



BT 3870
19 US t Lifting Capacity
Boom Truck Cranes
Datasheet
Imperial

BT 3870



BT 3870 S
model

Features:

- ▶ 19 US t @ 5 ft capacity at rated distance from center of rotation
- ▶ 70 ft maximum boom length
- ▶ 80 ft maximum tip height
- ▶ Optional single stage 24 ft or 24-40 ft jib
- ▶ 120 ft maximum sheave height with 40 ft jib
- ▶ Behind cab mounting with enhanced dual operator console
- ▶ Electronic rated capacity indicator with work area definition
- ▶ Quick reeving dual sheave boom head

WORKS FOR YOU.™

Key

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Dimensions

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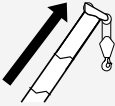
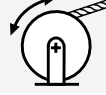
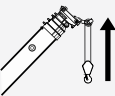
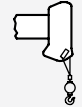


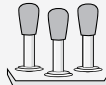
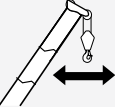







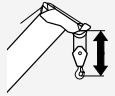




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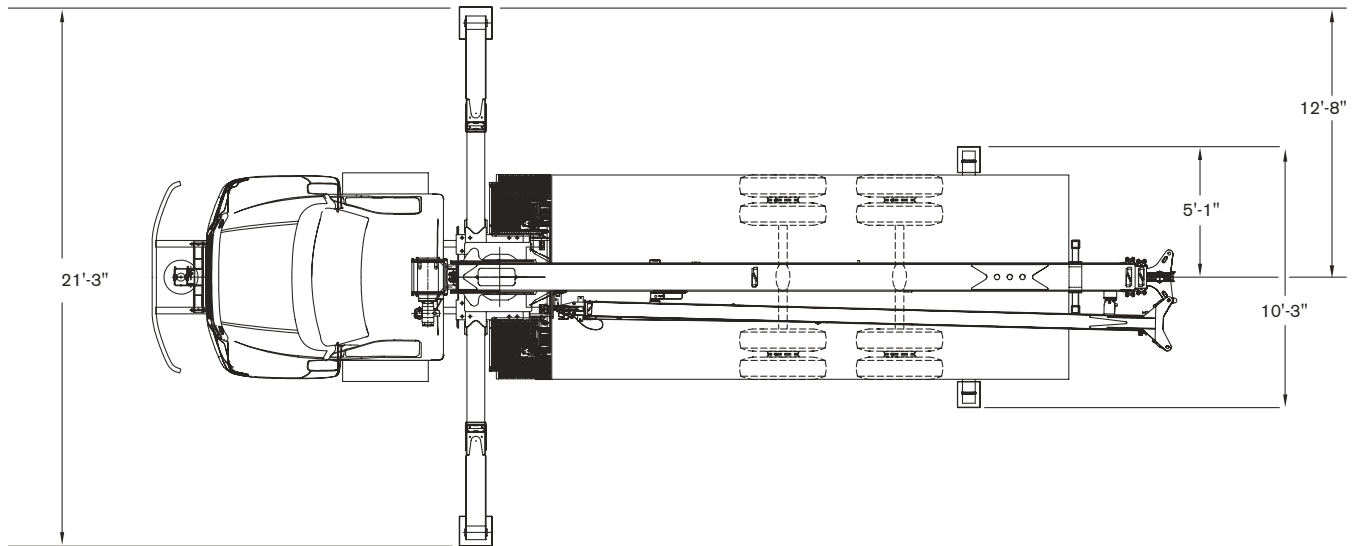
	Main boom		Main Hoist
	Boom length		Hoist line speed
	Tip height		Part line
	Telescoping mode		Operator aid
	Boom angle		Controls
	Working radius		Hydraulics
	Boom with jib		Working temperature
	Boom head		Outriggers
	Hook block		Working speeds
	Hook to head sheave pin		Rope – Standard / Optional
	Rotation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

