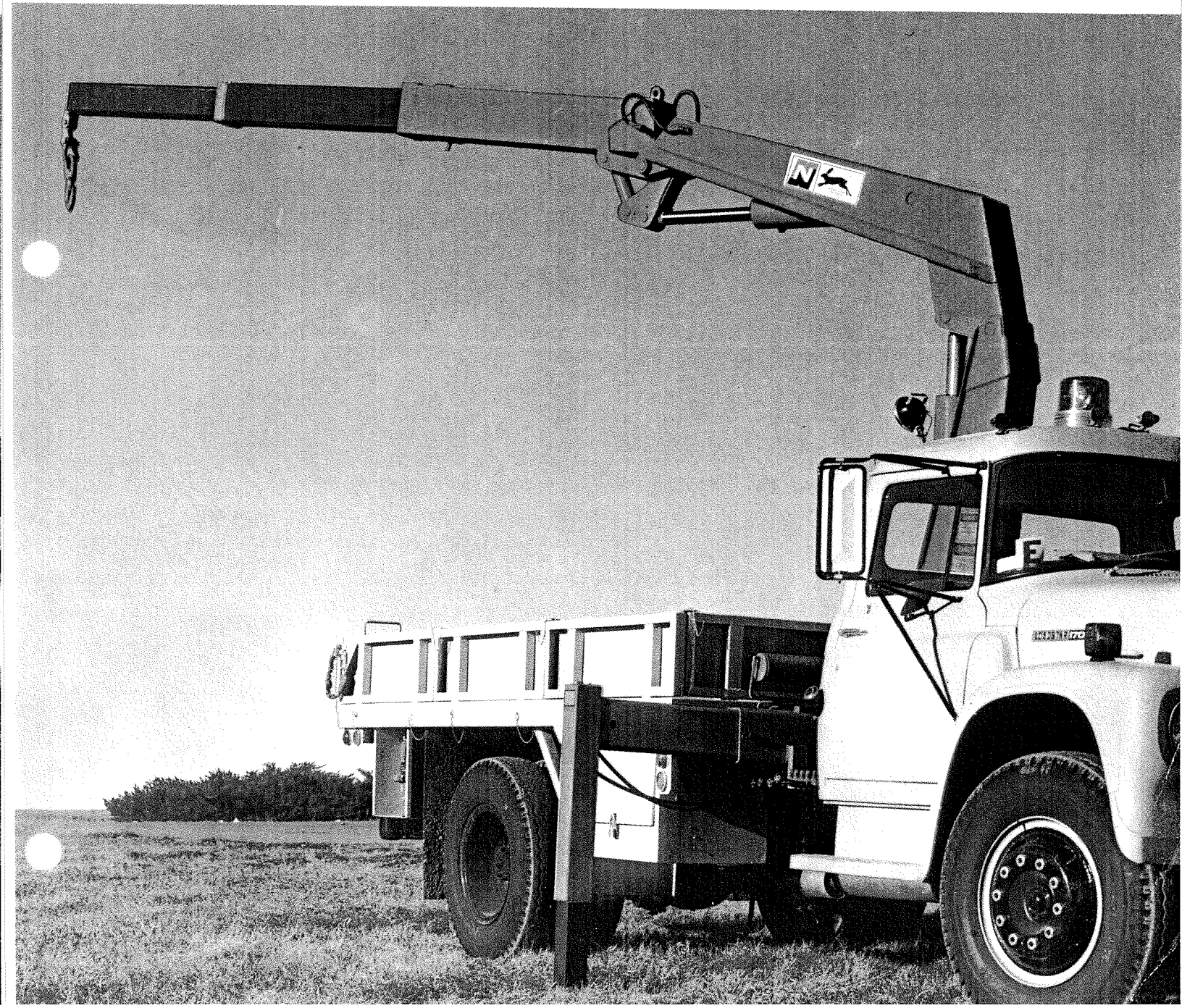
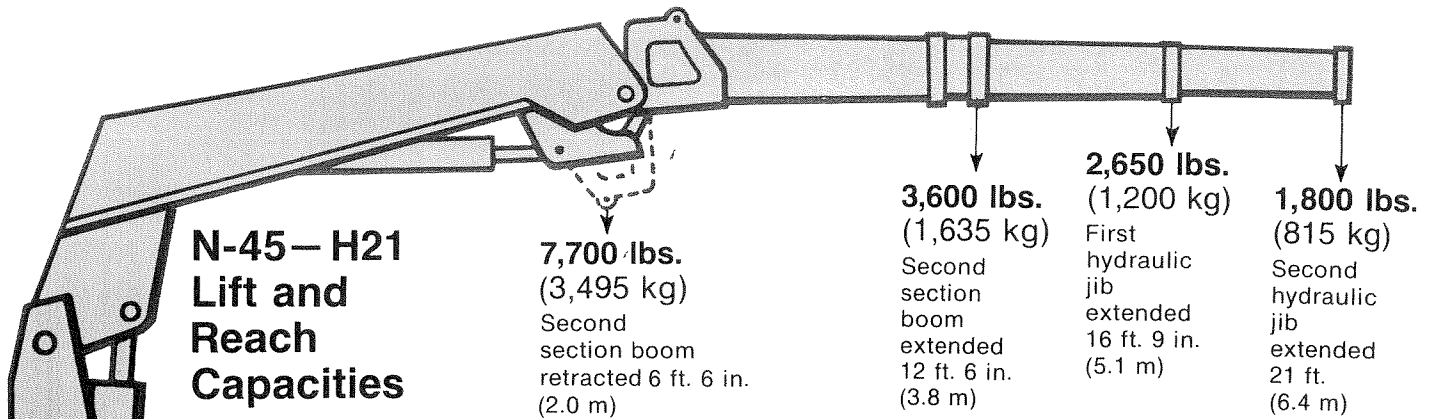




