

National Crane Series 300C

Product Guide



Features

- 7,3 t (8 USt) rating
- 14,0 m (46 ft) three-section boom
- Self-lubricating “Easy Glide” wear pads
- Internal anti-two-block



Features

National Crane Series 300C

- 7,3 t (8 USt) maximum capacity
- 17,07 m (56 ft) maximum vertical reach (main boom)



Easy Glide boom wear pads

Easy Glide Boom Wear Pads reduce the conditions that cause boom chatter and vibration. The net result is smoother crane operation.



The strength to get the job done

With a 7,3 t (8 USt) maximum capacity and a 17,07 m (56 ft) maximum vertical hydraulic reach with main boom, the Series 300C has the strength and versatility you need to tackle the toughest jobs.

Serviceability to keep you working

- Bearings on the boom and retract cables can be greased through access holes in the boom side plates.
- Removable winch allows the internal telescoping cylinder to be removed quickly, without dismantling the boom
- Internal anti-two-block wire routing eliminates external reel and wire to protect crane components
- The boom sheave case is open, allowing access to replace the internal anti-two-block wire and to observe internal boom components
- Internal boom parts have been reduced, decreasing service time when rebuilding the machine
- Crane components painted before assembly reduce the chance of rust, improve serviceability and enhance the appearance of the crane.



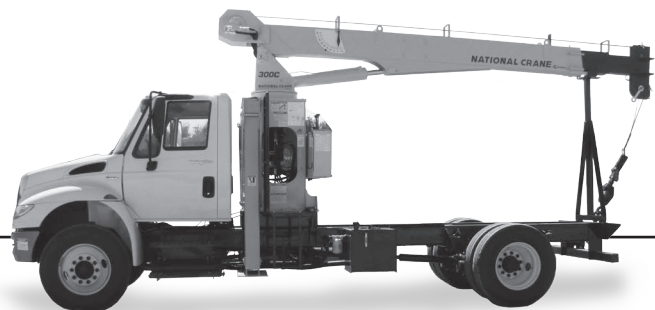
Speedy-reeve boom tip and sheave blocks

These standard features simplify rigging changes

Features

Best in class performance

- A large oil reservoir helps reduce heat build-up
- Control valve is mounted in the console, making it much easier to service
- Convenient mounting of hydraulic oil filter and filler cap as well as an anti-splash breather on oil tank makes routine maintenance hassle free.
- Space inside the frame makes the unit easily serviceable
- Crane wiring harness simplifies design and cleans up inside of the console, providing easy access and service



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Mounting configuration

The versatility of the Series 300C can be enhanced by the mounting configuration described below. The configurations are based on a 300C 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.

