



VENTURO
TRUCK MOUNTED CRANES

ET36KX

EQBAAA-00

INSTALLATION & OWNER'S MANUAL

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ET36KX (EQBAAA-00)

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SECTION 100

DESCRIPTION

&

SPECIFICATIONS

SPECIFICATIONS AND OPERATING FEATURES

ET36KX-10/20

SPECIFICATIONS

12 VOLT BATTERY OPERATED

36,000 FT-LBS OVERTURNING MOMENT (Or as limited by truck stability)

MOMENT OVERLOAD SYSTEM

TELESCOPIC BOOM	10 / 20
BOOM HYD ELEVATION	-8° TO 75°
BOOM HYD EXT	10 - 20 FT
CAPACITY	1800 LBS @ 20 FT REACH
	6000 LBS @ 3 TO 5 FT REACH
WIRE ROPE	5/16" DIA x 80 FT EXTRA HIGH STRENGTH
PENDANT CORD LENGTH	25 FT

WINCH - 3000 LBS SINGLE LINE CAPACITY

With Automatic Load Brake

ELECTRIC HYDRAULIC BOOM ELEVATION

ELECTRIC HYDRAULIC BOOM EXTENSION & RETRACTION - 10 FT STROKE

360° CONTINUOUS POWER ROTATION

REMOTE CONTROL PENDANT

25 ft Straight Cord with Four Environmentally Sealed Toggle Switches Protected by a Guard

MASTER DISCONNECT SWITCH

OUTRIGGERS AVAILABLE

Side Bracket Type Outriggers

Fold Away Type Outriggers

Pullout Type Outrigger System



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

ET36KX-10/20

DATE
9-30-09A

SUPERCEDES
3-18-08

SECTION
C120

21077

OVERLOAD SENSING SYSTEM

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

CONTROL PRIORITY SYSTEM

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

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

CABLE DRUM AND SHEAVE DIAMETERS

The drum on the ET36KX is 5-5/16" in diameter which provides the first layer wire rope pitch diameter 18 times the rope diameter as required by ANSI B30.5 Hydraulic Crane Standards. The cable sheaves are either 16 (snatch block) or 18 (boom) times the cable diameter which likewise conforms.

MISCELLANEOUS

A. CAPACITY INDICATOR

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

B. BATTERY HOOKUP

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



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

DATE
3-18-08

SECTION
C120

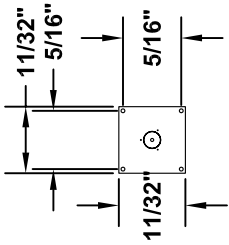
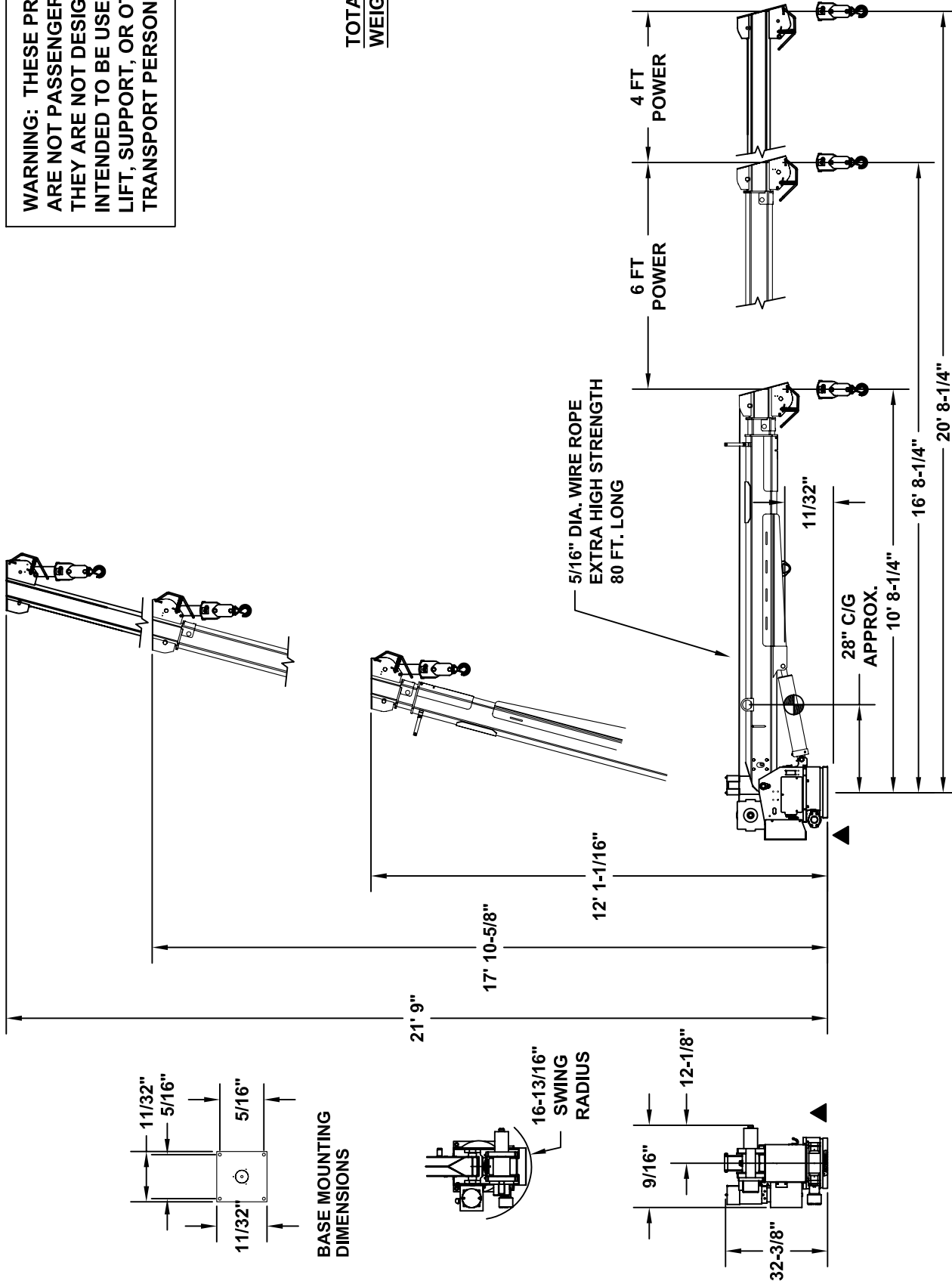
ET36KX-10/20

SUPERCEDES
-

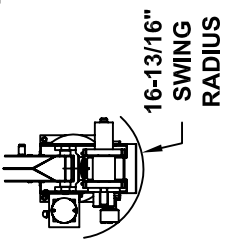
21078

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

TOTAL INSTALLED WEIGHT 1620 LBS.

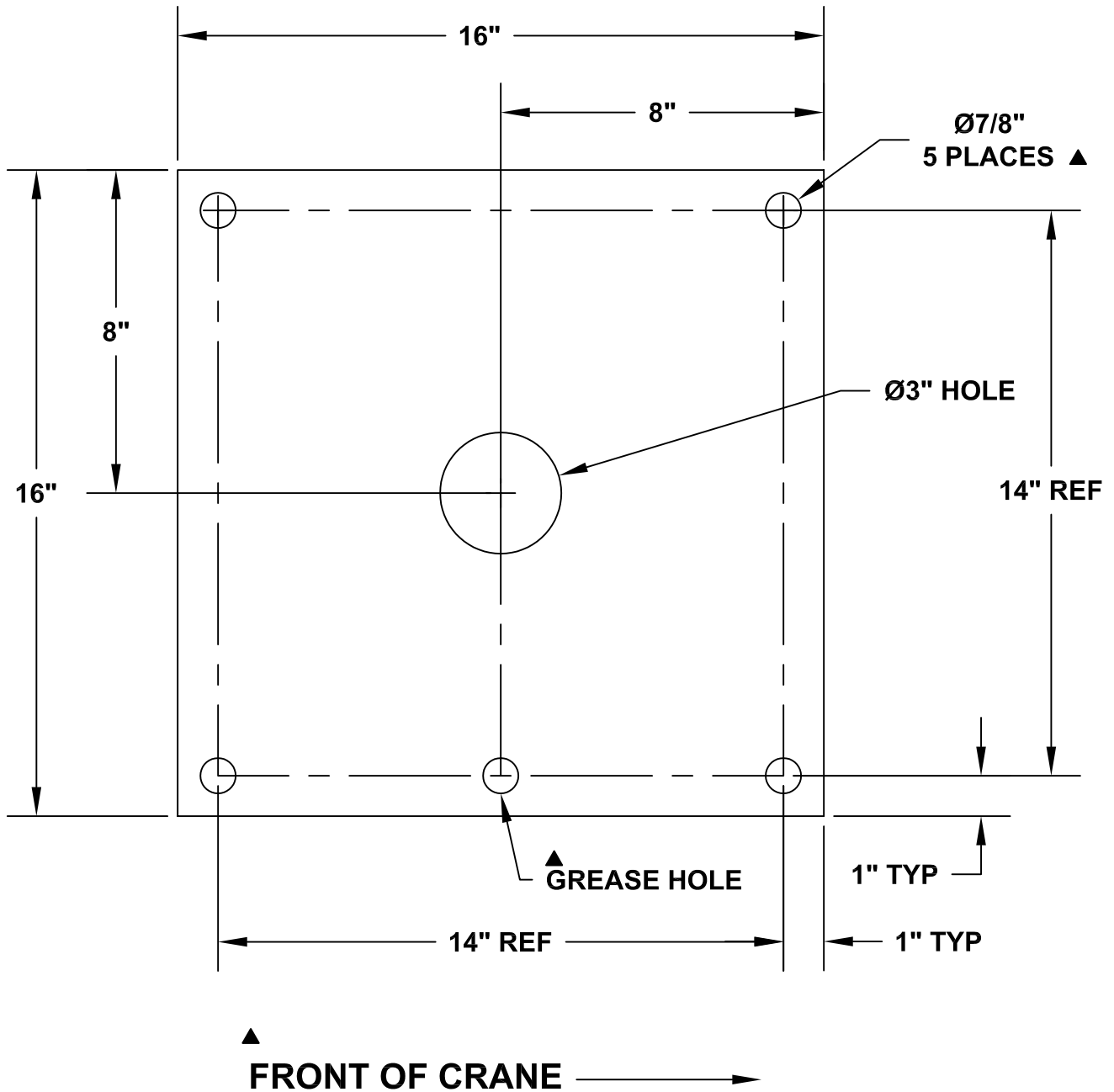


BASE MOUNTING DIMENSIONS



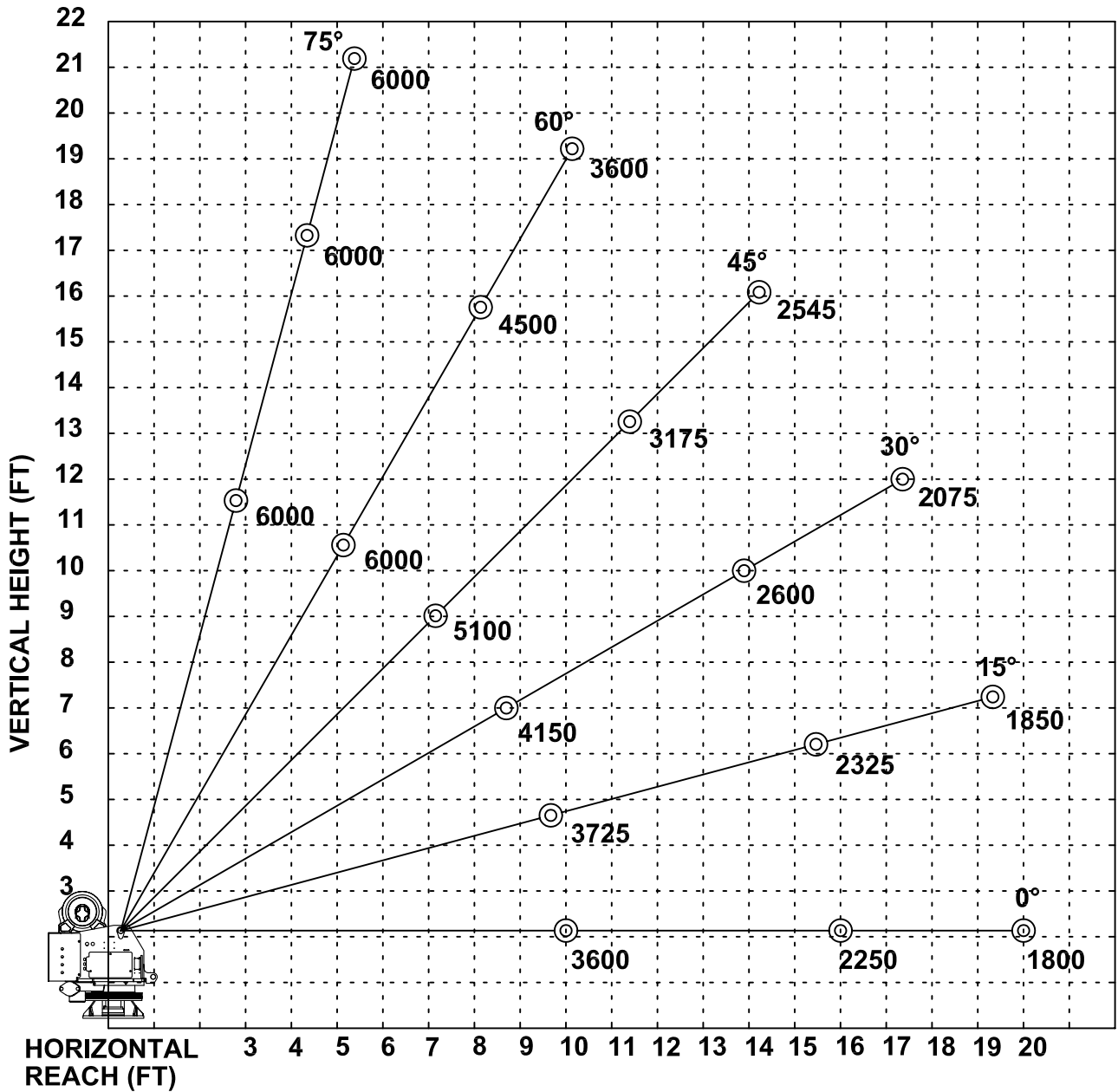
VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE INSTALLATION DRAWING		SECTION C100
	ET36KX - 10/16/20 BOOM		DATE 10-9-09A SUPERSEDES 3-18-08
21079			

ET/HT30/36K(X) BASE MOUNTING DIMENSIONS



▲ THE FIFTH GREASE HOLE IS FOR A SINGLE BASE PLATE ONLY

ET36KX - 10-16-20 FOOT BOOM MAXIMUM CAPACITY CHART



**MUST USE SNATCH BLOCK
FOR LOADS OF 3000 LBS.
AND GREATER**



MFG., INC.
CINCINNATI, OHIO

TITLE
CAPACITY CHART

ET36KX - 10-16-20

DATE
3-25-08

SUPERSEDES
-

SECTION
C100

21081

SECTION 150

SAFETY

VEHICLE & CRANE MOUNTED ELECTRICAL HAZARD SIGN APPLICATION & INFORMATION

ET & HT CRANE SERIES



▲ SIGN NO. 15393A 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.

