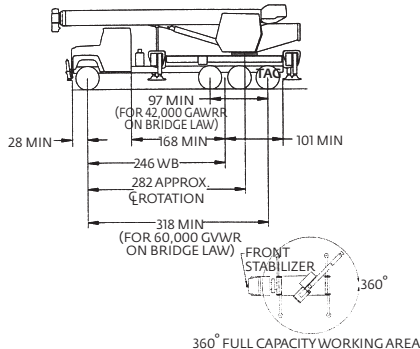




Mounting configurations

The configurations are based on the Series 1800 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.

1800 w/Tag Axle 60,000 GVWR (79/103/127 ft boom)



Configuration 1: 24,08 m (79 ft), 31,39 m (103 ft) 38,71 m (127 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Gross Vehicle Weight Rating: 27 216 kg (60,000 lb)

Wheelbase: 625 cm (246 in)

Cab to Axle/trunnion (CA/CT): 427 cm (168 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa (110,000 PSI): 426 cm³ (30.0 in³)

Stability Weight, Front: 4286 kg (9450 lb) minimum*

Stability Weight, Rear: 4899 kg (10,800 lb) minimum*

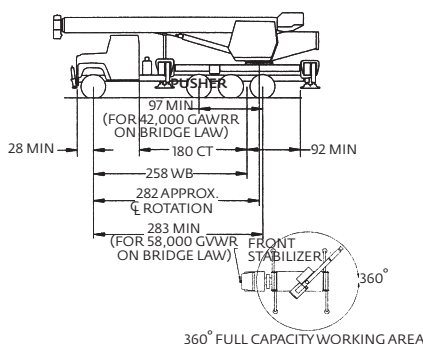
Estimated Average Final Weight: 25 830 kg (56,945 lb)**

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series 1800). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck.

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

**Estimated final weight (wet) with 38,71 m (127 ft) boom, 182 kg (400 lb) 3-part block, steel decks, 1045 kg (2300 lb) swinging counterweight, 379 L (100 gal) fuel tank and two workers in cab.

1800 w/Pusher Axle 58,000 GVWR (79/103/127 ft boom)



Configuration 2: 24,08 m (79 ft), 31,39 m (103 ft) 38,71 m (127 ft) Boom with Pusher Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Gross Vehicle Weight Rating: 27 216 kg (60,000 lb)

Wheelbase: 655 cm (258 in)

Cab to Axle/trunnion (CA/CT): 457 cm (180 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa (110,000 PSI): 426 cm³ (30.0 in³)

Stability Weight, Front: 4525 kg (9975 lb) minimum*

Stability Weight, Rear: 4661 kg (10,275 lb) minimum*

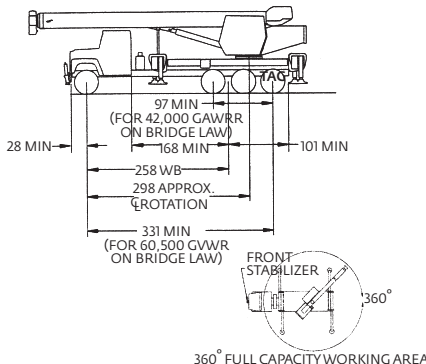
Estimated Average Final Weight: 25 830 kg (56,945 lb)**

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series 1800). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck.

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

**Estimated final weight (wet) with 38,71 m (127 ft) boom, 182 kg (400 lb) 3-part block, steel decks, 1045 kg (2300 lb) swinging counterweight, 379 L (100 gal) fuel tank and two workers in cab.

1800 w/Tag Axle 60,000 GVWR (142 ft boom)



Configuration 3: 43,29 m (142 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Gross Vehicle Weight Rating: 27 216 kg (60,000 lb)

Wheelbase: 655 cm (258 in)

Cab to Axle/trunnion (CA/CT): 427 cm (168 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa (110,000 PSI): 426 cm³ (30.0 in³)

Stability Weight, Front: 4207 kg (9275 lb) minimum*

Stability Weight, Rear: 4797 kg (10,575 lb) minimum*

Estimated Average Final Weight: 26 308 kg (58,000 lb)**

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series 1800). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck.

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

**Estimated final weight (wet) with 43,29 m (142 ft) boom, 182 kg (400 lb) 3-part block, steel decks, 1045 kg (2300 lb) swinging counterweight, 379 L (100 gal) fuel tank and two workers in cab.

Minimum truck requirements

Many factors must be considered in the selection of proper truck for a 1800 series crane. Items which must be considered are:

- 1. Axle Rating.** Axle ratings are determined by the axles, tires, rims, springs, brakes, steering and frame strength of the truck. If any one of these components is below the required rating, the gross axle rating is reduced to its weakest component value.
- 2. Wheelbase (WB), Cab-to-Trunnion (CT) and Bare Chassis Weight.** The wheelbase, CT and chassis weights shown are required so the basic 1800 can be legally driven in most states and meet stability requirements. The dimensions given assume the sub-base is installed properly behind the truck cab. If exhaust stacks, transmission protrusions, etc., do not allow a close installation to the cab, the WB and CT dimensions must be increased. Refer to the Mounting Configuration pages for additional information.
- 3. Truck Frame.** Try to select a truck frame that will minimize or eliminate frame reinforcement or extension of the after frame (AF). Many frames are available that have the necessary after frame (AF) section modulus (SM) and resistance to bending

moment (RBM) so that reinforcing is not required. The front hydraulic jack is used for a 360° working range around the truck. The frame under the cab through the front suspension must have the minimum S.M. and RBM because reinforcing through the front suspension is often difficult because of engine, radiator mounts and steering mechanics. See "Truck Requirements" and "Frame Strength" pages for the necessary section modulus and resistance to bending moment values. Integral extended front frame rails are required for front center stabilizer installation.

4. Additional Equipment. In addition to the axle ratings, wheelbase, cab-to-axle requirements and frame, it is recommended that the truck is equipped with electronic engine control, increased cooling and a transmission with a PTO opening available with an extra heavy duty PTO. See "PTO Selection" pages. A conventional cab truck should be used for standard crane mounts.

5. Neutral Start Switch. The chassis must be equipped with a switch that prevents operation of the engine starter when the transmission is in gear.

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 1800 with an 85% stability factor (75% stability factor for New York City).
- 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



Dimensions specifications

Series	Retracted length	Extended length	G	w/oil weight [*]
18103	9,45 m (31 ft)	31,40 m (103 ft)	1,75 m (69 in)	15 354 kg (33,850 lb)
18127	9,45 m (31 ft)	38,72 m (127 ft)	1,75 m (69 in)	16 000 kg (32,275 lb)
18142	10,36 m (34 ft)	43,28 m (142 ft)	2,21 m (87 in)	16 769 kg (36,970 lb)
1879	9,45 m (31 ft)	24,08 m (79 ft)	1,75 m (69 in)	14 431 kg (31,815 lb)

* Weight includes all items including complete HO outriggers, 2300 lb counterweight, 375 lb block, decks and SFO. booms fully retracted.

Dimensions are in mm (in)

