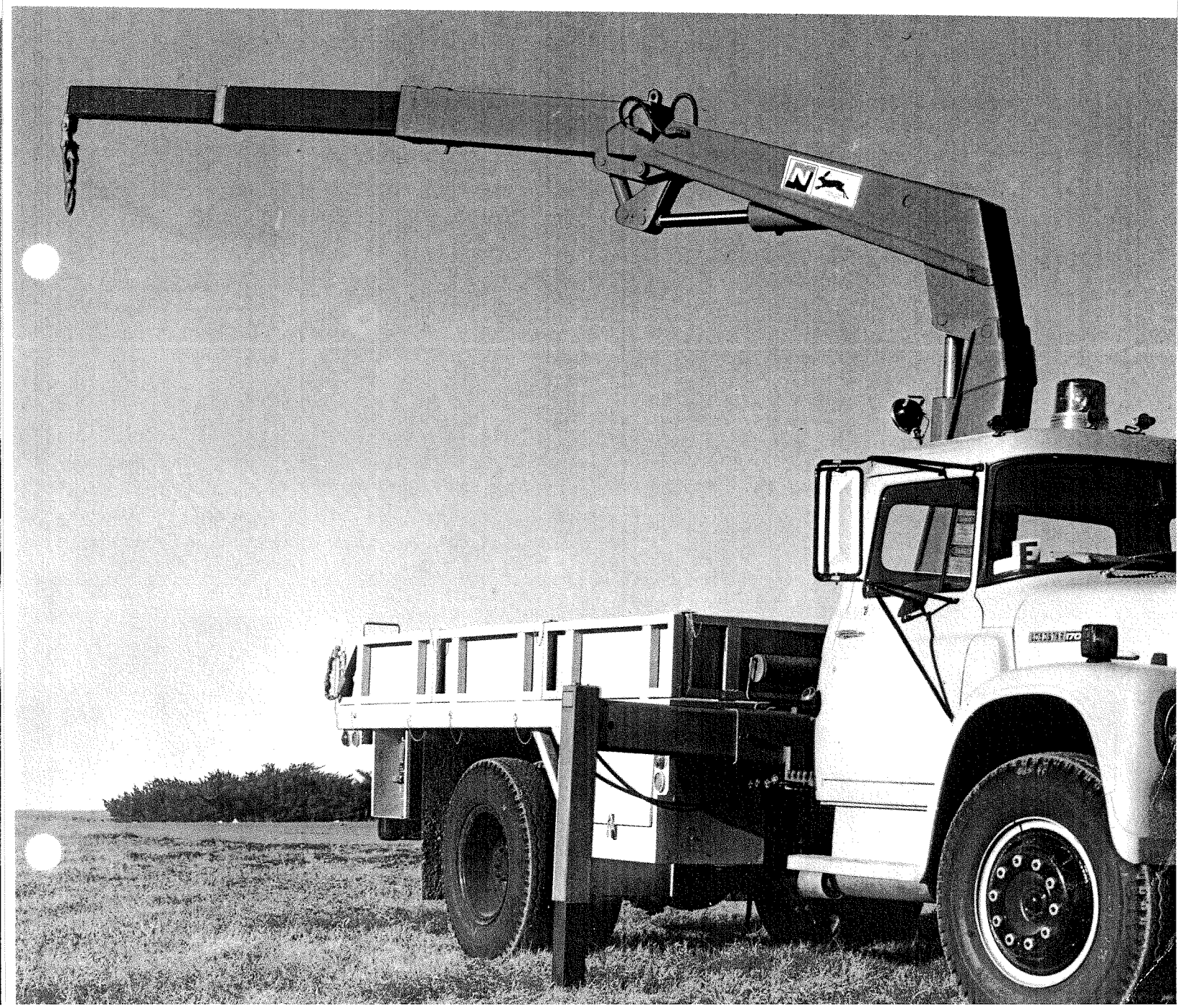
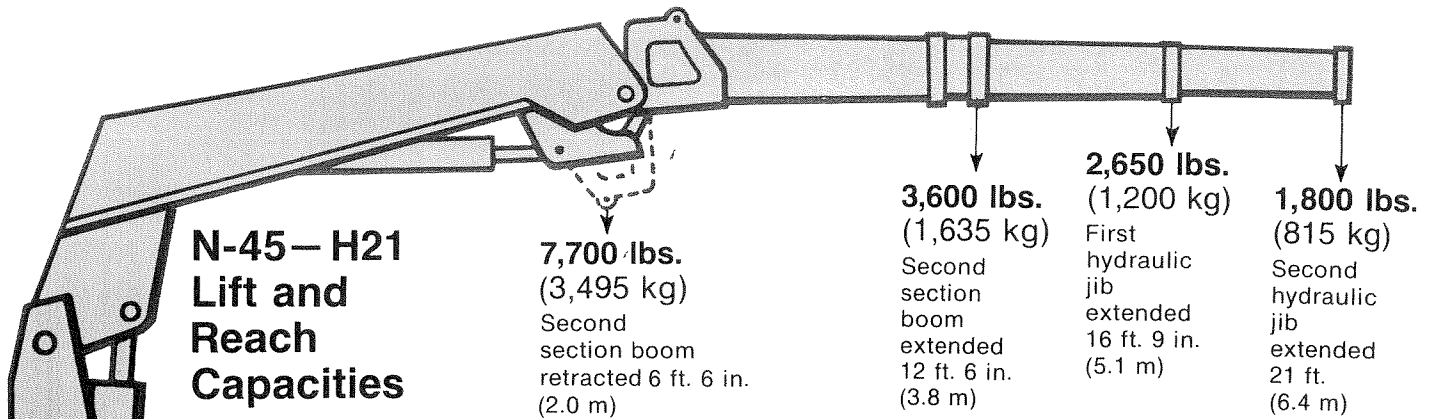




