

National Crane Series 800D

Product Guide

ASME B30.5
Imperial 85%

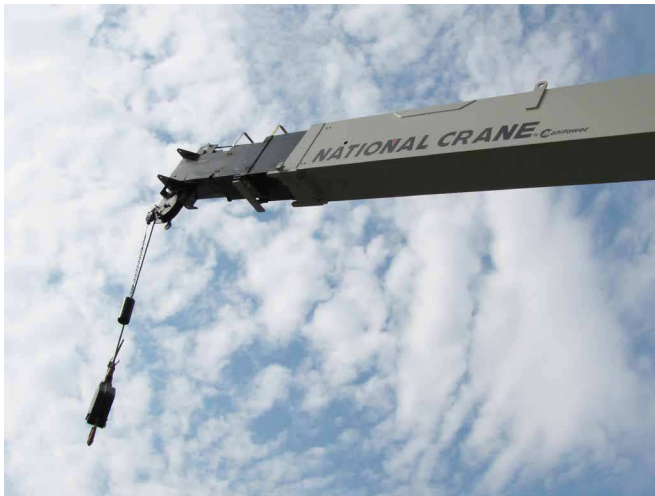


Features

- 20,87 t (23 USt) rating
- 30,48 m (100 ft) four-section boom
- Self-lubricating "Easy Glide" wear pads
- Internal Anti-Two Block



Features



Four-section boom

At 30,48 m (100 ft) the Series 800D boom is the longest in its size range. The longer boom allows the operator to perform more lifts without the use of a jib, reducing setup time and improving efficiency.

Overload protection

All National Crane boom trucks are equipped with overload protection. A Load Moment Indicator (LMI) is required on all machines equipped with jibs or personnel baskets.



Optional auger attachment

Available on the 890D only, the 14,000 ft/lb two-speed auger attachment has a maximum digging radius of 39 ft.

National Crane Series 800D

- 20,87 t (23 USt) maximum capacity
- 46,32 m (152 ft) maximum vertical reach
- 33,22 m (109 ft) maximum vertical hydraulic reach

Boom tip

The speedy-reeve boom tip and sheave blocks simplify rigging changes. Load line wedge socket removal is not required for reeving of multi-part line options.



Easy Glide boom wear pads

These wear pads reduce the conditions that cause boom chatter and vibration resulting in smoother crane operation.

Features



**Product may be shown with optional equipment.*

Best in class performance and serviceability

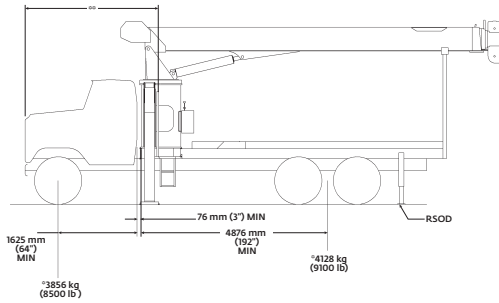
- The stronger standard torsion box improves rigidity, reduces truck frame flex and reduces the need for counterweight.
- Painting crane components before assembly reduces the possibility of rust, improves serviceability and enhances the appearance of the machine.
- State of the art control valve provides smoother operation. This design eliminates parts, reducing repair costs and improving the machines serviceability.
- Sheave bearings on the boom and retract cables can be greased through access holes in the boom side plates and the number of internal boom parts has been reduced to improve serviceability.
- Burst of Speed winch provides faster winch payout and pickup of unloaded cable.
- Adjustable swing speed is standard on the Series 800D. A control knob located on the swing motor brake release valve can be easily adjusted to the crane operator's swing speed preference.
- Internal anti-two block wire comes standard. It routes the wire through the inside of the boom eliminating the possibility of snagging the wire on obstructions.

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Mounting configurations

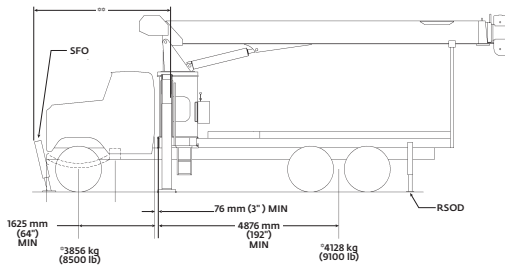
The configurations are based on the Series 800D with an 85% stability factor. The complete unit must be installed in accordance with factory requirements and a test performed to determine actual stability and counterweight requirements since individual truck chassis vary. Trucks with a frame height in excess of 107 cm (42 in) after mounting will have a final mounted unit height more than 411.5 cm (13 ft 6 in). Chassis that do not meet these minimum stability weights may require counterweight.



Configuration 1 – 8100D

| | |
|---|---|
| Working area | 180' |
| Gross Axle Weight Rating Front..... | 7257 kg (16,000 lb) |
| Gross Axle Weight Rating Rear..... | 15 422 kg (34,000 lb) |
| Gross Vehicle Weight Rating..... | 22 679 kg (50,000 lb) |
| Wheelbase..... | 650 cm (256 in) |
| Cab to Axle/trunnion (CA/CT)..... | 488 cm (192 in) |
| Frame Section Modulus (SM) under crane: 758 MPa (110,000 PSI) | 260.6 cm ³ (15.9 in ³) |
| Frame Section Modulus (SM) over rear stabilizers: 758 MPa (110,000 PSI) | 213.0 cm ³ (13.0 in ³) |
| Stability Weight, Front | 3856 kg (8500 lb) minimum* |
| Stability Weight, Rear | 4128 kg (9100 lb) minimum* |
| Estimated Average Final Weight | 18 507 kg (40,800 lb) |

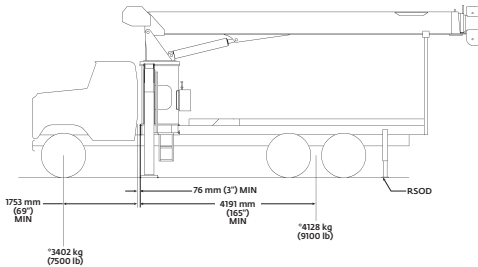
This configuration allows the installation of the Series 8100D on a chassis by using the subbase for a 6,71 m (22 ft) bed.



