

OVERLOAD ALARM SYSTEMS (OPTIONAL)

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

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

MANUAL TELESCOPIC BOOM

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

TRUCK SETUP & STABILIZERS

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

PREPARATION FOR TRAVEL

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



WARNING

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



MANUFACTURING, INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

2010E/3215E/351*E

DATE
09-12-24

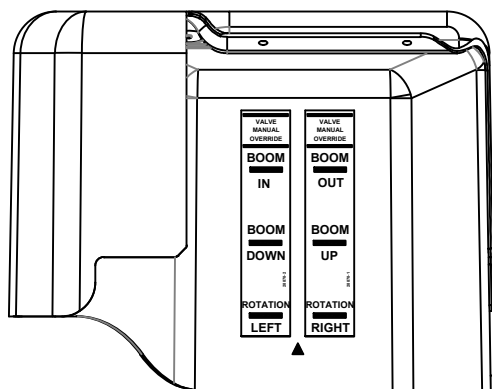
SUPERSEDES
-

SECTION
C200

28941

MANUAL OVERRIDE INSTRUCTIONS
3215E/351*E/40**E/45**E NON-PROPORTIONAL SERIES CRANES

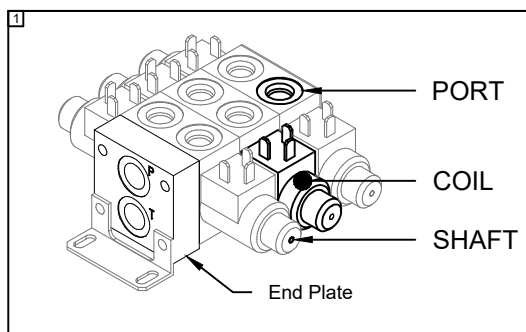
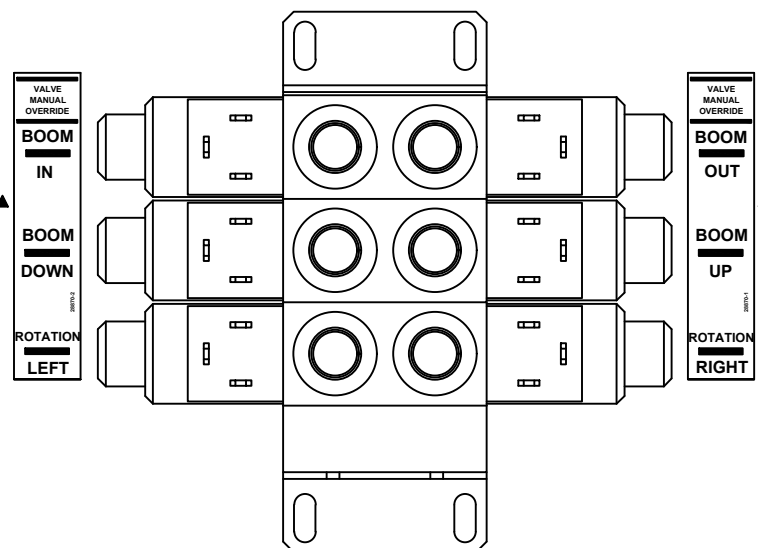
!! READ ALL INSTRUCTIONS BEFORE PERFORMING MANUAL OVERRIDE PROCEDURES !!



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

2-STATION FUNCTIONS:

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

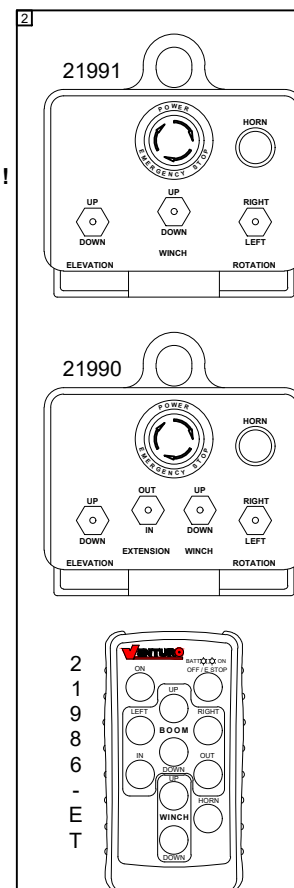


ALWAYS BE SURE TO CHECK HYDRAULIC OIL LEVEL BEFORE PROCEEDING. IT IS RECOMMENDED TO REMOVE ANY ITEM(S) THAT MAY INTERFERE WITH OPERATING THE CRANE MANUALLY. IF POSSIBLE, STRAPS AND/OR HARNESSSES SHOULD BE REMOVED BEFORE OPERATING A CRANE IN MANUAL OVERRIDE !!

Procedure:

1. Turn Master disconnect switch to "ON"
2. Power up the pendant / radio
 - 2.1. PENDANT - twist EMERGENCY STOP button clockwise
 - 2.2. RADIO - Press green ON button
3. Inside the plastic cover, reference the function you wish to perform using the manual override decal
4. Using a tool with a diameter of 1/8" or smaller, press the shaft inward and hold
5. Reference the functions listed on your pendant or radio (see figure 2)
6. Press the switch or button for the same function
7. If you need to change function,
 - 7.1. Release switch or button
 - 7.2. Remove tool from shaft
 - 7.3. Go to step 3

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
MAN. OVERRIDE INSTR.

3215E/351*E/40**E/45**E
NON-PROPORTIONAL VALVE

DATE
04-03-25A

SUPERSEDES
02-21-24

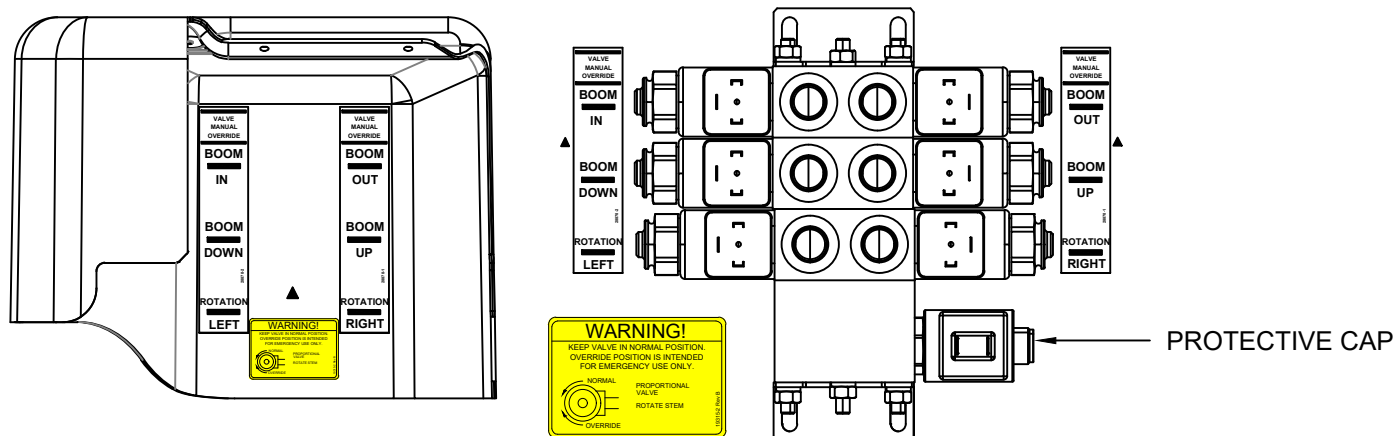
SECTION
C200

28826

MANUAL OVERRIDE INSTRUCTIONS

3215E/351*E/40**E/45**E PROPORTIONAL SERIES CRANES

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



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

3-STATION FUNCTIONS:

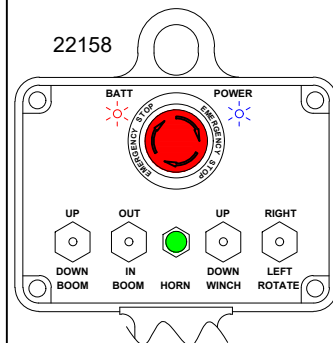
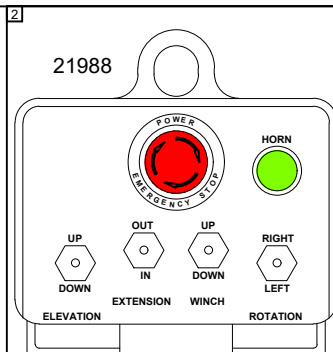
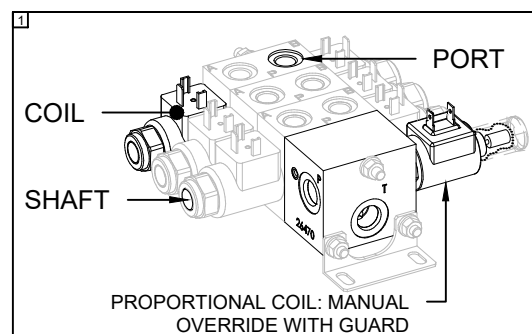
RR = Rot. Right RL = Rot. Left
 BU = Boom Up BD = Boom Down
 BI = Boom In BO = Boom Out

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

Procedure:

1. Turn Master disconnect switch to "ON"
2. Remove Protective cap
3. Rotate Valve Stem Clockwise to close
4. Power up the pendant / radio
 - 4.1. Twist EMERGENCY STOP button clockwise
5. Inside the plastic cover, reference the function you wish to perform using the manual override decal
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 2)
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

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



VENCO VENTURO INDUSTRIES LLC
 CINCINNATI, OHIO

TITLE
MAN. OVERRIDE INSTR.

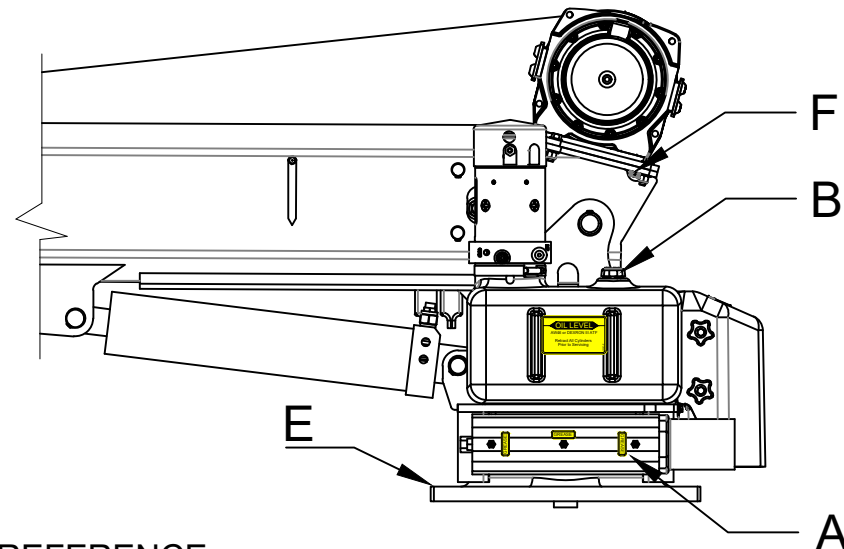
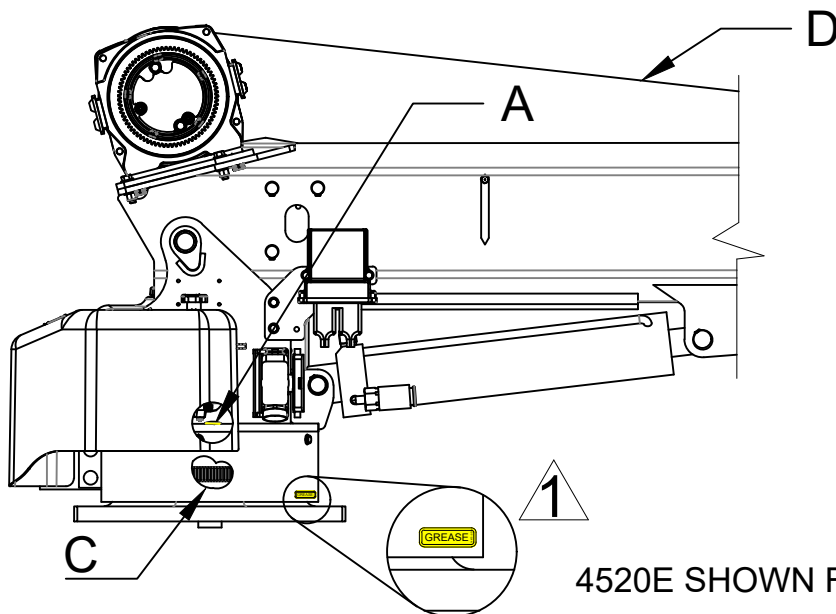
3215E/351*E/40**E/45**E
 PROPORTIONAL VALVE

DATE
04-03-25A

SUPERSEDES
02-21-24

SECTION
C200

28827



4520E SHOWN FOR REFERENCE

ATTENTION:

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

| Location | Service Required | Note | | Service Interval |
|----------|---|---|--|---|
| A | Grease fitting With Pressure Grease Gun | Use FUCHS Renolit Aluminum Complex Grease, or equivalent ⚠️ ALIGNMENT: To align hole w/ fitting, remove Cover, line up grease decals on lower cover and base gusset. | | Time of Truck Service |
| B | Fill Oil Reservoir to Oil Level with Boom Down and Boom In. | Use Dextron ATF for Ambient Temperatures Between -22° F and 30° F | Use ISO Viscosity Grade 68 or Equivalent for Ambient Temperatures Between 10°F and 125°F | Time of Truck Service and as required by changes in the ambient temperature range |
| C | Lubricate Gear Teeth | Remove Cover & Use Chassis Grease | | Time of Truck Service |
| D | Check Wire Rope and Hook | Rope should be free of kinks and fraying | | Time of Truck Service |
| E | Check Torque of 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 torqued to 35 ft-lbs* | | Time of Truck Service |

* 32 FT-LBS FOR 3215E/351XE WITH GTD-2200 COMEUP WINCH. SEE PAGE 28846 FOR WINCH IDENTIFICATION.



