

## features

- All new design
- 110 ft (33.52 m) Four-section
   boom
- 30 USt (27.2 t) rating
- Multi-position "Easy Reach" control panel

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#### Why Buy a National Crane Series 1300H





\*Product may be shown with optional equipment.

- 30 USt (27.2 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.

**1300H** 

- 30 USt (27.2 t) Rating The new 1300H provides a 30 USt (27.2 t) capacity.
- **110 ft 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 ft four-section boom or a 100 ft four-section boom is also available.
- Overload Protection All National Crane boom trucks are equipped with overload protection: – Load Moment Indicator (LMI) is standard on all series 1300H machines with (WADS) "work area definition system."
  - LMI display console is weatherproof.
  - LCD display is visible in full or low light.
  - All crane load lifting values are displayed simultaneously.
- **Easy Glide Boom Wear Pads** 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 ft (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. Main outriggers are equipped with removable ball and socket aluminum foot pads. Independent outrigger controls (umbilical design) are located at the Easy Reach control console and includes level indicator (sight bubble).
- Rotation The series 1300H is standard with 410° non-continuous rotation.
- Adjustable Swing Speed Standard on the 1300H. 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 Located inside crane frame radiator mounted 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 counterweight.
- Speedy-reeve Boom Tip and Sheave Blocks These standard features simplify rigging changes by decreasing the time needed to change line reeving.
- Burst-of-Speed Winch Provides faster winch payout and pickup of unloaded cable.
- Pre-painted Components Painting crane components before assembly reduces the possibility of rust, improves serviceability and enhances the appearance of the machine.
- 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.
- Internal anti-two-block wire routing eliminates damage potential.
- Electronic versions of manuals available through Manitowoc Crane CARE.
- **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 Crane is number one in the production of commercial truck-mounted boom trucks and has many programs and people directly and indirectly involved to provide our customers reliable products.
- National Crane 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 Crane has a formalized quality program and is ISO 9001 approved.
- National Crane's Quality Management System is ISO 9001:2000 Approved.



## mounting configuration

FRONT JACK REQUIRED FOR 360° WORK AREA 8140 BARE MIN. 18000 GARW MIN. \*ALL DIMENSIONS INCHES AND POUNDS.

The mounting configuration is based on an 85% stability factor. If the bare truck weight requirements are not met, counterweight will be required. The complete unit must be installed on the truck in accordance with factory requirements. Since individual truck chassis vary, a test must be performed on the unit to verify actual stability after mounting and installing counterweight (if required). A summary of mounting and truck requirements are:

#### For 180 degree working area -

- Gross Axle Weight Rating Front (GAWR) 18,000 lb (8,165 kg)
- Gross Axle Weight Rating Rear (GAWR) 34,000 lb (15,455 kg)
- Gross Vehicle Weight Rating (GVW) 52,000 lb (23,587 kg)
- Wheelbase (WB) 262 in (6.65m)
- Cab to Axle Trunnion (CT) 192 in (4.88m)
- After Frame (AF) 105 in (2.67m)
- Frame Section Modulus (SM) from outrigger to RSOD 20 in<sup>3</sup> (327cm<sup>3</sup>) and 110,000 psi (759 MPa) material
- Bare Chassis Weight required for stability prior to installation
  - Front 8,140 lb (3692 kg)
  - Rear 8,880 lb (4028 kg)

### For 360 degree working area –

- Optional Single Front Stabilizer (SFO)
- Gross Axle Weight Rating Front (GAWR) 18,000 lb (8,165 kg)
- Gross Axle Weight Rating Rear (GAWR) 34,000 lb (15,455 kg)
- Gross Vehicle Weight Rating (GVW) 52,000 lb (23,587 kg)
- Wheelbase (WB) 262 in (6.65m)
- Cab to Axle Trunnion (CT) 192 in (4.88m)
- After Frame (AF) 105 in (2.67m)
- Frame Section Modulus (SM) from front spring hanger to end of after frame – 30 in<sup>3</sup> (327cm<sup>3</sup>) and 110,000 psi (759 MPa) material
- Bare Chassis Weight required for stability prior to installation
  - Front 8,200 lb (3720 kg) Rear – 8,900 lb (4037 kg)

SRIP FUEL CAPACITY WULL CAPACITY WULL CAPACITY

Note: Chassis will require extended front frame rails for SFO addition.

