



series 2802

BOOM TRUCKS

features

- 28 Ton (24,4 mton) Capacity
- 4-Section 102' (31,0 m) Proportional Boom
- 4-Section 92' (28.0 m) Proportional Boom
- 2-Section 26' (7,9 m) to 46' (14,0 m) Telescopic Jib
- 157' (47,85 m) Maximum Tip Height with Telescopic Jib
- 111' (33,83 m) Maximum Main Boom Tip Height
- 19' 8", (6 m) Out-and-Down Outriggers at Full Extension
- Intermediate and Fully Extended Outrigger Charts are Standard
- 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
- Continuous Rotation
- Clamp-On Mounting
- Aeroquip STC (Snap to Connect) Hydraulic Fittings
- Manitex UPTIME Comprehensive Support



product guide

series 2802

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. **28102S** – 4-Section 28' 0" (8,5 m) to 92' 0" (28,0 m). 2-Section 26' (7,9 m) to 46' (14,0 m) jib.

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 9° 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 247 fpm (75,3 mpm). Maximum theoretical bottom-layer line pull 11,500 lb (5 227 kg). Two-speed planetary reducer. Spring applied, pressure-released internal brake.

Wire Rope – 335' (102,1 m) of 9/16" (14,3 mm) diameter 6 X 25 EIPS IWRC.

SWING SYSTEM

Continuous rotation is standard. Externally mounted, double-reduction planetary driven by hydraulic motor. Maximum swing speed 1.5 rpm. Spring-applied hydraulically-released parking brake. Ball-bearing swing circle with external gear.

OUTRIGGERS

Fully extended, intermediate extension and fully retracted positions. Out-and-down type with double-acting hydraulic cylinders operated independently for precise leveling. Bubble level located near outrigger controls.

MOUNTING

Mounting – Lower frame is mounted to chassis by threaded rods and clamp plates. No welding to truck chassis is required. 12" (305 mm) diameter.

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

Lower Frame – Torsion resistant, rigid 4-plate design with integrated outrigger and pedestal.

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

CONTROL SYSTEM

Single operator platform and seat mounted to turret. Four single-axis crane controls, bubble level and system pressure gauge arranged to ANSI B30.5 standards. The operator station includes engine start/stop, air foot throttle, signal horn, load moment indicator console, boom-angle indicator, load chart and range diagram. Optional pilot operated controls not available on units configured with radio remote controls.

HYDRAULICS

Hydraulic System – A 3-section vane pump direct-mounted to power take-off on truck transmission provides 32 gpm to the hoist, 21 gpm to the boom hoist and telescope circuit, and 8 gpm (80 lpm) to the swing and outrigger circuit. 70-gallon (265-liter) baffled reservoir with strainer and 25-micron filter in the return lines. Ball-type shutoff valve and strainer are provided in suction line. All fittings are ORS type and SAE. 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 (LMI) – 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 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.

Back-Up Alarm – Electronic audible motion alarm activated when truck transmission is in reverse gear.

