



# SkyCrane

## SC series

Aerial Lifts and Cranes

## features

- Working Heights to 97'
- Dual purpose machine; aerial platform and crane
- Multiple tool and lamp box options
- Extra long lamp box option in sub-frame
- Easy ground level entry to Aerial platform
- Aerial remote controls
- Ground hydraulic controls
- Remote engine start / stop
- Auxiliary power unit
- Hydraulic and Gravity leveled platforms
- Platform Mounted Jib with Hydraulic Winch
- 360° Work Area
- Continuous Rotation
- Crane Tip Heights: 57', 60', 70', 85' & 92'
- Nylatron pad equipped booms
- Up to 6,000 lb lift capacity
- Up to 24,000 lb lift capacity for SC 85
- Detachable load line
- Radio anti-two block system
- Rugged, Weatherproof, Automotive style electrical system
- ORS Face Seal hydraulic fittings and adapters
- Unparalleled machine stability
- Heavy duty sub-frame
- Clamp-on mounting
- Design meets ANSI A92.2 and ANSI B30.5 recommendations



product guide

# SkyCrane series

## GENERAL SPECIFICATIONS

### BOOM

**Boom Sections** - 4-plate design, telescopic booms equipped with teflon-plugged nylatron wear pads for smooth operation. Nylatron wear pads easily accessible for lubrication, inspection and replacement.

3-section booms extend and retract by internal telescoping hydraulic cylinder.

4-section boom telescope system consists of a telescoping cylinder and wire rope crowds.

**Boom Point** - Boom tip designed to easily accept Manitex Skycrane platforms. Detachable boom point sheave bracket (except SC 85) allows for easy removal and stowage of load line for aerial platform operation.

SC 85 only, "Quick Reeve" boom point design, accepts Manitex Skycrane platforms; facilitates parts of line configuration changes.

**Boom Elevation** - Double acting hydraulic cylinder; working range from 15° below horizontal to 85° above. Counterbalance valves hold cylinder and boom in position.

### HOIST

**Winch** - Single or two speed planetary winch; wet multi-disc internal brake, spring applied, hydraulically released.

	SC62,SC65,SC75	SC85	SC97
Max Line Pull	5376 lb	7789 lb	5750 lb
Max Line Speed	78*	106*	333*
Rope Capacity	138 ft	219 ft	243 ft

\*ft/min

**Wire Rope** - 3/8" or 1/2" diameter 6 x 25 IWRC wire rope.

**Anti-two block** - Wireless radio anti-two block system includes switch and receiver. Conforms to ANSI B30.5.

### SWING SYSTEM

**Swing Drive** - Externally mounted single reduction worm gear swing drive; directly driven by a high-torque, low-speed hydraulic motor for smooth, controlled, operation. Swing speed is directly proportional by position of control lever.

**Rotation** - All SC series machines are equipped with hydraulic and electric swivels that allow continuous rotation in either direction.

### OUTRIGGERS

**Front and Rear Outriggers** - Fully hydraulic outriggers extend to maximum overall spread for unparalleled machine stability. All cylinders equipped with check or counterbalance valves to ensure outriggers remain in position at all times. Jack cylinders operate independently for precise leveling; bubble level located near outrigger controls.

	SC62,SC65	SC75,SC85,SC97
Front Spread	10' opt	19' 9-3/4"
Rear Spread	18'6"	18'6"

### MOUNTING

In true Manitex tradition, these machines are clamp mounted and require no drilling or welding to the truck chassis. This system allows for greater flexibility when positioning the machine on the chassis thus allowing the installer the ability to maximize available axle capacity.

**Subframe** - All SC series machines are equipped with a torsionally resistant, 4-plate, fabricated subframe that extends over the entire length of the truck chassis. The SC75, SC85 & SC97 sub-frame is fabricated with an integral outrigger base; this outrigger design further enhances the superior stability of the Manitex Skycrane.

**Pedestal** - Clamp mounted to the subframe and truck chassis with threaded rods and chassis clamp brackets.

**Boom Rest** - Heavy-duty fabricated boom rest secures boom in place when traveling.

### BASKETS AND WORK PLATFORMS

**Basket (standard)** - One-man aluminum, gravity leveled basket. Equipped with safety lanyard anchor points; full body harness and lanyard for included. Basket is secured and cushioned by manual friction brakes and shock absorbers. Basket capacity is 300 lbs.

\* In order to ensure continuous improvement, specifications may change without notice.

### CONTROL SYSTEM

**Outriggers** - Valve mounted at the rear of the truck allows visibility to all outriggers for easy set-up.

**Base station** - Mounted on the curbside of the Turret, a four spool proportional control hydraulic valve operates the basic crane functions; elevation, rotation, telescope and loadline hoist. Controls for engine ignition start, throttle advance and emergency stop are also provided. Controls for the self leveling platform and hydraulic Jib winch added when appropriate.

**Aerial platform** - Platforms are equipped with a wired remote control system. The control box is fitted with electric joysticks to operate boom elevation, telescope, and rotation; basket control and Jib winch control. Switches for engine start/stop, emergency stop button, throttle advance, auxiliary pump is standard, optional generator start switch is also included when appropriate.

### HYDRAULIC SYSTEMS

64 gallon tank fitted with 10 micron high pressure and return filters, gear pump variable to 20 GPM, 3000 maximum operating pressure at high engine speed.

