



series 3001

BOOM TRUCKS

features

- 30 Ton (27,3 mton) Capacity
- 4-Section 102' (31 m) Proportional Boom
- 3-Section 71' (21,6 m) Proportional Boom
- 2-Section, 26' (7,9 m) to 46' (14 m) Jib
- 112' (34,1 m) Maximum Main Boom Tip Height
- 157' (47,8 m) Maximum Tip Height
- 21' 6" (6,6 m) A-frame Outriggers
- 13' 7" (4,1 m) Out-and-Down Rear Stabilizers
- 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
- Manitex UPTIME Comprehensive Support



product guide

series 3001

GENERAL SPECIFICATIONS

BOOM

Booms – Inverted T-cross section, 4-section telescoping type, extended and retracted proportionally by a double-acting hydraulic cylinder and cable-crowd system. Easily replaceable and adjustable high-density nylon slide pads.

30102 – 4-Section 30' 6" (9,3 m) to 102' (31 m). 2-section, 26' (7,9 m) to 46' (14,0 m) jib.

3071 – 3-Section 28' (8,5 m) to 71' (21,6 m).

Quick Reeve Boom Point – Two 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 9° below horizontal to 80.6° 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 300 fpm (91,4 mpm). Maximum theoretical bottom-layer line pull 11,500 lb (5 216 kg). Two-speed planetary reducer. Wet multi-disc internal brake is spring-applied, pressure-released.

Wire Rope – 335' (102,1 m) of 9/16" (14,3 mm) rotation resistant type.

SWING SYSTEM

Externally mounted, double-reduction planetary driven by hydraulic motor. Maximum theoretical swing speed 1.5 rpm. Spring-applied, pressure-released parking brake. Ball-bearing swing circle with external gear. 372° non-continuous rotation.

OUTRIGGERS

A-Frame Link Type (standard) - Equipped with double-acting hydraulic cylinders operated independently for precise leveling. Bubble level located near outrigger controls.

Out-and-Down Style Outriggers (optional) - Operated independently for precise leveling. 22' (6,7m) spread at full extension, 13'-11" (4,2 m) spread at intermediate extension and 7'-2" (2,2 m) retracted positions. 16" (406mm) diameter floats. Bubble level located near outrigger controls.

STABILIZERS

Underframe out-and-down type with double-acting hydraulic cylinders operated independently for precise leveling.

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 gear pump direct-mounted to power take-off on truck transmission provides 32 gpm (123 lpm) to the hoist, 10 gpm (38 lpm) to the swing circuit and 21 gpm (78 lpm) to the other crane functions. 70-gallon 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.

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. Wireless system minimizes down time typically associated with damaged cables in wired systems.

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

GENERAL

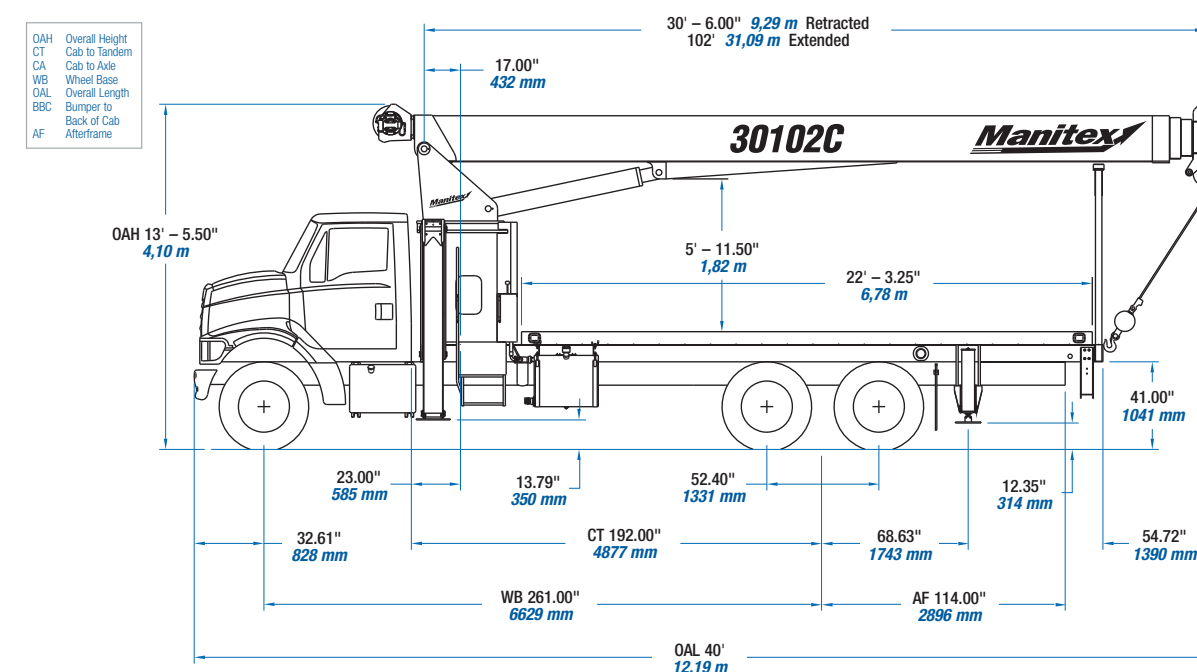
Electrical – State-of-the-art, weather-resistant components throughout. Hermetically sealed power in relays. Enclosure includes power in relays and circuit status LEDs. Designed to withstand high pressure washing and varying climates.