REQUIRED MINIMUM CLEARANCES REFERRED TO ON SIGN NO. 15401

REQUIRED CLEARANCES FROM OVERHEAD HIGH-VOLTAGE LINES

NOMINAL VOLTAGE (kV) (PHASE TO PHASE)	MINIMUM REQUIRED CLEARANCE (FEET) *
0 - 50	10
over 50 - 200	15
over 200 - 350	20
over 350 - 500	25
over 500 - 750	35
over 750 - 1000	45

REQUIRED CLEARANCES FROM ENERGIZED HIGH-VOLTAGE CONDUCTORS (WHILE IN TRANSIT)

NOMINAL VOLTAGE (kV) (PHASE TO PHASE)	MINIMUM REQUIRED CLEARANCE (FEET) *
0 - 0.75	4
over 0.75 - 50	6
over 50 - 345	10
over 345 - 750	16
over 750 - 1000	20

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



TITLE
INSTALLATION DWG

DATE
5-15-02H

SECTION
C150

ET & HT CRANE SERIES

SUPPERCEDES
5-13-97G

15394

CRANE SAFETY AND HAZARDS

ET CRANES ▲

CAUTIONS

1. INSPECT VEHICLE AND CRANE, INCLUDING OPERATION, PRIOR TO USE DAILY.
2. DO NOT USE THIS EQUIPMENT EXCEPT ON SOLID, LEVEL SURFACE 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 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 APPARATUS.
- YOU MUST ALLOW FOR BOOM SWAY, ROCK OR SAG, AND ELECTRICAL LINE AND LOADLINE 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, LOADLINE, OR LOAD, AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS. ADDITIONAL CLEARANCE IS REQUIRED FOR VOLTAGES IN EXCESS OF 50,000 VOLTS. REFER TO DRAWING 15394 FOR ADDITIONAL INFORMATION.
- **DEATH OR SERIOUS INJURY** WILL RESULT FROM CONTACT OR INADEQUATE CLEARANCE.



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CINCINNATI, OHIO

TITLE
INSTALLATION DWG

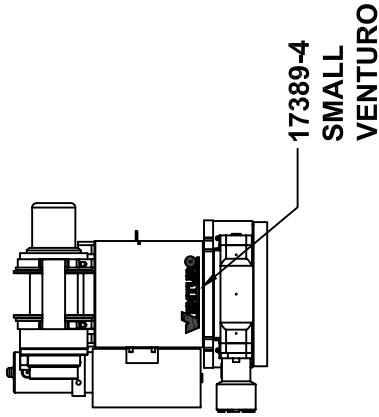
DATE
4-18-08H

SECTION
C150

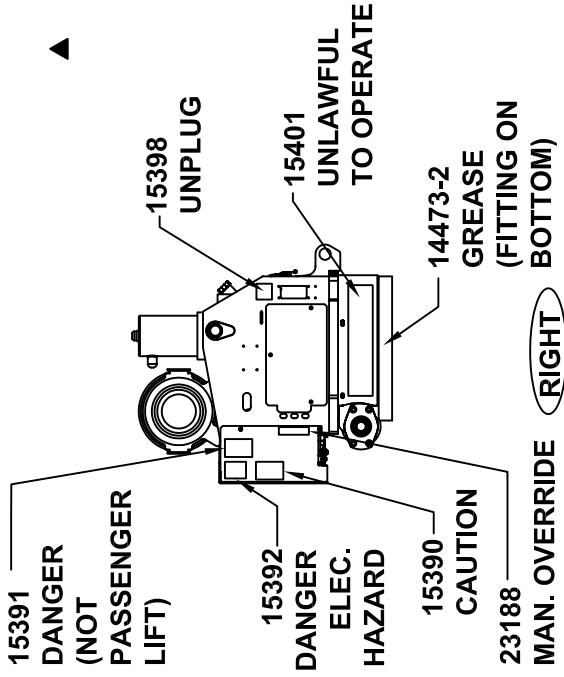
▲ **ELECTRIC CRANES**

SUPERCEDES
7-29-03G

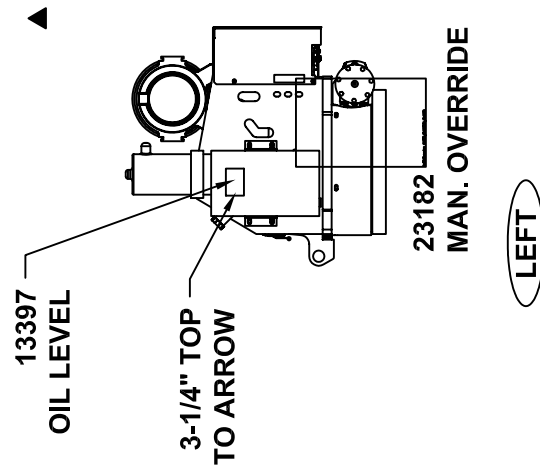
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BACK

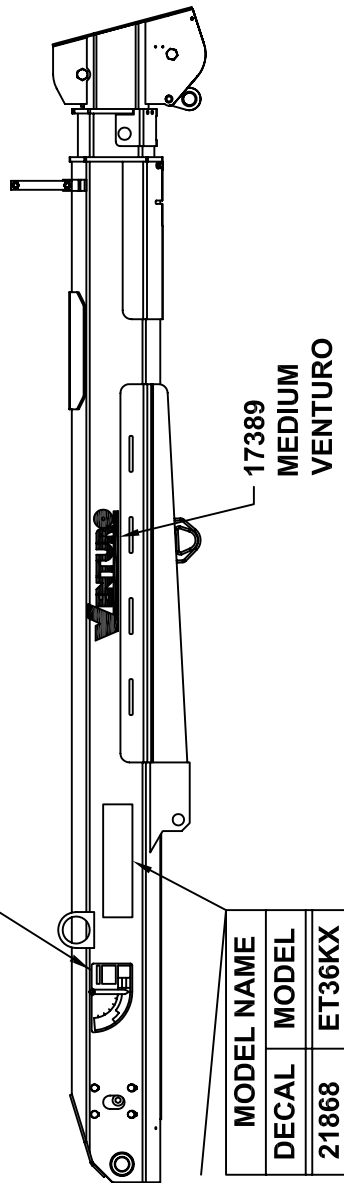


RIGHT



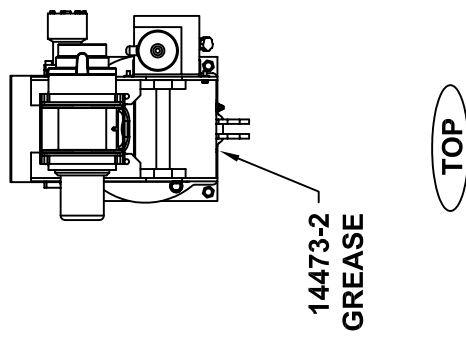
LEFT

CAPACITY	
DECAL	PART NO.
RIGHT	ET36KX 27199-1
LEFT	ET36KX 27199-2



BOOM

MODEL NAME	ET36KX
DECAL	21868
MODEL	ET36KX



TOP

MANUFACTURING, INC.
CINCINNATI, OHIO



TITLE
DECAL PLACEMENT

ET36KX

DATE
3-23-12A

SUPERSEDES
9-22-08

SECTION
C150

21082

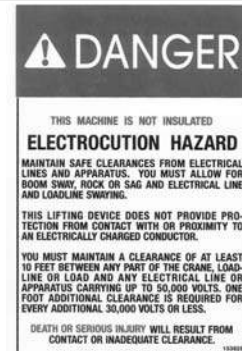
PART NO.: 15390
DECAL: CAUTION - INSPECT VEHICLE & CRANE
FUNCTION: To inform the operator of key operating requirements.
QUANTITY: 1
PLACEMENT: Rear cover.



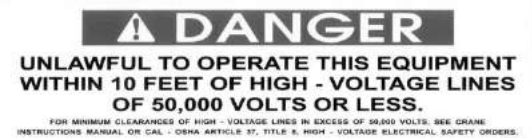
PART NO.: 15391
DECAL: DANGER - NOT PASSENGER LIFT
FUNCTION: To inform the operator not to lift, support or transport personnel, and to ensure that crane operator is adequately trained.
QUANTITY: 1
PLACEMENT: Rear cover.



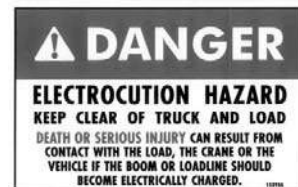
PART NO.: 15392
DECAL: DANGER - ELECTROCUTION HAZARD
FUNCTION: To inform the operator that the machine (crane) represents an electrocution hazard should it come close to or in contact with electrical voltage source.
QUANTITY: 1
PLACEMENT: Rear cover.



PART NO.: 15401
DECAL: UNLAWFUL TO OPERATE
FUNCTION: To inform the operator of proper operation in vicinity of power lines.
QUANTITY: 1
PLACEMENT: Right side of housing.



PART NO.: 15393A
DECAL: DANGER - ELECTROCUTION HAZARD
FUNCTION: Warns of danger from electrically charged vehicle, crane or lead.
QUANTITY: 4
PLACEMENT: One on each side and each end of vehicle.



MFG., INC.
 CINCINNATI, OHIO

TITLE
SAFETY DECALS

DATE
8-10-09B C150

CRANES

SUPERSEDES
5-6-08A 21353

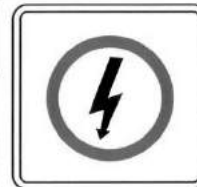
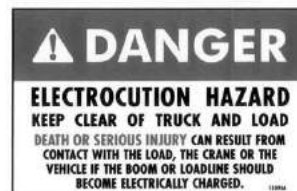
PART NO.: 15393A

DECAL: DANGER - ELECTROCUTION HAZARD

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

QUANTITY: 4

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



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.



MFG., INC.
CINCINNATI, OHIO

TITLE
SAFETY DECALS

CRANES

DATE
8-10-09A

SUPERSEDES
4-26-06

SECTION
C150

21384

PART NO.: 14473-2

DECAL: GREASE

FUNCTION: To show the operator where to apply grease.

QUANTITY: Varies

PLACEMENT: Near grease fittings.



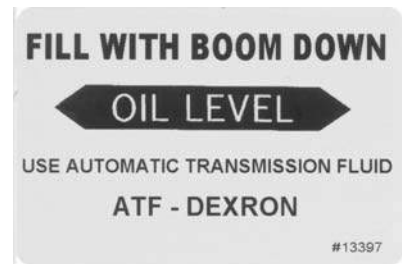
PART NO.: 13397

DECAL: OIL LEVEL

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

QUANTITY: 1

PLACEMENT: Side of hydraulic power unit.



PART NO.: 15398

DECAL: UNPLUG REMOTE CONTROL

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

QUANTITY: 1

PLACEMENT: Near pendant socket.



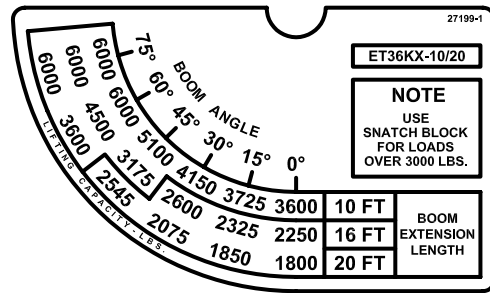
PART NO.: 27199-1 & 27199-2 (OPPOSITE)

DECAL: CRANE CAPACITY

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

QUANTITY: 1 each

PLACEMENT: One on each side of boom.



