

National NC-35 Articulating Crane

From
America's
Truck-Mounted
Hydraulic
Crane Leader



NATIONAL
CRANE
A Grove
Worldwide
Company

- *Crane Rating:*
35,150 ft•lb (4.86 t•m)
- *Maximum Capacity:*
2.92 tons (2.64 t)
- *Reach Above Frame:*
30 ft 8 in (9.3 m)
- *Horizontal Reach:*
25 ft 3 in (7.7 m)
- *Offset Reach:*
27 ft 7 in (8.4 m)
- *Reach Below Frame:*
18 ft 1 in (5.5 m)

**35,150-ft•lb (4.86-t•m)
crane rating**

**2.92-tons (2.64-t) maximum
lifting capacity**

**30-ft 8-in (9.3-m) reach
above truck frame**

**25-ft 3-in (7.7-m)
horizontal reach**

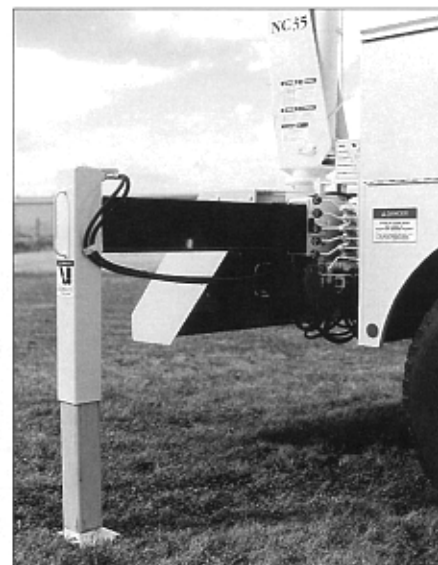
**27-ft 7-in (8.4-m) offset
reach from truck center line**

**18-ft 1-in (5.5-m) reach
below truck frame**

**21-ft 3-in (6.5-m) total
hydraulic extension**

**33-ft 10-in (10.3-m)
maximum vertical reach**

- A compact National articulating crane mounted on either corner of your truck's "working" side to maximize your from-truck reach
- Two-stage proportional boom design extends each section in equivalent lengths during the telescoping process
- Four-bar link on outer boom facilitates close in lifting to allow load placement next to mast
- Strong boom sections manufactured from low alloy, high strength steel
- Easy three-point mounting minimizes crane and truck frame stress
- Rugged, field proven rack-and-pinion rotation system
- Long-wearing *Easy Glide* wear pads enhance smooth boom performance
- Counterbalance valves on lift, fold and extend cylinders lock all cylinders in place, slowly lowering load if overload occurs
- Identical crane function controls located on both sides of crane—same controls, same hand positioning
- Extra-fine metering and low spool forces for smooth, precise fingertip control



- O-ring face seal fittings help eliminate leakage
- Outriggers extend 3 ft 6 in (1.1 m) on one side only (the side of the truck the crane is mounted on) for an 11 ft 6 in (3.5 m) span; outrigger pads are 7x10 in (18x25 cm)
- Enclosed outrigger cylinders with pilot operated check valves that automatically lock all cylinders in place
- Options and accessories enhance overall versatility
- Available in three models offering different reach options:

Model 16

- Mast, inner boom, outer boom and one hydraulic extension to 16 ft 3 in (5.0 m)

Model 21

- Mast, inner boom, outer boom and two hydraulic extensions to 21 ft 3 in (6.5 m)

Model 21/25

- Model 21 boom configuration, but with one manual pull-out extension to 25 ft 3 in (7.7 m)

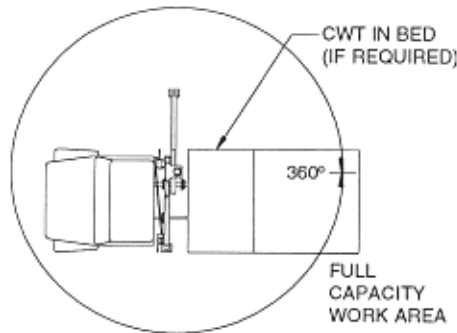
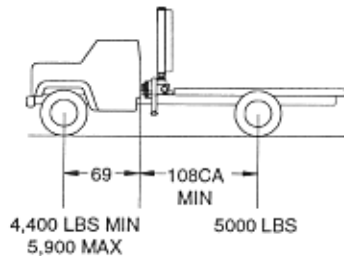
Refer to the National N-35 brochure for more complete information about the N-35/NC-35 line of articulating cranes.

