



BOOM TRUCK CRANE BT 28106

DATASHEET - IMPERIAL

BT 28106

PRELIMINARY
DATA SHEET NOT FINAL



Features

- ▶ 28 t @ 6 ft capacity at rated distance from center of rotation
- ▶ 106 ft maximum boom length
- ▶ 115 ft maximum tip height
- ▶ 30/47 ft optional jib
- ▶ 162 ft maximum sheave height with 47 ft jib
- ▶ Behind cab mounting with dual operator console
- ▶ Electronic rated capacity indicator with work area definition
- ▶ Quick reeving boom head

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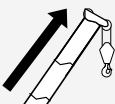
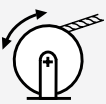
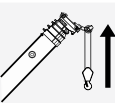
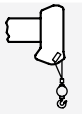
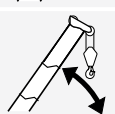
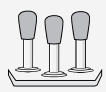
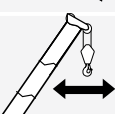
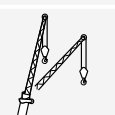
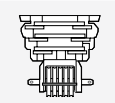
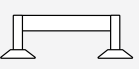
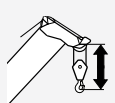
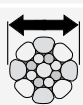
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KEY

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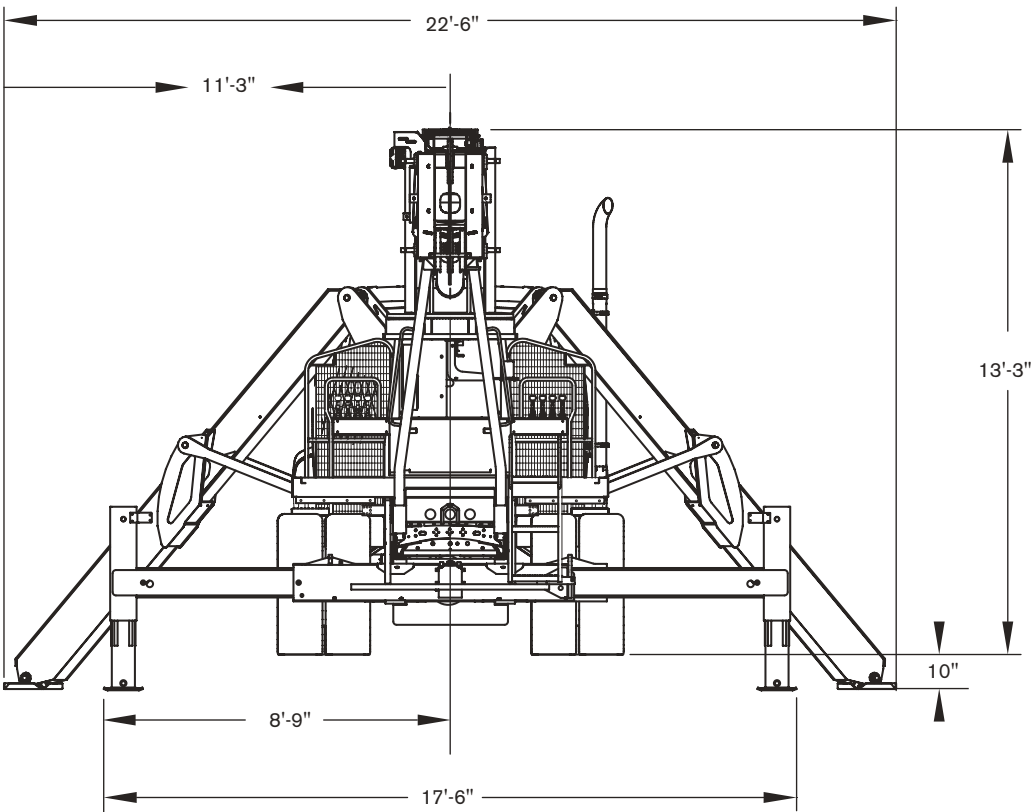
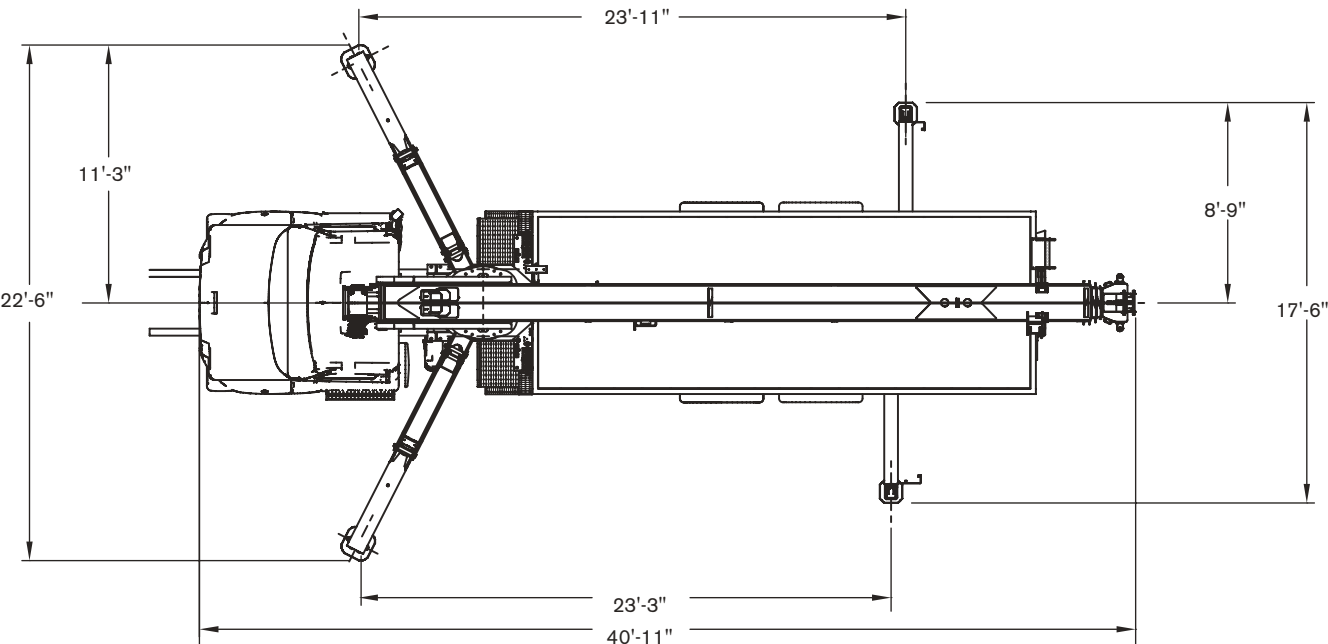
	Main boom		Main Hoist
	Boom length		Hoist line speed
	Tip height		Part line
	Telescoping mode		Operator aid
	Boom angle		Controls
	Working radius		Hydraulics
	Boom with jib		Working temperature
	Boom head		Outriggers
	Hook block		Rotation / Allowable rotation range
	Hook to head sheave pin		Working speeds
	Rope – Standard / Optional		Boom over the rear
	Rope diameter		Boom over the front
	Rope length		Area of operation
	Line pull		