PART NO.: 21868

DECAL: MODEL NUMBER (ET36KX)

FUNCTION: To show the model of the crane.

QUANTITY: 2

PLACEMENT: One on each side of boom.

ET 36K X



MFG., INC.
CINCINNATI, OHIO

TITLE
MODEL & CAPACITY DECALS

DATE
2-11-09

SECTION
C150

ET36KX

SUPERSEDES
-

21083

SECTION 200

INSTALLATION



IMPORTANT

ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

1. PROPER GROUND PATH - SEE DWG 15660

2. CURRENT DRAW IS SEVERAL HUNDRED AMPERES -
ADEQUATE WIRE SIZE AND BATTERY CAPACITY IS ABSOLUTELY
ESSENTIAL (SEE CHART BELOW.)

MINIMUM WIRE GAUGE AND BATTERY SIZE

MODEL	TOTAL LENGTH OF CABLE (FT)*								12 VOLT BATTERY REQUIREMENTS	
	0-20	21-25	26-30	31-40	41-50	51-60	61-70	71-80	CCA (A)**	RC (MIN)***
CE6K CT2000 CT2003/4/5 DT7K	#4	#4	#2	#2	#1	#0	#0	#00	350	100
ET8K ET8KX ET12K ET12KX	#2	#2	#1	#0	#00	NOTRECOMMENDED			450	100
ET18K ET18KX ET25K ET25KX ET30KX ▲	SEE DRAWING 19947 FOR CABLE AND BATTERY REQUIREMENTS									

* INCLUDES GROUND CABLE

** CCA=COLD CRANKING AMPS AT 0° F.
THE CCA RATING IS A MEASURE OF THE ABILITY OF THE BATTERY TO DELIVER A HIGH CURRENT FOR A SHORT PERIOD OF TIME.

*** 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.



MFG., INC.
CINCINNATI, OHIO

TITLE
CABLE & BATTERY

ELECTRIC CRANES

DATE
11-24-08C

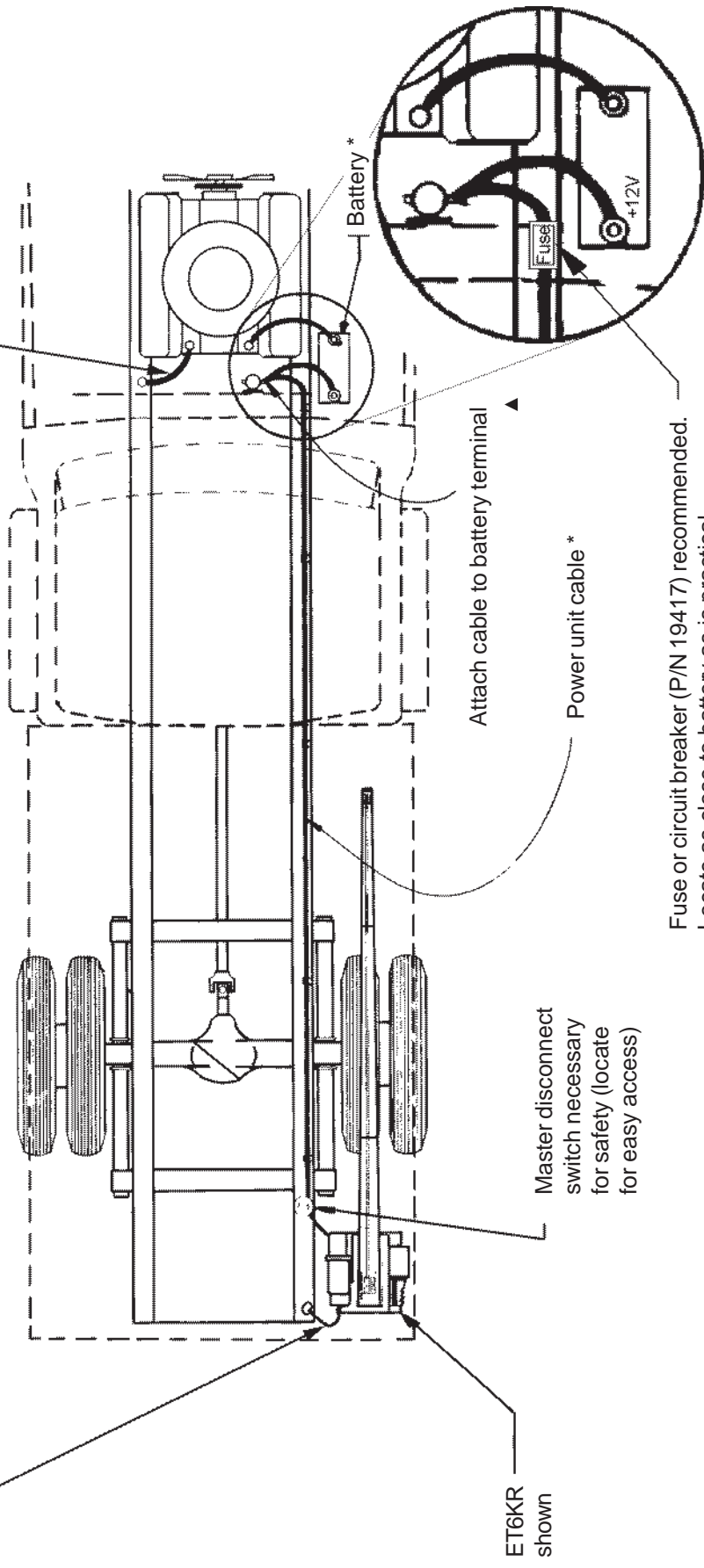
SUPERCEDES
4-21-08B

SECTION
C200

19959

Important: The crane must make connection with the negative of the battery. To insure this, install a #2 gauge grounding strap from the engine to the truck frame (required if negative from battery is connected to the engine.) Also, install a #2 gauge grounding strap from the crane base to the truck frame, included with electric cranes.

Failure to accomplish the above mentioned steps may result in intermittent operation of electric crane.

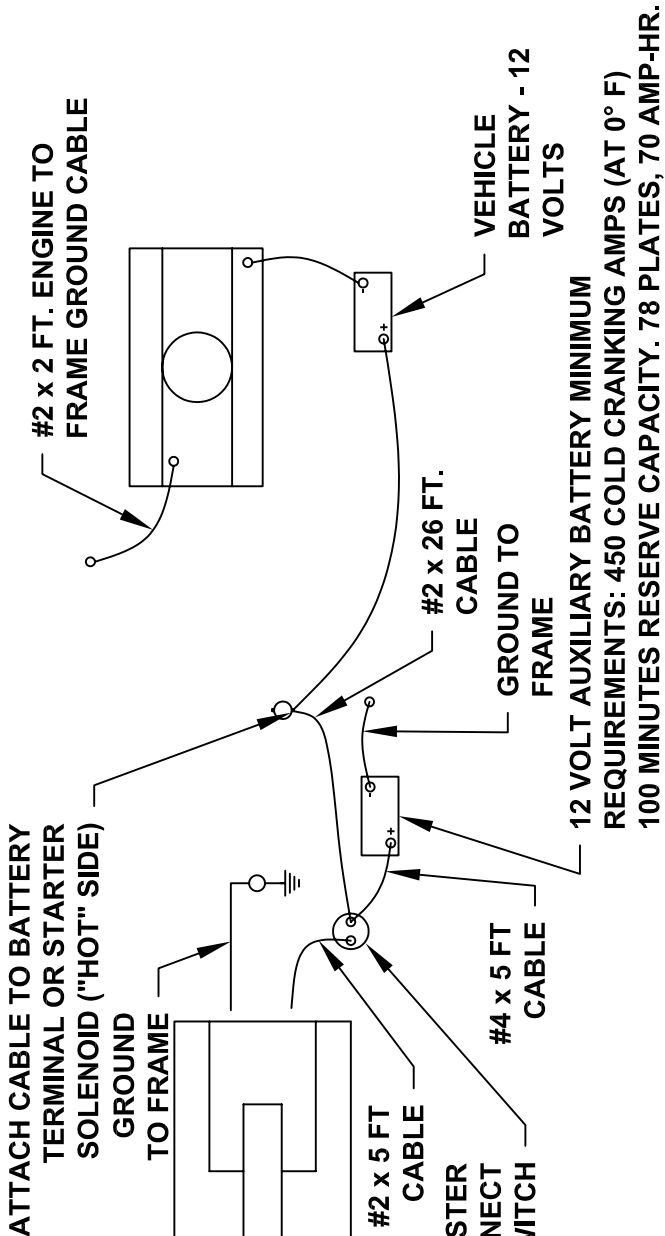


* Note: See Dwg 19959 for recommended battery and cable specifications

VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE INSTALLATION - BATTERY CABLE		DATE 4-18-08G	SECTION C200
	WINCH & CRANE		SUPERCEDES 8-2-06F	15660

RECOMMENDED INSTALLATION

W/ AUXILIARY BATTERY IN PARALLEL WITH VEHICLE BATTERY.

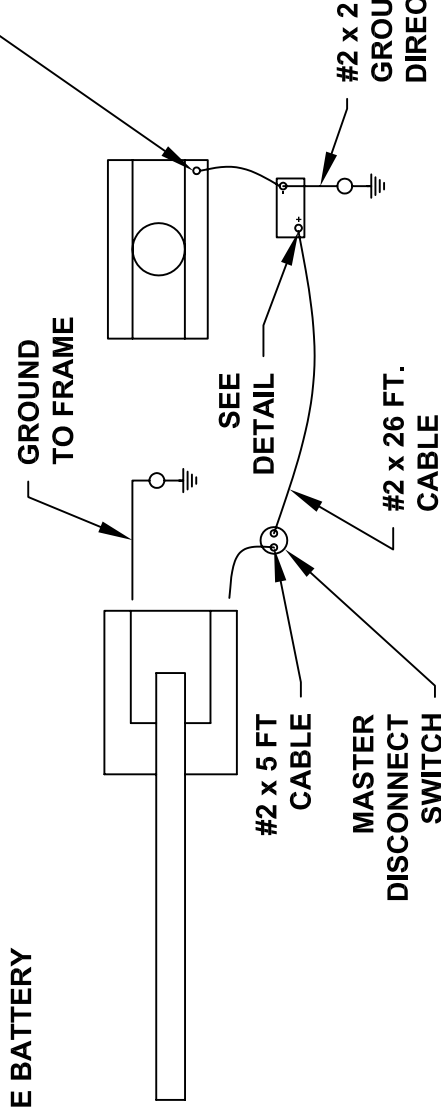
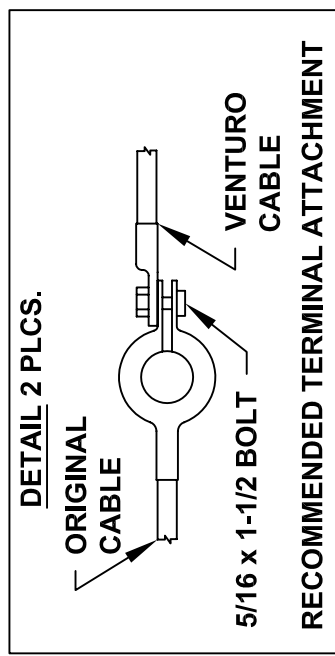


IF LONGER CABLE NECESSARY, CONSULT VENTURO ENGINEERING DEPT.

LIMITED DUTY ALTERNATE INSTALLATION (NOT RECOMMENDED)