DIMENSIONS

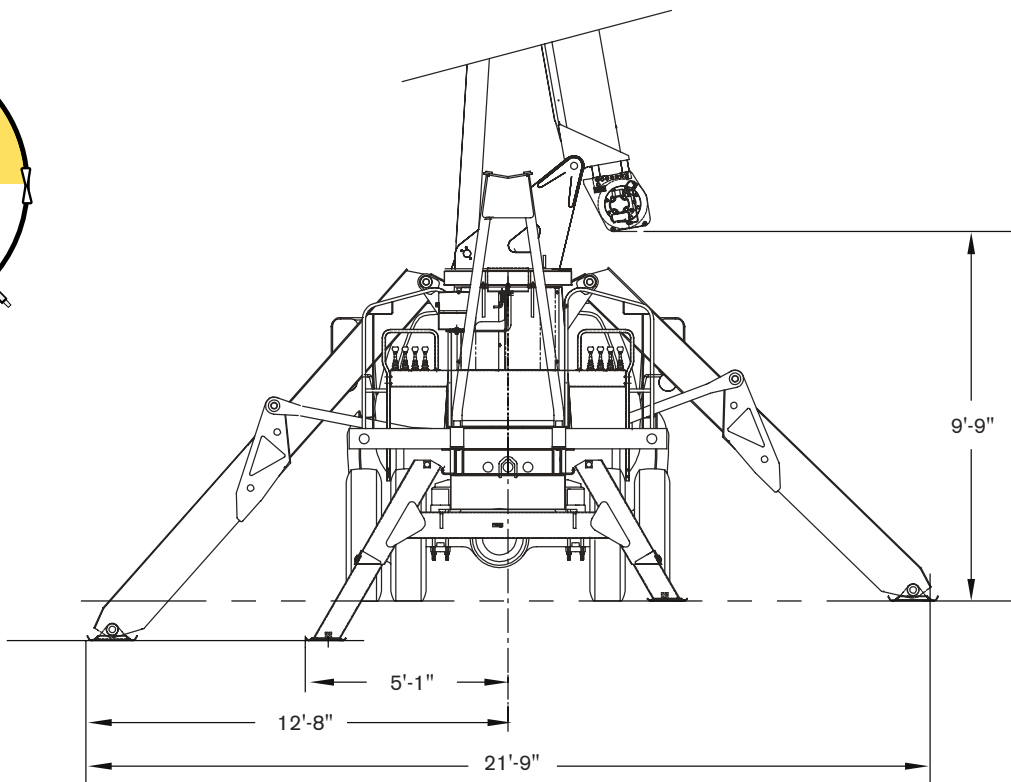
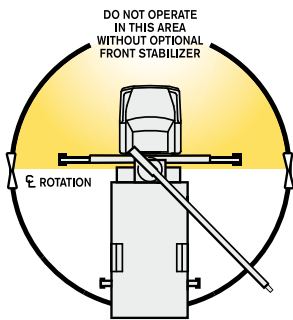
BT 3870