DIMENSIONS

Crane Dimensions

BT 28106



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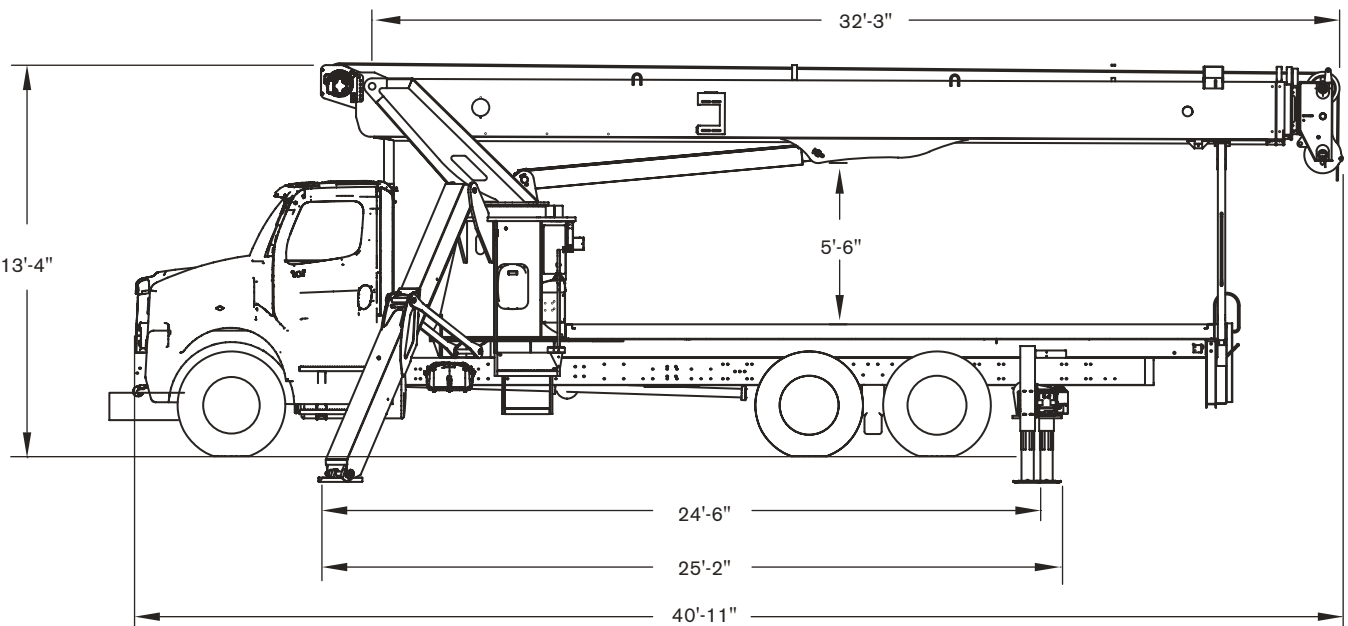
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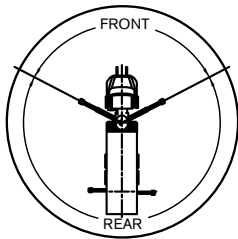
DIMENSIONS

