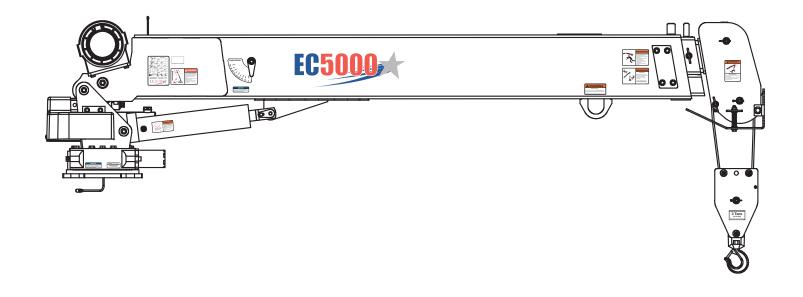


MODEL EC5000

TELESCOPIC CRANE OWNERS' MANUAL

Installation • Assembly Drawings • Parts



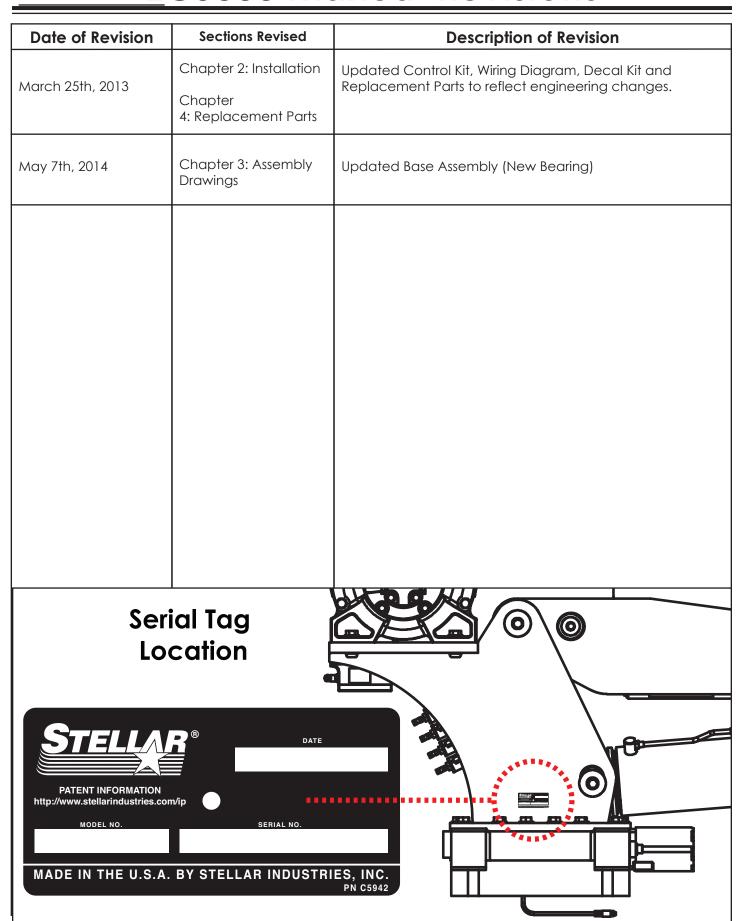
Notice: A copy of this manual must remain with the equipment at all times. For a printable download copy, please visit: www.stellarindustries.com

Stellar Industries, Inc. 190 State Street

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Fax: 641-923-2811 www.stellarindustries.com

EC5000 Manual Revisions



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Introduction

A copy of this manual is provided with every crane and can be found in the hard plastic manual case that is installed on the chassis. A copy of this manual shall remain with the crane at all times.

Throughout the manual, three signal words will be used to bring attention to important items:

NOTICE A NOTICE signal word indicates a practice not related to physical injury.

AWARNING

A WARNING signal word indicates a hazardous situation which, if not avoided, could result in death or serious injury.

▲ DANGER

A DANGER signal word indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Information contained within this manual does not cover operation, maintenance, or troubleshooting. Please refer to the General EC Crane Manual for details on these items.

This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

In closing:

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at service@stellarindustries.com.

For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at 800-321-3741

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

Or email at the following addresses:

Technical Questions, and Information

service@stellarindustries.com

Order Parts

parts@stellarindustries.com

Warranty Information

warranty@stellarindustries.com

<u>Chapter 1 - Specifications</u>

Model EC5000 Crane **SPECIFICATION SHEET**

Crane Rating: 25,000 ft-lb (3.46 TM)

Standard Boom Length: 10' (3.05 m) from CL of Crane

Boom Extension: 1st stage: Hydraulic 60" (152.4 cm)

2nd stage: Manual 60" (152.4 cm)

20' (6.10 m) from CL of Crane Maximum Horizontal Reach:

21' 3" (6.48 m) Maximum Vertical Lift:

(from crane base)

Boom Elevation: -5 to +80 degrees

29.53" (75 cm) Stowed Height:

(crane only)

Mounting Space Required: 19" x 19" (48.3 x 48.3 cm)

Approximate Shipping Weight: 1180 lbs (535 kg)

Radio control standard for all functions. Controls:

Winch Specifications

Rope Length: 90 ft (27.4m) Rope Diameter: 5/16" (.79 cm)

Line pull speed: 16 ft/min (4.88 m/min) Max. single part line: 2500 lbs (1134 kg) Max. double part line: 5000 lbs (2268 kg)

Rotation: 410 degree power

(worm gear)

Lifting Capacities: 5000 lbs @ 5' (2270 kg @ 1.5 m)