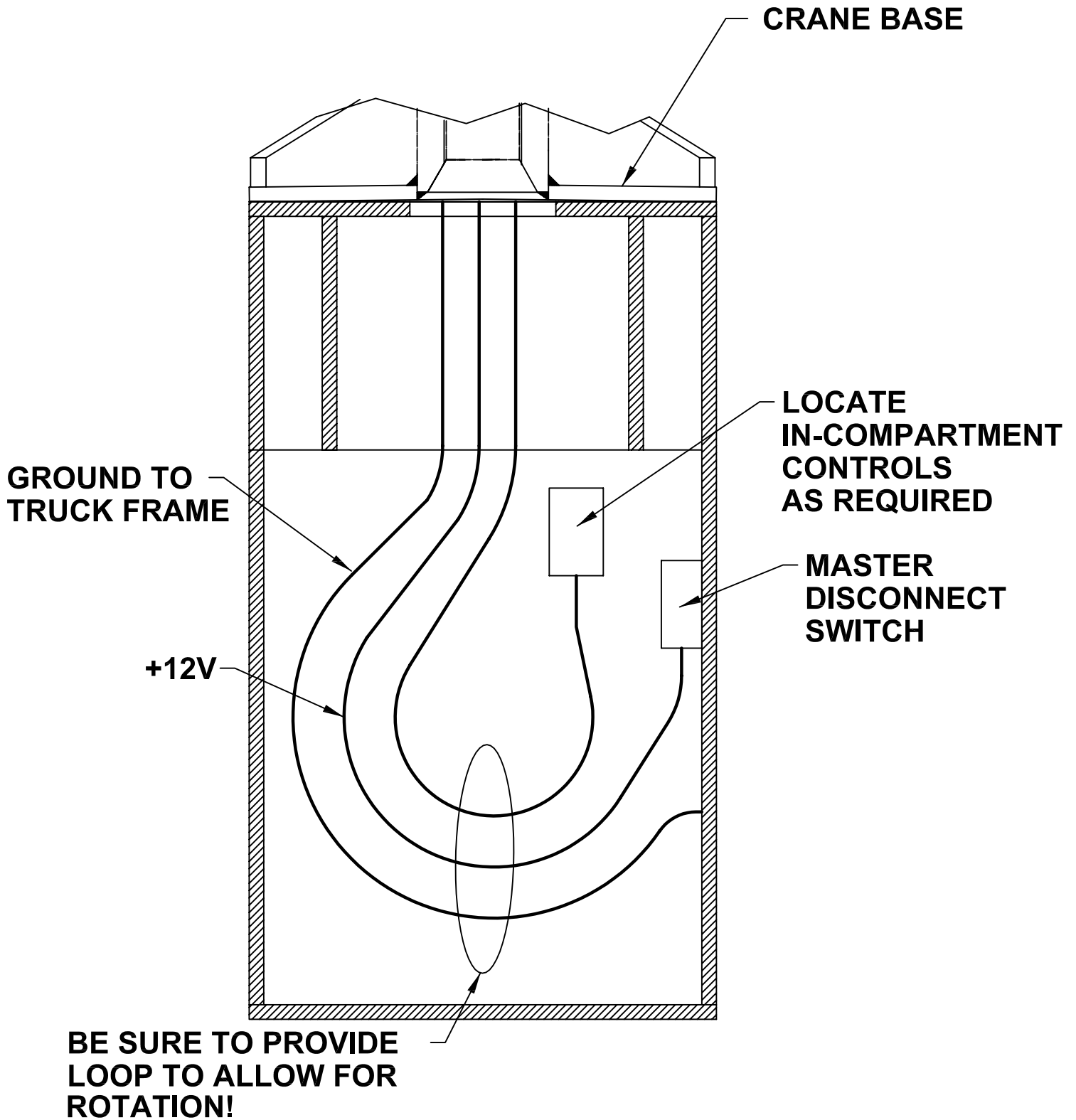
NOTE: ALTERNATE INSTALLATION MAY BE USED ONLY IF VEHICLE BATTERY MEETS MINIMUM REQUIREMENTS AND A #2 x 26 FT CABLE WILL REACH FROM THE MASTER DISCONNECT SWITCH DIRECTLY TO THE BATTERY (NOT THE SOLENOID).

12 VOLT VEHICLE BATTERY MINIMUM REQUIREMENTS 625 COLD CRANKING AMPS (AT 0° F), 160 MINUTES RESERVE CAPACITY, 102 PLATES, 105 AMP-HR.



TITLE	DATE	SECTION
ELECTRICAL INSTALLATION	11-25-08B	-
ET CRANES	SUPSEDES	19947
	7-29-03A	

IN-COMPARTMENT CONTROLS INSTALLATION ET25/30/36KX(X)



MFG., INC.
CINCINNATI, OHIO

TITLE
INSTALLATION DWG

ET25/30/36KX(X)

DATE
9-14-09A

SUPERSEDES
9-13-01

SECTION
-

19961

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 THROUGH ANTI-TWO-BLOCK WEIGHT.

STEP 3: INSERT WIRE ROPE END INTO POCKET OPENING ON WINCH AND THROUGH WEDGE POCKET AS SHOWN IN (FIG 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 (3) TURNS OF WIRE ROPE ON THE WINCH DRUM WHILE UNDER LOAD.

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

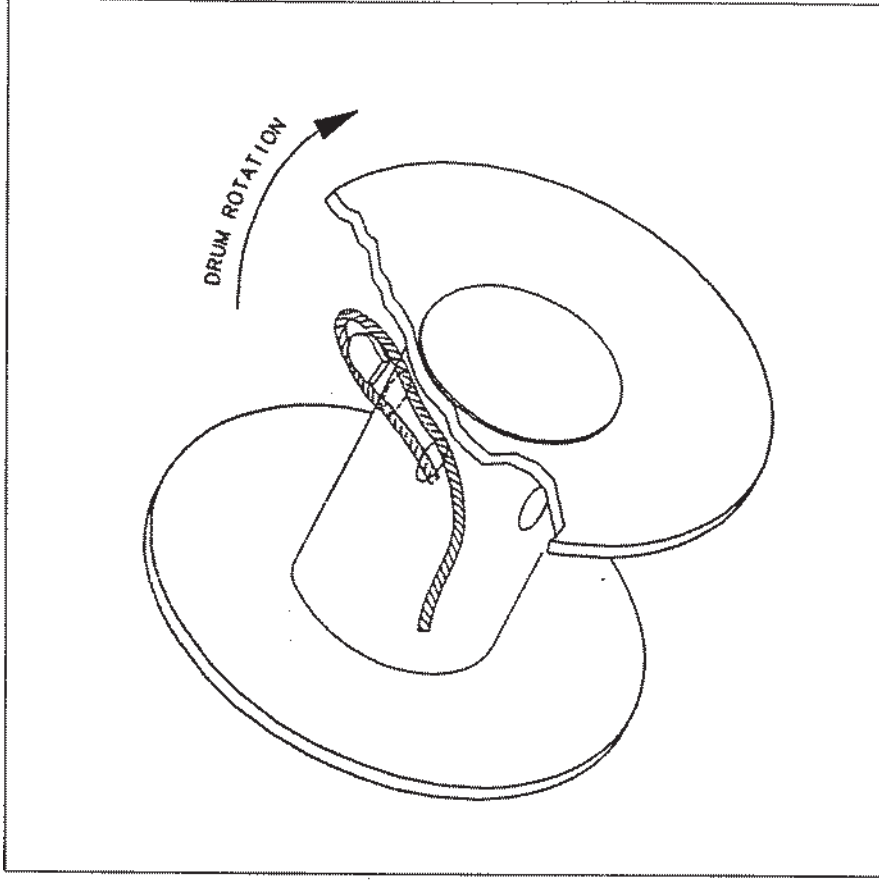


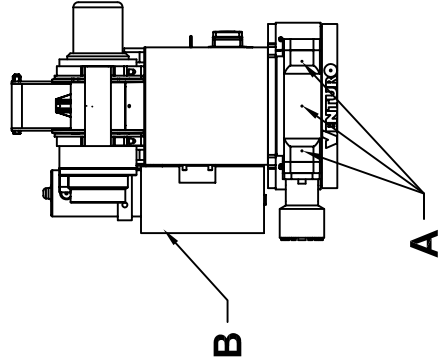
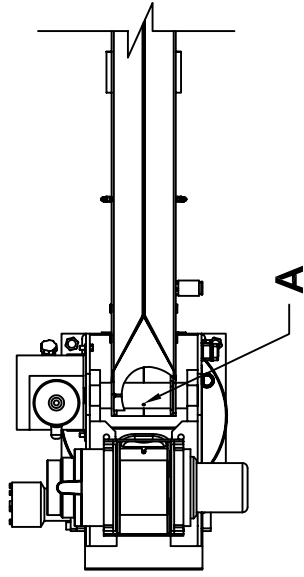
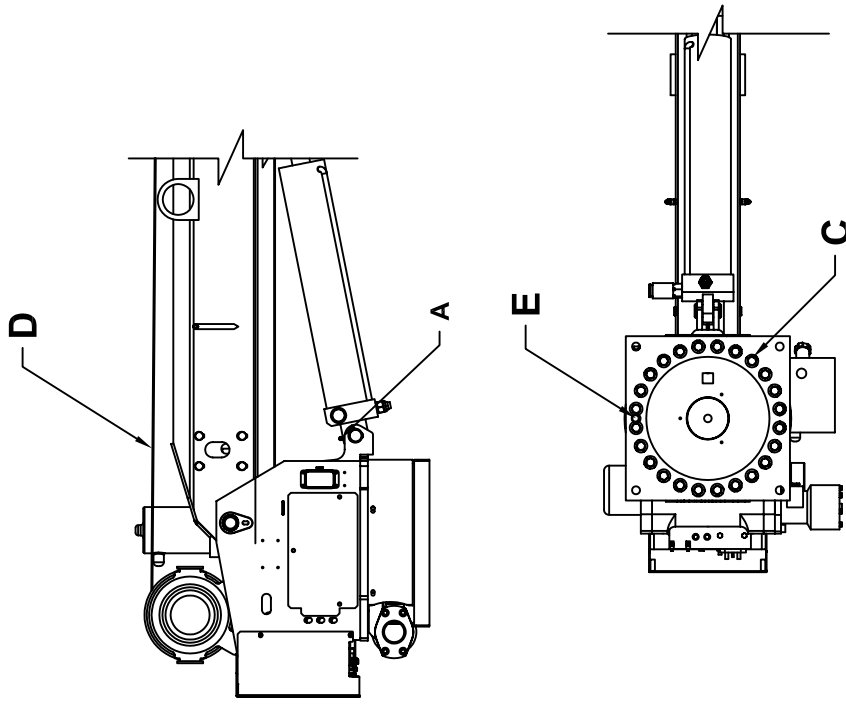
FIG 1

SECTION 300

MAINTENANCE

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SERVICE



Location	Service Required	Note	Service Interval
A	Grease fitting With Pressure Grease Gun	Use Lithium Based Grease	Time of Truck Service
B	Fill Oil Reservoir to Oil Level with Boom Down	Use Dextron III ATF or ISO Grade AW 46 for Ambient Temperatures Between -22° F and 30° F Use ISO 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	Check Torque of bolts	Bolts should be torqued to 60 ft-lbs	Time of Truck Service
D	Check Wire Rope and Hook	Rope should be free of kinks and fraying	Time of Truck Service
E	Grease Fitting With Pressure Grease Gun	Use Lithium Based Grease	Every 6 months

TITLE

DATE

SECTION

VENTURO MANUFACTURING, INC.
CINCINNATI, OHIO

LUBRICATION & MAINTENANCE CHART

8-11-09

SUPERSEDES

ET25/30/36KX(X)