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

LUBRICATION & MAINTENANCE CHART

3215E/351*E/40**E/45**E

DATE

02-20-24

SUPERSEDES

-

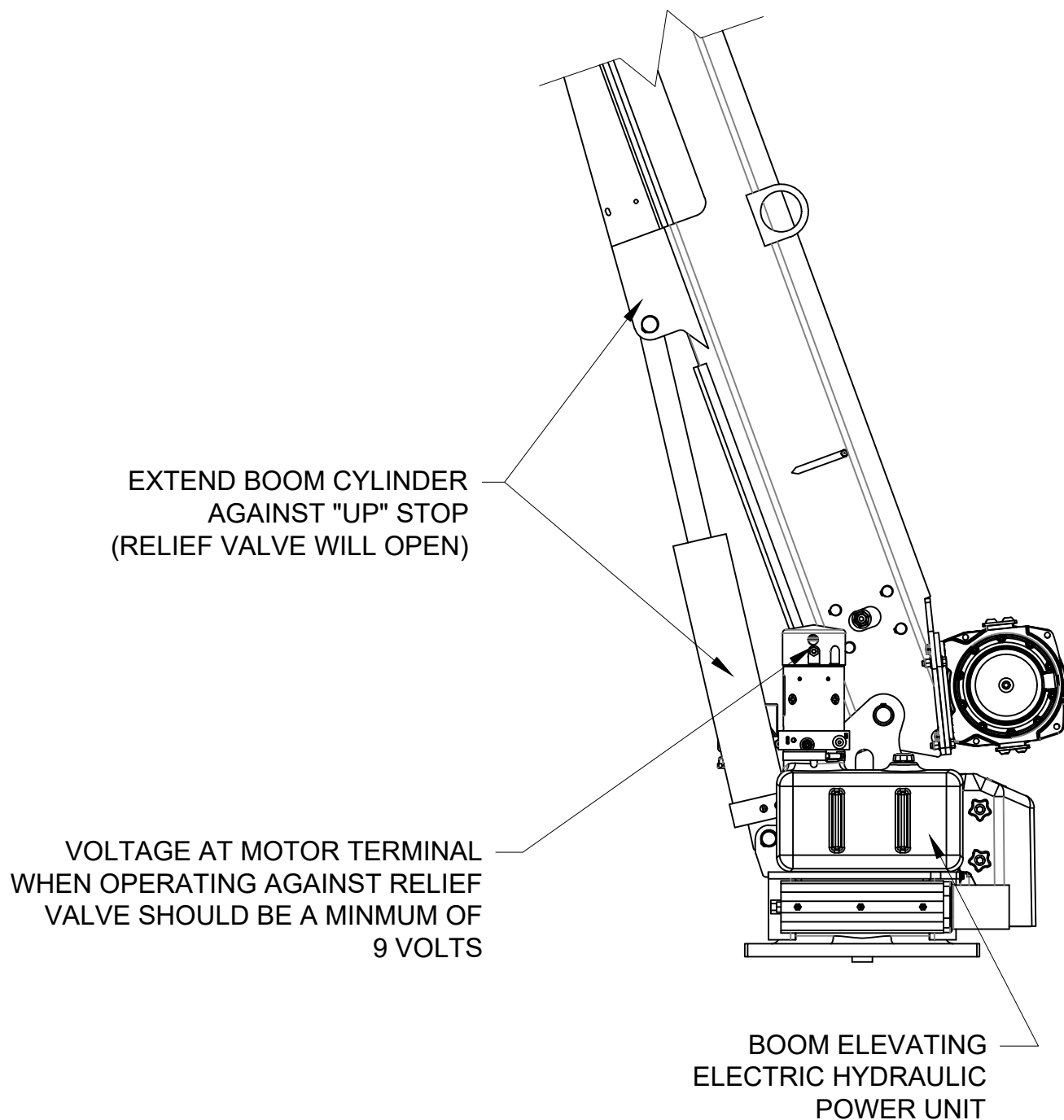
SECTION

C300

28823

MINIMUM VOLTAGE TEST

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



MANUFACTURING, INC.
CINCINNATI, OHIO

| | |
|------------------|----------------------|
| TITLE | MINIMUM VOLTAGE TEST |
| ET SERIES CRANES | |

| | |
|------------|----------|
| DATE | 02-20-24 |
| SUPERSEDES | - |

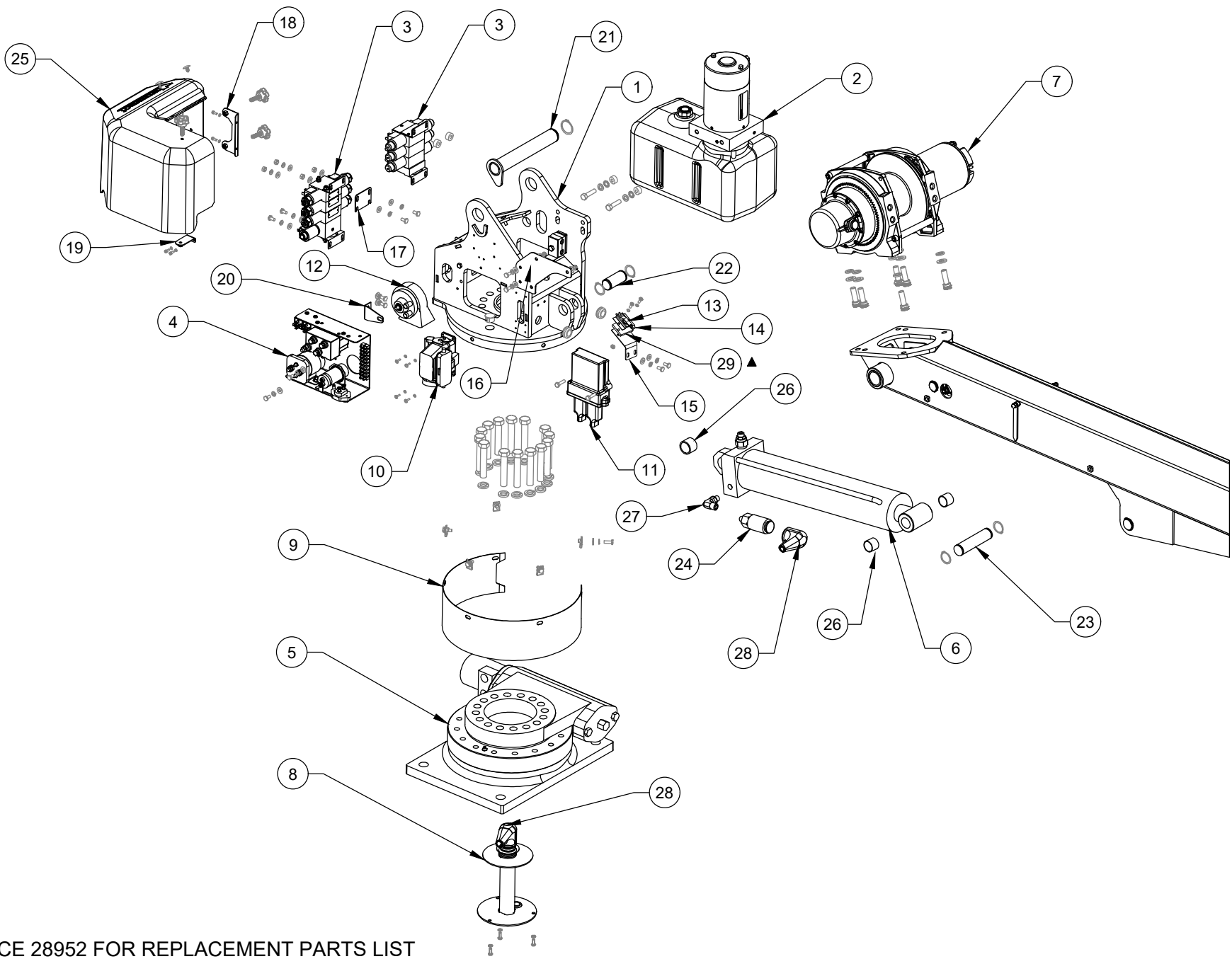
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| SECTION | C300 |
| | 28824 |

SECTION 400

REPLACEMENT PARTS



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO



REFERENCE 28952 FOR REPLACEMENT PARTS LIST



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS DWG - MECH
3215E/3515E/3516E

DATE
06-17-25A
SUPERSEDES
10-14-24

SECTION
C400
28951

| ITEM NO. | NON-PROP | PROP | PART NUMBER | DESCRIPTION |
|----------|----------|------|-------------|--|
| | QTY. | | | |
| 1 | 1 | 1 | 28637 | HOUSING WELDMENT ASSEMBLY |
| 2 | 1 | 1 | 28720 | HYDRAULIC POWER UNIT |
| 3 | - | 1 | 28800 | VALVE BLOCK ASSY; 3-SPOOL W/ PROP VALVE. |
| | 1 | - | 28801 | VALVE BLOCK ASSY; 3-SPOOL W/ NON-PROP V |
| 4 | 1 | 1 | 28700 | ELECTRICAL COMPONENT PANEL |
| 5 | 1 | 1 | 21735-1 | SLEWDRIVE W/ CAST RECTANGULAR BASE |
| 6 | 1 | 1 | 23059 | ELEVATION CYLINDER |
| 7 | 1 | 1 | 21556 | ELECTRIC WINCH |
| 8 | 1 | 1 | 16780-2P8 | ASSY; 2-POLE SLIP-RING |
| 9 | 1 | 1 | 21185 | ROTATION GEAR GUARD |
| 10 | 1 | 1 | 22480 | SOCKET ASSY; 16 + 1 POLE |
| 11 | - | 1 | 22158 | RADIO, ET, PROPORTIONAL |
| | 1 | - | 21986-ET | RADIO, ET, NON-PROPORTIONAL |
| 12 | 1 | 1 | 21948 | HORN |
| 13 | 1 | 1 | 19918 | BOOM SHUT OFF SWITCH |
| 14 | 1 | 1 | 19917 | BOOM SHUT OFF SWITCH BRACKET |
| 15 | 1 | 1 | 28641 | SHUT OFF SWITCH ADJUSTABLE BRACKET |
| 16 | 1 | 1 | 28642 | BRACKET; RADIO RECEIVER. |
| 17 | - | 1 | 28803 | ADAPTER PLATE, PROP VALVE ASSY |
| 18 | 1 | 1 | 28646 | PLASTIC COVER BACK BRACKET WELDMENT |
| 19 | 1 | 1 | 28647 | PLASTIC COVER SIDE BRACKET WELDMENT |
| 20 | 1 | 1 | 22000 | BRACKET; HORN |
| 21 | 1 | 1 | 28690 | BOOM PIVOT PIN - WELDMENT |
| 22 | 1 | 1 | 21172 | ELEVATION CYLINDER INBOARD PIN |
| 23 | 1 | 1 | 21547 | ELEVATION CYLINDER OUTBOARD PIN |
| 24 | 1 | 1 | SEE TABLE | PRESSURE SWITCH |
| 25 | 1 | 1 | 28740 | PLASTIC COVER |
| 26 | 3 | 3 | 21789 | POLY BEARING - ELEVATION CYLINDER |
| 27 | 1 | 1 | FF6801-0606 | FITTING, ADAPTER, 90°, 6MOFS-6MORB |
| 28 | 1 | 1 | 17012 | BOOT: PRESSURE SWITCH |
| 29 | 1 | 1 | 20896 | TOP ANGLE SWITCH BLOCK |

| ITEM NO. | 3215E | 3515E | 3516E | PART NUMBER |
|----------|-------|-------|-------|---------------|
| | QTY. | | | |
| 24 | 1 | - | - | 17460-2200-21 |
| | - | 1 | 1 | 17460-2400-21 |

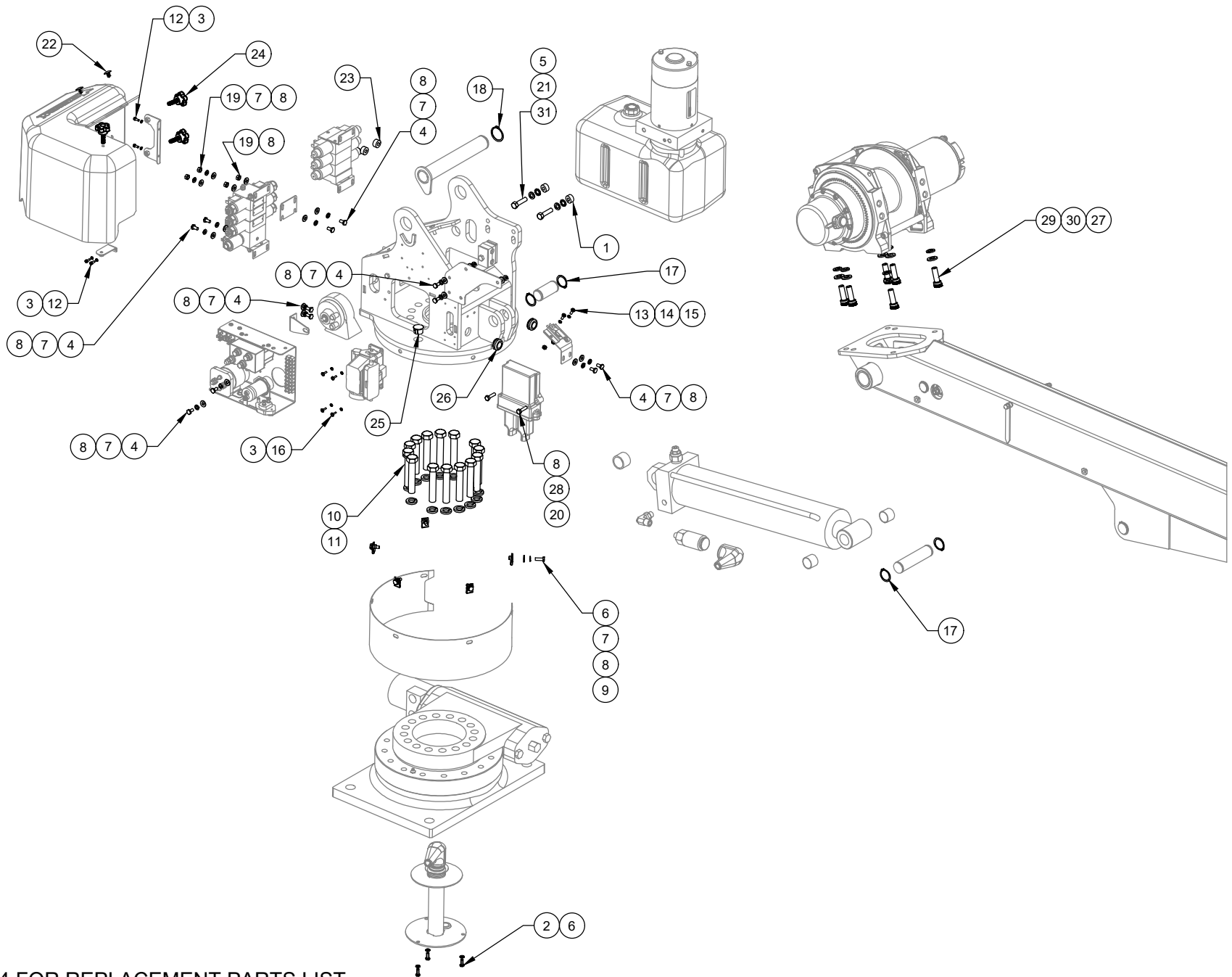
REFERENCE 28951 FOR REPLACEMENT PARTS DRAWING



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS LIST - MECH
3215E/3515E/3516E

| | |
|------------------------|-----------------|
| DATE 06-17-25A | SECTION C400 |
| SUPERSEDES 10-14-24 | 28952 |



REFERENCE 28954 FOR REPLACEMENT PARTS LIST



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT FASTENERS DWG - MECH
3215E/3515E/3516E

DATE
10-14-24
SUPERSEDES
-

SECTION
C400
28953

| ITEM NO. | NON-PROP | PROP | PART NUMBER | DESCRIPTION |
|----------|----------|------|-------------------|--|
| | QTY. | | | |
| 1* | 2 | 2 | 28804 | ALUMINUM SPACER |
| 2 | 3 | 3 | !LWSH-025-STAR-SS | LOCK WASHER, 1/4" STAR, SS |
| 3 | 8 | 8 | !LWSH-08S | LOCK WASHER; #08, SS |
| 4 | 10 | 12 | !HHCS02520050S | HEX HEAD CAP SCREW 1/4-20 X 1/2 LG, SS |
| 5 | 2 | 2 | !LWSH-038-STAR | LOCK WASHER, 3/8" STAR, ZINC |
| 6 | 8 | 8 | !HHCS02520075S | HEX HEAD CAP SCREW 1/4-20 X 3/4 LG, SS |
| 7 | 16 | 18 | !LWSH-025S | LOCK WASHER; 1/4", SS |
| 8 | 17 | 21 | !FWSH-025S | FLAT WASHER; 1/4", SS |
| 9 | 5 | 5 | !UNUT-02520-LKG | U-NUT; 1/4-20, LOCKING TYPE, ZINC |
| 10 | 14 | 14 | !HHCS06311350-5 | !HHCS; 5/8-11 X 3-1/2 LG, GR 5, ZINC |
| 11 | 14 | 14 | !LWSH-063 | LOCK WSHR; 5/8, ZINC |
| 12 | 4 | 4 | !SHCS#0832038S | SHCS, #8-32 X 0.38" LG, SS |
| 13 | 2 | 2 | !PHPMS#1024050S | PHILLIPS HEAD PAN, #10-24 X 1/2LG, SS |
| 14 | 2 | 2 | !HNUT-#1024S | HEX NUT, 10-24, SS |
| 15 | 2 | 2 | !LWSH-#10S | LOCK WASHER - #10, SS |
| 16 | 4 | 4 | !SHPMS#0832050S | SLOT HEAD, #8-32 X 1/2 LG, SS |
| 17 | 2 | 2 | !SRNG-113 | SNAP RING - 1-1/8" IN - PLATED |
| 18 | 1 | 1 | !SRNG-138 | SNAP RING - 1-3/8 IN - PLATED |
| 19 | 2 | 4 | !HNUT-02520S | HEX NUT 1/4-20, SS |
| 20 | 2 | 2 | !HHCS02520100S | HEX HEAD CAP SCREW 1/4-20 X 1.0 LG, SS |
| 21 | 2 | 2 | !LWSH-038 | LOCK WASHER; 3/8", ZINC |
| 22 | 2 | 2 | 28741 | PUSH-IN RIVETS WITH RIBBED SHANK, 0.25" |
| 23 | 2 | 2 | 28802 | NYLON SPACER |
| 24 | 3 | 3 | 28742 | KNOB, HAND, 5-POINT |
| 25 | 2 | 2 | 25019 | HOLE PLUG - 7/8 OD |
| 26 | 2 | 2 | 20889 | GROMMET: RUBBER, BLACK |
| 27 | 4 | 4 | !FWSH-M12 | M12 FLAT WASHER, ZINC |
| 28 | 2 | 2 | !JNUT-02520NS | JNUT, NYLON INSERT, 1/4-20, SS |
| 29 | 4 | 4 | 25922 | SHCS M12-175x35mm Gr.12.9, ZINC |
| 30 | 4 | 4 | !LWSH-M12-8.8 | M12 LOCK WASHER, ZINC |
| 31 | 2 | 2 | !HHCS03816150-8 | HHCS 3/8-16 X 1-1/2 LG GR 8, ZINC (KTI HPU) |
| | 2 | 2 | !HHCS03816125-8 | HHCS 3/8-16 X 1-1/4 LG GR 8, ZINC (BUCHER HPU) |

