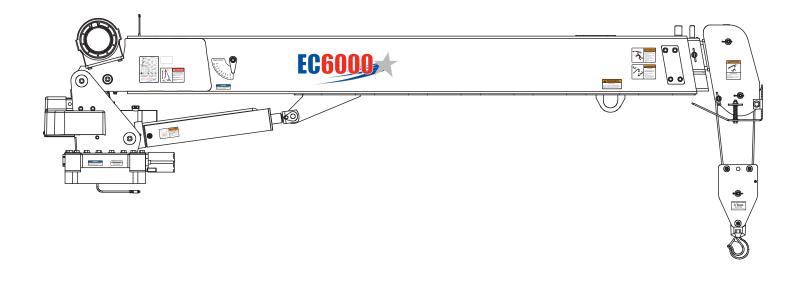


MODEL EC6000

TELESCOPIC CRANE OWNERS' MANUAL

Installation • Assembly Drawings • Parts



Stellar Industries, Inc.

190 State Street
PO Box 169
Garner, IA 50438
800-321-3741

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

EC6000 Manual Revisions

Date of Revision	Sections Revised	Description of Revision
March 25th, 2013	Chapter 2: Installation	Updated Decal Kit

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Find a Dealer Near You: http://www.stellarindustries.com/pages/dist/distsearch.htm

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 Order Parts Warranty Information service@stellarindustries.com parts@stellarindustries.com warranty@stellarindustries.com

About this manual

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.



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



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 Series 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.

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.

Chapter 1 - Specifications

Model EC6000 Crane SPECIFICATION SHEET

Crane Rating: 38,000 ft-lb (5.25 TM)

Standard Boom Length: 11' (3.35 m) from CL of Crane

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

2nd stage: Manual 60" (152.4 cm)

Maximum Horizontal Reach: 21' (6.40 m) from CL of Crane

Maximum Vertical Lift: 22' 10" (6.96 m)

(from crane base)

Boom Elevation: -5 to +80 degrees

Stowed Height: 34.41" (87.40 cm)

(crane only)

Mounting Space Required: 20" x 21" (50.8 x 53.3 cm)

Approximate Crane Weight: 1600 lbs (725 kg)

Controls: Radio control standard for all functions.

Winch Specifications

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

Line pull speed:

Max. single part line:

Max. double part line:

16 ft/min (4.88 m/min)

3000 lbs (1360 kg)

6000 lbs (2720 kg)

Rotation: 400 degree power

(worm gear)

Lifting Capacities: 6000 lbs @ 6'4" (2720 kg @ 1.9 m)

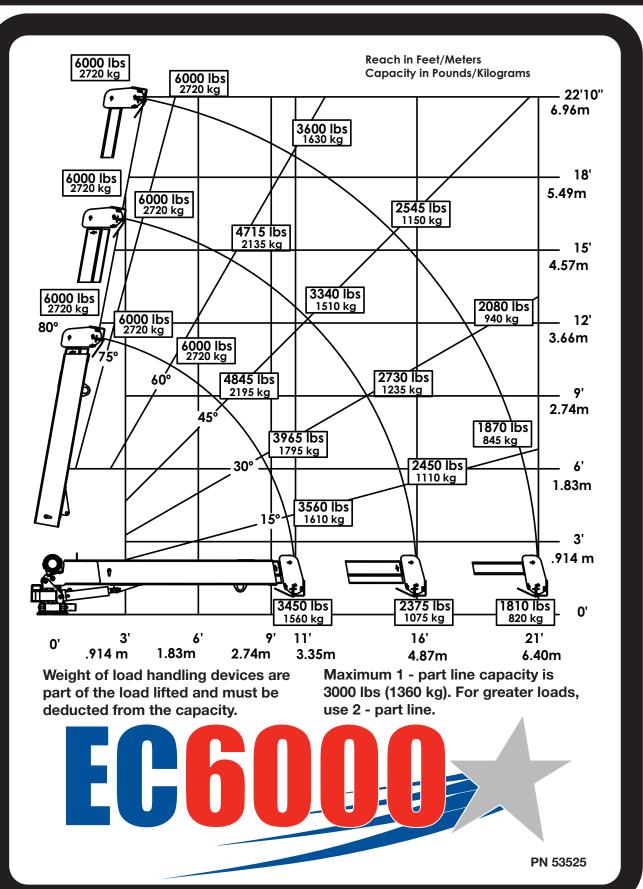
2375 lbs @ 16' (1075 kg @ 4.87 m) 1810 lbs @ 21' (820 kg @ 6.4 m)

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 53525



Chapter 2 - Installation

General Installation

This chapter is designed to serve as a general guide for the installation of a Stellar EC6000 Crane on a Stellar Service Body. 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.