National NC-35 Mounting Specifications



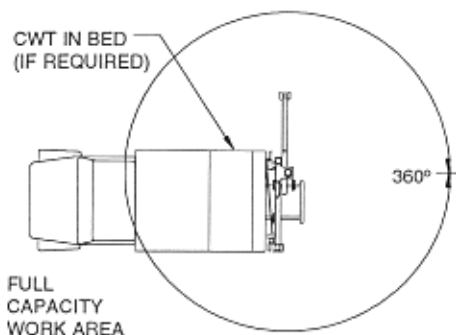
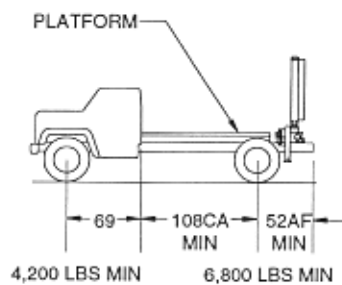
Notes:

- Truck used for mounting must meet these minimum requirements for capacity loads
- Always specify Gross Axle Weight Rating (GAWR) when purchasing trucks
- Rotate loads slowly and smoothly for maximum control
- Use caution rotating from front to rear—vehicle level changes as springs compress
- Under-minimum front or rear axle chassis weights may require counterweight to keep unit stable
- Diesel engines, longer wheelbase or service bodies may increase minimum axle requirements—contact factory for information
- Diesel engines require variable speed governor
- Truck weight and rear axle chassis weight includes bed



Behind Cab Corner Mount/360-Degree Stability

- Minimum wheelbase: 177 in (450 cm)
- Cab to rear axle (CA): 108 in (274 cm)
- Recommended front axle rating: 7,000 lb (3175 kg) GAWRF
- Recommended rear axle rating: 15,000 (6804 kg) GAWRR
- Recommended vehicle rating: 21,000 lb (9526 kg) GVWR
- Working area: 360 degrees
- Truck weight: 9,400 lb (4264 kg) min.
- Chassis weight front axle: 4,400 lb (1996 kg) min.; 5,900 lb (2676 kg) max.
- Chassis weight rear axle: 5,000 lb (2268 kg) min.
- Frame 50,000 psi (344 MPa) steel: 17.0-in³ (278.6-cm³) section modulus
- Frame 110,000 psi (758 MPa) steel: 13.3-in³ (213.1-cm³) section modulus
- Frame height: 38 in (97 cm) or less preferred
- Power take-off: 70 to 85 percent of engine speed; minimum 12 hp (9.0 kW) at maximum operating speed and pressure