### GENERAL

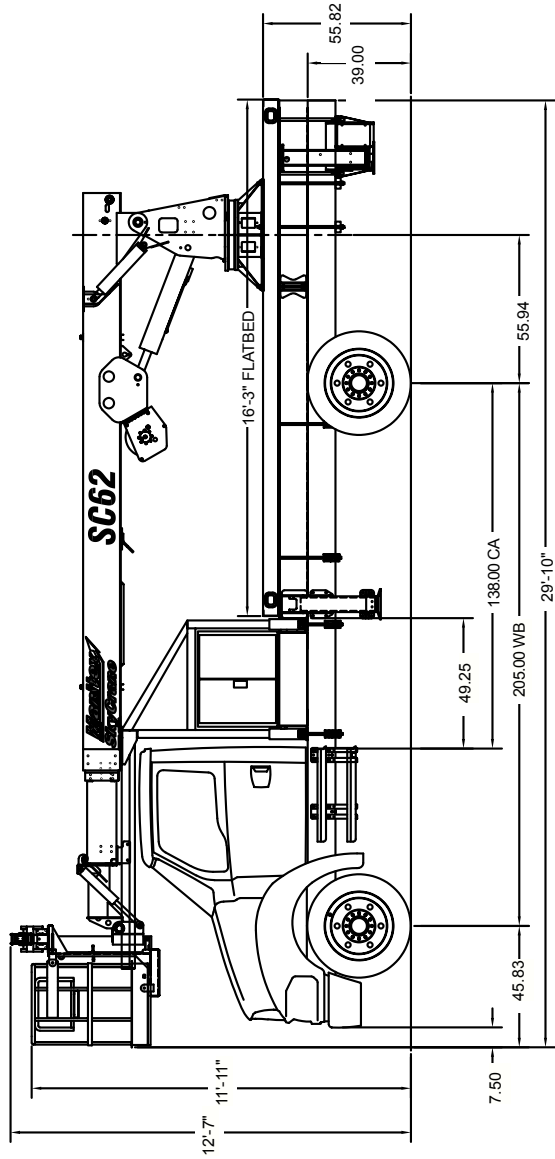
**Electrical** - Connectorized automotive style electrical system is state-of-the-art, fitted with rugged, weather proof components throughout.

**Design/Welding** - Welding conforms to AWS D1.1. Design conforms to ANSI B30.5 (mobile cranes) and ANSI 92.2 (aerial devices).

**Paint** - Standard Manitex blue and gray.

**Manuals** - Operator and parts manuals depict correct machine operation, maintenance procedures and parts listings

**Warranty** - 12 month warranty covers parts and labor resulting from defects in material and workmanship.



### DEDUCTIONS

Overhaul Weight	40 lb
Snatch Block	40 lb
2-Manbasket SLR Platform	700 lb

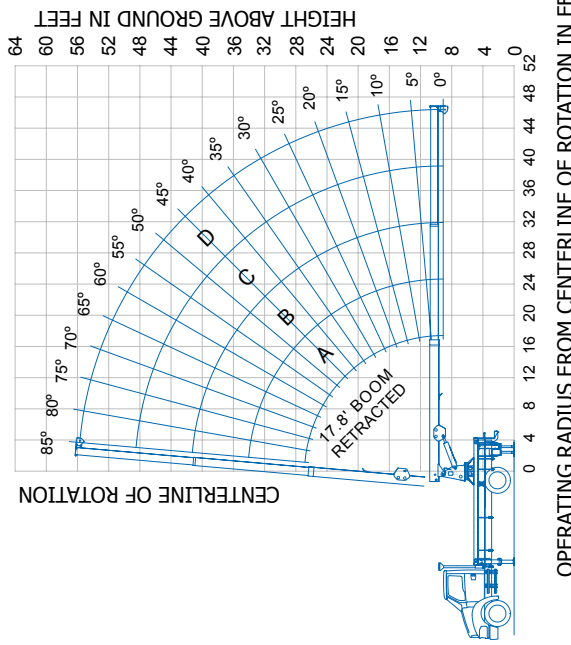
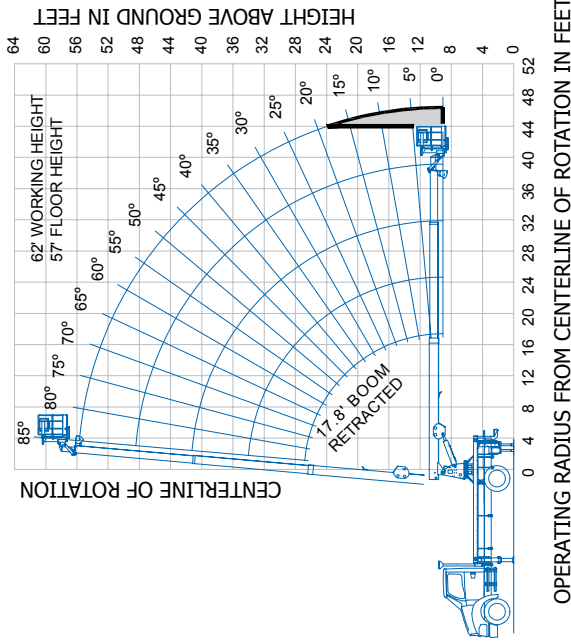
### WEIGHTS

1 Part Line	2 Part Line	3,500 lb	6,000 lb	3/8" 6 x 25 IWRC (3.5:1 SF) 13,120 lb min. breaking strength

**WARNING**

Anti-two-block system, if supplied, must be in good operating condition before operating crane. Refer to the owner's manual.

Keep at least three wraps of load line on the drum at all times.



