



BT 28106
28 USt Lifting Capacity
Boom Truck Cranes
Datasheet
Imperial

BT 28106



Features

- ▶ 28 USt @ 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, offsettable 0°, 15°, 30°
- ▶ 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
- ▶ K-pattern outriggers

WORKS FOR YOU.™

Key

..... 3

Dimensions

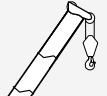
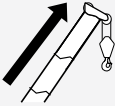


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Technical description

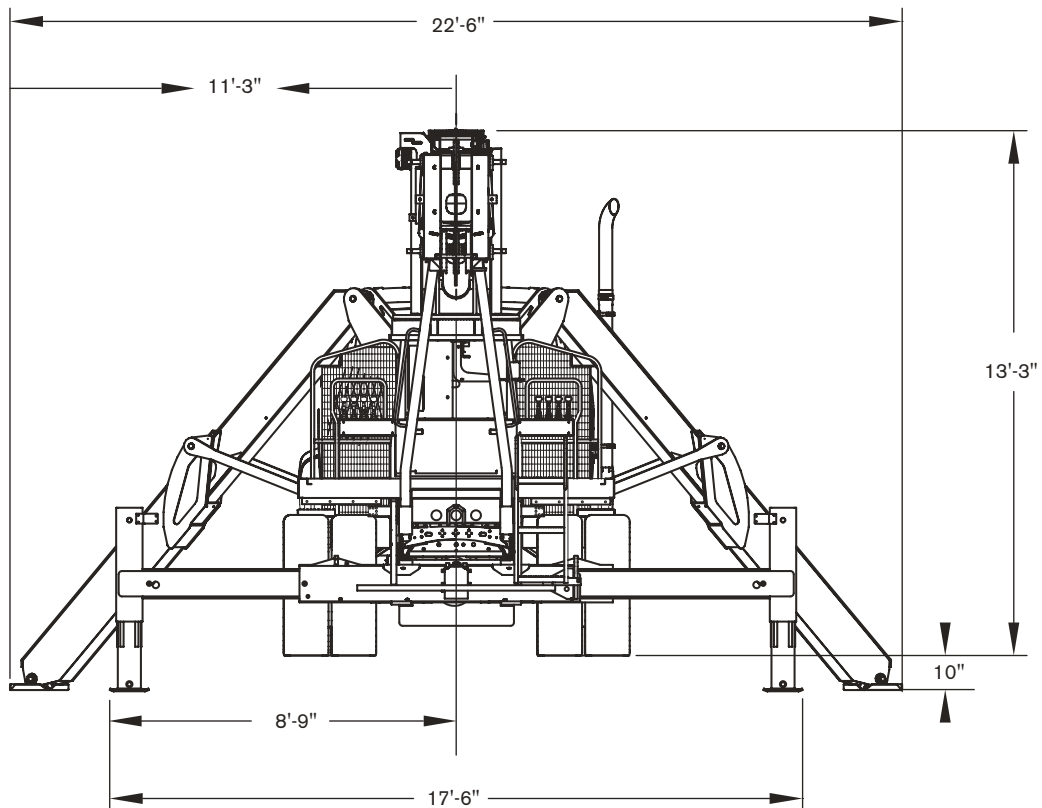
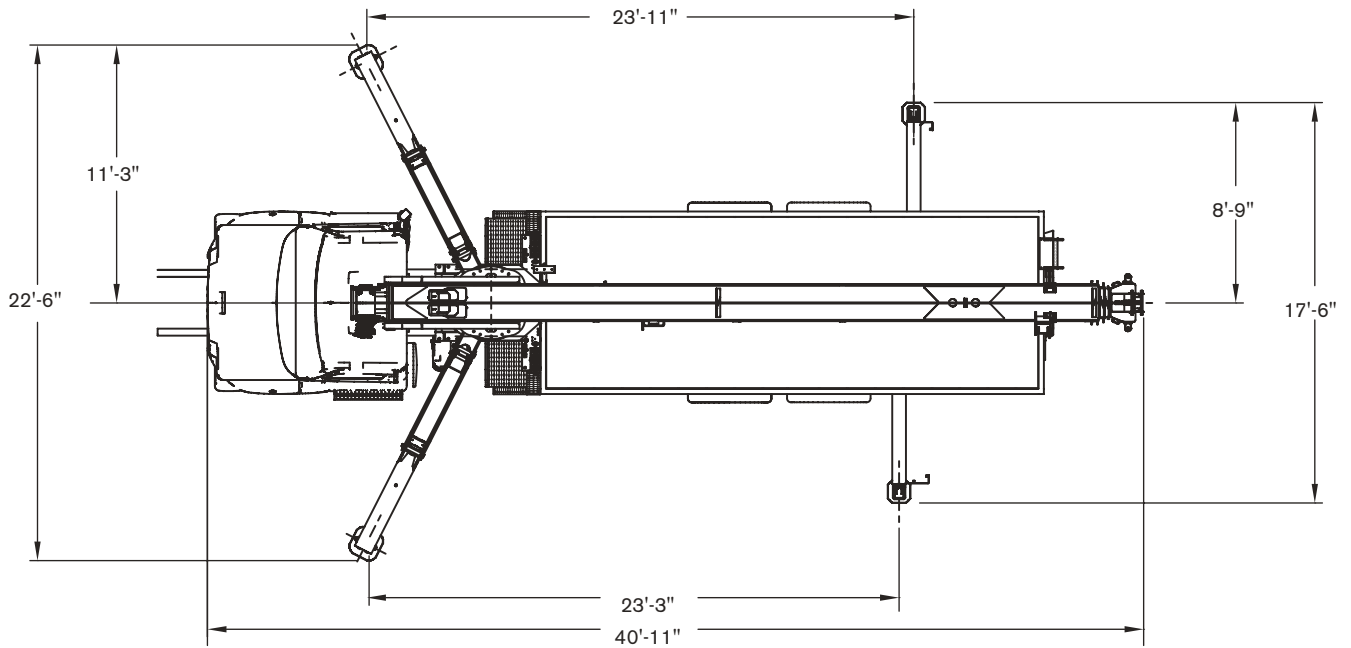
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| | | | |
|---|----------------------------|---|-------------------------------------|
|  | Main boom |  | Main Hoist |
|  | Boom length |  | Hoist line speed |
|  | Tip height |  | Part line |
|  | Telescoping mode |  | Operator aid |
|  | Boom angle |  | 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