Crane Dimensions

BT 3870T



Area of Operation

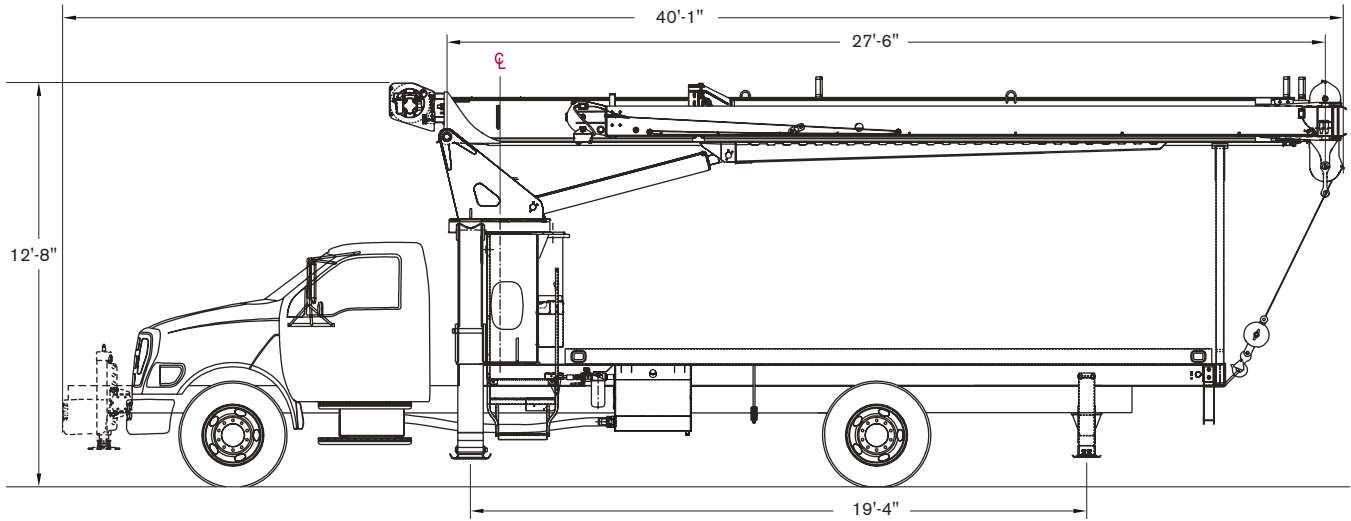


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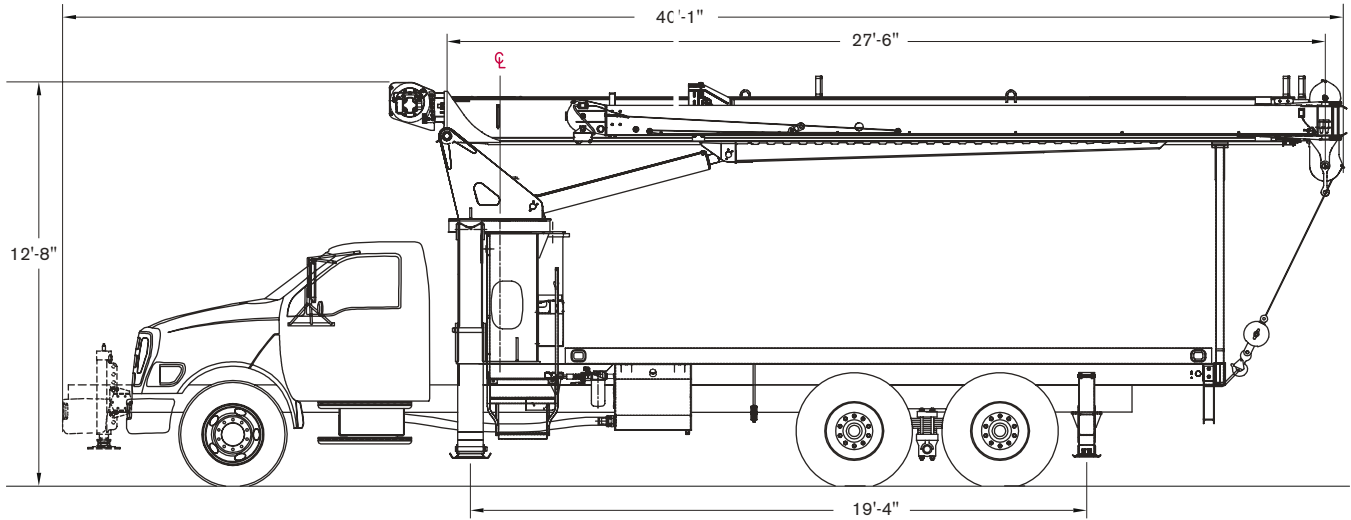
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Crane Dimensions

BT 3870 S



BT 3870 T



Mounting Specifications

Chassis Recommendations

BT 3870 S

Gross vehicle weight rating	33,000 lb
Front axle weight rating	12,000 lb
Rear axle weight rating	21,000 lb
Frame section modulus	16.98 in ³
Exhaust	Left side under cab with vertical tailpipe
Wheelbase	242 +/- 4 in
Cab to axle	168 +/- 4 in
Afterframe	100 +/- 4 in
RBM per frame rail	1,800,000 lb/in
Frame height (unloaded)	40 +/- 3 in

