



**BOOM TRUCK CRANE**  
**BT 7077**  
**BT 70100**

**DATASHEET - IMPERIAL**

# BT 7077 BT 70100



Model:  
BT 70100

**Features: BT 70100**

- ▶ 35 t @ 5 ft capacity at rated distance from center of rotation
- ▶ 100 ft maximum boom length
- ▶ 110 ft maximum sheave height
- ▶ 30.5/55 ft optional jib
- ▶ 163 ft maximum tip height with 55 ft jib
- ▶ Behind cab mounting with dual operator console
- ▶ Electronic load moment indicator
- ▶ Quick reeving boom head

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# CONTENTS

## BT 7077 / BT 70100

	Page:
<b>Key</b>	
.....	3
<b>Dimensions</b>	
Crane Dimensions .....	4, 5
Area of Operation .....	5
Mounting Specifications .....	5
Range Diagram, BT 70100 .....	6
Range Diagram, BT 7077 .....	10
<b>Load charts, BT 70100</b>	
Boom Load Chart .....	7, 8, 9
Jib, Retracted .....	7, 8
Jib, Extended .....	7, 8
<b>Load charts, BT 7077</b>	
Boom Load Chart .....	11, 12, 13
Jib, Retracted .....	11, 12
Jib, Extended .....	11, 12
<b>Technical description</b>	
Boom, Jib and Rotation .....	14
Operator Controls and Operator Aid .....	14, 15
Understructure .....	15
Optional Features .....	15



# KEY

**BT 7077 / BT 70100**

	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		Working speeds
	Hook to head sheave pin---		Rope – Standard / Optional
	Rotation / Allowable rotation range		Rope diameter
	Boom angle		Rope length
	Boom over the rear		Line pull