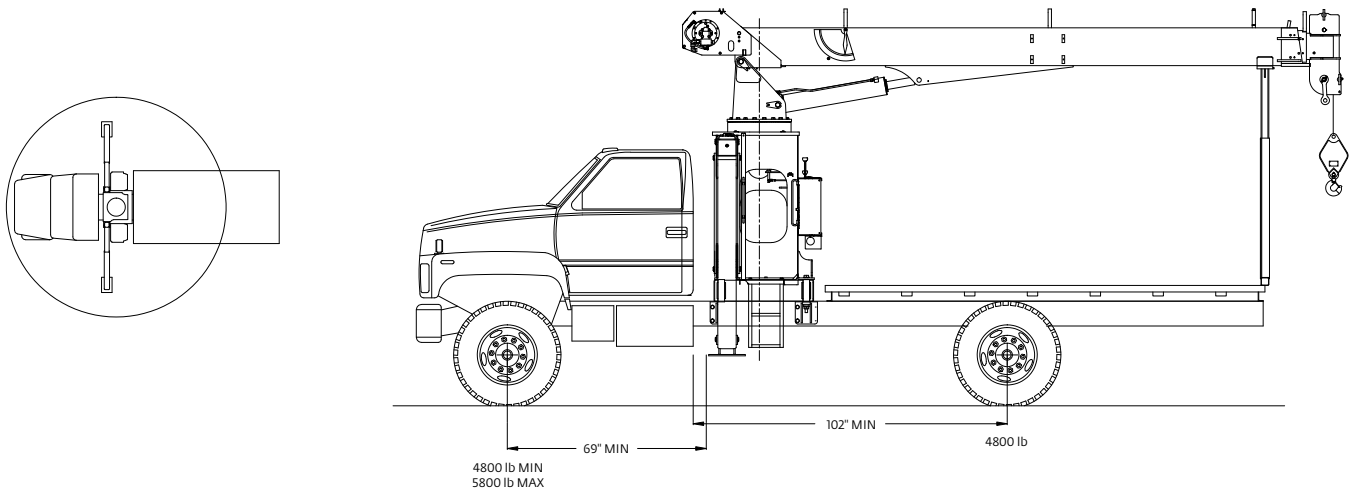
Configuration 1: With subspacer

Working area	360°
Gross Axle Weight Rating Front.....	4082 kg (9000 lb)
Gross Axle Weight Rating Rear.....	7938 kg (17,500 lb)
Gross Vehicle Weight Rating.....	12 020 kg (26,500 lb)
Wheelbase.....	337C: 467 cm (184 in); 346C: 513 cm (202 in)
Cab to Axle/trunnion (CA/CT)	337C: 305 cm (120 in); 346C: 351 cm (138 in)
Frame Section Modulus (SM), under crane, with 758 MPa (110,000 PSI)	164 cm ³ (10.0 in ³)
Frame Section Modulus (SM), over rear stabilizers, with 758 MPa (110,000 PSI)	164 cm ³ (10.0 in ³)
Stability Weight, Front	2177 kg (4800 lb) minimum / 2540 kg (5600 lb) maximum*
Stability Weight, Rear.....	2087 kg (4600 lb) minimum*
Estimated Average Final Weight	8301 kg (18,300 lb)**

In most cases, if the truck is purchased to minimum specifications, this configuration allows for 360° stability without counterweight or rear stabilizers. Since the front tires are used as a stabilizing base, lifting over the front is recommended only for occasional use. If loads are to be continually lifted around the front of the vehicle, front stabilizers are recommended to give the unit a firm base. With this configuration, a payload of approximately 2722 kg (6000 lb) can be hauled on a minimum truck.

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

** Includes all standard components, 346C boom, rear bumper, boom rest and bed.



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
- Minimum axle requirements may increase with use of longer wheelbase, service bodies, diesel engines or front stabilizers.
- Tandem axle trucks must be used for hauling larger payloads
- Diesel engines require a variable speed governor and energize-to-run fuel solenoid for smooth crane operation; electronic fuel injection requires EET engine electronic throttle
- On trucks shorter than 120 CA, additional weight may be required at the rear axle for 360° stability
- On trucks with front axle weight of 5200 lb or greater, a 9000 lb GAWR (front) will not be adequate if front mounted stabilizers are used for continuous lifting over the front axle
- 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 with optional remote control

Specifications

Boom data

Available in two basic models.

Model 337C — Equipped with a 4,62 m - 11,28 m (15 ft 2 in - 37 ft) three-section boom. Maximum tip height is 14,33 m (47 ft).

4,62 m - 11,28 m (15 ft 2 in - 37 ft) three-section boom



Model 346C — Equipped with a 5,54 m - 14,02 m (18 ft 2 in - 46 ft) three-section boom. Maximum tip height is 17,07 m (56 ft).

5,54 m - 14,02 m (18 ft 2 in - 46 ft) three-section boom

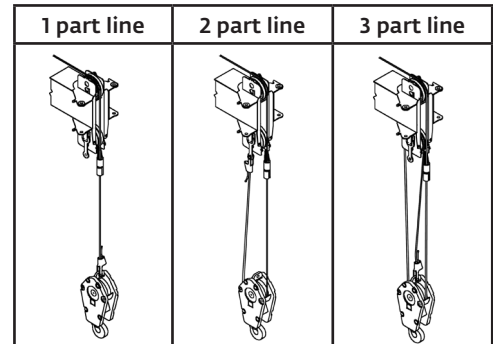


Note: Maximum tip is measured with outriggers/stabilizers fully extended.

