

**NATIONAL
SERIES 200
PROPOSAL**

Date: _____

Prepared for: _____

Submitted by: _____

(Firm Name) _____

(Address) _____

(City & State) _____

(Zip) _____

(Phone) _____

Signed: _____



NATIONAL CRANE

Subsidiary of Kidde, Inc.
KIDDE

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

Description:

- 1. Series _____ \$ _____
- 2. Boom _____ \$ _____
- 3. Jib _____ \$ _____
- 4. Line Block 2 Part \$ _____

Attachments:

- 5. _____ \$ _____
- 6. _____ \$ _____
- 7. _____ \$ _____

Mounting:

- 8. Installation Std. Spec _____ \$ _____
- 9. Frame reinforcing Weld Bolt-Extra _____ \$ _____
- 10. Platform body _____ Ft. Wood Steel _____ \$ _____
- 11. Weight in bed _____ lbs (if required) _____ \$ _____
- 12. Boom rest Parallel Low _____ \$ _____
- 13. Chassis _____ \$ _____
- 14. Rear Bumper _____ \$ _____
- 15. Freight _____ \$ _____

This quotation will remain firm for _____ Days.

Accepted by: _____ \$ _____
(Name) Total Price

(Firm Name) Date

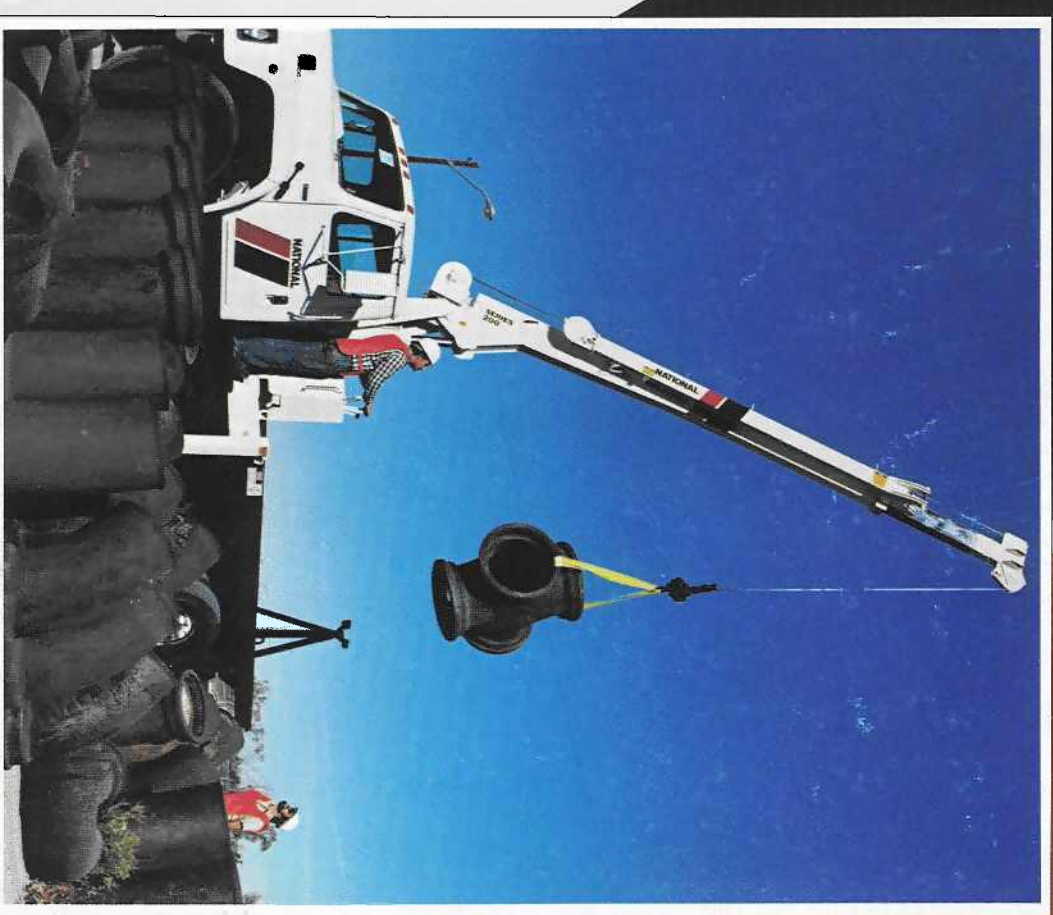
General Offices
11200 North 148th Street/Waverly, NE 68462/402/786-2240