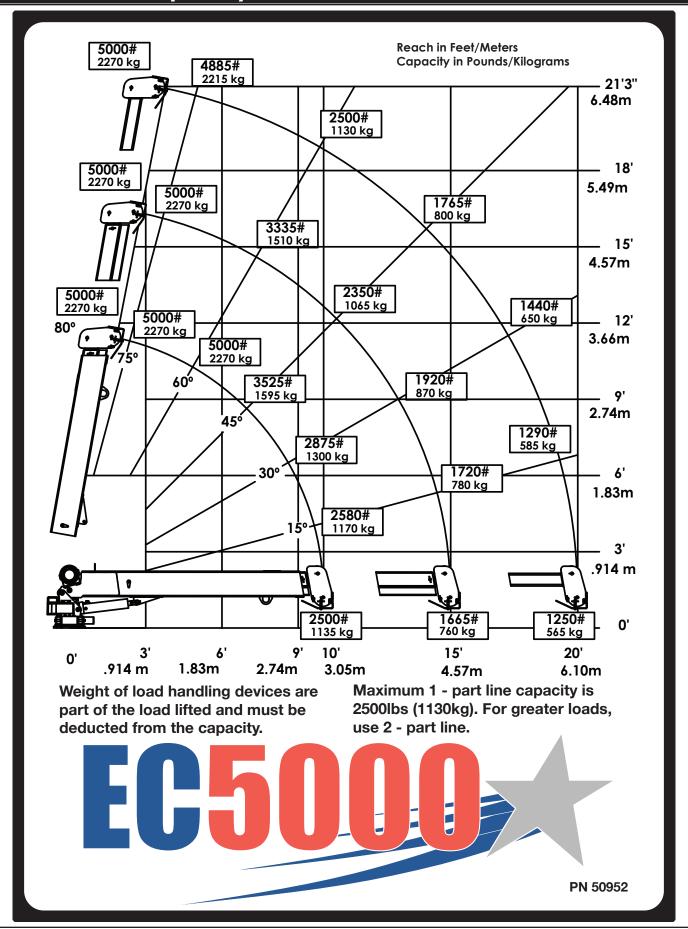
1665 lbs @15' (760 kg @ 4.57m) 1250 lbs @ 20' (565 kg @ 6.1 m)

Power Supply Required: 12 volt power unit

> (2.0 gpm @ 2900 psi) (7.57 lpm @ 200 bar)

*Subject to change without notification

Capacity Chart - Decal PN 50952



<u> Chapter 2 - Installation</u>

General Installation

This chapter is designed to serve as a general guide for the installation of a EC5000 Crane. Each installation is considered unique so certain portions of this chapter may or may not apply to your direct application. If a question should arise during the installation process, please contact Stellar Customer Service at (800) 321 3741.

It is the installer's responsibility to assure that the crane is mounted on a platform that will support the maximum crane rating of this crane.

AWARNING Do not install this crane on a body not capable of handling the loads imposed on it. Failure to do so may result in serious injury or death.

NOTICE When installing welder units to the service bodies, it is highly recommended that a surge protector is installed on the chassis batteries to protect the crane radio receiver, wiring and other electronic devices from an unexpected electrical spike or surge. Failure to do so could result in extensive damage to the service body and crane electrical circuit.

Installer Notice

According to Federal Law (49 cfr part 571), each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

Therefore, the installer of Stellar® Cranes and Bodies is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal Motor Vehicle Safety Standards and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit http://www.gpoaccess.gov/nara/index.html for the full text of Code of Federal Regulations.

Torque Data Chart

When using the torque data in the chart, the following rules should be observed:

- Bolt manufacturer's particular specifications should be consulted when provided.
- Flat washers of equal strength must be used.
- All torque measurements are given in foot-pounds. To convert to inch-pounds, multiply by 12.
- Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum

		GRA	DE 5	GRA	DE 8	GRADE 9
Size	Bolt DIA	Plain	Plated	Plain	Plated	Plated
(DIA-TPI)	(Inches)	(Ft-Lb)	(Ft-Lb)	(Ft-Lb)	(Ft-Lb)	(Ft-Lb)
5/16-18	0.3125	17	13	25	18	22
3/8-16	0.3750	31	23	44	33	39
7/16-14	0.4375	49	37	70	52	63
1/2-13	0.5000	75	57	105	80	96
9/16-12	0.5625	110	82	155	115	139
5/8-11	0.6250	150	115	220	160	192
3/4-10	0.7500	265	200	375	280	340
7/8-9	0.8750	395	295	605	455	549
1-8	1.000	590	445	910	680	823
1 1/8-7	1.1250	795	595	1290	965	1167
1 1/4-7	1.2500	1120	840	1815	1360	1646
1 3/8-6	1.3750	1470	1100	2380	1780	2158
1 1/2-6	1.500	1950	1460	3160	2370	2865

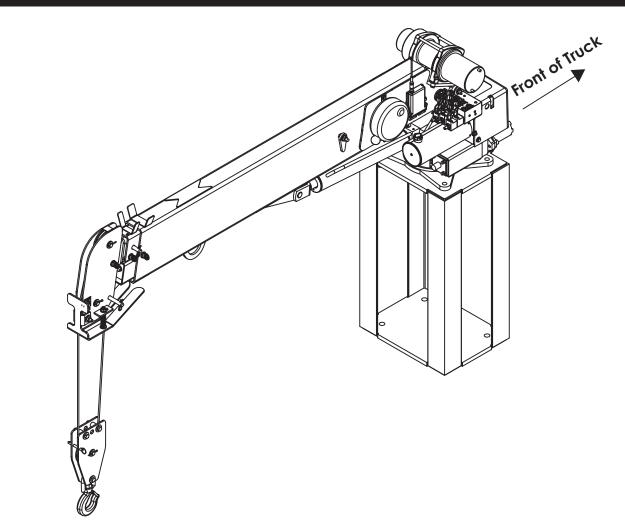
disulphite, colloidal copper or white lead are applied, multiply the torque values in the charts by the factor .90. The use of Loctite does not affect the torque values listed above.

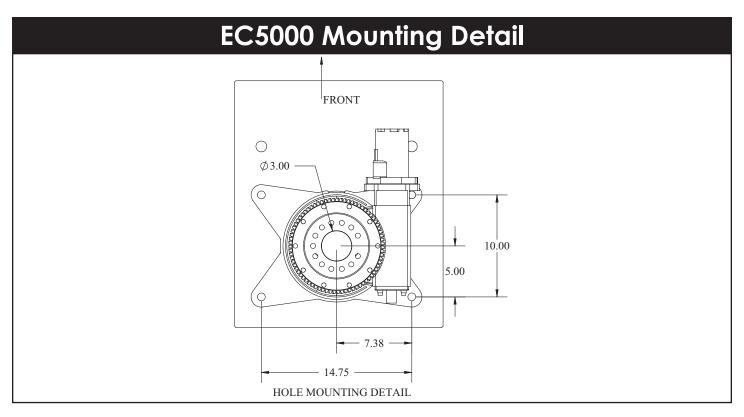
- Torque values for socket-head capscrews are the same as for Grade 8 capscrews.
- Do not use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.
- Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.
- Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.
- Tighten plastic insert or crimped steel-type lock nuts to approximately 110 percent of the dry torque values shown in the chart below, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value. Note: "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without lubrication. Tighten lubricated bolts to approximately 80% of dry bolts.

