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## CT/CTFB INSTRUCTION MANUAL

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MFG., INC.  
CINCINNATI, OHIO

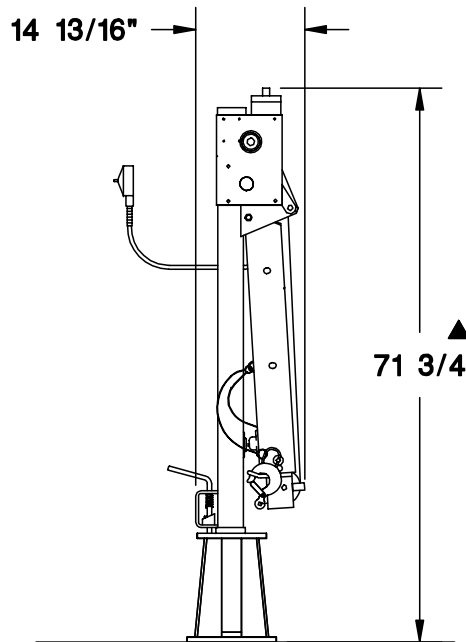
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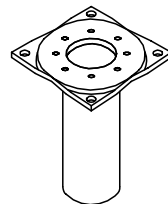
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**WARNING: THESE PRODUCTS ARE NOT PASSENGER LIFTS. THEY ARE NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT OR OTHERWISE TRANSPORT PERSONNEL.**

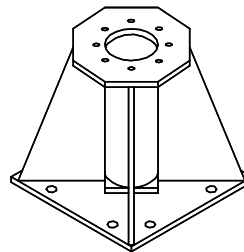
**BOOM IN FOLDED POSITION ('A' & 'C' SOCKETS)**



**'A' SOCKET**

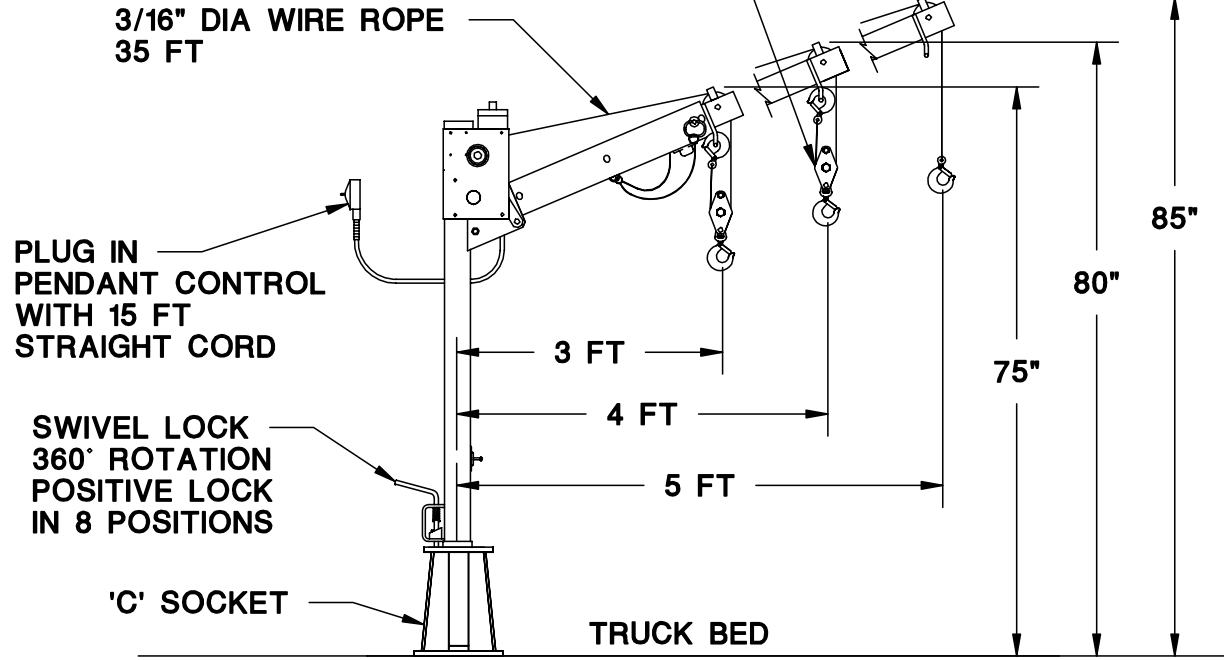


**'C' SOCKET**



**BOOM WILL FOLD WITH BOTH 'A' & 'C' SOCKETS**

**SWIVEL SNATCH BLOCK REQUIRED FOR LOADS OVER 1200 LBS.**



PERFORMANCE CHARACTERISTICS			
BOOM POSITION	LOAD CAPACITY	PART LINE	LIFTING SPEED AT CAPACITY LOAD
5 FT	1000 LBS	1	15 FT/MIN
4 FT	1500 LBS	2	9 FT/MIN
3 FT	2000 LBS	2	8 FT/MIN

**SNATCH BLOCK REQUIRED FOR LOADS OVER 1200 LBS.**

**NET WEIGHT WITHOUT SOCKET 195 LBS.**



MANUFACTURING, INC.  
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TITLE  
**INSTALLATION DRAWING**

**CT2003 FB CRANE**

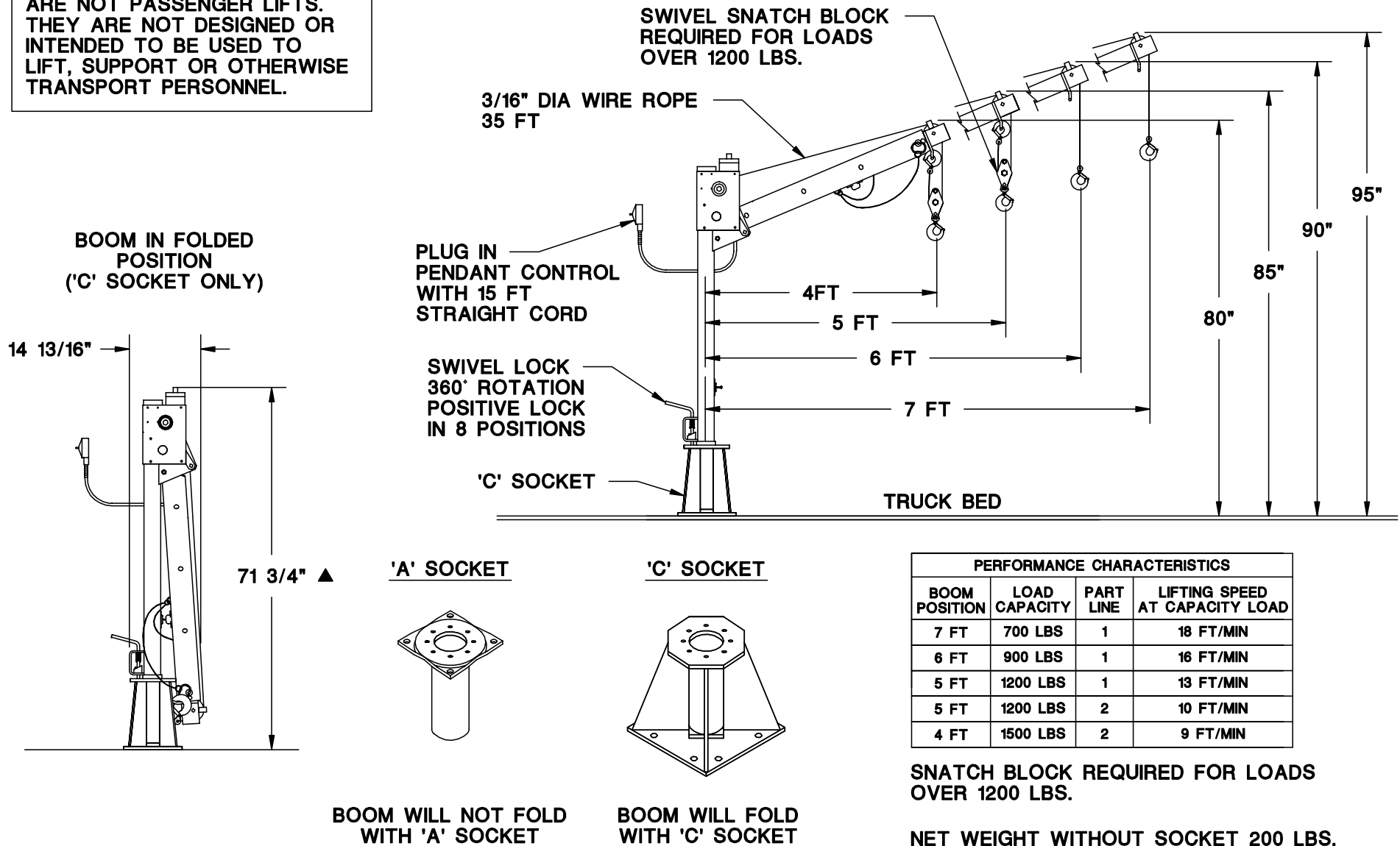
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SUPERSEDES  
**12-12-97**

SECTION  
**C100**

**18580**

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TITLE  
**INSTALLATION DRAWING**

**CT2004 FB CRANE**

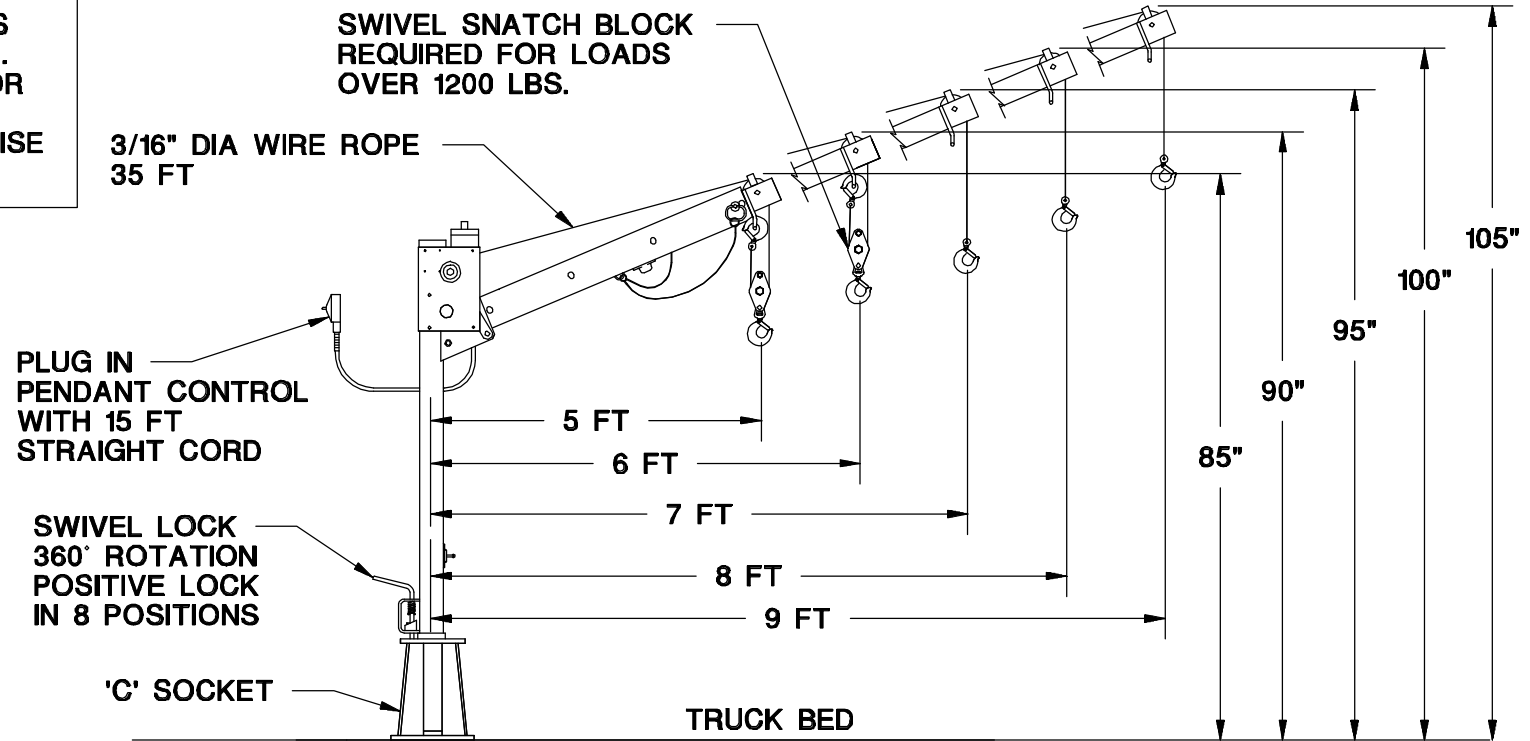
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SUPERSEDES  
**12-12-97**

