



series 3500

BOOM TRUCKS

features

- 35 Ton (31,8 mton) Capacity
- 5-Section 124' (37,8 m) Proportional Boom
- 4-Section 100' (30,5 m) Proportional Boom
- 3-Section 77' (23,5 m) Proportional Boom
- 1 and 2-Section 30' 6" (9,3 m) to 55' (16,8 m) Jib
- 165' 11" (50,6 m) Maximum Tip Height
- 22', 1.25" (6,7 m) Out-and-Down Outriggers at Full Extension
- Intermediate and Fully Extended Outrigger Charts are Standard
- FirstUp for Optional Front Stabilizer Auto Retract
- 2-Speed Planetary Hoist with Grooved Drum and Negative Draft Flange
- Load Moment Indicator with Digital Display, CAN Bus, Overload Shutdown and Internal Boom Length Cable
- Radio ATB
- Rugged, Weatherproof Electrical System with Circuit Status LEDs
- Removable Boom Rest
- System Pressure Gauge
- Clamp-On Mounting
- Aeroquip STC (Snap to Connect) Hydraulic Fittings
- Manitex UPTIME Comprehensive Support



product guide



series 3500

GENERAL SPECIFICATIONS

BOOM

Booms – Inverted T-cross section, 3, 4, or 5-section telescoping type, extended and retracted proportionally by a double-acting hydraulic cylinder and cable-crowd system. **35100** – 4-Section 30' 6" (9,3 m) to 100' 0" (30,5 m). 2-section, 31' (9,5 m) to 55' (16,8 m) jib. **35124C** – 5-section 31' 5/8" (9,5 m) to 123' 8 5/8" (37,7 m). 1-section, 31' (9,5 m) jib. **3577C** – 3-section, 29' 5" (9 m) to 77' (23,5 m).

Quick Reeve Boom Point – Three high-density nylon load sheaves mounted on heavy-duty roller bearings. Two removable pin-type rope guards.

Boom Elevation – Double-acting hydraulic cylinder. Working range from 10° below horizontal to 80° above.

Load Hook – 5-ton (4,5 mton) capacity hook with heavy-duty swivel and weight is provided for single-line operation.

HOIST

Hoist – Maximum theoretical line speed 453 fpm (138 mpm). Maximum theoretical bottom-layer line pull 14,500 lb (6 577 kg). Two-speed planetary reducer. Wet multi-disc internal brake is spring-applied, pressure-released.

Wire Rope – 380' (115,8 m) of 5/8" (16 mm) rotation resistant type.

SWING SYSTEM

Externally mounted, double-reduction planetary driven by hydraulic motor. Maximum theoretical swing speed 1.5 rpm. Wet multi-disc internal brake is spring-applied, pressure-released. Oversized diameter ball-bearing swing circle with external gear. 372° non-continuous rotation.

OUTRIGGERS

Out-and-down style outriggers, operated independently for precise leveling. 22' 1 1/4" (6,8 m) spread at full extension and 13' 4" (4,1 m) spread at intermediate extension. 16" (406 mm) diameter floats. Bubble level located near outrigger controls.

STABILIZERS

8' (2,4 m) retracted; 18' 6" (5,6 m) extended. Operated independently for precise leveling. Double-acting hydraulic cylinders. Fixed pad size is 12" (305 mm) diameter.

MOUNTING

Mounting – Pedestal and subframe are mounted to chassis by threaded rods and clamp plates. No welding, drilling, or bolting to truck frame is required.

Subframe – Torsionally resistant, rigid 4-plate design. Mounted under crane full length of truck frame.

Rear Underride Protection – Supplied on factory-mounted cranes. Fabricated structure mounted under rear of bed. Complies with Bureau Motor Carrier Safety Standard 393.86.

Boom Rest – Heavy-duty fabrication. Easily removed to simplify loading and unloading truck deck.

CONTROL SYSTEM

Dual operator platforms are equipped with four single-lever crane controls arranged to ANSI B30.5 standards. Fully proportional control valves and system pressure gauge. Each station also includes outrigger and stabilizer controls, engine start/stop, foot throttle, signal horn, boom-angle indicator, bubble levels, beverage container, load chart and range diagram.

HYDRAULICS

Hydraulic System – A 3-section vane pump direct-mounted to power take-off on truck transmission provides 38 gpm (145 lpm) to the hoist, 27 gpm (102 lpm) to the boom hoist and telescope circuit, and 11 gpm (45 lpm) to the swing and outrigger circuit. 100-gallon (379-liter) baffled reservoir includes suction ball valve with strainer two 25-micron filters in the return line. Use of SAE O-ring and face seal O-ring hydraulic fittings throughout system. Aeroquip STC (Snap-to-Connect) on all hoses up to 1" virtually

eliminates leaks.