Configuration 2 – 8100D (add SFO for 360° stability)

| | |
|---|---|
| Working area | 360° |
| Gross Axle Weight Rating Front..... | 7257 kg (16,000 lb) |
| Gross Axle Weight Rating Rear..... | 15 422 kg (34,000 lb) |
| Gross Vehicle Weight Rating..... | 22 679 kg (50,000 lb) |
| Wheelbase..... | 650 cm (256 in) |
| Cab to Axle/trunnion (CA/CT)..... | 488 cm (192 in) |
| Frame Section Modulus (SM) under crane: 758 MPa (110,000 PSI) | 327.7 cm ³ (20.0 in ³) |
| Frame Section Modulus (SM) over rear stabilizers: 758 MPa (110,000 PSI) | 213.0 cm ³ (13.0 in ³) |
| Stability Weight, Front | 3856 kg (8500 lb) minimum* |
| Stability Weight, Rear | 4128 kg (9100 lb) minimum* |
| Estimated Average Final Weight | 18 688 kg (41,200 lb) |

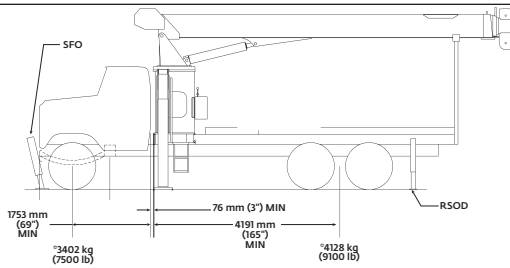
This mount requires front stabilizer for full capacity 360° around the truck. Front stabilizer gives the machine a solid base. This configuration requires a 6,71 m (22 ft) bed for rear overhang, and extended front frame rails for SFO mounting. NOTE: Chassis will require extended front frame rails for SFO mounting.



Configuration 3 – All boom lengths, other than 8100D

| | |
|---|---|
| Working area | 180° |
| Gross Axle Weight Rating Front..... | 7257 kg (16,000 lb) |
| Gross Axle Weight Rating Rear..... | 15 422 kg (34,000 lb) |
| Gross Vehicle Weight Rating..... | 22 679 kg (50,000 lb) |
| Wheelbase..... | 594 cm (234 in) |
| Cab to Axle/trunnion (CA/CT)..... | 419 cm (165 in) |
| Frame Section Modulus (SM) under crane w/ 758 MPa (110,000 PSI) | 260.6 cm ³ (15.9 in ³) |
| Frame Section Modulus (SM) over rear stabilizers: 758 MPa (110,000 PSI) | 213.0 cm ³ (13.0 in ³) |
| Stability Weight, Front | 3402 kg (7500 lb) minimum* |
| Stability Weight, Rear | 4128 kg (9100 lb) minimum* |
| Estimated Average Final Weight (890D) | 17 600 kg (38,800 lb)** |

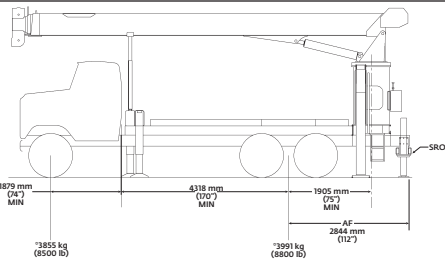
This configuration allows the installation of the Series 800D on a chassis with a subbase and bed combination which best fits the boom length. Depending on the boom length, the bed can be 18 ft, 20 ft or 22 ft. Not all bed lengths can be used with each boom due to rear overhang limits.



Configuration 4 – All boom lengths, other than 8100D

| | |
|---|---|
| Working area | 360° |
| Gross Axle Weight Rating Front..... | 7257 kg (16,000 lb) |
| Gross Axle Weight Rating Rear..... | 15 422 kg (34,000 lb) |
| Gross Vehicle Weight Rating..... | 22 679 kg (50,000 lb) |
| Wheelbase..... | 594 cm (234 in) |
| Cab to Axle/trunnion (CA/CT)..... | 419 cm (165 in) |
| Frame Section Modulus (SM) under crane w/ 758 MPa (110,000 PSI) | 327.7 cm ³ (20 in ³) |
| Frame Section Modulus (SM) over rear stabilizers: 758 MPa (110,000 PSI) | 213.0 cm ³ (13 in ³) |
| Stability Weight, Front | 3402 kg (7500 lb) minimum* |
| Stability Weight, Rear | 4128 kg (9100 lb) minimum* |
| Estimated Average Final Weight (890D) | 17 780 kg (39,200 lb) |

This mount requires front stabilizer for full capacity 360° around the truck. Front stabilizer gives the machine a solid base. Bed length and subbase combinations must match boom length to limit rear overhang. Extended front frame rails required for SFO mounting. NOTE: Chassis will require extended front frame rails for SFO mounting.



Configuration 5 – Rear Mount (all boom lengths)

| | |
|---|---|
| Working area | 360° |
| Gross Axle Weight Rating Front..... | 7257 kg (16,000 lb) |
| Gross Axle Weight Rating Rear..... | 18 143 kg (40,000 lb) |
| Gross Vehicle Weight Rating..... | 25 401 kg (56,000 lb) |
| Wheelbase..... | 620 cm (244 in) |
| Cab to Axle/trunnion (CA/CT)..... | 432 cm (170 in) |
| Frame Section Modulus (SM) under crane: 758 MPa (110,000 PSI) | 260 cm ³ (15.9 in ³) |
| Stability Weight, Front | 3856 kg (8500 lb) minimum* |
| Stability Weight, Rear | 3991 kg (8800 lb) minimum* |
| Estimated Average Final Weight (8100D) | 19 504 kg (43,000 lb) |

This configuration allows the rear-mount installation of the Series 800D. This configuration is 360° stable and allows the effective use of close working area to lift the heavier capacity loads. Maximum bed length is 4,87 m (16 ft). Requires single rear outrigger.

