



# 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 9P below horizontal to 80P 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.

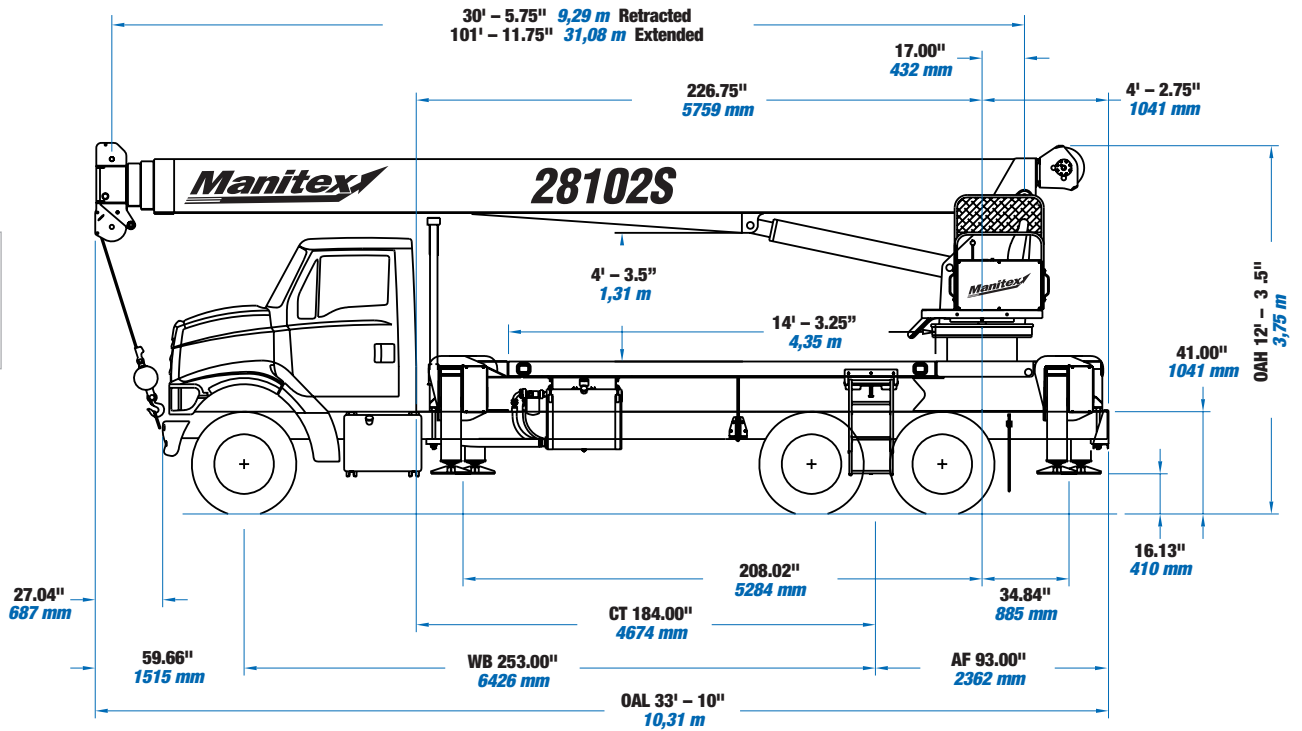
**Design/Welding** – Design conforms to ANSI B30.5. Welding conforms to AWS D1.1. Tested to SAE 1063 and SAE 765.

**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.

OAH Overall Height  
 CT Cab to Tandem  
 CA Cab to Axle  
 WB Wheel Base  
 OAL Overall Length  
 BBC Bumper to Back of Cab  
 AF Afterframe

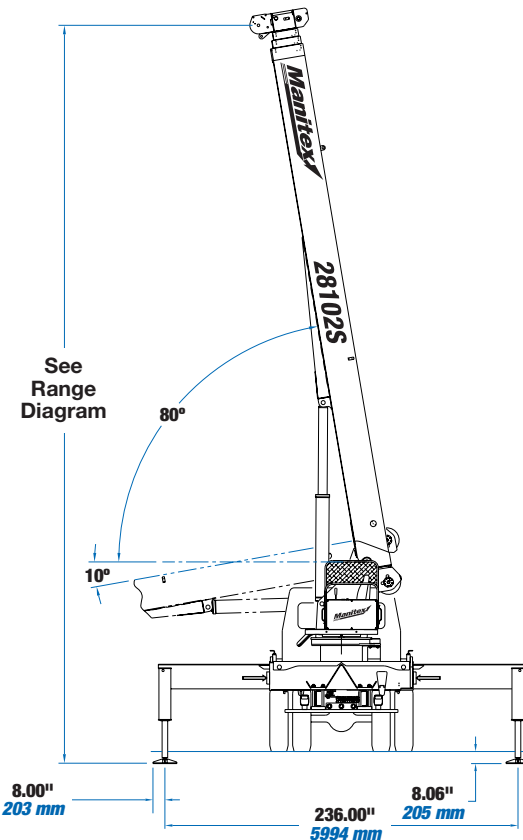


CHASSIS DATA	28102S/2892S
Wheelbase (WB)	253" <b>6 426 mm</b>
Cab to Tandem (CT)	184" <b>4 674 mm</b>
After Frame (AF)	93" <b>2 362 mm</b>
Frame Section Modulus at 180° Area of Operation	20.0 in <sup>3</sup> 110,000 psi <b>758 422 kPa</b>
Frame Section Modulus at 360° of Operation	20.0 in <sup>3</sup>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