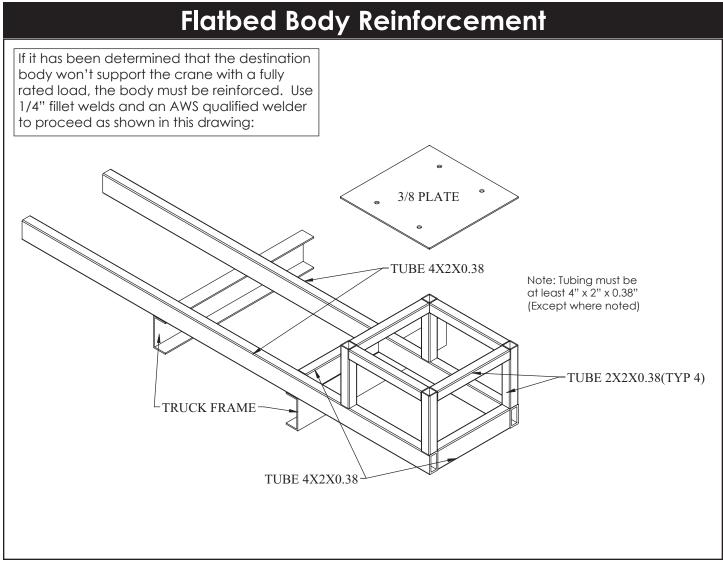
Installation Overview

- 1. Determine that the mounting location for the EC5000 crane is at least 19" x 19" (48.3 x 48.3 cm).
- 2. Use the detail on the following page to drill .938" diameter holes into the mounting plate. Run tap on the threads of the base to be sure they are clean.
- 3. Use a crane or lifting device capable of lifting the weight of the Stellar crane. The Stellar EC5000 weighs approximately 1180 lbs (535 kg). Note: cranes are shipped with rotation positioned at 180 degrees from normal stowed travel position. This will allow for easy installation of the crane and permanent connection of all hydraulic and electrical components prior to repositioning into the crane saddle.
- 4. Connect straps or chain from the lifting device to the main boom of the Stellar EC5000.
- 5. Use four (4) %" x 2" Grade 9 bolts and four (4) %" Grade 9 flat washers.
- 6. Install a washer on each bolt.
- 7. Apply Loctite Thread locker #277 to the bolts.
- 8. Using the lifting device, lower the Stellar EC5000 just above the crane compartment and start the bolts. Have someone assist in leveling the crane. Note: the rotation motor should be to the door side of crane compartment and the boom should be extended back over the rear bumper.
- 9. Secure the crane using the mounting hardware provided. Note: longer or shorter bolts may be required recommended thread engagement into crane base is 0.75" – use grade 9, zinc plated bolts only.
- 10. Torque the bolts to 549 ft-lbs.
- 11. Remove supporting crane.
- 12. Hook-up hydraulics and electrical using the schematics provided at the end of this chapter.

Note: If questions should arise during any portion of this installation, please contact Stellar Customer Service at (800) 321-3741.







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EC5000 Installation Drawing NOTICE! Route hoses correctly to ensure they do not become pinched or crushed during installation.

Stowed Position

ITEM	PART	DESCRIPTION	QTY.
2	18041	WASHER 0.88 SAE FLAT YELLOW GR9	4
3	51377	CAP SCR 0.88-9X2.00 HHGR9	4

NOTE: STABILITY DECAL P/N 16881 IS PART OF THIS KIT

Hydraulic Kit - PN 50623 **ROTATION CCW** 0 **BOOM DOWN ROTATION** $|\Box|$ **BOOM UP ROTATION CW** MAIN 12 10 **EXTENSION RETRACT EXTENSION EXTEND** EXT **(12)** 02 (07 06 03 MAIN UP ROTATION CCW MAIN DOWN PN 50623 16 15 14 3861 FTG ML FM O'RING 90 DEG 1 44534 SWITCH PRES OVERLD CD-11C-3200R/WD 13 1 8 C4922 FTG ADAPT 4-6 F5OLO-S 12 11 D1291 FTG ADAPT 4-F5OLO-S 2 10 C1111 FTG ADAPT MSTR/FSTR 10-6 F5OG5 2 09 2 08 C5572 FTG ORFS/OBR 45 DG ELL 4-V5OLO 07 42984 HOSE-HYD .25X 43 1ref 06 42982 HOSE-HYD .25 X 42 1ref 05 43847 HOSE-HYD .25 X 20 1ref 04 42981 HOSE-HYD .25 X 19 1ref 03 42983 HOSE-HYD .25 X 23 1ref

42980

42800

PART No.

HOSE-HYD .25 X 22

HOSE KIT 3315 CRANE (incl:2-11)