GENERAL

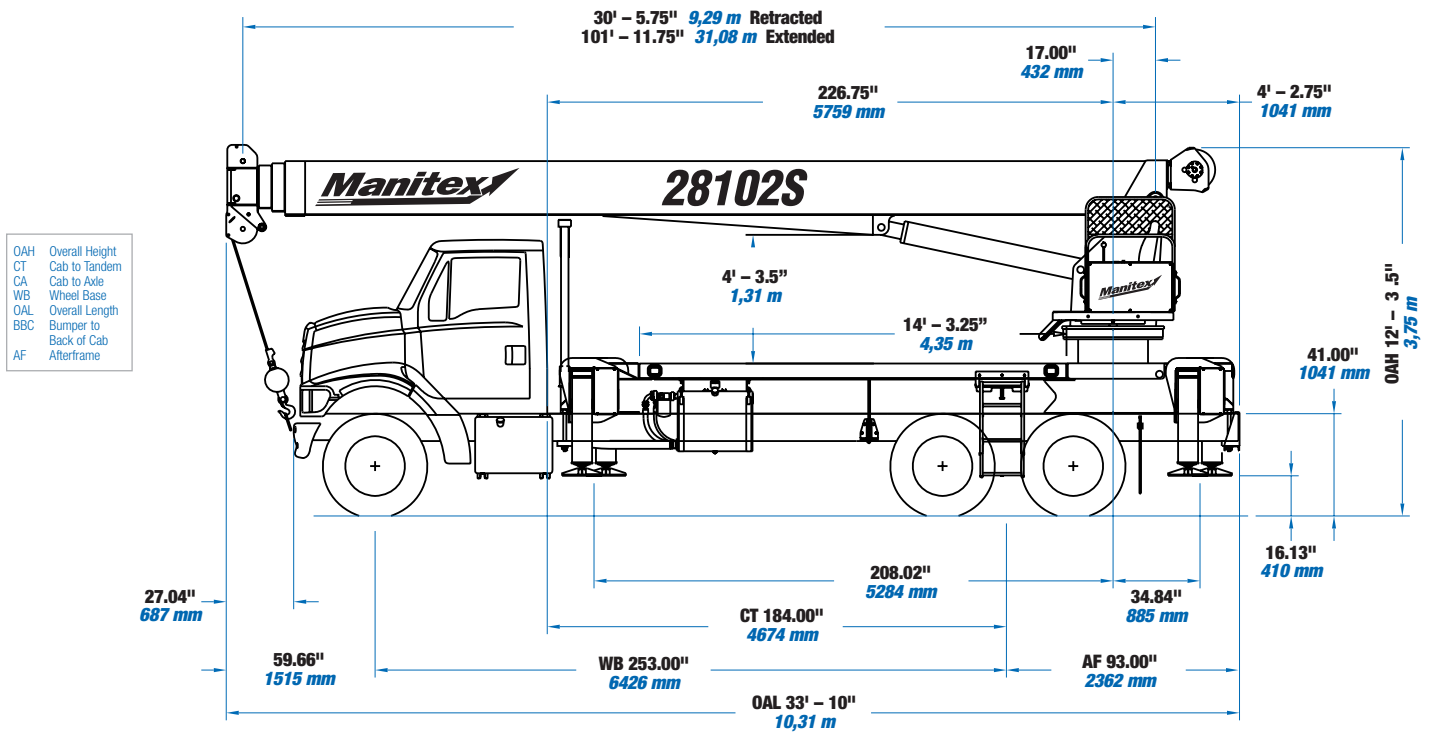
Electrical – State-of-the-art, weather-resistant components throughout. Hermetically sealed power in relays. Enclosure includes power in relays and circuit status LEDs. Designed to withstand high pressure washing and varying climates.

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.

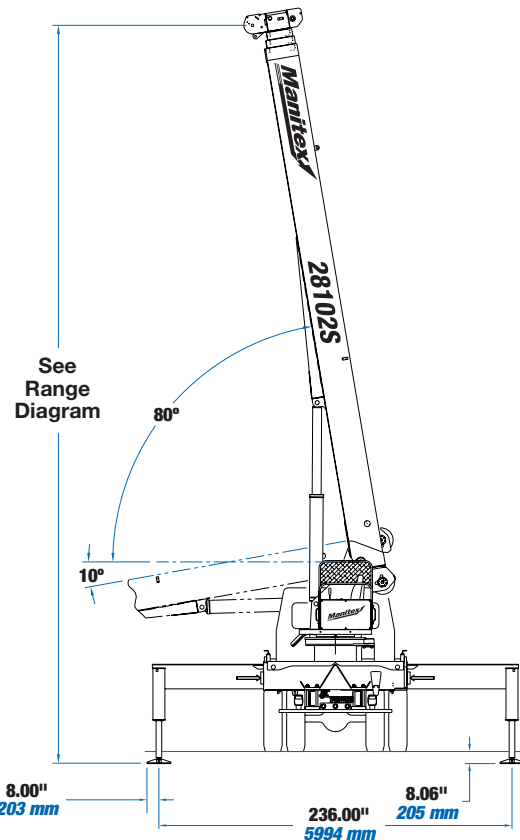


CHASSIS DATA	28102S/2892S
Wheelbase (WB)	253" 6 426 mm
Cab to Tandem (CT)	184" 4 674 mm
After Frame (AF)	93" 2 362 mm
Frame Section Modulus at 180° Area of Operation	20.0 in ³ 110,000 psi 758 422 kPa
Frame Section Modulus at 360° of Operation	20.0 in ³ 110,000 psi 758 422 kPa
Front Axle Gross Weight Rating	18,000 lb 8 182 kg
Rear Axle Gross Weight Rating	34,000 lb 15 455 kg
Minimum Truck Axle Weight - Front**	8,400 lb 3 810 kg
Minimum Truck Axle Weight - Back**	8,300 lb 3 773 kg
Nominal Frame Width	34" 864 mm