REFERENCE 28953 FOR REPLACEMENT PARTS DRAWING

* : USED WITH KTI HPU ONLY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

REPLACEMENT FASTENERS LIST - MECH

DATE

02-25-25A

SECTION

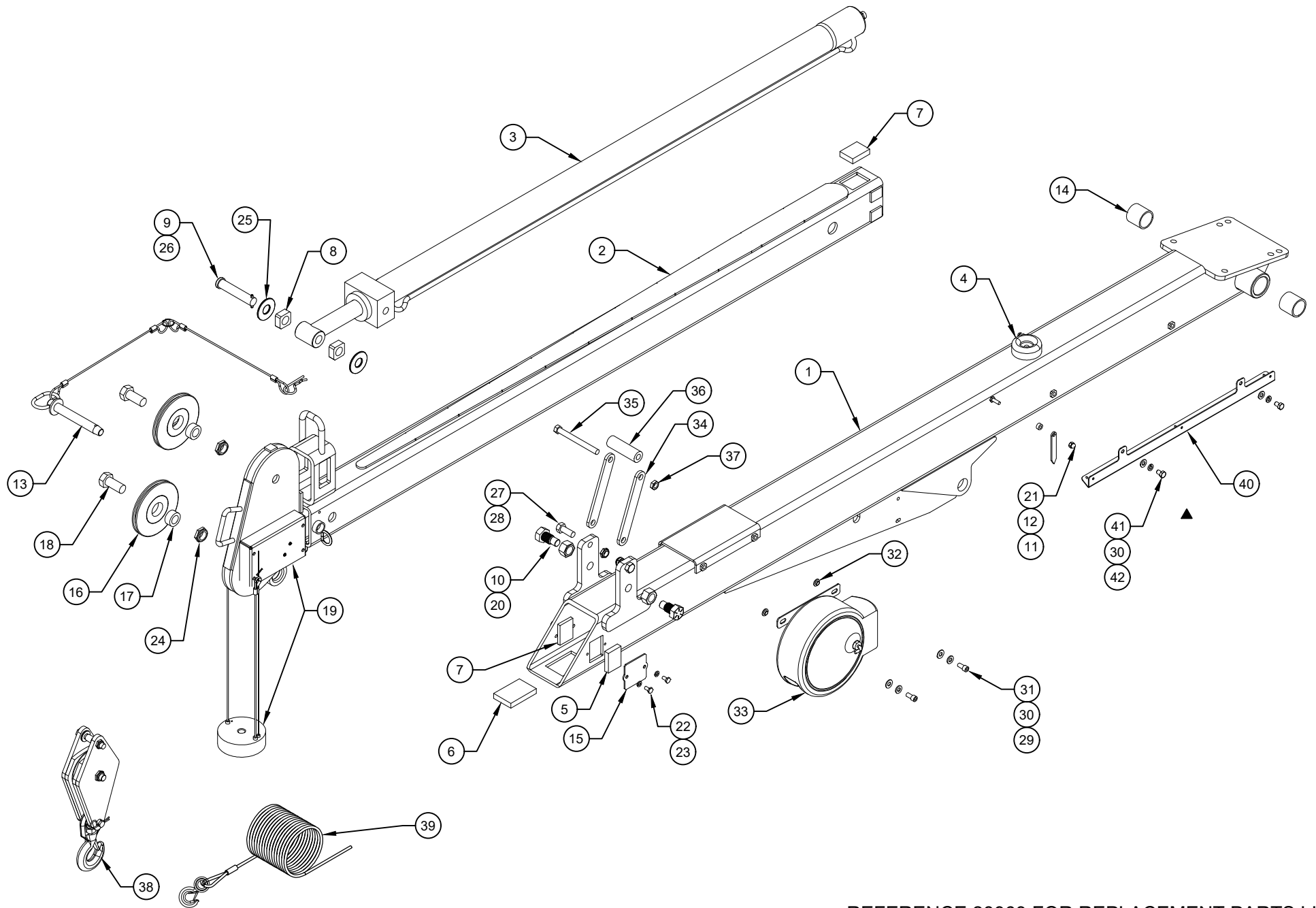
C400

SUPERSEDES

10-14-24

3215E/3515E/3516E

28954



REFERENCE 28963 FOR REPLACEMENT PARTS LIST



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPL PARTS & FASTENERS DWG - 28684 BOOM
3215E/3515E

DATE
03-10-25B
SUPERSEDES
02-26-25A

SECTION
C400
28962

REPLACEMENT PARTS LIST; 28684 BOOM

| ITEM NO. | QTY. | PART NUMBER | DESCRIPTION |
|----------|------|-----------------|---|
| 1 | 1 | 28680 | PRIMARY BOOM WELDED ASSEMBLY |
| 2 | 1 | 28015 | TERTIARY & SECONDARY BOOM ASSEMBLY |
| 3 | 1 | 21754 | BOOM EXTENSION CYLINDER |
| 4 | 1 | 20285 | BUMPER - BOOM |
| 5 | 1 | 21209 | BOOM PAD - 1-1/2 X 2 X 7/16 |
| 6 | 1 | 21208 | BOOM PAD - 2 X 3 X 1/2 |
| 7 | 2 | 21538 | BOOM PAD - 1-1/2 X 2 X 1/2 |
| 8 | 2 | 21734 | THRUST ROLLER |
| 9 | 1 | 13401-2A | ROD PIVOT PIN - 3/4 x 3-3/4 |
| 10 | 2 | 17487 | PIVOT BOLT |
| 11 | 2 | 22490 | SPACER, BOOM ARROW 1/2" O.D. |
| 12 | 2 | 13459-1 | BOOM ARROW 3-3/16 LONG |
| 13 | 1 | 23042-B-14-14 | ASSY; PIN / LANYARD |
| 14 | 2 | 21206 | POLY BEARING - PRIMARY BOOM PIVOT |
| 15 | 2 | 21528 | BOOM PAD CAP |
| 16 | 2 | 21630 | CABLE SHEAVE |
| 17 | 2 | 20536 | SPACER - 20537 SHEAVE |
| 18 | 2 | 17059-4 | SHEAVE AXLE |
| 19 | 1 | 28860-1 | ANTI-TWO-BLOCK HOUSING ASSEMBLY |
| 20 | 2 | !HNUT07516 | HEX NUT; 3/4-16, ZINC |
| 21 | 2 | !ANUT-02520S | ACORN NUT 1/4-20 SS |
| 22 | 4 | !HHCS02520050 | HEX HEAD CAP SCREW 1/4-20 X 1/2 LG, ZINC |
| 23 | 4 | !LWSH-025 | LOCKWASHER, 1/4", ZINC |
| 24 | 2 | !LNUT-07510 | LOCKNUT 3/4-10, ZINC |
| 25 | 2 | !FWSH-075 | FLAT WASHER 1/4", ZINC |
| 26 | 1 | !RPIN-016125 | ROLL PIN, 5/32 X 1-1/4 |
| 27 | 2 | !HHCS05013125-5 | HEX HEAD CAP SCREW 1/2-13NC X 1-1/4 LG, ZINC |
| 28 | 2 | !JNUT-05013N | 1/2-13 NYLON INSERT JAM NUT, ZINC |
| 29 | 2 | 01016 | FIBER WASHER |
| 30 | 4 | !FWSH-031S | FLAT WASHER; 5/16", SS |
| 31 | 2 | !SHCS03118063S | SHCS 5/16-18 X 1/2 LONG, SS |
| 32 | 2 | 28198 | INSULATING SLEEVE WASHER - 5/16" |
| 33 | 1 | 26577-1-20 | CORD REEL ASSEMBLY |
| 34 | 2 | 21936 | FLAT, MOUNT; WIRE ROPE GUIDE |
| 35 | 1 | !HHCS04414450 | HEX HEAD CAP SCREW 7/16-14 X 4-1/2 LG, ZINC |
| 36 | 1 | 27088 | ROLLER, UHMW GUIDE |
| 37 | 1 | !JNUT-04414N | NYLON LOCK-JAM NUT - 7/16-14, ZINC |
| 38 | 1 | 20670-2 | LOAD BLOCK ASSEMBLY FOR 3215E |
| | 1 | 20670 | LOAD BLOCK ASSEMBLY FOR 3515E |
| 39 | 1 | 21639 | WIREROPE; 1/4 X 62' W/ EYEHOOK & SAFETY LATCH |
| 40 | 1 | 26720 | RECTANGULAR BOOM CABLE GUARD BRACKET |
| 41 | 2 | !LWSH-031S | LOCK WASHER; 5/16", S/S |
| 42 | 2 | !HHCS03118050S | HEX HEAD CAP SCREW - 5/16 X 1/2 LONG S/S |

REFERENCE DWG #28962 FOR REPLACEMENT PARTS DRAWING



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
RPLCMNT PARTS & FAST LIST

DATE
03-10-25A

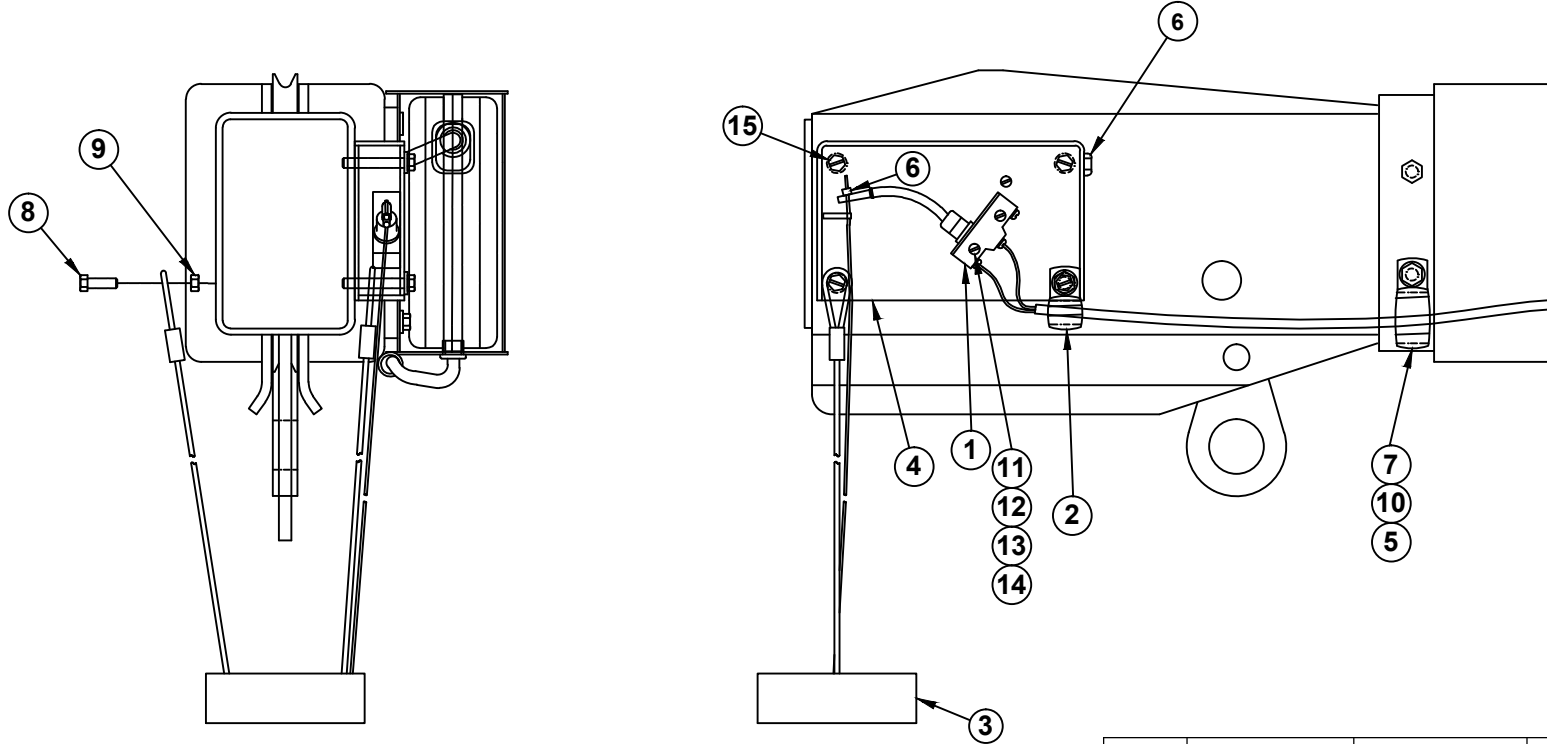
SECTION
C400

3215E/3515E

SUPERSEDES
10-03-24

28963

ANTI-TWO-BLOCK ASSY



NO DASH: 4016E & 4516E

-1: 3215E & 3515E

| ITEM | QTY | | PART NO. | DESCRIPTION |
|------|---------|----|-----------------|--|
| | NO DASH | -1 | | |
| 1 | 1 | 1 | 19376 | LIMIT SWITCH |
| 2 | 1 | 1 | 19269 | CABLE CLAMP - SMALL |
| 3 | - | 1 | 19377-1 | CABLE WEIGHT ASSY |
| | 1 | - | 19377-2 | CABLE WEIGHT ASSY |
| 4 | 1 | 1 | 21291 | ANTI TWO-BLOCK HOUSING ASSEMBLY |
| 5 | 1 | - | !LWSH-025 | LOCK WASHER - 1/4" |
| 6 | 1 | 1 | 19302 | SET COLLAR - 3/32" |
| 7 | 1 | - | 19275 | CABLE CLAMP - LARGE |
| 8 | 1 | 1 | !HHCS02520075-5 | HEX HEAD CAP SCREW - 1/4-20 x 3/4" GR. 5 |
| 9 | 1 | 1 | !HNUT-02520 | HEX NUT - 1/4-20 |
| 10 | 1 | - | !ANUT-02520 | ACORN NUT - 1/4-20 |
| 11 | 2 | 2 | !PHMS#632125 | PAN HEAD MACHINE SCREW - #6-32 x 1 1/4" |
| 12 | 2 | 2 | !HNUT-#0632 | HEX NUT - #6-32 |
| 13 | 2 | 2 | !FWSH-#06 | FLAT WASHER - #6 |
| 14 | 2 | 2 | !LWSH-#06 | LOCK WASHER - #6 |
| 15 | 4 | 4 | !HHCS02520175 | HEX HEAD CAP SCREW - 1/4-20 x 1 3/4" |