# NATIONAL CRANE N-45-H21

*The articulating boom crane  
with two hydraulic telescoping  
jibs that reach out to 21 feet.*





- Reach above truck frame to 27 ft. (8.2 m)
- Reach below truck frame to 12 ft. (3.7 m)

### THE BASIC UNIT

- Hydraulic reservoir
- Two hydraulic outriggers with manual extensions to 12 ft. (3.7 m)
- 390° rotation
- Five spool control valves
- Safety relief valve on rotation, inner and outer boom, plus lock-out valves on outriggers.
- Dual controls
- Crane hook
- Hydraulic pump and mounting group

### Working Attachments and Optional Accessories

- Winch
- Auger
- Grapples
- Pallet fork
- Remote control
- Personnel basket
- Clam bucket

### WARRANTY

The N-45 Rapid Rascal is built to the rigid, quality standards of National Crane, and is warranted for six months as to parts and workmanship. Complete warranty details are available upon request.

*The manufacturer reserves the right to alter or amend without notice any of the specifications, dimensions, and particulars contained in this publication.*

### Safety Features

- Special relief valves help prevent overload.
- Dual hydraulic controls allow operation from either side of truck.
- All hydraulic cylinders are double-acting.
- Flow restrictors prevent load from being lowered too fast, assisting in preventing shock loading or unexpected load drop.
- Velocity fuses prevent uncontrolled drop due to line failure.

### Technical Data

Capacities	American Standard	Metric System
	6' 6" ..... 7,700 lbs.	2.0 m ..... 3,495 kg
	12' 6" ..... 3,600 lbs.	3.8 m ..... 1,635 kg
	16' 9" ..... 2,650 lbs.	5.1 m ..... 1,200 kg
	21' ..... 1,800 lbs.	6.4 m ..... 815 kg
<b>Working Pressure</b>	2,500 PSI	170 bar
<b>Pump Capacity</b> (gear-type pump)	9 gallons/min.	34 liters/min.
<b>Oil Capacity</b>	17 gallons	64 liters
<b>Outrigger Span</b>	12 feet	3.7 m
<b>Stowed Height</b> (above truck frame)	79 inches	2.0 m
<b>Mounting Space</b> (behind cab)	22 inches	55.9 cm
<b>Weight</b>	3,080 lbs.	1,400 kg
<b>Rotation</b>	390 degrees	390 degrees
<b>Filter</b>	10 micron replaceable (spin-on type) filter	
<b>MINIMUM TRUCK RECOMMENDATIONS</b>		
<b>GVWR*</b>	21,500 lbs.	9,750 kg
<b>Dimensions</b>		
CA Cab-to-Axle	84"	214 cm
WB Wheel Base	148"	376 cm
<b>Chassis Weight</b> (including bed)		
	6,500 lbs.	2,950 kg
<b>Main Frame Channel</b>		
RBM**	680,000 in.-lbs.	76,825 joules
Section Modulus	12 in. <sup>3</sup>	196 cm <sup>3</sup>
<b>Axle Rating</b>		
Front GAWR†	7,000 lbs.	3,175 kg
Rear GAWR†	15,000 lbs.	6,805 kg
<b>Heavy-Duty Springs</b>		
*Gross Vehicle Weight Rating **Resistance to Bending Moment		
†Gross Axle Weight Rating		

**WARNING:** If misused or operated beyond capacities, resulting accidents with this machine can cause death or injury to operator and property.