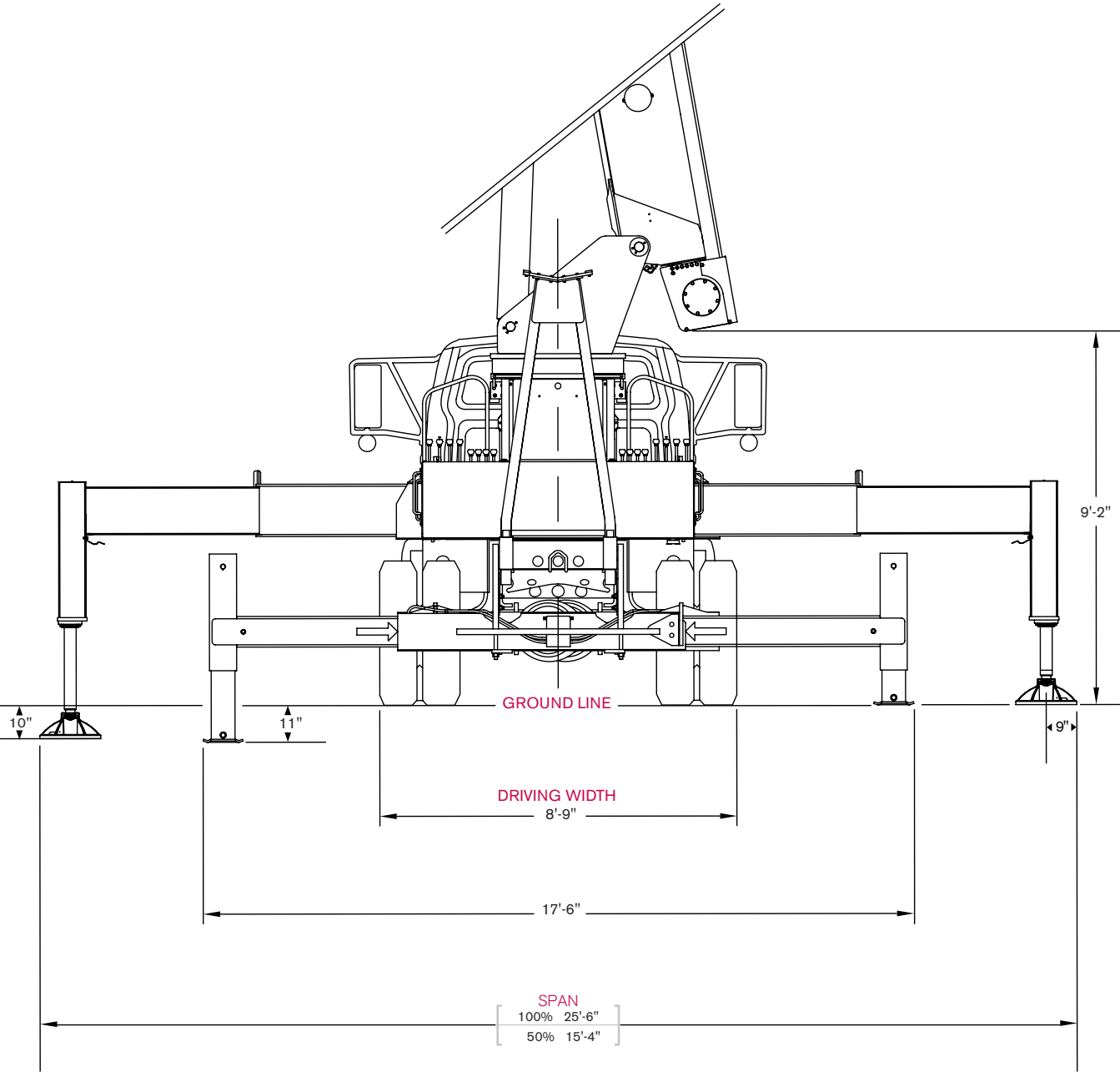


# DIMENSIONS

**BT 7077 / BT 70100**

## Crane Dimensions

BT 7077 / BT 70100

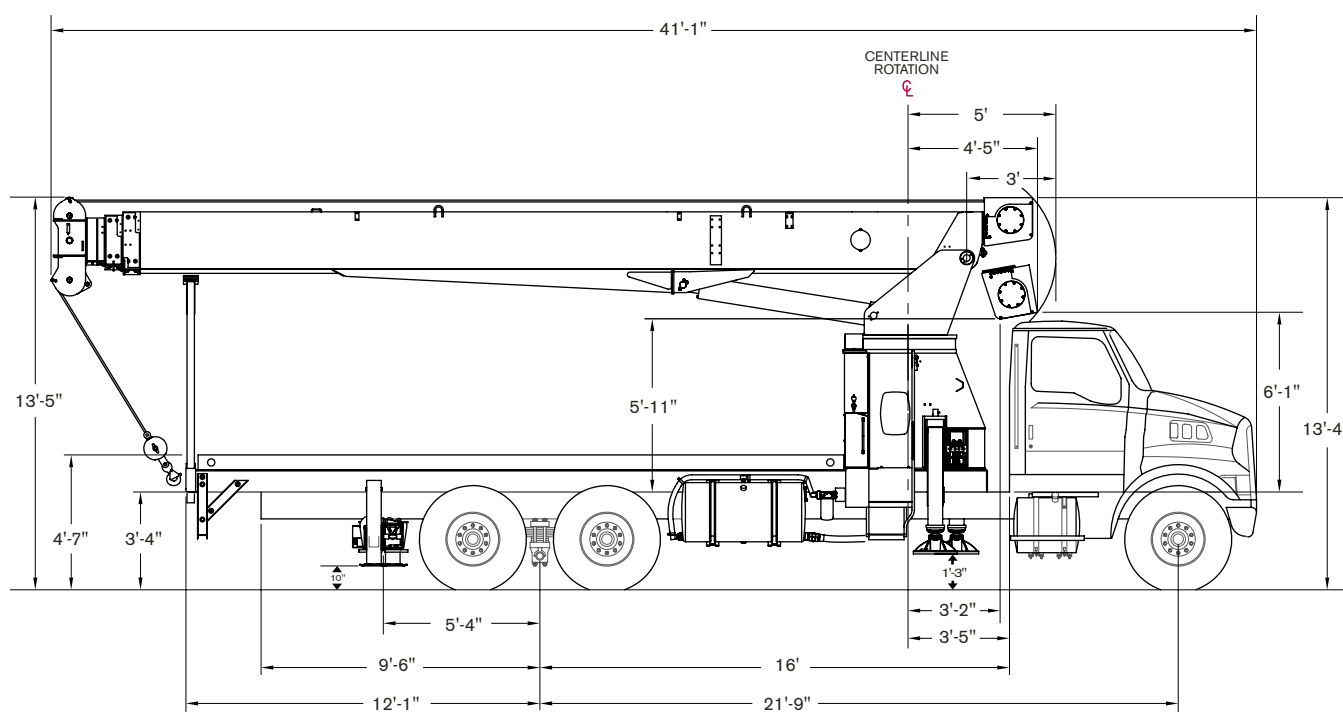


## DIMENSIONS

**BT 7077 / BT 70100**

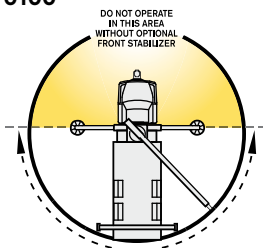
## Crane Dimensions

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## Area of Operation

BT 7077 / BT 70100