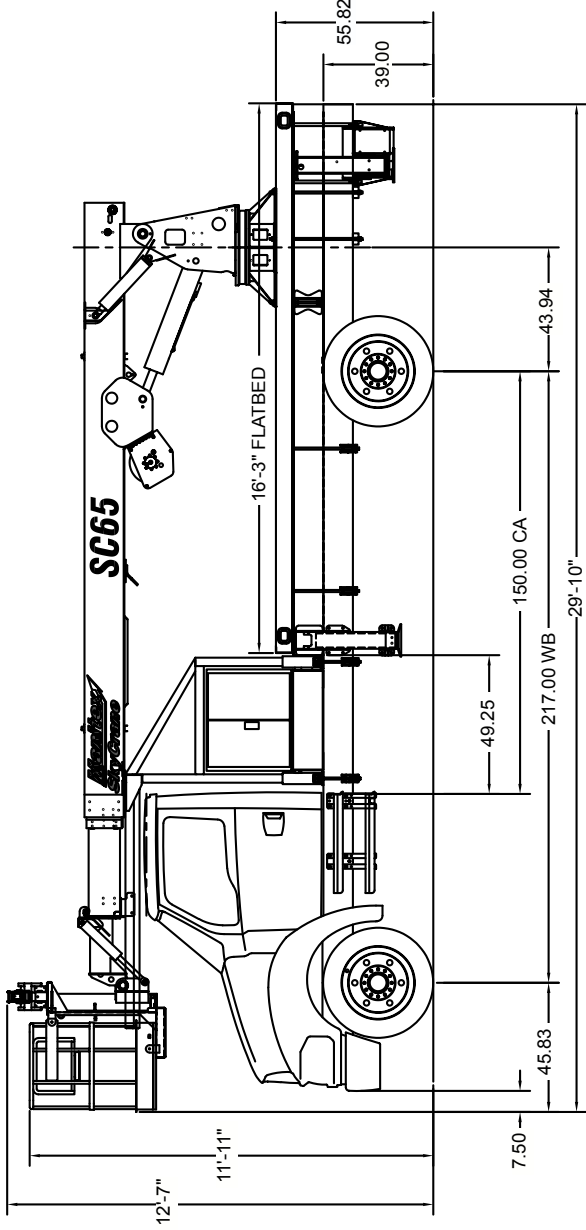
**LOAD CHART FOR CRANE APPLICATIONS ONLY**

**MAIN BOOM LOAD RATINGS IN LBS. WITH OUTRIGGERS FULLY EXTENDED**

Operating Radius	Boom Length		
	A	B	C
17.8 Feet	25.1 Feet	32.3 Feet	39.6 Feet
8	6,000	6,000	6,000
10	6,000	5,150	4,510
12	5,710	4,540	3,900
14	5,260	4,100	3,460
16	4,920	3,770	3,120
18	4,510	3,460	2,850
20	4,100	3,180	2,650
24	3,330	2,330	2,060
28	2,090	1,830	1,640
32	1,650	1,460	
36	1,510	1,320	
40	1,210		
44	1,110		

The Gray Area represents a "no work" zone, do not place the basket in this area.

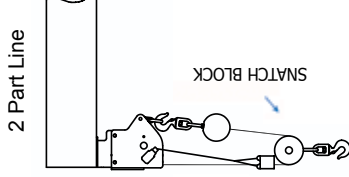
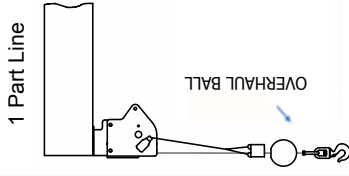
Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3.05 m) of live power lines. NOTICE: This chart is for reference only and must not be used for lifting purposes. Consult factory for other boom options.



## DEDUCTIONS

Overhaul Weight	40 lb
Snatch Block	40 lb
2-Manbasket SLR Platform	700 lb

## WEIGHTS

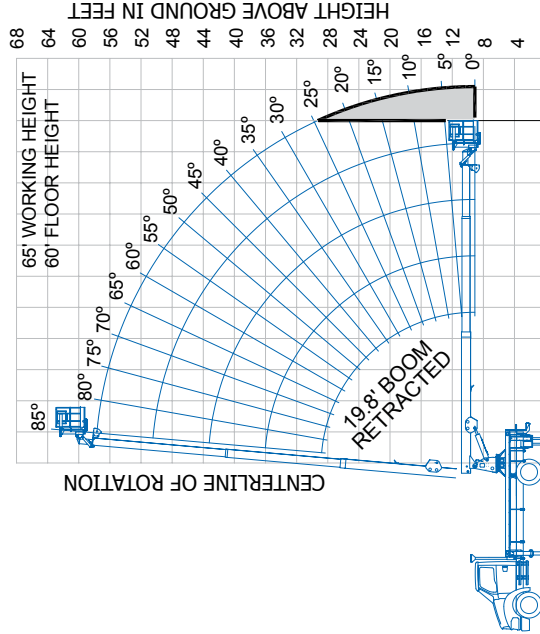


## WARNING

Anti-two-block system, if supplied, must be in good operating condition before operating crane. Refer to the owner's manual.

Keep at least three wraps of load line on the drum at all times.