Specifications

300C winch data

- All winch pulls and speeds are shown on the third layer.
- Winch line pulls would increase on the first and second layers.
- Winch line speed would decrease on the first and second 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.**



Winch	Cable supplied	Average breaking strength	Lift and speed	Lift and speed	Lift and speed
Standard high-pull planetary winch	Standard 9/16" diameter rotation resistant	17 463 kg (38,500 lb)	3493 kg (7700 lb) 34 m/min (110 fpm)	6985 kg (15,400 lb) 17 m/min (55 fpm)	7257 kg (16,000 lb) 11 m/min (37 fpm)

Winch	Bare drum pull	Standard cable limited
Standard planetary	4627 kg (10,200 lb)	3493 kg (7700 lb)

Block type	Loadline deduct	
	Rating	Weight
Downhaul weight	3,6 t (4.2 USt)	41 kg (90 lb)
1-sheave block	11,3 t (12.5 USt)	84 kg (185 lb)

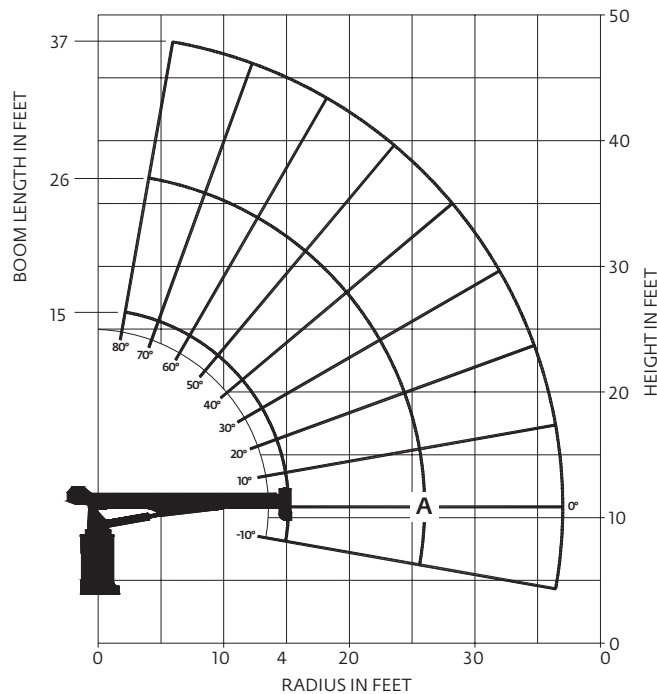
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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

Capacities

337C: 11,3 m (37 ft) main boom, no jib, outriggers fully extended

Other Series 300C Load Rating Charts are available. National Crane will send you a chart on request – or you may secure needed load rating information through your nearest National Crane dealer.



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 3 m (10 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 appropriate charts are maximum allowable loads with the crane mounted on a factory-approved truck and all outriggers at either full span or at mid span range and set on a firm level surface so that the crane is level and all tires are suspended
- 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	15 FT BOOM (lb)	LOADED BOOM ANGLE	A 26 FT BOOM (lb)	LOADED BOOM ANGLE	37 FT BOOM (lb)
5	71	16,000				
6	67	10,500	77	9400		
8	59	8750	73	7450	78	6850
10	49	7400	68	6250	76	5600
12	39	6400	63	5400	72	4900
14	23	5500	58	4800	69	4300
16			53	4350	66	3800
18			47	4000	62	3350
20			41	3550	59	3050
25			18	2700	49	2550
30					38	2100
35					21	1700
	0	4150	0	2100	0	1250

*Shaded areas are structurally limited capacities.