For 360° stability the truck frame must have a 30.0 in<sup>3</sup> (492 cm<sup>3</sup>) section modulus [3,300,000 in-lb (372,850 N·m) RBM] minimum under the crane frame, 18 in<sup>3</sup> (295 cm<sup>3</sup>) section modulus [1,980,000 in-lb (223,710 N·m) RBM] at the front spring rear hanger, 12 in<sup>3</sup> (197 cm<sup>3</sup>) section modulus [1,320,000 in-lb (149,140 N·m) RBM] through the front spring and 3 in<sup>3</sup> (49 cm<sup>3</sup>) section modulus [330,000 in-lb (37,284 N·m) RBM] at the stabilizer attachment point on each truck frame rail.

- NOTE 1: Gross Vehicle Weight Rating (GVWR) is dependent on all components of the vehicle (axles, tires, springs, fame, etc.) meeting manufacturers' recommendations; always specify GVWR when purchasing trucks.
- NOTE 2: Diesel engines require a variable speed governor and energize-to-run fuel solenoid for smooth crane operation; electronic fuel injection is required.
- NOTE 3: All mounting data is based on a National Series 1300H with subbase and an 85% stability factor.
- NOTE 4: The complete unit must be installed in accordance with factory requirements, and a test performed to determine actual stability and counterweight requirements; contact the factory for details.
- NOTE 5: Transmission neutral safety interlock switch is required.
- NOTE 6: 13100H with front center stabilizer will be approximate 40 ft overall length. 13110H will exceed 40 ft overall length.



## specifications

### **Boom and Jib Combinations Data**

4

 AVAILABLE IN THREE BASIC MODELS.

 Model 1369H — Equipped with a 22 to 69 ft (6.7-21.03 m) four-section boom. Maximum tip height is 78 ft (23.77 m).

 22-69 ft (6.7-21.05 m) four-section boom.

 Model 13100H — Equipped with a 29 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/44 ft (13.41 m) jib is 153 ft (44.63 m).

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

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

 Model 13110H — Equipped with a 33 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.

 Model 13110H — Equipped with a 33 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.

 Model 13110H — Equipped with a 33 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.

 33-110 ft (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.

## **1300H Winch Data**

| <ul> <li>boom tip</li> <li>Keep at le<br/>on drum a</li> <li>Use only<br/>resistant</li> </ul> | adhead line blo<br>when extending<br>east 3 wraps of<br>at all times.<br>9/16" diameter<br>cable with 38,5<br>strength on this | g boom.<br>f loadline<br>rotation-<br>00 pounds | 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   |  | MAXIMUM   | 69 ft boom jib                            | 69 ft                                    | 69 ft                                      | 61 ft                                      | 51 ft                                      | 31 ft                                     | 21 ft                                     |
|  | ELEVATION WITH RIGGING SHOWN WITH  |   | 144 ft boom jib                           | 100 ft                                   | 75 ft                                      | 60 ft                                      | 50 ft                                      | 43 ft                                     | 36 ft                                     |
| LUAD BLUCK   | ( AT GROUND LEV  | EL  | 154 ft boom jib                           | 110 ft                                   | 94 ft                                      | 78 ft                                      | 62 ft                                      | 46 ft                                     | 32 ft                                     |
| Winch  | Average<br>Cable<br>Supplied   | Breaking<br>Strength                            | Lift and<br>Speed                         | Lift and<br>Speed                        | Lift and<br>Speed                          | Lift and<br>Speed                          | Lift and<br>Speed                          | Lift and<br>Speed                         | Lift and<br>Speed                         |
| Standard<br>Planetary<br>Winch   | 9/16 in Diameter<br>Rotation<br>Resistant  | 38,500 lb<br>(17 464 kg)                        | 7,700 lb (3493 kg)<br>164 fpm (50 m/min)  | 15,400 lb (6986 kg)<br>82 fpm (25 m/min) | 23,100 lb (10 478 kg)<br>55 fpm (16 m/min) | 30,800 lb (13 971 kg)<br>41 fpm (12 m/min) | 38,500 lb (17 464 kg)<br>33 fpm (10 m/min) | 46200 lb (20 956 kg)<br>27 fpm (8 m/min)  | 53,900 lb (24 449 kg)<br>23 fpm (7 m/min) |
| "Burst<br>of<br>Speed"   | 9/16 in Diameter<br>Rotation<br>Resistant  | 38,500 lb<br>(17 464 kg)                        | 3,000 lb (1361 kg)<br>265 fpm (111 m/min) | 6,000 lb (2722 kg)<br>132 fpm (40 m/min) | 9,000 lb (4083 kg)<br>88 fpm (27 m/min)    | 12,000 lb (5443 kg)<br>66 fpm (20 m/min)   | 15,000 lb (6804 kg)<br>53 fpm (16 m/min)   | 18,000 lb (8 165 kg)<br>44 fpm (13 m/min) | 21,000 lb (9 526 kg)<br>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:

4th Layer Drum Pull

7,700 lb (3493 kg) (low speed)

3,000 lb (1361 kg) ("burst of speed")



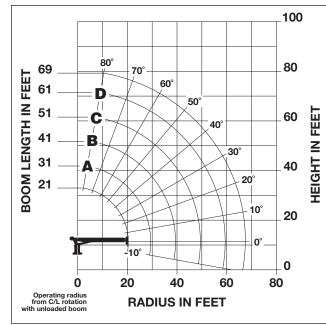
Winch Standard planetary Allowable Cable Pull 7,700 lb (3492 kg)

| Block Type      | Rating          | Weight         |
|-----------------|-----------------|----------------|
| Downhaul Weight | 5 USt (4.53t)   | 150 lb (68 kg) |
| 1 Sheave Block  | 12 USt (10.89t) | 305 lb (139 kg |
| 2 Sheave Block  | 19 USt (17.24ť) | 350 lb (159 kg |
| 3 Sheave Block  | 30 USt (27.22t) | 575 lb (261 kg |



#### Load Rating Chart: Series 1369H with 69 ft Boom / Fullspan Outrigger & Stabilizer

Other Series 1300H 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 10 ft (3m) of live power lines or other conductors of electricity.

capacities

- · 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 factoryapproved 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 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 1369H WITH 69 ft BOOM/NO JIB **FULL SPAN** OUTRIGGER **& STABILIZER**

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

| Downhaul weight      | 150 lb (68 kg)  |
|----------------------|-----------------|
| One sheave block     | 305 lb (139 kg) |
| Two sheave block     | 350 lb (159 kg) |
| Three sheave block . | 575 lb (261 kg) |

## Load Rating: Series 1369H with 69 ft Boom / Fullspan Outrigger & Stabilizer

|        | LOADED |          | LOADED | Α      | LOADED | В      | LOADED | C      | LOADED | D      | LOADED |        |
|--------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LOADED | BOOM   | 21 ft    | BOOM   | 31 ft  | BOOM   | 41 ft  | BOOM   | 51 ft  | BOOM   | 61 ft  | BOOM   | 69 ft  |
| RADIUS | ANGLE  | BOOM     | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   |
| (ft)   | (deg)  | (lb)     | (deg)  | (lb)   | (deg)  | (lb)   | (deg)  | (Ib)   | (deg)  | (lb)   | (deg)  | (lb)   |
| 5      | 71.6   | * 60,000 |        |        |        |        |        |        |        |        |        |        |
| 8      | 62.5   | 47,500   | 71.7   | 33,500 | 76.9   | 33,400 |        |        |        |        |        |        |
| 10     | 56     | 40,300   | 67.7   | 33,100 | 74     | 32,300 | 78.1   | 35,000 |        |        |        |        |
| 12     | 49     | 34,900   | 63.6   | 32,700 | 71.2   | 31,100 | 75.7   | 30,100 | 78.9   | 29,000 |        |        |
| 15     | 36.5   | 28,600   | 56.9   | 27,300 | 66.5   | 25,900 | 72     | 24,900 | 75.8   | 24,200 | 78.1   | 19,350 |
| 20     |        |          | 44.4   | 21,200 | 58.3   | 20,300 | 65.8   | 19,500 | 70.8   | 18,850 | 73.6   | 18,450 |
| 25     |        |          | 27.5   | 16,550 | 49.2   | 16,600 | 59.2   | 16,000 | 65.5   | 15,450 | 69     | 15,050 |
| 30     |        |          |        |        | 38.6   | 13,800 | 52.1   | 13,500 | 60     | 13,050 | 64.3   | 12,700 |
| 35     |        |          |        |        | 24     | 10,600 | 44.1   | 10,750 | 54     | 10,850 | 59.4   | 10,950 |
| 40     |        |          |        |        |        |        | 34.6   | 8,650  | 47.6   | 8,750  | 54.2   | 8,950  |
| 45     |        |          |        |        |        |        | 23     | 7,200  | 41     | 7,300  | 48.6   | 7,350  |
| 50     |        |          |        |        |        |        |        |        | 32.5   | 6,050  | 43     | 6,100  |
| 55     |        |          |        |        |        |        |        |        | 21.2   | 5,100  | 36     | 5,150  |
| 60     |        |          |        |        |        |        |        |        |        |        | 27.3   | 4,350  |
| 65     |        |          |        |        |        |        |        |        |        |        | 13.7   | 3,700  |
|        | 0      | 15,000   | 0      | 10,000 | 0      | 7,000  | 0      | 5,000  | 0      | 3,800  | 0      | 3,625  |