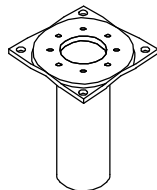
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**C100**

**18581**

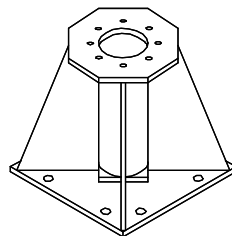
**WARNING: THESE PRODUCTS ARE NOT PASSENGER LIFTS. THEY ARE NOT DESIGNED OR INTENDED TO BE USED TO LIFT, SUPPORT OR OTHERWISE TRANSPORT PERSONNEL.**



**'A' SOCKET**



**'C' SOCKET**



**BOOM WILL NOT FOLD WITH 'A' OR 'C' SOCKETS**

PERFORMANCE CHARACTERISTICS			
BOOM POSITION	LOAD CAPACITY	PART LINE	LIFTING SPEED AT CAPACITY LOAD
9 FT	500 LBS	1	20 FT/MIN
8 FT	600 LBS	1	19 FT/MIN
7 FT	700 LBS	1	18 FT/MIN
6 FT	900 LBS	1	16 FT/MIN
5 FT	1200 LBS	1	13 FT/MIN
5 FT	1200 LBS	2	10 FT/MIN

**SNATCH BLOCK REQUIRED FOR LOADS OVER 1200 LBS.**

**NET WEIGHT WITHOUT SOCKET 205 LBS.**



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TITLE  
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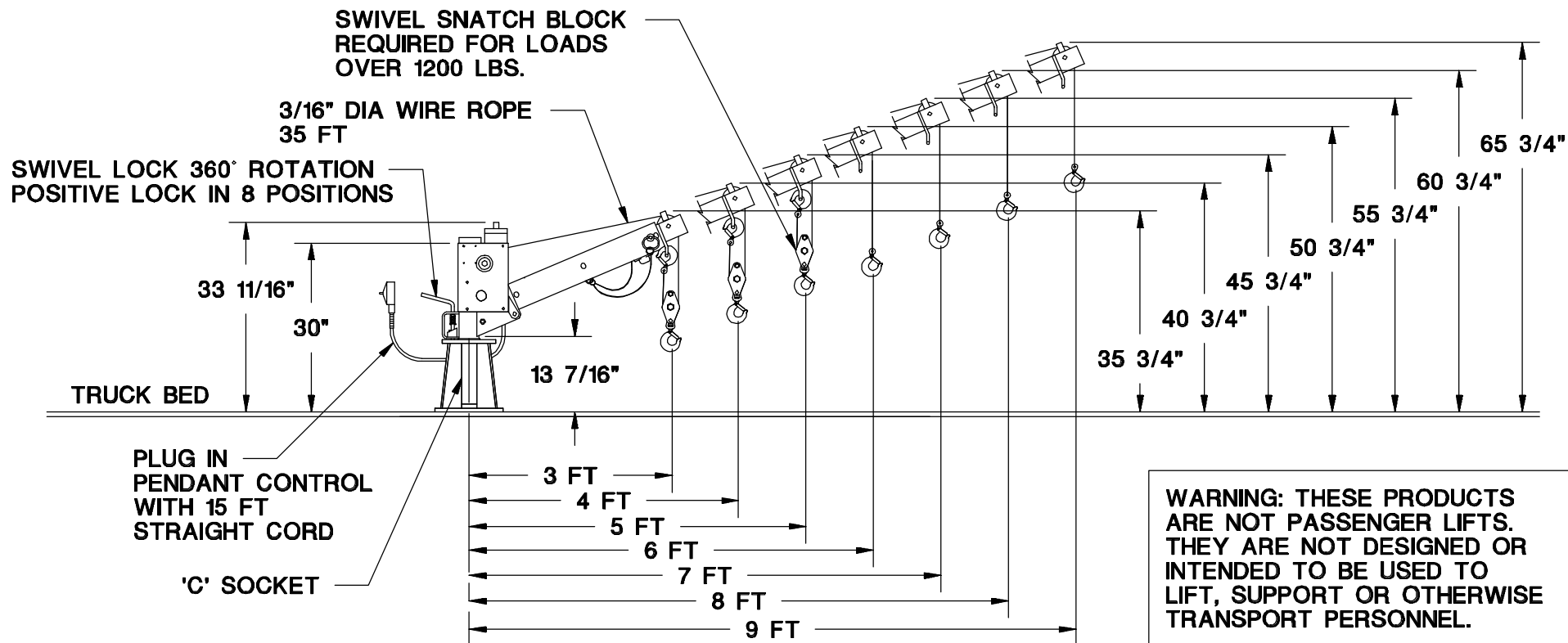
**CT2005 CRANE**

DATE  
**12-12-97**

SUPERSEDES  
-

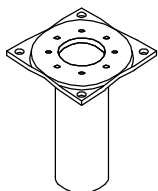
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**C100**

**18584**

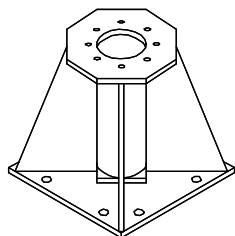


NET WEIGHT W/OUT SOCKET (MAX CUT-DOWN)	
CT2003	155 LBS
CT2004	160 LBS
CT2005	165 LBS

**'A' SOCKET**



**'C' SOCKET**



**BOOM WILL NOT FOLD  
WITH 'A' OR 'C' SOCKETS**

PERFORMANCE CHARACTERISTICS			
BOOM POSITION	LOAD CAPACITY	PART LINE	LIFTING SPEED AT CAPACITY LOAD
9 FT	500 LBS	1	20 FT/MIN
7 FT	700 LBS	1	18 FT/MIN
5 FT	1000 LBS	1	15 FT/MIN
5 FT	1200 LBS	2	10 FT/MIN
3 FT	2000 LBS	2	8 FT/MIN

**SNATCH BLOCK REQUIRED  
FOR LOADS OVER 1200 LBS.**

- HEIGHT DIMENSIONS ARE FOR MAXIMUM CUT-DOWN MODEL AND ARE APPROX. 39" LESS THAN STANDARD CTFB CRANES.
- HEIGHT DIMENSIONS ARE FOR C-SOCKET MODELS
- DEDUCT 12 1/2" FROM HEIGHT DIMENSIONS FOR A-SOCKET MODELS



MANUFACTURING, INC.  
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TITLE  
**INSTALLATION DRAWING**

**CT2003/4/5FB-S - MAX CUTDOWN**

DATE  
**4-16-98**

SUPERSEDES  
**-**

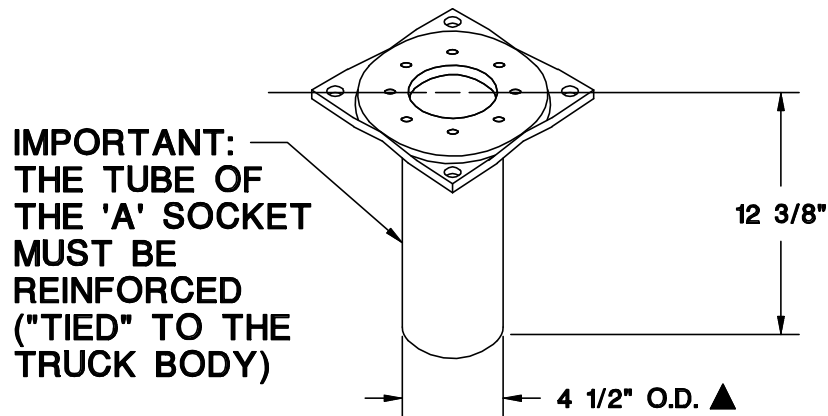
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**C100**

**19481**

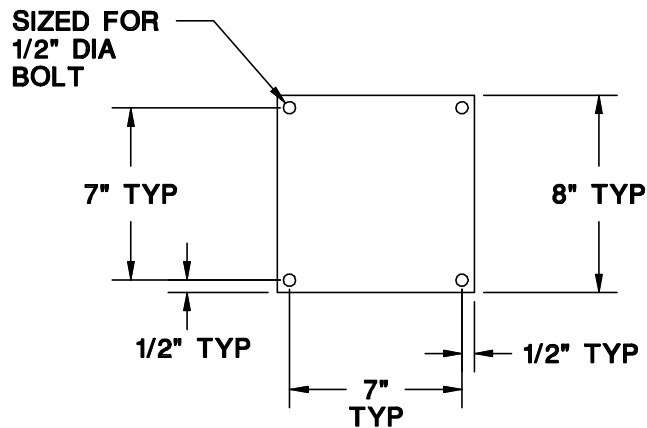
## TYPE 'A' SOCKET (13171)

### RECESS MOUNTING

WEIGHT 18 LBS.



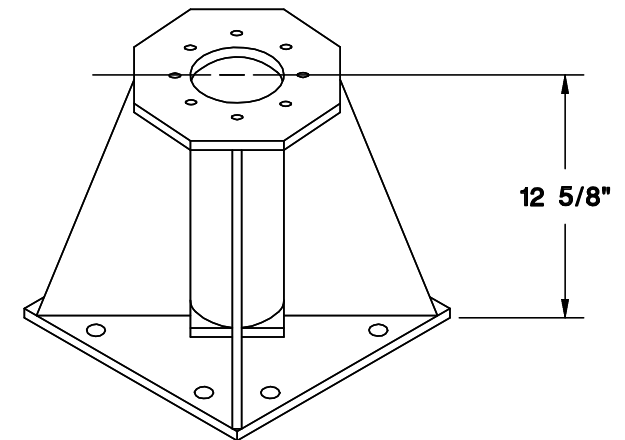
### MOUNTING DIMENSIONS



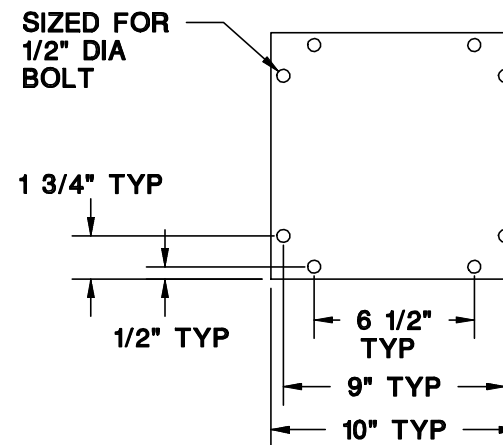
## TYPE 'C' SOCKET (13172)

### SURFACE MOUNTING

WEIGHT 36 LBS.



### MOUNTING DIMENSIONS



MANUFACTURING, INC.  
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TITLE  
INSTALLATION DRAWING

13171 & 13172 SOCKETS

DATE  
5-3-99B

SUPERSEDES  
2-3-99A

SECTION  
C100

18585

# CRANE SAFETY AND HAZARDS

CA, CE, CT, AND DT 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. FOR TRAVEL, BOOM MUST BE TIED DOWN IN THE 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.