NATIONAL CRANE N-45-H21

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



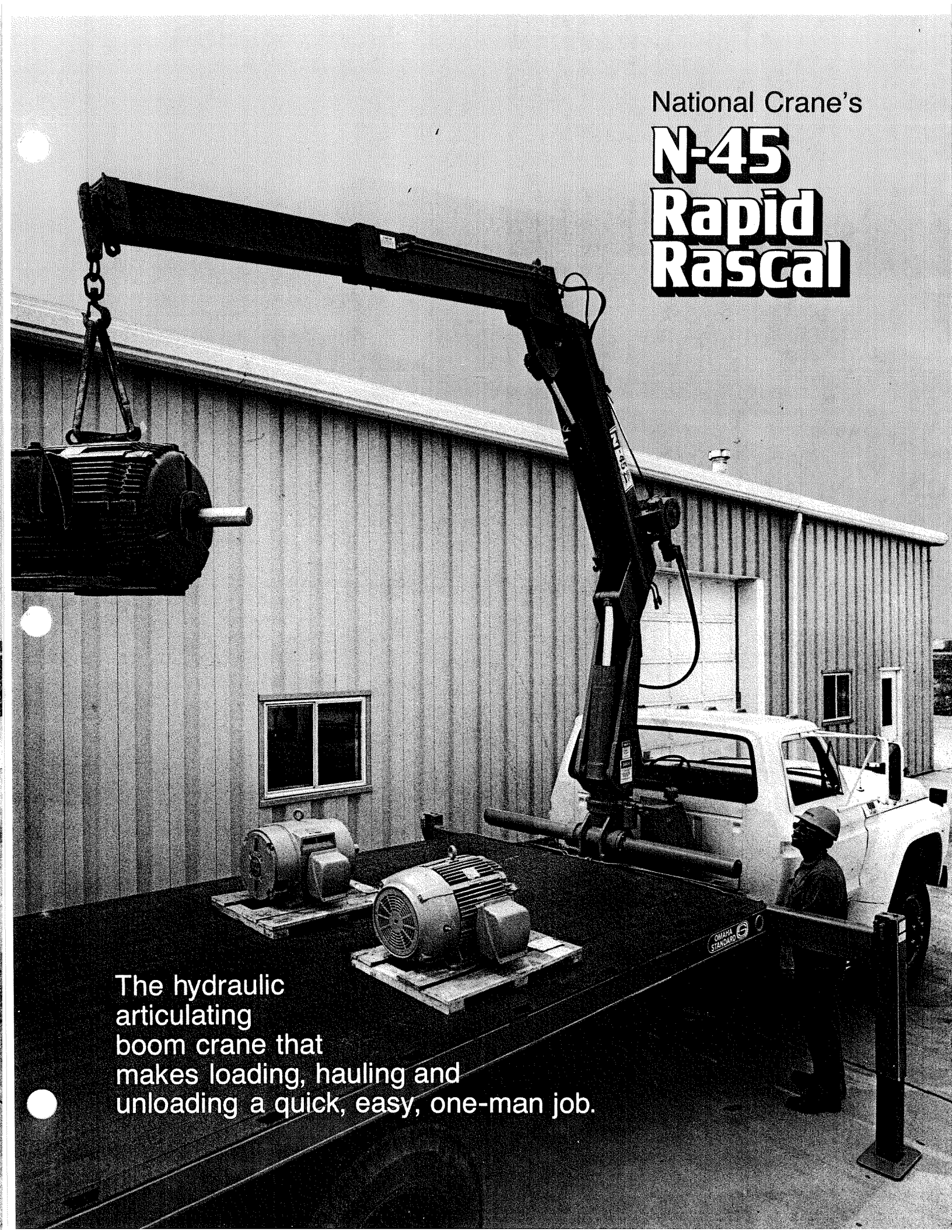
National Crane Corporation

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