This crane is designed for use with a Stellar Service Body installed on a vehicle that meets the minimum chassis requirements of the crane. 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.

Installation 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.

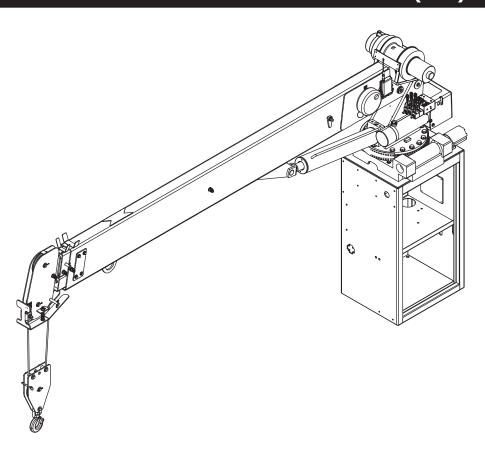
Therefore, the installer of Stellar cranes and bodies is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal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

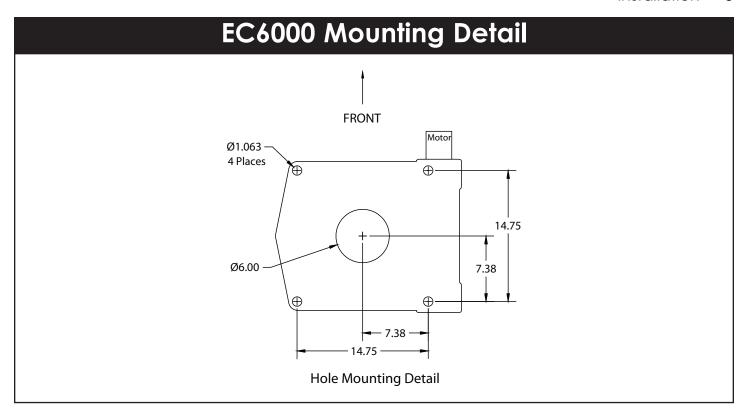
Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit http://www.gpoaccess.gov/nara/index.html for the full text of Code of Federal Regulations.