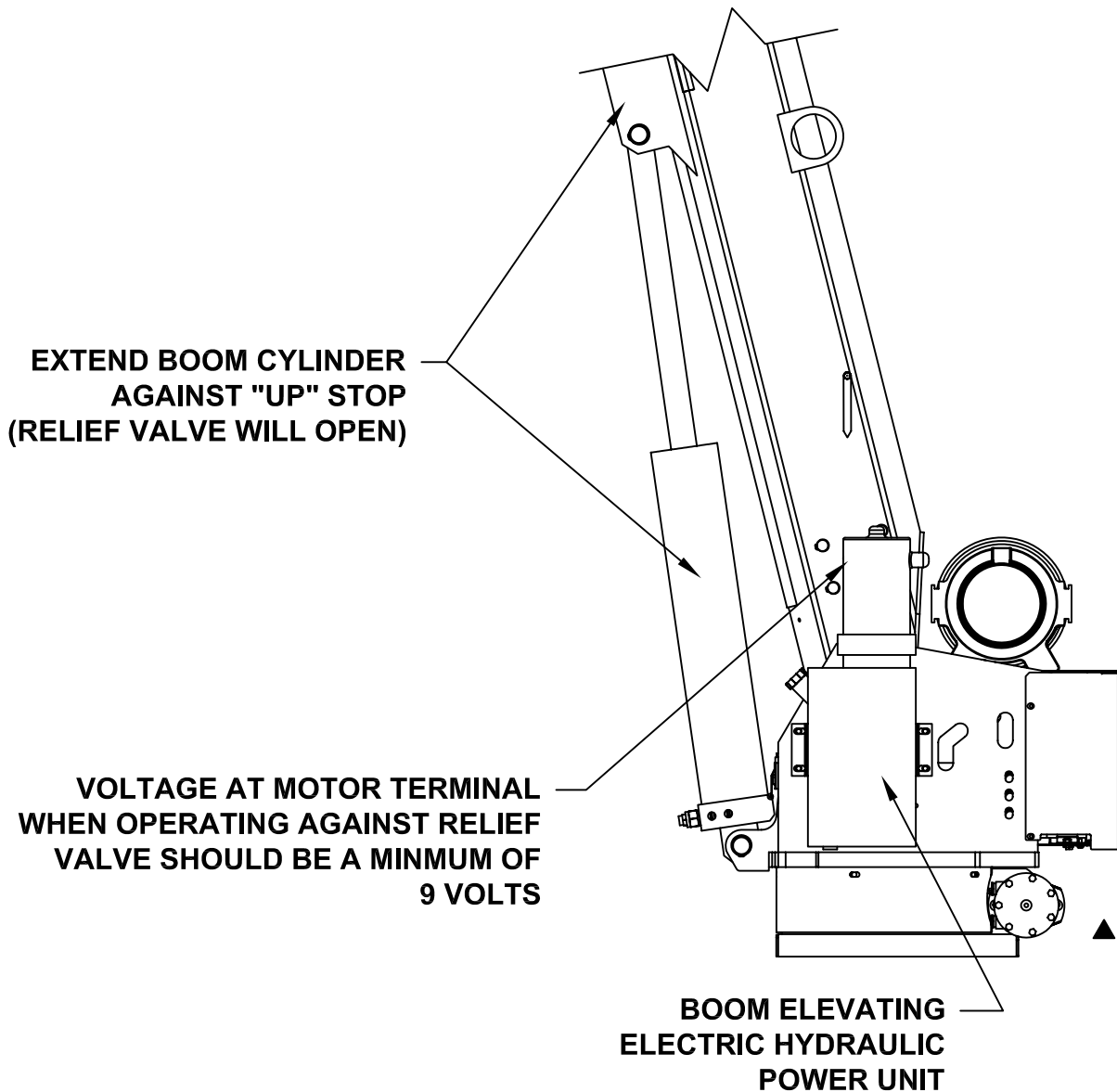
-

21878

MINIMUM VOLTAGE TEST

ET SERIES CRANES

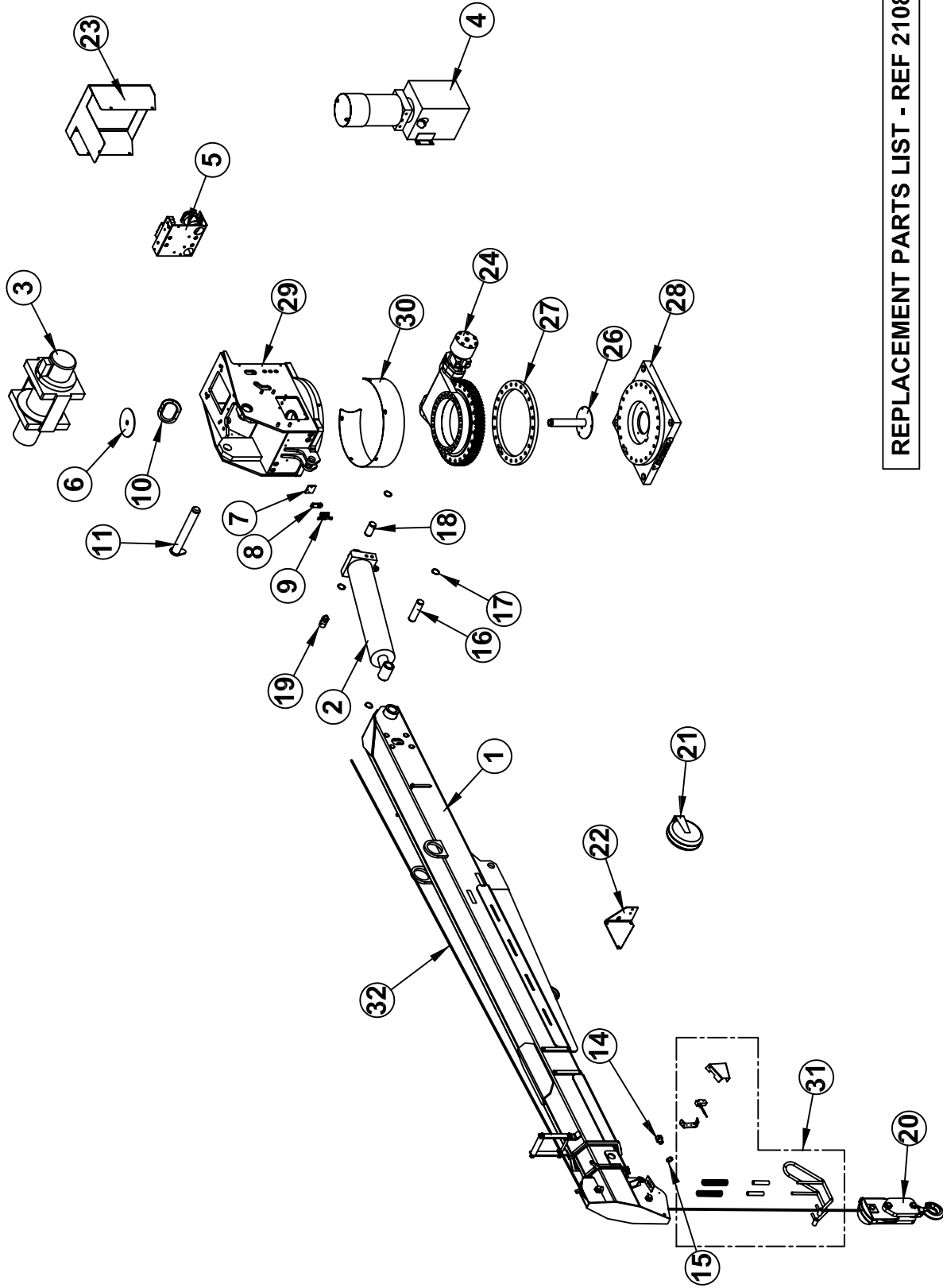
ONE OF THE MOST COMMON ELECTRICAL PROBLEMS ENCOUNTERED ON 12 VOLT ELECTRICAL CRANES IS INSUFFICIENT VOLTAGE AT THE MOTOR WHEN DRAWING THE LARGE CURRENT THAT EXISTS AT FULL LOAD



SECTION 400

PARTS





REPLACEMENT PARTS LIST - REF 21085

TITLE REPLACEMENT PARTS DRAWING ET36KX	DATE 8-6-09A	SECTION C400
	SUPERSEDES 4-30-08	21084

32	1	27669	5/16-80 HIGH STRENGTH WIRE ROPE
31	1	27620	A-2-B MECHANICAL ASSEMBLY
30	1	27186	SLEWING RING COVER
29	1	27184	HOUSING WELDED ASSEMBLY
28	1	27520	TOP PLATE - BASE WELDED ASSEMBLY
27	1	27520s	SPACER
26	1	27568	SWIVEL PIGTAIL CANDLESTICK ASSEMBLY
25	1	27000	HOUSING SIDE COVER
24	1	21419	SLEWING RING KINEMATICS
23	1	27600	HOUSING REAR COVER
22	1	27583	CORD REEL BRACKET
21	1	27310	CORD REEL ASSEMBLY
20	1	27667	SNATCH BLOCK - 6000 LB.
19	1	17460-2950-21	OVERLOAD PRESSURE SWITCH
18	1	18762	PIVOT PIN - ELEVATION CYLINDER
17	4	ISRNG-125	RETAINING RING - 1-1/4" SHAFT DIA.
16	1	18761	PIVOT PIN - ELEVATION CYLINDER
15	1	PL-20-469	LOCKNUT
14	1	22455	STRAIN RELIEF STRAIGHT
13	1	27342	HYD HOSE & FITTINGS KIT - ET36KX
12	1	21106	GENERIC ELECTRIC KIT - ET18/25/30/36KX
11	1	21012	PIVOT PIN - MAIN BOOM PIVOT
10	1	27157	ANTI-CHAFFING GASKET
9	1	19917	BOOM SHUT OFF SWITCH BRACKET
8	1	19918	BOOM SHUT OFF SWITCH
7	1	20896	BOOM SWITCH MOUNTING BLOCK
6	1	27156	SHIELD, HOUSING CENTER
5	1	23154-2	ELECTRICAL COMPONENT ASSEMBLY
4	1	27512	HYDRAULIC POWER UNIT
3	1	19813	ELECTRIC WINCH
2	1	21752	ELEVATION CYLINDER
1	1	27197	BOOM FINAL ASSEMBLY
ITEM NO.	EXPLODE/QTY.	PART NUMBER	DESCRIPTION

REPLACEMENT PARTS DRAWING REF. 21084



TITLE

REPLACEMENT PARTS LIST

ET36KX

DATE

8-6-09A

SUPERSEDES

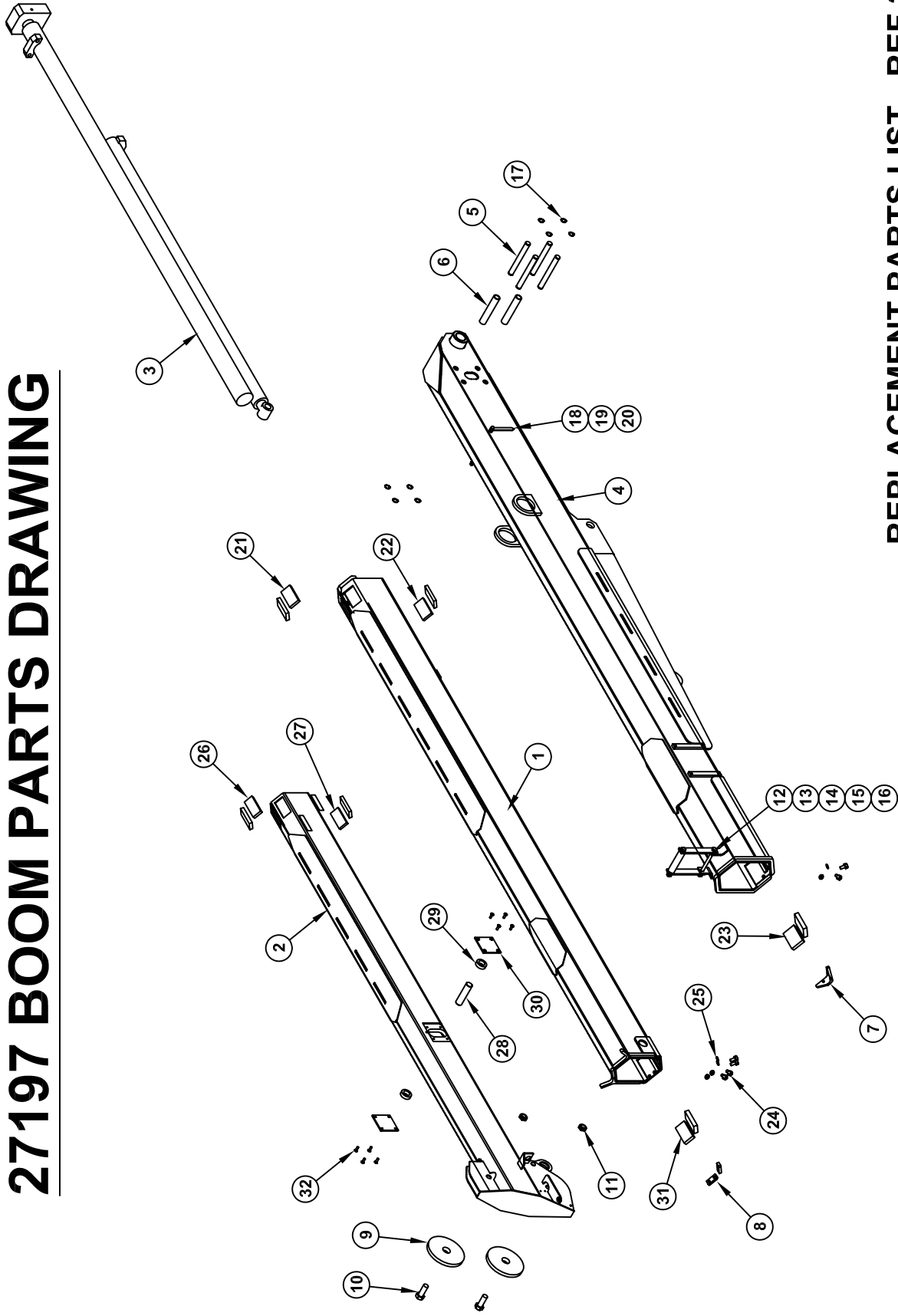
4-30-08

SECTION

C400

21085

27197 BOOM PARTS DRAWING



REPLACEMENT PARTS LIST - REF 21089

VENTURO [®] MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	REPLACEMENT PARTS DRAWING	DATE	5-1-08	SECTION	C400
		ET36KX	SUPERSEDES	-		21088

32	8	!CAC502520063-N	CNTR SNK ALLEN HEAD CAP SCREW 1/4-20 X 5/8 LG W/ PATCH
31	2	U063X1.75	UHMW 063X1.75
30	2	23116	PIN BLOCK REINFORCING
29	2	21428	BUSHING
28	1	21941	EXTENSION CYLINDER PIN
27	2	U044X1.50	UHMW 044X1.50
26	2	U050X1.50	UHMW 050X1.50
25	6	!LWSH-038	LOCK WASHER 3/8"
24	6	!HHCS03816075	HEX HEAD CAP SCREW - 3/8-16 X 3/4 LONG
23	2	U063X2.13	UHMW 063X2.13
22	2	U044X1.75	UHMW 044X1.75
21	2	U050X1.75	UHMW 050X1.75
20	2	!ANUT-02520S	ACORN NUT 1/4-20 STAINLESS
19	2	13459-2	BOOM ARROW 4-7/16 LONG
18	2	22490	SPACER, BOOM ARROW 1/2" O.D.
17	8	!SRNG-075	RETAINING RING - 3/4" SHAFT DIA.
16	1	!HHCS04414550	HHCS - 7/16-14 X 5-1/2 LG
15	2	!LNUT-04414	NYLON INSERT LOCK NUT - 7/16-14
14	1	21560	ROLLER,UHMW GUIDE
13	1	21936	FLAT,MOUNT;WIRE ROPE GUIDE
12	1	21935	WIRE-ROPE GUIDE WELDED
11	2	!LNUT-07510	LOCKNUT 3/4-10
10	2	17059-6	SHEAVE AXLE 3/4 X 2 W/ 1" SHANK
9	2	27001	SHEAVE - BOOM
8	2	23119	BEARING RETAINING BLOCK
7	1	23183	V-BLOCK SLIDER
6	2	21498	EXTENSION CYLINDER ROLLER
5	4	21497	THRUST PIN - EXTENSION CYLINDER
4	1	21472	PRIMARY BOOM WELDED ASSEMBLY
3	1	21753	EXTENSION CYLINDER
2	1	27167	TERTIARY BOOM ASSEMBLY
1	1	27165	SECONDARY BOOM WELDED ASSEMBLY
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION

REPLACEMENT PARTS DWG - REF 21088



TITLE
27197 BOOM REPLACEMENT PARTS LIST

ET36KX

DATE
5-1-08

SUPERSEDES
-

SECTION

C400

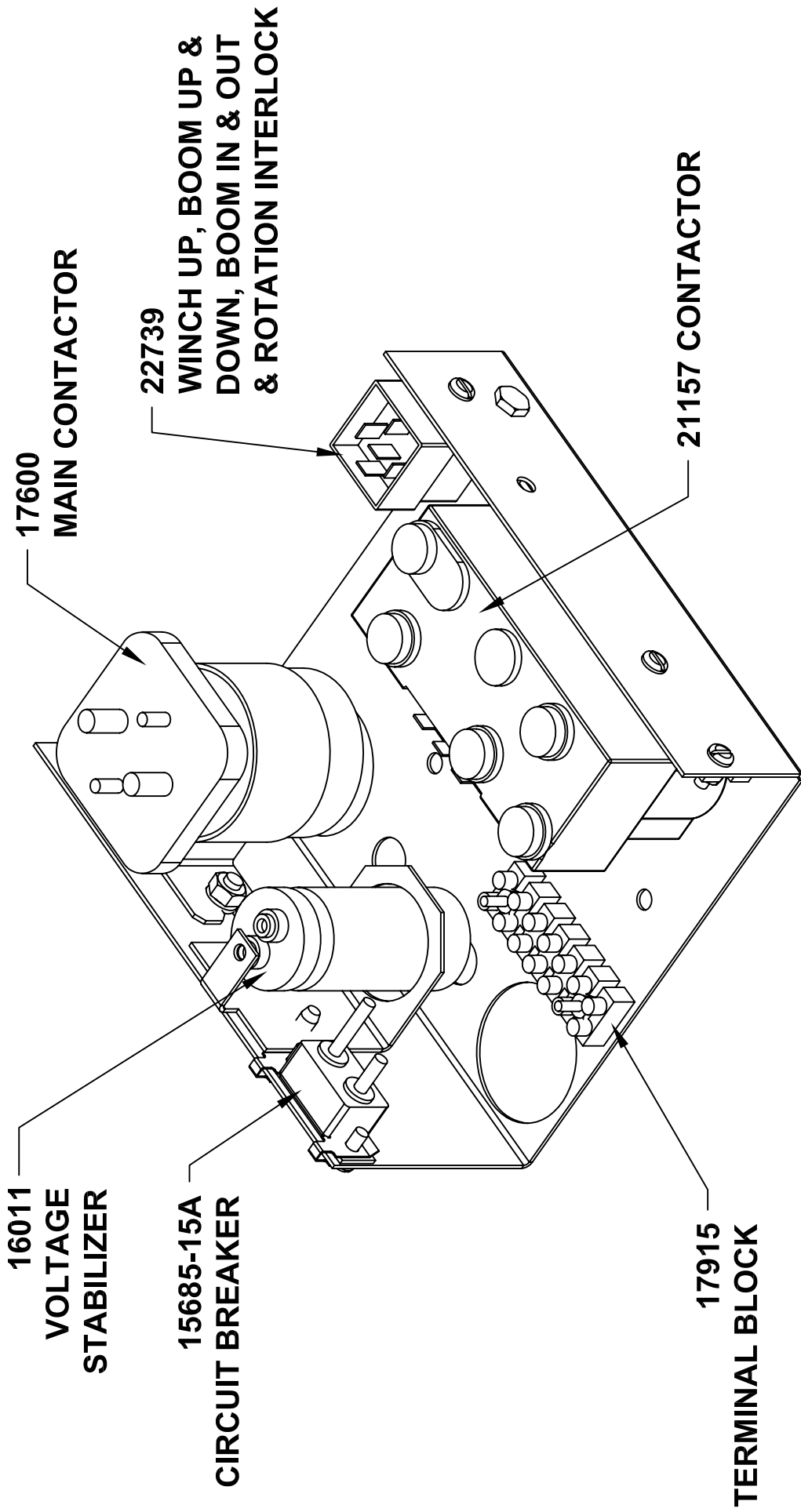
21089

19	1	27583	MOUNTING BRACKET - CORD REEL
18	1	27310	CORD REEL
17	2	!LNUT-#0440	LOCKNUT W/ NYLON INSERT - 4-40
16	1	27624	ROD ASSY. ADJUSTABLE A2B
15	2	!LNUT-04414	LOCKNUT W/ NYLON INSERT - 7/16-14
14	2	!FWSH-050	FLAT WASHER - 1/2" USS
13	1	!LWSH-#06-STAR	EXTERNAL STAR LOCK WASHER - #06
12	1	!PHCS#0632100	PAN HD CAP SCREW - #6-32 x 1
11	2	!LWSH-#10	LOCK WASHER - #10
10	2	!PHCS#1024125	PAN HD CAP SCREW - #10-24 x 1-1/4
9	1	!JNUT-04414N	HEX JAM LOCKNUT - 7/16-14
8	4	!FWSH-044SAE	FLAT WASHER - 7/16 SAE
7	1	!HHCS04414450	HEX HD CAP SCREW - 7/16-14 x 4-1/2
6	1	27696	BASE - NEOPRENE
5	1	27698	COVER PLATE
4	1	19376	ANTI-TWO BLOCK SWITCH
3	2	27586	SPRING
2	2	27579b	SPRING LOCATING TUBE
1	1	21870	ANTI - TWO - BLOCK CAGE ASSEMBLY
ITEM NO.	EXPLODED/QTY.	PART NUMBER	DESCRIPTION

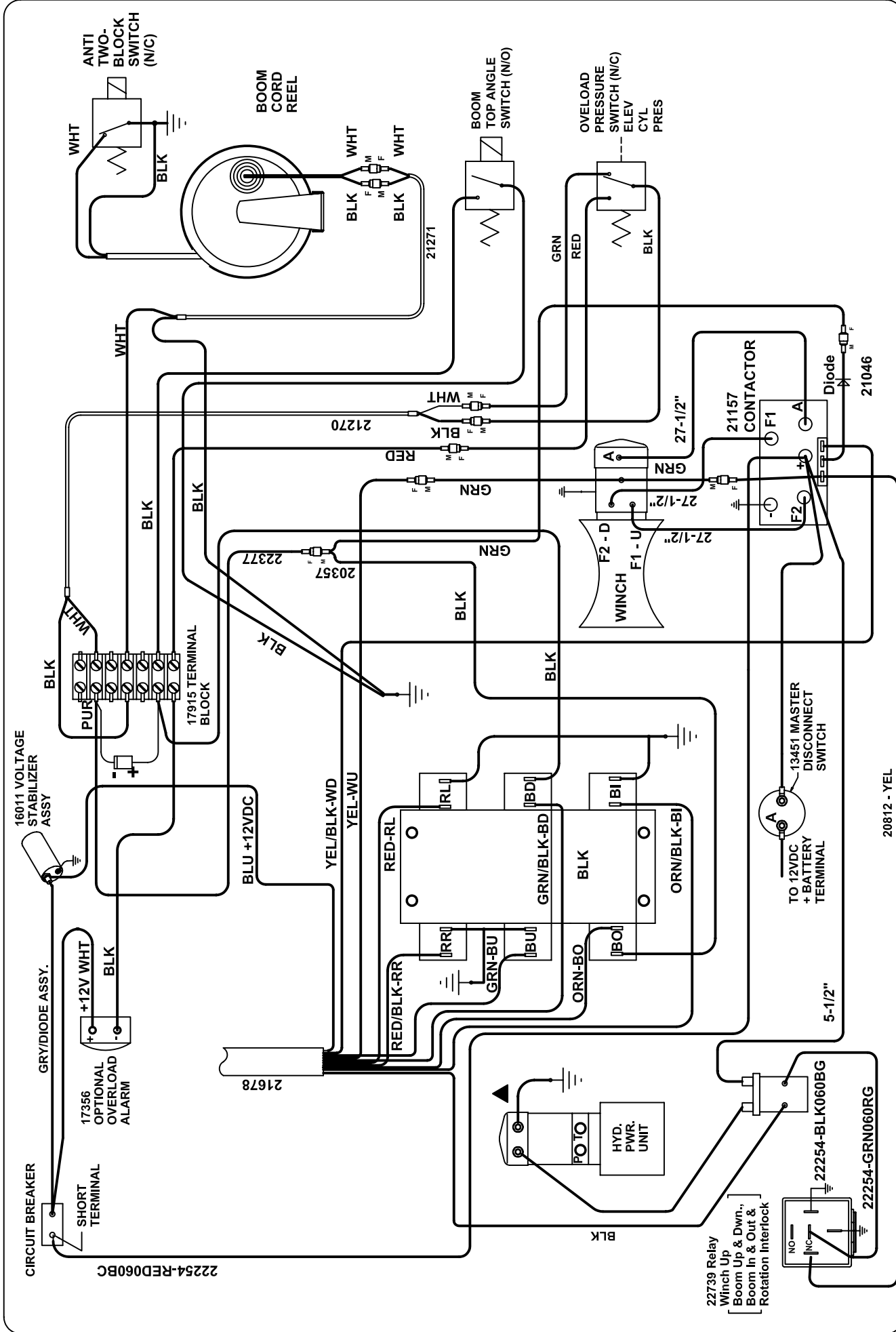


TITLE	ANTI-TWO-BLOCK SYSTEM	DATE	3-4-10	SECTION	C400
	ET25/30/36 & HT25/30	SUPERSEDES	-		21881

23154-2 ELECTRICAL COMPONENT ASSEMBLY

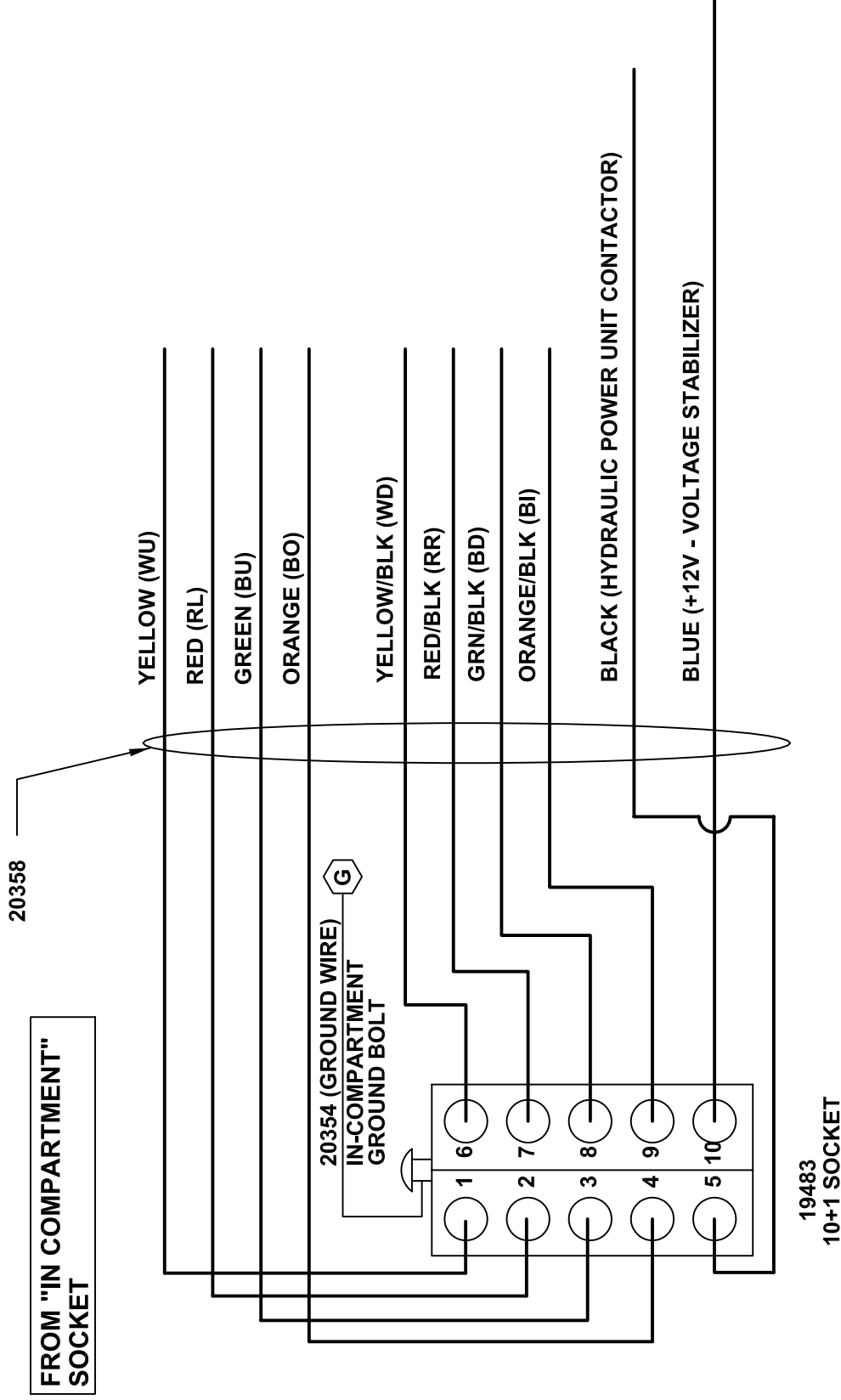


VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	ELECTRICAL COMPONENT ASSEMBLY	
	DATE	10-9-09	SECTION
	SUPERSEDES	-	21776
		ET25/30/36KX	