Notes:

- Gross Vehicle Weight rating (GVWR) is dependent on all components of the vehicle (axles, tires, springs, frame, etc.) meeting manufacturers' recommendations; always specify GVWR when purchasing trucks
- Diesel engines require a variable speed governor and energize-to-run fuel solenoid for smooth crane operation; electronic fuel injection requires EET engine remote throttle

- All mounting data is based on a National Series 800D with an 85 percent stability factor
- The complete unit must be installed in accordance with factory requirements, and a test performed to determine actual stability and counterweight requirements per SAE J765; contact the factory for details
- Transmission neutral safety interlock switch is required

*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.

**If the distance from the front bumper (SFO) to center of rotation exceeds 366 cm (144 in), the 12,19 m (40 ft) overall truck length restriction will be exceeded. Overall length restrictions vary from state to state. In some states it is legal to be more than 12,18 m (40 ft) in length, and some states allow overlength permits.

Specifications

Boom and jib combinations data

Available in three basic models.

Model 851D – Equipped with a 6,4 m - 15,5 m (21 ft - 51 ft) three-section boom. Maximum tip height is 18,9 m (62 ft).



Model 890D – Equipped with a 8,23 m - 27,43 m (27 ft - 90 ft) four-section boom. This model can be equipped with a 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib. Maximum tip height with 13,41 m (44 ft) jib is 43,58 m (143 ft).

8,23 m - 27,43 m (27 ft - 90 ft) four-section boom.



8,23 m - 27,43 m (27 ft - 90 ft) four-section boom.

8FJ44M 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib



Model 8100D – Equipped with a 8,99 m - 30,48 m (29.5 ft - 100 ft) four-section boom. This model can be equipped with a 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib. Maximum tip height with 13,41 m (44 ft) jib is 46,32 m (152 ft).

8,99 m - 30,48 m (29.5 ft - 100 ft) four-section boom.



8,99 m - 30,48 m (29.6 ft - 100 ft) four-section boom.

8FJ44M 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib


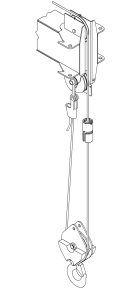
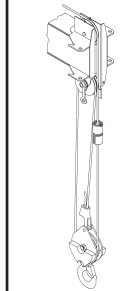
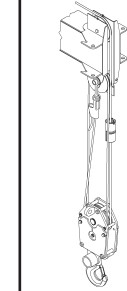
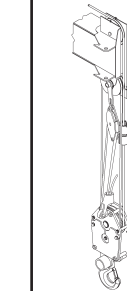
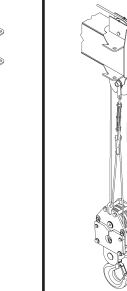


Note: Maximum tip is measured with outriggers/stabilizers fully extended.

Specifications

800D winch data

- All winch pulls and speeds in this chart are shown on the **fourth** layer
- Winch line pulls would increase on the first, second and third layers
- Winch line speed would decrease on the first, second and third layers
- Winch line pulls may be limited by the winch capacity or the ANSI 5 to 1 cable safety factor
- Hook blocks are rated at maximum capacity for the block. **Do not exceed rated cable pull with any block.**

| 1 part line | 2 part line | 3 part line | 4 part line | 5 part line | 6 part line |
|---|---|--|---|---|---|
|  |  |  |  |  |  |

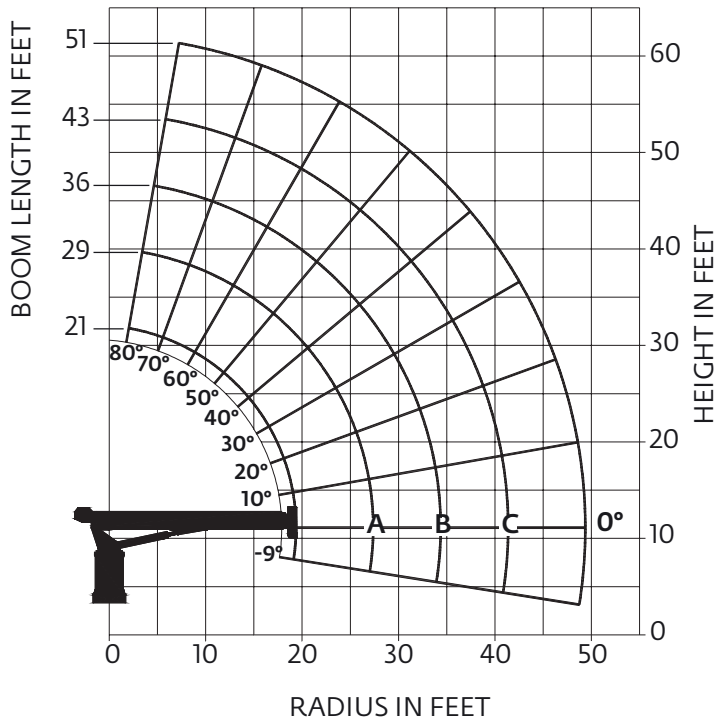
| Winch | Cable supplied | Average breaking strength | Lift and speed | Lift and speed | Lift and speed | Lift and speed | Lift and speed | Lift and speed |
|--------------------------|-----------------------------------|---------------------------|---|---|--|--|---|---|
| Standard planetary winch | 9/16" diameter rotation resistant | 17 463 kg (38,600 lb) | 3492 kg (7700 lb) 45 m/min (147 fpm) | 6985 kg (15,400 lb) 22 m/ (73 fpm) | 10 477 kg (23,100 lb) 15 m/min (49 fpm) | 13 970 kg (30,800 lb) 11 m/min (38 fpm) | 17 163 kg (38,500 lb) 9 m/min (29 fpm) | 20 865 kg (46,000 lb) 8 m/min (25 fpm) |
| With "Burst-of-Speed" | 9/16" diameter rotation resistant | 17 463 kg (38,600 lb) | 1360 kg (3000 lb) 62 m/min (206 fpm) | 2721 kg (6000 lb) 31 m/min (103 fpm) | 4082 kg (9000 lb) 20 m/min (68 fpm) | 5443 kg (12,000 lb) 15 m/min (51 fpm) | 6803 kg (15,000 lb) 12 m/min (41 fpm) | 8164 kg (18,000 lb) 10 m/min (34 fpm) |

| Winch | Bare drum pull | Allowable cable pull |
|----------------------------------|---------------------|----------------------|
| Standard rotation resistant rope | 4627 kg (10,200 lb) | 3493 kg (7700 lb) |

| Loadline deduct | | |
|-----------------|---------------------|-----------------|
| Block type | Rating | Weight |
| Downhaul weight | 3,49 t (3.85 USt) | 68 kg (150 lb) |
| 1-sheave block | 10,48 t (11.55 USt) | 138 kg (305 lb) |
| 2-sheave block | 17,46 t (19,25 USt) | 161 kg (355 lb) |
| 3-sheave block | 27,21 t (30.00 USt) | 261 kg (575 lb) |