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.

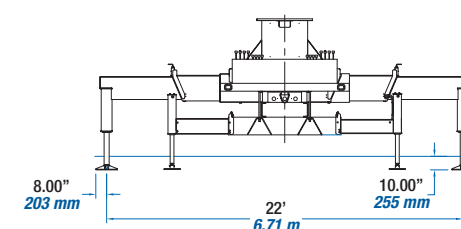
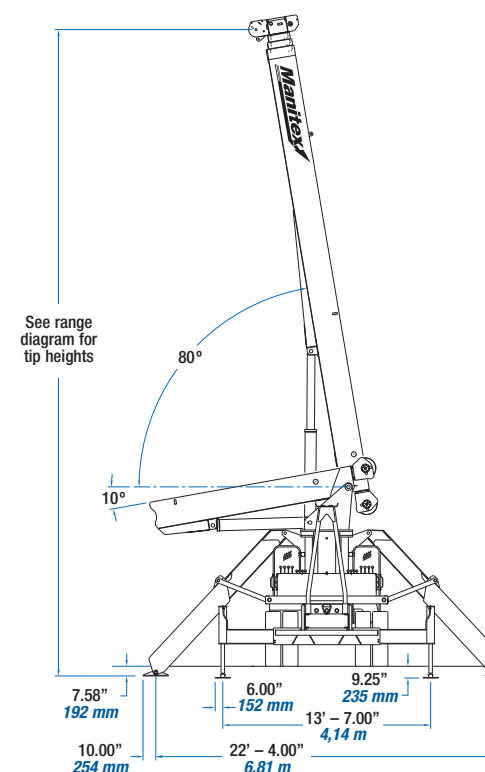


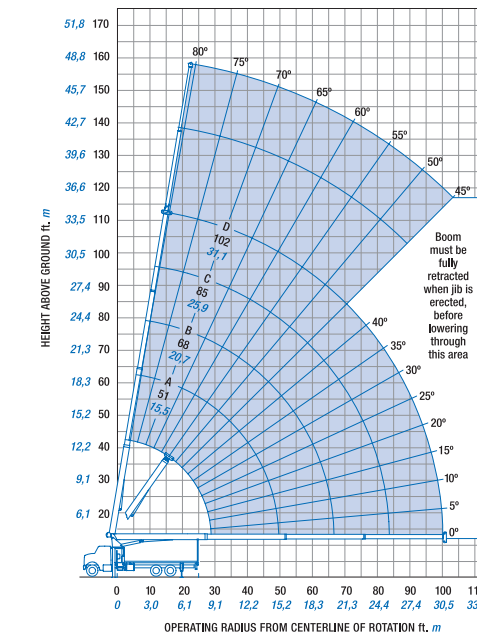
CHASSIS DATA	3071C	30102C
Wheelbase (WB)	Consult Factory	253" <i>6 426 mm</i>
Cab to Tandem (CT)	Consult Factory	184" <i>4 673 mm</i>
After Frame (AF)	Consult Factory	114" <i>2 895 mm</i>
Frame Section Modulus at 180° Area of Operation	30.0 in ³ 110,000 psi <i>758 422 kPa</i>	30.0 in ³ 110,000 psi <i>758 422 kPa</i>
Frame Section Modulus at 360° of Operation	30.0 in ³ 110,000 psi <i>758 422 kPa</i>	30.0 in ³ 110,000 psi <i>758 422 kPa</i>
Front Axle Gross Weight Rating	Consult Factory	18,000 lb <i>8 181 kg</i>
Rear Axle Gross Weight Rating	Consult Factory	34,000 lb <i>15 422 kg</i>
Minimum Truck Axle Weight - Front**	8,400 lb <i>3 818 kg</i>	8,400 lb <i>3 818 kg</i>
Minimum Truck Axle Weight - Back**	8,400 lb <i>3 818 kg</i>	8,400 lb <i>3 818 kg</i>
Nominal Frame Width	34" <i>864 mm</i>	34" <i>864 mm</i>

*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.