**SOLD BY:**



**National Crane Corporation**

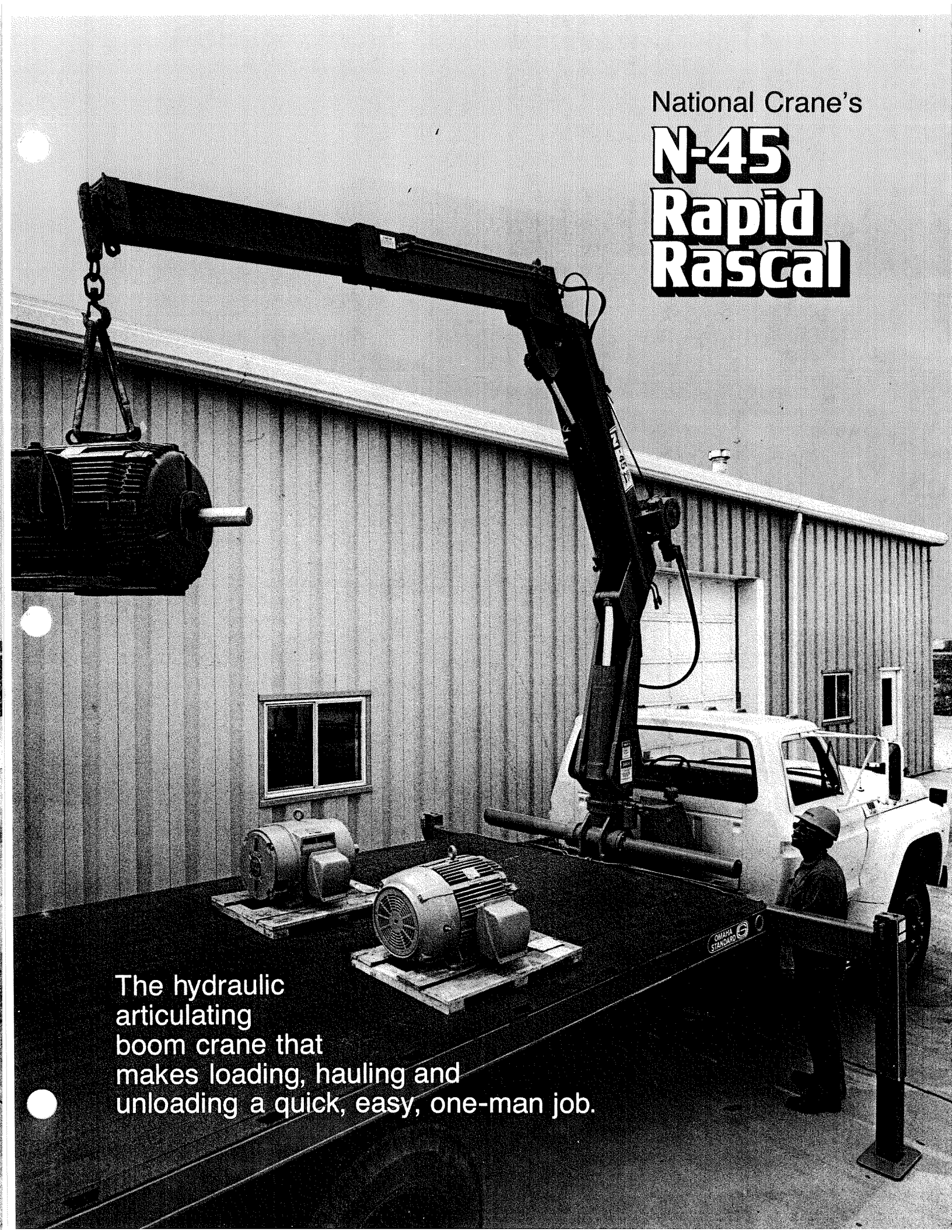
National Industrial Park  
Waverly, Nebraska 68462  
402-786-2240

an Apache subsidiary



National Crane's

# N-45 Rapid Rascal



The hydraulic articulating boom crane that makes loading, hauling and unloading a quick, easy, one-man job.

