



Series **1300A**



product

guide

features

- All New Design
- 110' Four-Section Boom
- 30 Ton Rating
- Self-lubricating "Easy Glide" Wear Pads
- Internal Anti-two-block
- NEWVISION CAB™

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features

Why Buy a National Series 1300A

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*Product may be shown with optional equipment.

- 30-ton (27.21-t) maximum capacity
- 163-ft (49.68-m) w/optional jib maximum vertical reach*
- 119-ft (36.27-m) maximum vertical hydraulic reach*
- Load Moment Indicator system (LMI)
- Proportional boom extension
- High performance planetary winch
- Heavy-duty triple pump hydraulics

*Maximum vertical reach is ground-level to boom tip height at maximum extension and angle with outriggers/stabilizers fully extended.

1300A



- **30-ton Rating** –The new 1300A is a 30-ton machine and has increased capacities over the former Series 1300 model.
- **110-foot Four-section Boom** –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. A 69-foot four-section boom or a 100-foot four-section boom is also available.
- **Overload Protection** –All National cranes are equipped with overload protection:
 - Load Moment Indicator (LMI) is standard on all series 1300A machines.
 - LMI display console is weatherproof.
 - LCD display is visible in full or low light.
 - All crane load lifting values are displayed simultaneously.
- **Self-lubricating “Easy glide” Boom Wear Pads** –The self-lubricating boom pads, standard on the 1300A, reduce the conditions that cause boom chatter and vibration. The net result is smoother crane operation.
- **“HO”-style Outriggers** –Two sets of “HO”-style outriggers with 20’ (6.09 m) span, with 14-ft. (4.27 m) mid span setting with manual locks and reduced capacity chart and fully retracted outrigger spread with reduced capacity chart. Outriggers are equipped with removable ball and socket aluminum foot pads. Independent outrigger controls (umbilical design) are located at rear of the crane and includes level indicator (sight bubble).
- **Continuous Rotation/Glide Swing** –The series 1300A is supplied with 360° continuous rotation as standard, along with the “glide swing” feature - allowing free swing during rotation - and a manually applied foot brake.
- **Adjustable Swing Speed** –Standard on the 1300A. A control knob located on the swing motor brake release valve can be easily adjusted to the crane operator’s swing speed preference.
- **Oil Cooler** –Radiator mounted on top of front outriggers with electric fan is standard.
- **Heavier Duty Torsion Box** –The stronger standard torsion box improves rigidity, reduces truck frame flex and reduces the need for turret mounted counterweight.
- **Speedy-reeve Boom Tip and Sheave Blocks** –These standard features simplify rigging changes by decreasing the time needed to change line reeving.
- **Pre-painted Components** –Painting crane components before assembly reduces the possibility of rust, improves serviceability and enhances the appearance of the machine.
- **Deluxe Operator’s Cab** –NEWVISION CAB™ has a rigid powder coated steel structure, is well insulated, with ample safety glass for operator visibility and comfort. Multi-position seat with arm rest controls, ventilation fans, diesel heater, wipers. Optional air-conditioning is available. Optional open-seat control station in lieu of enclosed cab is available.
- **Improved Serviceability** –
 - Bearings on the boom extend and retract cables can be greased through access holes in the boom side plates.
 - Number of internal boom parts has been reduced, decreasing service time when rebuilding the machine.
- **New State-of-the-art Control Valve** –Provides smoother operation. The new design eliminates parts, reducing repair costs and improving the machine’s serviceability.
- **National Crane Is the Market Leader** –National is number one in the production of commercial truck-mounted boom trucks. National has many programs and people directly and indirectly involved to provide our customers reliable products.
 - National has the boom truck industry’s leading test program. Every structural part of the crane is cycle tested up to 60,000 cycles at full capacity. In addition to cycle testing, each model is subjected to state-of-the-art strain gauge testing that measures metal deformation as small as one one-millionth of an inch. The net result is that any weak areas are caught in test, not on job sites where costly downtime occurs.
 - Lift and telescoping cylinders are manufactured by National Crane, so that the seals, packing glands, and end plates are traced for accurate shipment of replacement parts.
 - Parts are available for all National Crane machines, even if they are 35 years old.
 - National has a formalized quality program and is ISO 9001 approved.
- **You Expect National Crane to be a Quality Product That Will Provide Years of Service, and So Do We.**
- **National Crane’s Quality Management System is ISO 9001:2000 Approved.**



mounting configuration

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1300A



specifications

AVAILABLE IN THREE BASIC MODELS.