Service Center
701 N.W. 27th Street/Lincoln, NE 68528/402/474-2666

Your National Dealer

NATIONAL SERIES 200

Truck-mounted telescoping cranes and accessories
Maximum height: 48 feet/14.6 meters
Maximum capacity: 10,700 pounds/4.9 metric tons



**AMERICA'S
TRUCK-MOUNTED
HYDRAULIC CRANE LEADER**

NATIONAL SERIES 200

National is America's leading manufacturer of commercial truck-mounted telescoping and articulating cranes. We build cranes for a wide range of jobs. And nobody builds them better. Nationals are tough, durable, and dependable—the sensible answer to your everyday lifting requirements.

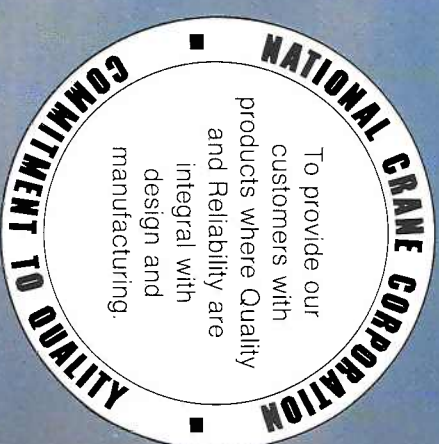
With a National, you are assured of a well-engineered, well-manufactured, and fully tested machine designed for your applications. At National we put quality first. Our commitment to product quality is our pledge to provide our customers with reliable products designed to provide years of service.

National's Series 200 telescoping crane gives you what you want and need in a tough, compact crane. Consider these Series 200 facts and features:

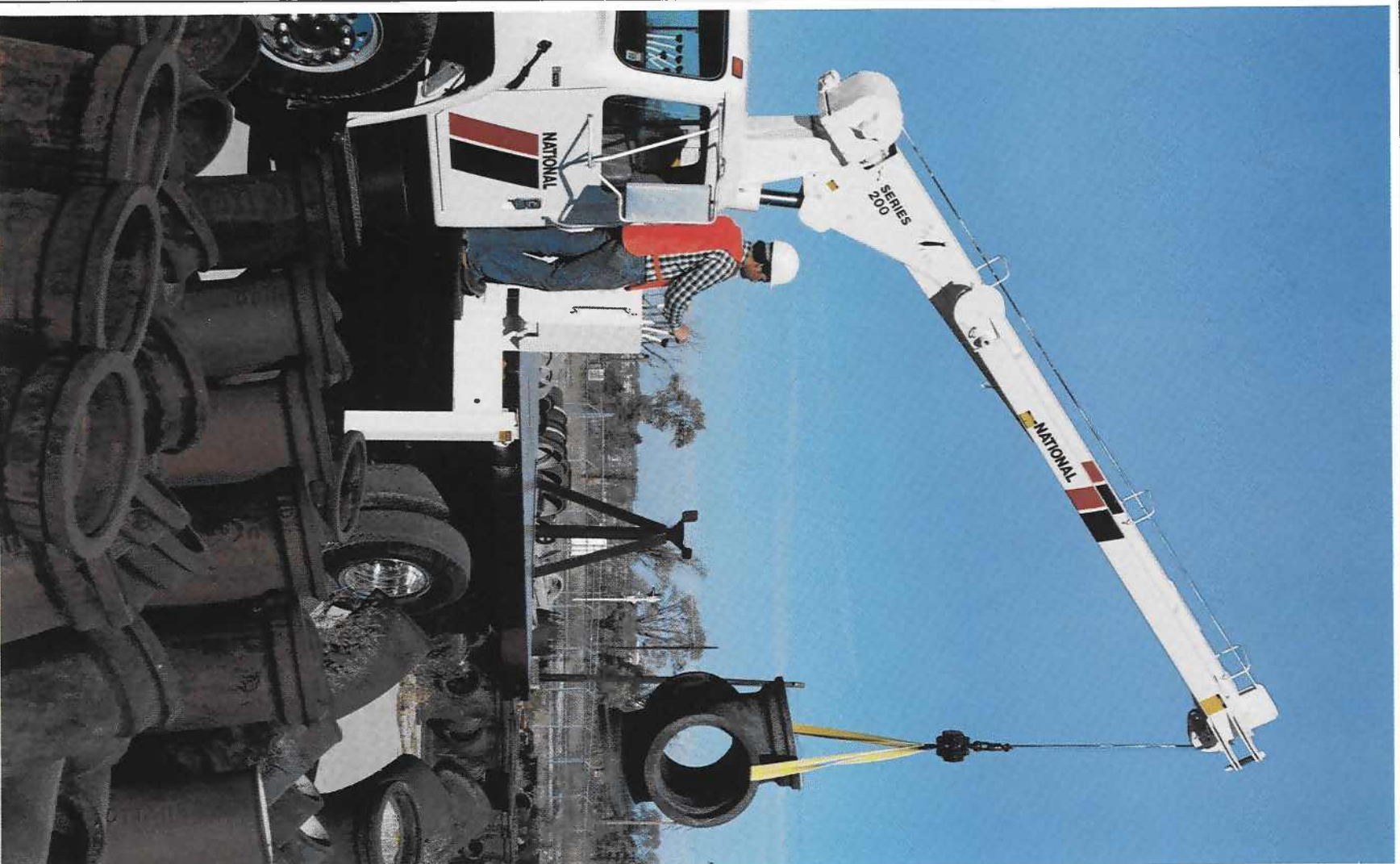
- 10,700-pound (4.9MT) rated capacity
- Reaches up to 48 feet (14.6m) high
- Box-section boom construction provides extra strength and lower boom weight
- Boom corner seams are ultrasonically tested for proper weld penetration
- Dual controls in SAE recommended orientation
- Control stations positioned at platform level for greater visibility and easier operation
- Compact mounting leaves more room for payloads
- Wide, fully hydraulic outriggers with extra-large pads provide a consistently wide stance and better leveling on uneven ground.