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

ANTI-2-BLOCK REPL PARTS DWG & LIST

3215E, 3515E, 4016E, 4516E

DATE

04-16-25

SUPERSEDES

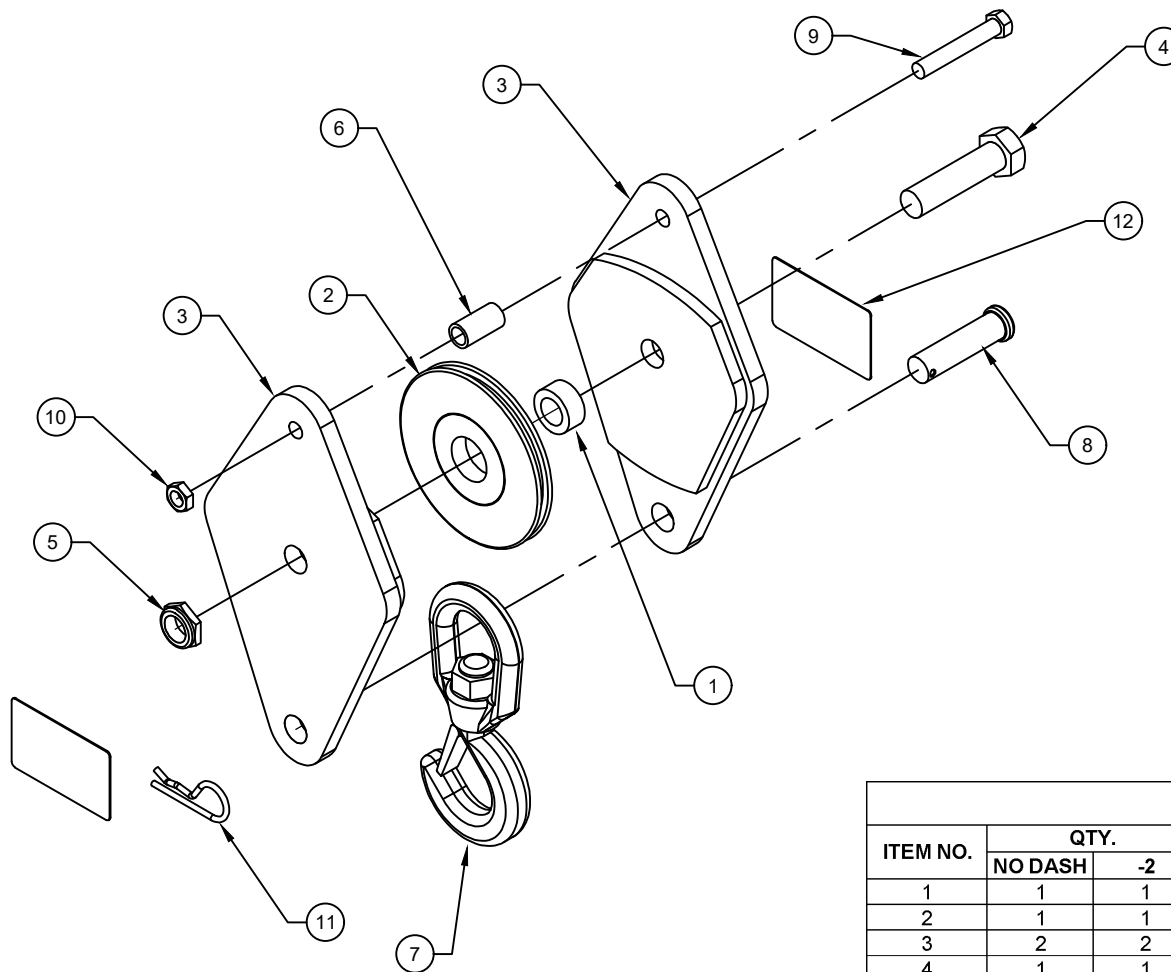
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SECTION

C400

28861

REPLACEMENT PARTS LIST - 20670 LOAD BLOCK



LOAD BLOCK ASSEMBLY 20670

| ITEM NO. | QTY. | | PART NUMBER | DESCRIPTION |
|----------|---------|----|---------------|---|
| | NO DASH | -2 | | |
| 1 | 1 | 1 | 20536 | SPACER - 20537 SHEAVE |
| 2 | 1 | 1 | 21630 | CABLE SHEAVE - PLASTIC |
| 3 | 2 | 2 | 20671 | SIDE PLATE WELDED ASSEMBLY |
| 4 | 1 | 1 | !HHCS07510300 | HEX HEAD CAP SCREW 3/4-10 X 3" ZINC |
| 5 | 1 | 1 | !JNUT-07510N | NYLON LOCK-JAMNUT 3/4-10, ZINC |
| 6 | 1 | 1 | 20674 | SPACER |
| 7 | 1 | 1 | 17291 | SWIVEL HOOK W/ SAFETY LATCH |
| 8 | 1 | 1 | 20675 | CLEVIS PIN - 3/4" X 2-3/4" |
| 9 | 1 | 1 | !HHCS04414275 | HEX HEAD CAP SCREW 7/16-14 X 2-3/4", ZINC |
| 10 | 1 | 1 | !JNUT-04414N | NYLON LOCK-JAM NUT - 7/16-14, ZINC |
| 11 | 1 | 1 | 21-07 | HAIRPIN COTTER |
| 12 | - | 2 | 27007-03a | DECAL LOAD BLOCK, 3200 LBS. |
| | 2 | - | 27007-04a | DECAL LOAD BLOCK, 3500 LBS. |



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

REPLACEMENT PARTS LIST -20670 LOAD BLOCK

3215E/351*E

DATE

09-13-24

SUPERSEDES

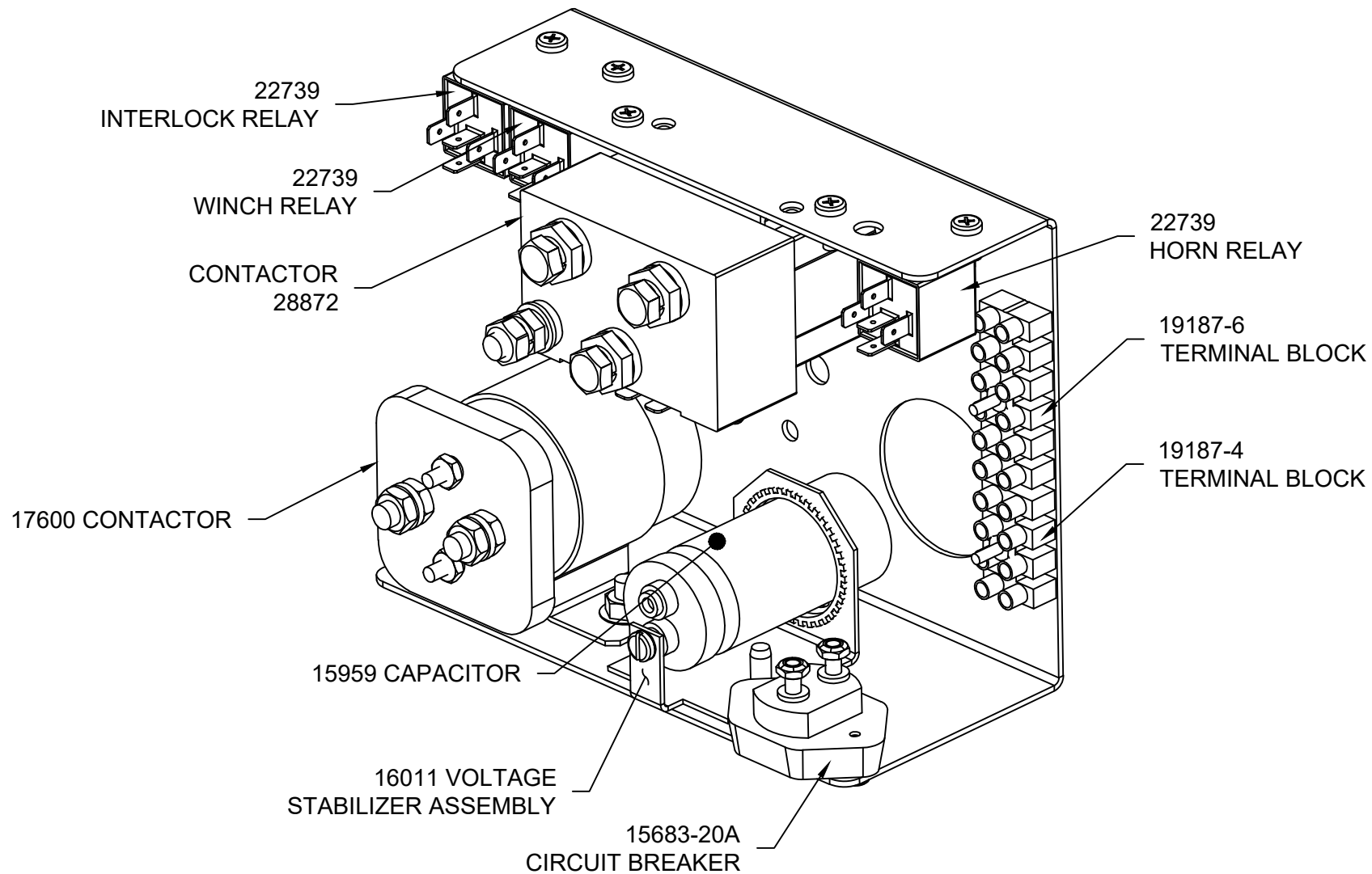
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SECTION

C400

28946

28700 ELECTRICAL COMPONENT ASSEMBLY



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

ELECTRICAL COMPONENT ASSEMBLY

3215E/351*E/40**E/45**E

DATE

04-09-24

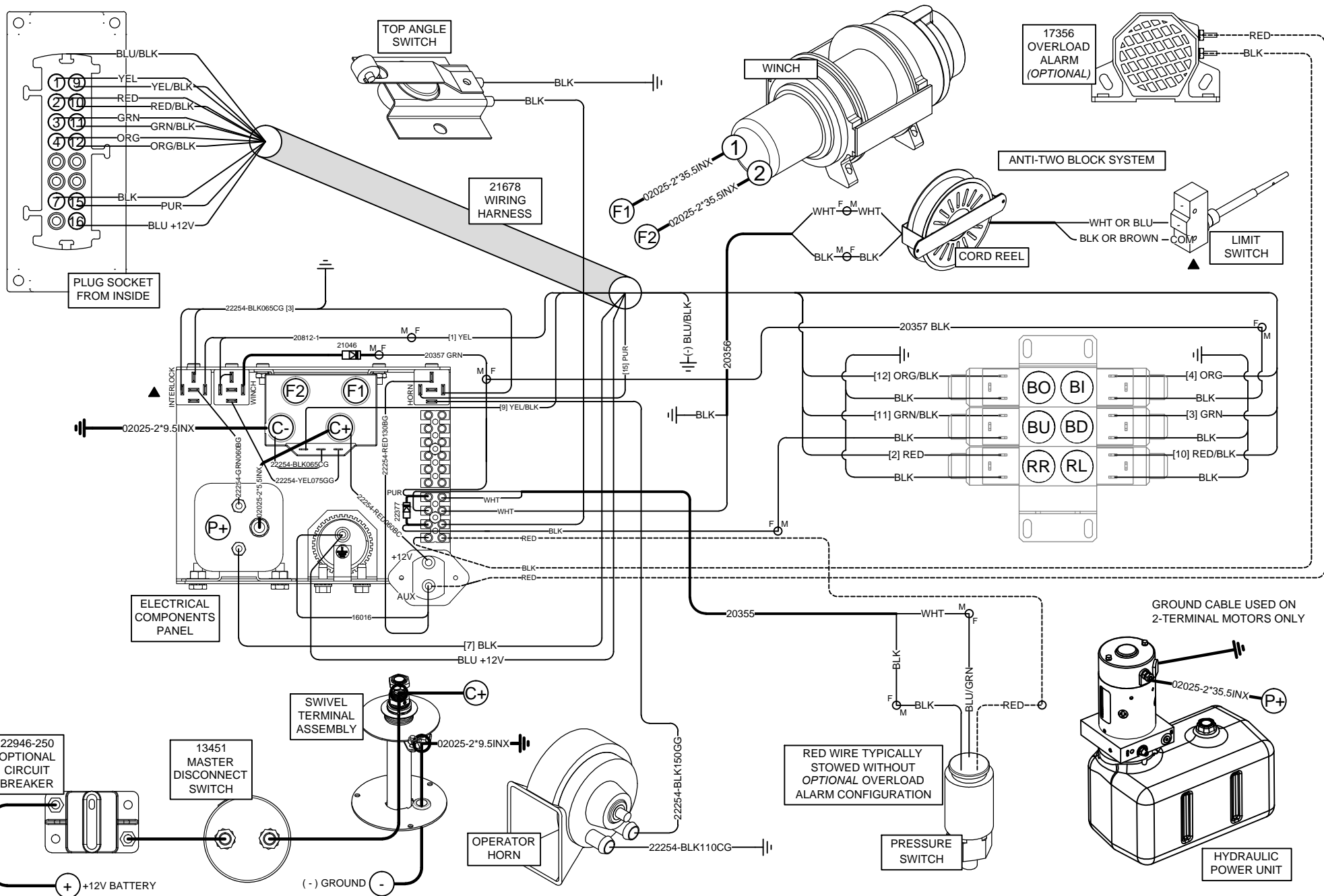
SUPERSEDES

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SECTION

C400

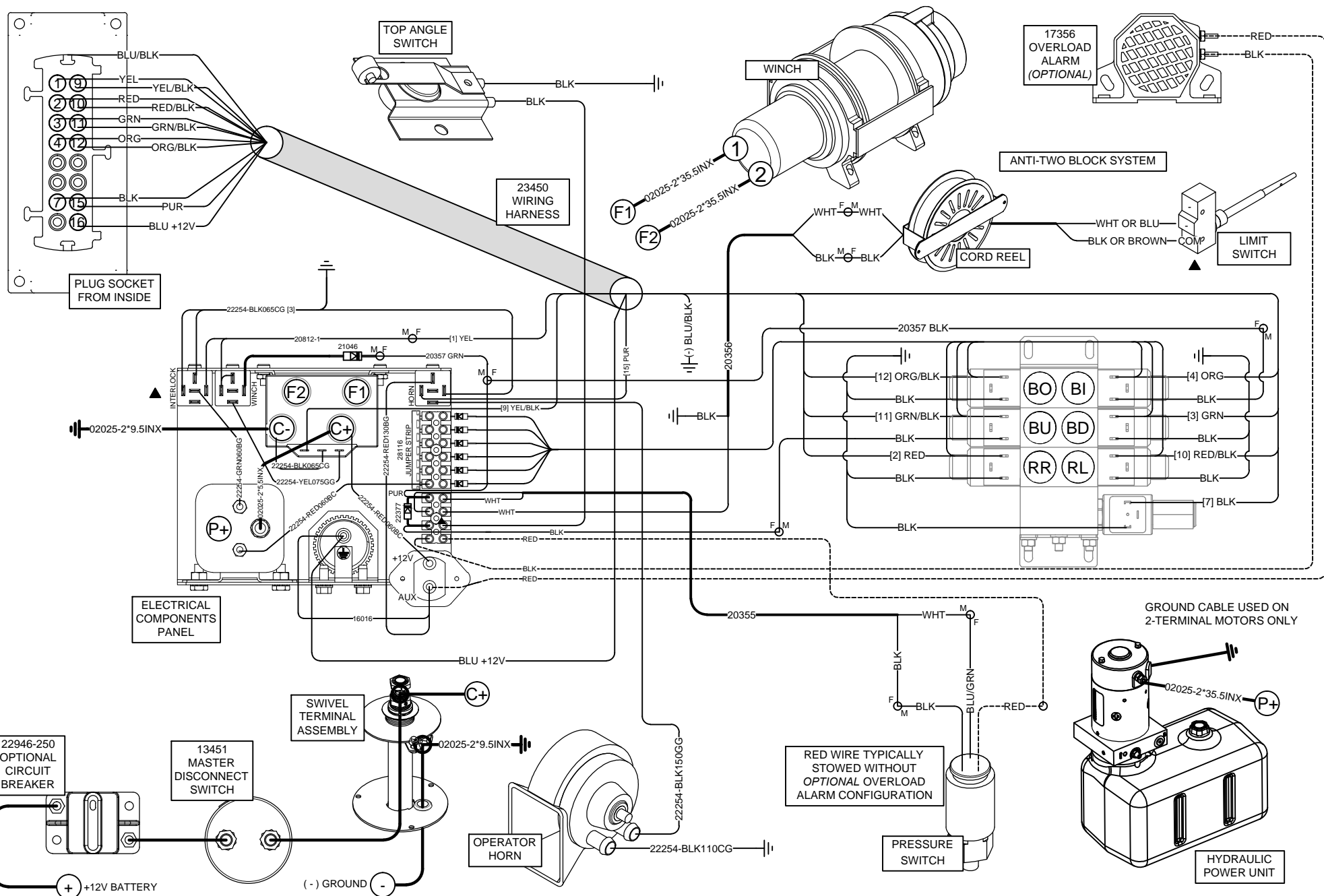
28835



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
WIRING DIAGRAM
45**E/40**E/351**E/3215E
NON PROPORTIONAL

