TEREX®

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

WORKS FOR YOU.™

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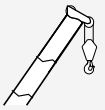
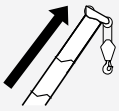
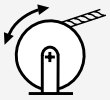
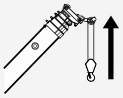
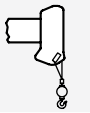
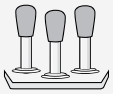
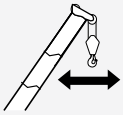
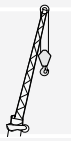
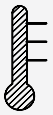
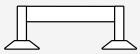
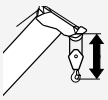
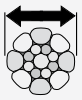
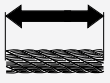
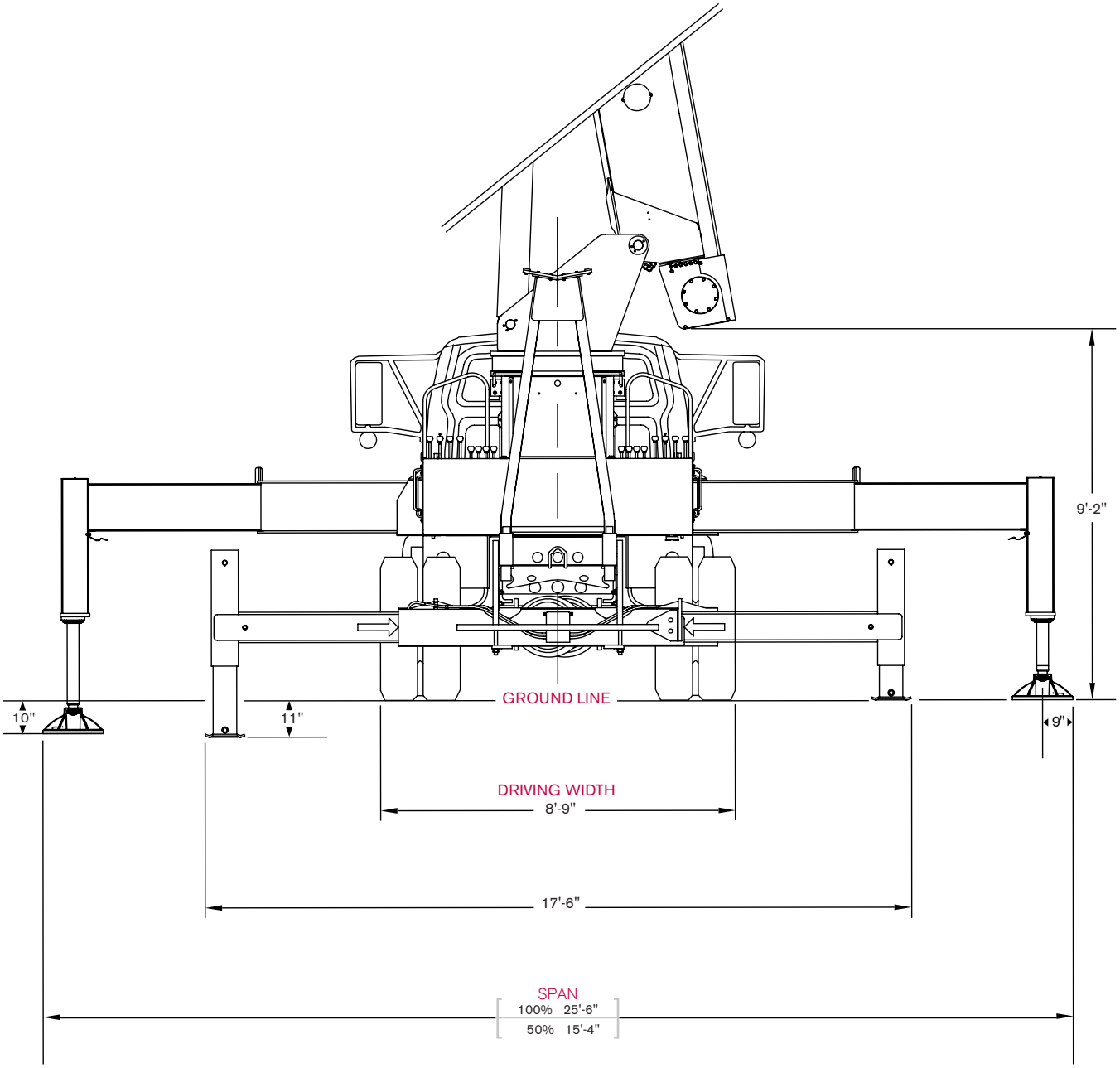
KEY