MFG., INC.  
CINCINNATI, OHIO

TITLE

INSTALLATION DWG

DATE

3-2-99C

SECTION

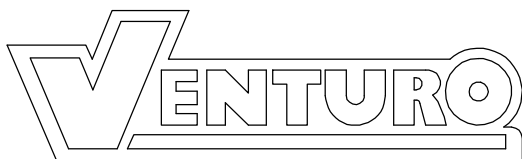
C150

CA, CE, CT, AND DT

SUPERCEDES

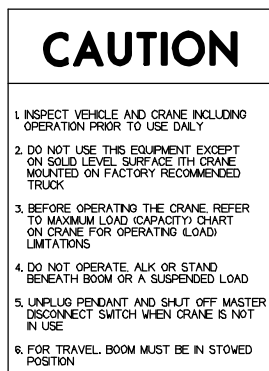
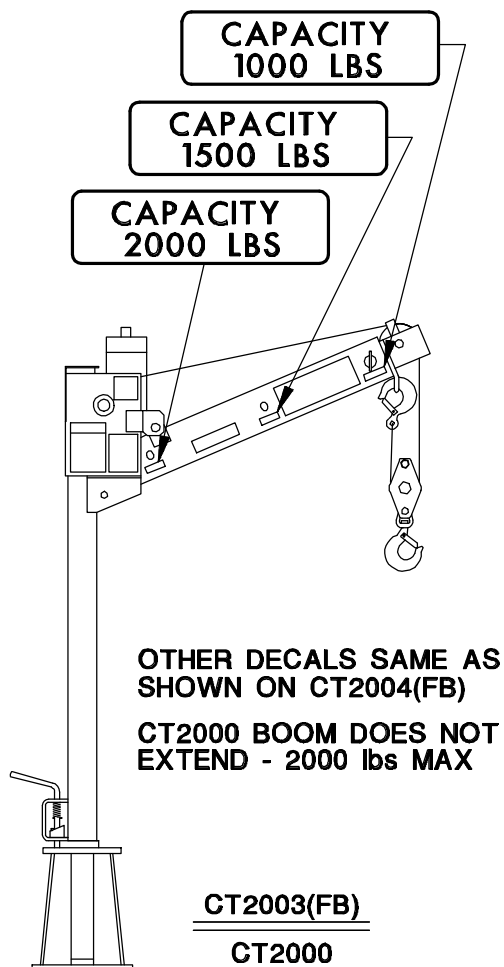
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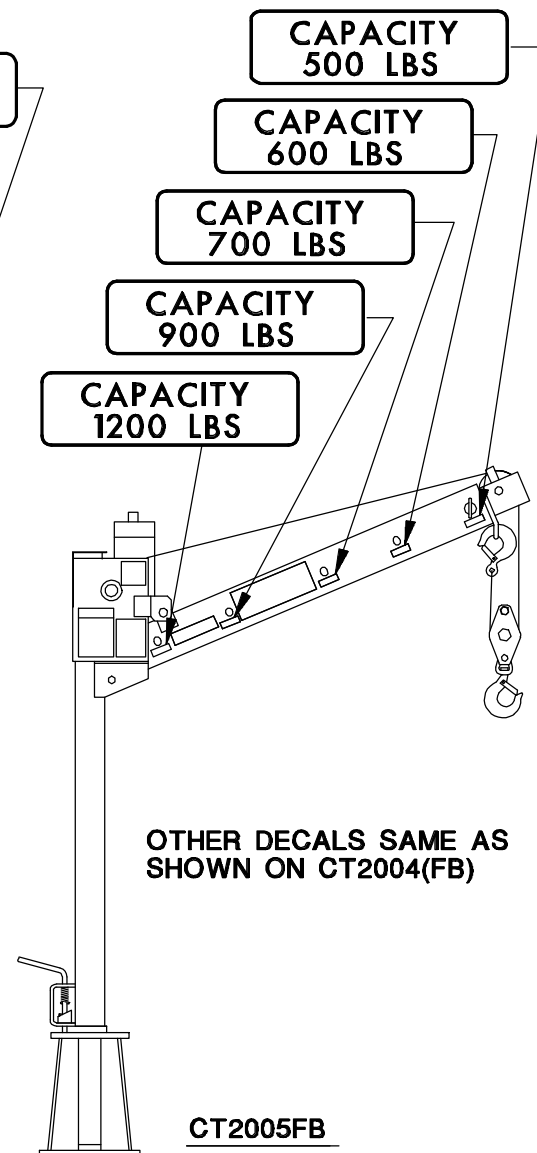
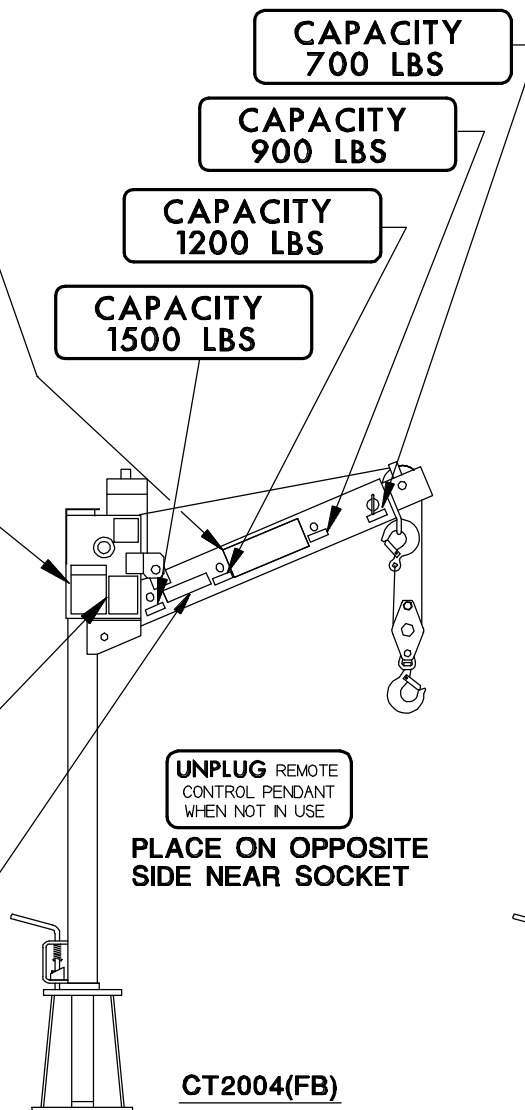
DECAL 17389-4 2 REQ'D  
1 EACH SIDE

CAPACITY DECALS ON BOTH SIDES OF BOOM



**USE SNATCH BLOCK  
FOR LOADS  
OVER 1200 LBS**

1 EACH SIDE



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**DECAL PLACEMENT**

DATE  
**10-14-97**

SECTION  
**C150**

**CT2000/3/4/5 & CT2003/4FB CRANES**

SUPERSEDES  
**3-6-96**

**16176**



# OPERATING INSTRUCTIONS

CA, CE, CT, & DT CRANES

## ELECTRIC WINCH

The winch is operated by a control switch in a plug-in remote pendant. Unplug the pendant and store it in the vehicle when the crane is not in use.

## TELESCOPING BOOM

On CE6K, CT & DT Cranes the boom can be manually extended. The hole in the extension section of the boom should be aligned with the slot in the stationary section at the position desired and the toggle pin inserted. The crane lifting capacity is shown at each toggle pin position on the CT & DT cranes. The CE6K has a decal on the mast which shows the capacities of the crane at its various angles and extensions.

## SWIVEL SNATCH BLOCK

On CA2000, CT200X, and DT Cranes, the swivel snatch block must be used for loads over 1200 lbs. On the CE6K, the swivel snatch block must be used on loads over 1000 lbs. It may also be used for lower loads to reduce lifting speed for better control and to prevent loads from spinning. CA1000 & CT100X Cranes have a permanently rigged swivel block.

## SWIVEL LOCK

On the CT & DT Cranes the hand lever operated swivel lock controls the 360° rotation of the crane and provides positive locking in 8 positions.

## BANDBRAKE

The CE6K is equipped with a band brake that provides unlimited rotational positioning.

## BOOM TIE DOWN

The load line should be used to tie down the boom to the socket or truck bed while the crane is not in use.

## OPTIONAL MASTER DISCONNECT SWITCH

This switch should be turned "OFF" when the crane is not in use to disconnect the crane from the battery.

# MAINTENANCE

The crane should be lubricated when the vehicle is serviced.

## WINCH GEAR BOX (CT & DT cranes only) ▲

Check the oil level by removing the plug in the side of the gear box. If the oil level is below the plug opening, fill with SAE 85W-140 Hypoid gear oil.

## WINCH DRIVE CHAIN (CT & DT cranes only) ▲

Oil lightly. **DO NOT GREASE.** Excess oil or grease will collect dirt and cause excessive chain wear. Inspect the chain and sprockets for excessive wear and proper alignment. Replace if excessively worn.

## CRANE SOCKET SWIVEL BEARINGS

The crane should be removed from the socket once a year or more often if excessive dirt is present. Dirt should be cleaned out from around the lower bearing. Use a rag or brush to apply a light weight oil several times to the lower and upper bearings which are both oilite bronze except for the CE, CT200X & DT Cranes upper bearing which does not require lubrication.



MFG., INC.  
CINCINNATI, OHIO

TITLE  
**INSTALLATION DWG**

**CA, CE, CT, & DT**

DATE  
**8-01-01C**

SUPERCEDES  
**3-3-99B**

SECTION  
**C200**

**870702**

# IMPORTANT

## ADEQUATE WIRING IMPERATIVE FOR PROPER OPERATION

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

### MINIMUM WIRE GAUGE AND BATTERY SIZE

MODEL	TOTAL LENGTH OF CABLE (FT)*								12 VOLT BATTERY REQUIREMENTS	
	0-20	21-25	26-30	31-40	41-50	51-60	61-70	71-80	CCA (A)**	RC (MIN)***
CE6K CT2000 CT2003/4/5 DT7K	#4	#4	#2	#2	#1	#0	#0	#00	350	100
ET5500MPB ET5500R ET6KMPB ET6KR ET10K	#2	#2	#1	#0	#00	NOTRECOMMENDED			450	100
ET10KX	#2	#2	#1	#0	#00	NOTRECOMMENDED			550	150
ET25K ET25KX	SEE DRAWING I24600 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**