DESCRIPTION

1ref

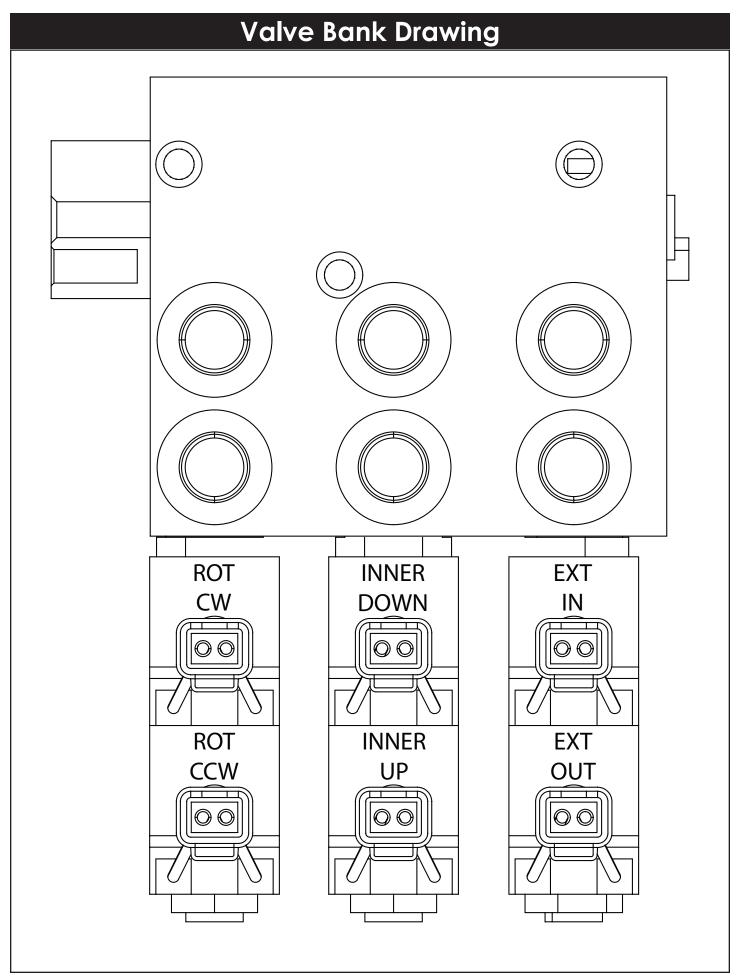
1

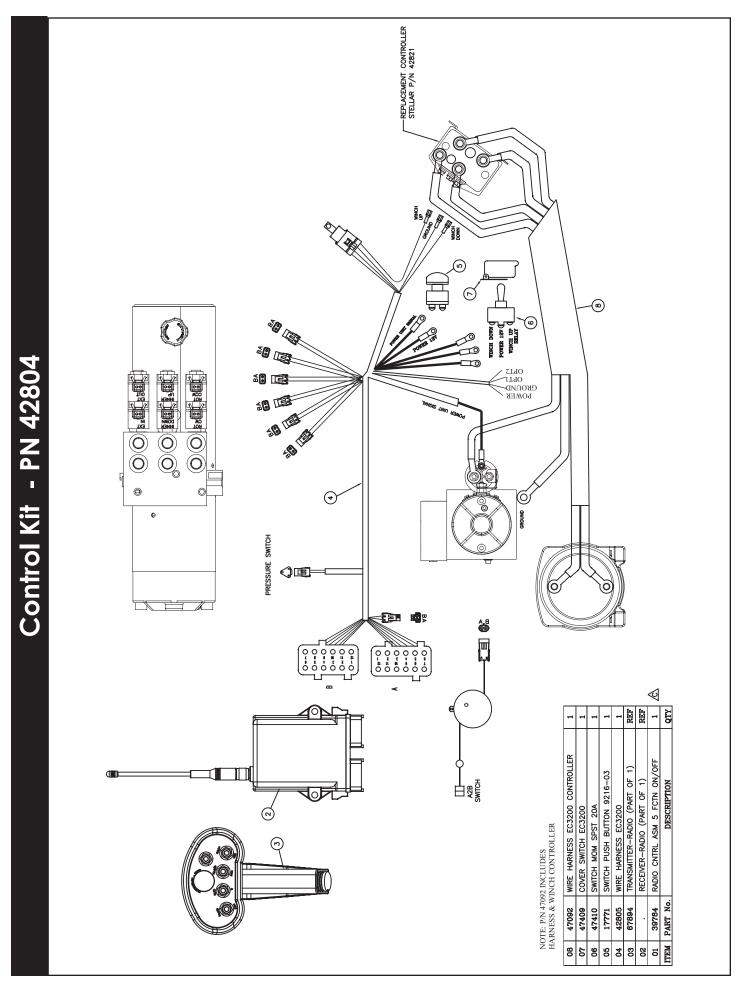
QTY

02

01

ITEM





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EC5000 Wiring Diagram FUSE 250 AMP MASTER SWITCH PN 36436 Holder: PN 32523 250 AMP (STELLAR SUPPLIED) (NOT SUPPLIED) TRUCK BATTERY **UNDERHOOD CRANE** CRANE HARNESS START MOTOR SOLENOID FUSE 250 AMP PN 36436 Holder: PN 32523 Torque Spec Large Nuts: 35 in-lbs Small Nuts: 15 in-lbs (STELLAR SUPPLIED) **GROUND GROUND POST** POWER AUX BATTERY GROUND LOCATE AUX BATTERY AS RFI AY CLOSE TO CRANE AS POSSIBLE 870 87A SAFETY BRAKE **NOTICE** Operating the crane without 86 30 85 the truck engine running could allow the truck battery to be discharged below levels required for starter cranking power. POWER SOURCE FOR Minimum Wire Sizes: SWITCH RADIO REMOTE EC3200 - #2 EC4000 - #2 **CAB OR CRANE** EC5000 - #2 COMPARTMENT EC6000 - 1/0

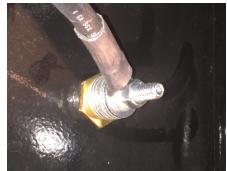
Electrical Circuit Grounding

When installing the crane, always locate a good source for grounding the circuit. A majority of electrical failures are due to poor grounding. Poor grounding can cause intermittent operation of the equipment, electrical component failures and cause the equipment to not operate at all.

Chassis manufacturers usually will have a ground strap which ties into the truck frame from the battery, but it is always a good idea to check each individual model to verify where the ground is located. Never use the mechanic body as a ground source. Make sure the electrical grounds are routed to either the chassis frame rail or the chassis's main grounding source.

Stellar provides a stud (PN 40992) for grounding the crane to the chassis frame rail:







Inside Frame Rail

Outside Frame Rail

- **AWARNING** Drill the hole to the frame rail in accordance with the chassis body builder's guide.
- Hole size: 21/64"
- The hole location should allow for the shortest length of ground wire while keeping enough slack for flexibility.
- Be sure to grind the frame rail around the hole to ensure a proper ground connection.
- Frame rail thickness may require additional flat washers (as shown).
- Use an electrical coating on hardware to prevent corrosion.