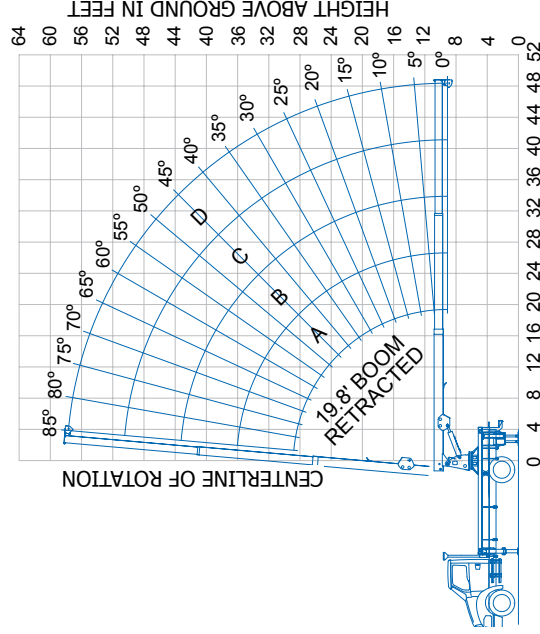
$\frac{3}{8}$ " 6 x 25 IWRC (3.5:1 SF)  
13,120 lb min. breaking strength



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

The Gray Area represents a "no work" zone, do not place the basket in this area.

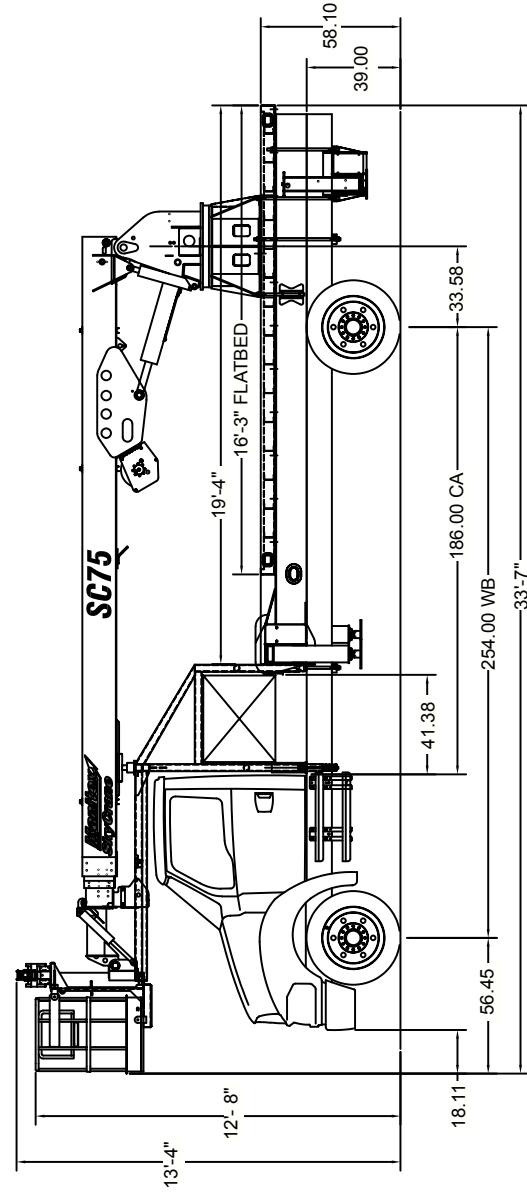
Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3.05 m) of live power lines.  
NOTICE: This chart is for reference only and must not be used for lifting purposes. Consult factory for other boom options.



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

## LOAD CHART FOR CRANE APPLICATIONS ONLY MAIN BOOM LOAD RATINGS IN LBS. WITH OUTRIGGERS FULLY EXTENDED

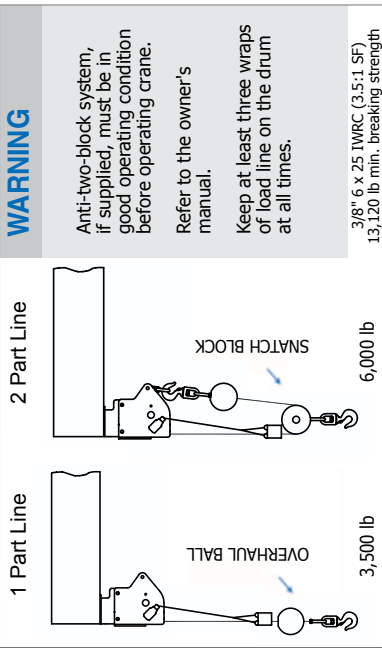
Operating Radius	Feet	∠	lb.	∠	lb.	∠	lb.	∠	lb.	
Boom Length	A	B	C	D	E	F	G	H	I	
19.8 Feet	27.0 Feet	34.3 Feet	41.5 Feet	48.8 Feet	56.1 Feet	63.4 Feet	70.7 Feet	78.0 Feet	85.3 Feet	
8	66°	6,000	73°	5,910	77°	5,320	81°	4,730	85°	4,140
10	59°	6,000	68°	5,020	73°	4,430	77°	3,840	81°	3,250
12	52°	5,420	64°	4,410	70°	3,820	74°	3,230	78°	2,640
14	44°	4,980	59°	3,970	66°	3,380	71°	3,130	75°	2,940
16	35°	4,640	54°	3,640	62°	3,050	68°	2,790	72°	2,610
18	23°	4,360	48°	3,370	58°	2,790	65°	2,530	70°	2,350
20	14°	4,140	42°	3,160	54°	2,580	62°	2,320	67°	2,140
24	10°	3,840	35°	2,830	45°	2,250	55°	2,000	62°	1,820
28	8°	3,540	30°	2,500	40°	1,970	50°	1,770	56°	1,590
32	7°	3,240	25°	2,170	35°	1,690	45°	1,600	50°	1,420
36	6°	2,940	20°	1,840	30°	1,410	40°	1,460	43°	1,280
40	5°	2,640	15°	1,510	25°	1,120	35°	1,330	36°	1,170
44	4°	2,340	10°	1,180	20°	830	30°	1,080	28°	1,080
48	3°	2,040	8°	890	15°	580	25°	970	20°	970