#### Note:

1. All capacities are in pounds, angles in degrees, and radii in feet.

2. Loaded boom angles are given as reference only.

Loaded boom angles are given as reference only.
 Shaded areas are structurally limited capacities.
 Handling of personnel is only permitted with full span extension of all outrigger and stabilizer beams.
 See owners manuals. The 60,000 lb load requires optional 9/16 in diameter 6x25 IWRC cable.

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.



\*SHADED AREAS ARE STRUCTURALLY LIMITED CAPACITIES



**SERIES 13100H** 

WITH 25-44 ft

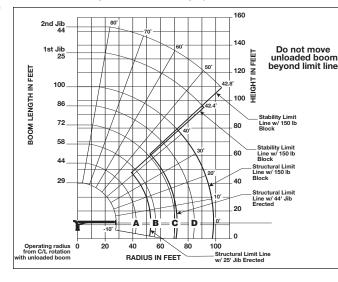
**JIB FULL SPAN** 

OUTRIGGER

& STABILIZER

#### Load Rating Chart: Series 13100H with 25-44 ft Jib / Fullspan Outrigger & Stabilizer

Other Series 1300H 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 10 ft (3m) 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 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 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.
- 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 Rating Chart: Series 13100H with 25-44 ft Jib / Fullspan Outrigger & Stabilizer

LOADLINE EQUIPMENT

DEDUCT

Downhaul weight ......150 lb (68 kg)

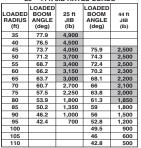
One sheave block......305 lb (139 kg)

Two sheave block ......350 lb (159 kg)

Three sheave block ... 575 lb (261 kg)