WEIGHTS	3071C	30102C
Total Crane - Standard	19,446 lb <i>8 821 kg</i>	21,738 lb <i>9 860 kg</i>
Total Crane - Out-and-Down Outriggers	20,445 lb <i>9 274 kg</i>	22,571 lb <i>10 238 kg</i>
22' (6,71 m) Flat Bed	2,000 lb <i>907 kg</i>	2,000 lb <i>907 kg</i>
26' (7,93 m) Fixed Length Jib	n/a	832 lb <i>377 kg</i>
26' - 46' (7,93 m - 14,02 m) Telescopic Jib	n/a	1,226 lb <i>556 kg</i>

MAXIMUM TIP HEIGHT	3071C	30102C
Configuration	Boom 71' <i>21,6m</i>	Boom 102' <i>31 m</i>
Extended Boom	82' <i>24,9 m</i>	112' <i>33,9 m</i>
Fixed or Retracted Jib	n/a	137' <i>42 m</i>
Extended Jib	n/a	157' <i>48 m</i>


OPTIONAL OUTRIGGER-STABILIZER COMBINATION

STANDARD OUTRIGGER-STABILIZER COMBINATION

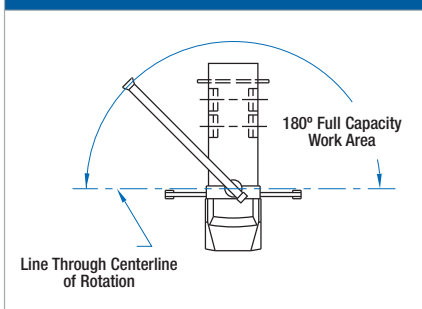


OUTRIGGERS AND STABILIZERS EXTENDED: MODEL 30102C

MAIN BOOM LOAD RATINGS										JIB LOAD RATINGS						
Operating Radius	Boom Length		A		B		C		D		Fixed Jib		Telescopic Jib			
	30.5 Feet 9,29 Meters	51 Feet 15,54 Meters	68 Feet 20,72 Meters	85 Feet 25,90 Meters	102 Feet 31,08 Meters	26 Feet 7,92 Meters	26 Feet 7,92 Meters	46 Feet 14,02 Meters	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.
5	1,52	80°	60,000	27 216												
8	2,43	75°	39,690	18 003												
10	3,05	71°	33,510	15 200	79	22,500	10 206									
12	3,65	67°	29,120	13 209	77	22,500	10 206									
15	4,57	60°	24,440	11 086	73	21,710	9 847	79	20,590	9 339						
20	6,09	48°	19,280	8 745	67	16,910	7 670	74	15,830	7 180	78	14,420	6 541	81	10,500	4 763
25	7,62	33°	15,480	7 022	61	13,850	6 282	70	12,840	5 824	75	12,180	5 525	78	9,650	4 377
30	9,14				54	11,700	5 307	65	10,770	4 885	72	10,140	4 599	76	8,670	3 933
35	10,66				47	9,770	4 432	60	9,240	4 191	68	8,640	3 919	73	7,670	3 479
40	12,19				38	7,510	3 406	55	7,720	3 502	64	7,490	3 397	70	6,490	2 944
45	13,71				27	5,910	2 681	50	6,110	2 771	60	6,220	2 821	66	5,590	2 536
50	15,24							43	4,920	2 232	56	5,030	2 282	63	4,860	2 204
55	16,76							36	3,990	1 810	51	4,100	1 860	60	4,160	1 887
60	18,28							28	3,250	1 474	47	3,360	1 524	56	3,420	1 571
65	19,81							15	2,630	1 193	41	2,760	1 252	53	2,820	1 279
70	21,33										36	2,250	1 021	49	2,320	1 052
75	22,86										29	1,820	826	45	1,890	857
80	24,38										19	1,450	659	40	1,530	694
85	25,90													36	1,210	549
90	27,43													29	930	422
95	28,96													22	690	313
100	30,48															
105	32,00															
			490	222	290	131	220	100	180	81	150	68	Deductions: Stowed Fixed Jib			
			730	331	440	200	330	150	260	118	220	100	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
Auxiliary Block	50 lb 22.72 kg
Load Block	See block manufacturer nameplate
Overhaul Ball	See overhaul ball manufacturer nameplate
Hose Reel	140 lb 63.64 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	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.
8,500 lb 3 856 kg	17,000 lb 7 711 kg	25,500 lb 11 567 kg	34,000 lb 15 422 kg	42,500 lb 19 278 kg	51,000 lb 23 133 kg	60,000 lb 27 216 kg	
7,400 lb 3 357 kg	14,800 lb 6 713 kg	22,200 lb 10 070 kg	29,600 lb 13 426 kg	37,000 lb 16 783 kg	44,400 lb 20 140 kg	51,800 lb 23 496 kg	.5625" 6 x 25 IWRC (3.5:1 SF) - 29750 lb. min. breaking strength .625" ROT RESISTANT (5.0:1 SF) - 37000 lb. min. breaking strength

BOOM AND JIB COMBINATIONS

3071C	71'	3 - Section Boom	
30102C	102'	4 - Section Boom	26' - 46' 2 - Section Jib

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

UPTime

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