Hydraulic Cylinders – All load-holding cylinders are equipped with integral holding valves.

WARNING SYSTEMS

Load Moment Indicator – CAN bus system maximizes expansion capabilities. Senses boom hoist cylinder pressure, boom length and boom angle. Audio-visual warning indicated overload conditions and overload shutoff feature prevents continuing overload. Operator can access all relative crane configuration and load conditions via display at the operator station. Internal boom length cable.

Radio Anti-Two-Block System – Audible warning and shutoff functions prevent hook from contacting boom point. Switch is potted to ensure reliability.

Back-Up Alarm – Supplied on factory-mounted cranes, electronic audible motion alarm activated when truck transmission is in reverse gear.

GENERAL

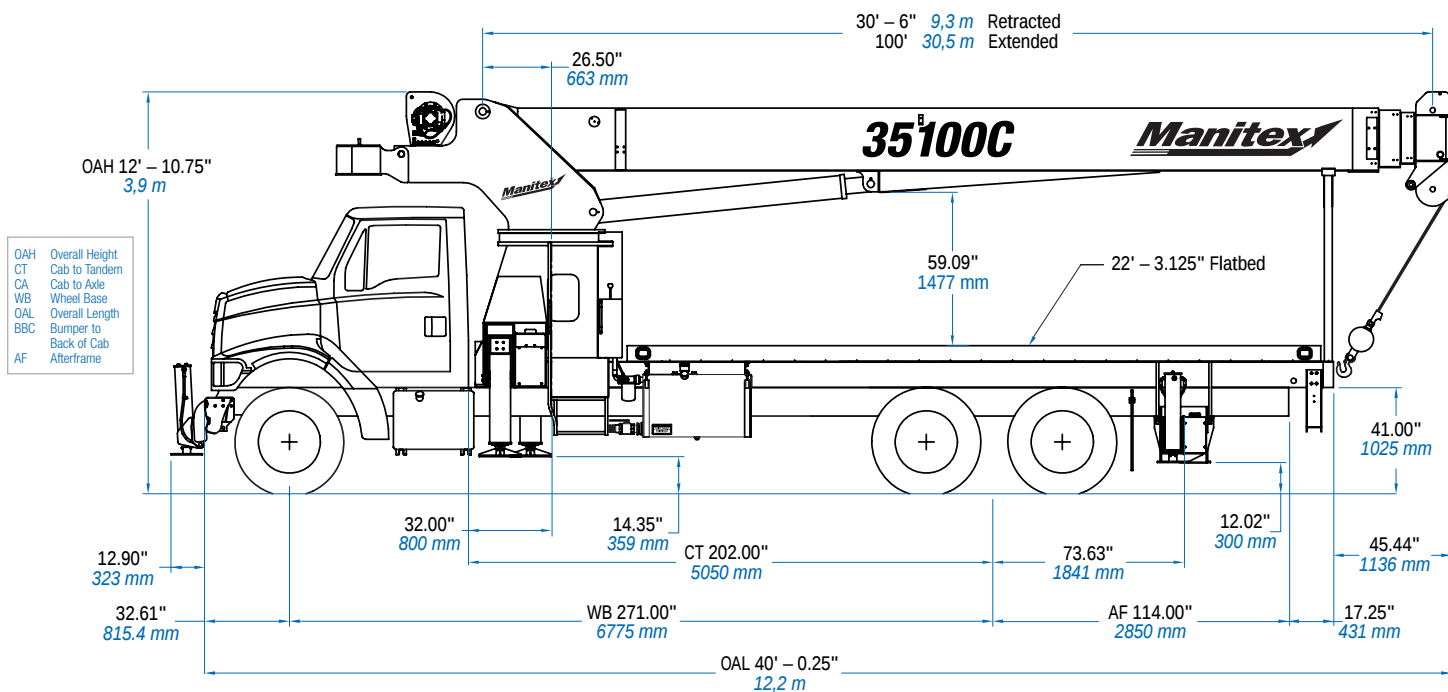
Electrical – State-of-the-art, weather-resistant components throughout. Hermetically sealed power in relays. Enclosure includes power in relays and circuit status LEDs. Designed to withstand high pressure washing and varying climates.