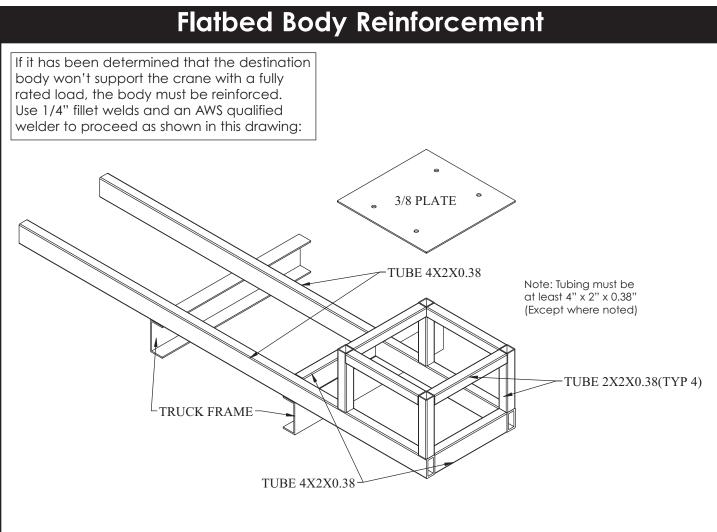
Installation Overview

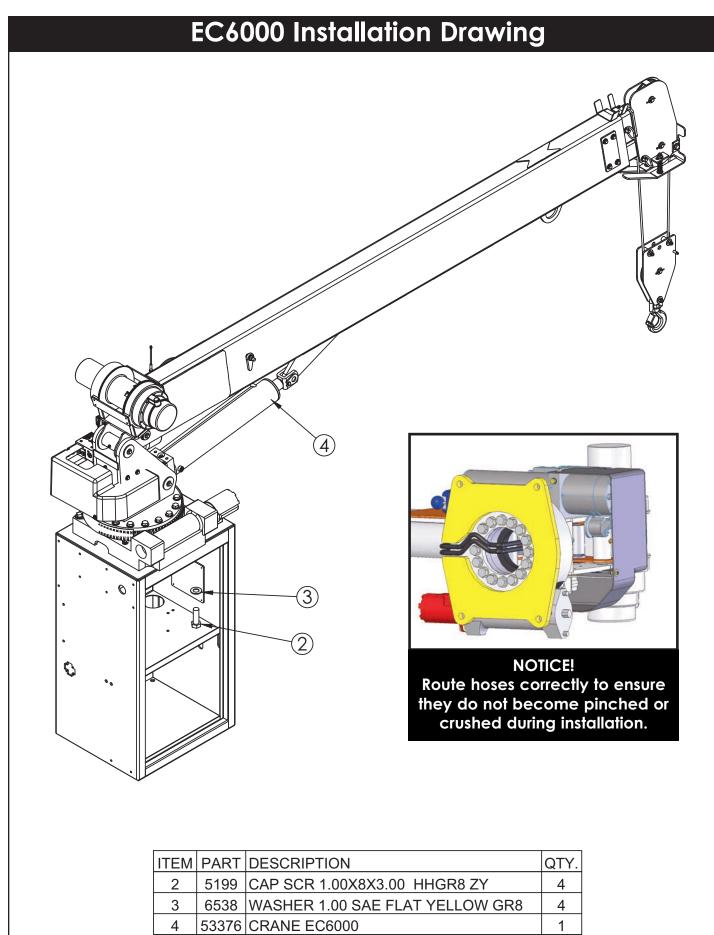
- 1. Determine that the mounting location for the EC6000 crane is at least 18" x 20" (45.7 x 50.8 cm).
- 2. Use the detail below to drill 1.06" diameter holes into the mounting plate. Run tap on the threads of the base to be sure they are clean.
- 3. Use a crane or lifting device capable of lifting the weight of the Stellar crane. The Stellar EC6000 weighs approximately 1600 lbs (725 kg). Note: cranes are shipped with rotation positioned at 200 degrees of 400 degree system. 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 lifting rings on the Stellar EC6000.
- 5. Use four (4) 1" x 3" Grade 8 bolts and four (4) 1" Grade 8 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 EC6000 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.
- Secure the crane using the mounting hardware provided. Note: longer or shorter bolts may be required recommended thread engagement into crane base is 1.75" – use grade 8, zinc plated bolts only.
- 10. Torque the bolts to 680 ft-lbs.
- 11. Remove supporting crane.
- 12. Hook-up hydraulics and electrical using the schematics provided in this chapter.

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

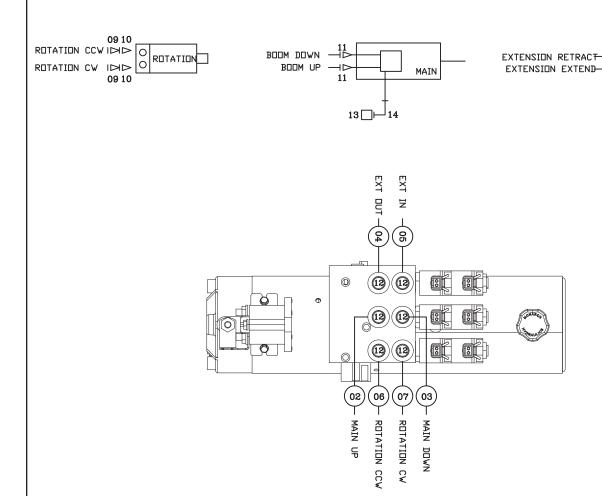








Hydraulic Kit - PN 54857



PN 54857

MAIN DOWN

O2) MAIN UP

14	3861	FTG ML FM D'RING 90 DEG	1
13	44534	SWITCH PRES OVERLD CD-11C-3200R/WD	1
12	C4922	FTG ADAPT 4-6 F50L0-S	6
11	D1291	FTG ADAPT 4-F50L0-S	2
10	C1111	FTG ADAPT MSTR/FSTR 10-6 F50G5	2
09	3338	FTG ADAPT 90 4-6-C50L0-S	2
08	C5572	FTG ORFS/OBR 45 DG ELL 4-V5OLO	2
07	56873	HOSE-HYD .25X 45	1ref
06	31065	HOSE-HYD .25 X 44	1ref
05	56872	HOSE-HYD .25 X 22	1ref
04	23903	HOSE-HYD .25 X 21	1ref
03	56871	HOSE-HYD .25 X 25	1ref
02	56870	HOSE-HYD .25 X 24	1ref
01	56869	HOSE KIT EC6000 CRANE (incl:2-7)	1