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Model 1369A

—Equipped with a 22 ft to 69 ft (6.7-21.03 m) four-section boom. Maximum tip height is 78 ft (23.77 m).
22'-69' (6.7-21.05 m) four-section boom.

Model 13100A

— Equipped with a 29 ft to 100 ft (8.83-30.48 m) four-section boom. This model can be equipped with a 25-44 ft (7.62-13.41 m) two section jib. Maximum tip height w/44ft (13.41 m) jib is 153 ft (44.63 m).
29'-100' (8.83-30.48 m) four-section boom.

29'-100' (8.83-30.48 m) four-section boom.

13FJ44M 25-44 ft. (7.62-13.41 m) two-section jib

Model 13110A

— Equipped with a 33 ft to 110 ft (10.05-33.52 m) four-section boom. This model can be equipped with a 25-44 ft (7.62-13.41 m) two-section jib. Maximum tip height w/44ft (13.41 m) jib is 163 ft (49.68 m).
33'-110' (10.05-33.52 m) four-section boom.

33'-110' (10.05-33.52 m) four-section boom.

13FJ44M 25-44 ft. (7.62-13.41 m) two-section jib

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

1300 Winch Data

- Do not deadhead line block against boom tip when extending boom.
- Keep at least 3 wraps of loadline on drum at all times.
- Use only 9/16" diameter rotation-resistant cable with 38,500 pounds breaking strength on this machine.

			1 Part Line	2 Part Line	3 Part Line	4 Part Line	5 Part Line	6 Part Line	7 Part Line
MAXIMUM BOOM LENGTH AT MAXIMUM ELEVATION WITH RIGGING SHOWN WITH LOAD BLOCK AT GROUND LEVEL			144' boom jib	10' jib	75' jib	6' jib	5' jib	4' jib	3' jib
Winch	Average Cable Supplied	Breaking Strength	154' boom jib	11' Lift and Speed	Lift and Speed	7' Lift and Speed	6' Lift and Speed	4' Lift and Speed	3' Lift and Speed
Standard Planetary Winch	9/16" Diameter Rotation Resistant	38,500 lb (17,464 kg)	7,700 lb (3,493 kg) 164 fpm (50 m/min)	15,400 lb (6,986 kg) 82 fpm (25 m/min)	23,100 lb (10,478 kg) 55 fpm (16 m/min)	30,800 lb (13,971 kg) 41 fpm (12 m/min)	38,500 lb (17,464 kg) 33 fpm (10 m/min)	46,200 lb (20,956 kg) 27 fpm (8 m/min)	53,900 lb (24,449 kg) 23 fpm (7 m/min)
"Burst of Speed"	9/16" Diameter Rotation Resistant	38,500 lb (17,464 kg)	3,000 lb (1,361 kg) 365 fpm (111 m/min)	6,000 lb (2,722 kg) 82 fpm (40 m/min)	9,000 lb (4,083 kg) 88 fpm (27 m/min)	12,000 lb (5,443 kg) 66 fpm (20 m/min)	15,000 lb (6,804 kg) 53 fpm (16 m/min)	18,000 lb (8,165 kg) 44 fpm (13 m/min)	21,000 lb (9,526 kg) 38 fpm (11 m/min)

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. These are shown below:

Winch

Standard planetary

4th Layer Drum Pull

7,700 lb. (3,493 kg) (low speed)

3,000 lb. (1,361 kg) ("burst of speed")

Allowable Cable Pull

7,700 lb. (3,492 kg)

Block Type	Rating	Weight
Downhaul Weight	5 Ton (4,53t)	150 lb (68 kg)
1 Sheave Block	12 Ton	305 lb (139 kg)
2 Sheave Block	19 Ton	350 lb (159 kg)
3 Sheave Block	30 Ton	575 lb (261 kg)