| | |
|-------------------------|-----------------|
| DATE 04-17-25B | SECTION C400 |
| SUPERSEDES 03-06-25A | 28836 |

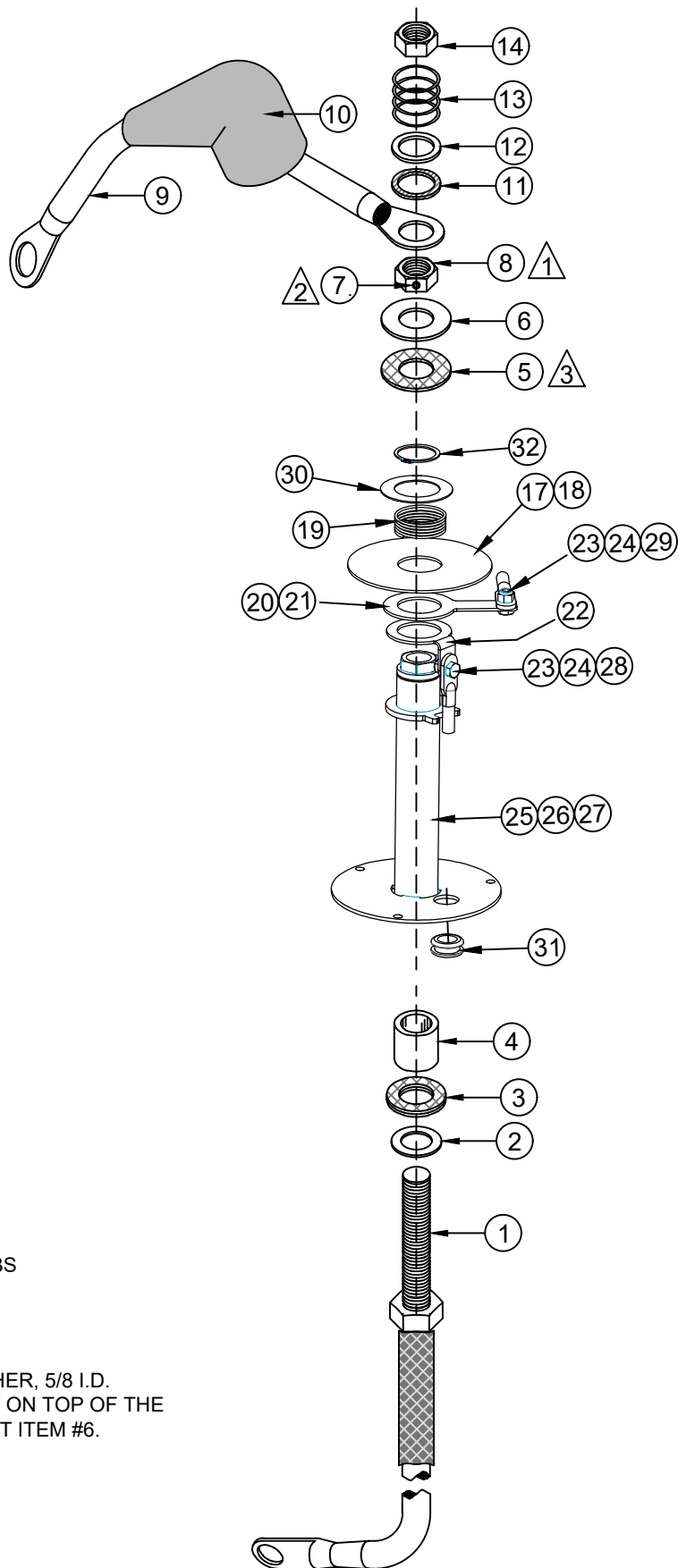


VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
WIRING DIAGRAM
45**E/40**E/351**E/3215E
PROPORTIONAL

| | |
|--------------------------------|------------------------|
| DATE 04-17-25B | SECTION C400 |
| SUPERSEDES 03-06-25A | 28837 |

2-Pole Slip-ring Replacement Parts



- 1 TORQUE TO 15 FT-LBS
- 2 LOCTITE 242 BLUE
- 3 ITEM #8, FIBER WASHER, 5/8 I.D. 'MUST' SIT DIRECTLY ON TOP OF THE INVERTED FLARE NUT ITEM #6.

2-Pole Slip-ring Replacement Parts

| Slew Rotation 2-Pole Slip-Ring (2010E ONLY) | Slew Rotation 2-Pole Slip-Ring (3215E/351*E/40**E/45**E) | Slew Rotation 2-Pole Slip-Ring (5020E/6020E) | ALL CRANES | 16780 BILLS OF MATERIALS | | |
|--|---|---|-------------|--------------------------|-----------------|--|
| 16780 - 2P6 | 16780 - 2P8 | 16780 - 2P25 | 16780 - KIT | | | |
| | | | | # | PART | DESCRIPTION |
| 1 | 1 | 1 | - | 1 | 16783 | PIGTAIL AND STUD ASSEMBLY |
| 1 | 1 | 1 | 1 | 2 | 12534-5 | ZINC BUSHING; 5/8" I.D. X 1" O.D. X 14 GAUGE |
| 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 | 4 | 14233 | INSULATING BUSHING; 5/8" I.D. X 7/8" O.D. X 7/8" |
| 1 | 1 | 1 | 1 | 5 | 14357-2 | FIBER WASHER; 5/8" I.D. X 1 1/4" O.D. X 1/16" |
| 1 | 1 | 1 | 1 | 6 | !FWSH-063SAE | FLAT WASHER; 5/8" SAE |
| 1 | 1 | 1 | 1 | 7 | !SHCS02528025KC | SET SCREW W/ KNURLED CUP; 1/4"-28 X 1/4" |
| 1 | 1 | 1 | 1 | 8 | 21273 | BRASS JAM NUT; 5/8"-11 |
| - | - | - | - | 9 | 26035-2 | PIGTAIL; SWIVEL TERMINAL |
| - | - | - | - | 10 | 17012 | RUBBER BOOT; SWIVEL TERMINAL |
| 1 | 1 | 1 | 1 | 11 | 5612-162-62 | TEFLON WASHER |
| 1 | 1 | 1 | 1 | 12 | 5714-113-62 | BRASS WASHER |
| 1 | 1 | 1 | 1 | 13 | LC-098K-00 | SPRING; 0.845" O.D. X 0.098" WIRE X 1.00 F.L. |
| 1 | 1 | 1 | 1 | 14 | !JNUT-06311N | JAM NUT; 5/8"-11, NYLON NUT |
| 1 | 1 | 1 | 1 | 15 | LOCTITE-24205 | REMOVABLE THREAD LOCKER; 0.5ML |
| 1 | 1 | 1 | 1 | 16 | 19368 | IDWG; 16780 SWIVEL TERMINAL |
| 1 | - | - | - | 17 | 27456 | UHMW WATER SHIELD, (ET6K ONLY) |
| - | 1 | 1 | - | 18 | 27456-1 | UHMW WATER SHIELD, (ET8 - ET36) |
| 1 | 1 | 1 | - | 19 | 27461 | SPRING, (-) SLIP-RING ASSY. |
| - | 1 | 1 | - | 20 | 27441-1 | COPPER SLIP-RING, (ET8 - ET36) |
| 1 | - | - | - | 21 | 27441 | COPPER SLIP-RING, (ET6K ONLY) |
| 1 | 1 | 1 | - | 22 | 27449-1 | BRASS SLIP-RING (ET6 - ET36) |
| 1 | 1 | 1 | - | 23 | !HHCS03118075-B | BRASS HHCS |
| 1 | 1 | 1 | - | 24 | !HNUT-03118-B | BRASS NYLOC NUT |
| 1 | - | - | - | 25 | 23255 | SLIP-RING, WELDED ASSY, ET6K |
| - | 1 | - | - | 26 | 23255-1 | SLIP-RING, WELDED ASSY, ET8 - 18K(X) |
| - | - | 1 | - | 27 | 23255-2 | SLIP-RING, WELDED ASSY, ET25 - 36K(X) |
| 1 | 1 | 1 | - | 28 | 02025-2*96.5INX | (-) WELDING CABLE ASSY, BRASS SLIP-RING |
| 1 | 1 | 1 | - | 29 | 02025-2*22.5INX | (-) WELDING CABLE ASSY, COPPER SLIP-RING |
| 1 | 1 | 1 | - | 30 | 27463 | SHIM, WIDE RIM, 18GA, 2-1/4 O.D. X 1-1/2 I.D. |
| 1 | 1 | 1 | - | 31 | 20889 | RUBBER GROMMET |
| 1 | 1 | 1 | - | 32 | !SRNG-150 | SNAP-RING, EXTERNAL, 1-1/2" |



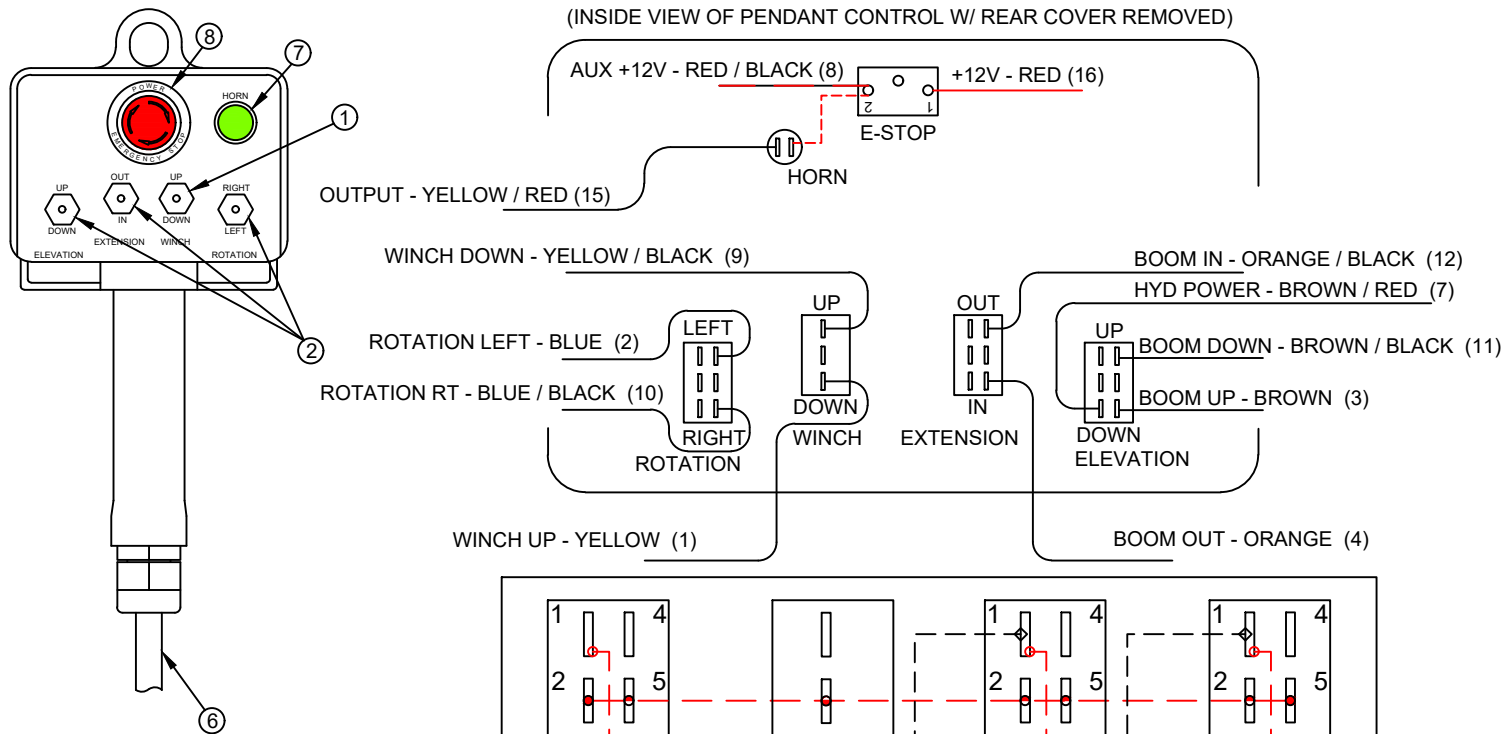
VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
16780 REPLACEMENT PARTS
ET CRANES

DATE
04-23-24
SUPERSEDES
-

SECTION
C400
28842

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



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

STOW OR CUT BACK UNUSED WIRES.

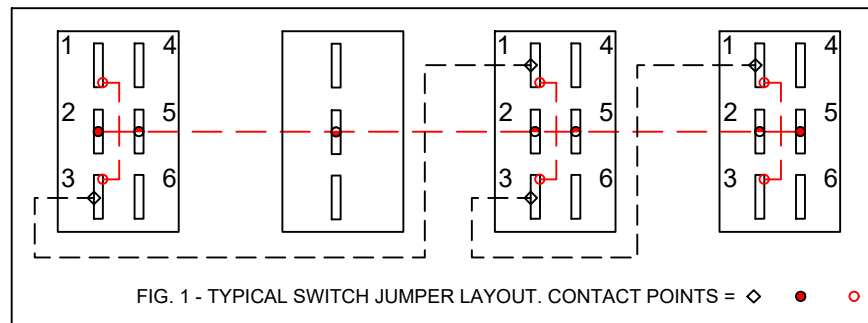
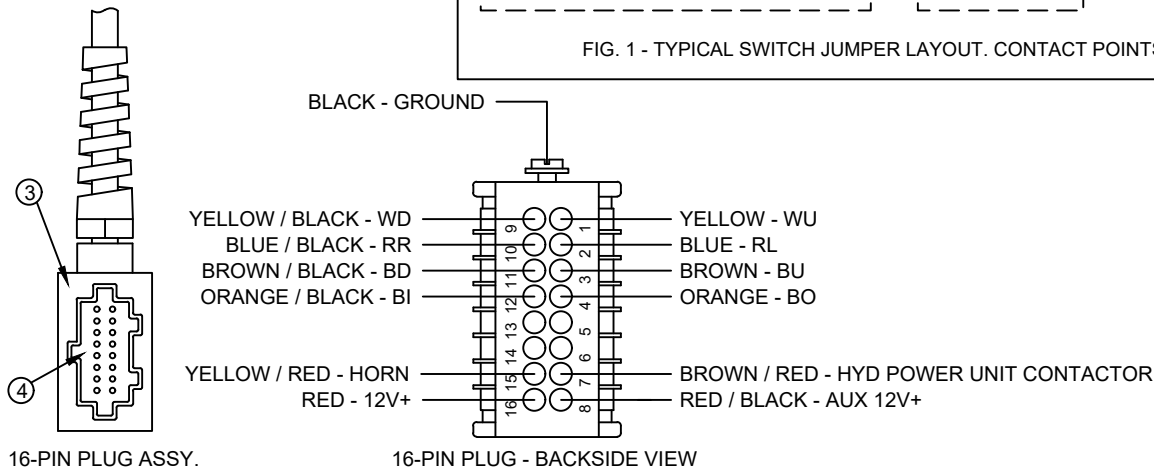


FIG. 1 - TYPICAL SWITCH JUMPER LAYOUT. CONTACT POINTS =



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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