	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

Crane Dimensions

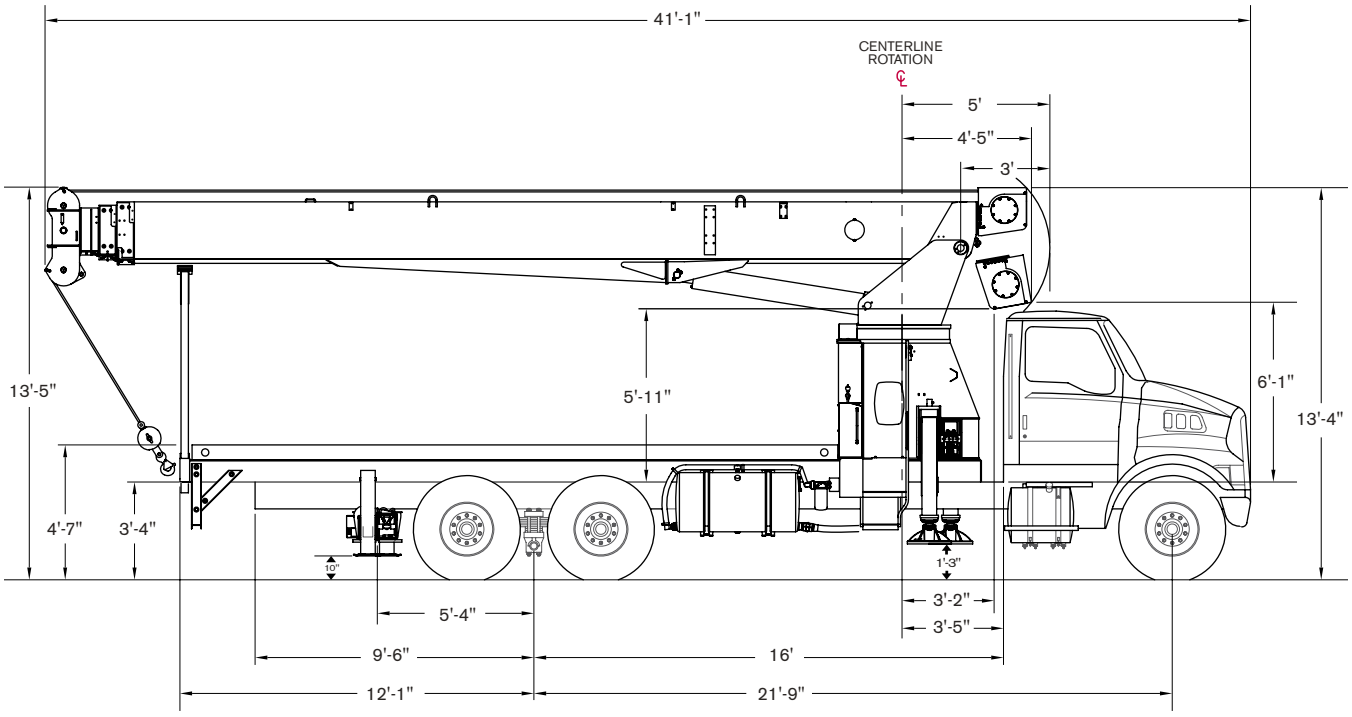
BT 7077 / BT 70100



DIMENSIONS

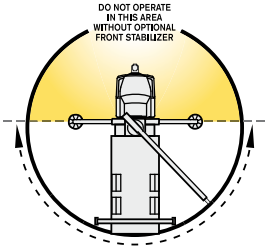
Crane Dimensions

BT 7077 / BT 70100



Area of Operation

BT 7077 / BT 70100



Mounting Specifications

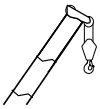
BT 7077 / BT 70100

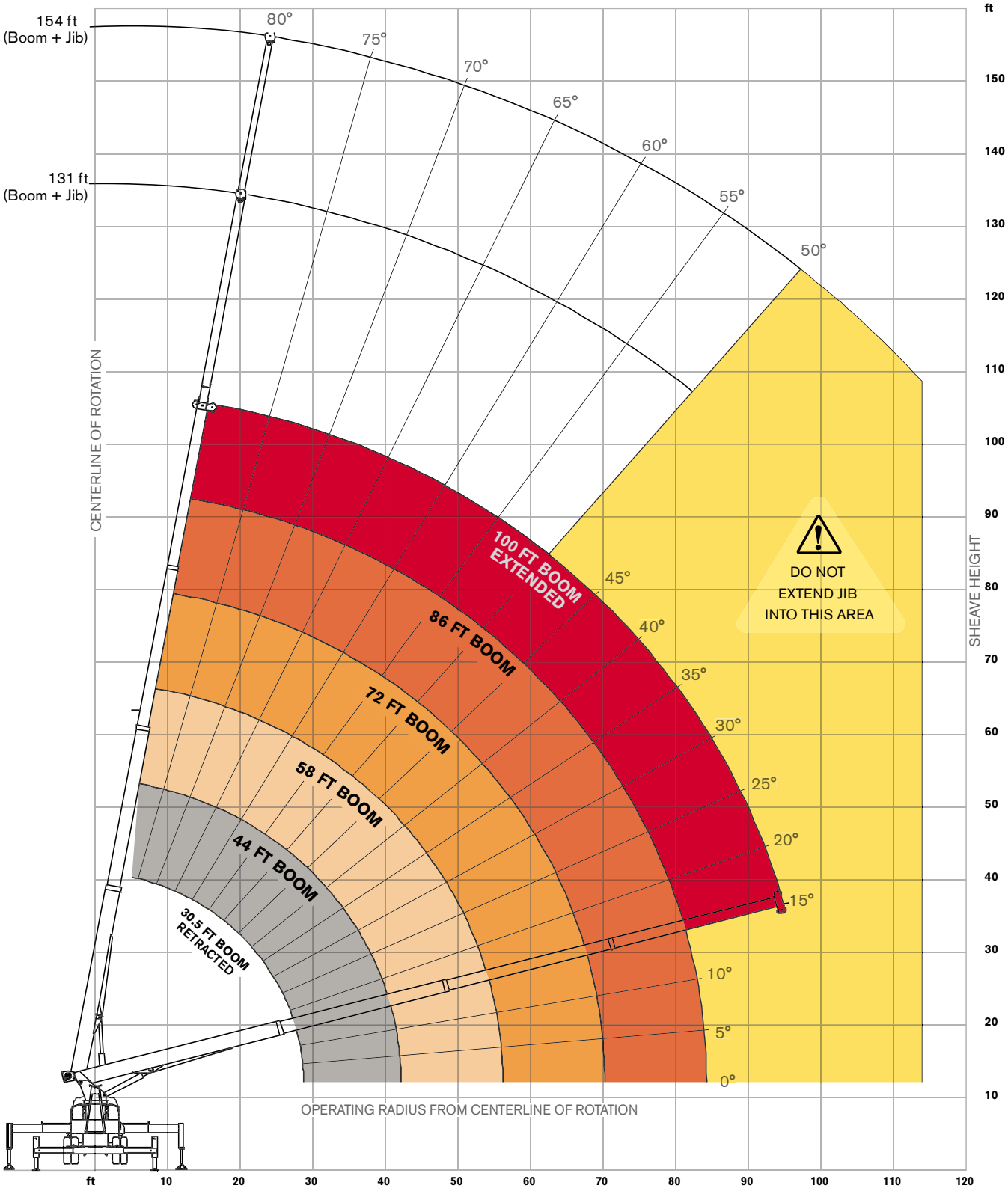
Chassis Recommendation	
Gross Vehicle Weight Rating	54,000 lb
Front Axle Weight Rating	20,000 lb
Rear Axle Weight Rating	34,000 lb
Wheelbase	261 +/– 4 in
Cab to Axle	192 +/– 4 in
Afterframe	114 +/– 4 in
RBM per Frame Rail	3,300,000 lb/in
Frame Height (Unloaded)	40 in
Exhaust	Vertical Right Side

RANGE DIAGRAM

Outriggers Fully Extended (100%)

BT 70100



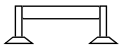


TEREX®

BOOM LOAD CHARTS

BT 70100

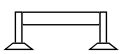
Outriggers Fully Extended (100%)

