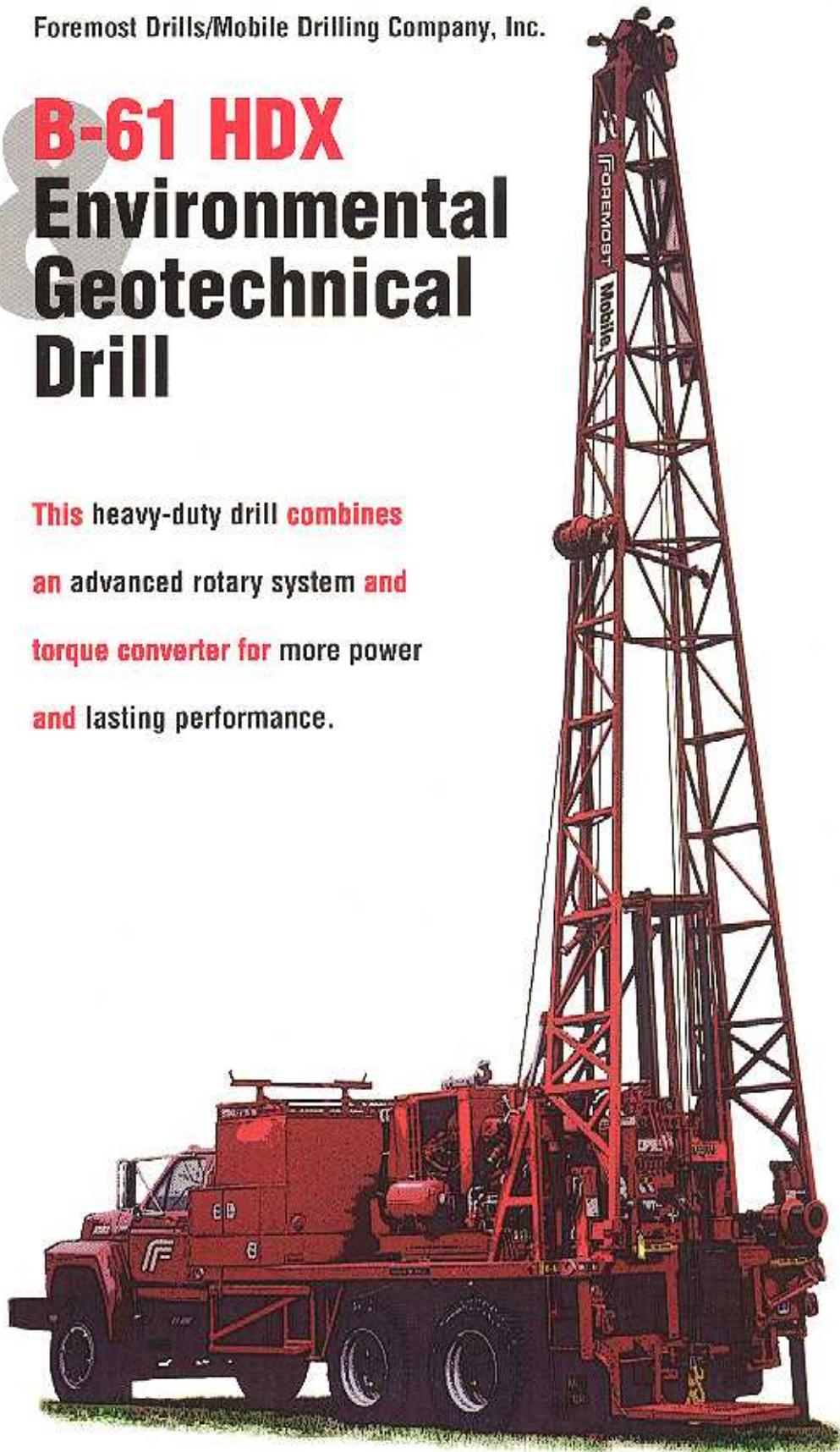


Foremost Drills/Mobile Drilling Company, Inc.

B-61 HDX & Environmental Geotechnical Drill

- Proven Design
- Proven Performance
- Strong / Rugged / Dependable

This heavy-duty drill combines an advanced rotary system and torque converter for more power and lasting performance.



FOREMOST Mobile

The B-61 HDX has been designed to endure extreme wear and tear with minimal maintenance.

When fitted with hollow stem augers, the B-61 HDX has proven to be an excellent rig for ground water monitoring and permits a full range of geotechnical exploration including soil investigation.