### DEDUCTIONS

Overhaul Weight	40 lb
Snatch Block	40 lb
2-Mambasket SLR Platform	700 lb

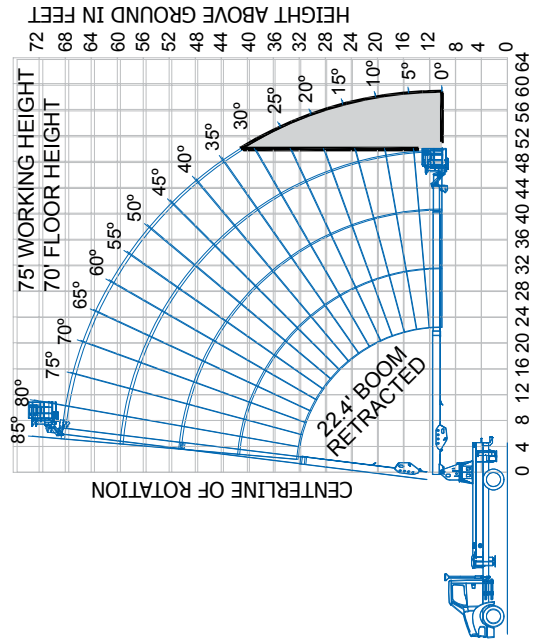
### WEIGHTS



### WARNING

Anti-two-block system, if supplied, must be in good operating condition before operating crane. Refer to the owner's manual. Keep at least three wraps of load line on the drum at all times.

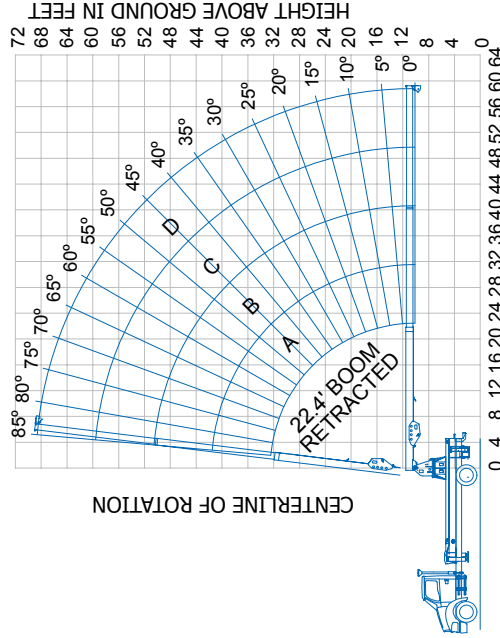
3/8" 6 x 25 IWRC (3.5:1 SF)  
13,120 lb min. breaking strength



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

The Gray Area represents a "no work" zone, do not place the basket in this area.

Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3.05 m) of live power lines. NOTICE: This chart is for reference only and must not be used for lifting purposes. Consult factory for other boom options.



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

### LOAD CHART FOR CRANE APPLICATIONS ONLY

#### MAIN BOOM LOAD RATINGS IN LBS. WITH OUTRIGGERS FULLY EXTENDED

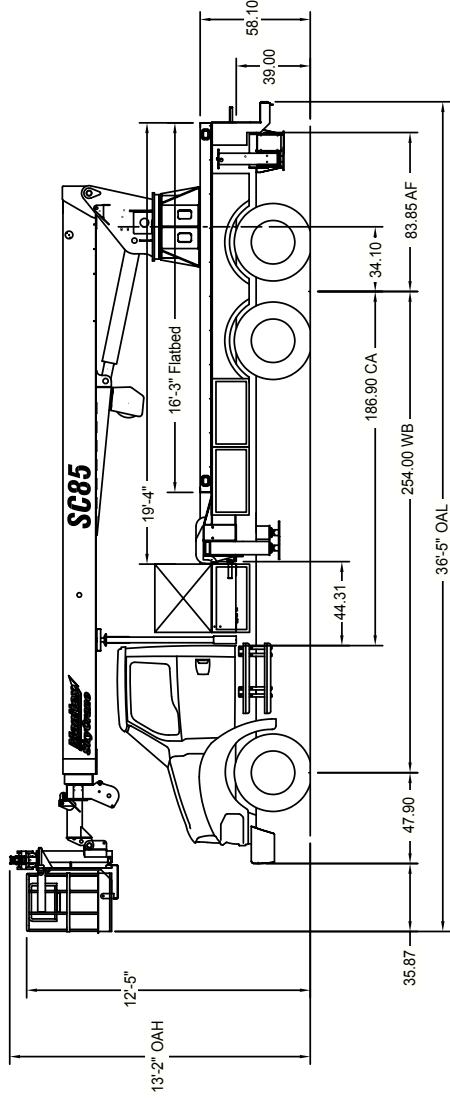
Operating Radius Feet	A	B	C	D
22.4 Feet	31.5 Feet	40.6 Feet	49.7 Feet	58.8 Feet
8°	5,450	7,700	4,970	8,000
10°	5,360	7,300	4,850	7,700
12°	5,300	6,900	4,750	7,400
14°	5,190	6,500	4,620	7,100
16°	5,080	6,100	4,490	6,800
18°	4,980	5,700	4,360	6,500
20°	4,780	5,200	4,180	6,200
24°	4,200	3,780	3,210	5,200
28°	3,380	2,840	2,670	4,500
32°	2,360	2,350	2,350	3,350
36°	1,980	2,020	2,020	2,070
40°	1,620	1,710	1,710	1,800
44°	1,480	1,580	1,480	1,580
48°	1,250	1,290	1,250	1,290
52°	1,000	1,000	1,000	1,000
56°	800	800	800	800