- Rack and pinion turret rotation
- All control valves are located for easy service
- Mounts on standard, single rear axle trucks with the versatility of two mounting configurations
- Horn and stop switches located at each control station
- Accessory line adds to versatility

Like all Nationals, the Series 200 goes anywhere you can drive a truck. It sets up fast. Operates easily. Works productively. It is a cost-efficient loading and lifting system that will boost your production and pay its way.

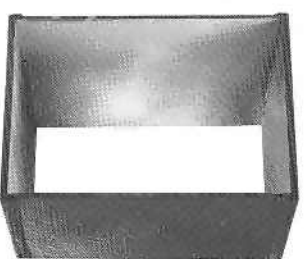


National's anti two block system is standard on all National cranes (as of June 1, 1986). Photos in this brochure taken prior to that date may not show the crane equipped with the current standard anti two block protection system.



Strong, Four-Plate Booms.

We fabricate our telescoping boom sections from four high-strength steel members welded with perpendicular corners. This box-section construction lets us use thicker top and bottom plates for extra strength. The use of thinner side plates means increased capacity through lower boom weight. Only strong, low alloy steel is used in National booms. It is welded with automatic, low-hydrogen techniques for extra strong seams. Corner seams are ultrasonically tested for proper penetration.



Smooth Extension.

National booms telescope smoothly and easily, even under full load, gliding on extra-smooth, self-lubricating nylon bearing plates.

Dual Controls.

Dual controls are standard on the Series 200. Boom control stations are identical at each control station, so the same hand always works the same function. And we've positioned the stations at platform level for greater visibility and easier operation. Each station is equipped with an engine stop button for safety and a horn for signaling and warnings. The control system utilizes specially-designed notched metering valves for precise control of all movements. All valves are easily reached for fast, easy service.



Less Space.

The Series 200 is built tough, yet compact. Even with the standard access area between the cab and crane, the 200 takes only 34 inches of bed space, leaving more room for payloads. The access area is a passageway, allowing limited operator movement between control stations.



Wide, All-Hydraulic Outriggers.

Series 200 outriggers are fully hydraulic for fast, easy set-up. They extend 12 ft, 1 3/4 in. (3.7m) horizontally and 25 1/2 in. (65cm) vertically from either side of the standard vertical travel, plus extra-large outrigger pads, give you extra stability, even on soft or uneven ground.

