

National Series 800B Proposal

Date: _____	
Prepared for: _____	
Submitted by: _____	

_____ (Firm Name)	
_____ (Address)	
_____ (City & State)	
_____ (Zip)	
_____ (Phone)	
Signed: _____	
National reserves the right to change designs, prices, and specifications at any time without notice.	
Your National Dealer	

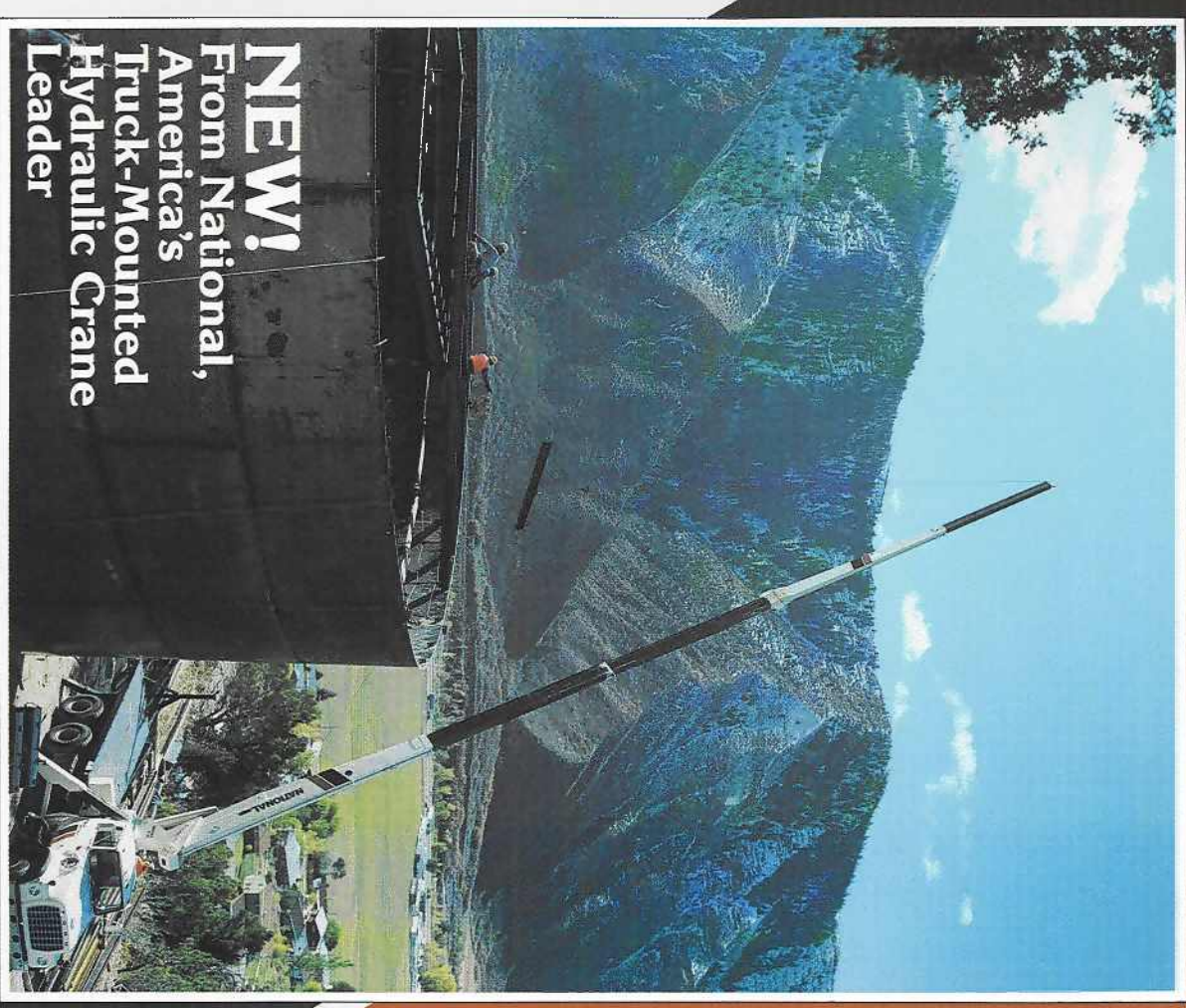
Description	Price
1. Series _____	\$ _____
2. Boom _____	_____
3. Jib _____	_____
4. Rear Stabilizers <input type="checkbox"/> ASH <input type="checkbox"/> HO	_____
5. Front Stabilizers <input type="checkbox"/> Std. <input type="checkbox"/> Tilt <input type="checkbox"/> Single Front	_____
6. Line Block <input type="checkbox"/> 2 Part <input type="checkbox"/> 2/3/4 Part <input type="checkbox"/> 5 Part	_____
Accessories	
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
Mounting	
11. Installation: Behind Cab <input type="checkbox"/> Std. <input type="checkbox"/> Special	_____
12. Installation: Rear Mounting (add to installation charge above)	_____
<input type="checkbox"/> Air Throttle	_____
<input type="checkbox"/> Rear Mounting Hydraulic Group	_____
<input type="checkbox"/> High-Tensile Torsion Box	_____
<input type="checkbox"/> Reverse Frame Conversion Kit	_____
<input type="checkbox"/> HO Outriggers	_____
13. Frame Reinforcement: <input type="checkbox"/> Weld <input type="checkbox"/> Bolt-Extra	_____
14. Platform Body _____ ft. <input type="checkbox"/> Wood <input type="checkbox"/> Steel	_____
15. Weight in bed _____ lbs. (if required)	_____
16. Boom rest: <input type="checkbox"/> Parallel <input type="checkbox"/> Low <input type="checkbox"/> Other	_____
17. 1,100-lb. front bumper (if required) _____	_____
18. Mount Stabilizers _____	_____
19. Chassis _____	_____
20. Rear Bumper Underride Protection <input type="checkbox"/> Ordered <input type="checkbox"/> No Ordered	_____
21. Freight _____	_____
This quotation will remain firm for _____ days	
Accepted by: _____ (Name)	\$ _____ TOTAL PRICE
_____ (Firm Name)	_____ (Date)