Stability Procedure

Definition of Stability for the Stellar Telescopic Crane Products:

A truck is stable until the load cannot be lifted off the ground with the winch, without tipping over the truck. Every Stellar crane installed must be tested for stability to determine the actual load capacity of the final truck package. The actual test data must be recorded and supplied with the truck at the time of in-service and should be kept with the truck at all times. The following procedure will test the truck package for stability and will provide a stability capacity chart. The load limit information shown on the stability capacity chart is formulated on 85% tipping.

Set Up:

- 1. Locate the truck on a test course in position for loading and engage travel brakes.
- 2. Set stabilizers so that they make contact with firm, level footings.
- 3. Operate the crane under partial load to assure operator proficiency and proper machine function.

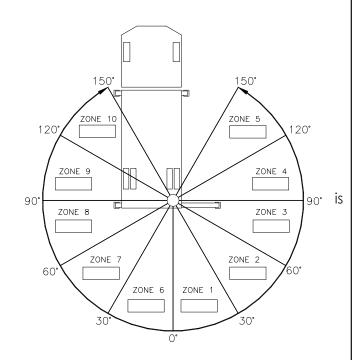
EC5000 Stability Data

Max Horizontal Reach: 240" (From the center of rotation to boom tip)

Stability Test Weight: 1475 lbs.

Test Procedure

- 1. Rotate the crane into Zone 1 position.
- 2. With the crane fully retracted and the boom horizontal, winch the test weight off the ground. Note: Keep weight within six inches of the ground at all times.
- 3. Extend the boom outward until full extension has been reached or until the truck becomes unstable (Again, use the winch to keep the weight within six inches of the ground.)
- 4. If the boom goes full extension without becoming unstable, the crane termed stable for this zone and 100% can be written in the Zone 1 data box.
- 5. If the truck becomes unstable prior to going full extension, retract the boom until the truck becomes stable and measure the horizontal reach in this position (center of rotation to boom tip). This is the stable horizontal reach for this zone. Stable horizontal reach divided by Maximum horizontal reach multiplied by 100 equals the percentage of rated capacity



for this zone. Use the following formula to determine the percentage of rated capacity:

Stable Horizontal Reach Max Horizontal Reach

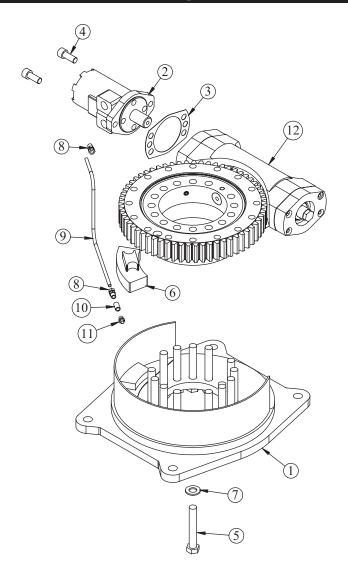
x 100 = Percentage of Rated

- 6. Record this number in the data box for Zone 1. This is the revised capacity due to stability for this
- 7. Repeat this procedure for each zone until the worksheet is completed.
- 8. This is the revised capacity based on stability of this package.

Decal Kit Placement- PN 50954 Serial Tag ocation EC5000 (04) © (09) (13) (24) PN 50954 (Rev E - 05/15/17) Updated BOM's EC GENERAL DECAL KIT - PN 90471 0 0 0 ITEM PN DESCRIPTION LOCATION QTY DECAL WARNING HOISTING PERSONNEL 02 12452 DECAL WARNING MANUAL EXT Main Boom 03 13819 DECAL ANGLE INDICATOR SS 1 Main Boom DECAL ANGLE INDICATOR CS 1 04 13820 Main Boom 1 05 15171 DECAL GREASE WORM Crane Base DECAL MANUAL OPERATION 06 18472 07 24712 DECAL WARNING STOW HOOK Crane Boom above stow hook 1 80 25159 DECAL WARNING MANUAL OVERRIDES DECAL WARNING OVERLOAD DEVICE 10 35234 DECAL STELLAR MADE IN THE USA Aain Boom 11 4186 DECAL DANGER ELECTROCUTION REMOTE Crane Compartment 12 4189 DECAL WARNING OVERLOAD Crane Compartment 13 4214 DECAL SERVICE Crane Compartment 14 42819 DECAL SNATCH BLOCK 3 TON natch Block 15 42820 DECAL VB CONTROL ECSERIES On top of valve bank 68024 DECAL WARNING UNTRAINED OPERATOR Crane Compartment 17 73929 DECAL PRESSURE WASH Main Boom C1179 DECAL DANGER ELECTROCUTION SMALL C4545 DECAL DANGER ELECTROCUTION LARGE 4 Four corners of the body/chassis C5910 DECAL STELLAR 4x9.5 1 uggested: Rear body/tailgate 21* C5911 DECAL STELLAR 2x4.5 3 Suggested: Side corners of body EC5000 DECAL KIT - PN 90487 ITEM PN DESCRIPTION LOCATION QTY 15172 DECAL ASME/ANSI B30.22/B30.5 DECAL WARNING TWO BLOCKING 23 12300 Crane Horse Head 24 50952 DECAL CAPACITY EC5000 Main Boom and Crane Compartment 25 DECAL IDENTIFICATION EC5000 50953 Main Boom (Both Sides) 2 26 9188 DECAL ROTATE/GREASE Crane Base 27* C4795 DECAL WARNING STABILIZERS Stabilizers *Not Shown