Capacities

851D: 51 ft boom with no jib



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 6,1 m (20 ft) of live power lines or other conductors of electricity.
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

Load chart

| LOAD RADIUS (FEET) | LOADED BOOM ANGLE | 21 ft BOOM (lb) | LOADED BOOM ANGLE | A 29 ft BOOM (lb) | LOADED BOOM ANGLE | B 36 ft BOOM (lb) | LOADED BOOM ANGLE | C 43 ft BOOM (lb) | LOADED BOOM ANGLE | 51 ft BOOM (lb) |
|--------------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| 5 | 73.5 | 46,000 | | | | | | | | |
| 8 | 64 | 32,800 | 72 | 30,500 | 76 | 29,000 | | | | |
| 10 | 57.5 | 27,800 | 67.5 | 26,200 | 72.5 | 25,100 | 76 | 23,800 | 78 | 22,500 |
| 12 | 50.5 | 24,500 | 63 | 23,200 | 69 | 22,100 | 73 | 21,100 | 76 | 21,000 |
| 14 | 42.5 | 21,400 | 58.5 | 20,500 | 65.5 | 20,000 | 70 | 18,800 | 73.5 | 18,000 |
| 16 | 33 | 18,400 | 53.5 | 18,300 | 62 | 17,500 | 67 | 16,600 | 71 | 16,500 |
| 20 | | | 42.5 | 15,500 | 54 | 15,100 | 61 | 14,000 | 66 | 13,500 |
| 25 | | | 23 | 11,400 | 43 | 12,500 | 53 | 12,000 | 59.5 | 11,000 |
| 30 | | | | | 29 | 9300 | 43.5 | 10,000 | 53 | 9600 |
| 35 | | | | | | | 33 | 7800 | 46 | 8500 |
| 40 | | | | | | | 16 | 6000 | 37 | 6800 |
| 45 | | | | | | | | | 25 | 5800 |
| | 0 | 11,200 | 0 | 7200 | 0 | 5400 | 0 | 4200 | 0 | 3200 |

Note: Shaded areas are structurally limited capacities.

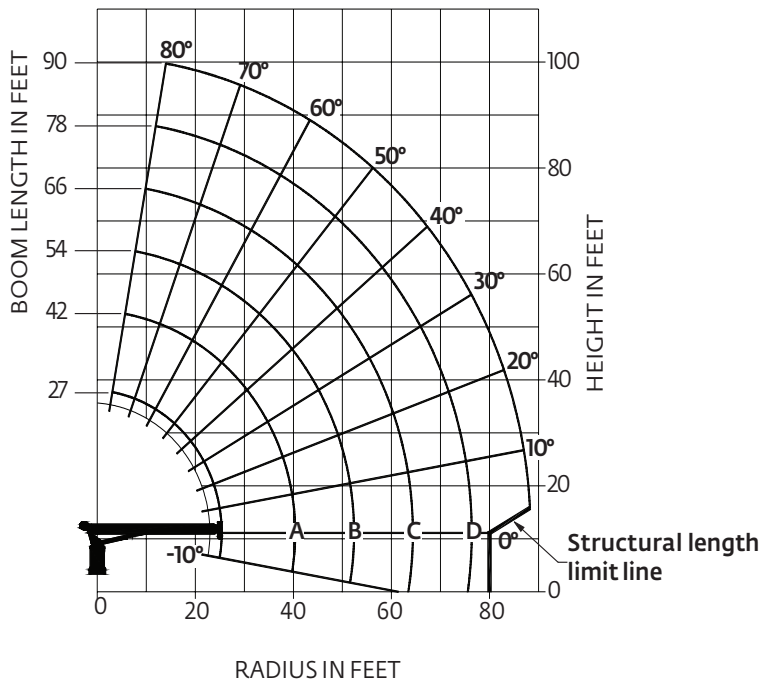
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Courtesy of Crane.Market

Capacities

890D: 90 ft boom with no jib



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 6,1 m (20 ft) of live power lines or other conductors of electricity.
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