NATIONAL CRANE General Offices: 11200 North 148th Street/Waverly, NE
 68462/402/786-2240
 Subsidiary of Kidde, Inc.
 Tele: 438061
 Service Center: 701 N.W. 27th Street/Lincoln, NE 68528/402/474-2666

NATIONAL SERIES 800B

Truck-mounted Telescoping Cranes and Accessories
 Maximum Vertical Reach: 140 Feet (42.7 Meters)
 Maximum Capacity: 35,000 Pounds (15.9 Metric Tons)



NEW!
 From National,
 America's
 Truck-Mounted
 Hydraulic Crane
 Leader

NATIONAL SERIES 800B

A NEW, high capacity, hydraulic telescoping crane from National

National is America's leading manufacturer of commercial truck-mounted telescoping and articulating cranes. We provide cranes for a wide range of jobs. Nationals are tough, durable, and dependable. And they are designed for ease of operation.

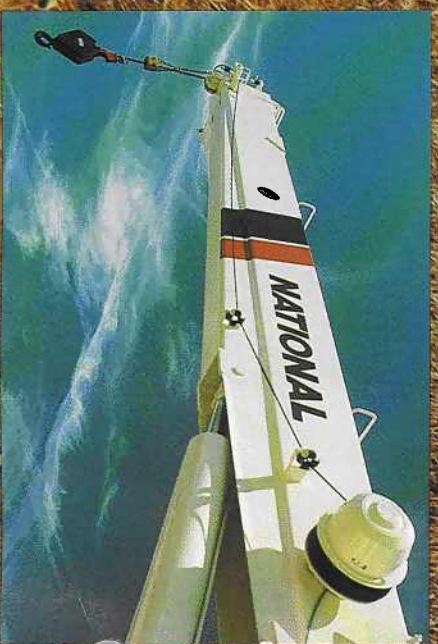
With a National, you are assured of a well-engineered, well-manufactured, and fully-tested machine designed for your applications. At National, we put quality first. Our commitment to product quality is our pledge to provide our customers with reliable products designed to provide years of service.