Crane Dimensions

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Area of Operation

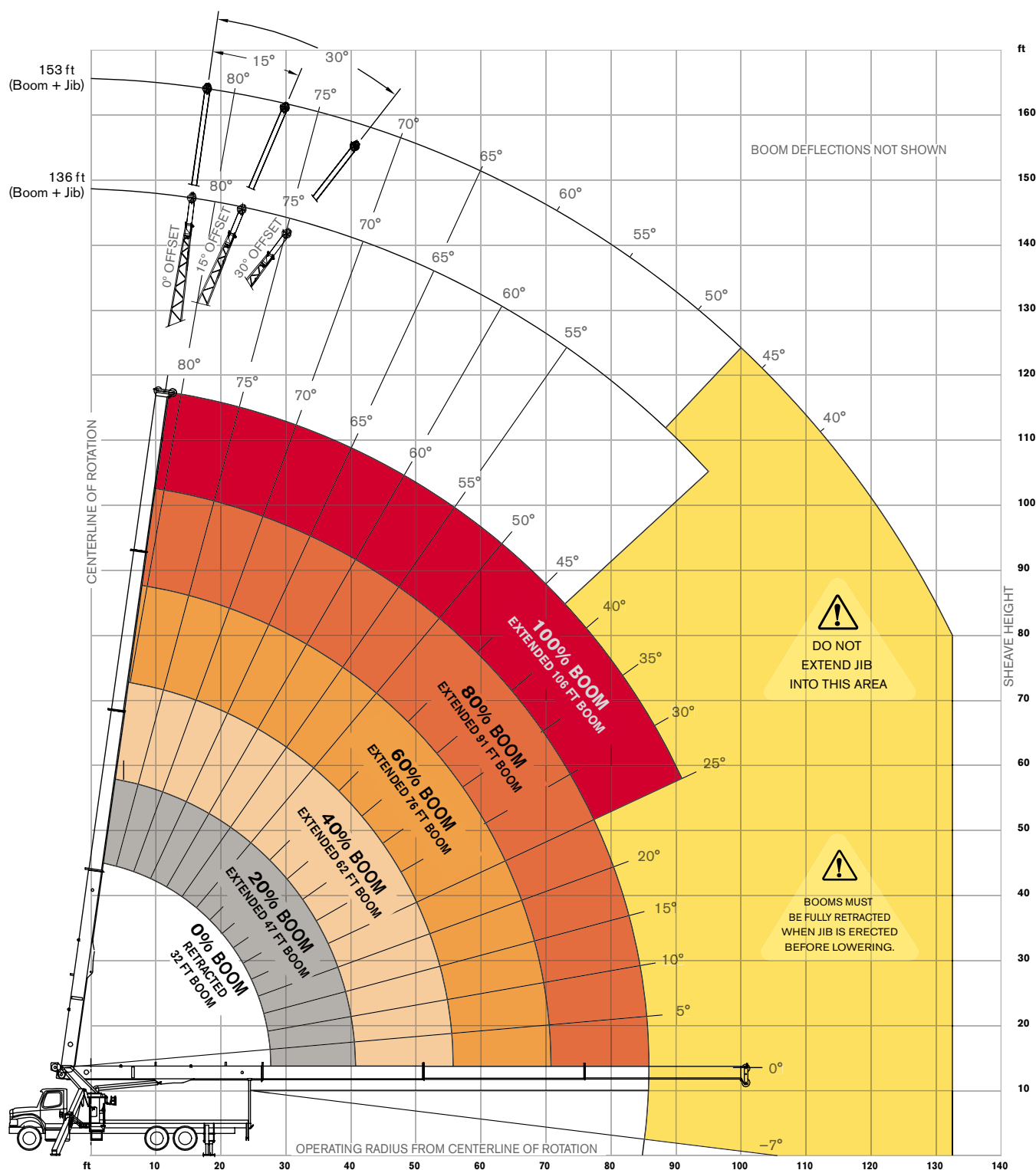


Mounting Specifications

Gross Vehicle Weight Rating	52,000 lb	Estimated installed crane weight.	30,000 lbs
Front Axle Weight Rating	18,000 lb	Crane fitted with jib and mounted on freightliner chassis with flatbed.	
Rear Axle Weight Rating	34,000 lb	Approximate weight distribution:	
Wheelbase.	260 in	Front axle	15,400 lbs
Cab to Axle	192 in	Tandem axles	31,000 lbs
Afterframe	114 in	Total weight	46,400 lbs
RBM per Frame Rail (min).	3,300,000 lb/in	Estimated freightliner bare chassis weight:	
Frame Height (Unloaded)	40 in	Front axle	9,140 lbs*
Vertical Exhaust Height	110 in	Tandem axles	8,270 lbs*
		Total weight	17,410 lbs

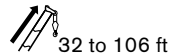
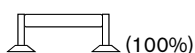
* Minimum bare chassis weight requirements. Must ballast to minimum if required.

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BOOM LOAD CHART

BT 28106**Outriggers Fully Extended (100%)**

Standard ASME B30.5

	Boom Length												
	32		47		62		76		91		106		
													
ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	ft
6	56,000	56,000											6
8	40,000	40,000	29,000	29,000									8
10	34,000	34,000	27,000	27,000	25,400	25,400							10
12	30,000	30,000	24,950	24,950	24,000	24,000							12
14	24,700	24,700	22,850	22,850	22,000	22,000	19,000	19,000	16,000	16,000			14
17	22,000	21,700	20,450	20,450	20,000	20,000	17,000	17,000	14,600	14,600			17
20	18,000	17,500	16,950	16,250	16,000	15,300	14,500	14,500	13,000	13,000	10,000	10,000	20
25	14,000	10,850	12,900	11,600	13,000	11,500	12,000	12,000	11,000	11,000	9,500	9,500	25
30			10,000	8,300	10,000	8,650	9,500	9,500	8,750	8,750	9,000	8,500	30
35			7,750	5,900	8,000	6,300	8,000	6,700	7,500	6,700	8,500	6,700	35
40			6,300	4,200	6,650	4,650	6,750	4,900	6,500	5,000	7,100	5,100	40
45					5,300	3,650	5,500	3,850	5,500	4,050	5,800	4,050	45
50					4,250	2,700	4,500	2,950	4,400	3,100	4,850	2,950	50
55					3,450	1,900	3,650	2,200	3,800	2,250	3,950	2,300	55
60							2,900	1,600	3,050	1,650	3,300	1,700	60
65							2,250	1,050	2,600	1,150	2,700	1,200	65
70							1,850	500	2,000	700	2,200	800	70
75									1,750	400	1,900	500	75
80									1,250		1,500		80
85									1,000		1,200		85
90											950		90

Notes to lifting capacity

Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

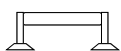
Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.