## Mounting Specifications

BT 7077 / BT 70100

### Chassis Recommendation

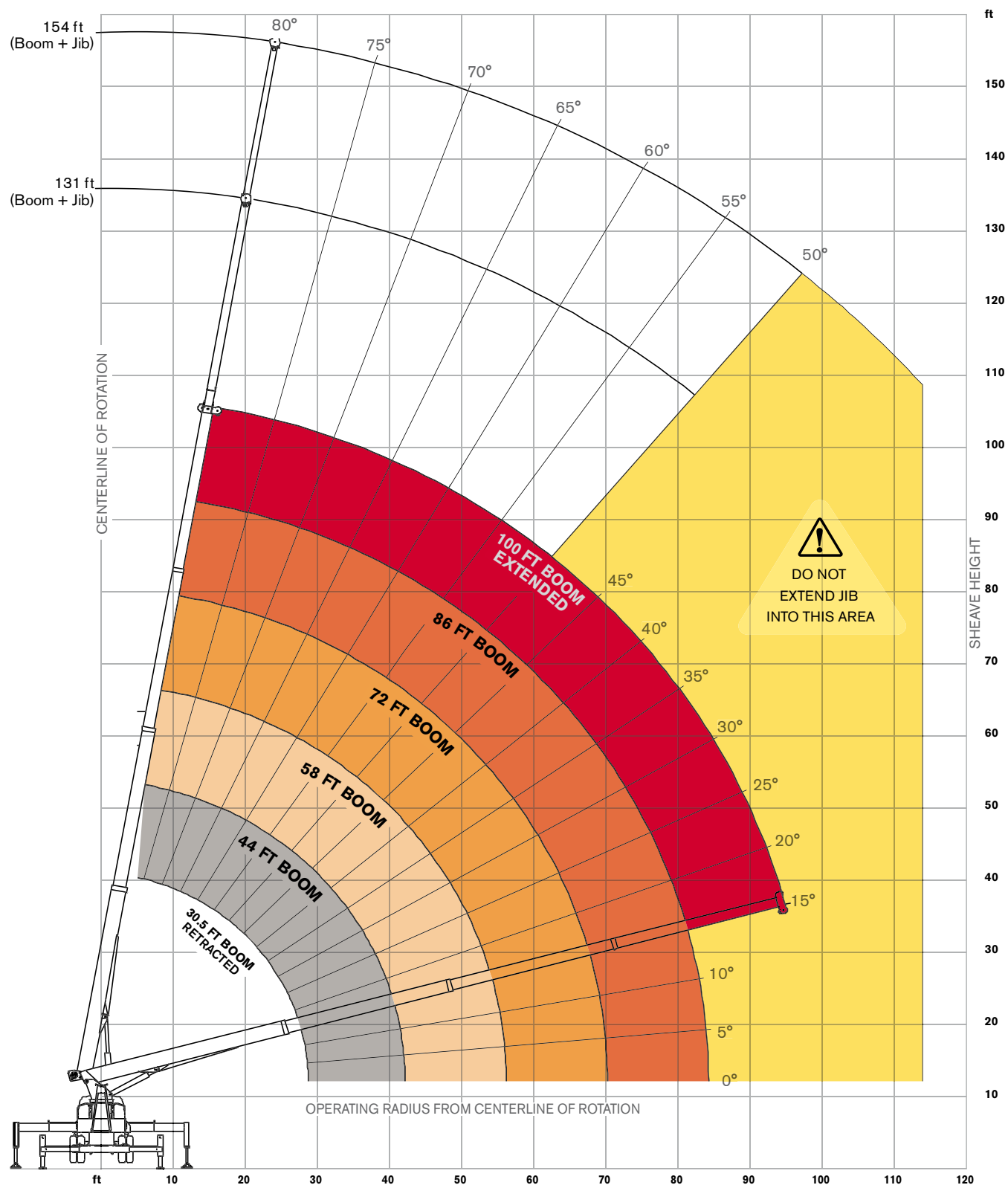
Gross Vehicle Weight Rating	54,000 lb
Front Axle Weight Rating	20,000 lb
Rear Axle Weight Rating	34,000 lb
Wheelbase	261 +/- 4 in
Cab to Axle	192 +/- 4 in
Afterframe	114 +/- 4 in
RBM per Frame Rail	3,300,000 lb/in
Frame Height (Unloaded)	40 in
Exhaust	Vertical Right Side