|                          |                                  |                       | 29 ft                            | – 100 ft                   | BOOM RA                          | ATED LO                    | ADS WIT                          | HOUT J                     | IB                               |                            |                                  |                        |
|--------------------------|----------------------------------|-----------------------|----------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------------|------------------------|
| LOADED<br>RADIUS<br>(ft) | LOADED<br>BOOM<br>ANGLE<br>(deg) | 29 ft<br>BOOM<br>(lb) | LOADED<br>BOOM<br>ANGLE<br>(deg) | A<br>44 ft<br>BOOM<br>(Ib) | LOADED<br>BOOM<br>ANGLE<br>(deg) | B<br>58 ft<br>BOOM<br>(lb) | LOADED<br>BOOM<br>ANGLE<br>(deg) | C<br>72 ft<br>BOOM<br>(Ib) | LOADED<br>BOOM<br>ANGLE<br>(deg) | D<br>86 ft<br>BOOM<br>(lb) | LOADED<br>BOOM<br>ANGLE<br>(deg) | 100 ft<br>BOOM<br>(lb) |
| 5                        | 77.3                             | * 60,000              |                                  |                            |                                  |                            |                                  |                            |                                  |                            |                                  |                        |
| 8                        | 70.8                             | 44,000                | 77.9                             | 29,100                     |                                  |                            |                                  |                            |                                  |                            |                                  |                        |
| 10                       | 66.4                             | 36,900                | 75.3                             | 29,000                     |                                  |                            |                                  |                            |                                  |                            |                                  |                        |
| 12                       | 61.8                             | 33,450                | 72.7                             | 28,600                     | 78                               | 28,600                     |                                  |                            |                                  |                            |                                  |                        |
| 15                       | 54.5                             | 28,300                | 68.4                             | 24,600                     | 74.8                             | 23,500                     | 79                               | 22,900                     |                                  |                            |                                  |                        |
| 20                       | 40.6                             | 21,950                | 60.9                             | 21,000                     | 69.4                             | 19,000                     | 74.6                             | 17,450                     | 78.3                             | 16,300                     | 79.9                             | 10,650                 |
| 25                       | 19.9                             | 15,700                | 52.7                             | 17,500                     | 63.8                             | 16,500                     | 70.3                             | 15,700                     | 74.8                             | 13,700                     | 77.3                             | 10,450                 |
| 30                       |                                  |                       | 43.5                             | 12,800                     | 57.9                             | 13,200                     | 65.8                             | 13,500                     | 71                               | 11,350                     | 74.4                             | 10,000                 |
| 35                       |                                  |                       | 32.2                             | 10,150                     | 51.6                             | 10,100                     | 61.1                             | 10,400                     | 67.3                             | 10,600                     | 71.8                             | 9,400                  |
| 40                       |                                  |                       | 16.3                             | 7,850                      | 45                               | 8,000                      | 56.6                             | 8,250                      | 63.8                             | 8,450                      | 68.9                             | 8,050                  |
| 45                       |                                  |                       |                                  |                            | 37                               | 6,500                      | 51.3                             | 6,700                      | 59.6                             | 6,900                      | 65.6                             | 7,100                  |
| 50                       |                                  |                       |                                  |                            | 26.9                             | 5,250                      | 45.5                             | 5,500                      | 55.3                             | 5,650                      | 62                               | 5,850                  |
| 55                       |                                  |                       |                                  |                            |                                  |                            | 39.1                             | 4,500                      | 50.8                             | 4,700                      | 58.2                             | 4,850                  |
| 60                       |                                  |                       |                                  |                            |                                  |                            | 31.7                             | 3,700                      | 45.9                             | 3,800                      | 54.4                             | 4,000                  |
| 65                       |                                  |                       |                                  |                            |                                  |                            | 22.1                             | 3,050                      | 40.6                             | 3,150                      | 50.5                             | 3,300                  |
| 70                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            | 34.7                             | 2,600                      | 46.3                             | 2,750                  |
| 75                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            | 27.7                             | 2,100                      | 41.8                             | 2,250                  |
| 80                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            | 18.2                             | 1,700                      | 36.8                             | 1,800                  |
| 85                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            |                                  |                            | 31.2                             | 1,450                  |
| 90                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            |                                  |                            | 24.4                             | 1,150                  |
| 95                       |                                  |                       |                                  |                            |                                  |                            |                                  |                            |                                  |                            | 14.6                             | 900                    |
|                          | 0                                | 10.000                | 0                                | 7.600                      | 0                                | 4.350                      | 0                                | 2.600                      | 0                                | 1.550                      | 0                                | 800                    |





| RATED | LOAD RED | UCTIONS    | WITH STOW  | ED JIE |
|-------|----------|------------|------------|--------|
|       |          | 25 - 44 ft | IIB STOWED | 7      |

| BOOM<br>LENGTH<br>(ft) |                    |
|------------------------|--------------------|
| 29                     | Reduce load 800 lb |
| 44                     | Reduce load 600 lb |
| 58                     | Reduce load 450 lb |
| 72                     | Reduce load 350 lb |
| 86                     | Reduce load 300 lb |
| 100                    | Reduce load 250 lb |
|                        |                    |

\*SHADED AREAS ARE STRUCTURALLY LIMITED CAPACITIES

All capacities are in pounds, angles in degrees, and radii in feet.
 Loaded boom angles are given as reference only.
 Shaded areas are structurally limited capacities.
 Handling of personnel is only permitted with full span extension of all outrigger and stabilizer beams.
 See owners manuals. The 60,000 lb load requires optional 9/16 in diameter 6x25 UWRC cable.