Design/Welding – Design conforms to ANSI B30.5. Welding conforms to AWS D1.1. Tested to SAE 1063 and SAE 765.

Manuals – Operator, service and parts manuals depict correct crane operation, maintenance procedures and parts listing.

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

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

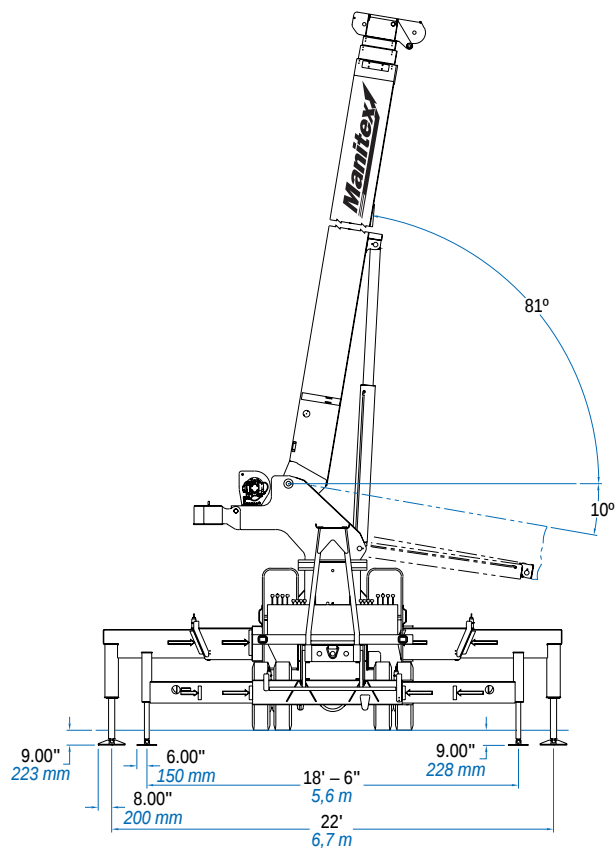


CHASSIS DATA	35100C/35124C
Wheelbase (WB)	271" 6 883 mm
Cab to Tandem (CT)	202" 4 877 mm
After Frame (AF)	114" 2 896 mm
Frame Section Modulus at 180° Area of Operation	30.0 in ³ 125,000 psi 861 875 kPa
Frame Section Modulus at 360° of Operation	30.0 in ³ 125,000 psi 861 875 kPa
Front Axle Gross Weight Rating	20,000 lb 8 165 kg
Rear Axle Gross Weight Rating	40,000 lb 18 144 kg
Minimum Truck Axle Weight - Front**	8,450 lb 3 674 kg
Minimum Truck Axle Weight - Back**	8,300 lb 3 765 kg
Nominal Frame Width	34" 864 mm

*Frame section modulus at 360° area of operation requires front bumper stabilizer.
**Minimum chassis weight is required to meet 85% stability requirements.
Chassis data is general - not for engineering. Some dimensions depend on truck selection.

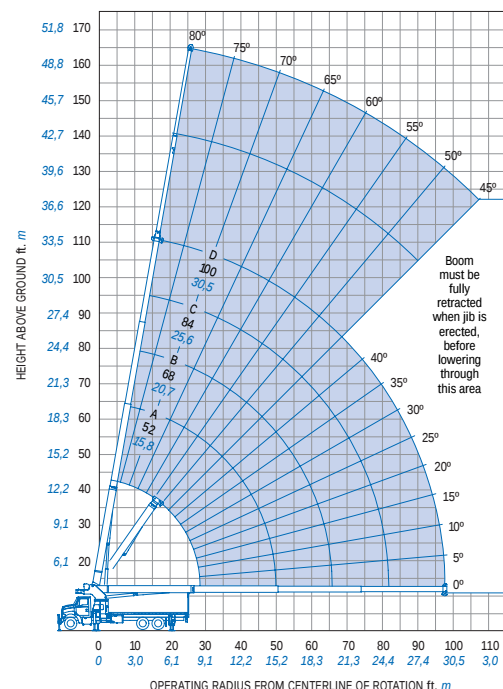
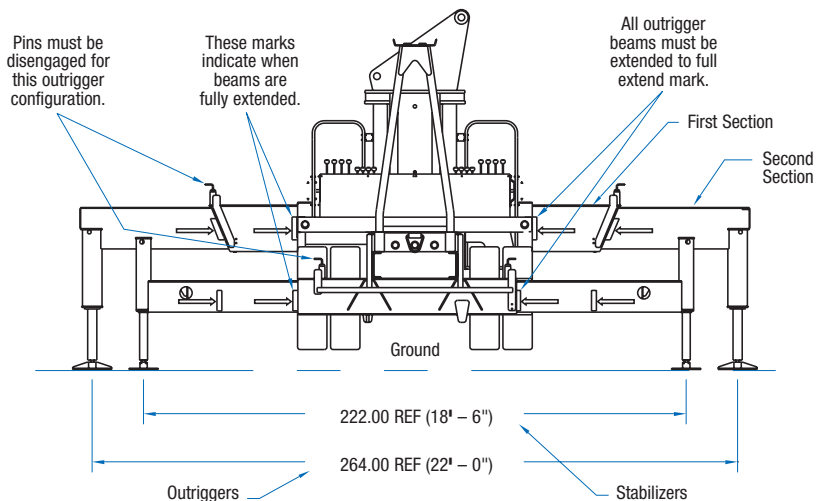
MAXIMUM TIP HEIGHT	35100C	35124C
Configuration	Boom 100' 30,5 m	Boom 124' 37,8 m
Extended Boom	111' 4" 33,9 m	134' 8" 41,1 m
Fixed or Retracted Jib	142' 1" 43,3 m	165' 11" 50,6 m
Extended Jib	166' 8" 50,8 m	—