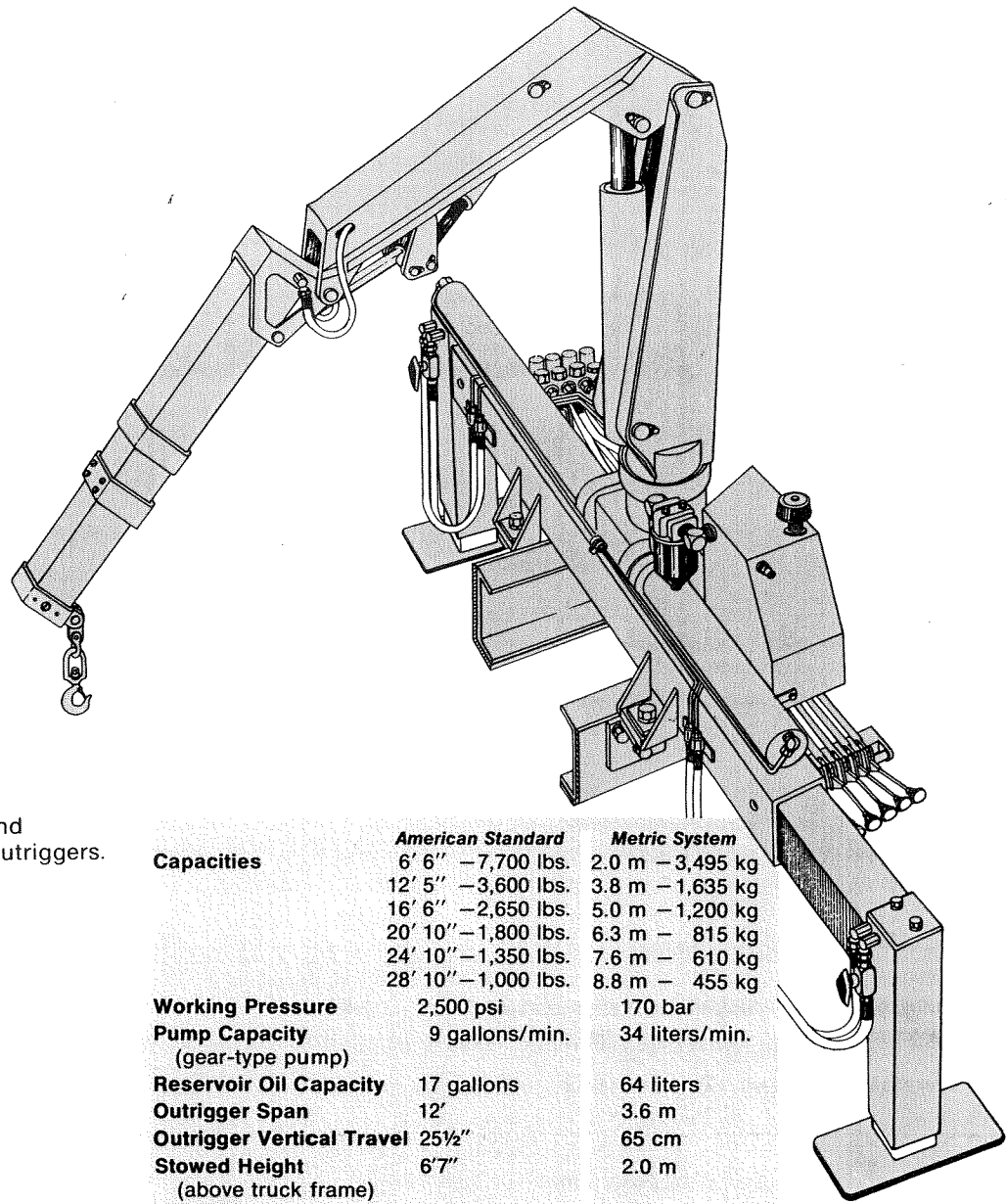
- Winch
- Auger
- Grapples
- Clam Bucket
- Pallet Forks
- Remote Controls
- Seated Controls
- Personnel Basket

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.