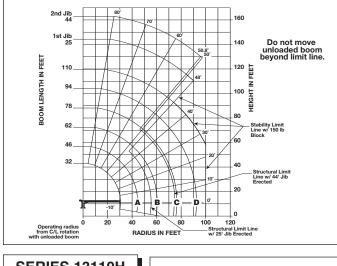
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



NATIONAL CRANE

### Load Rating Chart: Series 13110H with 25- 44 ft Jib / Fullspan Outrigger & Stabilizer

Other Series 1300H 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.



#### SERIES 13110H LOADLINE EQUIPMENT DEDUCT WITH 25-44 ft **JIB FULL SPAN** Downhaul weight.....150 lb (68 kg) One sheave block ......305 lb (139 kg) OUTRIGGER Two sheave block......350 lb (159 kg) **& STABILIZER** Three sheave block.....575 lb (261 kg)

#### CAUTION:

· Do not operate crane booms, jib extensions, any accessories or loads within 10 ft (3m) of live power lines or other conductors of electricity.

capacities

- 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 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 Rating: Series 13110H with 25-44 ft Jib / Fullspan Outrigger & Stabilizer

|        | 32 ft – 110 ft BOOM RATED LOADS WITHOUT JIB |          |        |        |        |        |        |        |        |        |        |        |
|--------|---|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|        | LOADED                                      |          | LOADED | A      | LOADED | в      | LOADED | C      | LOADED | D      | LOADED |        |
| LOADED | BOOM  | 32 ft    | BOOM   | 46 ft  | BOOM   | 62 ft  | BOOM   | 78 ft  | BOOM   | 94 ft  | BOOM   | 110 ft |
| RADIUS | ANGLE                                       | BOOM     | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   | ANGLE  | BOOM   |
| (ft)   | (deg)                                       | (Ib)     | (deg)  | (Ib)   | (deg)  | (Ib)   | (deg)  | (Ib)   | (deg)  | (ІЬ)   | (deg)  | (Ib)   |
| 6      | 76.7  | * 60,000 |        |        |        |        |        |        |        |        |        |        |
| 8      | 72.5  | 43,000   | 78.6   | 29,100 |        |        |        |        |        |        |        |        |
| 10     | 68.5  | 35,900   | 76.1   | 29,000 |        |        |        |        |        |        |        |        |
| 12     | 64.4  | 32,000   | 73.6   | 28,000 | 78     | 28,000 |        |        |        |        |        |        |
| 15     | 57.9  | 27,000   | 69.5   | 24,000 | 76.1   | 23,000 | 80     | 19,500 |        |        |        |        |
| 20     | 45.9  | 19,500   | 62.5   | 18,300 | 71.1   | 17,500 | 76.4   | 17,500 | 80     | 16,300 |        |        |
| 25     | 30.6  | 14,900   | 55     | 14,500 | 65.9   | 14,050 | 72.4   | 14,000 | 76.8   | 13,700 | 79.3   | 10,450 |
| 30     |   |          | 46.3   | 12,000 | 60.8   | 11,600 | 68.2   | 11,500 | 73.4   | 11,350 | 76.5   | 9,150  |
| 35     |   |          | 36.2   | 9,450  | 54.8   | 9,800  | 64     | 9,700  | 70.1   | 10,600 | 74.1   | 8,950  |
| 40     |   |          | 23.9   | 7,250  | 48.5   | 8,100  | 59.6   | 8,300  | 66.7   | 8,450  | 71.2   | 7,700  |
| 45     |   |          |        |        | 42     | 6,550  | 55.4   | 7,000  | 63.3   | 6,900  | 68.7   | 6,950  |
| 50     |   |          |        |        | 34     | 5,300  | 50.4   | 5,550  | 59.4   | 5,650  | 65.6   | 5,900  |
| 55     |   |          |        |        | 23.8   | 4,300  | 45     | 4,550  | 55.4   | 4,700  | 62.3   | 4,900  |
| 60     |   |          |        |        |        |        | 39     | 3,700  | 51.3   | 3,800  | 58.9   | 4,000  |
| 65     |   |          |        |        |        |        | 32.1   | 3,000  | 46.8   | 3,100  | 55.4   | 3,300  |
| 70     |   |          |        |        |        |        | 23.5   | 2,350  | 42.1   | 2,550  | 51.8   | 2,700  |
| 75     |   |          |        |        |        |        |        |        | 36.9   | 2,050  | 48.1   | 2,200  |
| 80     |   |          |        |        |        |        |        |        | 30.9   | 1,650  | 44.2   | 1,750  |
| 85     |   |          |        |        |        |        |        |        | 23.4   | 1,250  | 39.9   | 1,400  |
| 90     |   |          |        |        |        |        |        |        | 11.9   | 900    | 35.2   | 1,050  |
| 95     |   |          |        |        |        |        |        |        |        |        | 29.9   | 750    |
| 100    |   |          |        |        |        |        |        |        |        |        | 23.4   | 500    |
|        | 0   | 8,000    | 0      | 4.800  | 0      | 2.600  | 0      | 1.200  | 0      | 850    |        |        |