Rear Corner Mount/360-Degree Stability

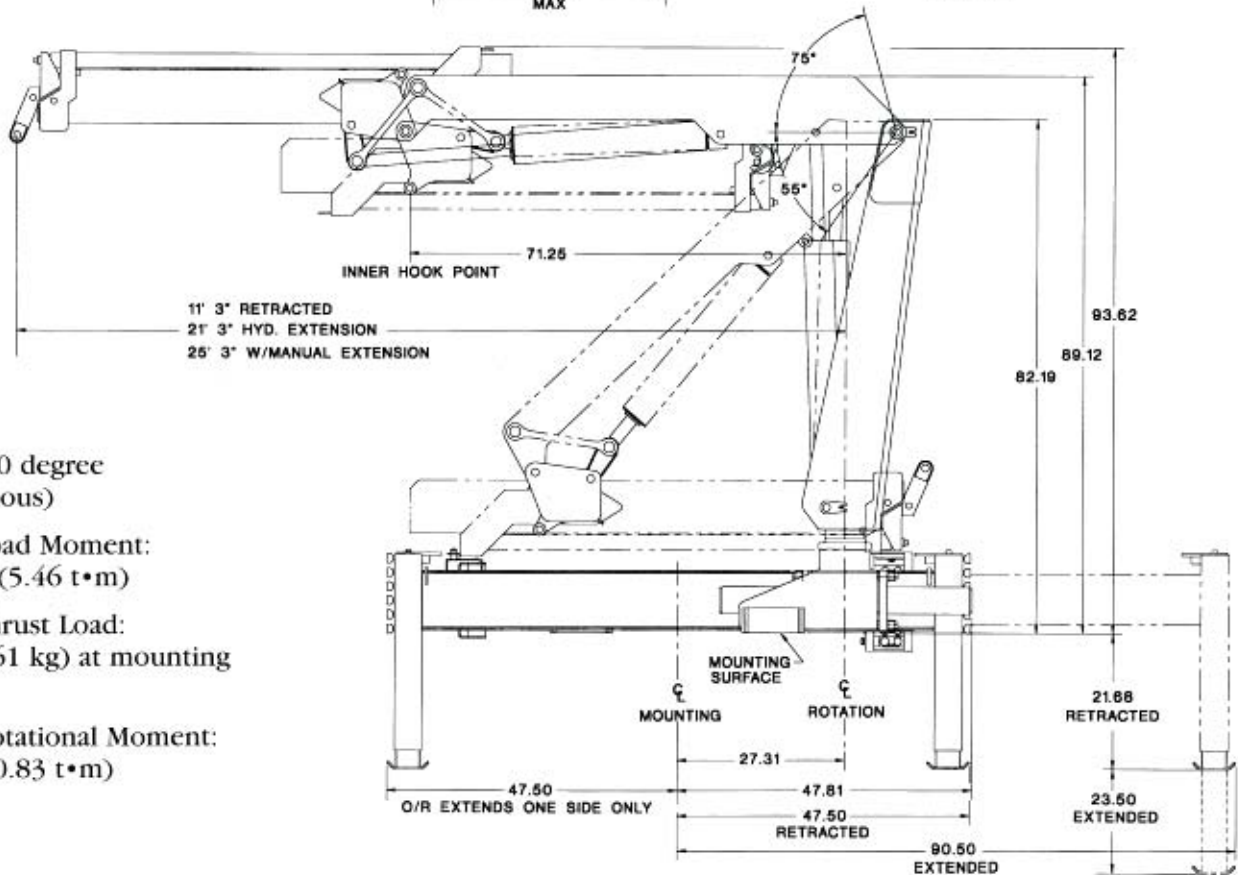
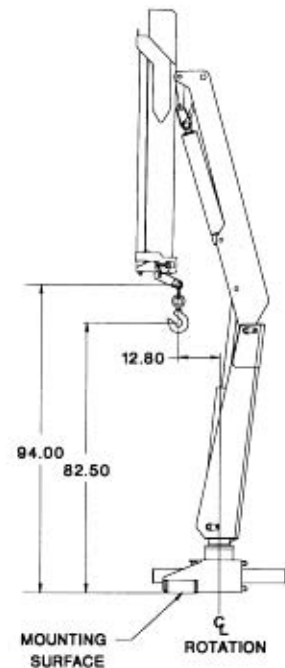
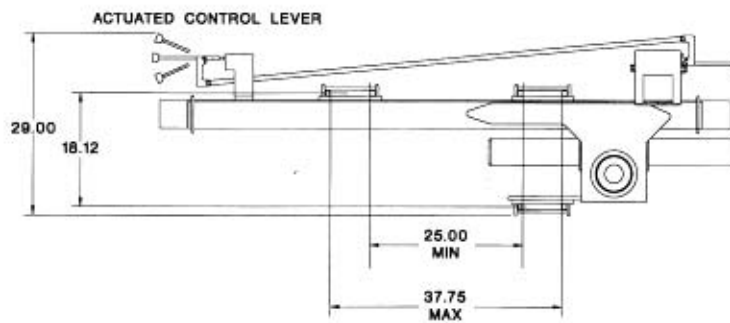
- Minimum wheelbase: 177 in (450 cm)
- Cab to rear axle (CA): 108 in (274 cm)
- After frame (AF): 52 in (132 cm) min.
- Recommended front axle rating: 7,000 lb (3175 kg) GAWRF
- Recommended rear axle rating: 15,000 (6804 kg) GAWRR
- Recommended vehicle rating: 21,000 lb (9526 kg) GVWR
- Working area: 360 degrees
- Truck weight: 11,000 lb (4990 kg) min.
- Chassis weight front axle: 4,200 lb (1905 kg) min.
- Chassis weight rear axle: 6,800 lb (3084 kg) min.
- Frame 50,000 psi (344 MPa) steel: 18.0-in³ (295.0-cm³) section modulus
- Frame 110,000 psi (758 MPa) steel: 13.3-in³ (213.1-cm³) section modulus
- Frame height: 38 in (97 cm) or less preferred
- Power take-off: 70 to 85 percent of engine speed; minimum 12 hp (9.0 kW) at maximum operating speed and pressure

National NC-35 Dimensional Specifications



CAUTION

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



Rotation: 360 degree
(non-continuous)

Maximum Load Moment:
39,494 ft•lb (5.46 t•m)

Maximum Thrust Load:
7,850 lb (3561 kg) at mounting
surface

Maximum Rotational Moment:
6,031 ft•lb (0.83 t•m)



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National Crane reserves the right to change designs,
prices and specifications at any time without notice.