# NATIONAL'S N-45 Rapid Rascal

## THE BASIC UNIT

- Hydraulic reservoir
- Two hydraulic outriggers with manual extensions to 12 ft. (3.6 m)
- Hydraulic jib, maximum length 16 ft. 6 in. (5.0 m)
- 390° rotation
- Five spool control valves
- Safety relief valve on rotation, inner and outer boom, plus lock-out valves on outriggers.
- Dual controls
- Crane hook
- Hydraulic pump and mounting group

## Working Attachments and Optional Accessories

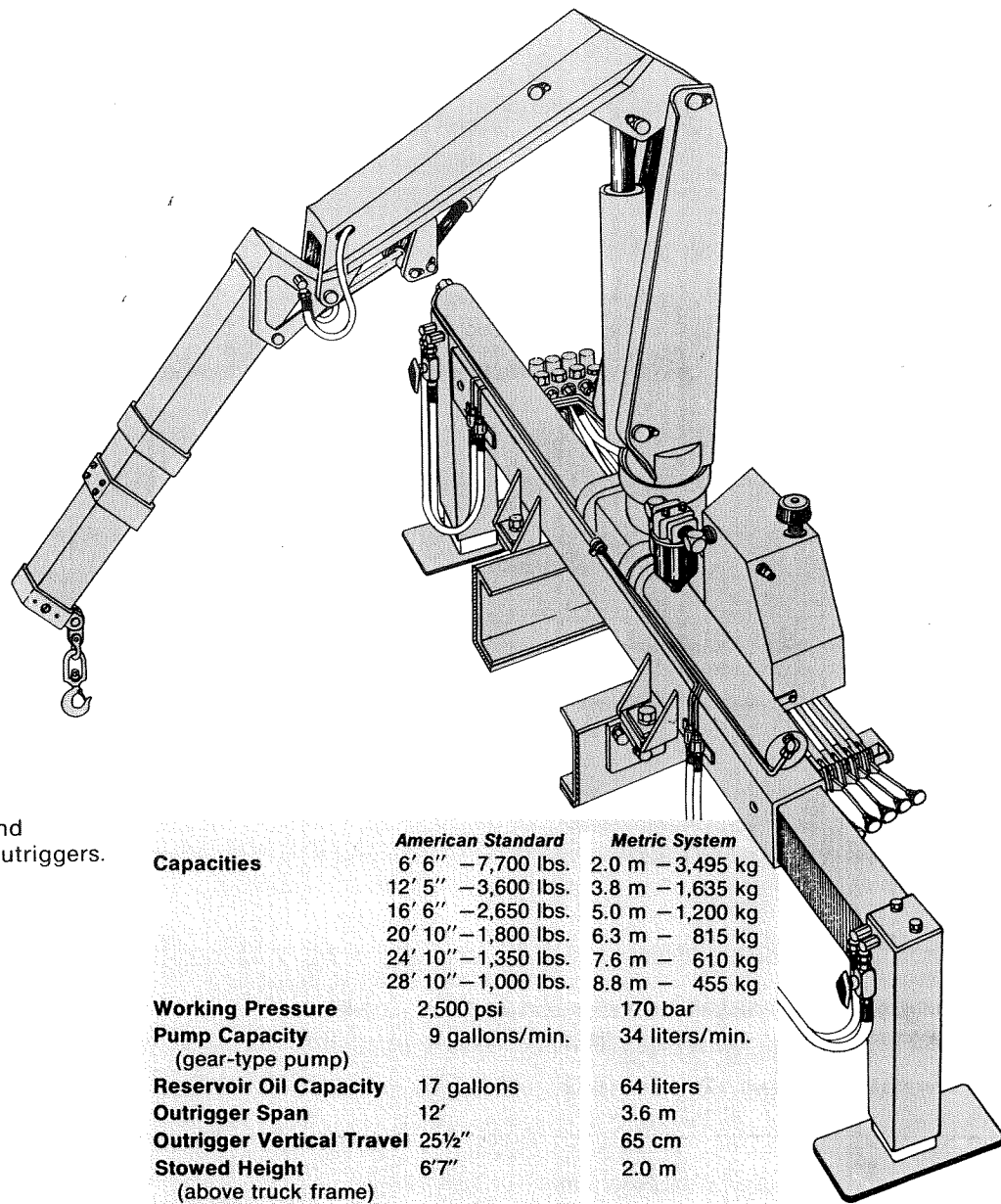
- Winch
- Auger
- Grapples
- Clam Bucket
- Pallet Forks
- Remote Controls
- Seated Controls
- Personnel Basket