REPLACEMENT PARTS DWG & LIST

21990 PNDNT; 4 FNCTN ET CRNS, ESTP/HRN

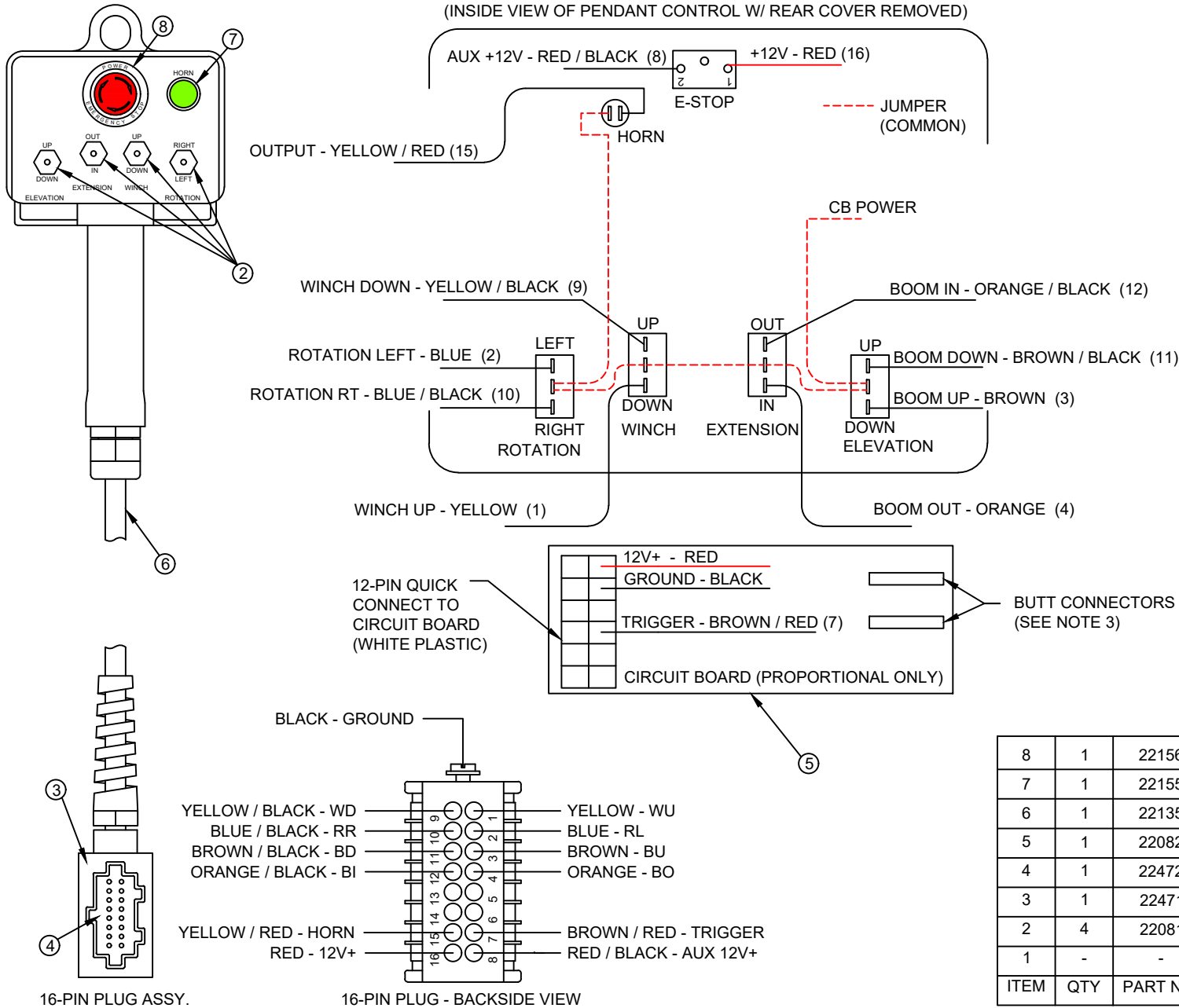
04-22-24

SUPERSEDES

C400

28840

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



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

NOTE 2:
STOW OR CUT BACK UNUSED WIRES.

NOTE 3:
WHEN REPLACING CORD ASSY, CUT BLACK
AND BLACK / RED WIRES FROM 12-PIN QUICK
CONNECT AND INSTALL 'BUTT CONNECTORS';
MATCH UP BLACK TO BLACK WIRES AND
BLACK / RED TO BLACK / RED WIRES FROM
REPLACEMENT CORD ASSY.

| 8 | 1 | 22156 | SWITCH; E-STOP |
|------|-----|----------|--------------------------------------|
| 7 | 1 | 22155 | SWITCH; PUSHBUTTON, HORN |
| 6 | 1 | 22135 | KIT; REPLACEMENT CORD ASSY |
| 5 | 1 | 22082 | CIRCUIT BOARD; PROP VALVE CONTROLLER |
| 4 | 1 | 22472 | INSERT; MALE, 16 + 1 POLE |
| 3 | 1 | 22471 | PLUG CASE; 16 + 1 POLE |
| 2 | 4 | 22081 | SWITCH; SPDT, MOMENTARY |
| 1 | - | - | - |
| ITEM | QTY | PART NO. | DESCRIPTION |



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
REPLACEMENT PARTS DWG & LIST

DATE
04-22-24

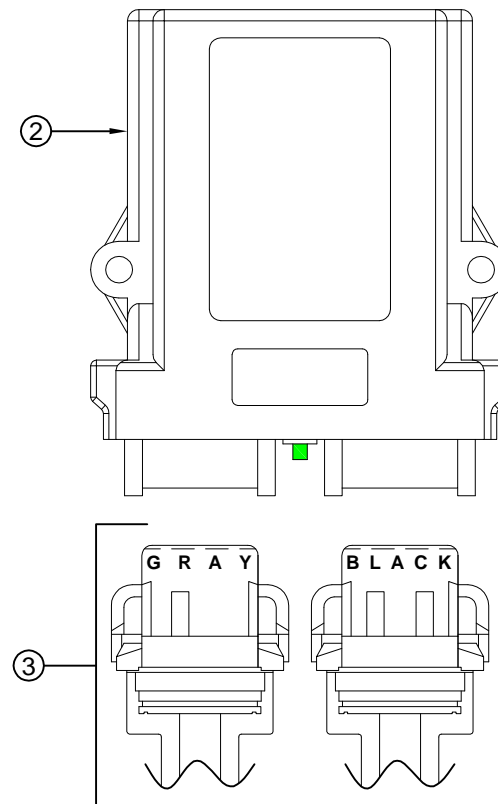
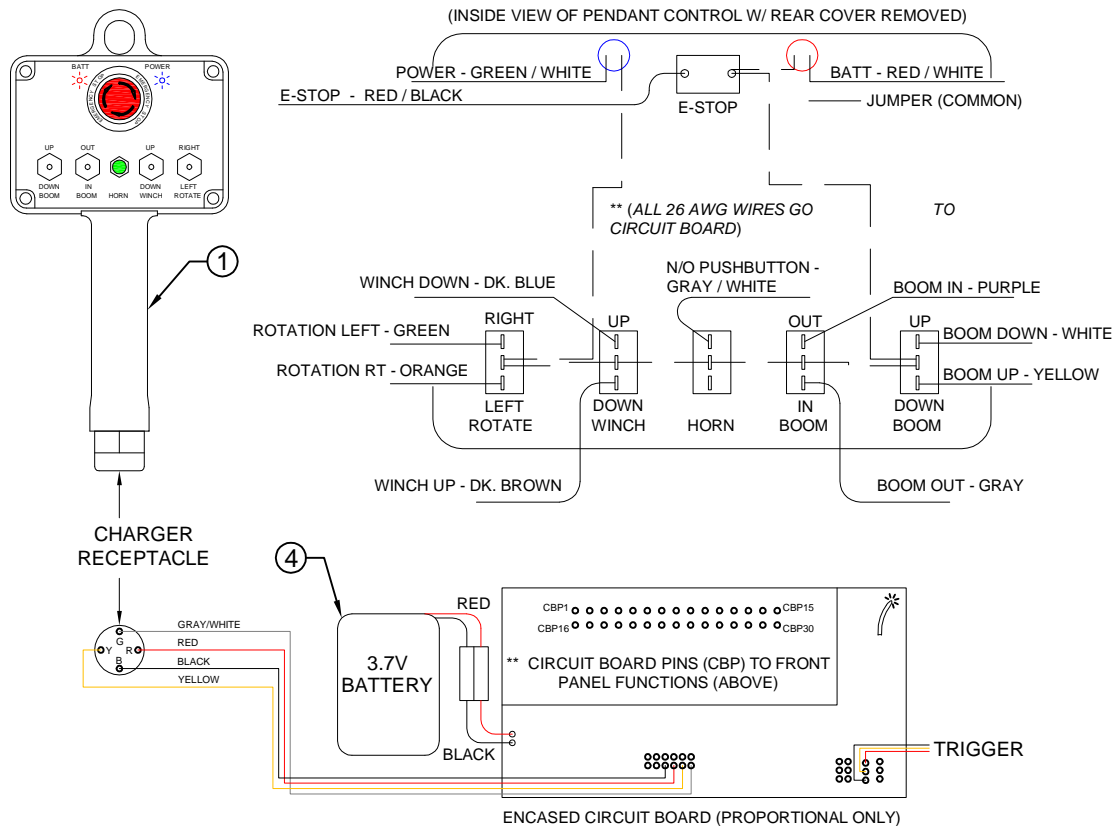
SECTION
C400

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

SUPERSEDES

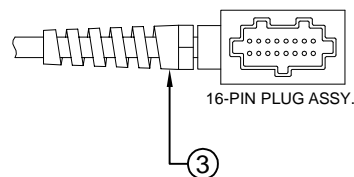
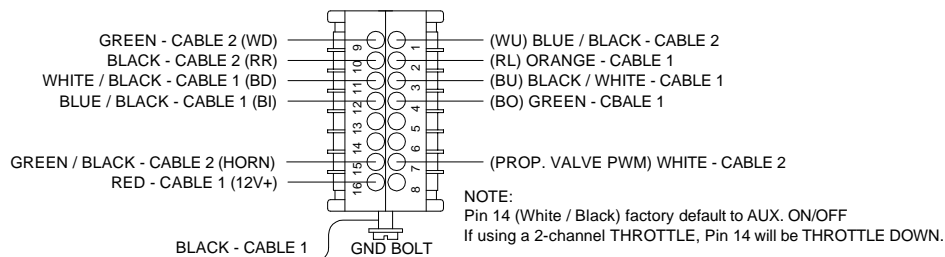
28841