Load chart

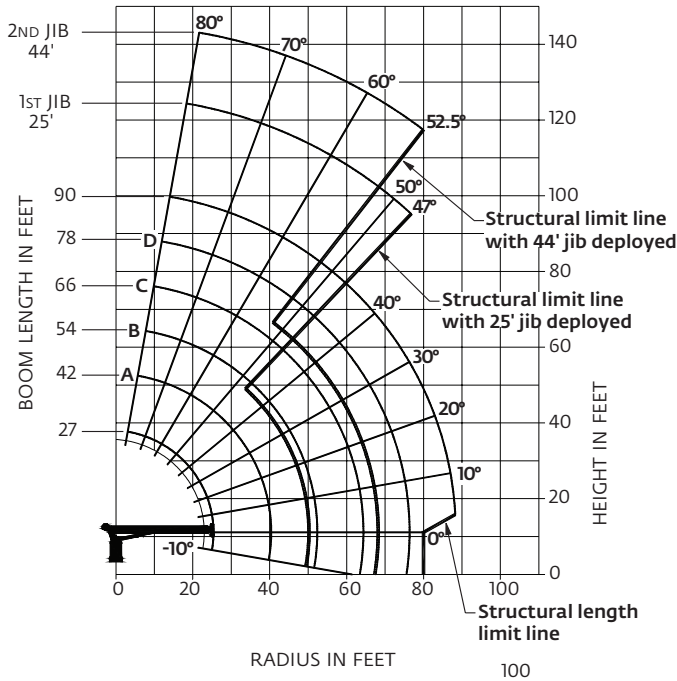
| LOAD RADIUS (ft) | LOADED BOOM ANGLE | 27 ft BOOM (lb) | LOADED BOOM ANGLE | A 42 ft BOOM (lb) | LOADED BOOM ANGLE | B 54 ft BOOM (lb) | LOADED BOOM ANGLE | C 66 ft BOOM (lb) | LOADED BOOM ANGLE | D 78 ft BOOM (lb) | LOADED BOOM ANGLE | 90 ft BOOM (lb) |
|------------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| 5 | 77 | 46,000 | | | | | | | | | | |
| 8 | 70 | 33,000 | | | | | | | | | | |
| 10 | 65 | 27,400 | 75.5 | 23,900 | 79 | 22,300 | | | | | | |
| 12 | 60 | 23,500 | 72.5 | 20,900 | 77 | 19,100 | | | | | | |
| 14 | 54.5 | 20,700 | 69.5 | 18,300 | 75 | 16,800 | 78 | 15,400 | | | | |
| 16 | 49 | 18,300 | 66.5 | 16,300 | 72.5 | 14,800 | 76 | 13,600 | 79 | 12,600 | | |
| 20 | 35 | 14,500 | 60 | 13,200 | 68 | 12,200 | 72.5 | 11,250 | 76 | 10,300 | 78 | 10,000 |
| 25 | | | 51.5 | 10,700 | 62 | 9900 | 68 | 9150 | 72 | 8450 | 74.5 | 8100 |
| 30 | | | 42 | 8800 | 55.5 | 8350 | 63.5 | 7450 | 68 | 6800 | 71.5 | 6500 |
| 35 | | | 31 | 7050 | 49 | 6900 | 58 | 6400 | 64 | 5850 | 68 | 5550 |
| 40 | | | | | 41 | 5850 | 53 | 5500 | 60 | 5250 | 64.5 | 4750 |
| 45 | | | | | 32 | 4900 | 47 | 4750 | 55 | 4400 | 61 | 4150 |
| 50 | | | | | 18.5 | 3700 | 40.5 | 4050 | 50.5 | 3850 | 57 | 3600 |
| 55 | | | | | | | 32.5 | 3350 | 45.5 | 3300 | 53 | 3150 |
| 60 | | | | | | | 22.5 | 2700 | 39.5 | 2900 | 49 | 2750 |
| 65 | | | | | | | | | 33 | 2450 | 44 | 2400 |
| 70 | | | | | | | | | 25 | 1950 | 39 | 2050 |
| 75 | | | | | | | | | 12 | 1150 | 33.5 | 1700 |
| 80 | | | | | | | | | | | 26.5 | 1350 |
| 85 | | | | | | | | | | | 17 | 850 |
| | 0 | 7400 | 0 | 3500 | 0 | 2000 | 0 | 950 | | | | |

Note: Shaded areas are structurally limited capacities.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

Capacities

890D: 90 ft boom with 44 ft jib



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 6,1 m (20 ft) of live power lines or other conductors of electricity.
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

NOTE:

1. Operate with jib by radius when main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
2. Operate with jib by boom angle when main boom is not fully extended. Do not exceed rated jib capacities at any reduced boom lengths.

Load chart

| LOAD RADIUS (ft) | LOADED BOOM ANGLE | 27 ft BOOM (lb) | LOADED BOOM ANGLE | A 42 ft BOOM (lb) | LOADED BOOM ANGLE | B 54 ft BOOM (lb) | LOADED BOOM ANGLE | C 66 ft BOOM (lb) | LOADED BOOM ANGLE | D 78 ft BOOM (lb) | LOADED BOOM ANGLE | 90 ft BOOM (lb) | LOAD RADIUS (ft) | LOADED BOOM ANGLE | 25 ft JIB (lb) | LOADED BOOM ANGLE | 44 ft JIB (lb) |
|---|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|------------------|-------------------|----------------|-------------------|----------------|
| 5 | 77 | 46,000 | | | | | | | | | | | 30 | 76.5 | 4800 | 79 | 3100 |
| 8 | 70 | 32,300 | | | | | | | | | | | 35 | 74 | 4300 | 77 | 2900 |
| 10 | 65 | 26,700 | 75.5 | 23,400 | 79 | 21,900 | | | | | | | 40 | 71.5 | 3650 | 75 | 2700 |
| 12 | 60 | 22,800 | 72.5 | 20,400 | 77 | 18,700 | | | | | | | 45 | 68.5 | 3000 | 73 | 2500 |
| 14 | 54.5 | 19,900 | 69.5 | 17,800 | 75 | 16,400 | 78 | 15,050 | | | | | 50 | 66 | 2450 | 71 | 2300 |
| 16 | 49 | 17,500 | 66.5 | 15,800 | 72.5 | 14,400 | 76 | 13,250 | 79 | 12,300 | | | 55 | 63 | 2000 | 69 | 2100 |
| 20 | 35 | 13,700 | 60 | 12,700 | 68 | 11,800 | 72.5 | 10,900 | 76 | 10,000 | 78 | 9750 | 60 | 60 | 1600 | 66 | 1800 |
| 25 | | | 51.5 | 10,200 | 62 | 9500 | 68 | 8800 | 72 | 8150 | 74.5 | 7850 | 65 | 57 | 1300 | 63.5 | 1500 |
| 30 | | | 42 | 8300 | 55.5 | 7950 | 63.5 | 7100 | 68 | 6500 | 71.5 | 6250 | 70 | 54 | 1000 | 61 | 1250 |
| 35 | | | 31 | 6550 | 49 | 6500 | 58 | 6050 | 64 | 5550 | 68 | 5300 | 75 | 50.5 | 750 | 58.5 | 1050 |
| 40 | | | | | 41 | 5450 | 53 | 5150 | 60 | 4950 | 64.5 | 4500 | 80 | 47 | 500 | 55.5 | 850 |
| 45 | | | | | 32 | 4500 | 47 | 4400 | 55 | 4100 | 61 | 3900 | 85 | | | 52.5 | 650 |
| 50 | | | | | 18.5 | 3300 | 40.5 | 3700 | 50.5 | 3550 | 57 | 3350 | | | | | |
| 55 | | | | | | | 32.5 | 3000 | 45.5 | 3000 | 53 | 2900 | | | | | |
| 60 | | | | | | | 22.5 | 2350 | 39.5 | 2600 | 49 | 2500 | | | | | |
| 65 | | | | | | | | | 33 | 2150 | 44 | 2150 | | | | | |
| 70 | | | | | | | | | 25 | 1650 | 39 | 1800 | | | | | |
| 75 | | | | | | | | | 12 | 850 | 33.5 | 1450 | | | | | |
| 80 | | | | | | | | | | | 26.5 | 1100 | | | | | |
| 85 | | | | | | | | | | | 17 | 600 | | | | | |
| 0 | 0 | 6600 | 0 | 3000 | 0 | 1600 | 0 | 600 | | | | | | | | | |
| ADD TO CAPACITIES WHEN NO JIB STOWED (lb) | | 800 | | 500 | | 400 | | 350 | | 300 | | 250 | | | | | |