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



National Crane Corporation

Waverly, Nebraska 68462
402-786-2240

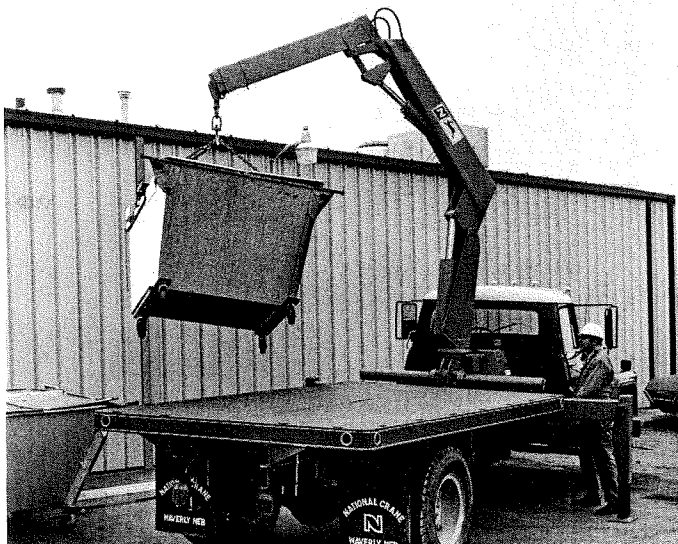
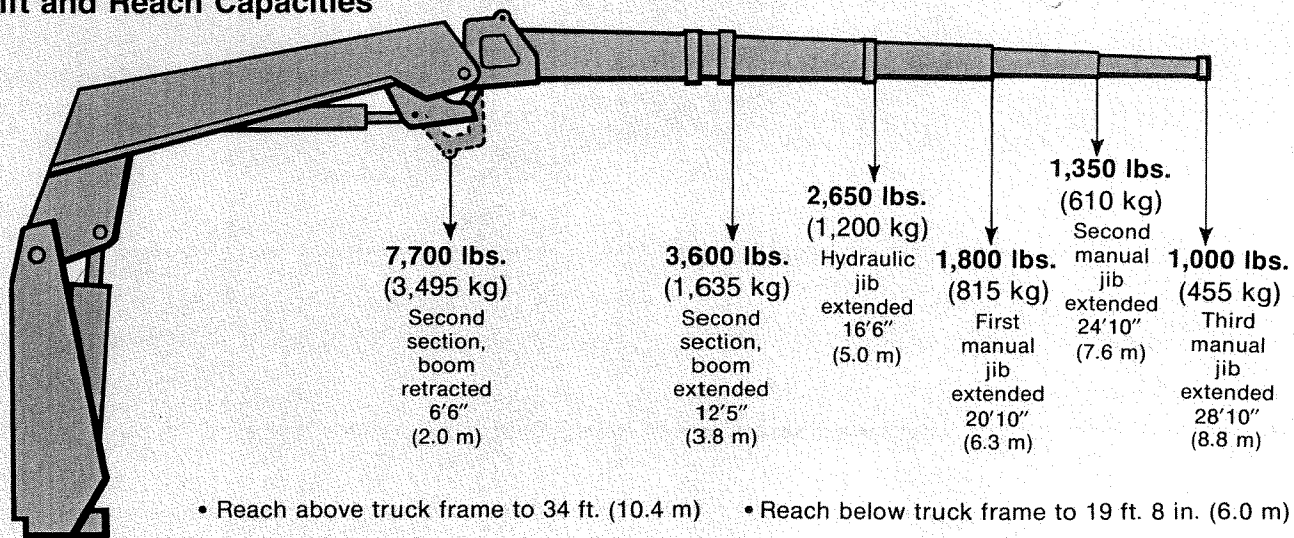
an **Apache** Subsidiary

SOLD BY:

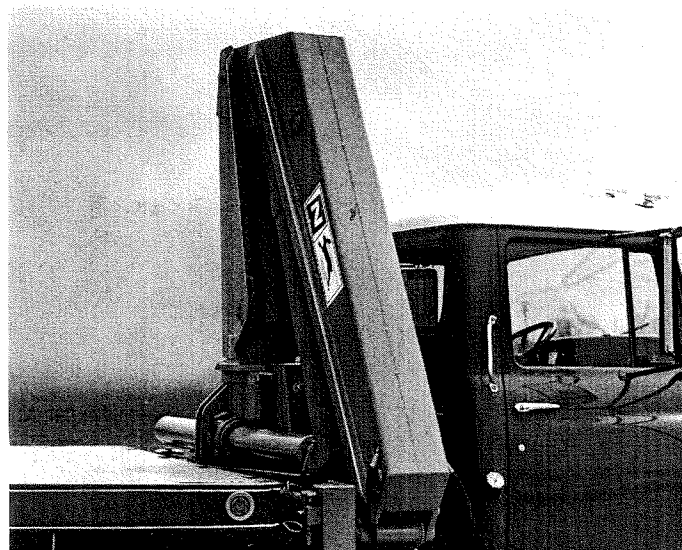
Safety Features

- 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.

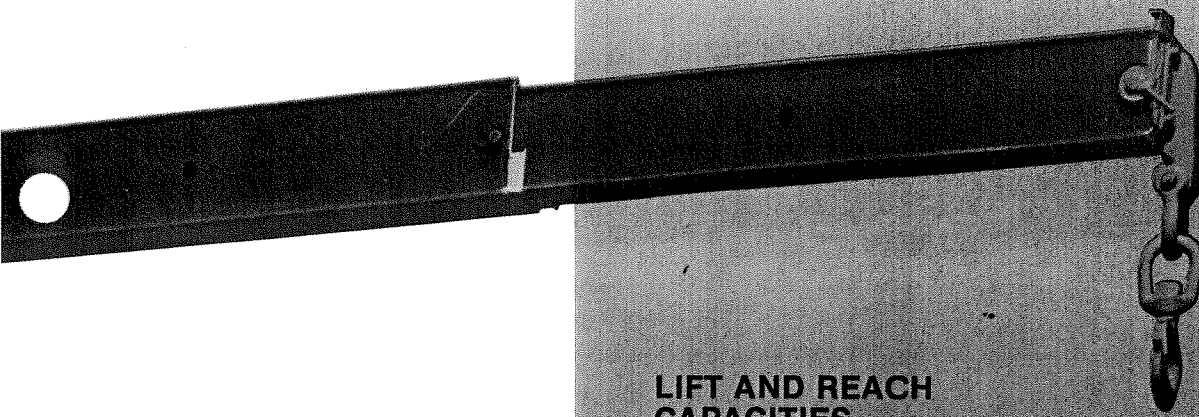
N-45 Rapid Rascal Lift and Reach Capacities



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.

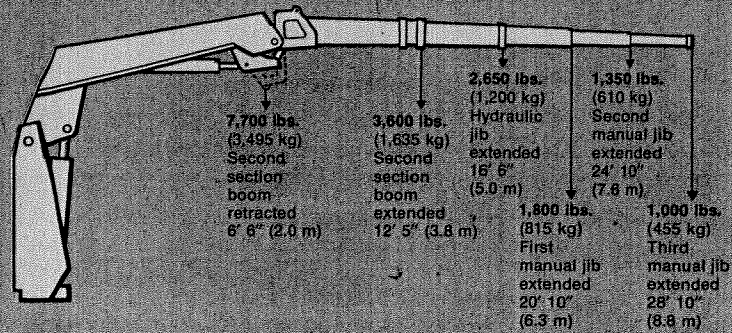
SAFETY FEATURES

- 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)

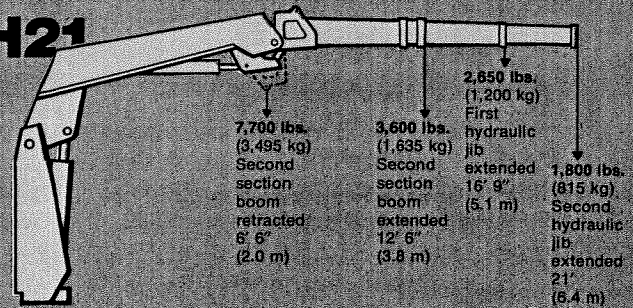
Work below truck frame to 20' (6 m)