#### 25 - 44 ft JIB BATED LOADS

| LOADED<br>RADIUS<br>(ft) | LOADED<br>BOOM<br>ANGLE<br>(deg)                               | 25 ft<br>JIB<br>(Ib)   | LOADED<br>BOOM<br>ANGLE<br>(deg)  | 44 ft<br>JIB<br>(Ib)   |
|--------------------------|--|--|---|--|
| 40                       | 77.4   | 4,400  |   |  |
| 45                       | 75.8   | 4,400  |   |  |
| 50                       | 73.6   | 4,100  | 76.7  | 2,700  |
| 55                       | 69.5   | 1,900  | 75.1  | 2,650  |
| 60                       | 66.6   | 1,450  | 73.2  | 2,500  |
| 65                       | 63.8   | 1,000  | 71.1  | 2,300  |
| 70                       | 60.8   | 600  | 69.2  | 1,250  |
| 75                       |  |  | 64.5  | 750  |
| 80                       |  |  | 61.7  | 500  |
|                          | RADIUS<br>(ft)<br>40<br>45<br>50<br>55<br>60<br>65<br>70<br>75 | LOADED         BOOM           RADIUS         ANGLE           (ft)         (deg)           40         77.4           45         75.8           50         73.6           55         69.5           60         66.6           65         63.8           70         60           75         8 | LOADED<br>RADIUS<br>(ft)         BOOM<br>(deg)         25 ft<br>JIB<br>(deg)           40         77.4         4,400           45         75.8         4,400           50         69.5         1,900           60         66.6         1,450           65         63.8         1,000           70         60.8         600           75         6         4,000 | LOADED         BOOM         25 ft         BOOM           RADIUS         ANGLE         JB         MGLE         (deg)           40         77.4         4,400         (deg)         (db)           40         77.4         4,400 |

#### RATED LOAD REDUCTIONS WITH STOWED JIB

|                        | 25 – 44 ft JIB STOWED                         |             |
|------------------------|---|-------------|
| BOOM<br>LENGTH<br>(ft) | ~~~ <u>``````````````````````````````````</u> | *SHADED     |
| 32                     | Reduce load 800 lb                            | AREAS ARE   |
| 46                     | Reduce load 600 lb                            | 74127107112 |
| 62                     | Reduce load 450 lb                            | STRUCTURA   |
| 78                     | Reduce load 350 lb                            |             |
| 94                     | Reduce load 300 lb                            |             |
| 110                    | Reduce load 250 lb                            | CAPACITIES  |
|                        |   |             |