Note: Shaded areas are structurally limited capacities.

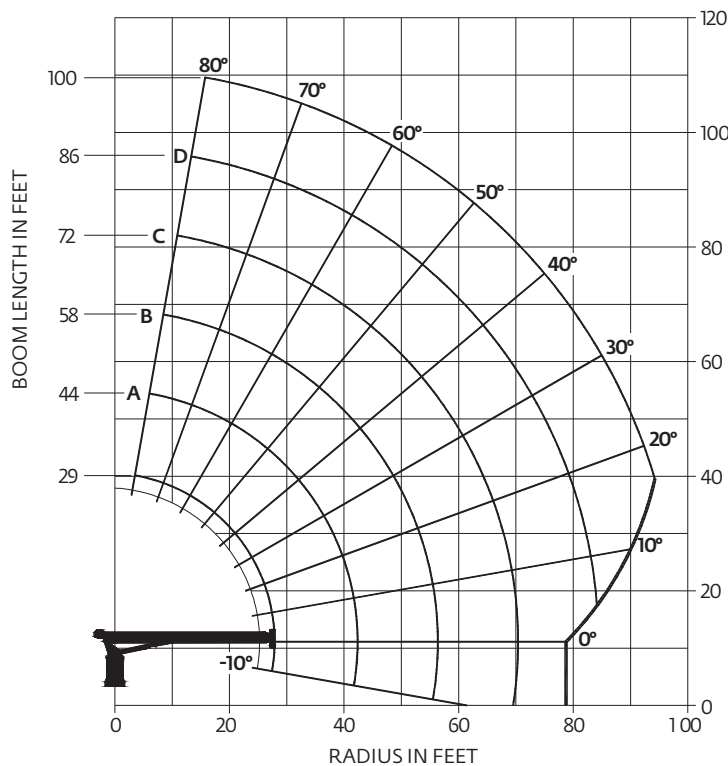
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Courtesy of Crane.Market

Capacities

8100D: 100 ft boom with no jib



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 6,1 m (20 ft) of live power lines or other conductors of electricity.
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

Load chart

| LOAD RADIUS (FEET) | LOADED BOOM ANGLE | 29 ft BOOM (lb) | LOADED BOOM ANGLE | A 44 ft BOOM (lb) | LOADED BOOM ANGLE | B 58 ft BOOM (lb) | LOADED BOOM ANGLE | C 72 ft BOOM (lb) | LOADED BOOM ANGLE | D 86 ft BOOM (lb) | LOADED BOOM ANGLE | 100 ft BOOM (lb) |
|--------------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| 5 | 79 | 46,000 | | | | | | | | | | |
| 8 | 72.5 | 31,500 | 79 | 28,500 | | | | | | | | |
| 10 | 68 | 26,300 | 76 | 23,800 | | | | | | | | |
| 12 | 63.5 | 22,600 | 73.5 | 20,300 | 78 | 18,500 | | | | | | |
| 14 | 59 | 19,800 | 70.5 | 17,800 | 76 | 16,200 | 79.5 | 14,700 | | | | |
| 16 | 54 | 17,500 | 68 | 15,800 | 74 | 14,300 | 77.5 | 13,000 | | | | |
| 20 | 43 | 14,200 | 61 | 12,800 | 69.5 | 11,700 | 74.5 | 10,700 | 77.5 | 9850 | | |
| 25 | 25 | 10,500 | 54 | 10,300 | 64 | 9400 | 70 | 8600 | 74 | 7950 | 77 | 7350 |
| 30 | | | 45 | 8500 | 58.5 | 7800 | 66 | 7000 | 70.5 | 6450 | 74 | 6100 |
| 35 | | | 35 | 6900 | 53 | 6550 | 61.5 | 5950 | 67 | 5500 | 71 | 5150 |
| 40 | | | 20 | 5200 | 46 | 5550 | 56.5 | 5100 | 63 | 4700 | 67.5 | 4500 |
| 45 | | | | | 38 | 4700 | 51.5 | 4400 | 59.5 | 4100 | 64.5 | 3900 |
| 50 | | | | | 28.5 | 3850 | 46 | 3800 | 55 | 3550 | 61 | 3400 |
| 55 | | | | | 14 | 2650 | 40 | 3250 | 51 | 3100 | 57.5 | 2900 |
| 60 | | | | | | | 33 | 2700 | 46.5 | 2700 | 54 | 2550 |
| 65 | | | | | | | 24 | 2150 | 41 | 2300 | 50 | 2100 |
| 70 | | | | | | | 6.5 | 1050 | 35.5 | 1900 | 46 | 1900 |
| 75 | | | | | | | | | 29 | 1550 | 42 | 1600 |
| 80 | | | | | | | | | 20 | 1100 | 37 | 1300 |
| 85 | | | | | | | | | | | 32 | 1050 |
| 90 | | | | | | | | | | | 25 | 750 |
| | 0 | 5900 | 0 | 2900 | 0 | 1400 | 0 | 500 | | | | |