**CE, CT, DT, & ET**

DATE

**8-10-00R**

SUPERCEDES

**3-3-99Q**

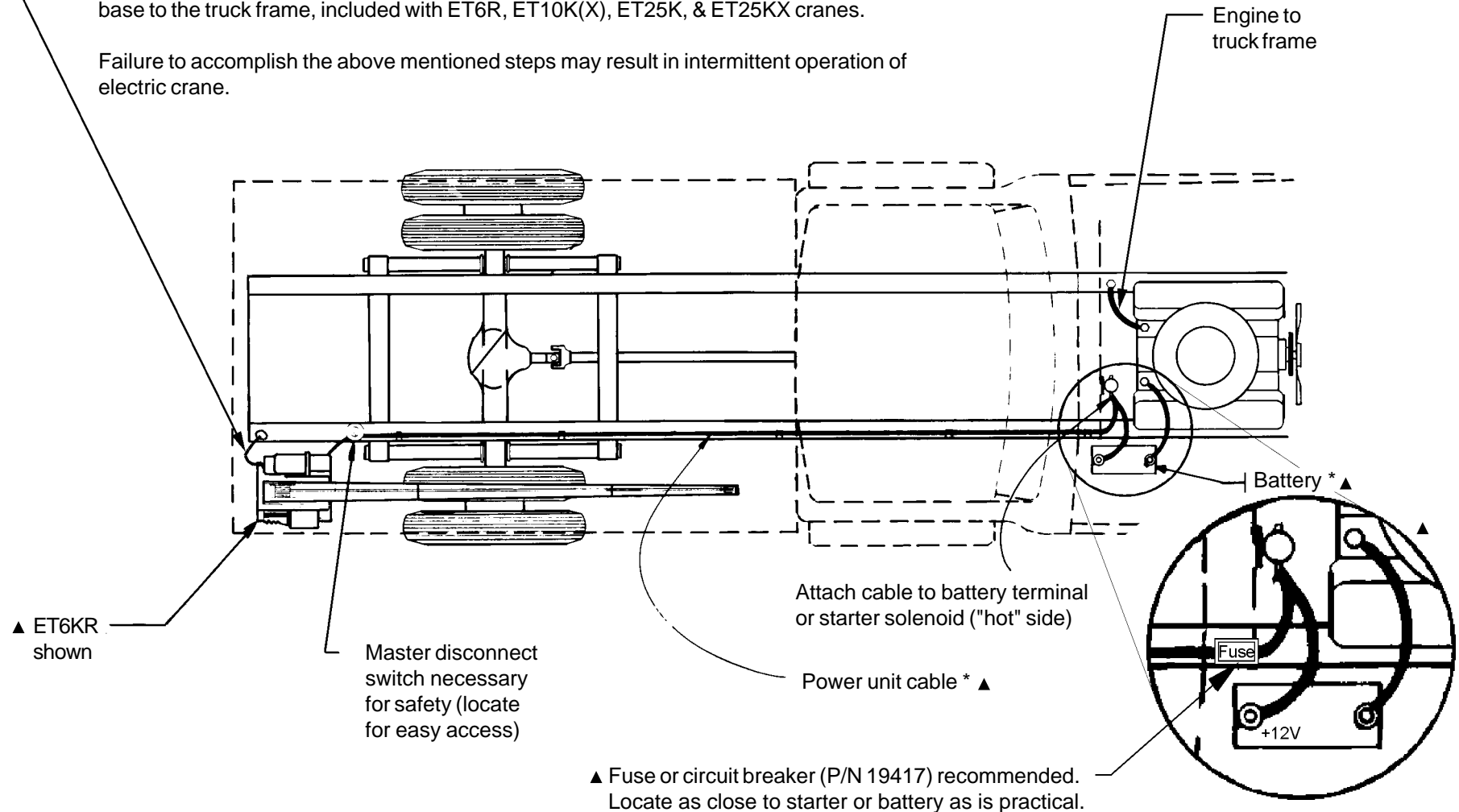
SECTION

**C200**

**711105**

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 ET6R, ET10K(X), ET25K, & ET25KX cranes.

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



▲ \* Note: See Dwg 711105 for recommended battery and cable specifications



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE	INSTALLATION - BATTERY CABLE
WINCH & CRANE	

DATE	1-15-02E
SUPERCEDES	11-7-01D

SECTION	C200
	15660

## SELECTION

The chart below shows the maximum working load and breaking strength of 7 X 19 Galvanized AIRCRAFT Grade Wire Rope in various diameters. The breaking strength is 3-1/2 times the maximum working load. Do not use wire rope with a Maximum Working Load rating less than the single line capacity of the crane. Use of wire rope diameter larger than the size furnished with the crane will reduce the fatigue life of the wire rope.

<u>WIRE ROPE DIAMETER</u>	<u>MAXIMUM WORKING LOAD</u>	<u>BREAKING STRENGTH</u>
1/8"	570 lbs	2000 lbs
5/32"	800 lbs	2800 lbs
3/16"	1200 lbs	4200 lbs
7/32"	1600 lbs	5600 lbs
1/4"	2000 lbs	7000 lbs
5/16"	2800 lbs	9800 lbs
3/8"	4114 lbs	14400 lbs

## INSTALLATION

1. Unwind coil of rope by rolling it along floor. This will prevent kinking.
2. Most VENTURO Cranes are provided with a slot in the winch drum side plate for attaching the end of the wire rope with a stop collar. A hole in the housing allows access for the end of the wire rope when inserted thru the slot.

The ET20K(X) & ET25K(X) Cranes have a clamp built into the winch drum and do not use a stop collar.

3. THERE MUST ALWAYS BE AT LEAST (3) TURNS OF WIRE ROPE ON THE DRUM WHEN UNDER LOAD.



MFG., INC.  
CINCINNATI, OHIO

TITLE  
**WIRE ROPE SPECS**

**VENTURO WINCH & CRANE**

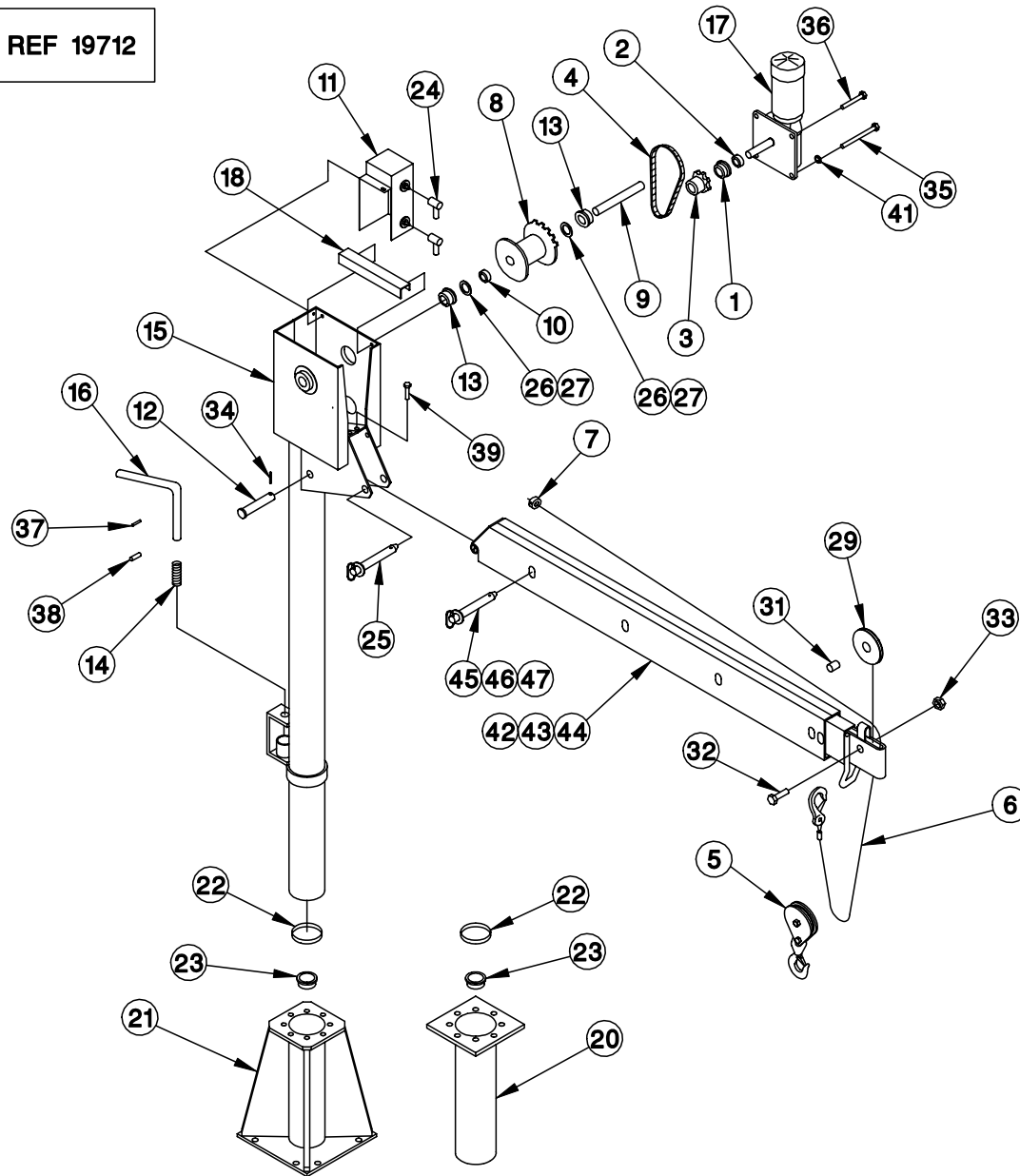
DATE  
**10-23-97G**

SUPERCEDES  
**4-27-92F**

SECTION  
**WC 200**

**711006**

# REPLACEMENT PARTS LIST REF 19712



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
REPLACEMENT PARTS DWG

CT2003FB/CT2004FB/CT2005

DATE  
8-21-02A

SUPERSEDES  
11-4-98

SECTION  
C400

19711

ITEM #	PART #	DESCRIPTION	ITEM #	PART #	DESCRIPTION
1	00181-3	BALL THRUST BEARING - 1-7/8" OD x 3/4" ID	41	!LWSH-038	LOCK WASHER - 3/8" (4 PLC)
2	00210	THRUST COLLAR - 3/4" BORE	42	19333	BOOM WELDED ASSEMBLY - 3 FT
3	15999	SPROCKET - 3/4" BORE	43	19334	BOOM WELDED ASSEMBLY - 4 FT
4	00867-1	WINCH DRIVE CHAIN (NO CONNECTING LINKS) 50 LINKS	44	19335	BOOM WELDED ASSEMBLY - 5 FT
5	▲ 19678	▲ SWIVEL SNATCH BLOCK WITH SAFETY LATCH	45	18541-36-ASSY	PIN ASSEMBLY - 3/4" O.D. x 3-1/2" LONG - 3 FT BOOM EXT
6	15810-3/16-35	WIRE ROPE ASSEMBLY - 3/16" x 35 FT	46	18541-48-ASSY	PIN ASSEMBLY - 3/4" O.D. x 3-1/2" LONG - 4 FT BOOM EXT
7	13463-1	STOP SLEEVE	47	18541-60-ASSY	PIN ASSEMBLY - 3/4" O.D. x 3-1/2" LONG - 5 FT BOOM EXT
8	01149	CABLE DRUM	48	-	-
9	01153	MAIN SHAFT - CABLE DRUM	49	-	-
10	01158	THRUST COLLAR - MAIN SHAFT - 1" BORE	50	-	-
11	19590	CONTACTOR, SOCKET & COVER SUB ASSEMBLY	51	15545-3 ▲	FIELD SERVICE LABEL KIT - CT2003FB
12	13401-2B	PIVOT PIN - CYL ROD	52	15545-4 ▲	FIELD SERVICE LABEL KIT - CT2004FB
13	01299	FLANGED BEARING - 1" ID x 2" OD	53	15545-5 ▲	FIELD SERVICE LABEL KIT - CT2005
14	11889	SPRING	54	-	-
15	19331	WELDED MAST ASSEMBLY	55	-	-
16	14785	LOCKBOLT	56	-	-
17	16105-1	WINCH POWER UNIT	57	-	-
18	16972	CHAIN COVER	58	-	-
19	-	-	59	-	-
20	13171	MOUNTING SOCKET - TYPE A	60	-	-
21	13172	MOUNTING SOCKET - TYPE C	61	-	-
22	20179	BEARING - 4" ID x 1" WIDTH	62	-	-
23	11893	BEARING - 1.5" ID x 9/16" WIDTH	63	-	-
24	18542	BOOT - MOTOR TERMINAL	64	-	-
25	18541	PIN ASSEMBLY - 3/4" OD x 3-1/2" LONG - BOOM ELEVATION	65	-	-
26	12534-8	BUSHING - 1" ID x 1-1/2" OD x 14 GA	66	-	-
27	12534-9	BUSHING - 1" ID x 1-1/2" OD x 18 GA	67	-	-
28	-	-	68	-	-
29	▲ 19646	▲ SHEAVE WITH BRONZE BUSHING	69	-	-
-	▲ -	▲ -	70	-	-
31	13168-2	SLEEVE - MIN RUN 30	71	-	-
32	!HHCS06311175	HEX HEAD CAP SCREW - 5/8"-11 x 1-3/4"	72	-	-
33	!JNUT-06311N	JAM LOCK NUT - 5/8"-11	73	-	-
34	!RPIN-016125	ROLL PIN - 5/32" x 1-1/4"	74	-	-
35	!HHCS03816300	HEX HEAD CAP SCREW - 3/8"-16 x 3"	75	-	-
36	!HHCS03816150	HEX HEAD CAP SCREW - 3/8"-16 x 1-1/2" (3 PLC)	76	-	-
37	!RPIN-019125	ROLL PIN - 3/16" x 1-1/4"	77	-	-
38	!RPIN-031125	ROLL PIN - 5/16" x 1-1/4"	78	-	-
39	!HHCS03816100	HEX HEAD CAP SCREW - 3/8"-16 x 1"	79	-	-
40	-	-	80	-	-