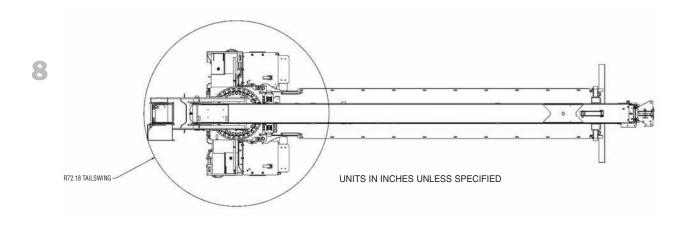
JRA ΈD

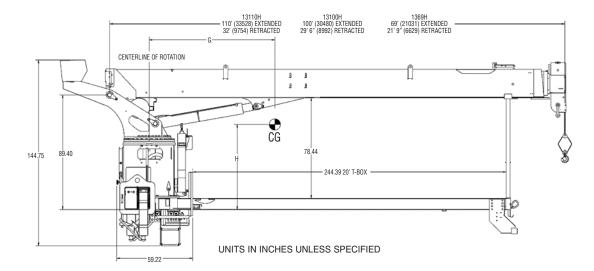
Note:
1. All capacities are in pounds, angles in degrees, and radii in feet.
2. Loaded boom angles are given as reference only.
3. Shaded areas are structurally limited capacities.
4. Handling of personnel is only permitted with full span extension of all outrigger and stabilizer beams.
\*5. See owners manuals. The 60,000 lb load requires optional 9/16 in diameter 6x25 UWRC cable.

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.



# dimensions



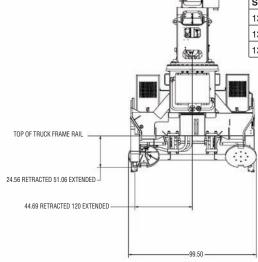


| G CENTER OF GRAVITY FROM CENTERLINE |                  |                  |                      |                       |  |  |
|-------------------------------------|------------------|------------------|----------------------|-----------------------|--|--|
| Series                              | G                | н                | DRY WEIGHT*          | W/OIL WEIGHT*         |  |  |
| 1369H                               | 61.2 in [155 cm] | 59.8 in [152 cm] | 18,462 lb [8,374 kg] | 19,196 lb [8,707 kg]  |  |  |
| 13100H                              | 89.1 in [226 cm] | 64.1 in [163 cm] | 20,608 lb [9,348 kg] | 21,342 lb [9,681 kg]  |  |  |
| 13110H                              | 98.7 in [251 cm] | 65.4 in [166 cm] | 21,346 lb [9,682 kg] | 22,080 lb [10,015 kg] |  |  |

\* ABOVE WEIGHTS DO NOT INCLUDE RESERVOIR, RSOD, JIB, PTO, PUMP, BED

\*\* WEIGHT INCLUDES BOOM, WINCH, ROPE, TURRET, LIFT CYLINDER, FRAME, CONTROLS, OUTRIGGERS, PLATFORMS, TORQUE BOX, BOOM REST, BUMPER, DOWNHAUL WEIGHT

UNITS IN INCHES UNLESS SPECIFIED







# accessories

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| <b>Radio Remote Controls</b> –<br>Eliminate the handling and maintenance concerns that accompany cabled<br>remotes. Operate to a range of about 250 ft (76 m), varying with conditions.  | • NB4R   |
|--|--|
| <b>One-Person Basket</b> –<br>Strong but lightweight steel basket with 300 lb (139 kg) capacity, gravity hung<br>with swing lock and full body harness.  | • <b>B1-S</b><br>• <b>2B1-S</b> (for dual locking baskets) |
| <b>Heavy-duty Personnel Basket</b> –<br>1,200 lb (544 kg) capacity steel basket with safety loops for four passengers. Gravity<br>leveling 72 x 42 inch (183 x 107 cm) platform. Fast attachment and secure locking<br>systems. Load chart must show 2,300 lb (1043 kg) minimum to operate this accessory. | • <b>BSA-1</b><br>• <b>BSA-R1</b> (provides rotation)      |
| Winch Drum Rotation Indicator  | • WDRI   |
| Last Wrap Indicator Option on winch with indicator on Easy Reach console.  | · LLI  |
| Single Front Outrigger<br>Center front stabilizer with a 25 in vertical stroke   | · SFO  |
| Steel Tool Box Options   |  |
| Bulkhead-steel for super-duty beds   | · BHSD   |

1300H





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NATIONAL CRANE

# notes

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Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.

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