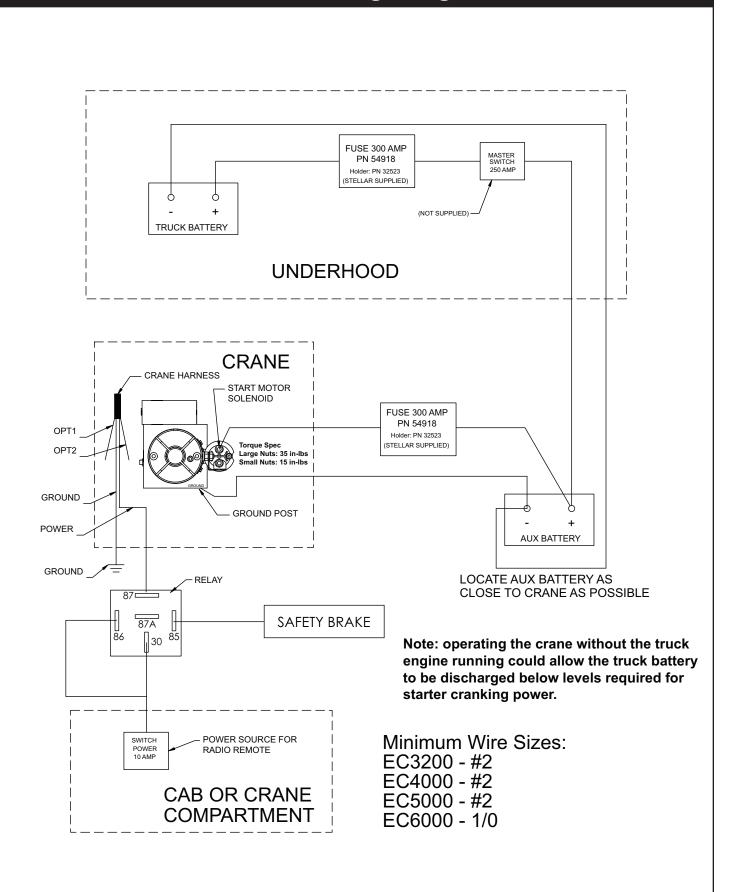
PRESSURE SAITCH PRESSURE SAITCH PRESSURE SAITCH Replacement Controller Stellar PN 54859

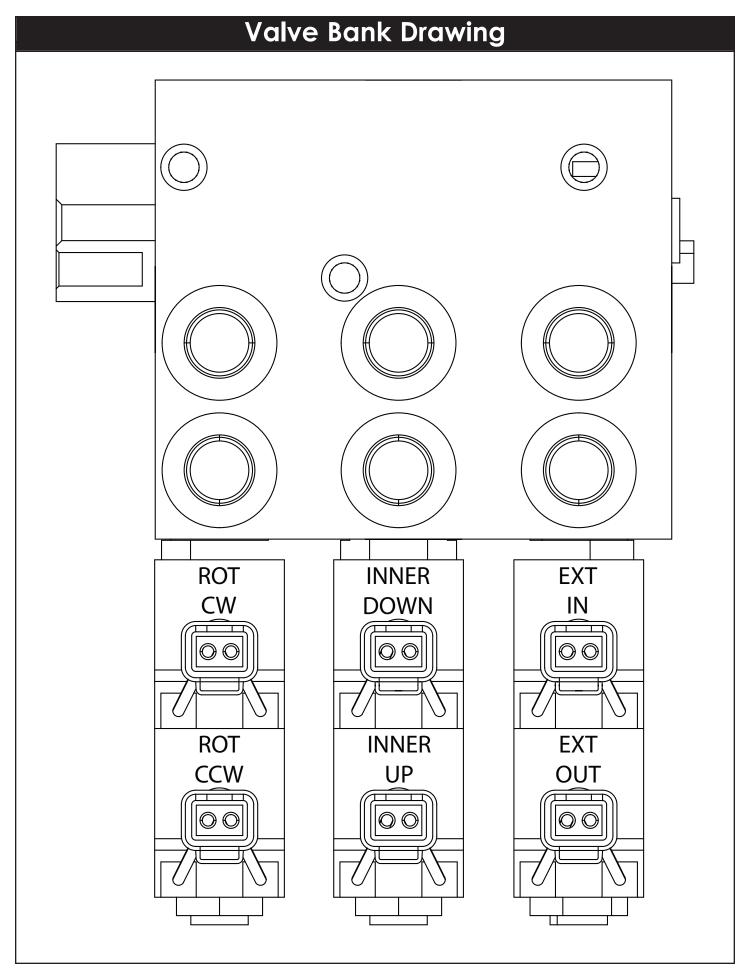
PN 54859

11	54918	FUSE 300 AMP	2
10	32523	FUSE HOLDER 46039	2
09	54860	WIRE HARNESS EC6000 CONTROLLER	1
08	47409	COVER SWITCH EC3200	1
07	47410	SWITCH MOM SPST 20A	1
06			
05			
04			
03	17771	SWITCH PUSH BUTTON 9216-03	1
02	42805	WIRE HARNESS EC3200	1
01	42976	RADIO CNTRL ASM 5 FCTN ON/OFF	1
ITEM	PART No.	DESCRIPTION	QTY

NOTE: P/N 54860 INCLUDES HARNESS & WINCH CONTROLLER

EC6000 Wiring Diagram





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.