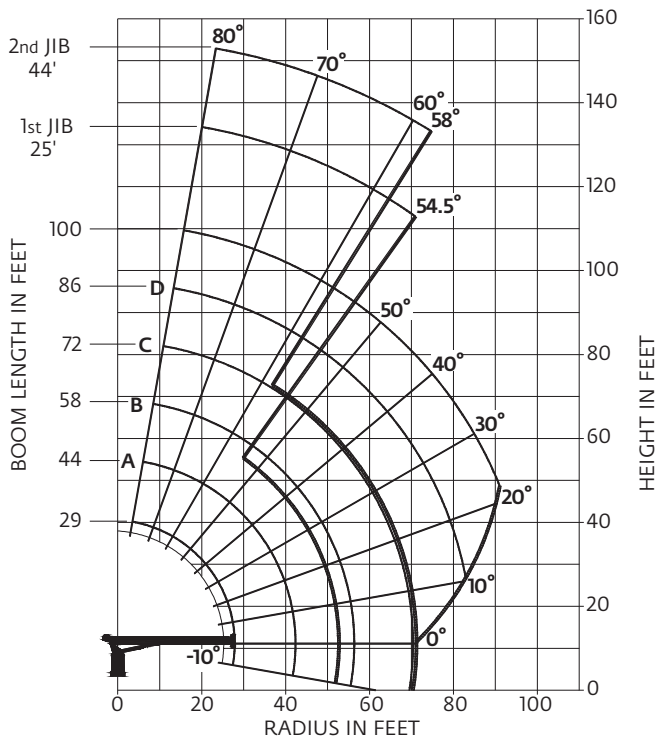
Note: Shaded areas are structurally limited capacities.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Capacities

8100D: 100 ft boom with 44 ft jib



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 6,1 m (20 ft) of live power lines or other conductors of electricity.
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

NOTE:

1. Operate with jib by radius when main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
2. Operate with jib by boom angle when main boom is not fully extended. Do not exceed rated jib capacities at any reduced boom lengths.

Load chart

| LOAD RADIUS (FEET) | LOADED BOOM ANGLE | 29 ft BOOM (lb) | LOADED BOOM ANGLE | A 44 ft BOOM (lb) | LOADED BOOM ANGLE | B 58 ft BOOM (lb) | LOADED BOOM ANGLE | C 72 ft BOOM (lb) | LOADED BOOM ANGLE | D 86 ft BOOM (lb) | LOADED BOOM ANGLE | 100 ft BOOM (lb) | LOAD RADIUS (FEET) | LOADED BOOM ANGLE | 25 ft JIB (lb) | LOADED BOOM ANGLE | 44 ft JIB (lb) |
|--------------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|--------------------|-------------------|----------------|-------------------|----------------|
| 5 | 79 | 46,000 | | | | | | | | | | | 30 | 78 | 3900 | 80 | 2750 |
| 8 | 72.5 | 30,700 | 79 | 27,900 | | | | | | | | | 35 | 75.5 | 3400 | 78 | 2500 |
| 10 | 68 | 25,500 | 76 | 23,200 | | | | | | | | | 40 | 73 | 2800 | 76 | 2250 |
| 12 | 63.5 | 21,800 | 73.5 | 19,700 | 78 | 18,050 | | | | | | | 45 | 70.5 | 2350 | 74 | 2000 |
| 14 | 59 | 19,000 | 70.5 | 17,200 | 76 | 15,750 | 79.5 | 14,350 | | | | | 50 | 68 | 1850 | 72 | 1850 |
| 16 | 54 | 16,700 | 68 | 15,200 | 74 | 13,850 | 77.5 | 12,650 | | | | | 55 | 65 | 1500 | 70 | 1600 |
| 20 | 43 | 13,400 | 61 | 12,200 | 69.5 | 11,250 | 74.5 | 10,350 | 77.5 | 9550 | 80 | 7450 | 60 | 62.5 | 1300 | 67.5 | 1350 |
| 25 | 25 | 9700 | 54 | 9700 | 64 | 8950 | 70 | 8250 | 74 | 7650 | 77 | 7100 | 65 | 60 | 1100 | 65 | 1050 |
| 30 | | | 45 | 7900 | 58.5 | 7350 | 66 | 6650 | 70.5 | 6150 | 74 | 5850 | 70 | 57 | 750 | 63 | 950 |
| 35 | | | 35 | 6300 | 53 | 6100 | 61.5 | 5600 | 67 | 5200 | 71 | 4900 | 75 | 54.5 | 600 | 60.5 | 800 |
| 40 | | | 20 | 4600 | 46 | 5100 | 56.5 | 4750 | 63 | 4400 | 67.5 | 4250 | 80 | | | 58 | 600 |
| 45 | | | | | 38 | 4250 | 51.5 | 4050 | 59.5 | 3800 | 64.5 | 3650 | | | | | |
| 50 | | | | | 28.5 | 3400 | 46 | 3450 | 55 | 3250 | 61 | 3150 | | | | | |
| 55 | | | | | 14 | 2200 | 40 | 2900 | 51 | 2800 | 57.5 | 2650 | | | | | |
| 60 | | | | | | | 33 | 2350 | 46.5 | 2400 | 54 | 2300 | | | | | |
| 65 | | | | | | | 24 | 1800 | 41 | 2000 | 50 | 1850 | | | | | |
| 70 | | | | | | | 6.5 | 700 | 35.5 | 1600 | 46 | 1650 | | | | | |
| 75 | | | | | | | | | 29 | 1250 | 42 | 1350 | | | | | |
| 80 | | | | | | | | | 20 | 800 | 37 | 1050 | | | | | |
| 85 | | | | | | | | | | | 32 | 800 | | | | | |
| 90 | | | | | | | | | | | 25 | 500 | | | | | |
| 0 | | 5100 | 0 | 2300 | 0 | 950 | | | | | | | | | | | |

Note: Shaded areas are structurally limited capacities.