VENTURO MANUFACTURING, INC. CINCINNATI, OHIO		TITLE WIRING DIAGRAM	
DATE 4-21-10C	SECTION -	SUPERSEDES 8-17-09B	21869
ET36KX		WIRING DIAGRAM	

ET25/30/36KX IN-COMPARTMENT CONTROLS



NOTE: BLUE/BLK WIRE OF 20358 HARNESS NOT USED

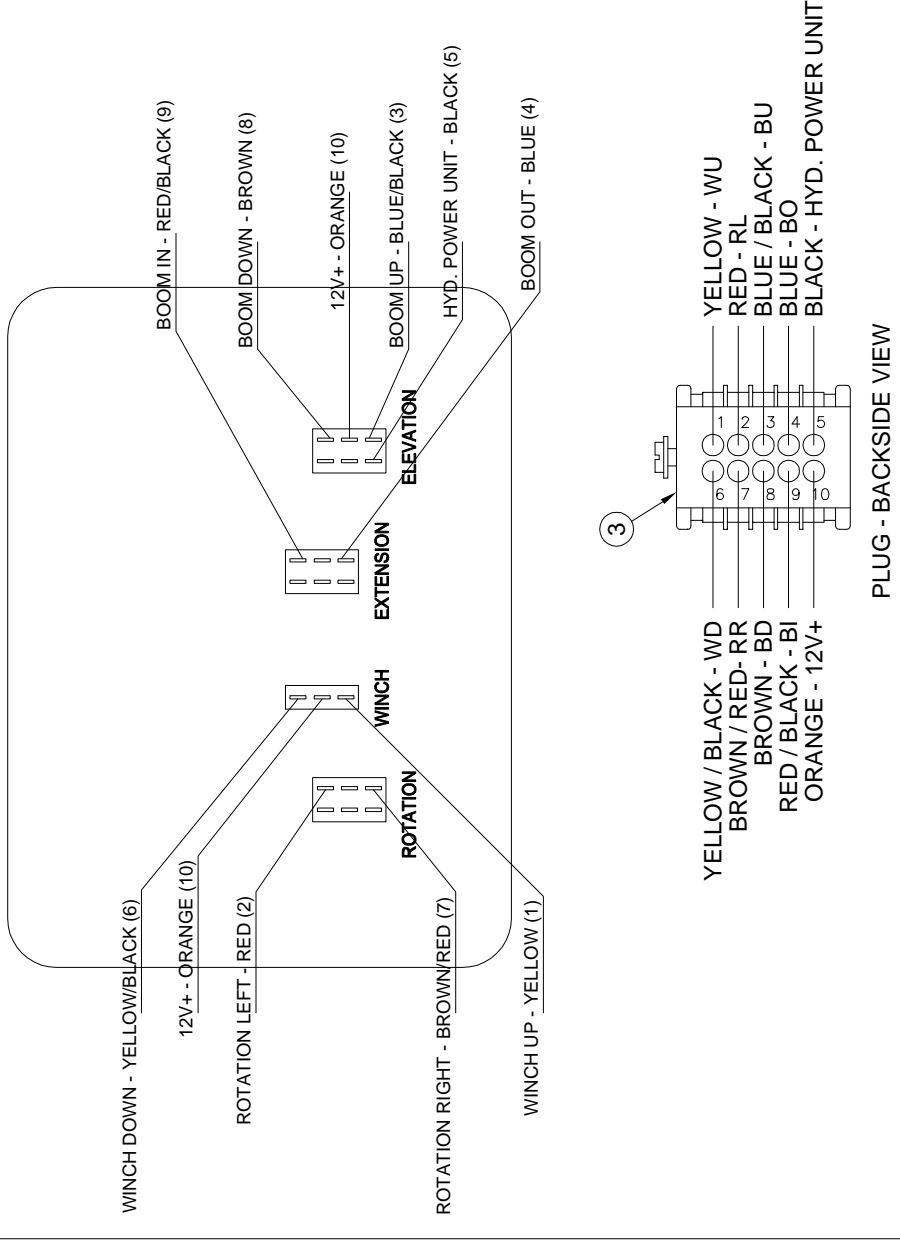
TITLE IN-COMPARTMENT CONTROLS ET25/30/36KX CRANE		DATE 1-19-05A	SECTION -
		SUPERSEDES 4-12-02	20359



22060 PENDANT (4 - SWITCH)

CORD REPLACEMENT INSTRUCTIONS

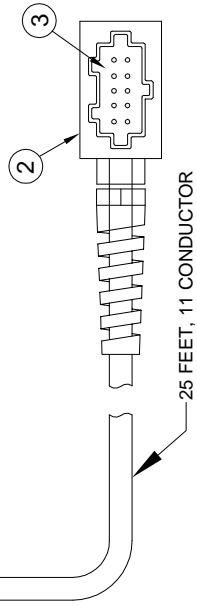
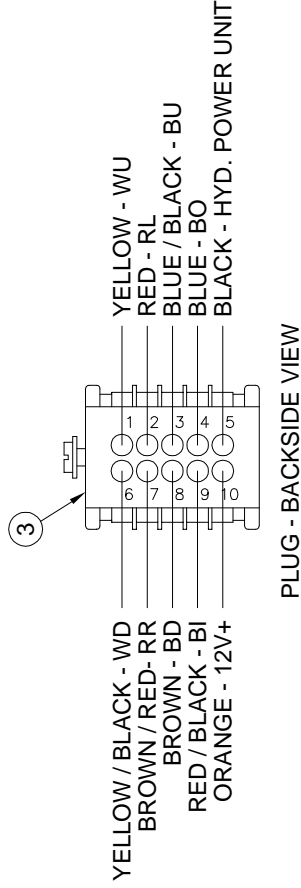
(INSIDE VIEW OF PENDANT CONTROL W/ REAR COVER REMOVED)



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

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

NOTE 3)
 STOW OR CUT-BACK
 UNUSED WIRES.