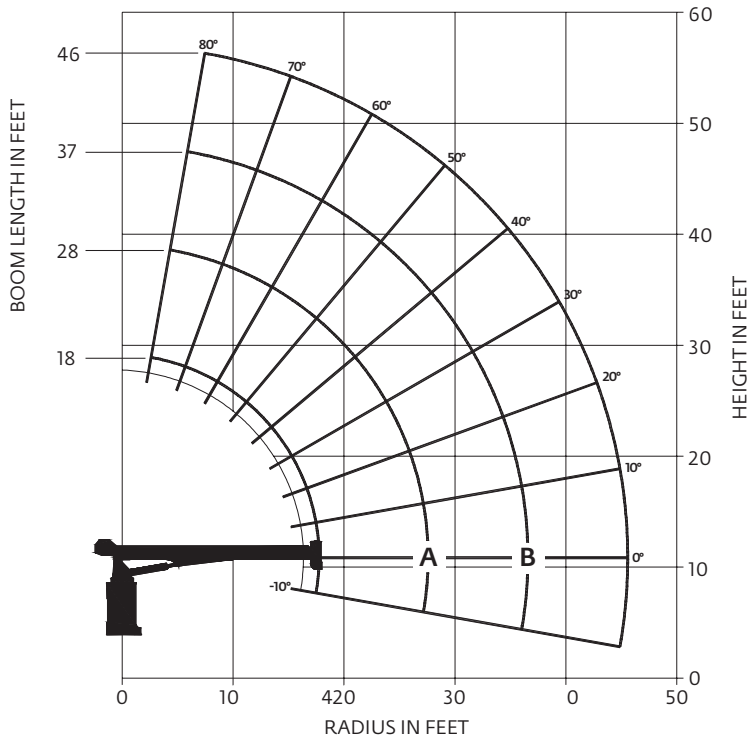
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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

Capacities

346C: 14,0 m (46 ft) main boom, no jib, outriggers fully extended

Other Series 300C Load Rating Charts are available. National Crane will send you a chart on request – or you may secure needed load rating information through your nearest National Crane dealer.



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 3 m (10 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 appropriate charts are maximum allowable loads with the crane mounted on a factory-approved truck and all outriggers at either full span or at mid span range and set on a firm level surface so that the crane is level and all tires are suspended
- 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	18 FT BOOM (lb)	LOADED BOOM ANGLE	A 28 FT BOOM (lb)	LOADED BOOM ANGLE	B 37 FT BOOM (lb)	LOADED BOOM ANGLE	46 FT BOOM (lb)
5	74	16,000						
6	71	10,250	78	9150				
8	64	8200	74	7400	78	6900		
10	56	6900	70	6100	75	5500	79	5150
12	48	6000	65	5250	72	4700	76	4600
14	41	5200	61	4500	69	4200	73	3900
16	27	4550	56	4050	66	3700	71	3450
18			51	3700	63	3300	69	3050
20			46	3350	59	3050	66	2800
25			29	2600	49	2500	59	2200
30					38	2200	51	1850
35					21	1550	42	1600
40							31	1250
45							14	950
	0	3150	0	1750	0	1100	0	650