 (100%) 30.5 –100 ft

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	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

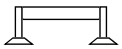
Boom at 0º

 (100%) 30.5 –100 ft

Standard ASME B30.5

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

With Jib, Retracted and Extended

 (100%) 30.5 –100 ft

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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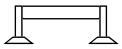
BOOM LOAD CHARTS

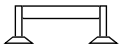
BT 70100

Outriggers Extended Mid-Position (50%)

 (50%) 30.5 –100 ft Standard ASME B30.5

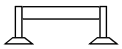
	Boom Length						
	30.5	44	58	72	86	100	
ft	lb	lb	lb	lb	lb	lb	ft
5	70,000						5
8	47,000						8
10	42,100	31,300					10
12	37,300	31,700	31,100				12
15	31,600	31,600	30,500	27,600			15
20	16,900	11,100	18,000	18,600	18,300		20
25	10,100	7,400	11,400	11,600	11,700	11,800	25
30		5,000	7,700	7,900	8,000	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 0º

 (50%) 30.5 –100 ft Standard ASME B30.5

	Boom Length						
	30.5	44	58	72	86	100	
º	lb	lb	lb	lb	lb	lb	º
0	7,100	2,700	–	–	–	–	0

With Jib, Retracted and Extended

 (50%) 30.5 –100 ft 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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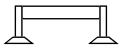
BOOM LOAD CHARTS

BT 70100

Outriggers Fully Retracted (0%)

 (0%)

30.5 –100 ft

Standard ASME B30.5

	Boom Length						
	30.5	44	58	72	86	100	
ft	lb	lb	lb	lb	lb	lb	ft
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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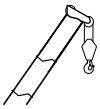
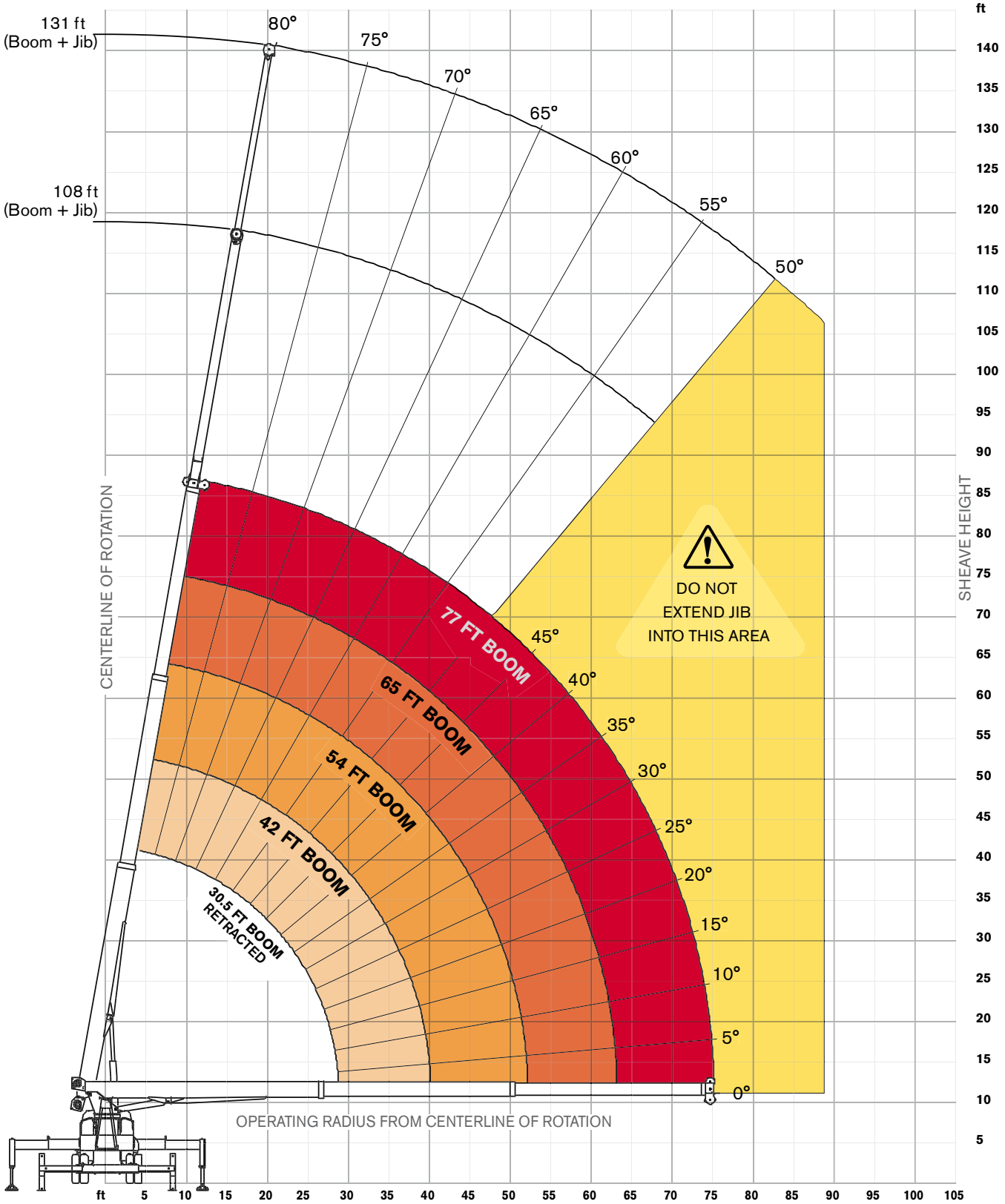
RANGE DIAGRAM