EC6000 Stability Data

Max Horizontal Reach: 252" (From the center of rotation to boom tip)

Stability Test Weight: 2135 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 is 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:

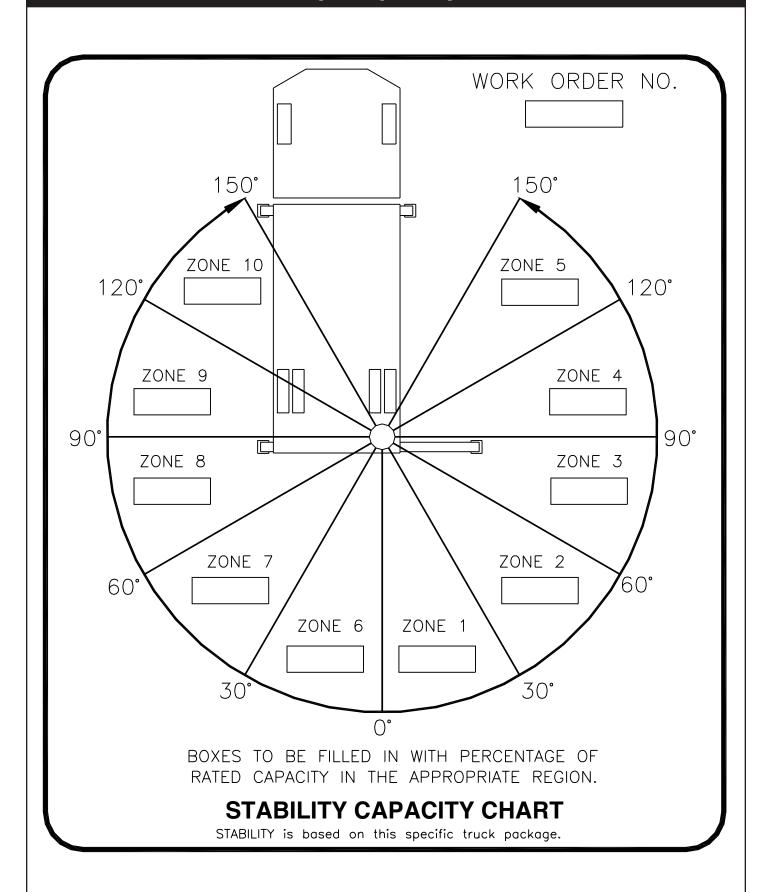
Stable Horizontal Reach

Max Horizontal Reach

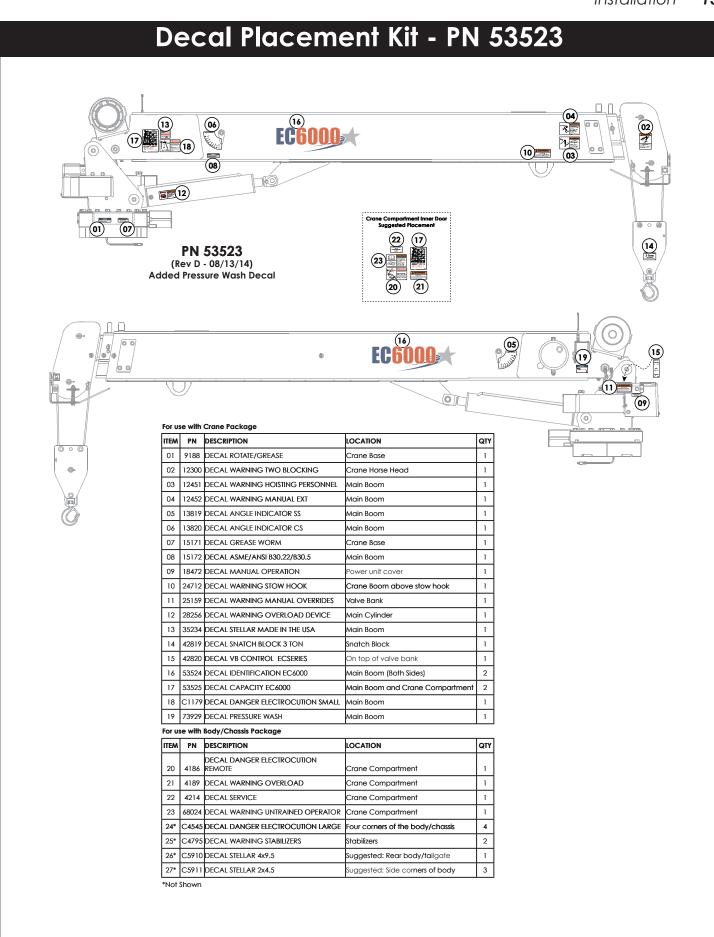
x 100 = Percentage of Rated

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

Stability Capacity Chart

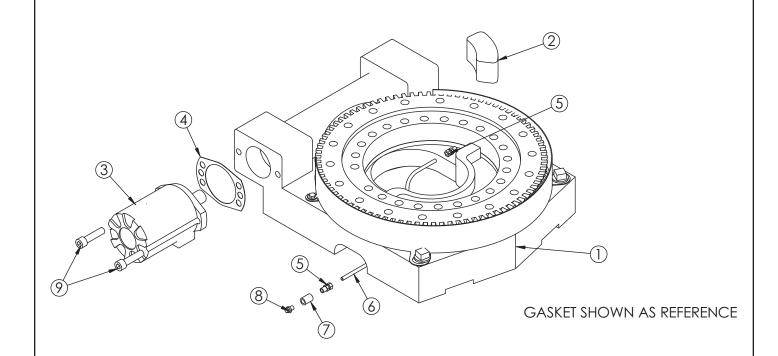


For a decal version of this capacity chart, please contact Stellar Customer Service at (800) 321-3741