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



CABLE 1 = GRAY CONNECTOR
CABLE 2 = BLACK CONNECTOR

16-PIN PLUG - BACKSIDE VIEW



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

REPLACEMENT PARTS DWG & LIST

ET PROPORTIONAL SERIES CRANES ▲

DATE

03-11-19A

SUPERSEDES

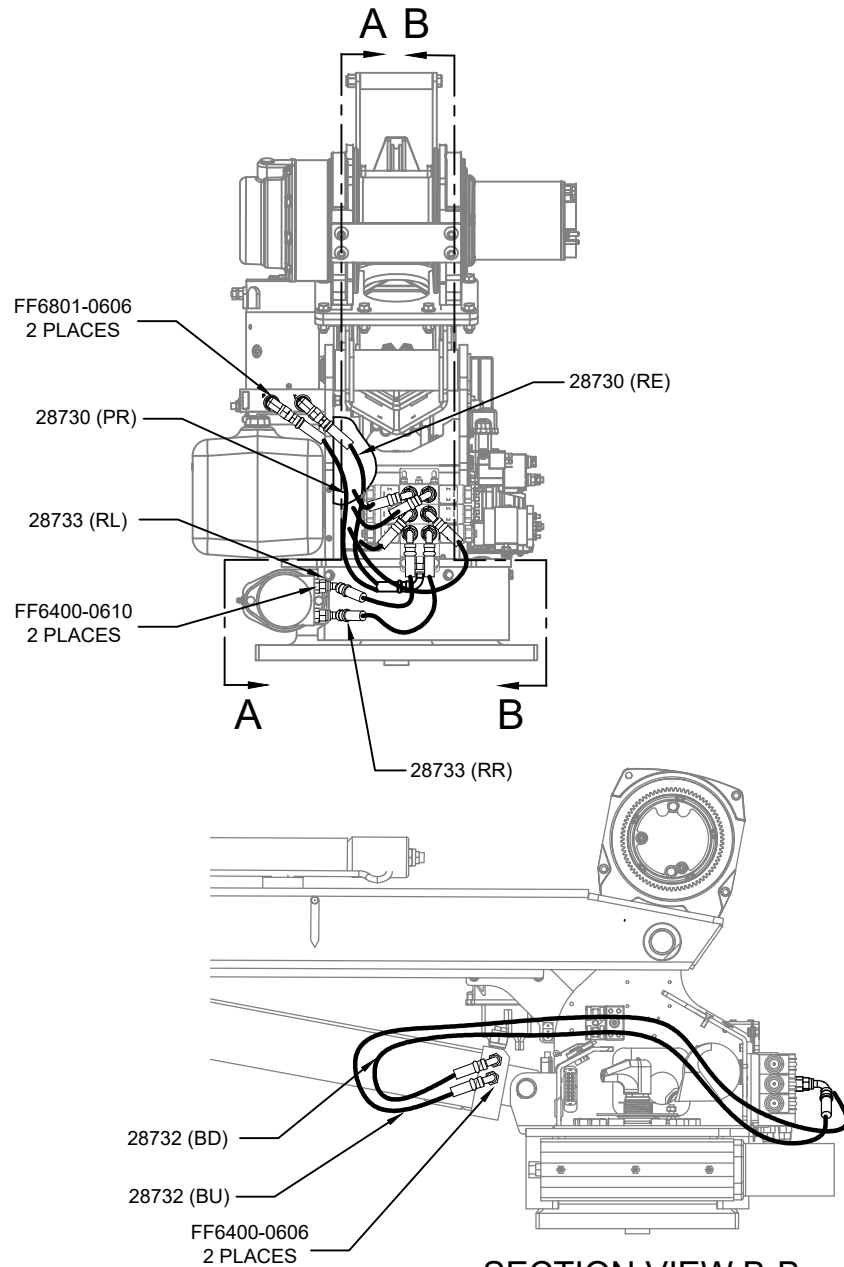
07-31-18

SECTION

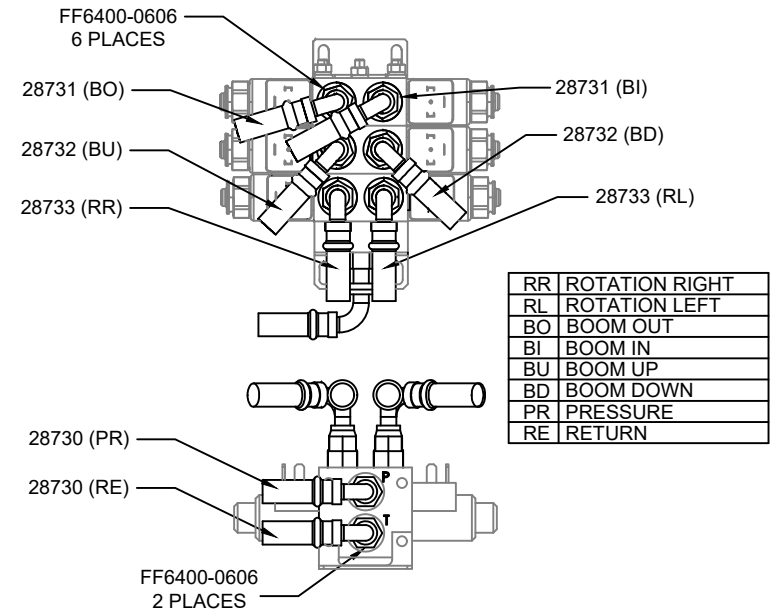
C400

23786

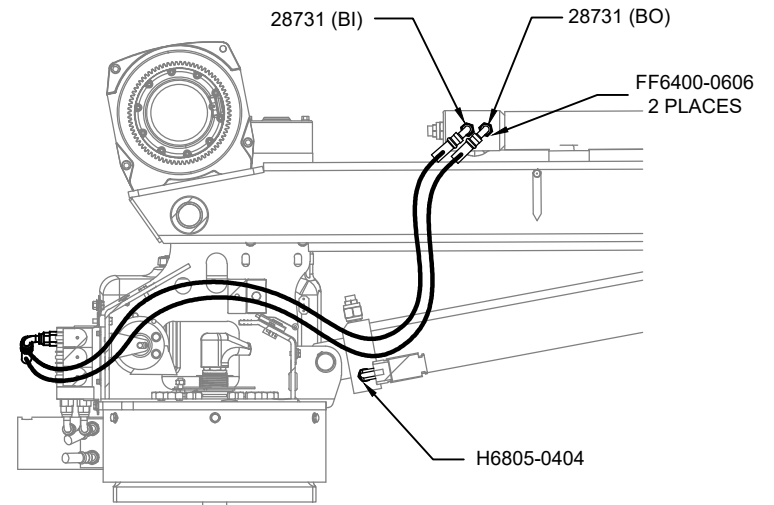
HYDRAULIC COMPONENTS DRAWING



SECTION VIEW B-B



SECTION VIEW A-A



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

HYDRAULIC COMPONENTS DRAWING

3215E/3515E, NON-PROPORTIONAL

DATE

10-17-24

SUPERSEDES

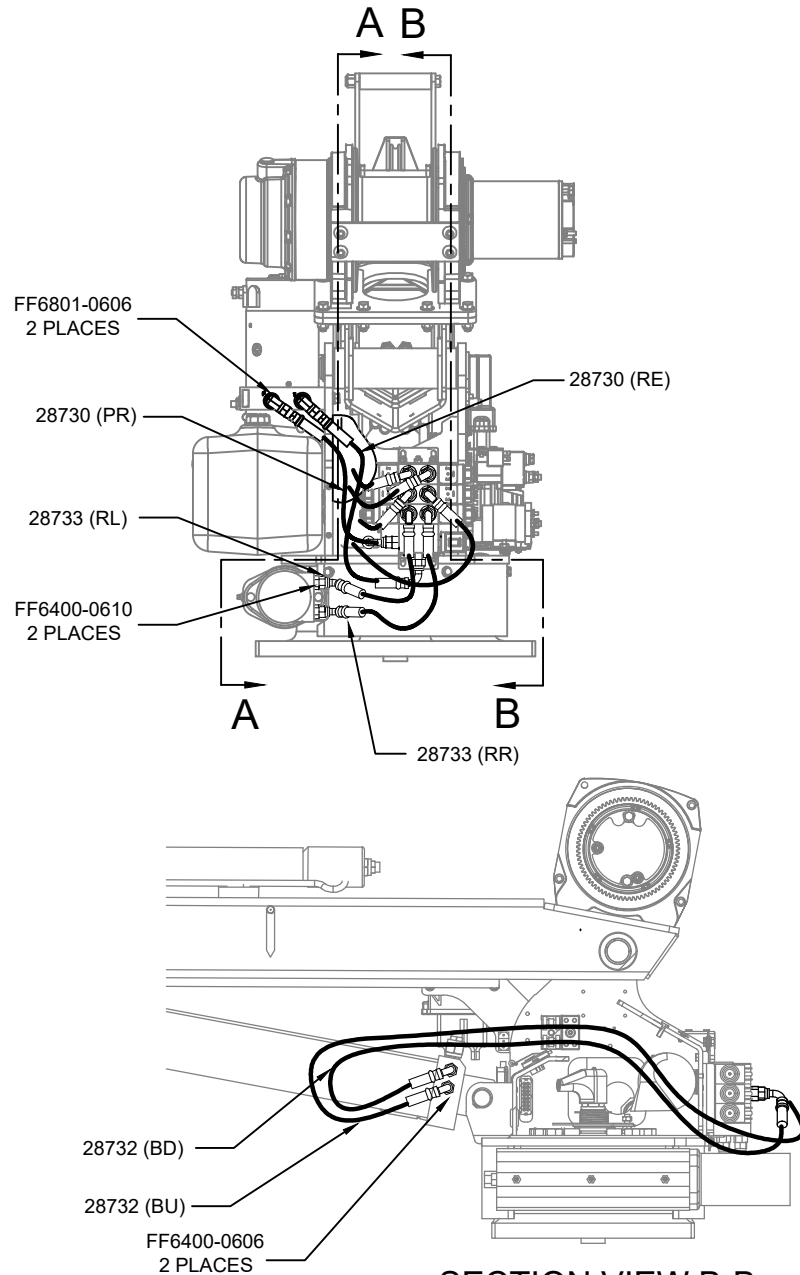
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SECTION

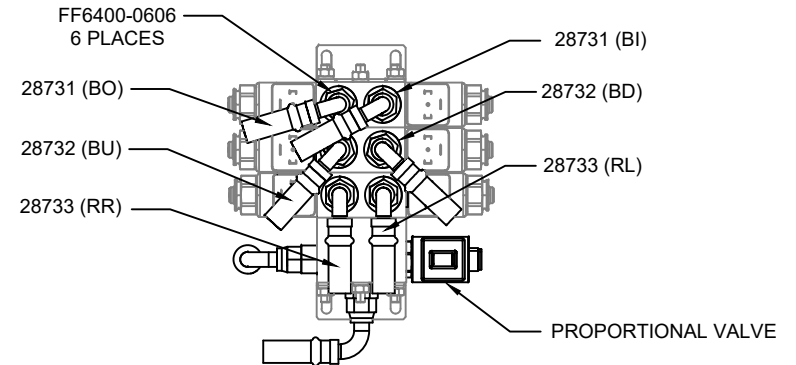
C400

28980

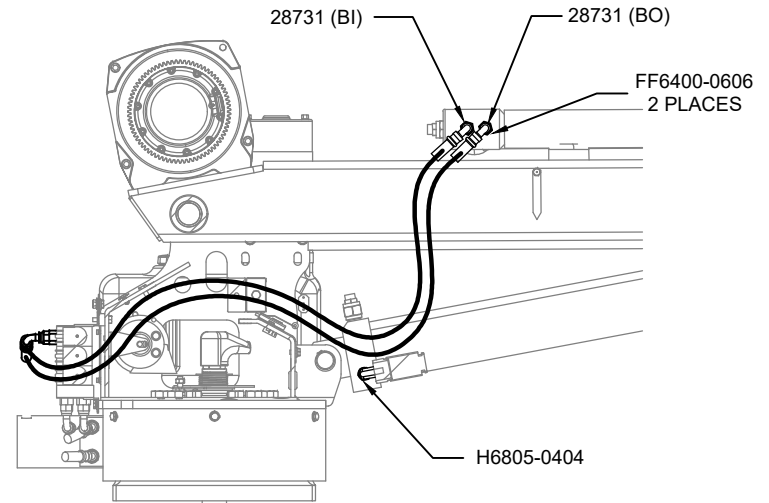
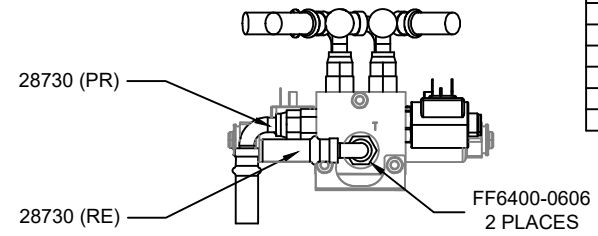
HYDRAULIC COMPONENTS DRAWING



SECTION VIEW B-B



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



SECTION VIEW A-A



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

HYDRAULIC COMPONENTS DRAWING

3215E/3515E, PROPORTIONAL

DATE

10-18-24

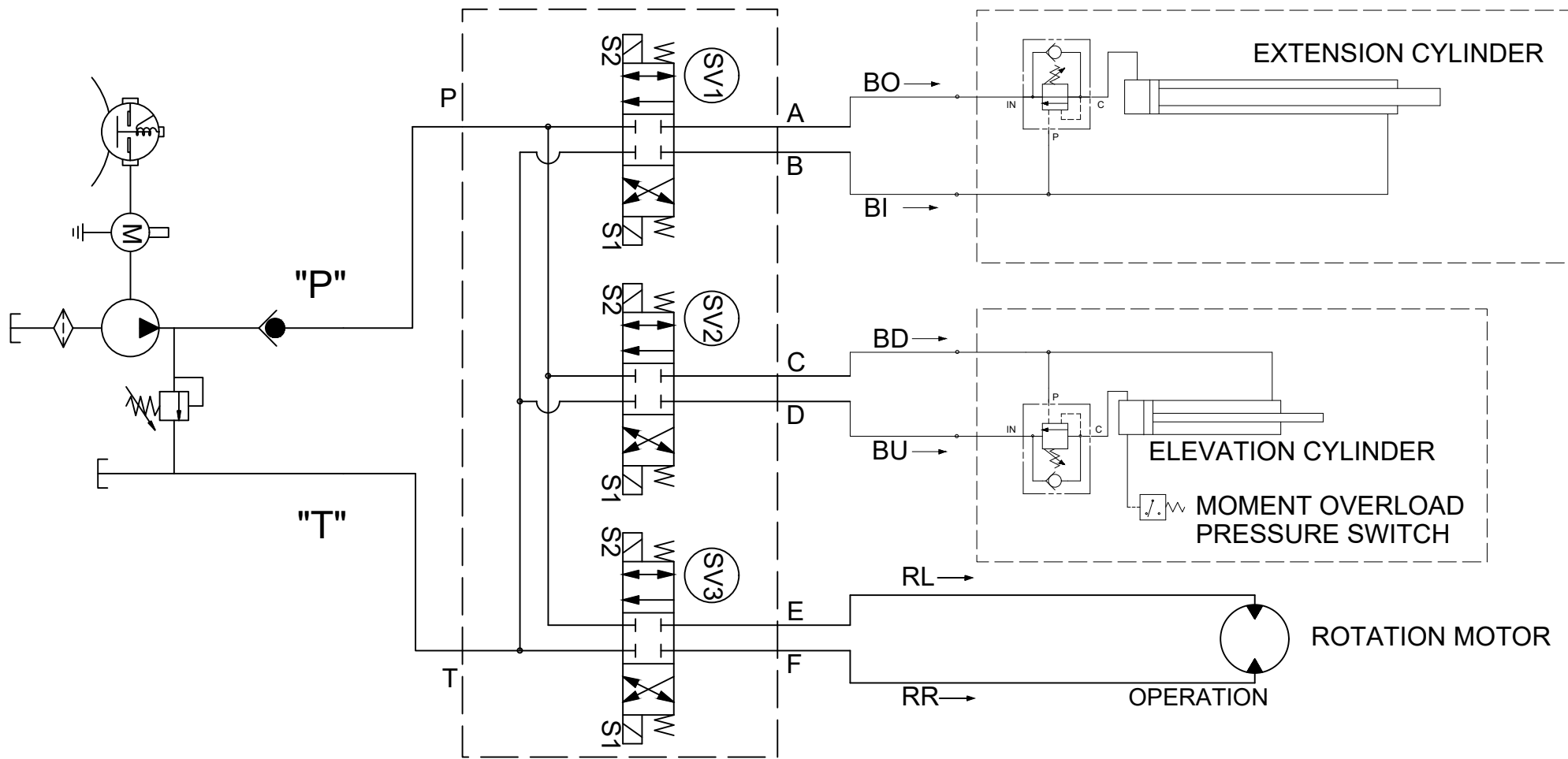
SUPERSEDES

-

SECTION

C400

28981



SV1

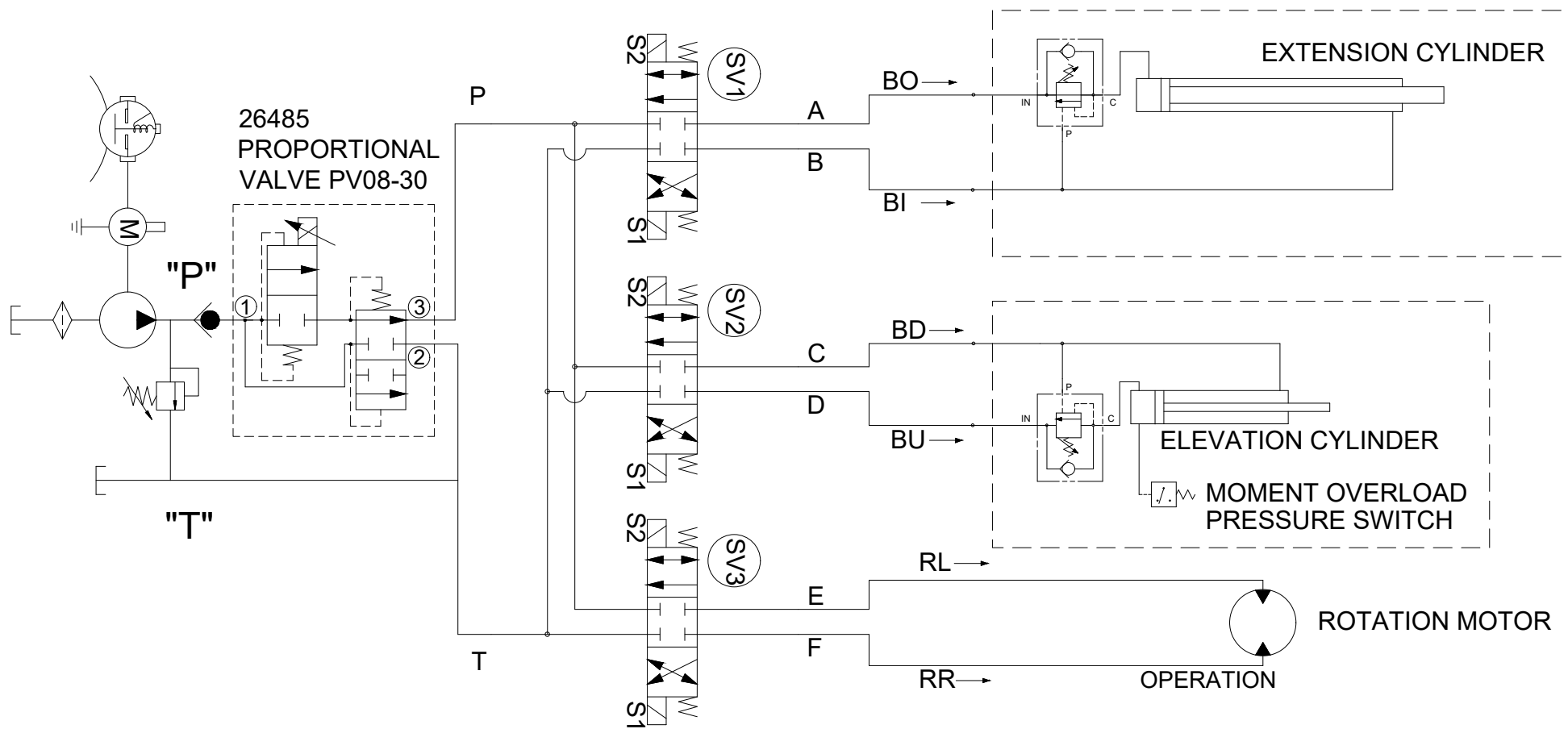
ENERGIZE "S2"
OPEN FLOW
'P' TO 'A'
'B' TO 'T'
ENERGIZE "S1"
OPEN FLOW
'P' TO 'B'
'A' TO 'T'

SV2

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

SV3

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



SV1

ENERGIZE "S2"
OPEN FLOW
'P' TO 'A'
'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'

SV3

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



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

HYDRAULIC SYSTEM DIAGRAM

3215E/3516E, PROPORTIONAL

DATE

09-13-24

SUPERSEDES

-

SECTION

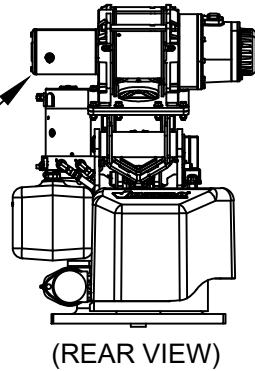
C400

28945

21556 WINCH REPLACEMENT PARTS

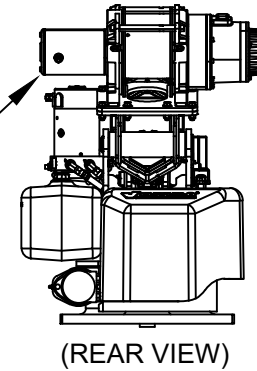
WARN DC1600

MOTOR ON LEFT
WHEN VIEWED
FROM REAR



COMEUP GTD-2200

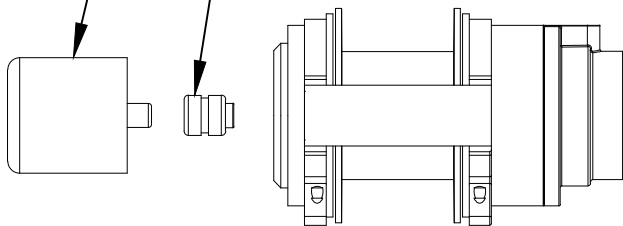
MOTOR ON LEFT
WHEN VIEWED
FROM REAR



23133 MOTOR

21981 BRAKE ASSY

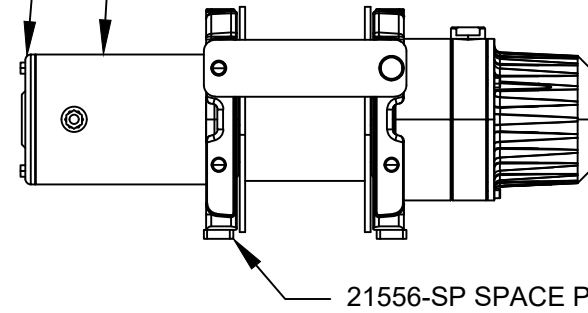
21214 CABLE WEDGE
(WIRE ROPE ANCHOR)



23915-2200 MOTOR KIT

23916 CONE BRAKE DISC KIT

21556-SP SPACE PLATE (2 EA.)