### WARRANTY

The N-45 Rapid Rascal is built to the rigid, quality standards of National Crane, and is warranted for six months as to parts and workmanship. Complete warranty details are available upon request.

**WARNING:** If misused or operated beyond capacities, resulting accidents with this machine can cause death or injury to operator and property.

*The manufacturer reserves the right to alter or amend without notice any of the specifications, dimensions, and particulars contained in this publication.*



	<b>American Standard</b>	<b>Metric System</b>
<b>Capacities</b>		
	6' 6" — 7,700 lbs.	2.0 m — 3,495 kg
	12' 5" — 3,600 lbs.	3.8 m — 1,635 kg
	16' 6" — 2,650 lbs.	5.0 m — 1,200 kg
	20' 10" — 1,800 lbs.	6.3 m — 815 kg
	24' 10" — 1,350 lbs.	7.6 m — 610 kg
	28' 10" — 1,000 lbs.	8.8 m — 455 kg
<b>Working Pressure</b>	2,500 psi	170 bar
<b>Pump Capacity</b> (gear-type pump)	9 gallons/min.	34 liters/min.
<b>Reservoir Oil Capacity</b>	17 gallons	64 liters
<b>Outrigger Span</b>	12'	3.6 m
<b>Outrigger Vertical Travel</b>	25½"	65 cm
<b>Stowed Height</b> (above truck frame)	6'7"	2.0 m
<b>Mounting Space</b> (behind cab)	22"	56 cm
<b>Weight</b>	2,900 lbs.	1,315 kg
<b>Rotation</b> (non-continuous)	390°	390°
<b>Filter</b>	10 micron replaceable (spin-on type) filter	
<b>TRUCK RECOMMENDATIONS</b>		
<b>GVWR<sup>(1)</sup></b>	21,500 lbs.	9,750 kg
<b>Minimum Distance</b>		
CA (cab-to-axle)	84"	214 cm
WB (wheel base)	148"	376 cm
<b>Minimum Chassis Weight</b> (including bed)		
Front	3,300 lbs.	1,500 kg
Rear	3,200 lbs.	1,450 kg
<b>GAWR<sup>(2)</sup></b>		
Front	7,000 lbs.	3,175 kg
Rear	15,000 lbs.	6,805 kg
<b>Main Frame Channel</b>		
RBM <sup>(3)</sup>	680,000 in.-lbs.	76,825 joules
Section Modulus	12 in. <sup>3</sup>	196 cm <sup>3</sup>
<b>Heavy-Duty Springs</b>		
(1) Gross Vehicle Weight Rating (2) Gross Axle Weight Rating (3) Resistance to Bending Moment		