# RANGE DIAGRAM

**BT 70100**

**Outriggers Fully Extended (100%)**



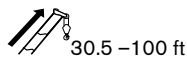
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# BOOM LOAD CHARTS

**BT 70100**

## Outriggers Fully Extended (100%)





Standard ASME B30.5

 ft	Boom Length						 ft
	30.5 lb	44 lb	58 lb	72 lb	86 lb	100 lb	
5	70,000						5
8	54,900						8
10	46,300	31,300					10
12	40,000	31,700	31,100				12
15	33,200	31,600	30,500	27,600			15
20	24,400	24,500	23,600	21,200	19,000		20
25	18,300	19,100	19,100	17,200	15,300	12,100	25
30		15,000	15,400	14,400	12,900	10,500	30
35		11,900	12,300	12,000	11,100	9,100	35
40		9,000	9,400	9,400	9,500	7,000	40
45			7,400	7,600	7,700	6,000	45
50			5,900	6,100	6,200	5,100	50
55			4,600	5,000	5,100	4,500	55
60				4,000	4,200	3,900	60
65				3,200	3,400	3,400	65
70					2,800	2,900	70
75					2,200	2,400	75
80					1,700	1,900	80
85						1,500	85
90						1,100	90
95						800	95

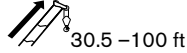
## Boom at 0°





Standard ASME B30.5

 °	Boom Length						 °
	30.5 lb	44 lb	58 lb	72 lb	86 lb	100 lb	
0	8,700	4,900	2,800	1,600	700	—	0

## With Jib, Retracted and Extended



Standard ASME B30.5

 ft	Jib Capacities for All Boom Lengths								 ft
	80° lb	78° lb	75° lb	70° lb	65° lb	60° lb	55° lb	50° lb	
30.5	6,450	6,000	5,300	4,000	3,300	2,300	1,400	800	30.5
55	3,500	3,500	3,500	2,900	2,300	1,700	1,050	700	55

## 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.

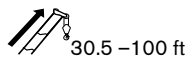
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# BOOM LOAD CHARTS

**BT 70100**

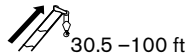
## Outriggers Extended Mid-Position (50%)