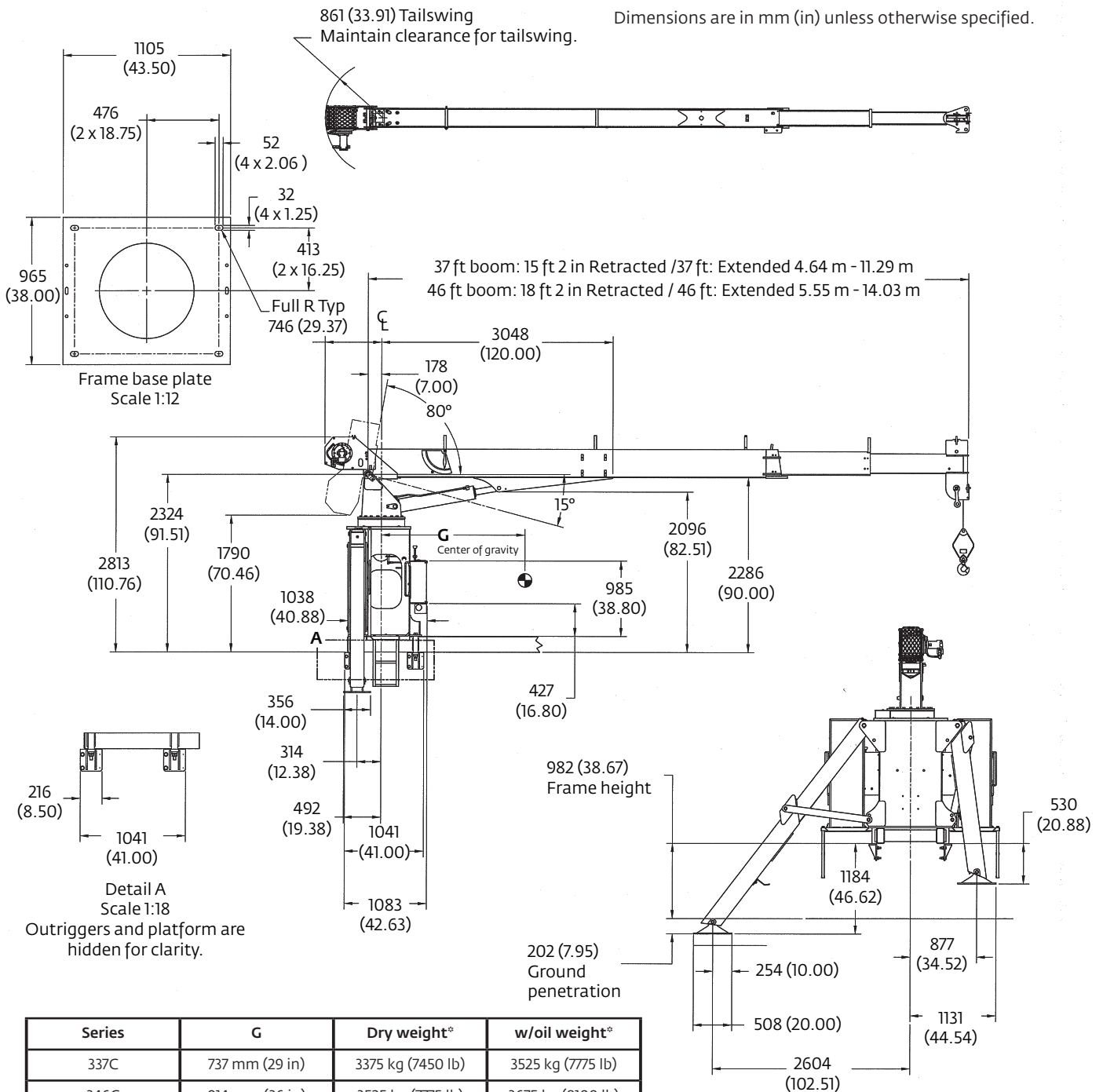
*Shaded areas are structurally limited capacities.

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Dimensions

Dimensions are in mm (in) unless otherwise specified.



Series	G	Dry weight*	w/oil weight*
337C	737 mm (29 in)	3375 kg (7450 lb)	3525 kg (7775 lb)
346C	914 mm (36 in)	3525 kg (7775 lb)	3675 kg (8100 lb)

*Above weights do not include subbase, rear stabilizers, jibs, PTO, pump, boom rests or options.

Max rated load moment: 132,112 Nm (1,169,288 in lb)
 Max rated rotational torque: 17,244 Nm (152,633 in lb)
 Thrust at max rated load moment: 2531 kg (5579 lb)
 Maximum thrust: 8800 kg (19,400 lb)

Thrust is at slewing ring and includes weights of load, boom, lift cylinder and turret.

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Accessories

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

- SDD
- SOM

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