BT 28106

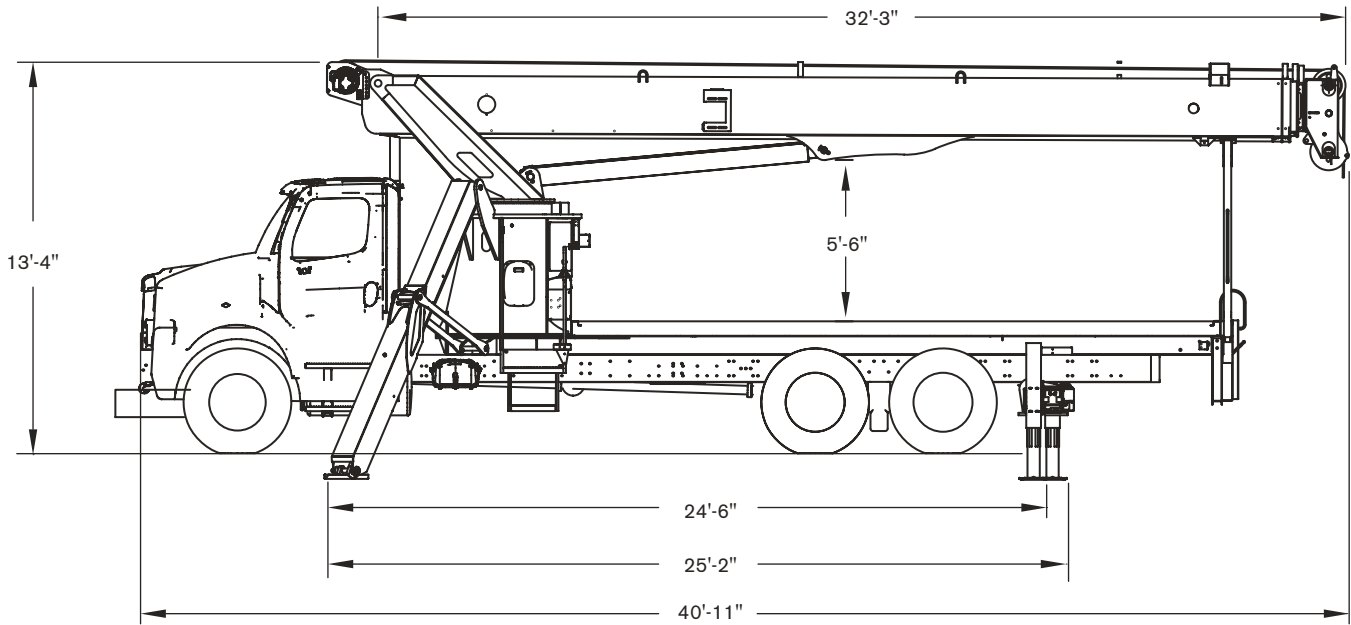
Crane Dimensions



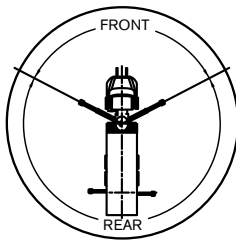
DIMENSIONS

BT 28106

Crane Dimensions



Area of Operation



Mounting Specifications

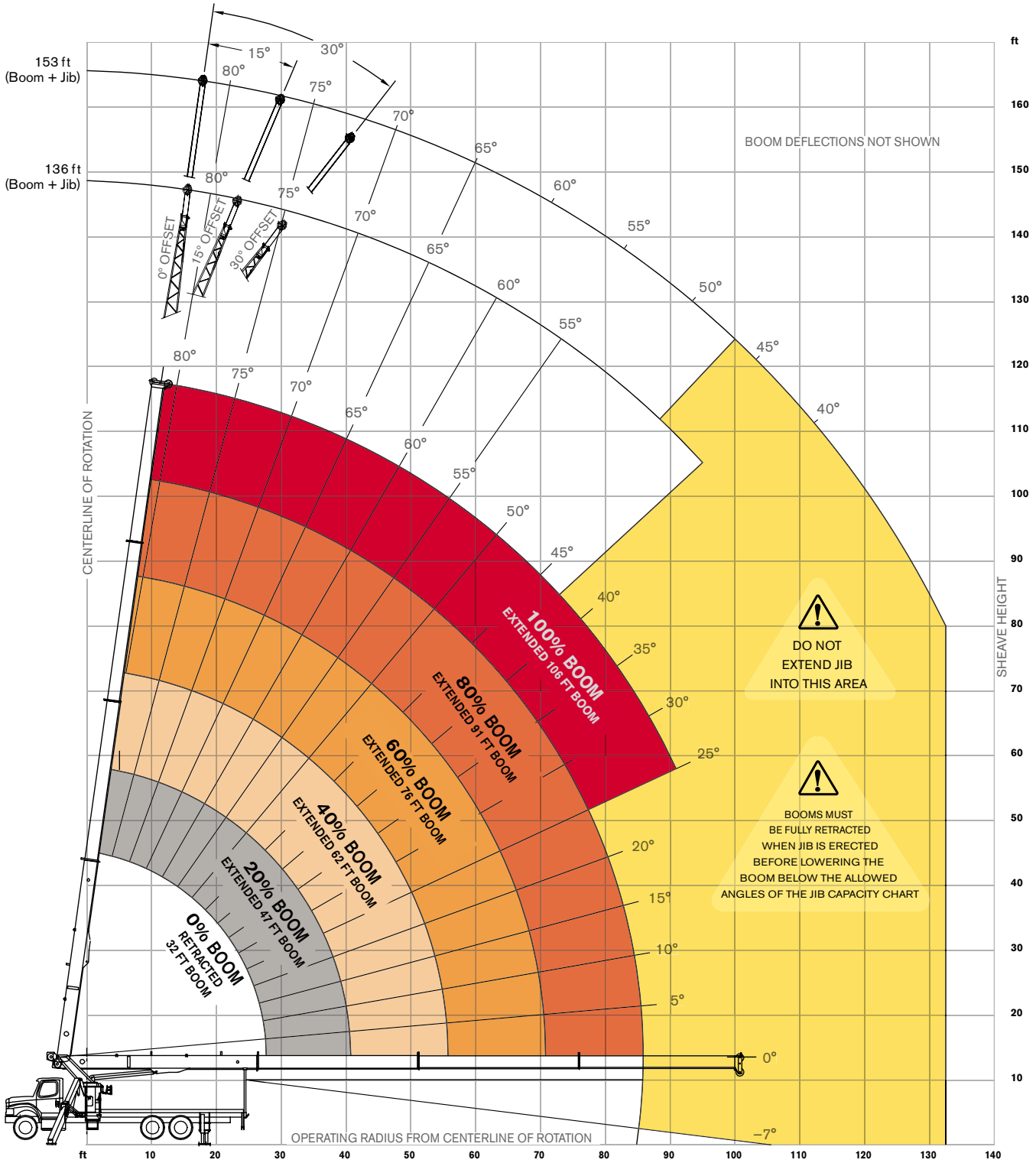
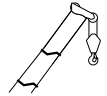
| | | | |
|---------------------------------------|-----------------|---|------------|
| Gross Vehicle Weight Rating | 52,000 lb | Estimated installed crane weight | 30,000 lbs |
| Front Axle Weight Rating | 18,000 lb | Crane fitted with jib and mounted on freightliner chassis with flatbed. | |
| Rear 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.