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

TITLE
REPLACEMENT PARTS DRAWING & LIST

22060 PENDANT (STANDARD CONTROL)

DATE
12-10-13C

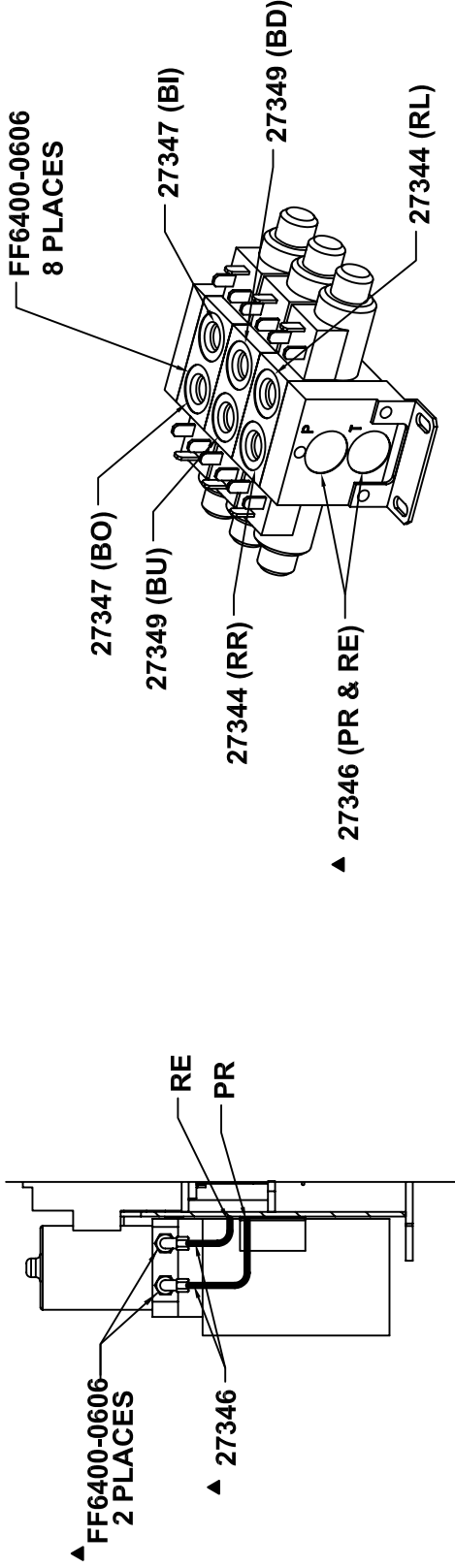
SUPERSEDES
09-28-12B

SECTION
C400

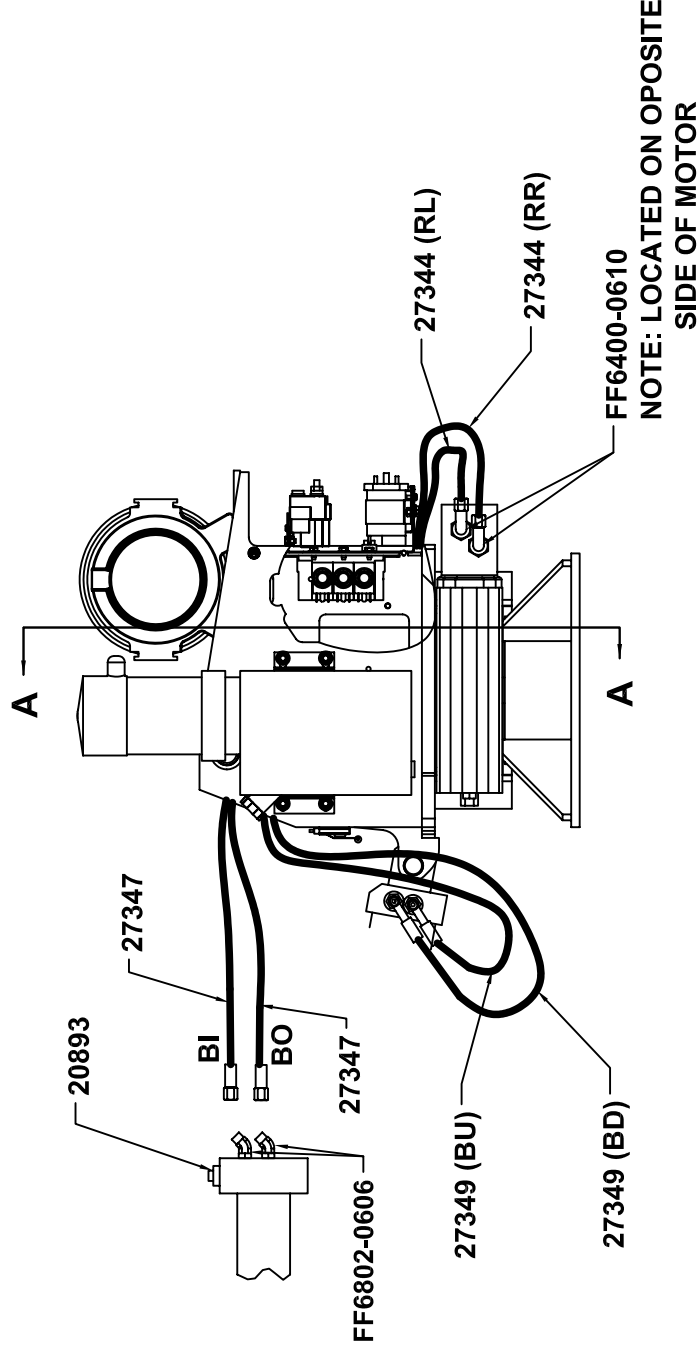
22076


MANUFACTURING, INC.
 CINCINNATI, OHIO

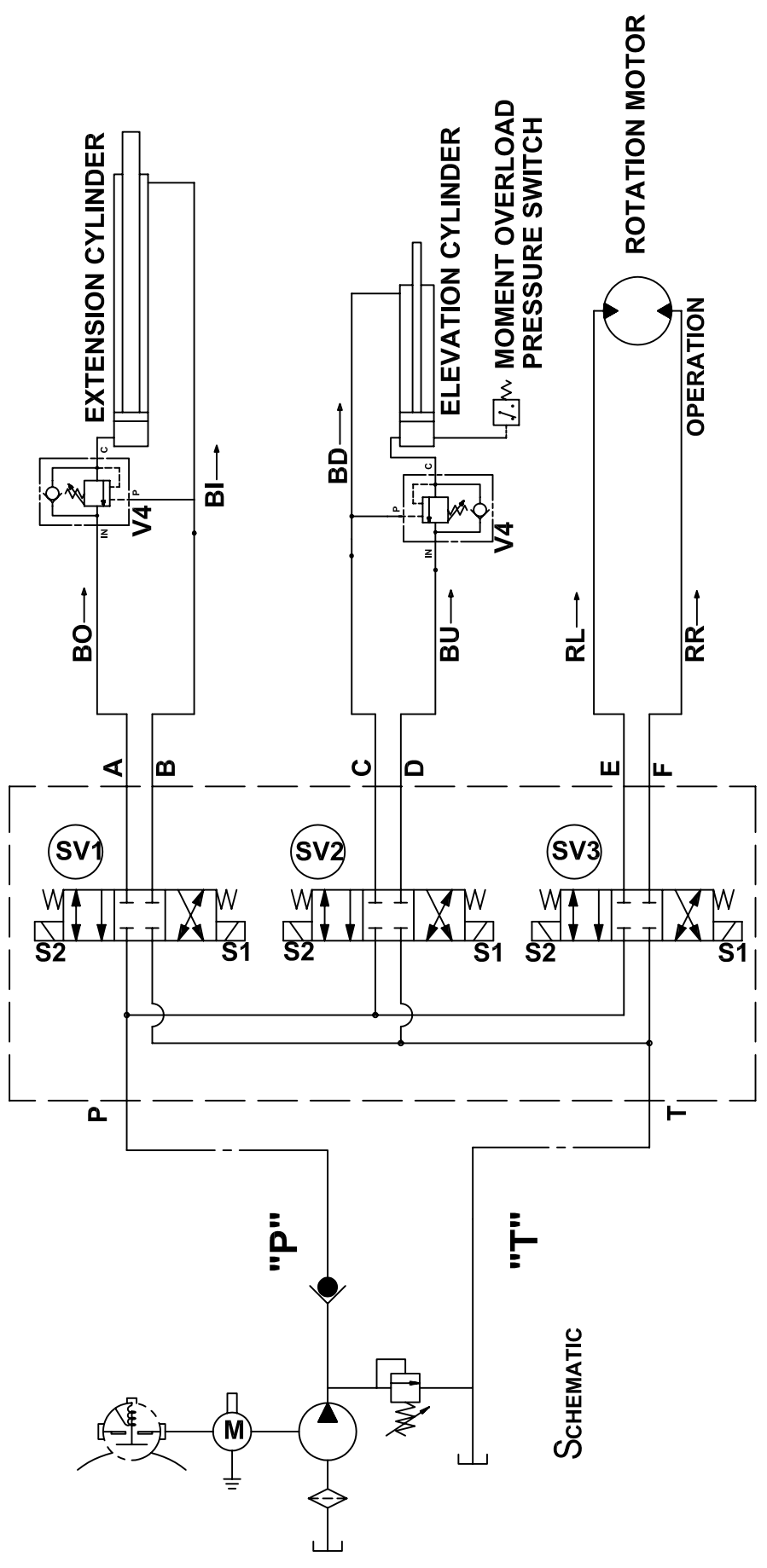
RR	ROTATION RIGHT
RL	ROTATION LEFT
BO	BOOM OUT
BI	BOOM IN
BU	BOOM UP
BD	BOOM DOWN
PR	PRESSURE
RE	RETURN



SECTION VIEW A-A



 VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	REPLACEMENT PARTS DRAWING		
	DATE	6-8-10B	SECTION	C400
	SUPERSEDES	8-17-09A		21758



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'

TITLE

HYDRAULIC SYSTEM DIAGRAM

DATE

1-31-05C

SECTION

C400



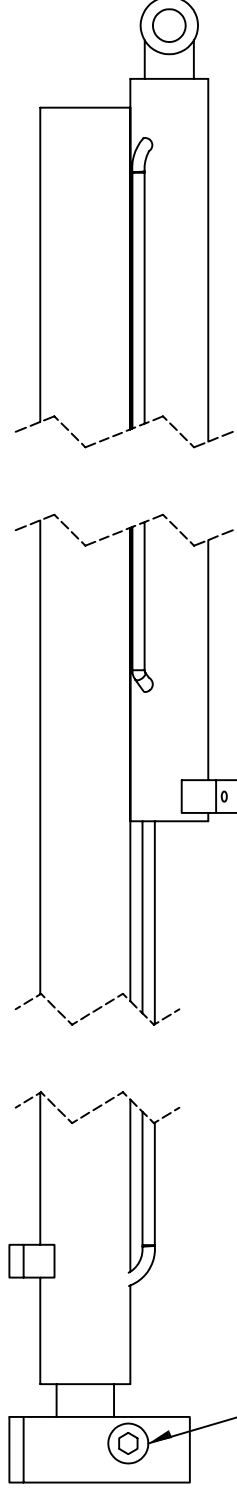
VENTURO MANUFACTURING, INC.
CINCINNATI, OHIO

ET18KX, ET25KX, ET30KX, ET36KX

SUPERSEDES
7-31-03B


20156

21753 EXTENSION CYLINDER

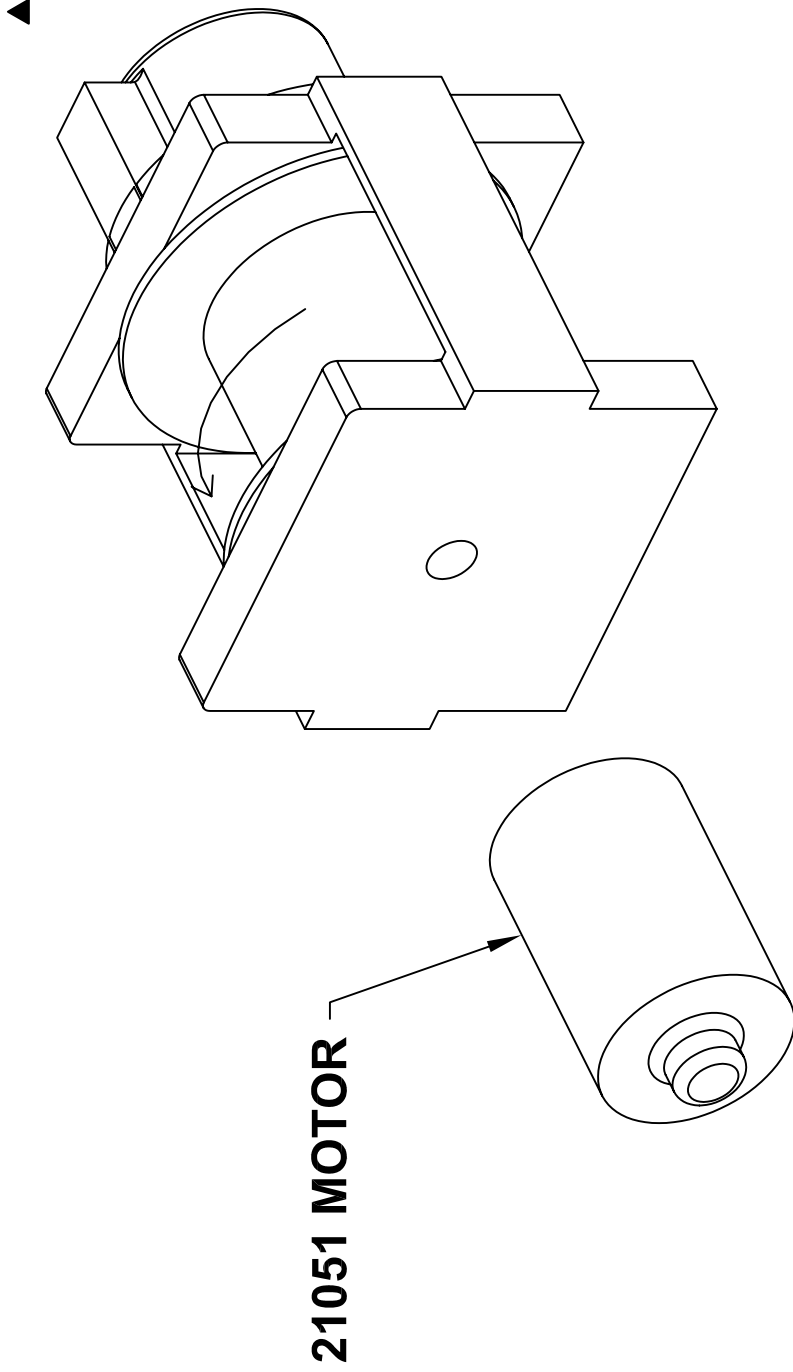


20893 - COUNTERBALANCE VALVE

SEAL KIT P/N: 21775

 MANUFACTURING, INC. CINCINNATI, OHIO	TITLE	EXTENSION CYLINDER	DATE	4-30-09A	SECTION	C400
		HT25/30, ET36	SUPERSEDES	9-25-08		21860

19813 WINCH



21051 MOTOR

TITLE

WINCH REPLACEMENT PARTS

SECTION

DATE
6-30-05A

SUPERSEDES

10-27-04

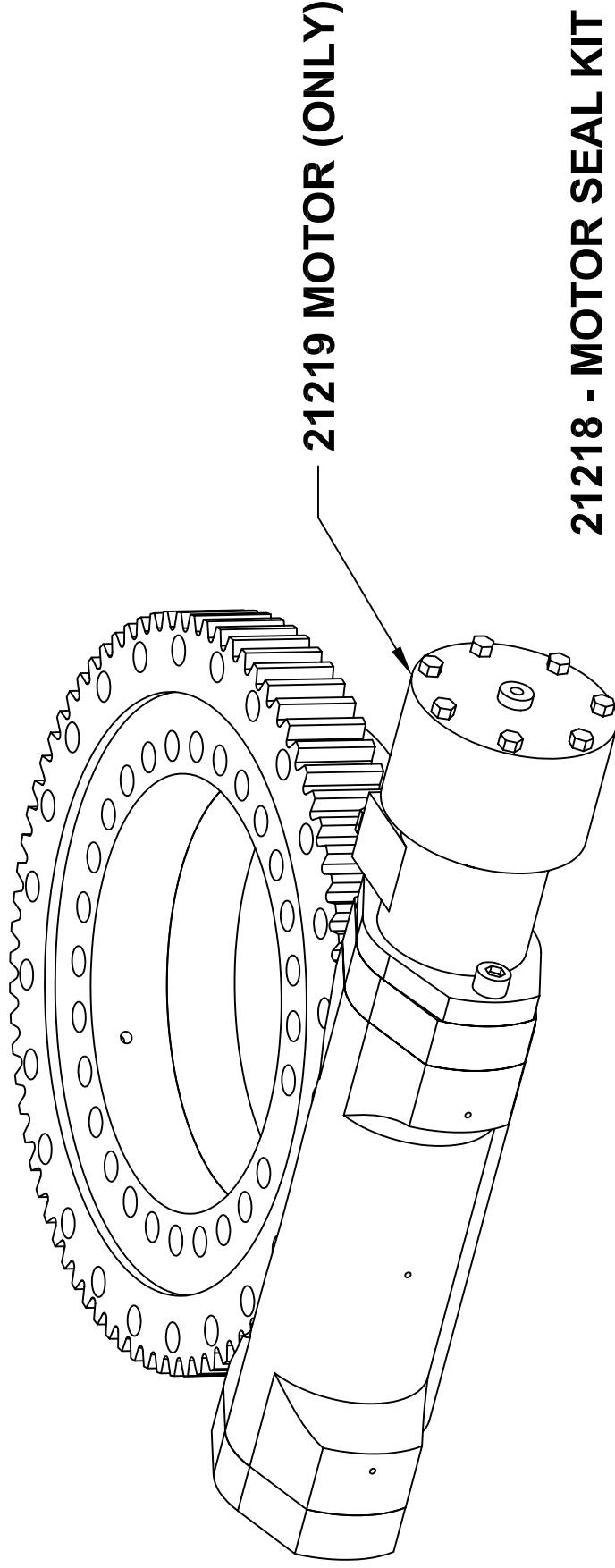
ET25/36K(X)

21053



MANUFACTURING, INC.
CINCINNATI, OHIO

21419 SLEWING SYSTEM REPLACEMENT PARTS



TITLE

SLEWING REPLACEMENT PARTS

DATE

08-24-09

SECTION

-

VENTURO
MANUFACTURING, INC.
CINCINNATI, OHIO

HT25/30KX, ET36KX

21887

21866 DECAL KIT

PART NO.	QTY.	DESCRIPTION
14473-2	2	DECAL, GREASE
17389	2	DECAL, VENTURO - MEDIUM
15401	1	DECAL, UNLAWFUL TO OPERATE
27199-2	1	DECAL, BOOM CAPACITY ET36KX LEFT
27199-1	1	DECAL, BOOM CAPACITY ET36KX RIGHT
21868	2	DECAL, MODEL NAME DECAL ET36KX
15392	1	DECAL, DANGER ELECTROCUTION HAZARD
15391	1	DECAL, CRANE NOT PASSENGER LIFT
15390	1	DECAL, CAUTION, INSTRUCTIONS
15513	1	ON / OFF PLATE DECAL
13397	1	DECAL, OIL LEVEL
21082	1	INST. DWG DECAL PLACEMENT
20051	1	DECAL, ROTATION STOP LOCATION
20174	1	DECAL, GROUND CABLE ATTACH TO TRUCK FRAME
27608-1	1	PINCH POINT DECAL - LEFT
27608-2	1	PINCH POINT DECAL - RIGHT
27609	1	PENDANT CORD HOOK DECAL



VENTURO MANUFACTURING, INC. CINCINNATI, OHIO	TITLE FIELD SERVICE LABEL KIT ET36KX	DATE 7-16-09A	SECTION C400
		SUPERSEDES 2-11-09	21867



LIMITED WARRANTY POLICY

This limited policy warrants new products of Venturo be free from defects in material and workmanship for a period of one (1) year from date of original installation. This 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.

WARRANTY CLAIMS

Venturo Manufacturing, Inc. 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 insure the installation is completed according to the manufacturer's recommendations, insure 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 products without the expressed written consent of the manufacturer. Reinstallation 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 again be instructed as to the safe operation at time of delivery. Maintenance, service, operation and safety warning decals are available on request from Venturo Manufacturing, Inc.

VENTURO MANUFACTURING, INC

DIVISION OF COLLINS ASSOCIATES, INC
12110 BEST PLACE • CINCINNATI, OHIO 45241
513.772.8448
www.venturo.com