PRELIMINARY
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LOAD CHART

With Jib, Retracted

BT 28106

(100%)



Over Rear

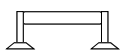


Over Front

Standard ASME B30.5

	Jib 30 ft									
	0°			15°			30°			
ft	°	lb	lb	°	lb	lb	°	lb	lb	ft
30	80	5,000	5,000							30
35	78	5,000	5,000							35
40	75	5,000	5,000	81	4,800	4,000	82	4,000	4,000	40
45	72	4,800	4,250	79	4,800	4,000	79	4,000	4,000	45
50	70	4,500	3,250	74	4,200	3,850	77	4,000	4,000	50
55	68	3,800	2,550	72	3,700	3,050	75	3,600	3,350	55
60	65	3,100	1,900	70	3,300	2,300	72	3,200	2,700	60
65	63	2,450	1,300	67	2,650	1,700	70	2,800	2,100	65
70	60	1,800	800	65	2,000	1,100	67	2,350	1,500	70
75	58	1,350	450	62	1,600	750	64	1,900	1,100	75
80	55	900		59	1,200	400	60	1,500	700	80
85	51	575		56	800		57	1,150	425	85
90				52	400		54	800		90
95							51	550		95
100										100

With Jib, Extended



(100%)



Over Rear



Over Front

Standard ASME B30.5

	Jib 47 ft									
	0°			15°			30°			
ft	°	lb	lb	°	lb	lb	°	lb	lb	ft
30	82	4,000	4,000							30
35	80	4,000	4,000							35
40	78	4,000	4,000							40
45	76	3,550	3,300							45
50	74	3,330	2,500	79	3,300	3,300				50
55	72	2,900	2,000	77	3,200	3,200				55
60	70	2,300	1,500	75	3,100	3,100	78	2,500	2,500	60
65	67	1,850	1,100	73	2,950	2,550	76	2,500	2,500	65
70	65	1,400	700	70	2,800	2,000	74	2,400	2,400	70
75	63	1,050		68	2,350	1,550	71	2,250	1,950	75
80	61	750		65	1,900	1,150	69	2,100	1,500	80
85	59	500		63	1,450	725	66	1,700	1,100	85
90				61	1,000		63	1,300	700	90
95				57	750		61	1,000		95
100				55	500		58	700		100

Notes to lifting capacity

Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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TECHNICAL DESCRIPTION

BT 28106

Boom, Jib and Rotation

	Four-section full power fully synchronized telescopic keel boom	
	Boom length	32–106 ft
	Boom maximum tip height	115 ft
	Boom elevation angle range (min/max)	-8° / 82°
	Boom up/down time Boom extension/retraction time	50/120 seconds 110/140 seconds
	Boom head Top shaft: 1 sheave / lower shaft: 3 sheave	3 Sheave quick reeving
	Tip height: Optional lattice jib 30/47 ft Angular offsets	162 ft 0°, 15°, 30°
	320° total swing- noncontinuous	

Operator Controls, Operator Aids

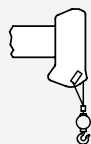
	Hydraulic 2-speed hoist	
	Hoist maximum line pulls Low High	11,854 lb 5,532 lb
	Hoist 3rd layer line speeds Low High	137 ft/min 209 ft/min
	Rope diameter	9/16"
	Breaking strength Permissible line pull	37,000 lb 10,500 lb
	Rope length	350 ft
	Overhaul ball 1 Sheave block 2 Sheave block 3 Sheave block	7 t 17.5 t 25 t 26 t

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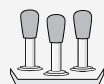
TECHNICAL DESCRIPTION

BT 28106



- 1 part line
- 2 part line
- 3 part line
- 4 part line
- 5 part line
- 6 part line
- 7 part line, optional rotational resistant rope only

- 9,600 lb / 172 ft/min
- 19,200 lb / 86 ft/min
- 28,800 lb / 57 ft/min
- 38,400 lb / 43 ft/min
- 48,000 lb / 34 ft/min
- 51,800 lb / 29 ft/min
- 57,000 lb / 24 ft/min

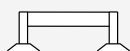


- Proportional hydraulics
- Independent outrigger controls
- Bump throttle



- Rated capacity indicator with work area definition
- ATB system – internal wire

Outriggers



- K-pattern
- Front: Splayed A-link,**
To outer edge of pad
- Rear, "H" pattern** (out and down),
To outer edge of pad

- 22 ft 6 in
- 17 ft 6 in

Optional Features

- 360° swing continuous rotation
- Two-stage jibs
- Rotation resistant rope
- Multi-part load blocks
- Main hoist with 2 speed motor
- Heavy duty wood flatbeds
- Extra heavy duty wood flatbeds
- Extra heavy duty steel flatbeds
- Radio remote controls
- One-man or two-man baskets
- Hoist drum tensioner
- Oil cooler
- Single front bumper outrigger
- Hydraulic hose reel
- Tool box
- Foot throttle
- Inching control for hoist operation at rear of subframe, for one man hook ball stowage and deploy



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