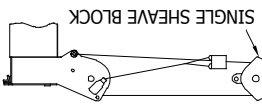

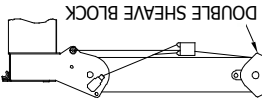
## DEDUCTIONS

- Overhaul Weight
- Snatch Block
- 2-Manbasket SLR Platform

See Manufacturer Nameplate  
See Manufacturer Nameplate  
700 lb



## WEIGHTS

1 Part Line	2 Part Line	3 Part Line	4 Part Line
			
5,840 lb 6,000 lb	11,680 lb 12,000 lb	17,520 lb 18,000 lb	23,360 lb 24,000 lb

## WARNING

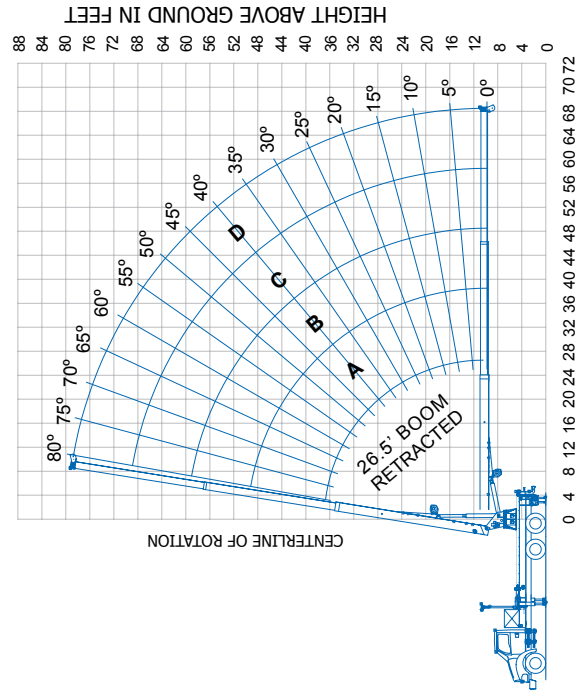
Anti-two-block system, if supplied, must be in good operating condition before operating crane.  
Refer to the owner's manual.  
Keep at least three wraps of load line on the drum at all times.

1/2" ROT RESISTANT (5:1 SF)  
29,200 lb. min Breaking Strength  
1/2" 6x25 TWRC (3.5:1 SF)  
23,000 lb. min Breaking Strength

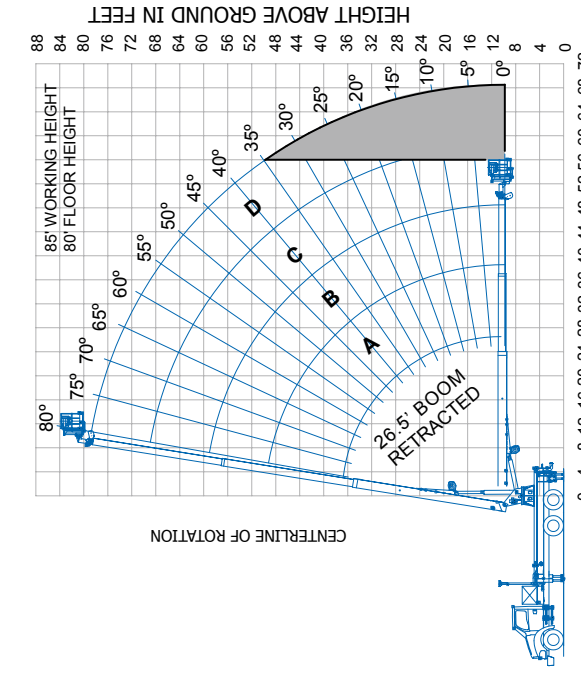
## LOAD CHART FOR CRANE APPLICATIONS ONLY

### MAIN BOOM LOAD RATINGS IN LBS. WITH OUTRIGGERS FULLY EXTENDED

Operating Radius Feet	A	B	C	D
5	26.5	40	50	60
8	26.5	40	50	60
10	26.5	40	50	60
12	26.5	40	50	60
14	26.5	40	50	60
16	26.5	40	50	60
18	26.5	40	50	60
20	26.5	40	50	60
24	26.5	40	50	60
28	26.5	40	50	60
32	26.5	40	50	60
36	26.5	40	50	60
40	26.5	40	50	60
44	26.5	40	50	60
48	26.5	40	50	60
52	26.5	40	50	60
56	26.5	40	50	60
60	26.5	40	50	60
64	26.5	40	50	60
68	26.5	40	50	60