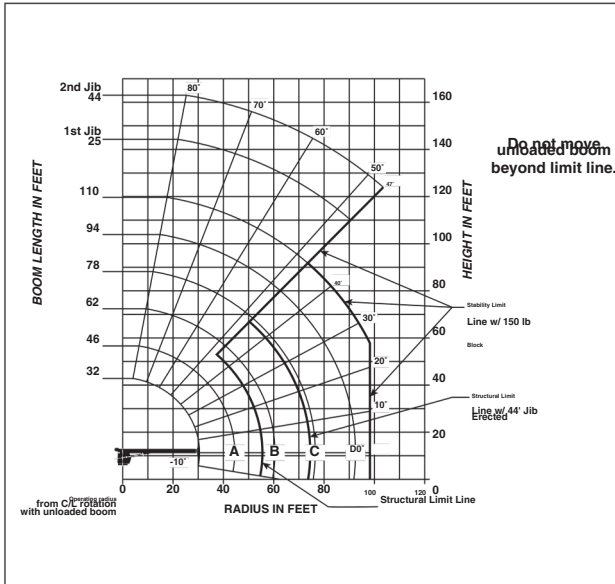
1300A

capacities

Load Rating Chart: Series 13110A with 25'-44' Jib / Fullspan Outrigger 20'

Other Series 1300A Load Rating Charts are available. National will send you a chart on request – or you may secure needed load rating information through your nearest National dealer.

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CAUTION:

- **Do not operate crane booms, jib extensions, any accessories or loads within 10 ft (3m) of live powerlines 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.

**SERIES 13110A
WITH
25'-44' JIB
FULL SPAN
OUTRIGGER 20'**

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.

LOADLINE EQUIPMENT
DEDUCT (lb.)

Downhaul weight.....	150
One sheave block.....	305
Two sheave block.....	350
Three sheave block.....	575

Load Rating: Series 13110A with 25'-44' Jib / Fullspan Outrigger 20'

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25 – 44 ft JIB RATED LOADS				
LOADED BOOM RADIUS (ft)	LOADED BOOM ANGLE (deg)	25 ft JIB (ft)	LOADED BOOM ANGLE (deg)	44 ft JIB (ft)
35	76.5	04,200		
40	75.0	04,100	76.5	02,500
45	73.0	04,000	75.5	02,500
50	71.0	03,850	74.0	02,500
55	69.0	03,600	72.5	02,500
60	66.5	03,300	70.5	02,350
65	64.0	03,050	68.5	02,250
70	61.5	02,500	66.5	02,150
75	59.0	02,000	64.5	02,050
80	56.0	01,550	62.0	01,900
85	53.5	01,100	60.0	01,800
90	50.5	00,700	57.0	01,400
95		04.5	54.5	01,050
100			51.5	00,650

*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.

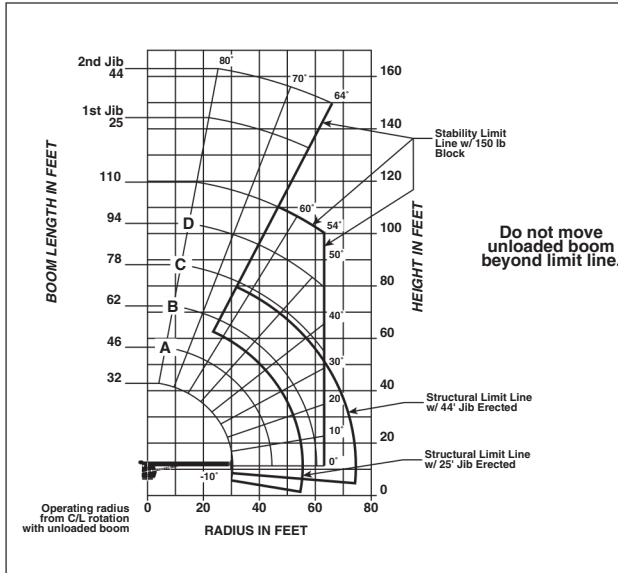
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capacities

Load Rating Chart: Series 13110A with 25'-44' Jib / Midspan Outrigger 14'

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Other Series 1300A Load Rating Charts are available. National will send you a chart on request – or you may secure needed load rating information through your nearest National dealer.



CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 10 ft (3m) of live powerlines 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 and the outrigger lock pins engaged 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 capacities 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.

**SERIES 13110A
WITH
25'-44' JIB
MIDSPAN
OUTRIGGER 14'**

LOADLINE EQUIPMENT DEDUCT (lb.)

Downhaul weight.....150
One sheave block.....305
Two sheave block.....350
Three sheave block.....575

Load Rating Chart: Series 13110A with 25'-44' Jib / Midspan Outrigger 14'

32 ft – 110 ft BOOM RATED LOADS WITHOUT JIB

LOADED RADIUS (ft)	LOADED BOOM ANGLE (deg)	32 ft BOOM (ft)	A 46 ft BOOM (ft)	LOADED BOOM ANGLE (deg)	B 62 ft BOOM (ft)	LOADED BOOM ANGLE (deg)	C 78 ft BOOM (ft)	LOADED BOOM ANGLE (deg)	D 94 ft BOOM (ft)	LOADED BOOM ANGLE (deg)	110 ft BOOM (ft)
5	78.5	60,000									
8	74.5	43,000									
10	70.5	35,900	77.5	34,100							
12	66.5	30,900	75.0	29,200							
15	60.0	24,300	71.0	24,000	77.0	20,000					
20	48.5	19,900	63.5	13,950	72.0	14,400	76.5	14,900			
25	34.0	08,350	56.0	08,900	66.5	09,600	72.0	09,600	76.5	10,000	
30			48.0	06,150	61.5	06,500	68.5	06,750	73.0	06,900	76.5
35			38.5	04,300	55.5	04,650	64.5	04,850	69.5	05,050	73.5
40			26.5	03,050	48.5	03,350	59.5	03,550	64.5	03,700	70.5
45					43.0	02,350	55.0	02,550	60.5	02,700	67.5
50					35.0	01,650	50.0	01,800	56.5	01,950	64.0
55					25.0	01,000	45.0	01,200	55.0	01,350	61.0
60					08.0	00,550	39.0	00,750	50.5	00,850	58.0
65											54.5
70											00,500
	00.0	05,300	00.0	02,100	00.0	00,500					

* SHADED AREAS ARE STRUCTURALLY LIMITED CAPACITIES

25 – 44 ft JIB RATED LOADS				
LOADED RADIUS (ft)	LOADED BOOM ANGLE (deg)	25 ft JIB (ft)	LOADED BOOM ANGLE (deg)	44 ft JIB (ft)
35	76.5	04,200		
40	75.0	04,100	76.5	02,500
45	73.0	02,650	75.5	02,500
50	71.0	01,800	74.0	02,500
55	69.0	01,200	72.5	02,000
60	66.5	00,700	70.5	01,400
65			68.5	00,950
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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.

accessories

Radio Remote Controls–

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

- **Model NB4R**

One-Person Basket–

Strong but lightweight steel basket with 300-lb. (139-kg) capacity, gravity hung with swing lock and full body harness.

- **Model B1-S**
- **Model 2B1-S**(for dual locking baskets)

Heavy-duty Personnel Basket–

1,200-lb. (544-kg) capacity steel basket with safety loops for four passengers. Gravity leveling 72- x 42-inch (183- x 107-cm) platform. Fast attachment and secure locking systems. Load chart must show 2,300 lb. (1043 kg) minimum to operate this accessory

- **Model BSA-1**
- **Model BSA-R1**(provides rotation)

Air Conditioning–

Back of cab mounted - self contained modular unit with in cab cool air outlets. Requires 130+ amp. chassis alternator.

- **Model AC**

Winch Drum Rotation Indicator

- **Model WDRI**

Last Wrap Indicator Option on winch with indicator in cab.

- **Model LLI**

Outrigger Controls at operator's seat in addition to ground controls

- **Model ICORC**

Dimensions Specifications

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notes

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notes

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