Standard ASME B30.5

	Boom Length						
	30.5	44	58	72	86	100	
ft	lb	lb	lb	lb	lb	lb	ft
5	70,000						5
8	47,000						8
10	42,100	31,300					10
12	37,300	31,700	31,100				12
15	31,600	31,600	30,500	27,600			15
20	16,900	11,100	18,000	18,600	18,300		20
25	10,100	7,400	11,400	11,600	11,700	11,800	25
30		5,000	7,700	7,900	8,000	8,100	30
35		3,300	5,400	5,600	5,700	5,800	35
40			3,800	4,000	4,200	4,200	40
45			2,600	2,900	3,000	3,100	45
50			1,700	2,000	2,100	2,200	50
55			900	1,200	1,400	1,500	55
60						900	60

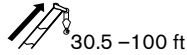
## Boom at 0°



Standard ASME B30.5

	Boom Length						
	30.5	44	58	72	86	100	
°	lb	lb	lb	lb	lb	lb	°
0	7,100	2,700	—	—	—	—	0

## With Jib, Retracted and Extended



Standard ASME B30.5

	Jib Capacities for All Boom Lengths					
	80°	78°	75°	70°	65°	
ft	lb	lb	lb	lb	lb	ft
30.5	6,450	6,000	5,300	3,175	1,650	30.5
55	3,500	3,500	3,500	2,800	1,275	55

## 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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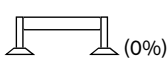

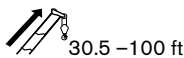






# BOOM LOAD CHARTS

**BT 70100**

**Outriggers Fully Retracted (0%)**

Standard ASME B30.5

 ft	Boom Length						 ft
	30.5 lb	44 lb	58 lb	72 lb	86 lb	100 lb	
5	43,700						5
8	25,400						8
10	16,100	16,800					10
12	11,200	11,900	12,200				12
15	7,000	7,800	8,100	8,200			15
20	3,300	4,200	4,500	4,700	4,800		20
25	1,300	2,200	2,600	2,800	2,900	3,000	25
30		1,000	1,400	1,600	1,800	1,800	30
35					900	1,000	35

## Notes to lifting capacity

Lifting capacities do not exceed 75% 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.

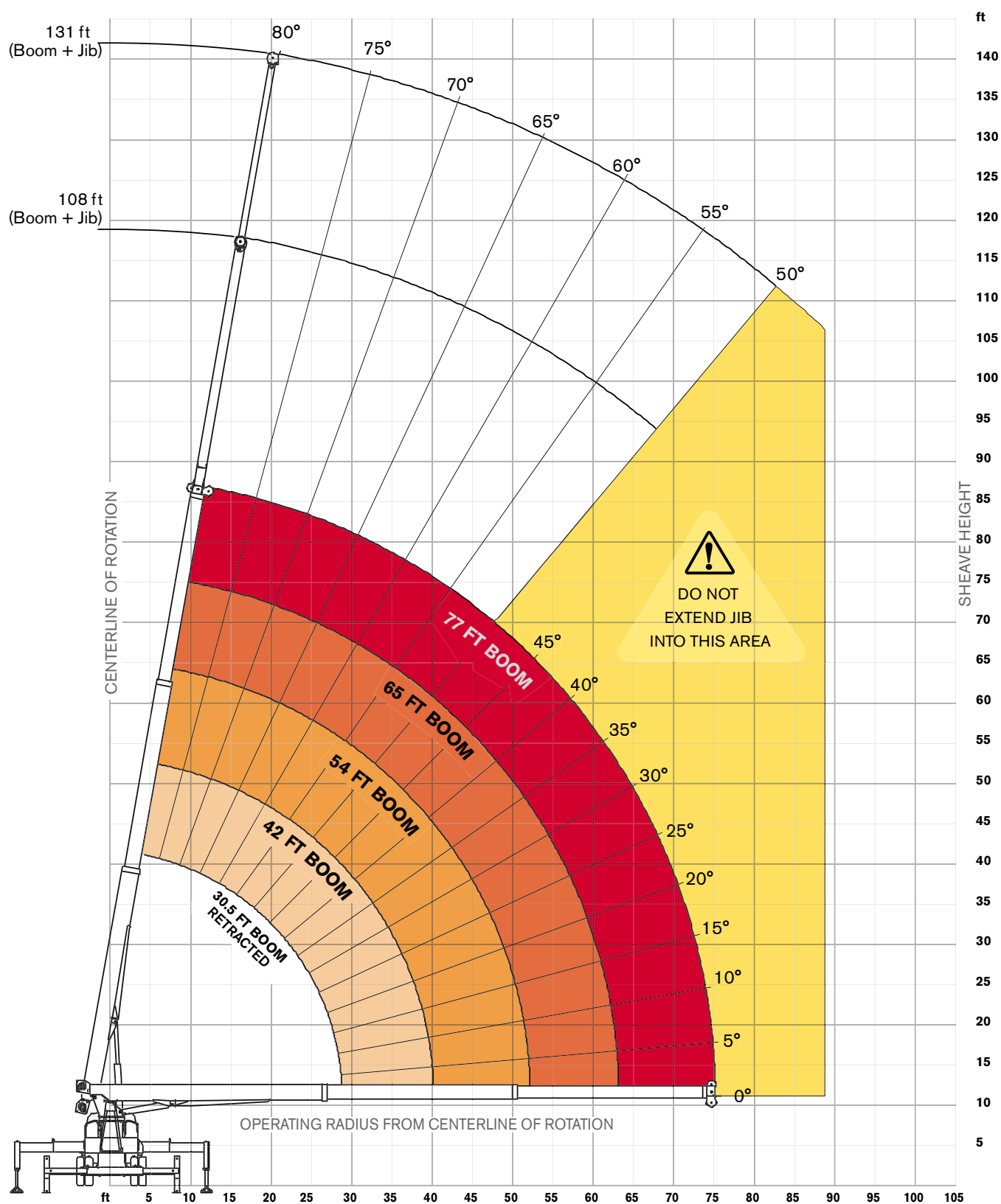
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# RANGE DIAGRAM