▲ ITEM NOT SHOWN ON REPLACEMENT PARTS DRAWING

REPLACEMENT PARTS DRAWING REF 19711



MANUFACTURING, INC.  
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TITLE  
**REPLACEMENT PARTS**

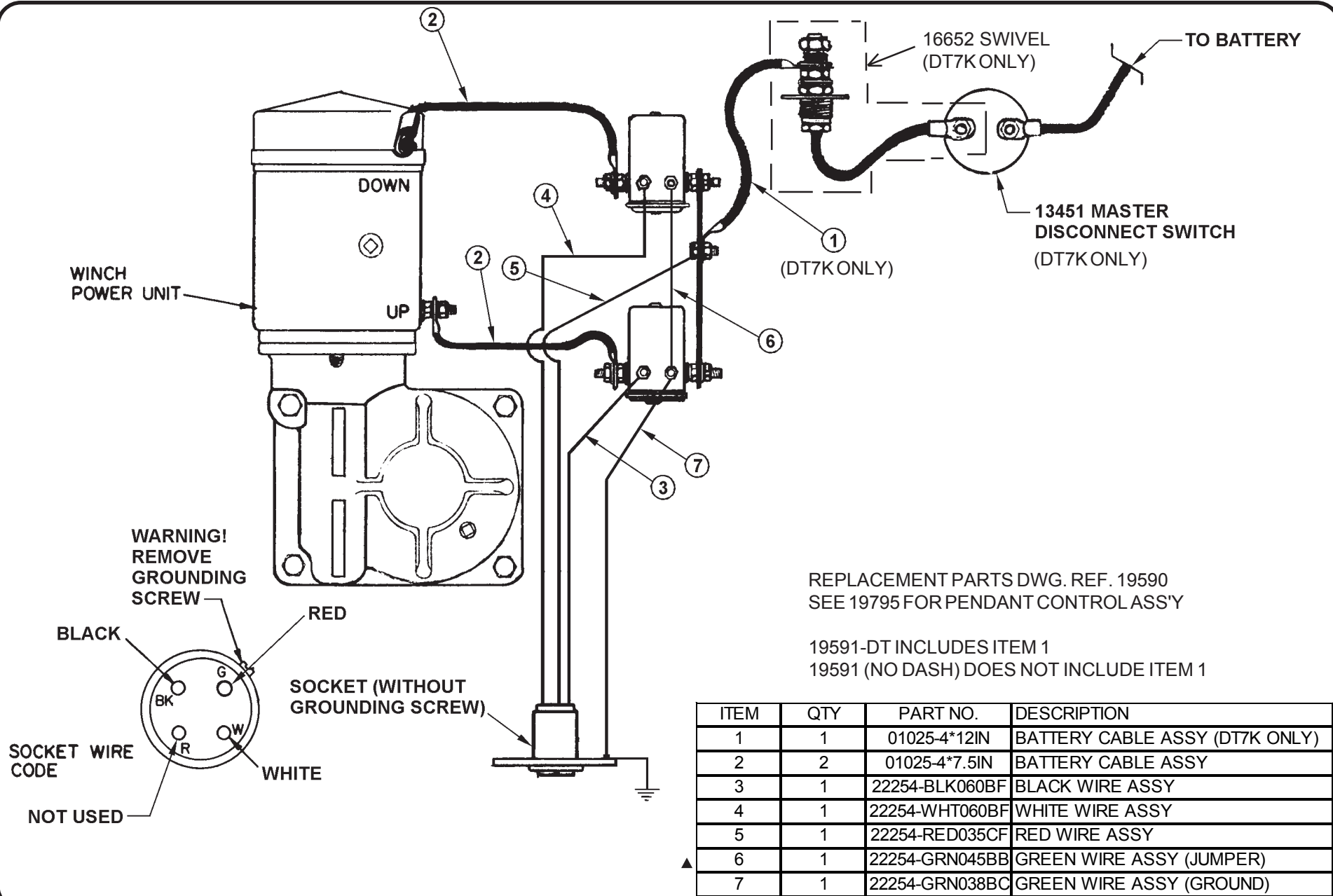
CT2003FB/CT2004FB/CT2005

DATE  
**8-21-02E**

SUPERCEDES  
**7-19-02D**

SECTION  
**C400**

**19712**



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**WIRING KIT / DIAGRAM**

**CT2003/4/5(FB), DT7K**

DATE  
**1-13-03E**

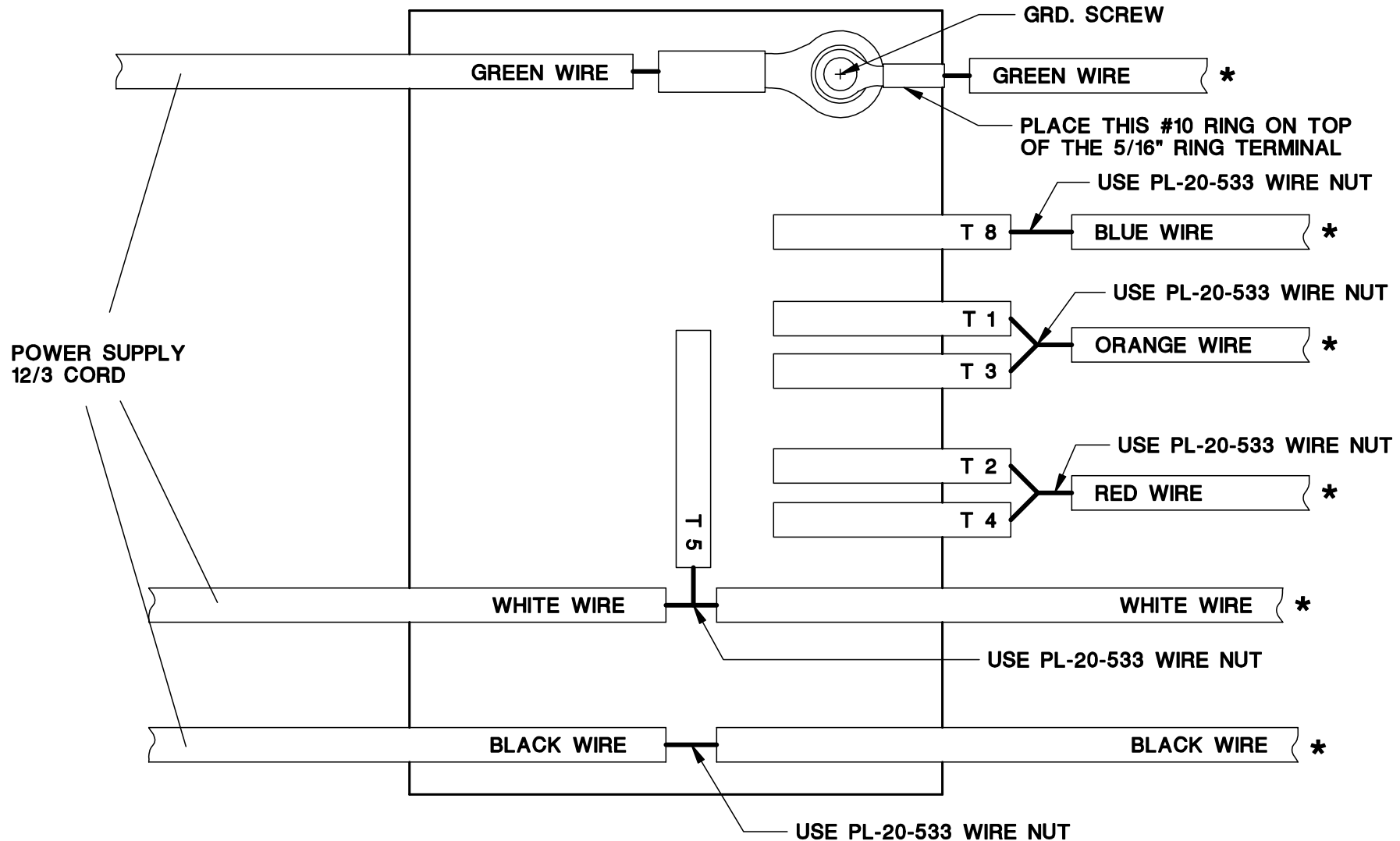
SUPERCEDES  
**1-10-03D**

SECTION  
**C400**

**19591**

# CONNECTION BOX ON 115V SINGLE PHASE A/C MOTOR

\* FROM PENDANT CONTROL  
SJO 16/6 CORD



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
16105AC WIRING DIAGRAM

CT200X & CT200XFB CRANES

DATE  
1-20-98

SUPERSEDES  
-

SECTION

-

19457



ITEM	QTY	PART NO	DESCRIPTION
1	1	19591	WIRING KIT
2	1	12102-1R	SOCKET 4 POLE LESS GROUND SCREW HOLE
3	2	15831C	CONTACTOR
4	1	16634	CONTACTOR COVER
5	1	1181	BUSS BAR
6	2	16637	GROMMET - 5/8" I.D. x 7/8" O.D. x 1/16" GROOVE
7	1	!HHCS03118075-B	HEX HEAD CAP SCREW - 5/16"-18 x 3/4" LG BRASS
8	2	!HNUT-03118-B	HEX NUT - 5/16"-18 BRASS
9	3	!LWSH-031-STAR	STAR LOCKWASHER - 5/16"
10	1	15398	DECAL - UNPLUG PENDANT
11	2	18542	BOOT - MOTOR TERMINAL
12	2	!UNUT15195-1420	U-NUT - 1/4"-20
13	1	14858-1	PLUG - 7/8"
14	2	!PHCS02520063	PAN HEAD CAP SCREW - 1/4"-20 x 5/8"
15	2	!HWHS02520075-F	HEX WASHER HEAD - 1/4"-20 x 3/4" SELF TAPPING
16	2	!LWSH-025	LOCK WASHER - 1/4"
17	2	!HNUT-02520	HEX NUT - 1/4"-20