Our all-new Series 800B telescoping crane gives you everything you want and need in a heavy-duty truck-mounted unit. Consider these Series 800B features:

- 35,000-pound capacity
- The longest vertical reach in its class—up to 140 feet high
- National's field-proven hydraulic four-section boom
- Higher capacities in normal operating areas
- National's industry-acclaimed box-section boom construction
- Large bolt-in wear pads in boom that last longer and are easier to replace
- Standard high-performance planetary winch with 9/16-inch diameter rotation resistant wire cable
- Dual controls in SAE recommended orientation, each with foot throttle
- Control rods supported by nylon bearings, promoting smooth operation and serviceability
- Planetary rotation gear box with a hydraulic release brake and a slip-through feature that helps protect the rotation system against damage from accidental side loading

- Standard anti two block feature to prevent cable damage when winching up or extending the boom without paying out the winch cable
- Wide 18-foot outrigger span for stability
- Mounts on most standard, heavy-duty commercial trucks with the versatility of four mounting configurations
- Simple mounting; subbase available to eliminate truck reinforcing and in some cases counterweight
- Boom pivot and hoist cylinder bearings provide longer life and lower maintenance
- Tall back rest at operator control station
- Standard tandem pump system isolates winch from other crane functions to provide independent operation capability
- Horn and stop switches at control stations
- Complete accessory line adds to versatility
- Boom access holes allow easy access to telescoping cylinder holding valve and plumbing for serviceability
- Precision machine level at both operating stations
- 60-gallon oil tank with sight gauge, breather, suction strainer, clean-out, and magnetic plug

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.

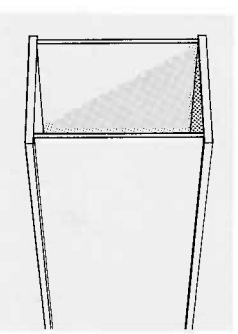


National Series 800B

Strong Four-Plate Booms

Through computer aided design, National has removed weight from the Series 800B boom sections. 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.

Series 875B booms are equipped on all sides with large nylon wear pads impregnated with lubricants providing a smooth, long-life operation. The wear resistance of the material used in the Series 800B pads is unexcelled by competitive models.

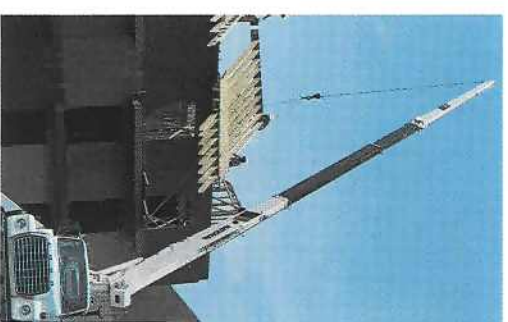


Direct Mounted Holding Valves

On the Series 800B all holding valves are mounted directly to the cylinders for added safety in the event of hose failure.

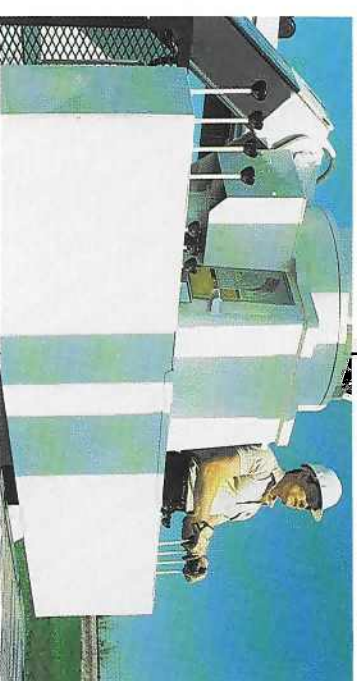
Sequential Extension

National introduced sequential, full-load extension to the industry. Our boom sections interlock for sequential extension. The larger, stronger boom sections extend first for greater strength. National's patented locks are mechanical, not hydraulic. These field-proven locks provide reliability with no excessive noise or wasted hydraulic power. They are just one more example of how National know-how and attention to quality pays off in performance for you.



Dual Controls

Dual controls are standard on the Series 800B. The extra fine metering and low spool force give you smoother, more precise control. Crane controls are identical on each side with SAE recommended orientation of functions. That means you always work the same control with the same hand. Dual stations provide more efficient operations and



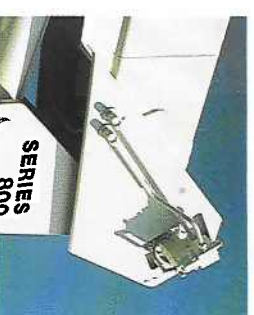
greater load visibility. Each station is equipped with kill and audible warning switches. A system pressure gauge is standard. Foot throttles allow identical foot operation of engine speed from either side. Control rods are supported by nylon bearings, promoting smooth operation and reducing lubrication requirements

Caution
Do not operate crane booms, jib extensions, any accessories, or loads within 10 feet (3m) of live power lines. Do not exceed jib capacities at any reduced boom lengths.