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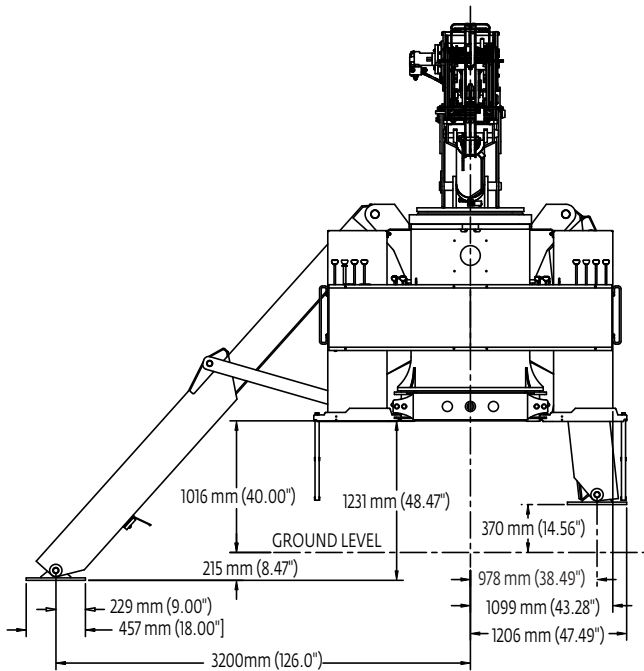
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Courtesy of Crane.Market

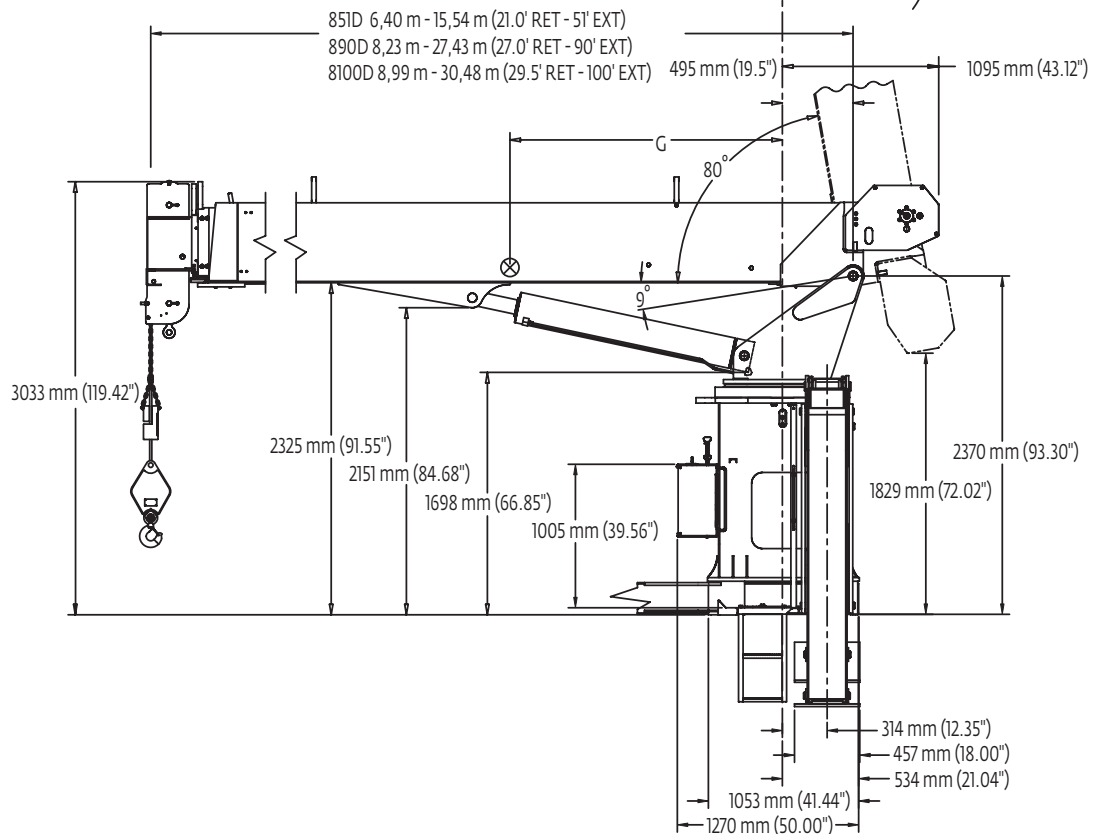
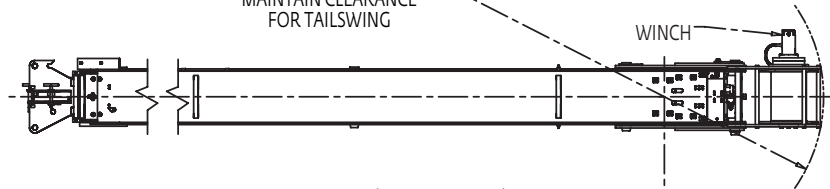
Dimensions

| Series | G | Dry weight* | With oil weight* |
|--------|-------------------|------------------------|------------------------|
| 851D | 71 cm (28 in) | 6214 kg (13,700 lb) | 6448 kg (14,215 lb) |
| 890D | 173 cm (68 in) | 7468 kg (16,465 lb) | 7704 kg (16,985 lb) |
| 8100D | 201 cm (79 in) | 7797 kg (17,190 lb) | 8033 kg (17,710 lb) |

*Above weights do not include subbase, reservoir, front or rear stabilizers, jibs, PTO, pump, bed, boom rests, rear bumper, or any other mounting or crane options.



R1115mm (R43.91")
TAILSWING
MAINTAIN CLEARANCE
FOR TAILSWING



Accessories

Radio Remote Controls –

Eliminate the handling and maintenance concerns that accompany cabled remotes. Operate to a range of about 76 m (250 ft), varying with conditions.

- NB4R

Heavy-duty Personnel Basket –

One and two person baskets for main boom and jib are available.

- BSA-1
- BSA-R1 (provides rotation)
- BSAY-1
- BSAY-2

Hydraulic Oil Cooler –

Automatic, self-contained radiator system with electric fans cools oil under continuous operation.

- OC

Single Front Outrigger –

Center mount front stabilizer for 360° stability with 25 inch vertical stroke.

- SFO

Bulkhead Options –

Steel 30 in solid wall bulkhead.

- BHSD

Spanish-Language Danger Decals, Control Knobs, and Operators' Manuals –

- SDD
- SOM

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