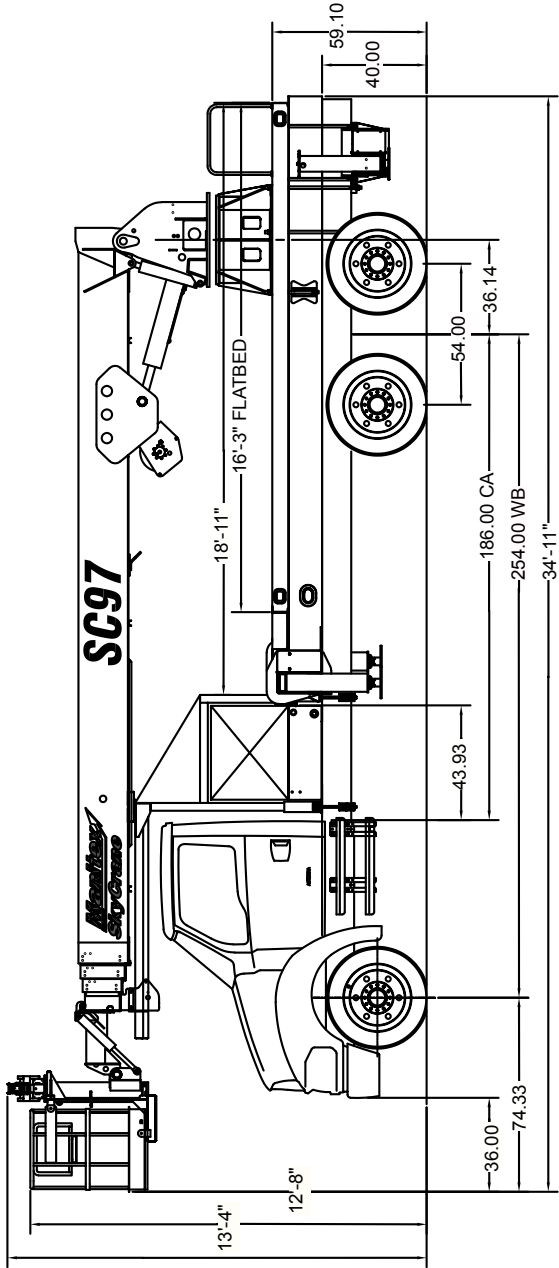
OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

The Gray Area represents a "no work" zone, do not place the basket in this area.

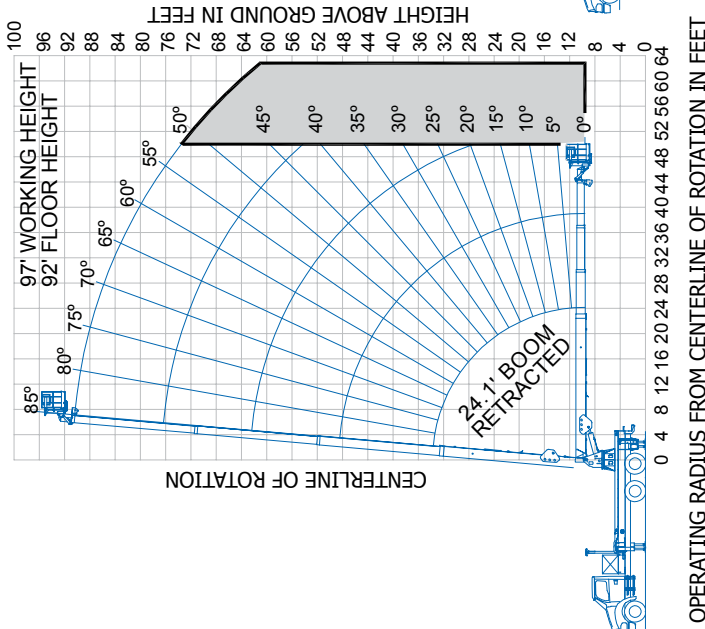
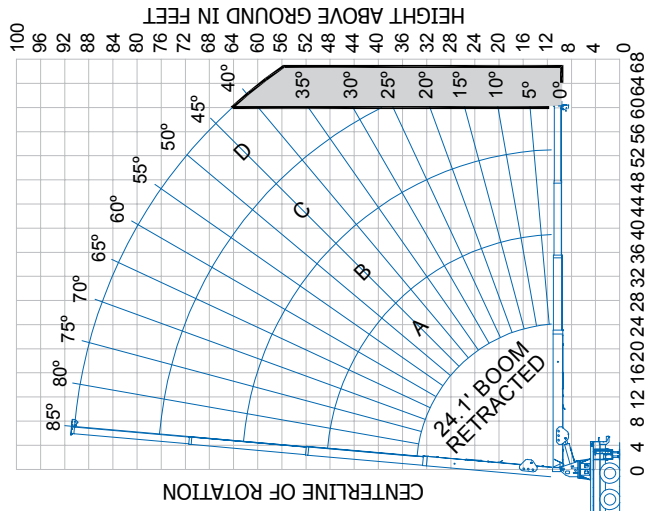
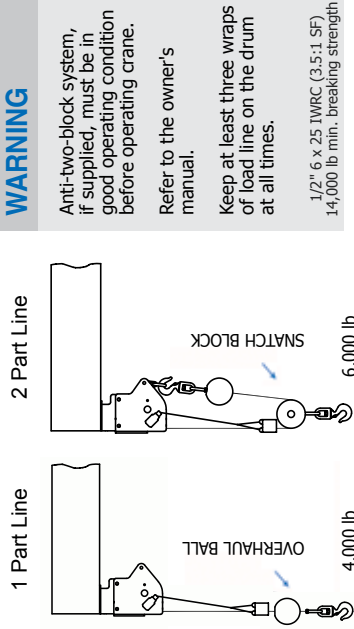
Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3.05 m) of live power lines. NOTICE: This chart is for reference only and must not be used for lifting purposes. Consult factory for other boom options.