High Performance Planetary Winch

Every 800B comes standard with a high performance planetary gear drive winch. A "Burst-of-Speed" feature for faster, more efficient pay-out and pick-up of unloaded cable is standard. The "Burst-of-Speed" winch circuitry increases line speed up to 60% over normal.

This high capacity winch features high line pull and fast, standard speed. For fine control, both brake and counter-balance valve are standard. The winch is provided with 9/16" rotation resistant wire cable to help prevent spinning and twisting of the loadline. See the winching data chart on page nine for further information.



Anti Two Block

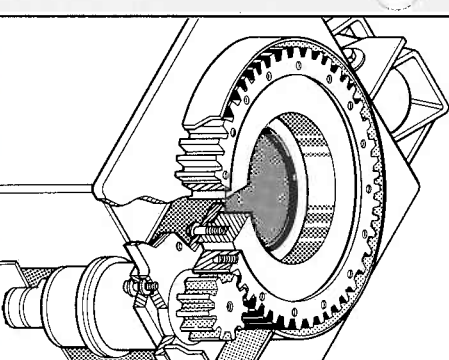
The 800B is equipped with a standard anti two block system. Two blocking occurs when the winch cable and attachments contact the underside of the boom or jib sheave case, whether by winching up or extending the boom without paying out the winch cable. When this



happens, the cable can be damaged by crimping or over-tensioning. The anti-two block attachment prevents cable damage by sensing the position of the winch cable end attachments with respect to the sheave case and shutting down the functions that can cause two blocking.

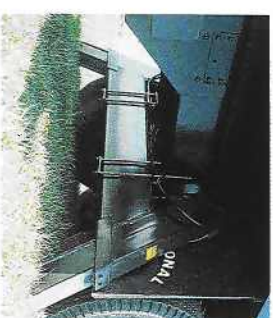
Positive Planetary Turret Rotation

The planetary rotation gearbox with a hydraulic release brake allows the gearbox to backdrive whenever excessive side load is applied to the boom, reducing shock loads on the upper and lower crane structure and gearbox. The turret drive is designed with extra heavy bearings below the drive pinion. The gearbox and rotation bearing mounting surfaces are precision machined after welding. This ensures consistent tooth alignment for smooth rotation and low wear, even under maximum loads. The entire turret glides smoothly on a low inertia ball bearing race. Rotation is 375° noncontinuous.



"A" Frame Stabilizers

The Series 800B is equipped with "A" frame rear stabilizers with a wide, ten-foot span for greater stability and lower counterweight requirements.



Wide Stance

We've given our Series 800B the industry-acclaimed National out-and-down outriggers for a consistently wide stance and better leveling on uneven ground. The outriggers retract smoothly, without binding under load, first moving up, then in. Their efficient design and wide span—18-foot (5.49m)—gives you solid stability. With less truck weight, you can carry larger payloads more economically. A precision-mounted level indicator aids the operator in leveling the unit during the set-up procedure.

Easy Service, Low Downtime

We designed the Series 800B for easy service and minimum downtime. Compare these features:

- Console cover for easy access to control valve
- Boom access ports for easy maintenance of cylinders and locks (note photo below)
- Rotation drive and brake located outside of frame for easy access and service
- 37° flare fittings used throughout to reduce the possibility of fluid leakage.
- Extra-capacity (60 gallons) oil reservoir to reduce heat buildup. Complete with standard clean-out, suction strainer and magnetic plug for easy maintenance, long life.



Unitized Mounting

Our unitized mount includes a one-piece, ten-inch deep subbase that extends along the frame and supports the crane and bed. It reduces counterweighting and increases stiffness and stability. Reinforcing is not required on trucks with 15.9 inch³ section modulus frames of 100,000 PSI minimum yield steel. The crane and unitized mount ship separately, then bolt together to form one solid integrated unit.

Lower Truck Requirements

We have engineered the Series 800B to lower your truck requirements. Our wide outrigger span, "A" frame rear stabilizers and unitized mount take the stress, not the truck. That means that the 800B can mount on trucks with lower axle ratings and still meet DOT and stability standards with ease. It all adds up to lower maintenance, lower costs and longer truck life for you.



National's "Out-and-Down" Stable Outriggers