REPLACES 16635

WIRING SCHEMATIC REF 19591



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**CONTACTOR ASSEMBLY**

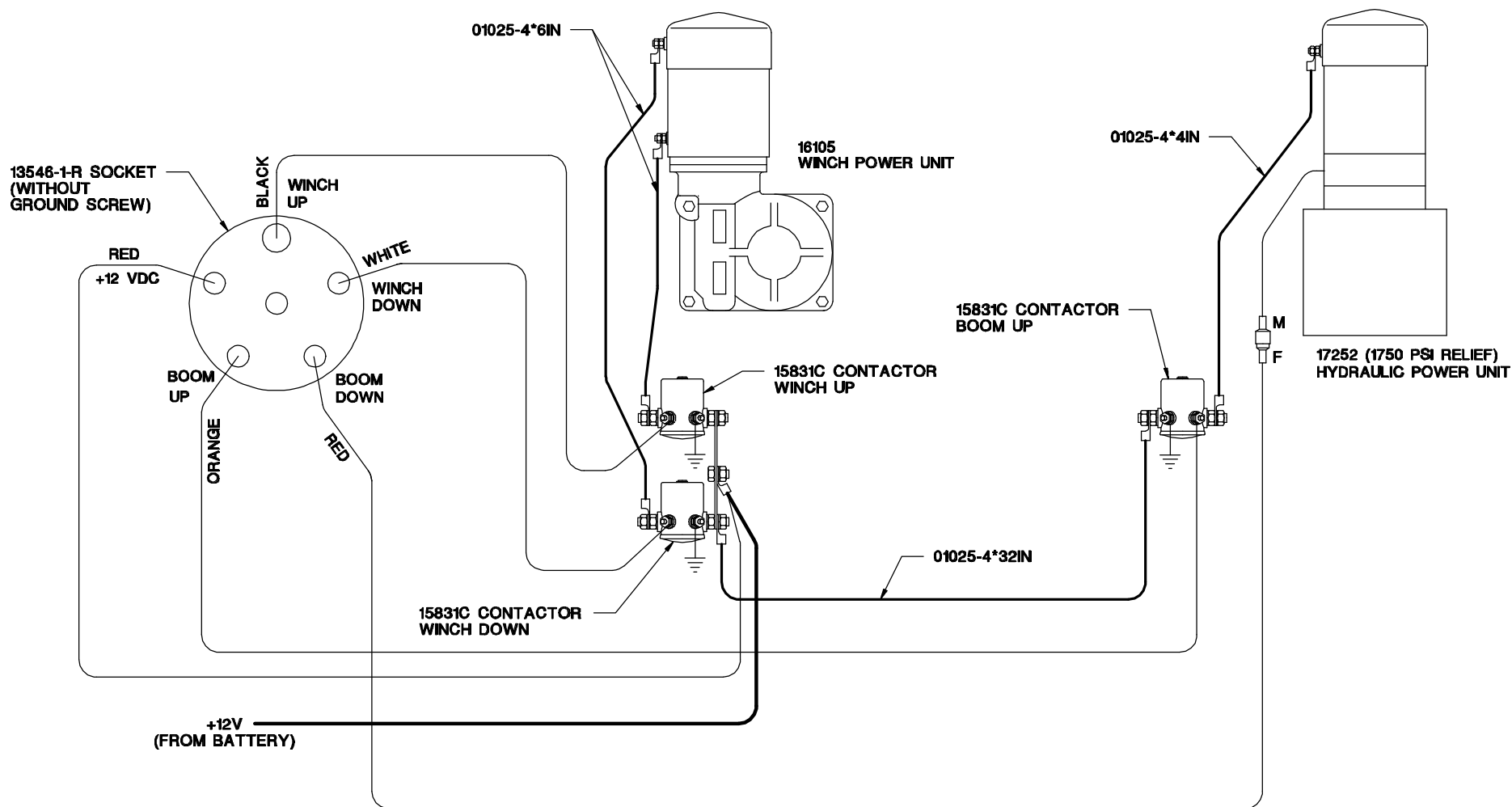
DATE  
**3-5-99B**

SECTION  
**-**

**CT/DT CRANES**

SUPERCEDES  
**1-27-99A**

**19590**



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
PARTS LIST & WIRING DIAGRAM

CT200XFB WITH POWER BOOM

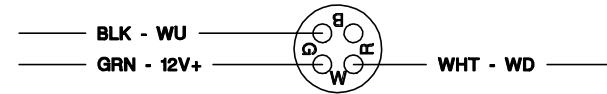
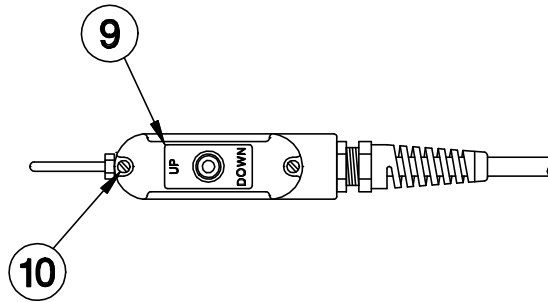
DATE  
11-4-98

SUPERSEDES  
-

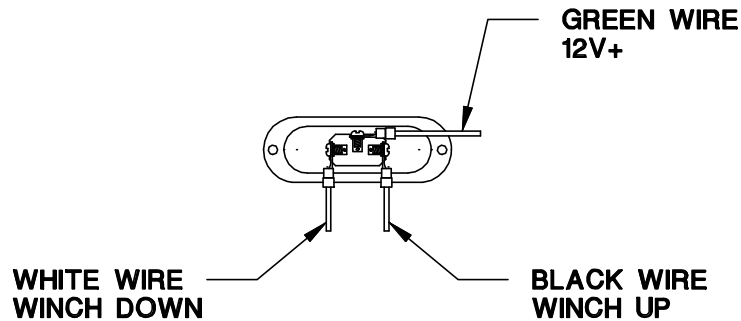
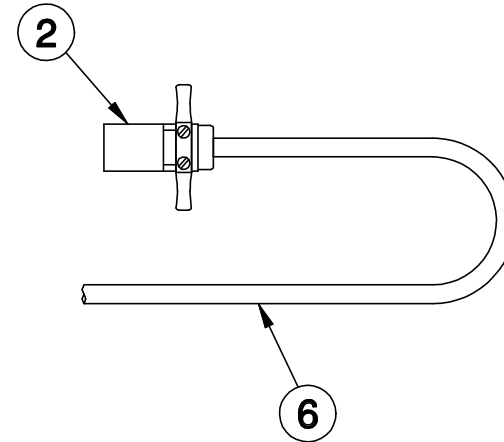
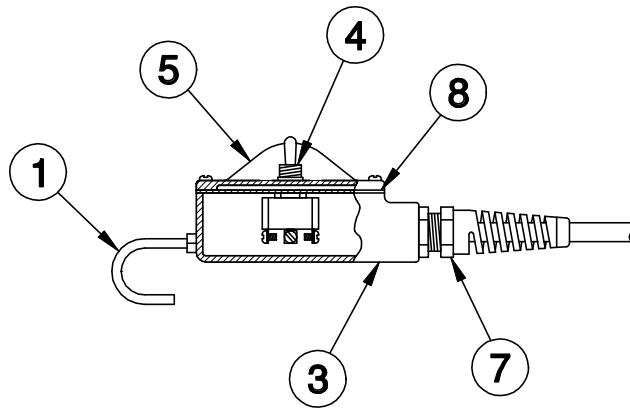
SECTION  
C400

19713

# 14555 SERIES PENDANT CORD



PLUG - BACKSIDE VIEW



10	2	IPHCS#0832050	PHCS 8-32 x 1/2
9	1	14793-2	DECAL, UP & DOWN FOR PENDANT
8	1	14958	GASKET 1/2"
7	1	14578	1/2" STRAIN RELIEF
6	1	14542-18Sxx	CORD ASSY (xx = LENGTH IN FT.)
5	1	14064	PENDANT COVER
4	1	13763	TOGGLE SWITCH
3	1	13382	ENCLOSURE 1/2"
2	1	12102-2	PLUG - 4 POLE
1	1	11557	PENDANT HOOK
ITEM	QTY	PART NO.	DESCRIPTION



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
REPL. PARTS DWG.

1 FUNCTION CRANES

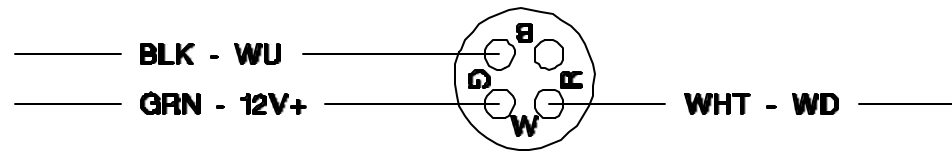
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8-24-99

SUPERSEDES  
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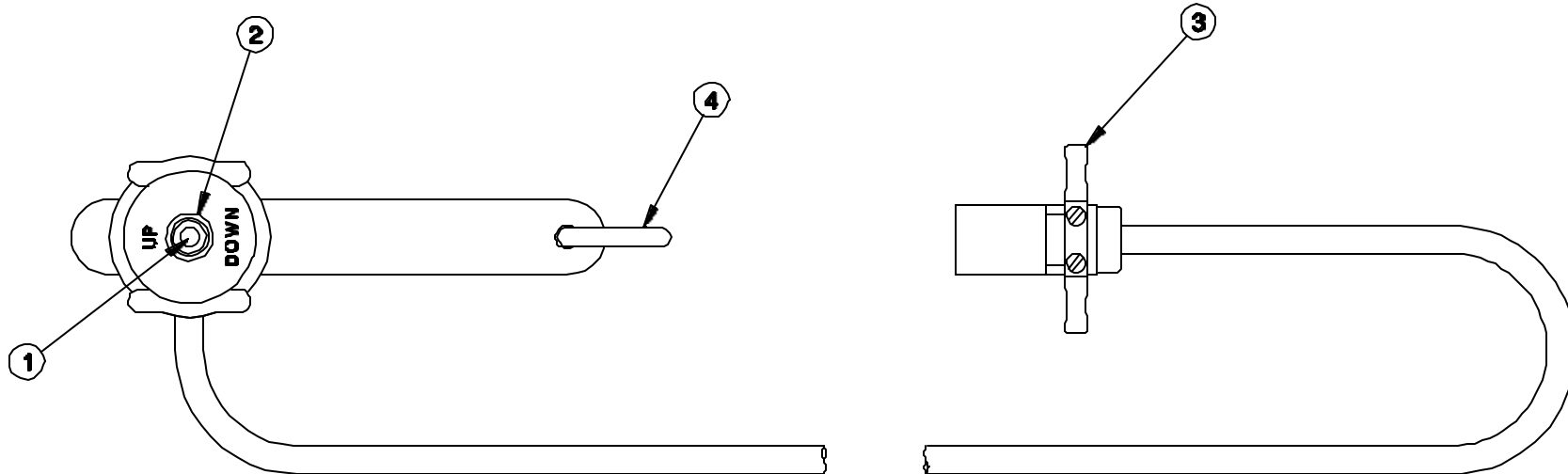
SECTION  
C400

20455

# 19797 SINGLE SWITCH PENDANT



## PLUG - BACKSIDE VIEW



4	1	19794	D-RING
3	1	12102-2	PLUG - 4 POLE
2	1	19793	TOGGLE BOOT
1	1	13763	TOGGLE SWITCH
ITEM	QTY	PART NO.	DESCRIPTION



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
REPL. PARTS DWG.