Chapter 3 - Assembly Drawings

Base Assembly - PN 50364

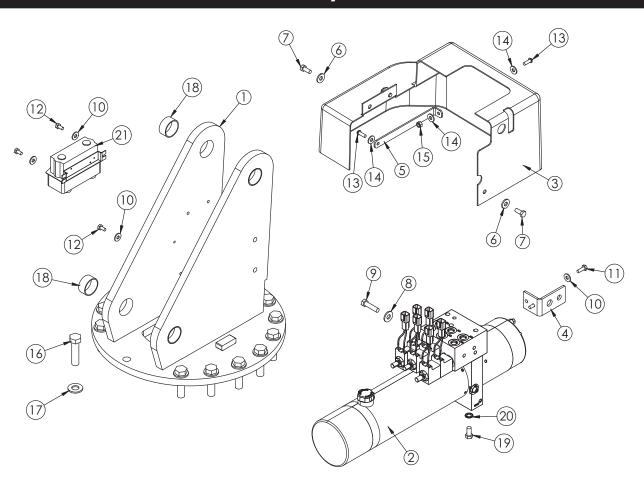


PN 50364

ITEM	PART	DESCRIPTION	QTY.
1	47869	BEARING SWING DRIVE CAST 6620 GEARTEK	1
2	11542	STOP 3820 400 SLIDE	1
3	C6069	MOTOR HYD ROSS MK080613AAAB	1
4	21151	GASKET MOTOR 008-10056-1	1
5	D1345	FTG CPRSN 0.12NPT/0.25 TUBE	2
6	D1810	TBE AIR SAEJ844 TYPE A .25 (RM)	1
7	C2256	FTG COUPLER PIPE 0.13	1
8	56589	ZERK 1/8 NPT STRAIGHT LONG THREAD	1
9	53495	CAP SCR 0.50-13X2.00 SH	2

NOTE: ITEMS 1 INCLUDE GUARD & GUARD FASTENERS

Mast Assembly - PN 53379

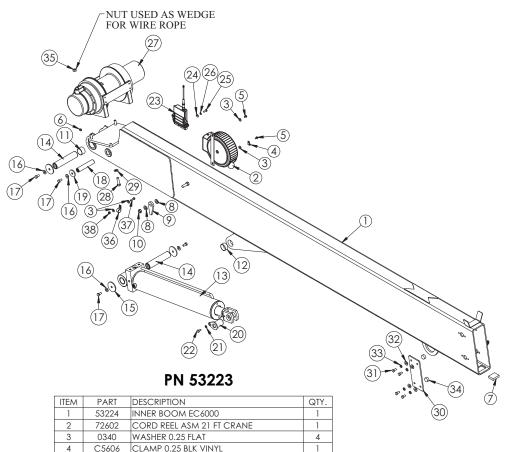


PN 53379

ITEM	PART	DESCRIPTION	QTY.
1	53200	MAST EC6000	1
2	53378	POWER UNIT 12V EC6000	1
3	44475	COVER EC3200 HDPE	1
4	47411	BRKT OVERRIDE BUTTON EC3200	1
5	51896	BRKT COVER EC CRANES	1
6	0343	WASHER 0.31 USS FLAT ZINC	3
7	0420	CAP SCR 0.31-18X0.75 HHGR5	3
8	0346	WASHER 0.38 USS FLAT ZINC	2
9	0345	CAP SCR 0.38-16X1.50 HHGR5	2
10	0340	WASHER 0.25 USS FLAT ZINC	5
11	0479	CAP SCR 0.25-20X0.75 HHGR5	2
12	0478	CAP SCR 0.25-20X0.50 HHGR5	3
13	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	2
14	D0917	WASHER 0.25 FLAT SS	3
15	30659	NUT 0.25-20 HH NYLOC SS	1
16	C1026	CAP SCR 0.63-11X2.50 HHGR8	16
17	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	16
18	21810	BUSHING BPC24DXR12 1.50X.75	4
19	0492	CAP SCR 0.38-16X0.75 HHGR5	1
20	5870	WASHER 0.38 STAR EXTERNAL	1
21	54862	CONTROLLER WARN 34278 DO EC6000	1