**SOLD BY:**



**National Crane Corporation**

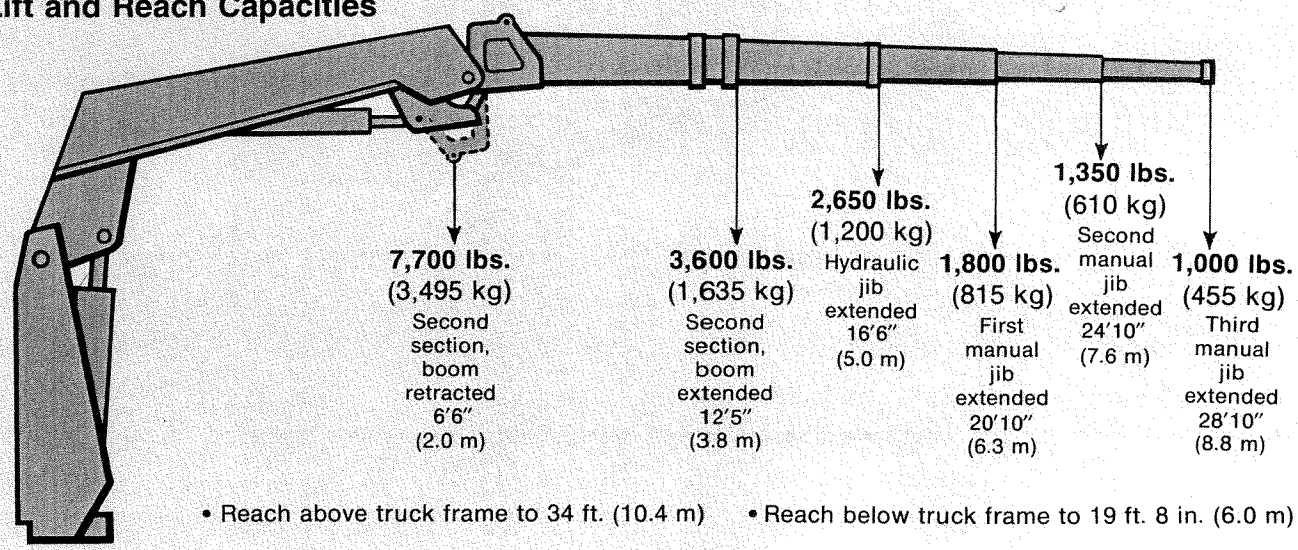
Waverly, Nebraska 68462  
402-786-2240

an **Apache** Subsidiary

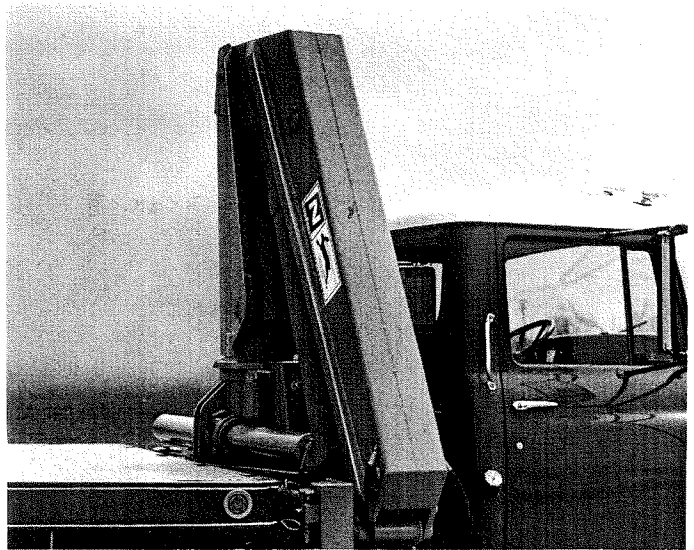
## Safety Features

- Special relief valves help prevent overload.
- Dual hydraulic controls allow operation from either side of truck.
- All hydraulic cylinders are double-acting.
- Flow restrictors prevent load from being lowered too fast, assisting in preventing shock loading or unexpected load drop.
- Velocity fuses prevent uncontrolled drop due to line failure. Pilot operated holding valves are optional.

### N-45 Rapid Rascal Lift and Reach Capacities

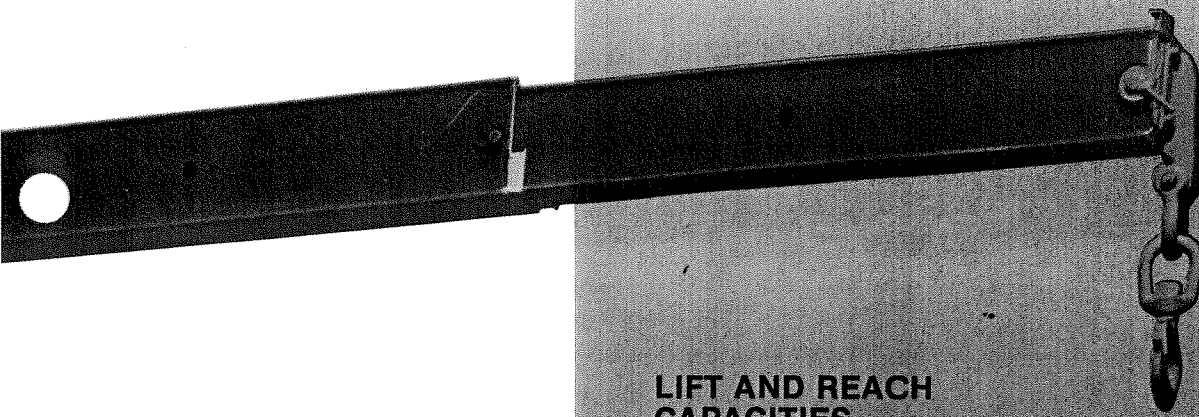


The Rapid Rascal has 390° rotation. It works loads on all sides of truck... front, rear, left and right. Heavy-duty, hydraulically-operated rack and pinion provides positive, no-drift boom rotation.