1 FUNCTION CRANES

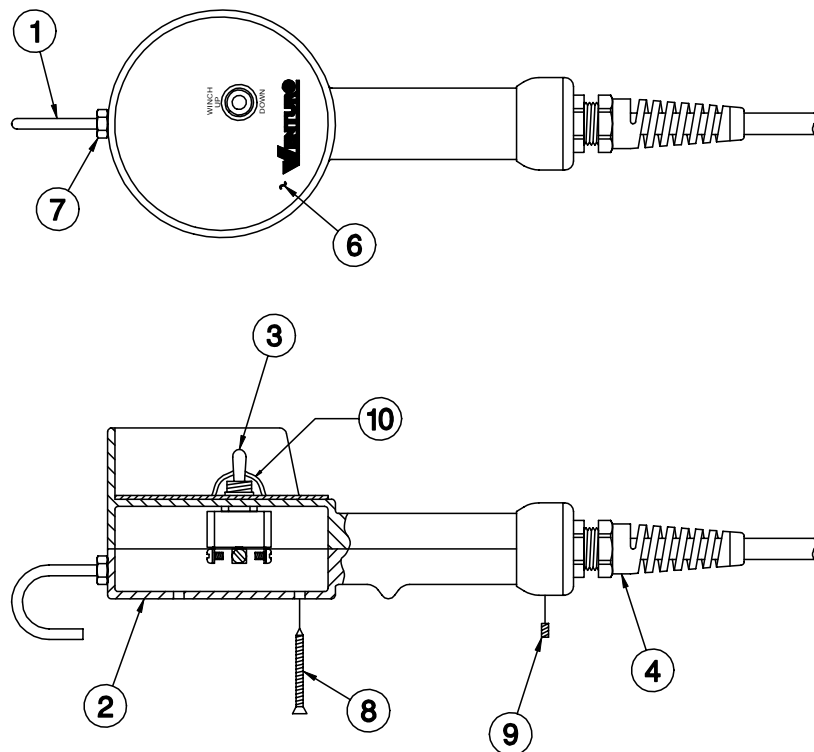
DATE  
7-14-99

SUPERSEDES  
-

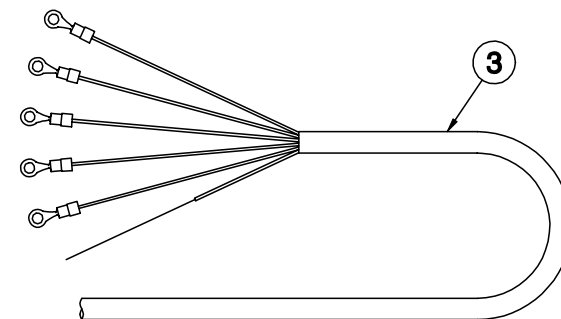
SECTION  
C400

19795

# 19448 AC PENDANT CONTROL



SEE 112105 FOR SWITCH WIRING INFORMATION



10	1	19793	TOGGLE HALF-BOOT
9	1	ISHCS#832038SS	SET SCREW - #8-32 x 3/8"
8	4	IFHPS#10150A	FLAT HEAD PHILLIPS SCREW - #10 x 1 1/2" LG
7	2	IHNUT-02520	HEX NUT - 1/4-20
6	1	19447	LOGO PLATE, PENDANT CONTROL
5	-	-	-
4	1	25534	3/4" STRAIN RELIEF
3	1	20449	SWITCH & CORD ASSEMBLY
2	1	19374	PENDANT HOUSING
1	1	11557	PENDANT HOOK
ITEM	QTY	PART NO.	DESCRIPTION

NOTE: ITEM 3 (P/N 20449) MUST BE SOLD AS A COMPLETE ASSEMBLY.



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
REPLACEMENT PARTS DRAWING

19448 AC PENDANT CONTROL

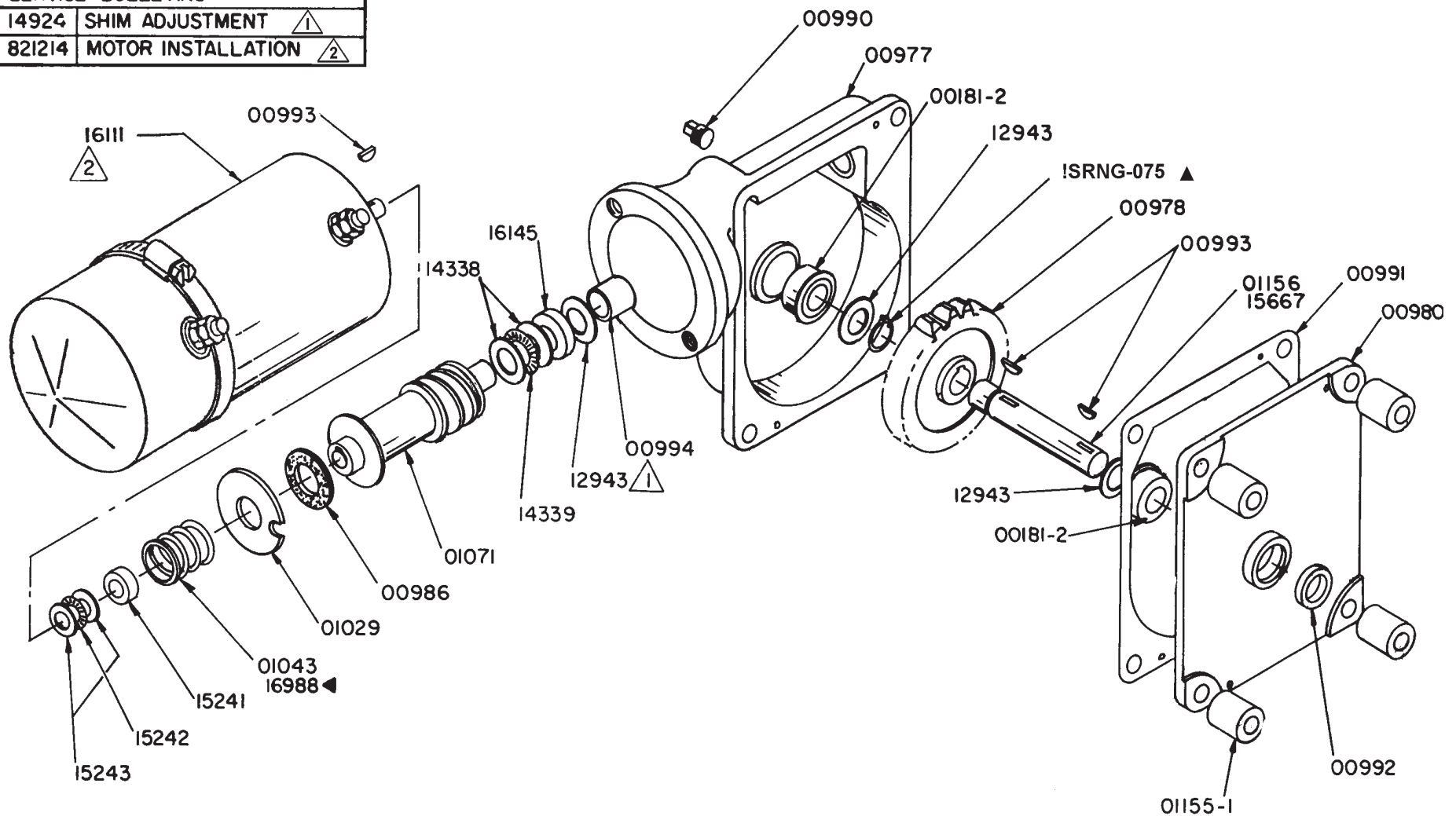
DATE  
4-2-02C

SUPERSEDES  
9-13-01B

SECTION  
C400

20448

SERVICE BULLETINS		
14924	SHIM ADJUSTMENT	1
821214	MOTOR INSTALLATION	2



SEE DWG. 14924/14926 FOR SERVICE INSTRUCTION

16100 SERIES POWER UNITS



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**REPLACEMENT PARTS**

**WINCH & CRANE**

DATE  
**4-14-04E**

SUPERCEDES  
**6-17-98D**

SECTION  
**C450**

**116100**

# REPLACEMENT PARTS LIST - 16100 ELECTRIC POWER UNIT

MODEL(S): ET5500MPB, ET6KM, ET6KR

PART NO.	DESCRIPTION
16101 16102 16105 16106 16107	POWER UNIT - LONG SHAFT - ET5500R WINCH <sup>2</sup> POWER UNIT - SHORT SHAFT - ET5500R ROTATION POWER UNIT - LONG SHAFT - CA 2000, CT 2003, WA/SL 3000 (WITH SPACERS) POWER UNIT - LONG SHAFT - ET5500 WINCH (WITHOUT SPACERS) <sup>3</sup> POWER UNIT - SHORT SHAFT - ET5500R ROTATION
00181-2 00977 00978 00980 * 00986	FLANGE BEARING - 3/4" BORE x 1 3/4" O.D. GEAR CASE (INCLUDES 00994 BUSHING) WORM GEAR BASE PLATE BRAKE DISC
* ISRNG-075 00990 * 00991 * 00992 * 00993 <sup>4</sup>	RETAINING RING - 3/4" <sup>5</sup> OIL PLUG - 1/4" PIPE GASKET OIL SEAL KEY - #9 WOODRUFF
00994 01029 01043 <sup>4</sup> 01071 01155-1	BUSHING BRAKE PLATE BRAKE SPRING (16102 & 16107 ROTATION POWER UNIT ONLY) WORM SHAFT SPACER (16105 ONLY)
01156 * 12943-1 <sup>4</sup> * 12943-2 <sup>4</sup> * 12943-3 <sup>4</sup> 14338	WORM GEAR SHAFT - 3/4" x 5 3/16" LONG (16105 & 16106 ONLY) SHIM WASHER - .005" THICK (AS REQUIRED) SHIM WASHER - .015" THICK (AS REQUIRED) SHIM WASHER - .030" THICK (AS REQUIRED) NEEDLE THRUST RACE 3/4" I.D.
14339 15241 15242 15243 15667	NEEDLE THRUST BEARING 3/4" I.D. SPACER (INSTALL NEXT TO BRAKE PLATE) NEEDLE THRUST BEARING 5/8" I.D. NEEDLE THRUST RACE .092" x 5/8" I.D. WORM GEAR SHAFT - 3/4" x 4 3/16" LONG (16102 & 16107 ONLY)
16111 <sup>4</sup> 16145 16988 <sup>4</sup>	MOTOR - 12 VOLT 4 1/2" DIAMETER SPACER BRAKE SPRING (16101, 16105 & 16106 WINCH POWER UNITS ONLY)
14889 15290	MOTOR REPAIR KIT SMALL PARTS KIT (INCLUDES ITEMS MARKED *)

<sup>1</sup> AVAILABLE ONLY AS PART OF 15290 SMALL PARTS KIT

<sup>2</sup> 16101 POWER UNIT REPLACED BY 16106 POWER UNIT  
16102 POWER UNIT REPLACED BY 16107 POWER UNIT

<sup>3</sup> REPLACE 30E & 16100 POWER UNITS AS FOLLOWS:  
16105 REPLACES 11497  
16106 REPLACES 11497NS & 16101  
16107 REPLACES 16102