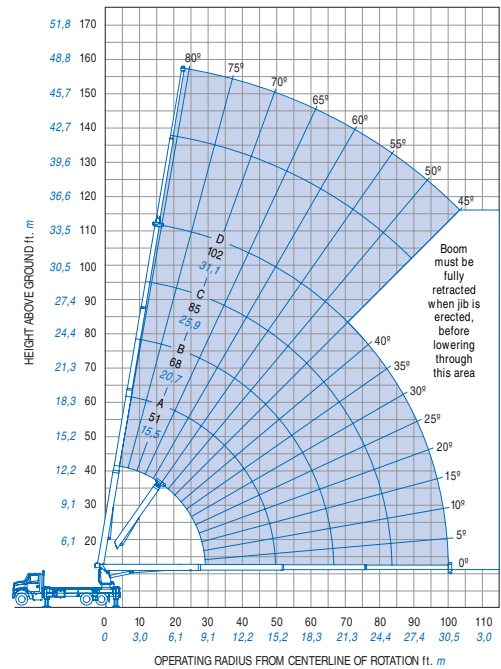
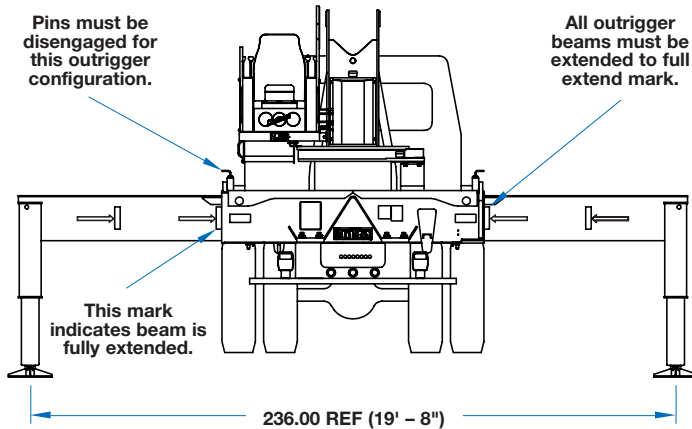
*Frame section modulus at 360° area of operation requires front bumper stabilizer.
**Minimum chassis weight is required to meet 85% stability requirements.
Chassis data is general - not for engineering. Some dimensions depend on truck selection.

MAXIMUM TIP HEIGHT	28102S	2892S
Configuration	Boom 102' 31,1 m	Boom 92' 28 m
Extended Boom	111' 9" 34,1 m	101' 9" 31 m
Fixed or Retracted Jib	138' 42,1 m	128' 39 m
Extended Jib	157' 9" 48.1 m	147' 9" 45 m

WEIGHTS	28102S	2892S
Cab Alone	575 lb 261 kg	575 lb 261 kg
Crane (Without Cab)	23,100 lb 10 478 kg	22,392 lb 10 157 kg
14' (4,27 m) Flat Bed	1,260 lb 573 kg	1,260 lb 572 kg
26' (7,92 m) Fixed Length Jib	832 lb 378 kg	832 lb 377 kg
26' (7,92 m) to 46' (14,02 m) Telescopic Jib	1,226 lb 557 kg	1,226 lb 557 kg