The N-45 tucks away between cab and bed in only 22 in. (56 cm), maximizing load hauling.





## LIFT AND REACH CAPACITIES

- Additional valve banks can be added if hydraulic accessories are required.
- Visually illustrated control knobs.
- All materials and manufacturing processes are subjected to over 350 line item inspections. Prior to shipment a final test and inspection is given to insure National Crane's quality standards are met.

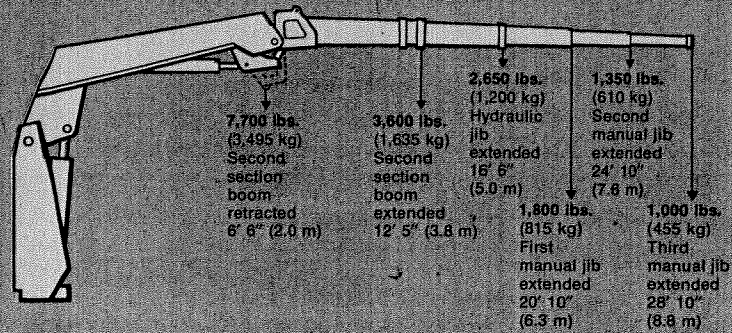
## SAFETY FEATURES

- Special relief valves help prevent overload.
- Dual hydraulic controls allow operation from either side of truck.
- All hydraulic cylinders are double-acting.
- Flow restrictors prevent load from being lowered too fast, assisting in preventing shock loading or unexpected load drop.
- Velocity fuses prevent uncontrolled drop due to line failure. Pilot-operated holding valves are optional.

### N-45

Work above truck frame to 34' (10 m)

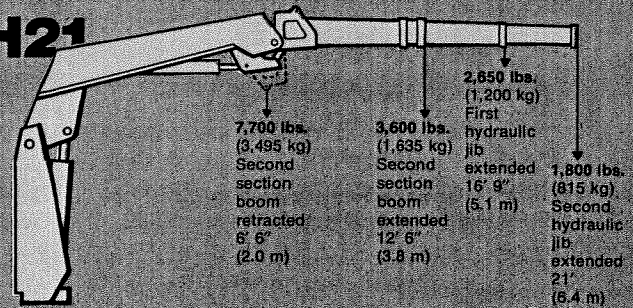
Work below truck frame to 20' (6 m)



### N-45-H21

Work above truck frame to 27' (8.2 m)

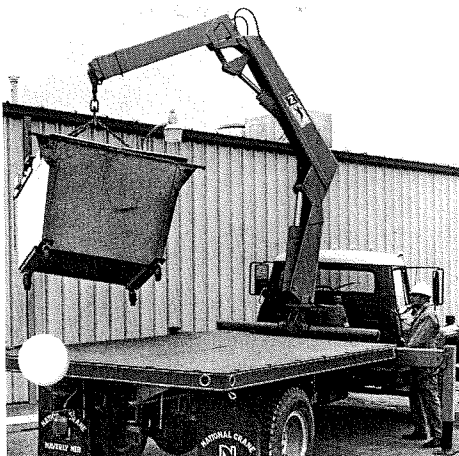
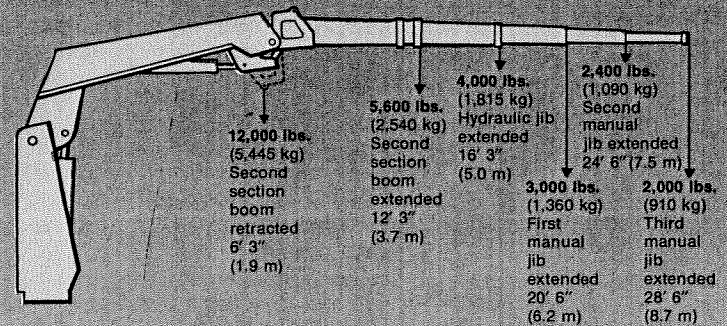
Work below truck frame to 12' (3.7 m)