N-45-H21

Work above truck frame to 27' (8.2 m)

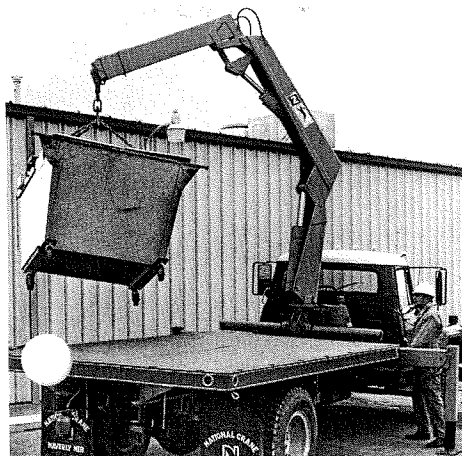
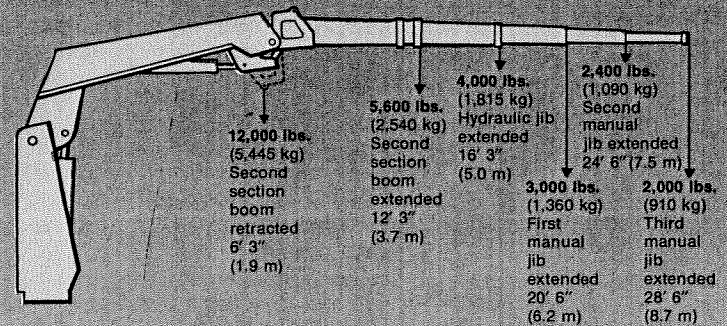
Work below truck frame to 12' (3.7 m)



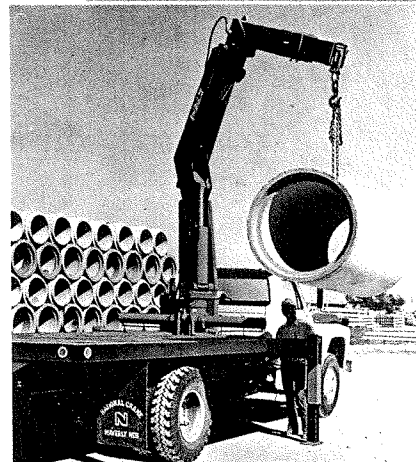
N-70

Work above truck frame to 34' (10 m)

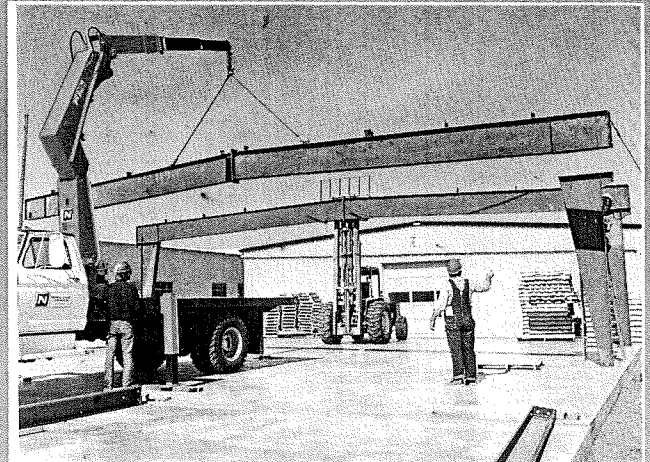
Work below truck frame to 20' (6 m)



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



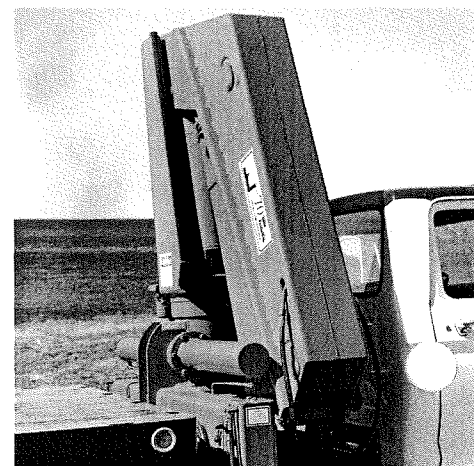
Operator can pinpoint load placement with fine-metering type controls.



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.