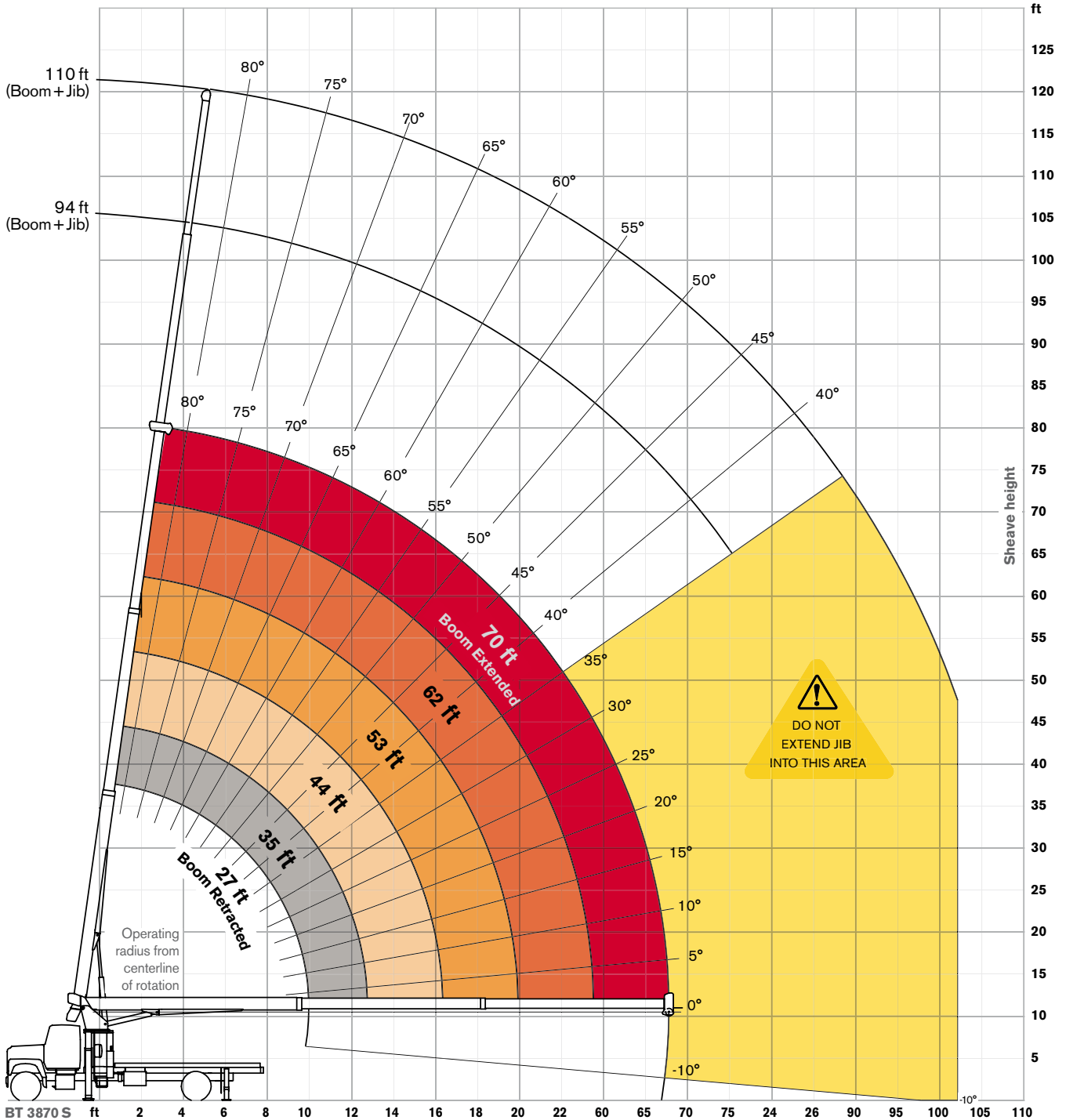
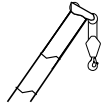
BT 3870 T

Gross vehicle weight rating	52,000 lb
Front axle weight rating	18,000 lb
Rear axle weight rating	34,000 lb
Frame section modulus	16.98 in ³
Exhaust	Left side under cab with vertical tailpipe
Wheelbase	260 +/- 6 in
Cab to axle	192 +/- 6 in
Afterframe	114 +/- 4 in
RBM per frame rail	1,800,000 lb/in
Frame height (unloaded)	40 +/- 3 in

RANGE DIAGRAM

Outriggers Fully Extended (100%)

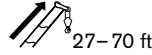
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

BOOM LOAD CHARTS

BT 3870 S

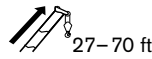
Outriggers Fully Extended (100%)





Standard ASME B30.5

	Boom Length						
	27	35	44	53	62	70	
ft	lb	lb	lb	lb	lb	lb	ft
5	38,000						5
8	26,400						8
10	22,200	21,200	20,500				10
12	19,300	18,400	17,700	17,200			12
15	16,200	15,400	14,700	14,300	13,900	12,000	15
20	12,600	12,100	11,600	11,100	10,800	10,500	20
25	9,200	9,700	9,500	9,100	8,800	8,600	25
30		6,700	7,100	7,200	7,300	7,200	30
35			5,200	5,400	5,500	5,600	35
40			4,000	4,200	4,300	4,400	40
45				3,300	3,400	3,500	45
50				2,600	2,700	2,800	50
55					2,200	2,300	55
60					1,800	1,900	60
65						1,500	65