CONTROLLER SHOWN AS REFERENCE

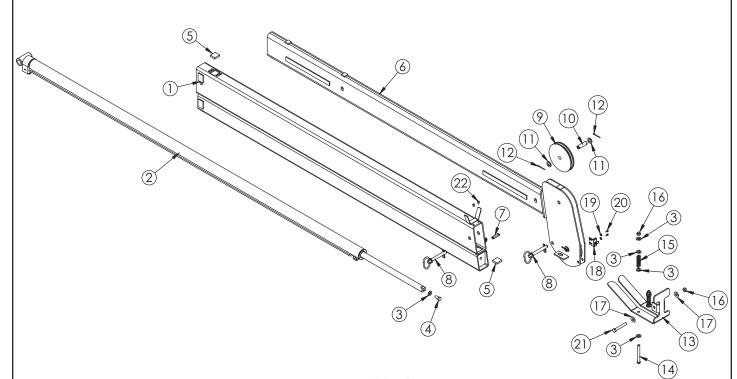
Main Boom Assembly - PN 53223



ITEM	PART	DESCRIPTION	QTY.
1	53224	INNER BOOM EC6000	1
2	72602	CORD REEL ASM 21 FT CRANE	1
3	0340	WASHER 0.25 FLAT	4
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	13815PC	PLATE ANGLE INDICATOR	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	16067	BUSHING QSI-2426-16	2
12	21810	BUSHING GSI-2426-12 1.50X0.75	1
13	53232	CYLINDER 4.00X21.00	1
14	53231ZP	PIN 1.50X6.88 D&T	2
15	7403	PIN CAP 0.44X2.50X0.19	4
16	C6353	WASHER 0.38 FLAT GR8	6
17	9843	CAP SCR 0.38-16X0.75 HHGR8 (TRQ 33 FT/LBS)	6
18	42516ZP	PIN 1.00X5.13 D&T	1
19	9320	PIN CAP 0.44X1.75X0.19 SS	2
20	53518ZP	PIN TEAR DROP 1.50X2.19	1
21	5591	WASHER 0.31 SAE FLAT YELLOW GR8	1
22	53521	CAP SCR 0.31-18X0.75 HHGR8	1
23	34103	RECEIVER RADIO CONTROL 6 FCTN H2	1
24	D0917	WASHER 0.25 FLAT SS	2
25	0479	CAP SCR 0.25-20X0.75 HHGR5	2
26	0521	WASHER 0.25 LOCK	2
27	53230	WINCH 3000DC WARN	1
28	50111	CAP SCR 12MMX45MM HHGR8	4
29	42788	WASHER 0.44 SAE FLAT YELLOW GR8	4
30	51168PC	COVER WEAR PAD EC5000	2
31	0492	CAP SCR 0.38-16X0.75 HHGR5	8
32	0346	WASHER 0.38 USS FLAT ZINC	8
33	0523	WASHER 0.38 LOCK	8
34	51169	WEAR PAD 0.50X1.00 RND	4
35	0536	NUT 0.44-14 HHGR5	1
36	C5946	HOSE CLAMP #8 RUBBER COATED	1
37	0480	CAP SCR 0.25-20X1.00 HHGR5	1
38	0333	NUT 0.25-20 HHGR5 NYLOC	1

RADIO RECEIVER SHOWN AS REFERENCE ONLY

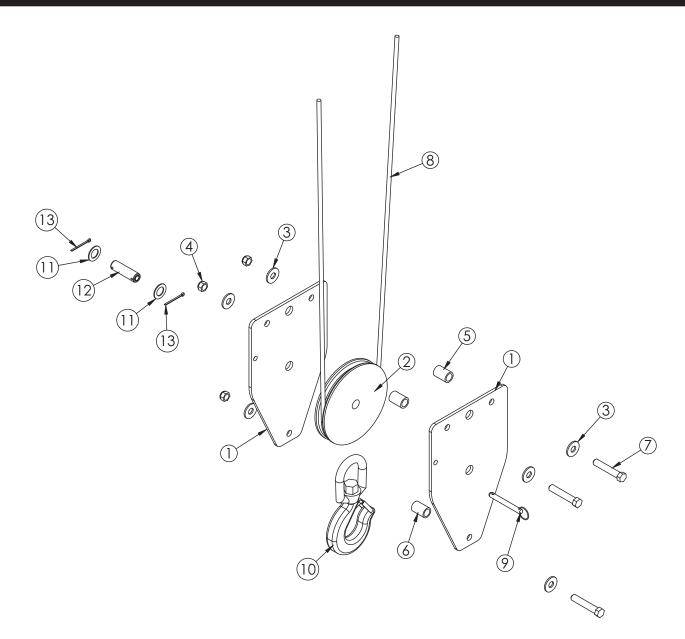
Extension Boom Assembly - PN 53264



PN 53264

ITEM	PART	DESCRIPTION	QTY.
1	50612	EXT BOOM 1ST EC5000	1
2	53265	CYLINDER 2.00X60.00 EC6000	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