RANGE DIAGRAM

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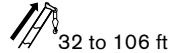
Outriggers Fully Extended (100%)



BOOM LOAD CHART

BT 28106

Outriggers Fully Extended (100%)



Standard ASME B30.5

| ft | Boom Length | | | | | | | | | | | | ft |
|----|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| | 32 | | 47 | | 62 | | 76 | | 91 | | 106 | | |
| | lb | lb | lb | lb | lb | lb | lb | lb | lb | lb | lb | lb | |
| 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 | | | | | | | 3,000 | 1,600 | 3,150 | 1,650 | 3,300 | 1,700 | 60 |
| 65 | | | | | | | 2,400 | 1,050 | 2,600 | 1,150 | 2,700 | 1,200 | 65 |
| 70 | | | | | | | 1,900 | 500 | 2,050 | 700 | 2,200 | 800 | 70 |
| 75 | | | | | | | | | 1,650 | 400 | 1,800 | 500 | 75 |
| 80 | | | | | | | | | 1,250 | | 1,350 | | 80 |
| 85 | | | | | | | | | 800 | | 1,000 | | 85 |
| 90 | | | | | | | | | | | 650 | | 90 |
| 95 | | | | | | | | | | | 350 | | 95 |

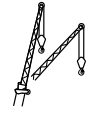
Notes to lifting capacity

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.

LOAD CHART

BT 28106



With Jib, Retracted



Standard ASME B30.5

| ft | Jib 30 ft | | | | | | | | | ft |
|-----|-----------|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| | 0° | | | 15° | | | 30° | | | |
| | ° | lb | lb | ° | lb | lb | ° | lb | lb | |
| 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



Standard ASME B30.5

| ft | Jib 47 ft | | | | | | | | | ft |
|-----|-----------|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| | 0° | | | 15° | | | 30° | | | |
| | ° | lb | lb | ° | lb | lb | ° | lb | lb | |
| 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

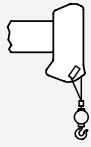
BT 28106

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) | -7° / 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 | |

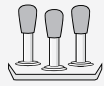
Operator Controls, Operator Aids

| | | |
|---|---|-------------------------------------|
|  | 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 (standard rope) | 37,000 lb 10,500 lb |
|  | Rope length | 350 ft |
|  | Overhaul ball 1 Sheave block 2 Sheave block 3 Sheave block | 7 USt 15 USt 25 USt 30 USt |

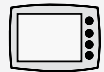


1 part line
 2 part line
 3 part line
 4 part line
 5 part line
 6 part line
 7 part line, optional rotational resistant rope only

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

22 ft 6 in

Rear, "H" pattern (out and down),
 To outer edge of pad

17 ft 6 in

Optional Features

- 360° swing continuous rotation
- Two-stage jibs with offset capability 0°, 15°, 30°
- 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

A large rectangular area with a light gray background and horizontal lines, intended for taking notes.

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