Chapter 3 - Assembly Drawings

Base Assembly - PN 71896

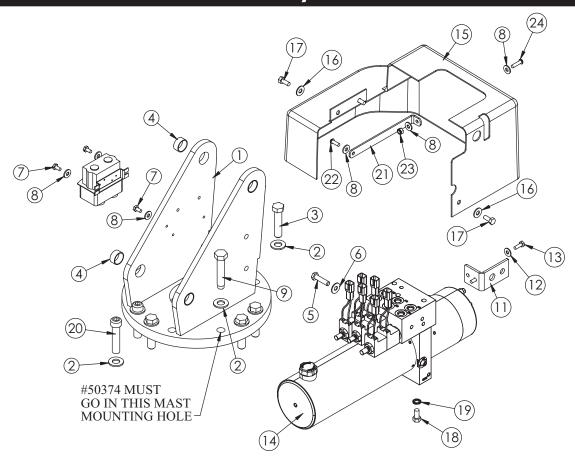


PN 71896

ITEM	PART	DESCRIPTION	QTY.
1	50055	BASE EC4000	1
2	D1204	ROTATION MOTOR 5520	1
3	21151	GASKET MOTOR 008-10056-1	1
4	D1307	CAP SCR 0.50-13X1.25 SHGR8 W/ RED PATCH	2
5	16655	CAP SCR 0.63-11X4.00 HHGR9	14
6	71897	STOP SLIDING EC4000/EC5000 KINEMATICS	1
7	16733	WASHER 0.63 FLAT GR9	14
8	D1345	FTG CPRSN 0.12NPT/0.25 TUBE	2
9	D1810	TBE AIR SAEJ844 TYPE A .25 (RM)	2.5
10	22161	FTG 2-2 FP-FP COUPLER STRAIGHT BRASS	1
11	56589	ZERK 1/8 NPT STRAIGHT LONG THREAD	1
12	69735	BEARING SWING DRIVE 9 IN EC4000/5000 KINEMATICS	1

MOTOR GASKET SHOWN AS REFERENCE ONLY

Mast Assembly - PN 50368



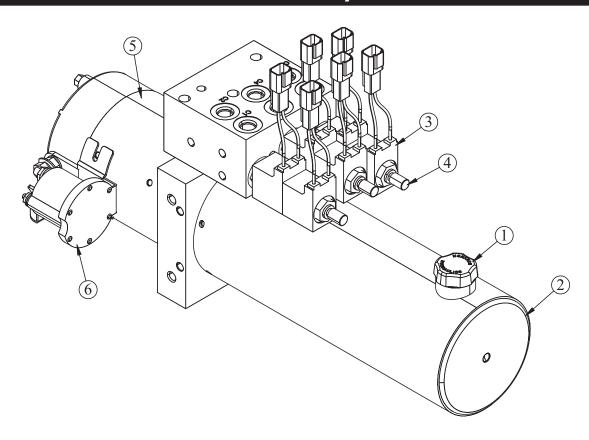
PN 50368

ITEM	PART	DESCRIPTION	QTY.
1	50369	MAST EC4000	1
2	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	12
3	50375	CAP SCR 0.63-11X2.75 HHGR8	9
4	20362	BUSHING IGUS GFI-1618-08	4
5	0345	CAP SCR 0.38-16X1.50 HHGR5	2
6	0346	WASHER 0.38 FLAT	2
7	0478	CAP SCR 0.25-20X0.50 HHGR5	3
8	D0917	WASHER 0.25 FLAT SS	6
9	50374	CAP SCR 0.63-11X3.09 MOD EC4000	1
11	47411	BRKT OVERRIDE BUTTON EC3200	1
12	0340	WASHER 0.25 FLAT	2
13	0479	CAP SCR 0.25-20X0.75 HHGR5	2
14	42513	POWER UNIT 12V EC3200	1
15	44475	COVER EC3200 HDPE	1
16	0343	WASHER 0.31 USS FLAT ZINC	3
17	0420	CAP SCR 0.31-18X0.75 HHGR5	3
18	0492	CAP SCR 0.38-16X0.75 HHGR5	1
19	5870	WASHER 0.38 STAR EXTERNAL	1
20	51281	CAP SCR 0.63-11X2.75 SHSS	2
21	51896	BRKT COVER EC CRANES	1
22	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	1
23	30659	NUT 0.25-20 HH NYLOC SS	1
24	C6022	CAP SCR 0.25-20X1.00 BTNHD SS	1

NOTE:

WINCH CONTROLLER SHOWN FOR REFERENCE ONLY

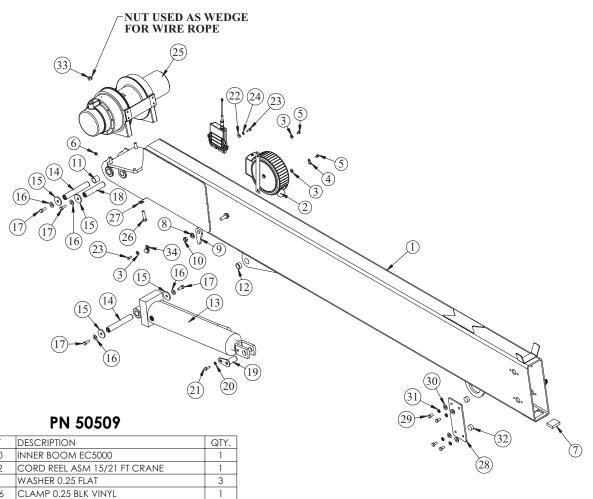
Power Unit Assembly - PN 42513



PN 42513

ITEM	PART NUMBER	DESCRIPTION
1	44025	FILL CAP - HYDRAULIC RESERVOIR
2	44026	RSRVR EC3200 POWER UNIT
3	44027	VALVE COIL EC3200 POWER UNIT
4	44028	VALVE CARTRIDGE EC3200 UNIT
5	44029	MOTOR 12V EC3200 POWER UNIT
6	44030	SOLENOID START EC3200 P-UNIT