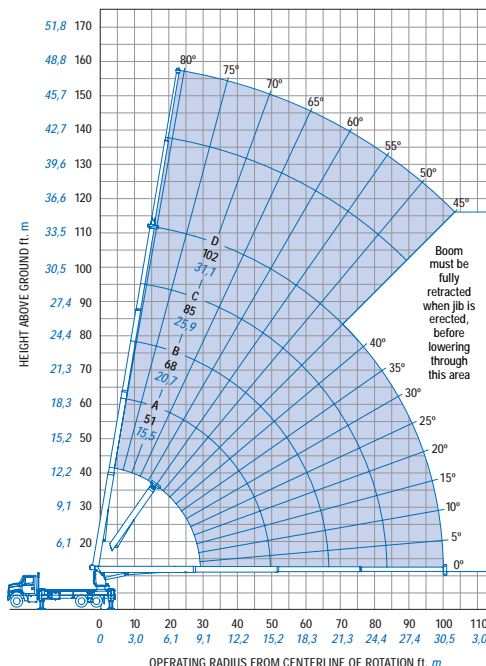
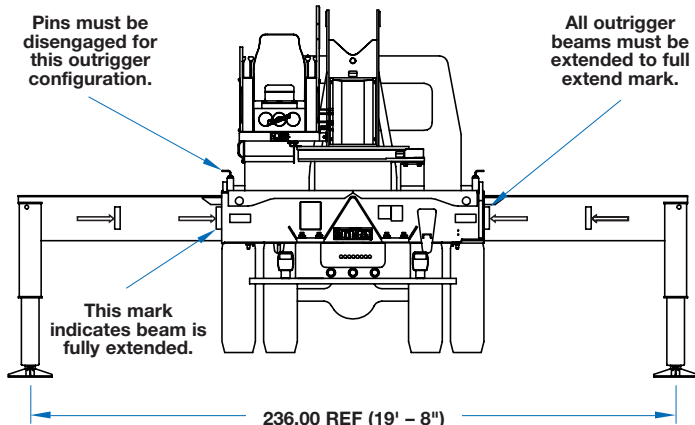
\*Frame section modulus at 360° area of operation requires front bumper stabilizer.  
 \*\*Minimum chassis weight is required to meet 85% stability requirements.  
 Chassis data is general - not for engineering. Some dimensions depend on truck selection.

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

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



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

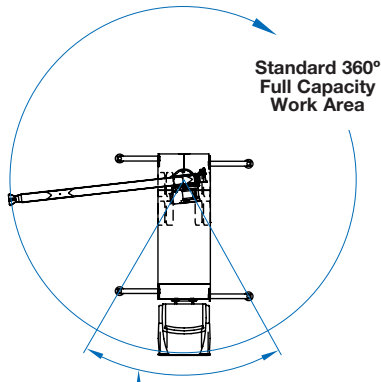


FULLY EXTENDED OUTRIGGER SPREAD: MODEL 28102S

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°	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		
30	9,14				54	10,110	4 595	65	10,260	4 663	72	10,140	4 609	76	8,670	3 940		
35	10,66				47	8,130	3 695	60	8,280	3 763	68	8,360	3 800	73	7,670	3 486		
40	12,19				38	6,630	3 013	55	6,790	3 086	64	6,870	3 122	70	6,490	2 950		
45	13,71				27	5,450	2 477	50	5,610	2 550	60	5,690	2 709	66	5,590	2 540		
50	15,24							43	4,670	2 122	56	4,750	2 159	63	4,800	2 181		
55	16,76							36	3,820	2 122	51	3,920	2 781	60	3,980	1 809		
60	18,28							28	3,110	1 413	47	3,220	1 463	56	3,280	1 409		
65	19,81							15	2,520	1 145	41	2,640	1 200	53	2,700	1 227		
70	21,33										36	2,150	977	49	2,220	1 009		
75	22,86										29	1,740	790	45	1,810	822		
80	24,38										19	1,390	631	40	1,460	663		
85	25,90													36	1,150	522		
90	27,43										29	880	400	48	990	450		
95	28,96										22	640	290	45	750	340		
100	30,48															54	910	413
105	32,00															51	700	318
			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

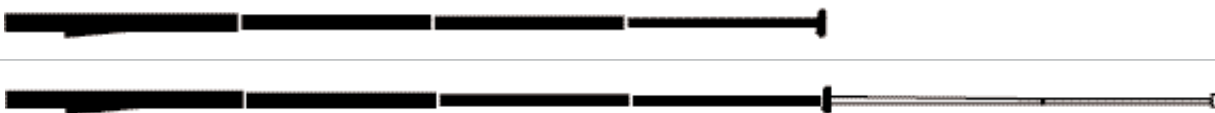
1 Part Line	2 Part Line	3 Part Line	4 Part Line	5 Part Line	6 Part Line	7 Part Line	WARNING
							<p>Anti-two-block system must be in good operating condition before operating crane. Refer to the owner's manual. Keep at least three wraps of load line on the drum at all times.</p> <p>.5625" rot resistant (5.0:1 SF) - 37000 lb. min. breaking strength</p> <p>.5625" 6 x 25 IWRC (3.5:1 SF) - 29750 lb. min. breaking strength</p>
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.**

## ***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](http://www.manitex.com)

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