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

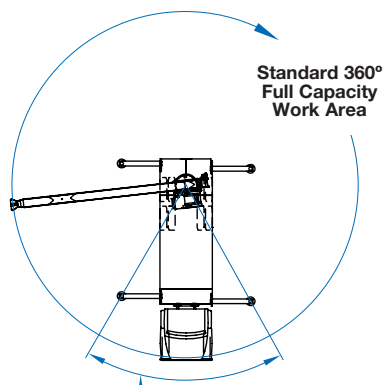


FULLY EXTENDED OUTRIGGER SPREAD: MODEL 28102S

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		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									
Feet	Meters	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.								
5	1,52	80°	56,000	25 454																					
8	2,43	75°	39,690	18 040																					
10	4,04	71°	33,510	15 231	79	22,500	10 227																		
12	3,65	67°	29,120	13 236	77	22,500	10 227																		
15	4,57	60°	23,260	10 572	73	21,710	9 868	79	20,590	9 359															
20	6,09	48°	16,530	7 513	67	16,910	7 686	74	15,830	7 195	78	14,420	6 544	81	10,500	4 772									
25	7,62	33°	12,410	5 640	61	12,870	5 850	70	12,840	5 836	75	12,180	5 536	78	9,650	4 386	81	5,300	2 409	81	5,100	2 318			
30	9,14				54	10,110	4 595	65	10,260	4 663	72	10,140	4 609	76	8,670	3 940	79	5,300	2 409	79	5,100	2 318	81	3,050	1 386
35	10,66				47	8,130	3 695	60	8,280	3 763	68	8,360	3 800	73	7,670	3 486	77	4,990	2 268	77	4,730	2 150	79	4,000	1 386
40	12,19				38	6,630	3 013	55	6,790	3 086	64	6,870	3 122	70	6,490	2 950	75	4,580	2 081	75	4,310	1 959	77	3,050	1 386
45	13,71				27	5,450	2 477	50	5,610	2 550	60	5,690	2 709	66	5,590	2 540	72	4,190	1 904	72	3,910	1 777	76	3,050	1 386
50	15,24							43	4,670	2 122	56	4,750	2 159	63	4,800	2 181	70	3,830	1 740	70	3,550	1 613	74	2,910	1 322
55	16,76							36	3,820	2 122	51	3,920	2 781	60	3,980	1 809	68	3,480	1 581	68	3,110	1 413	72	2,740	1 245
60	18,28							28	3,110	1 413	47	3,220	1 463	56	3,280	1 409	65	3,020	1 372	65	2,670	1 213	70	2,590	1 177
65	19,81							15	2,520	1 145	41	2,640	1 200	53	2,700	1 227	63	2,630	1 195	63	2,280	1 036	68	2,410	1 095
70	21,33										36	2,150	977	49	2,220	1 009	60	2,310	1 050	60	1,950	886	66	2,130	968
75	22,86										29	1,740	790	45	1,810	822	57	1,910	868	57	1,620	736	63	1,880	854
80	24,38										19	1,390	631	40	1,460	663	54	1,560	709	54	1,270	577	61	1,610	731
85	25,90													36	1,150	522	51	1,250	568	51	960	436	59	1,400	636
90	27,43										29	880	400	48	990	450	48	990	450	48	990	313	56	1,150	522
95	28,96										22	640	290	45	750	340							54	910	413
100	30,48																						51	700	318
105	32,00																						48	510	231
			490	222		290	131		220	100		180	81		150	68	Deductions: Stowed Fixed Jib								
			900	331		440	200		330	150		260	180		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



WARNING

The front tires must be in contact with the ground and the machine level when operating in this area.

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. .5625" rot resistant (5.0:1 SF) - 37000 lb. min. breaking strength .5625" 6 x 25 IWRC (3.5:1 SF) - 29750 lb. min. breaking strength
8,500 lb 3 864 kg	17,000 lb 7 727 kg	25,500 lb 11 591 kg	34,000 lb 15 455 kg	42,500 lb 19 318 kg	51,000 lb 23 182 kg	56,000 lb 25 455 kg	
7,400 lb 3 364 kg	14,800 lb 6 727 kg	22,200 lb 10 091 kg	29,600 lb 13 455 kg	37,000 lb 16 818 kg	44,400 lb 20 182 kg	51,800 lb 23 545 kg	

BOOM AND JIB COMBINATIONS

28102S	102'	4 Section	Boom	26' - 46' 2 - Section Jib
2892S	92'	4 Section	Boom	26' - 46' 2 - Section Jib

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



- 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 2802 • 09.03 • TG • 2,000