WEIGHTS	35100C	35124C
Total Crane - Out-and-Down Outriggers	29,706 lb 13 502 kg	31,126 lb 14 148 kg
22' (6,71 m) Flat Bed	2,000 lb 907 kg	2,000 lb 907 kg
30' 6" (9,30 m) Fixed Length Jib	1,126 lb 511 kg	—
31' (9,45 m) Fixed Length Jib	—	850 lb 386 kg
30' 6" - 55' (9,30 m - 16,80 m) Telescopic Jib	1,754 lb 796 kg	—





USE THIS CHART ONLY WHEN
OUTRIGGERS AND STABILIZERS ARE
FULLY EXTENDED.



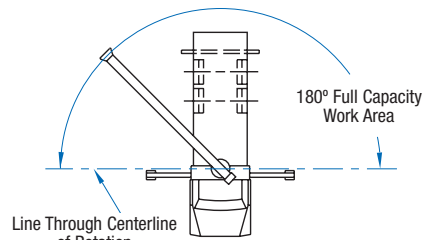
FULLY EXTENDED OUTRIGGER SPREAD: MODEL 35100C

MAIN BOOM LOAD RATINGS												JIB LOAD RATINGS															
		Boom Length				A		B		C		D		Fixed Jib		Telescopic Jib											
Operating Radius		30.5 Feet 9,29 Meters			52 Feet 15,84 Meters			68 Feet 20,72 Meters			84 Feet 38,18 Meters			100 Feet 30,48 Meters		30.5 Feet 9,29 Meters		30.5 Feet 9,29 Meters		55 Feet 16,76 Meters							
Feet	Meters		lb.	kg.		lb.	kg.		lb.	kg.		lb.	kg.		lb.	kg.		lb.	kg.		lb.	kg.					
6	1,82	80°	70,000	31 818																							
8	2,43	76°	53,500	24 318																							
10	4,04	72°	45,670	20 759																							
12	3,65	68°	39,830	18 104	78	31,500	14 318																				
15	4,57	61°	33,660	15 300	75	30,330	13 786	79	28,500	12 954																	
20	6,09	49°	24,380	11 036	69	23,790	10 813	75	22,580	10 263	79	21,780	9 900	80	14,000	6 363											
25	7,62	33°	18,310	8 322	62	18,810	8 550	70	18,470	8 395	75	17,690	8 040	78	13,500	6 136											
30	9,14				56	14,700	6 681	65	14,850	6 750	71	14,760	6 709	75	13,000	5 909	79	7,300	3 318	79	7,000	3 181					
35	10,66				48	11,350	5 159	60	11,530	5 240	67	11,630	5 286	72	11,700	5 318	77	7,100	3 227	77	6,800	3 090	80	4,000	1 818		
40	12,19				40	8,910	4 050	55	9,070	4 122	63	9,170	4 168	69	9,240	4 200	75	6,800	3 090	75	6,670	3 031	78	3,850	1 750		
45	13,71				29	7,120	3 236	50	7,290	3 313	59	7,380	3 354	66	7,440	3 381	73	6,450	2 931	73	6,060	2 754	76	3,700	1 681		
50	15,24							43	5,930	2 695	55	6,020	2 736	62	6,080	2 763	71	5,900	2 681	71	5,510	2 504	74	3,550	1 613		
55	16,76							36	4,860	2 209	51	4,950	2 250	59	5,000	2 272	68	5,200	2 363	68	4,790	2 177	72	3,400	1 545		
60	18,28							27	3,990	1 813	46	4,080	1 854	55	4,140	1 881	65	4,330	1 968	65	3,920	1 781	70	3,250	1 477		
65	19,81							12	3,280	1 490	40	3,370	1 531	51	3,430	1 559	63	3,610	1 640	63	3,200	1 454	68	3,040	1 381		
70	21,33										34	2,770	1 259	47	2,830	1 286	60	3,010	1 368	60	2,600	1 181	66	2,830	1 286		
75	22,86										27	2,270	1 031	43	2,320	1 054	57	2,500	1 136	57	2,090	950	64	2,640	1 200		
80	24,38										15	1,830	831	38	1,880	854	55	2,060	936	55	1,650	750	62	2,310	1 050		
85	25,90													33	1,500	681	52	1,680	763	52	1,260	572	60	1,920	872		
90	27,43													26	1,170	531	49	1,350	613	49	930	422	58	1,580	718		
95	28,96													17	870	395	45	1,050	477	45	630	286	55	1,280	581		
100	30,48																42	790	359				53	1,010	459		
105	32,00																38	550	250				50	770	350		
110	33,52																						47	560	254		
			600	273		350	159		270	123		220	100		180	82	Deductions: Stowed Fixed Jib										
			900	409		530	241		400	182		330	150		290	132	Deductions: Stowed Telescopic Jib										