<sup>4</sup> 16111 MOTOR REPLACES 01024 E & F & 16112 MOTORS  
ON ALL 30E & 16100 SERIES POWER UNITS

<sup>5</sup> 16988 BRAKE SPRING REPLACES 01043 BRAKE SPRING ON  
16101, 16105 & 16106 WINCH POWER UNITS ONLY



MFG., INC.  
CINCINNATI, OHIO

TITLE  
**REPL. PARTS LIST**

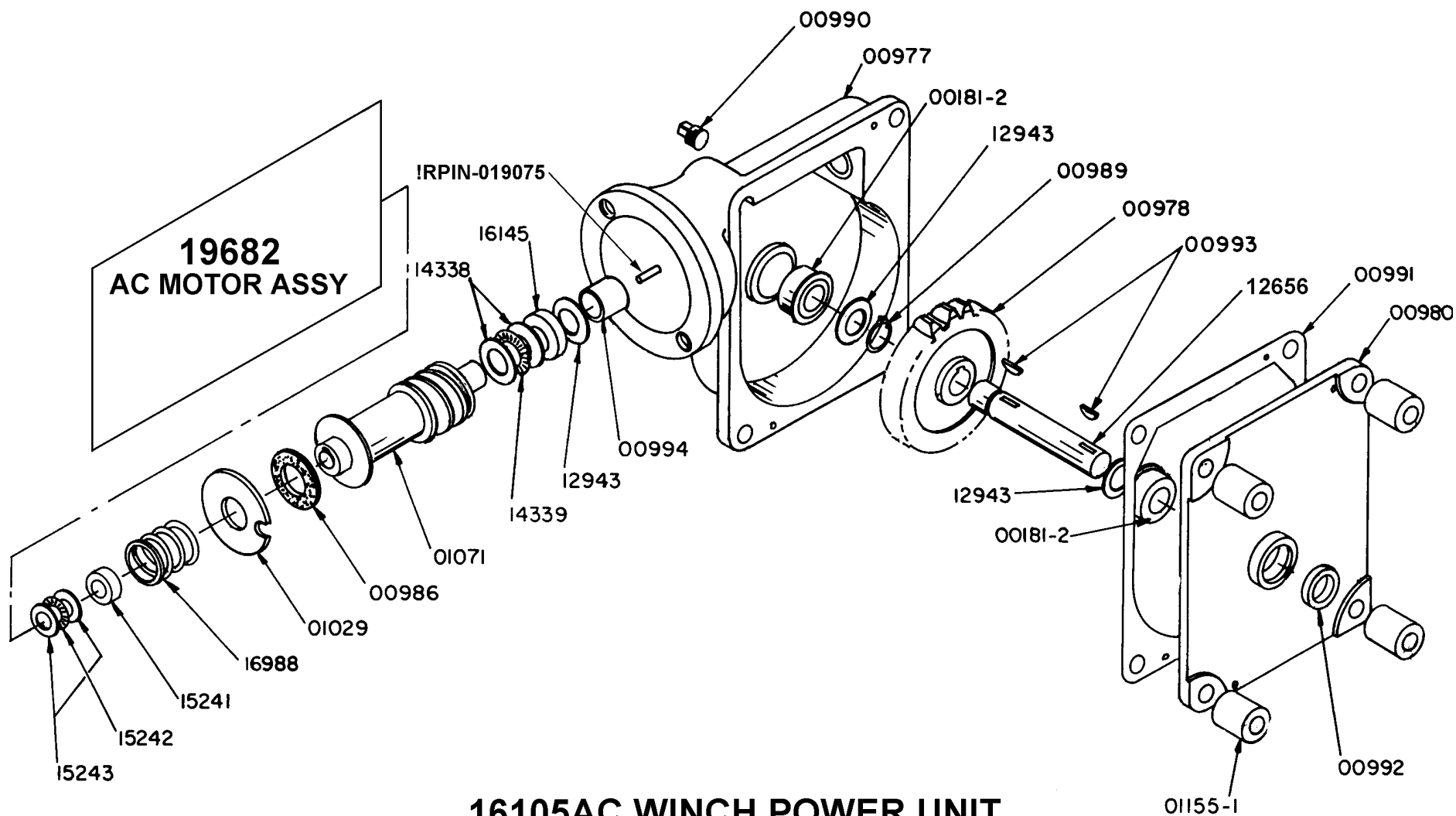
**16100 ELECTRIC PU**

DATE  
**4-14-04E**

SUPERCEDES  
**8-10-99D**

SECTION  
**C400**

**811016**



## 16105AC WINCH POWER UNIT

SEE DWG. 14924/14926 FOR SERVICE INSTRUCTION



MANUFACTURING, INC.  
CINCINNATI, OHIO

TITLE  
**REPLACEMENT PARTS**

**16105AC**

DATE  
**1-20-99**

SUPERCEDES  
-

SECTION  
**C400**

**19681**



# REPLACEMENT PARTS LIST - 16105AC ELECTRIC POWER UNIT

MODEL(S): CT200XFB-AC

PART NO.	DESCRIPTION
-	-
-	-
-	-
-	-
-	-
00181-2 00977 00978 00980 * 00986	FLANGE BEARING - 3/4" BORE x 1 3/4" O.D. GEAR CASE (INCLUDES 00994 BUSHING) WORM GEAR BASE PLATE BRAKE DISC
▲ * ISRNG-075 00990 * 00991 * 00992 IRPIN-019075	RETAINING RING - 3/4" OIL PLUG - 1/4" PIPE GASKET OIL SEAL ROLL PIN - 3/16" DIA x 3/4" LONG
00994 01029 - 01071 01155-1	BUSHING BRAKE PLATE - WORM SHAFT SPACER
12656 * 12943-1 * 12943-2 * 12943-3 14338	WORM GEAR SHAFT - 3/4" x 5 3/16" LONG (16105 & 16106 ONLY) SHIM WASHER - .005" THICK (AS REQUIRED) SHIM WASHER - .015" THICK (AS REQUIRED) SHIM WASHER - .030" THICK (AS REQUIRED) NEEDLE THRUST RACE 3/4" I.D.
14339 15241 15242 15243 -	NEEDLE THRUST BEARING 3/4" I.D. SPACER (INSTALL NEXT TO BRAKE PLATE) NEEDLE THRUST BEARING 5/8" I.D. NEEDLE THRUST RACE .092" x 5/8" I.D. -
19682 16145 16988	AC MOTOR ASSEMBLY SPACER BRAKE SPRING
- 15290	- SMALL PARTS KIT (INCLUDES ITEMS MARKED *)

 AVAILABLE ONLY AS PART OF 15290 SMALL PARTS KIT



MFG., INC.  
CINCINNATI, OHIO

TITLE  
**REPL. PARTS LIST**

**16105AC**

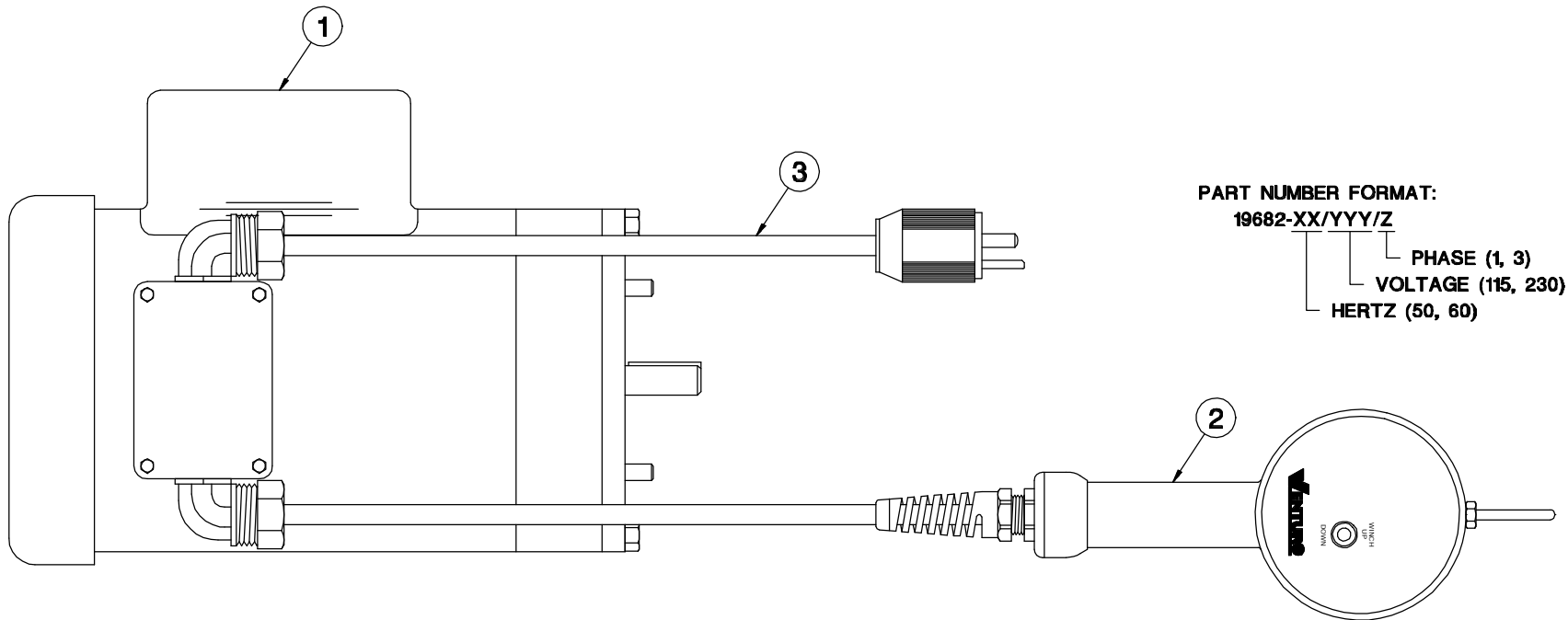
DATE  
**4-14-04A**

SUPERCEDES  
**2-2-99**

SECTION  
**C400**

**19699**

## AC MOTOR, PENDANT, & POWER CORD ASSY - 16105AC POWER UNIT



PART NUMBER FORMAT:

19682-XX/YYY/Z

PHASE (1, 3)

VOLTAGE (115, 230)

HERTZ (50, 60)

-	5	PL-20-533	YELLOW WIRE NUT
3	1	19685	POWER CORD WITH PLUG ASSEMBLY
2	1	19448	1 SWITCH AC PENDANT
1	1	19683-XX	AC MOTOR (XX = HERTZ)
ITEM	QTY	PART NO.	DESCRIPTION

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

TITLE  
REPLACEMENT PARTS DRAWING

DATE  
1-26-99

SECTION  
C400

16105AC WINCH POWER UNIT

SUPERSEDES  
-

19682

**CT2003FB****15545-3 FIELD SERVICE LABEL KIT**

ITEM	PARTNUMBER	QTY	DESCRIPTION
1	13191-12	2	USE SNATCH BLOCK FOR LOADS OVER 1200 LBS DECAL
2	17389-4	2	VENTURO (SMALL) DECAL
3	19734	2	CT2003FB DECAL
4	15390	1	CAUTION, INSTRUCTIONS DECAL
5	15391	1	CRANE NOT PASSENGER LIFT DECAL
6	15398	1	UNPLUG PENDANT DECAL
7	15672-1000	2	CAPACITY 1000 LBS DECAL
8	15672-1500	2	CAPACITY 1500 LBS DECAL
9	15672-2000	2	CAPACITY 2000 LBS DECAL
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
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31	-	-	-
32	-	-	-
33	-	-	-
34	-	-	-
35	-	-	-

MFG., INC.  
CINCINNATI, OHIO

TITLE

FIELD SERV. LABEL KIT

DATE

3-4-99

SECTION

-

CT2003FB

SUPERCEDES

-

15545-3

**CT2004FB****15545-4 FIELD SERVICE LABEL KIT**

ITEM	PARTNUMBER	QTY	DESCRIPTION
1	13191-12	2	USE SNATCH BLOCK FOR LOADS OVER 1200 LBS DECAL
2	17389-4	2	VENTURO (SMALL) DECAL
3	19735	2	CT2004FB DECAL
4	15390	1	CAUTION, INSTRUCTIONS DECAL
5	15391	1	CRANE NOT PASSENGER LIFT DECAL
6	15398	1	UNPLUG PENDANT DECAL
7	15672-700	2	CAPACITY 700 LBS DECAL
8	15672-900	2	CAPACITY 900 LBS DECAL
9	15672-1200	2	CAPACITY 1200 LBS DECAL
10	15672-2000	2	CAPACITY 2000 LBS DECAL
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
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30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-
34	-	-	-
35	-	-	-

MFG., INC.  
CINCINNATI, OHIO

TITLE

FIELD SERV. LABEL KIT

DATE

3-4-99

SECTION

-

CT2004FB

SUPERCEDES

-

15545-4

**CT2005****15545-5 FIELD SERVICE LABEL KIT**

ITEM	PARTNUMBER	QTY	DESCRIPTION
1	13191-12	2	USE SNATCH BLOCK FOR LOADS OVER 1200 LBS DECAL
2	17389-4	2	VENTURO (SMALL) DECAL
3	19736	2	CT2005FB DECAL
4	15390	1	CAUTION, INSTRUCTIONS DECAL
5	15391	1	CRANE NOT PASSENGER LIFT DECAL
6	15398	1	UNPLUG PENDANT DECAL
7	15672-500	2	CAPACITY 500 LBS DECAL
8	15672-600	2	CAPACITY 600 LBS DECAL
9	15672-700	2	CAPACITY 700 LBS DECAL
10	15672-900	2	CAPACITY 900 LBS DECAL
11	15672-1200	2	CAPACITY 1200 LBS DECAL
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30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-
34	-	-	-
35	-	-	-



MFG., INC.  
CINCINNATI, OHIO

TITLE

FIELD SERV. LABEL KIT

DATE

3-4-99

SECTION

-

CT2005

SUPERCEDES

-

15545-5