**BT 7077**

**Outriggers Fully Extended (100%)**



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# BOOM LOAD CHARTS

**BT 7077**

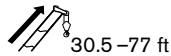
## Outriggers Fully Extended (100%)



Standard ASME B30.5

	Boom Length					
	30.5	42	54	65	77	
ft	lb	lb	lb	lb	lb	ft
5	70,000					5
8	55,500	53,500				8
10	46,900	45,000	43,800			10
12	40,600	38,900	37,700	37,000		12
15	33,800	32,300	31,200	30,500	25,000	15
20	25,000	25,200	24,300	23,600	20,200	20
25	18,900	19,500	19,800	19,200	16,700	25
30		15,500	15,800	16,000	14,200	30
35		12,500	12,900	13,100	12,000	35
40			10,100	10,300	10,400	40
45			8,100	8,200	8,300	45
50			6,500	6,700	6,800	50
55				5,500	5,600	55
60				4,600	4,700	60
65					3,900	65
70					3,300	70

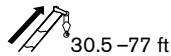
## Boom at 0°



Standard ASME B30.5

	Boom Length					
	30.5	42	54	65	77	
°	lb	lb	lb	lb	lb	°
0	9,300	5,900	3,900	2,600	1,500	0

## With Jib, Retracted and Extended



Standard ASME B30.5

	Jib Capacities for All Boom Lengths								
	80°	78°	75°	70°	65°	60°	55°	50°	
ft	lb	lb	lb	lb	lb	lb	lb	lb	ft
30.5	6,450	6,000	5,300	4,000	3,300	2,300	1,400	800	30.5
55	3,500	3,500	3,500	2,900	2,300	1,700	1,050	700	55

## 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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# BOOM LOAD CHARTS