Meets ANSI B30.5 Requirements - Do not operate crane or accessories within 10' (3,05m) 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.



AREA OF OPERATION



DEDUCTIONS

Auxiliary Block	50 lb 22.72 kg
Load Block	See block manufacturer nameplate
Overhaul Ball	See overhaul ball manufacturer nameplate
Hose Reel	260 lb 118.18 kg
Swing Around Jib* (Stowed)	See load rating chart

WEIGHTS

1 Part Line	2 Part Line	3 Part Line	4 Part Line	5 Part Line	6 Part Line	7 Part Line	8 Part Line	WARNING
								Anti-two-block system 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.
9,080 lb 4 127 kg	18,160 lb 8 254 kg	27,240 lb 1 238 kg	36,320 lb 16 509 kg	45,400 lb 20 636 kg	54,480 lb 24 763 kg	63,560 lb 28 890 kg	70,000 lb 31 818 kg	.625" rot resistant (5.0:1 SF) - 45400 lb. min. breaking strength
9,500 lb 4 318 kg	19,000 lb 8 636 kg	28,500 lb 12 954 kg	38,000 lb 17 272 kg	47,500 lb 21 590 kg	57,000 lb 25 909 kg	66,500 lb 30 227 kg	70,000 lb 31 818 kg	.625" 6 x 25 IWRC (3.5:1 SF) - 33250 lb. min. breaking strength

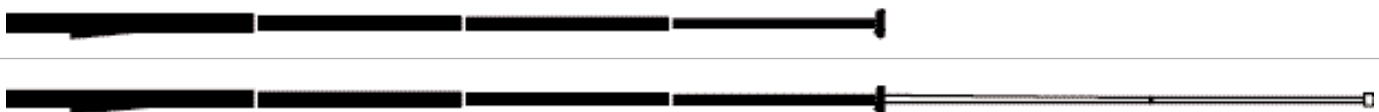
BOOM AND JIB COMBINATIONS

3577C 77' Powered 3 Section Boom



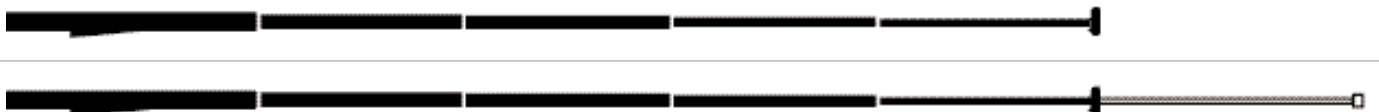
35100C 100' 4 Section Boom

31' - 55' 2- Section Jib



35124C 124' 5 Section Boom

31' 1- Section Jib





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
P.O. Box 1609
Georgetown, TX, USA 78627-1609
Telephone 512-942-3000
Facsimile 512-863-3776
www.manitex.com

MTX 3500 • 09.03 • TG • 2,000