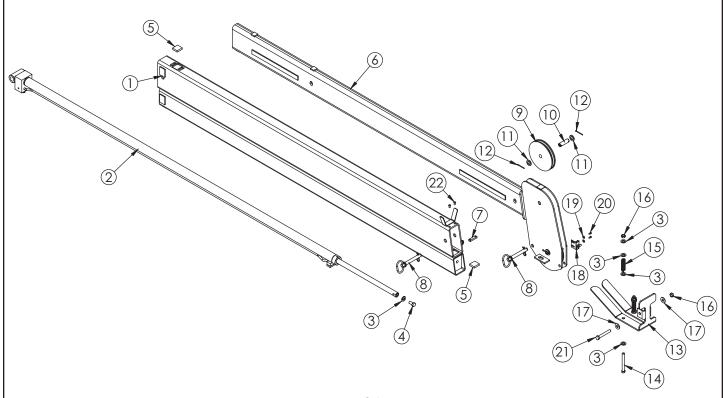
Main Boom Assembly - PN 50509



ITEM	PART	DESCRIPTION	QTY.
1	50510	INNER BOOM EC5000	1
2	72602	CORD REEL ASM 15/21 FT CRANE	1
3	0340	WASHER 0.25 FLAT	3
4	C5606	CLAMP 0.25 BLK VINYL	1
5	43845	CAP SCR 0.25-20X0.38 HHGR5	2
6	c1592	ZERK 1/8 NPT STRAIGHT	1
7	42508	WEAR PAD 0.50X1.50X2.00	1
8	D0790	WASHER 0.50 FLAT GR8	4
9	13815	PLATE ANGLE INDICATOR	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	0069	BUSHING QSI-1618-16	2
12	20362	BUSHING BPC16DXR08 1.00X.50	1
13	50609	CYLINDER 4.00X13.00	1
14	11688CR	PIN 1.00X6.31D&T	2
15	9320	PIN CAP 0.44X1.75X0.19 YZ	6
16	C6353	WASHER 0.38 FLAT GR8	6
17	13573	CAP SCR 0.38-16X1.00 HHGR8	6
18	42516CR	PIN 1.00X5.13 D&T	1
19	42517CR	PIN TEAR DROP 1.00X2.19	1
20	5591	WASHER 0.31 SAE FLAT YELLOW GR8	1
21	21170	CAP SCR 0.31-18X1.00 HHGR8	1
22	D0917	WASHER 0.25 FLAT SS	2
23	0479	CAP SCR 0.25-20X0.75 HHGR5	3
24	0521	WASHER 0.25 LOCK	2
25	50226	WINCH 2500DC WARN	1
26	50111	CAP SCR 12MMX45MM HHGR8	4
27	42788	WASHER 0.44 SAE FLAT YELLOW GR8	4
28	51168	COVER WEAR PAD EC5000	2
29	0492	CAP SCR 0.38-16X0.75 HHGR5	8
30	0346	WASHER 0.38 USS FLAT	8
31	0523	WASHER 0.38 LOCK	8
32	51169	WEAR PAD 0.50X1.00 RND	4
33	0536	NUT 0.44-14 HHGR5	1
34	C0081	CLAMP 0.50 BLK VINYL	1

RADIO RECEIVER SHOWN AS REFERENCE ONLY

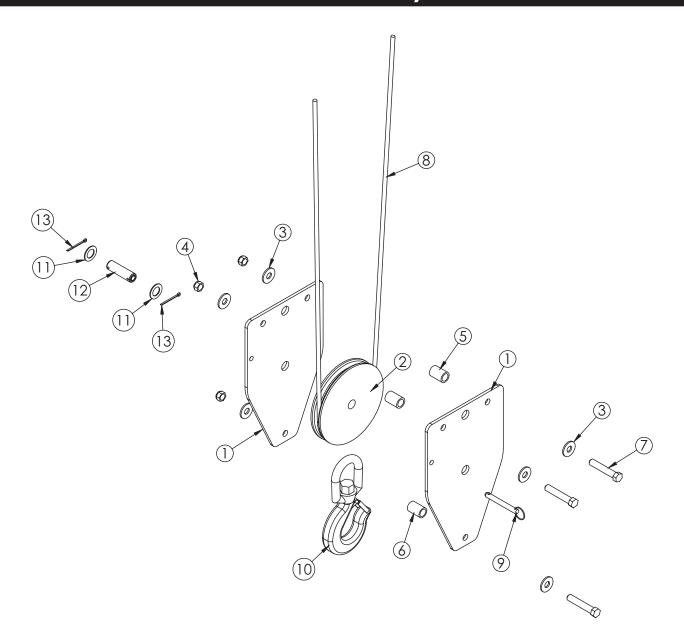
Extension Boom Assembly - PN 50611



PN 50611

ITEM	PART	DESCRIPTION	QTY.
1	50612	EXT BOOM 1ST EC5000	1
2	50616	CYLINDER 1.50X60.00	1
3	D0790	WASHER 0.50 FLAT GR8	9
4	10172	CAP SCR 0.50-13X1.00 HHGR8 ZY	1
5	42509	WEAR PAD 0.38X1.38X1.50	2
6	50617	EXT BOOM 2ND EC5000	1
7	42978PC	FLAT BOOM STOP EC3200	1
8	42977	PIN HITCH 0.63X4.00	2
9	50387	SHEAVE EC4000 6.75 DIA .31R/1.00THK	2
10	42524ZP	PIN 0.75X2.50 COTTER	2
11	0423	MACHY WASHER 0.75ID 10GA	4
12	37824	COTTER PIN .125X1.00	4
13	50386PC	PLATE CRADDLE EC4000	1
14	0507	CAP SCR 0.50-13X4.50 HHGR5	2
15	27710	SPRING ANTI 2 BLOCK SUMMIT	2
16	C6106	NUT 0.50-13 HHGR5 NYLOC	3
17	0352	WASHER 0.50 USS FLAT ZINC	2
18	35105	SWITCH LIMIT E1117-B9111-6C	1
19	D0178	WASHER #10 SAE FLAT ZINC	2
20	43846	SCREW #10-24X0.38 SH SS	2
21	0505	CAP SCR 0.50-13X3.50 HHGR5	1
22	D0561	CAP SCR 0.25-20X0.50 BTNHD SS	2