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

WINCH REPLACEMENT PARTS

3215E/3515E/3516E

DATE

10-15-24

SUPERSEDES

-

SECTION

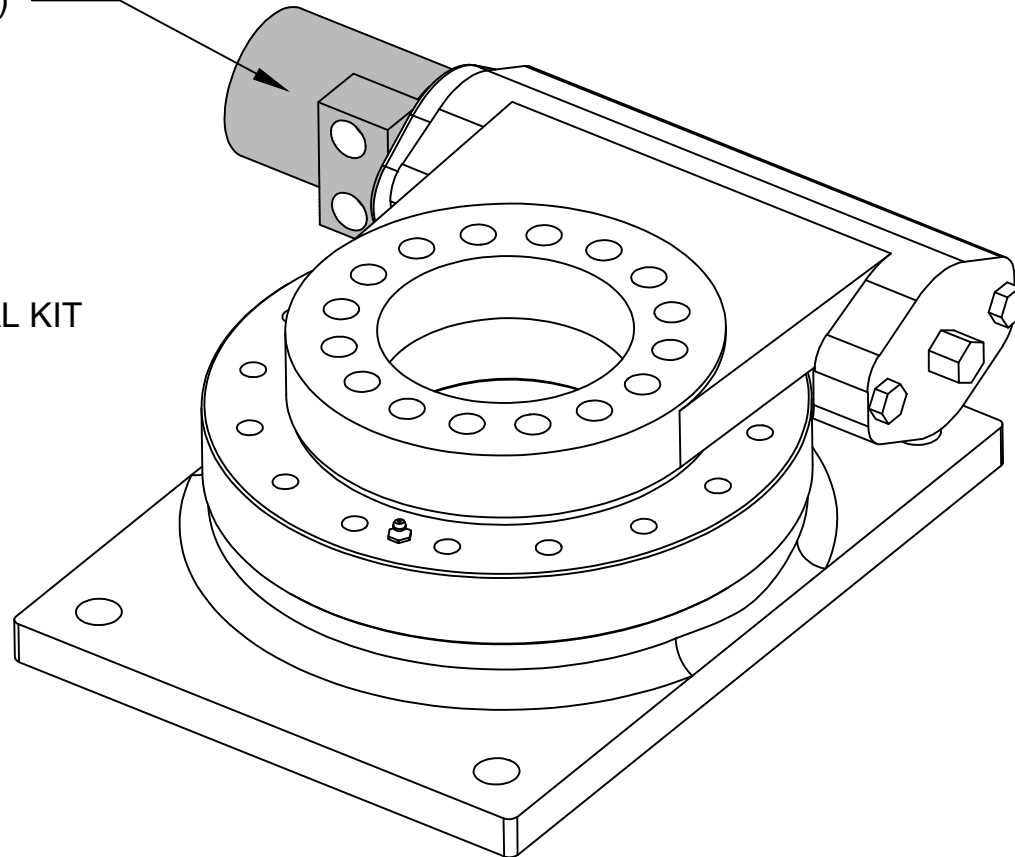
C400

28928

21735-1 SLEWING SYSTEM REPLACEMENT PARTS

21123 MOTOR (ONLY)

21218 - MOTOR SEAL KIT



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE

SLEWING SYSTEM REPLACEMENT PARTS

3215E/351*E/40**E/45**E

DATE

04-24-24

SUPERSEDES

-

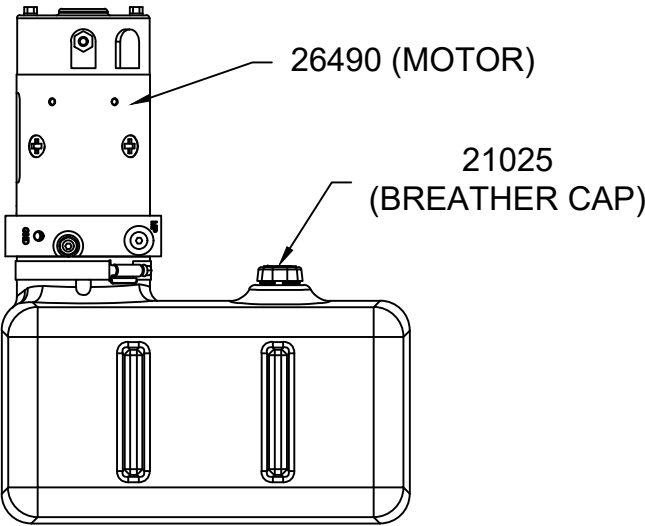
SECTION

C400

28847

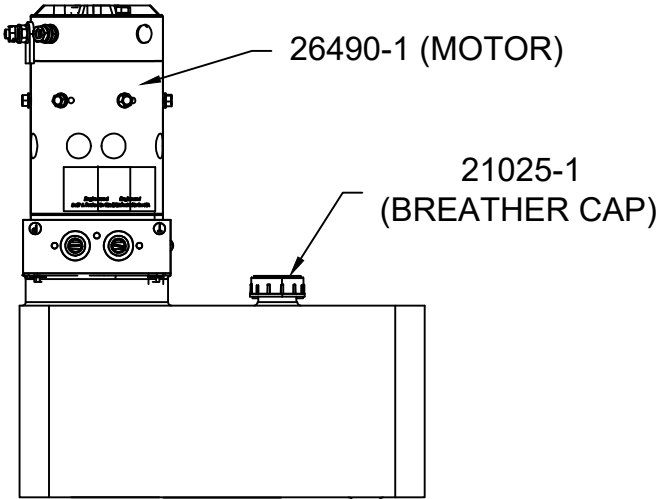
28720 HYD. POWER UNIT REPLACEMENT PARTS

BUCHER



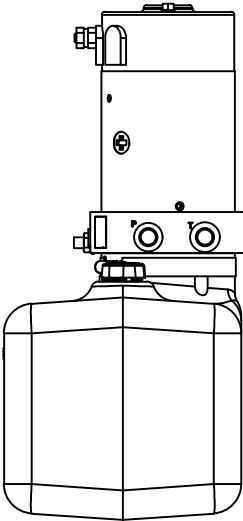
(FRONT VIEW)

KTI



(FRONT VIEW)

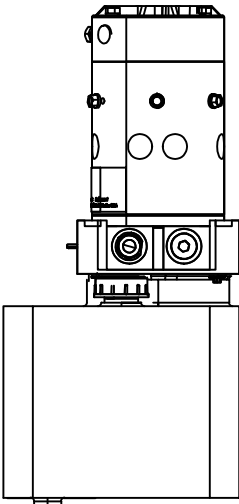
BUCHER



NO GROUND
CABLE NEEDED

(SIDE VIEW)

KTI



GROUND CABLE:
01025-4*23INX

(SIDE VIEW)



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
HYDRAULIC POWER UNIT REPLACEMENT PARTS

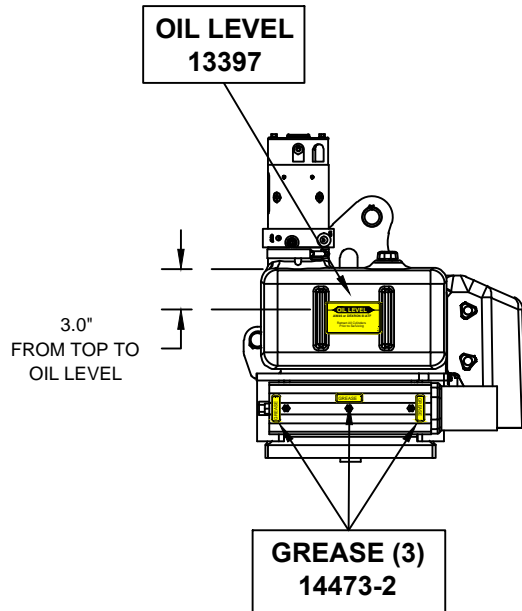
3215E/351*E/40**E/45**E

DATE
04-24-24

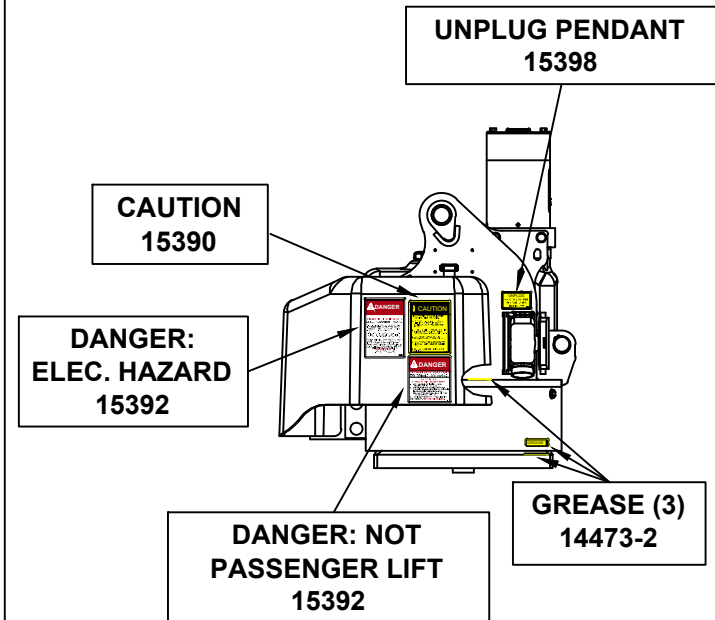
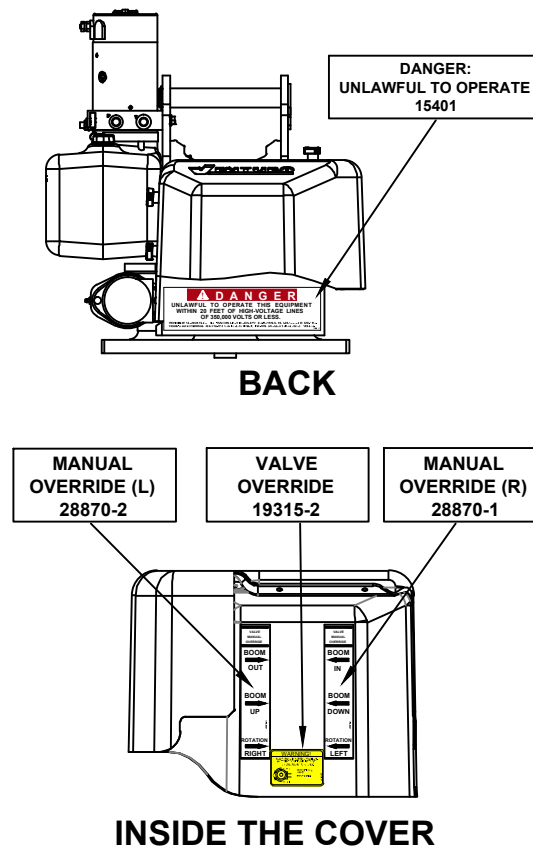
SUPERSEDES
-

SECTION
C400

28848



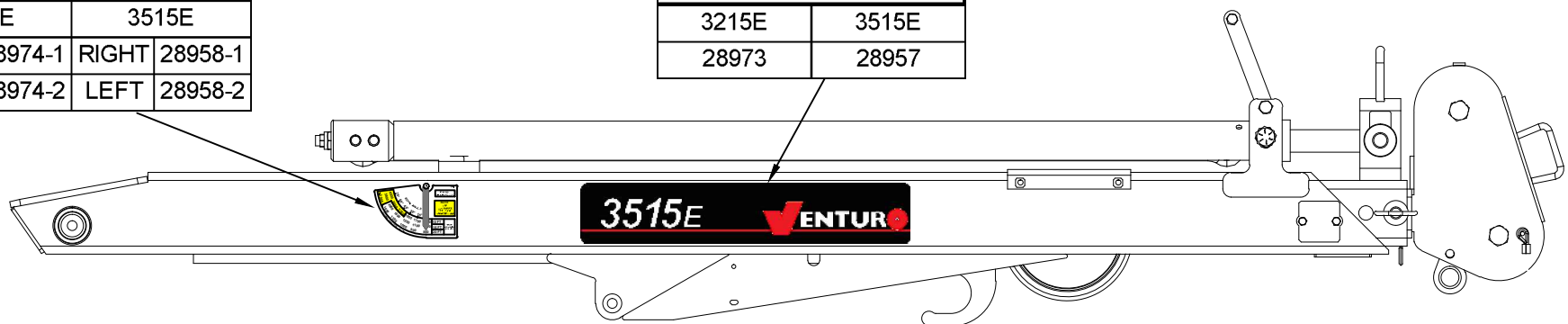
LEFT



RIGHT

| CAPACITY DECALS | | | |
|-----------------|---------|-------|---------|
| 3215E | | 3515E | |
| RIGHT | 28974-1 | RIGHT | 28958-1 |
| LEFT | 28974-2 | LEFT | 28958-2 |

| MODEL DECALS | |
|--------------|-------|
| 3215E | 3515E |
| 28973 | 28957 |



BOOM



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
DECAL PLACEMENT

3215E/3515E

| | |
|-------------------------------|------------------------|
| DATE 05-19-25A | SECTION C400 |
| SUPERSEDES 10-04-24 | 28965 |

FIELD SERVICE LABEL KIT; 3215E

28975: FSLK 3215E NON PROP

| PART NO. | QTY. | DESCRIPTION |
|------------|------|------------------------------------|
| 16184-1 | 1 | DECAL; HORN RELAY |
| 14473-2 | 6 | DECAL; GREASE |
| 28973 | 2 | DECAL; VENTURO, 3215E |
| 28974-1 | 1 | DECAL; BOOM CAPACITY, RIGHT, 3215E |
| 28974-2 | 1 | DECAL; BOOM CAPACITY, LEFT, 3215E |
| 13397 | 1 | DECAL; OIL LEVEL |
| 28870-1 | 1 | DECAL; MANUAL OVERRIDE, RIGHT |
| 28870-2 | 1 | DECAL; MANUAL OVERRIDE, LEFT |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM |
| 28976 | 1 | IDWG: FIELD SERVICE LABEL KIT LIST |
| 28965 | 1 | IDWG; DECAL PLACEMENT |
| INST-23233 | 1 | SAFETY MANUAL, VENTURO CRANES |
| 15397 | 1 | KIT; FIELD SERVICE LABELS |

28975-1: FSLK 3215E PROP

| PART NO. | QTY. | DESCRIPTION |
|------------|------|------------------------------------|
| 16184-1 | 1 | DECAL; HORN RELAY |
| 14473-2 | 6 | DECAL; GREASE |
| 28973 | 2 | DECAL; VENTURO, 3215E |
| 28974-1 | 1 | DECAL; BOOM CAPACITY, RIGHT, 3215E |
| 28974-2 | 1 | DECAL; BOOM CAPACITY, LEFT, 3215E |
| 13397 | 1 | DECAL; OIL LEVEL |
| 28870-1 | 1 | DECAL; MANUAL OVERRIDE, RIGHT |
| 28870-2 | 1 | DECAL; MANUAL OVERRIDE, LEFT |
| 17813 | 1 | DECAL; OVERLOAD SENSING SYSTEM |
| 28976 | 1 | IDWG: FIELD SERVICE LABEL KIT LIST |
| 28965 | 1 | IDWG; DECAL PLACEMENT |
| INST-23233 | 1 | SAFETY MANUAL, VENTURO CRANES |
| 15397 | 1 | KIT; FIELD SERVICE LABELS |
| 19315-2 | 1 | DECAL: PROP MANUAL OVERRIDE |



VENCO VENTURO INDUSTRIES LLC
CINCINNATI, OHIO

TITLE
FIELD SERVICE LABEL KIT

3215E

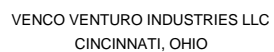
DATE
10-14-24

SUPERSEDES
-

SECTION
C400

28976

User Notes



INSTALLATION MANUALS

02-23-16

1.

■

25431



VENTURO CRANES LIMITED WARRANTY POLICY

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

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

1-Year Limited Warranty Policy

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

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

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

Warranty Claims

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

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

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