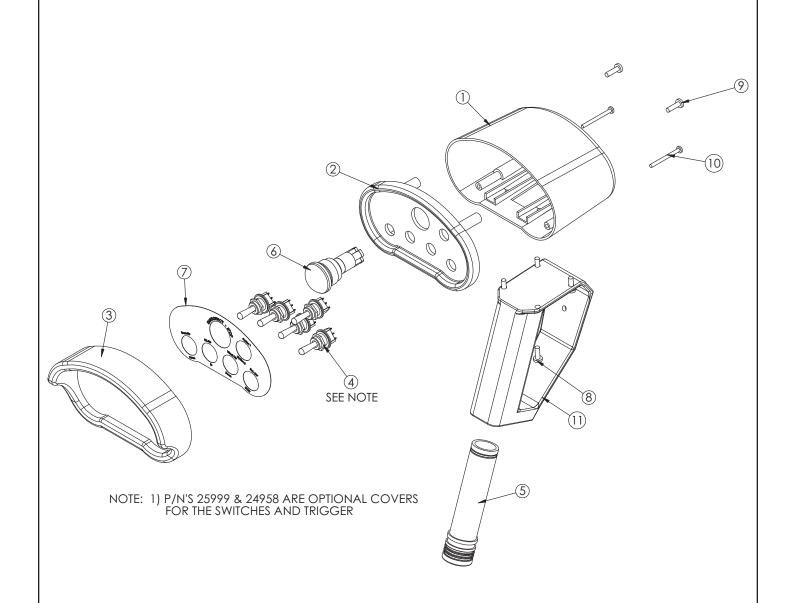
Cable & Hook Assembly - PN 50492



PN 50492

ITEM	PART	DESCRIPTION	QTY.
11 = 1 \(\sqrt{1} \)	PARI	DESCRIPTION	QII.
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

Chapter 4 - Replacement Parts

HYDRAULIC C	OMPONENTS
PART#	DESCRIPTION
C6069	HYDRAULIC SWING MOTOR
21151	GASKET - HYDRAULIC SWING MOTOR
53378	POWER UNIT 12V EC6000
44028	VALVE CARTRIDGE - POWER UNIT 12V #19012-D
44027	VALVE CARTRIDGE - POWER UNIT 12V #19012-D
44029	MOTOR 12V - POWER UNIT #08111-1
44030	12V SOLENOID (12volt hydraulic system) #17757
44025	FILL CAP - HYDRAULIC RESERVOIR
9803	C-BALANCE VALVE
51840	SEAL KIT - MAIN LIFT CYLINDER
55205	SEAL KIT - EXTENSION CYLINDER
44534	PRESSURE SWITCH
54862	CONTROLLER SOLENOID
C2027	O'RING - # 4 FACE SEAL
C2028	O'RING - # 6 FACE SEAL
D1245	O'RING - # 4 SAE
D1246	O'RING - # 6 SAE
ASSEMBLY CC	
55827	WORM GEAR - ROTATION BEARING
55829	BEARING & SEAL KIT - ROTATION BEARING
55978	SEAL & SHIM KIT
44533	BUSHING 2.00" X 0.75"
4381	BUSHING 2.00" X 2.00"
42508	WEAR PAD 0.38" X 1.50" X 2.00"
42509	WEAR PAD 0.38" X 1.38" X 1.50"
51169	WEAR PAD 0.50" X 1.00" RND
11542	BOOM STOP FLAT
7403	PIN CAP 0.44" X 2.50" X 0.19" SS
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
0375	MACHINE WASHER -0.75" ID 14GA.
0423	MACHINE WASHER -0.75" ID 10GA.
50387	SHEAVE
	WIRE ROPE
9610	
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
C1592	GREASE ZERK
ELECTRICAL C	
35105	LIMIT SWITCH
11544	CORD REEL
47410	MOMENTARY SWITCH
17771	PUSH BUTTON (12volt hydraulic system)
53230	WINCH
54918	FUSE 300 AMP
28978	BOSCH RELAY
	E COMPONENTS
42976	RADIO REMOTE SYSTEM
50932	HANDLE ASM
16975	E-STOP SWITCH
22600	TOGGLE SWITCH
20088	LOWER TRANSMITTER HOUSING
51830	UPPER FACE PLATE HOUSING
51831	FACE PLATE DECAL
24385	SWITCH PROTECTION GUARD
35441	BATTERY TUBE HOLDER
35916	BACK UP CORD
30310	DITOIT OF COILD