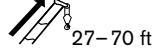
Boom at 0°





Standard ASME B30.5

	Boom Length						
	27	35	44	53	62	70	
°	lb	lb	lb	lb	lb	lb	°
0	6,900	5,100	3,500	2,400	1,700	1,300	0

With Jib, Retracted and Extended



Standard ASME B30.5

	Jib Capacities for All Boom Lengths										
	80°	75°	70°	65°	60°	55°	50°	45°	40°	35°	
ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	ft
24	3,900	3,600	3,200	2,500	2,100	1,900	1,700	1,400	1,100	900	24
40	2,200	2,100	2,000	1,900	1,500	1,300	1,100	900	800	600	40

Notes to lifting capacity

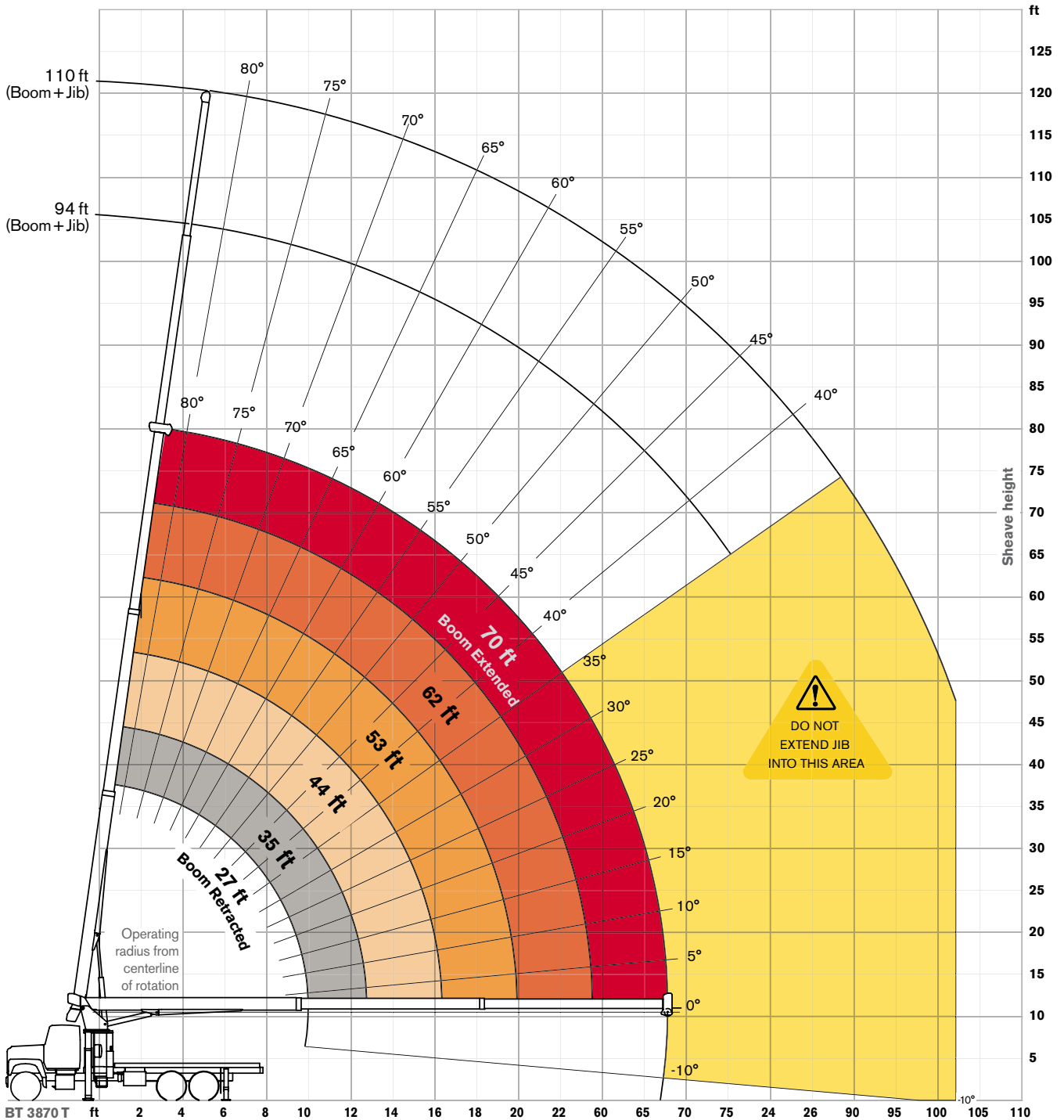
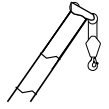
Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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.