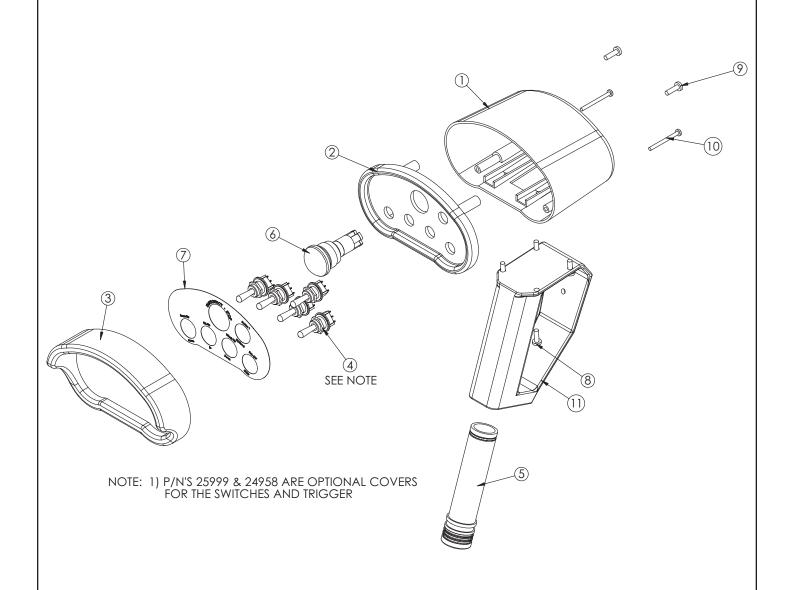
Cable & Hook Assembly - PN 50492



PN 50492

ITEM	PART	DESCRIPTION	QTY.
1	50493PC	PLATE SNATCH BLOCK EC4000	2
2	50387	SHEAVE EC4000 6.75 DIA .31R/1.00THK	1
3	0352	WASHER 0.50 USS FLAT ZINC	6
4	5468	NUT 0.50-13 HHGR8 NYLOC	3
5	27810	SPACER 3315 SNATCH BLOCK UHMW	2
6	16607PC	SPACER 3315 SNATCH BLOCK	1
7	47868	CAP SCR 0.50-13X2.75 HHGR8	3
8	9610	WIRE ROPE 0.31 6X19 IWRC-XIP 90FT	1
9	9263	PIN .38X3.00 QUICK RELEASE	1
10	C6018	HOOK CRANE-3 TON	1
11	0375	MACHY WASHER 0.75ID 14GA	2
12	42524ZP	PIN 0.75X2.50 COTTER	1
13	37824	COTTER PIN .125X1.00	2

Radio Transmitter Assembly - PN 67894



PN 67894

ITEM	PART	DESCRIPTION	QTY.
1	20088	CONTROL HANDLE HOUSING 4 FCTN HET	1
2	51830	CONTROL HANDLE FACE PLT 5 FCTN	1
3	24385	GUARD RADIO SWITCH 4 FCTN	1
4	22600	SWITCH TOGGLE HET RADIO 63019300	5
5	35441	BATTERY TUBE AA HETRONIC RADIO	1
6	16975	SWITCH E STOP ASM HETRONIC RADIO	1
7	51831	DECAL CONTROL HANDLE 5 FCTN	1
8	38475	SCREW 4MMX12MM PHMS PH	4
9	36156	SCREW 4MMX14MM PHMS PH	2
10	29460	SCREW 3MMX35MM PHMS PH	2
11	50932	CONTROL HANDLE GRIP LESS TRIGGER HET H2	1

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Chapter 4 - Replacement Parts

<u> </u>	Replacement runs
HYDRAUL	IC COMPONENTS
PART#	DESCRIPTION
42840	HYDRAULIC SWING MOTOR
21151	GASKET - HYDRAULIC SWING MOTOR
42513	POWER UNIT 12V EC3200
44028	VALVE CARTRIDGE - POWER UNIT 12V #19012-D
44027	VALVE COIL - POWER UNIT 12V #11494-D
44029	MOTOR 12V - POWER UNIT #08111-1
44030	12V SOLENOID (12volt hydraulic system) #17757
44026	HYDRAULIC RESERVOIR - POWER UNIT 12V #14071
44025	FILL CAP - HYDRAULIC RESERVOIR
9803	C-BALANCE VALVE
51840	SEAL KIT - MAIN LIFT CYLINDER
43893	SEAL KIT - EXTENSION CYLINDER
49315	PRESSURE SWITCH
42821	CONTROLLER SOLENOID
C2027	O'RING - # 4 FACE SEAL
C2028	O'RING - # 6 FACE SEAL
D1245	O'RING - # 4 SAE
D1246	O'RING - # 6 SAE
ASSEMBL	Y COMPONENTS
52256	WORM GEAR - ROTATION BEARING
27184	BEARING & SEAL KIT - ROTATION BEARING
35225	BEARING RETAINER - ROTATION BEARING
20362	BUSHING 1.00" X 0.50"
0069	BUSHING 1.00" X 1.00"
42508	WEAR PAD 0.38" X 1.50" X 2.00"
42509	WEAR PAD 0.38" X 1.38" X 1.50"
42978	BOOM STOP FLAT
9320	PIN CAP 0.44" X 1.75" X 0.25" SS
C6353	WASHER 0.38 FLAT GR8
13573	CAP SCR. 0.38-16 X 1.00" GR8 MACHINE WASHER -0.75" ID 14GA.
0375 0423	MACHINE WASHER -0.75 ID 14GA. MACHINE WASHER -0.75" ID 10GA.
50387	SHEAVE
9610	WIRE ROPE
42977	HITCH PIN 0.63" X 4.00"
9263	QUICK RELEASE PIN .38 X 3.00"
50386PC	CRADLE PLATE
27710	SPRING ANTI-2-BLOCK
C6018	HOOK 3-TON
10709	SAFETY LATCH FOR 3 TON HOOK - Campbell
51330	SAFETY LATCH FOR 3 TON HOOK - Crosby
C1592	GREASE ZERK
ELECTRIC	AL COMPONENTS
35105	LIMIT SWITCH
11544	CORD REEL
47410	MOMENTARY SWITCH
17771	PUSH BUTTON (12volt hydraulic system)
50226	WINCH
36436	FUSE 250 AMP
28978	BOSCH RELAY
RADIO RE	MOTE COMPONENTS
39784	RADIO REMOTE SYSTEM
50932	HANDLE ASM
16975	E-STOP SWITCH
22600	TOGGLE SWITCH
20088	LOWER TRANSMITTER HOUSING
35///1	IRATTERY TURE HOLDER

35441

35916

BATTERY TUBE HOLDER

BACK UP CORD