Standard automatic check valves prevent settling of outriggers. Cylinders lock automatically when stowed and will not leak down in transit.

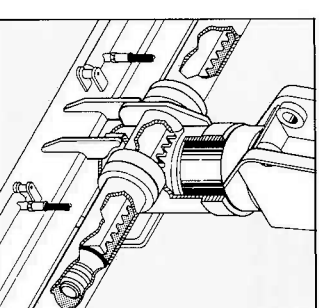


Easy Service.

The Series 200 has been engineered, from the frame up, for maximum speed and ease of service. The boom extend cylinder can be removed for service through the end of the boom by simply removing the winch assembly. There's no need for the complex and time-consuming pulling of the second section. All control valves have been specifically located for easy service. Just remove the control console cover and there they are. The oil reservoir has been separated from the crane frame for easy attachment and access on the truck frame. All this means your Series 200 crane will spend less time in maintenance, more time on the job.

Positive Turret Rotation.

The Series 200 gives you the precision of rack and pinion rotation. Our rack and pinion system is simple, reliable and, because it has fewer parts, easy to maintain. Service is convenient: We've also reduced the bulk of the frame above the truck to lower the center of gravity.



NATIONAL SERIES 200 BOOMS AND JIBS

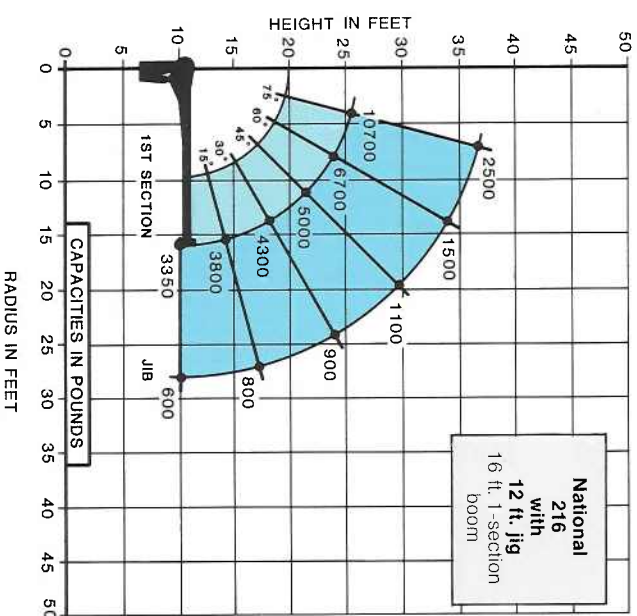
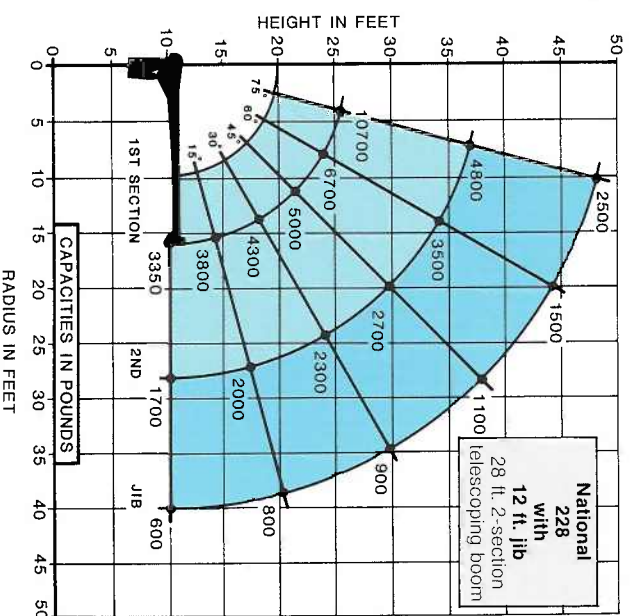
The versatile Series 200 is now available with working heights to 48 feet (14.6m). Pick the standard fixed boom, the two-section telescoping boom or add our 12-foot (3.7m) side stowing jib for extra reach.

The side of the main boom, not underneath, like many other cranes. That makes rigging and stowing the jib a simple one-operator job. Your National dealer can help you pick the reach and working height that will give you the greatest versatility and working capability.