## DEDUCTIONS

Overhaul Weight	80 lb
Snatch Block	40 lb
2-Manbasket SLR Platform	700 lb

## WEIGHTS



The Gray Area represents a "no work" zone, do not place the boom or load in this area.

The Gray Area represents a "no work" zone, do not place the basket in this area.

Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3.05 m) of live power lines.  
 NOTICE: This chart is for reference only and must not be used for lifting purposes. Consult factory for other boom options.

### LOAD CHART FOR CRANE APPLICATIONS ONLY

#### MAIN BOOM LOAD RATINGS IN LBS. WITH OUTRIGGERS FULLY EXTENDED

Operating Radius Feet	24.1 Feet	39 Feet	53 Feet	67 Feet	81.1 Feet		
Boom Length	A	B	C	D	D		
8	73°	6,000	80°	6,000	83°	5,500	
10	68°	6,000	77°	6,000	81°	5,270	
12	63°	6,000	74°	5,520	78°	5,050	
14	57°	5,690	71°	5,250	76°	4,820	
16	51°	5,380	68°	4,990	74°	4,600	
18	44°	5,070	64°	4,720	72°	4,370	
20	37°	4,760	61°	4,450	69°	4,150	
24	9°	4,150	54°	3,920	64°	3,700	
28		46°	3,230	60°	3,250	67°	2,840
32		37°	2,800	54°	2,800	63°	2,520
36		24°	2,200	49°	2,350	59°	2,200
40			42°	1,900	55°	1,880	63°
44			35°	1,500	51°	1,590	59°
48			27°	1,160	46°	1,250	56°
52			13°	870	41°	970	52°
56				35°	750	48°	820
60					28°	530	44°

<b>CHASSIS DATA</b>	SC62	SC65	SC75	SC85	SC97
Chassis RBM (per rail)	1,600,000 in-lbs	1,600,000 in-lbs	1,600,000 in-lbs	1,600,000 in-lbs	1,600,000 in-lbs
Front Axle Gross Weight Rating	12,000 lbs	12,000 lbs	12,000 lbs	16,000 lbs	16,000 lbs
Rear Axle Gross Weight Rating	21,000 lbs	21,000 lbs	21,000 lbs	34,000 lbs	34,000 lbs
Minimum Truck Axle Weight - Front*	6500	6500	6650	7000	7000
Minimum Truck Axle Weight - Rear*	4100	4100	4100	6500	6500
Cab-to-Axle Distance (typ)	138"	150"	187"	187"	187"
Cab-to-End-of-Frame Distance (typ)	245"	245"	276"	276"	276"
Wheelbase (typ)	205"	217"	254"	254"	254"
*Minimum chassis weight is required to meet 85% stability requirements. Chassis data is general - not for engineering. Some dimensions change depending on truck selection and machine options ordered.					

## OPTIONAL EQUIPMENT

### Work Platform – Gravity Levelled

30" X 46" work platform with 42" high rails and safety lanyard anchor points. Each platform is equipped with a full body harness and lanyard. Basket is secured and cushioned by manual friction brakes and shock absorbers. Platform capacity is 300 lbs.

### SLR Work Platform – Self Leveling

30" X 54" work platform with 42" high rails and safety lanyard anchor points. Each platform is equipped with a full body harness and lanyard. The self leveling system consists of one master cylinder mounted to the boom base that interfaces with the two slave cylinders at the platform mounting bracket that together form a hydraulic close-loop system. Platform capacity is 600 lbs.

### Jib with hydraulic Winch in basket.

Winch capacity is 400 lbs.

### Low oil level shutdown

### Two part snatch block

### Welder/Generator (200 amps, 5 KW)

### Portable remote control module

### Special paint colors (customer specified)

## OPTIONAL EQUIPMENT

### Special Body Rigging

- Front bulkhead at boom rest
- Over cab walkway/bulkhead
- Built in long Lamp Tray (in sub-frame)
- Wood or Steel Beds; 18', 20'
- Full body skirting; steel or aluminum
- Rear step and bumper; steel or aluminum

### Lamp/Tool Boxes

- Steel or Aluminum – Tool 1-1/2', 2', 3', 4', 5'
- Steel or Aluminum – Lamp 30"H x 36"W x 100" Lg. 20"H x 20"W x 120" Lg.

### Remote Services in Basket And/Or Truck Body

- 110 VAC with GFI
- Weld Leads
- Compressed Air (from chassis)
- Water
- Pressure Washer
- Hydraulic Tool Circuit (6 GPM at basket)
- Oxygen/Acetylene Service





**UPTime is the Manitex commitment to complete support of thousands of units working every day.**

## ***UPTime***

- Includes 24-7-365 parts shipments.
- Utilizes the efficiency of UPNET online parts order system.
- Relies on Manitex's UPTrak support tracking system for performance analysis and resource allocation.
- Features REMan, Manitex's cost effective rebuild/exchange program.
- Provides expert service technicians for troubleshooting and site visits.
- Mandates training; at our facility and yours. It includes coordinated support from all component suppliers.
- Involves every Manitex team member in the support of every Manitex customer.

### **What does UPTime mean to Manitex customers?**

*UPTime* means reliability.  
*UPTime* means utilization.  
*UPTime* means profitability.



Manitex  
3000 South Austin Avenue  
Georgetown, TX, USA 78626-7544  
Telephone 512-942-3000  
Facsimile 512-863-3776  
[www.manitex.com](http://www.manitex.com)

MTX-SC-Guide-EN-V2-0905