RANGE DIAGRAM

Outriggers Fully Extended (100%)

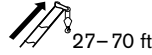
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

BOOM LOAD CHARTS

BT 3870 T

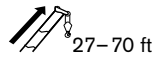
Outriggers Fully Extended (100%)





Standard ASME B30.5

	Boom Length						
	27	35	44	53	62	70	
ft	lb	lb	lb	lb	lb	lb	ft
5	38,000						5
8	26,400						8
10	22,200	21,200	20,500				10
12	19,300	18,400	17,700	17,200			12
15	16,200	15,400	14,700	14,300	13,900	12,000	15
20	12,600	12,100	11,600	11,100	10,800	10,500	20
25	9,200	9,900	9,500	9,100	8,800	8,600	25
30		8,000	8,000	7,700	7,400	7,200	30
35			6,800	6,600	6,400	6,200	35
40			5,400	5,700	5,600	5,400	40
45				4,600	4,800	4,800	45
50				3,800	3,900	3,900	50
55					3,200	3,300	55
60					2,600	2,800	60
65						2,400	65

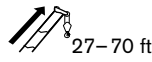
Boom at 0°





Standard ASME B30.5

	Boom Length						
	27	35	44	53	62	70	
°	lb	lb	lb	lb	lb	lb	°
0	6,900	5,100	4,000	3,100	2,400	1,900	0

With Jib, Retracted and Extended



Standard ASME B30.5

	Jib Capacities for All Boom Lengths										
	80°	75°	70°	65°	60°	55°	50°	45°	40°	35°	
ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	ft
24	3,900	3,600	3,200	2,500	2,100	1,900	1,700	1,500	1,400	1,300	24
40	2,200	2,100	2,000	1,900	1,500	1,300	1,100	900	800	700	40

Notes to lifting capacity



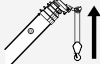




Lifting capacities do not exceed 85% of tipping load. Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings. Consult operation manual for further details.

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TECHNICAL DESCRIPTION

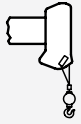
BT 3870

Boom, Jib and Rotation

	Four-section full power fully synchronized telescopic keel boom	70 ft
	Boom length	28-70 ft
	Boom maximum tip height	80 ft
	Boom elevation angle range (min/max) Boom up/down time Boom extension/retraction time	-10° / 80° 25/16 seconds 61/29 seconds
	Quick reeving dual sheave boom head	
	Maximum tip height: With optional single stage 24 ft jib Maximum tip height: With optional two stage 24-40 ft jib	104 ft 120 ft
	370 degree non-continuous rotation Optional continuous rotation (requires front bumper outrigger)	

Operator Controls and Operator Aid

	Hoist line pull (1st layer)	11,400 lb
	Hoist line speed 2-speed operation	150/220 ft/min
	Rope diameter	9/16 in
	Breaking strength	46,000 lb
	Overhaul ball 1 Sheave block 2 Sheave block	7 US t 17.5 US t 25 US t



1 part line
2 part line
3 part line
4 part line

9,700 lb / 220 ft/min
19,400 lb / 110 ft/min
29,100 lb / 73 ft/min
38,000 lb / 55 ft/min

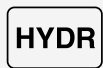


Fully proportional



Electronic rated capacity indicator

Hydraulic System



Hydraulic hoist with gear motor and planetary reduction gearing provides 2-speed operation

Winch capacity
Boom capacity
Swing capacity

32 gal/min
17 gal/min
8 gal/min

Understructure



Front: Link-type
To outer edge of pad
Rear: A-frame
To outer edge of pad

21 ft 9 in

10 ft 2 in

Dual outrigger controls on both sides of the carrier.

Optional Features

- Single and two-stage jibs
- Multi-part load blocks
- Main winch with 2 speed motor
- Wood or steel flatbed
- Extra heavy duty wood flatbeds
- Extra heavy duty steel flatbeds
- Radio remote controls
- Two-man basket
- Hoist drum tensioner
- Continuous rotation
- Oil cooler
- Single front bumper outrigger (required for 370° or continuous rotation)
- Tool box
- Inching control for hoist operation at rear of subframe, for one man hook ball stowage and deploy

Effective Date: January 2015. 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.

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