**BT 7077**

## Outriggers Extended Mid-Position (50%)



Standard ASME B30.5

	Boom Length					
	30.5	42	54	65	77	
ft	lb	lb	lb	lb	lb	ft
5	61,900					5
8	49,600	49,900				8
10	43,600	43,900	43,800			10
12	38,800	38,900	37,700	37,000		12
15	33,200	32,300	31,200	30,500	25,000	15
20	17,700	18,200	18,400	18,600	18,700	20
25	11,100	11,800	12,000	12,200	12,300	25
30		8,200	8,500	8,700	8,800	30
35		5,900	6,300	6,400	6,500	35
40			4,700	4,900	5,000	40
45			3,600	3,800	3,800	45
50			2,600	2,900	3,000	50
55				2,100	2,300	55
60				1,600	1,800	60
65					1,300	65
70					800	70
75					500	75

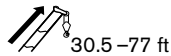
## Boom at 0°



Standard ASME B30.5

	Boom Length					
	30.5	42	54	65	77	
°	lb	lb	lb	lb	lb	°
0	8,200	4,200	2,300	1,200	500	0

## With Jib, Retracted and Extended



Standard ASME B30.5

	Jib Capacities for All Boom Lengths					
	80°	78°	75°	70°	65°	
ft	lb	lb	lb	lb	lb	ft
30.5	6,450	6,000	5,300	3,175	1,650	30.5
55	3,500	3,500	3,500	2,800	1,275	55

## 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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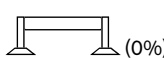


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

# BOOM LOAD CHARTS

**BT 7077**

## Outriggers Fully Retracted (0%)

Standard ASME B30.5

 ft	Boom Length					 ft
	30.5 lb	42 lb	54 lb	65 lb	77 lb	
5	43,800					5
8	23,400	23,800				8
10	14,900	15,200	15,400			10
12	10,300	10,700	11,000	11,100		12
15	6,300	7,000	7,200	7,300	7,400	15
20	3,000	3,600	3,900	4,000	4,100	20
25	1,100	1,800	2,000	2,200	2,300	25
30			900	1,100	1,300	30

### Notes to lifting capacity

Lifting capacities do not exceed 75% 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.



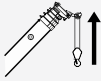




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# TECHNICAL DESCRIPTION

**BT 7077 / BT 70100**

## Boom, Jib and Rotation

	Full power fully synchronized telescopic keel boom	BT 7077 3 sections BT 70100 4 sections
	Boom length	BT 7077 30.5–77 ft BT 70100 30.5–100 ft
	Boom maximum sheave height	BT 7077 87 ft BT 70100 110 ft
	Boom elevation angle range (min/max) Boom up/down time Boom extension/retraction time	-8° / 82° 60 / 41 seconds 108 / 50 seconds
	Boom head	Quick reeving
	Maximum tip height: With optional jib 30.5–55 ft	BT 7077 140 ft BT 70100 163 ft
	370° non-continuous rotation	

## Operator Controls and Operator Aid

	Hoist line pull	12,900 lb
	Hoist line speed (3rd layer)	196 ft/min
	Rope diameter	5/8 in
	Breaking strength Permissible line pull	45,400 lb 12,900 lb
	Overhaul ball 1 Sheave block 2 Sheave block 3 Sheave block	7 t 20 t 30 t 40 t

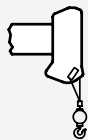


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# TECHNICAL DESCRIPTION

**BT 7077 / BT 70100**



1 part line	12,971 lb / 75.6 ft/min
2 part line	25,942 lb / 37.8 ft/min
3 part line	38,913 lb / 25.2 ft/min
4 part line	51,884 lb / 18.9 ft/min
5 part line	64,855 lb / 15.1 ft/min
6 part line	70,000 lb / 15.1 ft/min

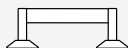


Fully proportional  
Independent outrigger controls



Load moment / Rated capacity indicator

## Understructure



<b>Front:</b> Out and down, To outer edge of pad	25 ft 6 in
<b>Rear:</b> Out and down, To outer edge of pad	17 ft 6 in

## Optional Features

- Two-stage jib
- 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
- Continuous rotation
- Oil cooler
- Single front bumper outrigger
- Hydraulic hose reel
- Tool box



## **BT 7077 / BT 70100**

**[www.terexcranes.com](http://www.terexcranes.com)**

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