Outriggers Fully Extended (100%)

BT 7077

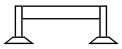




BOOM LOAD CHARTS

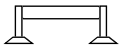
BT 7077

Outriggers Fully Extended (100%)

 (100%) 30.5 –77 ft Standard ASME B30.5

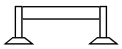
	Boom Length					
	30.5	42	54	65	77	
ft	lb	lb	lb	lb	lb	ft
5	70,000					5
8	55,500	53,500				8
10	46,900	45,000	43,800			10
12	40,600	38,900	37,700	37,000		12
15	33,800	32,300	31,200	30,500	25,000	15
20	25,000	25,200	24,300	23,600	20,200	20
25	18,900	19,500	19,800	19,200	16,700	25
30		15,500	15,800	16,000	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 0º

 (100%) 30.5 –77 ft Standard ASME B30.5

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

With Jib, Retracted and Extended

 (100%) 30.5 –77 ft Standard ASME B30.5

	Jib Capacities for All Boom Lengths								
	80º	78º	75º	70º	65º	60º	55º	50º	
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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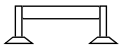
BOOM LOAD CHARTS

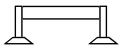
BT 7077

Outriggers Extended Mid-Position (50%)

 (50%) 30.5 –77 ft Standard ASME B30.5

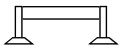
	Boom Length					
	30.5	42	54	65	77	
ft	lb	lb	lb	lb	lb	ft
5	61,900					5
8	49,600	49,900				8
10	43,600	43,900	43,800			10
12	38,800	38,900	37,700	37,000		12
15	33,200	32,300	31,200	30,500	25,000	15
20	17,700	18,200	18,400	18,600	18,700	20
25	11,100	11,800	12,000	12,200	12,300	25
30		8,200	8,500	8,700	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 0º

 (50%) 30.5 –77 ft Standard ASME B30.5

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

With Jib, Retracted and Extended

 (50%) 30.5 –77 ft 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

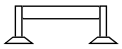
Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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.

BOOM LOAD CHARTS

BT 7077

Outriggers Fully Retracted (0%)

 (0%)

30.5 –77 ft

Standard ASME B30.5

	Boom Length					
	30.5	42	54	65	77	
ft	lb	lb	lb	lb	lb	ft
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

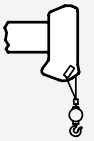
	Full power fully synchronized telelscopic keel boom	BT 7077 BT 70100	3 sections 4 sections
	Boom length	BT 7077 BT 70100	30.5–77 ft 30.5–100 ft
	Boom maximum sheave height	BT 7077 BT 70100	87 ft 110 ft
	Boom elevation angle range (min/max) Boom up/down time Boom extension/retraction time		-8° / 82° 60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

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

Front: Out and down, To outer edge of pad	25 ft 6 in
Rear: 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

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Effective Date: November 2010. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade-names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex® is a registered trademark of Terex Corporation in the USA and many other countries. Copyright 2010 Terex Corporation..

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Brochure Reference: TC-DS-I-E-BT 7077/70100-11/10

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