Boom and Jib Combinations.
Model 216 Base unit equipped with 16 ft. (4.9m) fixed boom.

Telescoping Boom
Model 228 16 (4.9m) to 28 (8.5m) ft., 2-section.

Jib Option
12 ft. (3.7m) straight, side stowing.



228 Capacity*

(Metric equivalents shown in parentheses)

Radius	All Booms	
	Retracted	Extended
Maximum Capacity	10,700 lbs. (4,853kg.)	
8' (2.4m)	6,600 lbs. (2,994kg.)	
12' (3.7m)	4,750 lbs. (2,155kg.)	
16' (4.9m)	3,350 lbs. (1,520kg.)	3,200 lbs. (1,452kg.)
20' (6.1m)		2,700 lbs. (1,225kg.)
24' (7.3m)		2,300 lbs. (1,043kg.)
28' (8.5m)		1,700 lbs. (771kg.)

*Capacities shown are for the 228 with the load suspended. radius shown includes increase due to boom deflection. Capacities vary for cranes equipped with jibs or attachments. Consult factory for specific load rating information.

Do not operate crane or accessories within 10 feet (3m) of live power lines.

- Load ratings shown on this chart are maximum allowable loads with the outriggers properly extended on a firm level surface and the crane factory-recommended truck.
- The operator must reduce loads to allow for factors such as wind, ground conditions, operating speeds and the effect of freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights of any accessories attached to the boom or load-line must be deducted from the load chart capacities.
- Do not exceed jib capacities at any reduced boom length.

NATIONAL SERIES 200 WINCH DATA

- Caution:**
- Do not deadhead lineblock against boom tip when extending boom
 - Keep at least three wraps of load line on drum at all times.
 - Use only the specified cable on this machine

Line	1-Part Line	2-Part Line	3-Part Line
These are the ratings of the winch system when reeved accordingly.			

Winch	Cable Supplied	Average Breaking Strength	Lift and Speed	Lift and Speed	Lift and Speed
Tulsa Model 9	7/16 diam. 8x19 IWRC	17,940 lbs. 8.97 tons	5,100 lbs. 85 fpm	10,200 lbs. 42 fpm	10,700 lbs. 28 fpm

All winch pulls and speeds are shown on the third layer. Winch pulls would increase on the first and second layers. Winch line speeds would decrease on the first and second layers. Winch pulls may be limited by the winch capacity or the OSHA 3.5 to 1 cable safety factor. These are shown below:

Winch	Bare Drum Pull	Allowable Cable Pull
Tulsa Model 9	6,100 pounds	5,100 pounds

*Maximum bare drum pull is 6,100 pounds with Tulsa Model 9 winch; however, because of the 3.5 to 1 OSHA safety factor, maximum rated pull on a single line cannot exceed 5,100 pounds.

NATIONAL WARRANTY PARTS AND SERVICE

The National Warranty.

No product is better than its warranty. And no warranty is better than the company behind it.

We didn't get to be America's largest manufacturer of truck-mounted telescoping and articulating cranes by building less than the best. Or backing them with less than a comprehensive warranty.

Our warranty covers your crane against defects in materials or workmanship for **six full months** from the date of shipment, subject to the conditions of the warranty.

When you select a National crane, you're getting more than just a crane. You're getting a nationwide dealer warranty service network, strong warranty protection and our special concern for every product we make.

Read our warranty. Then, don't settle for less. For complete information, write National Warranty Service, Waverly, NE 68462.

The National Parts System.

Authorized National Crane dealers maintain a parts supply to support the National cranes in each dealer's area. If a dealer cannot immediately supply a needed part, the factory can normally provide the part to the dealer within 48 hours on request. National's responsiveness to dealer requests means that your crane will be back on the job fast. National maintains a highly trained Service and Parts staff to answer dealer service questions and expedite parts shipping.

The National Service Center.

Just west of Lincoln, Nebraska, we maintain a well-equipped service center. Here, we do all our factory crane mounting.

The central location of our Lincoln Service Center makes it easy to return cranes for special modifications or extreme repairs. Most National dealers can perform all but the most unusual modifications or most serious repairs.

Should you need to return your crane to us for modification, warranty repair or other service, we will give it priority care and see it's returned as soon as possible.