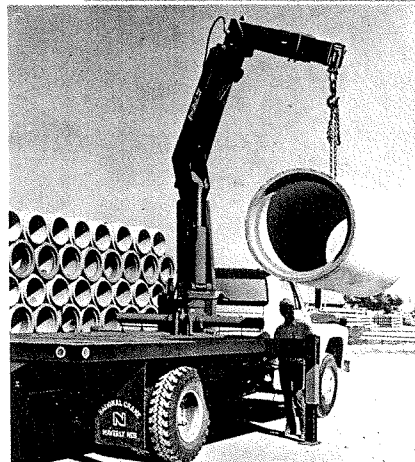
### N-70

Work above truck frame to 34' (10 m)

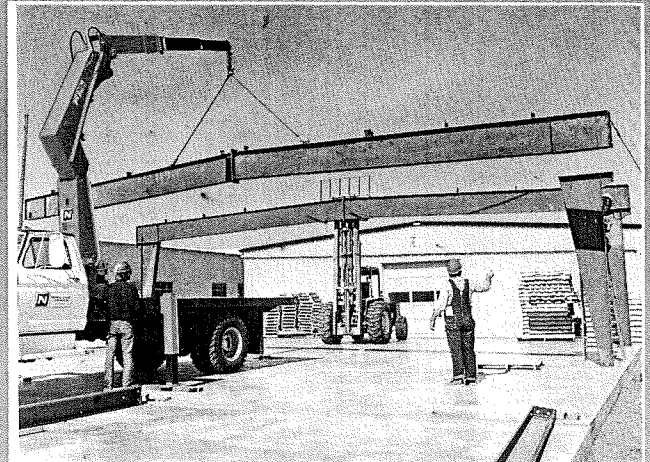
Work below truck frame to 20' (6 m)



390° non-continuous rotation. Heavy-duty hydraulically-operated rack and pinion provides no drift boom rotation.



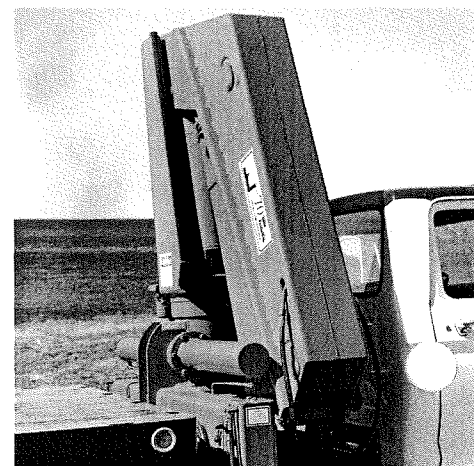
Operator can pinpoint load placement with fine-metering type controls.



Does big jobs, or small, and moves at highway speeds from job site to job site.

# National's Articulating Cranes can handle the big jobs quicker and easier... with these big features.

- Standard SAE fittings and components.
- Horizontal, waist-level, in-line dual controls. Operator can work loads from either side of the truck.
- Individually controlled hydraulic outriggers with extra large pads give greater stability on soft or uneven ground.
- Manual horizontal outriggers provide for increased stability under heavy-load operations.
- Hydraulic jib cylinder is fully enclosed to protect from weather and external damage.
- Safety lock-out on each outrigger prevents retraction except under power.
- Outrigger cylinder shafts totally enclosed to minimize shaft damage.
- Fine-metering type controls provide for pinpoint placement of load. Special relief feature helps prevent overloads.
- Simultaneous control of boom movement and rotation. Rotation is 390° non-continuous.
- High-pressure tubing is used wherever possible to reduce hose wear.
- Wire-braid reinforced hydraulic hoses are routed inside structural members, where possible, to protect against damage.
- Cylinder shafts are hard-chrome plated.
- All cylinders are double-acting.
- Large-diameter greaseless pins at all pivot points.
- Three-point mounting takes the flex of the truck frame under load.
- The hydraulic supply system oil tank is detachable allowing for quick and easy maintenance access. Optional location of oil tank available.
- Engineered and designed for ease of mounting with minimum amount of required time.



Tucks away between the cab and bed, maximizing load-hauling capacities.