TORQUE CONVERTER AND ROTARY DRIVE SYSTEM

Together the advanced rotary system and torque converter combine more power and lasting performance.

The superior Clark Model 28,000 power shift transmission is equipped with three-speed forward and reverse to work the tool string back and forth to break it free. A unique ability to shift-on-the-fly allows the operator to switch gears without interruption.

To reduce maintenance costs, the Clark includes an exclusive high output air-to-oil cooler mounted in the front of the engine and a 10 micron replaceable oil filter.

Mobile Drilling uses a mechanical rotary drive with a hollow spindle I.D. of 4-3/4 in (120.6mm) for large diameter continuous sampling through the spindle.

A separate "Inching Control" provides focused power during the making and breaking of threaded drill rod connections. The head is totally enclosed with tapered roller bearings on the spindle.

HYDRAULIC SYSTEMS

All auxiliary functions are powered by a tandem vane pump mounted on the torque converter housing. Relief valves protect the circuits.

Maximum oil circulation and cooling is provided by a 50 gallon (189 L) hydraulic tank equipped with baffles and an oil cooler mounted on the front of the power unit radiator.

BASE PLATE

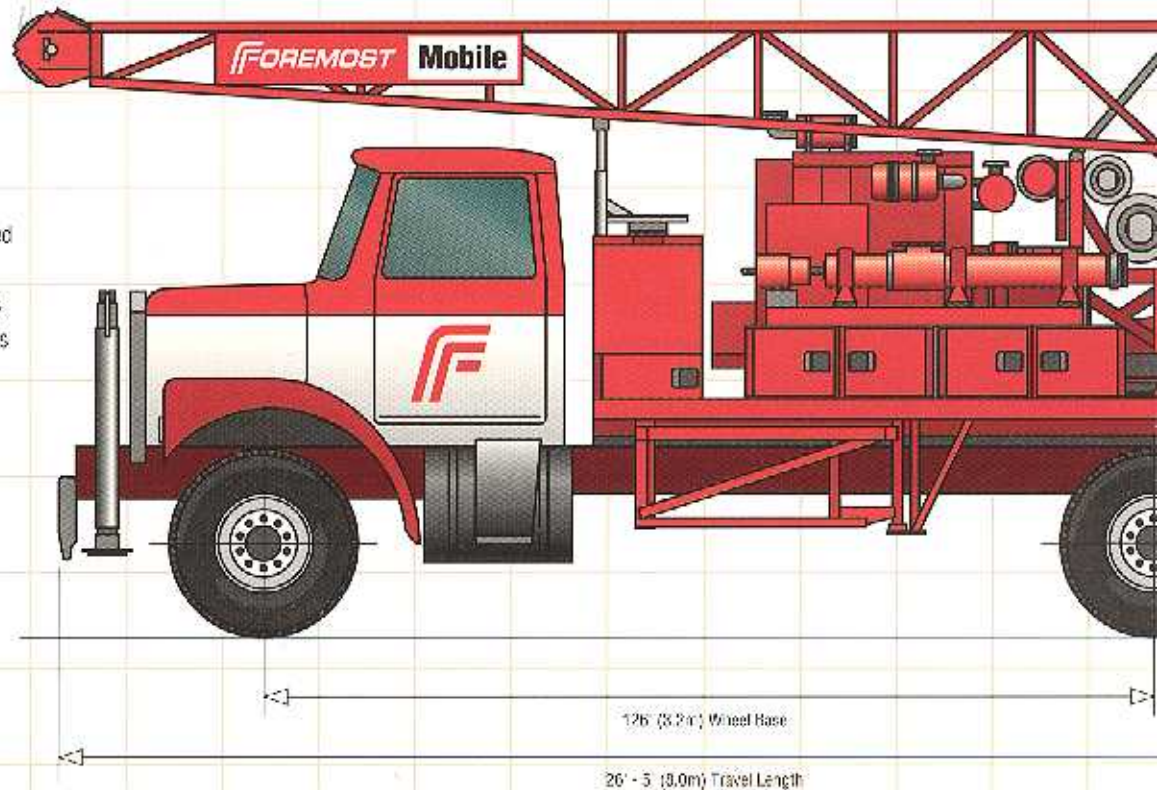
For more flexibility, the base plate has been opened up to 18 ft (5.5 m) to pass a 12-1/4 in (3.7 m) I.D. hollow stem auger. The entire drill frame is mobile to control on and off hole movement.

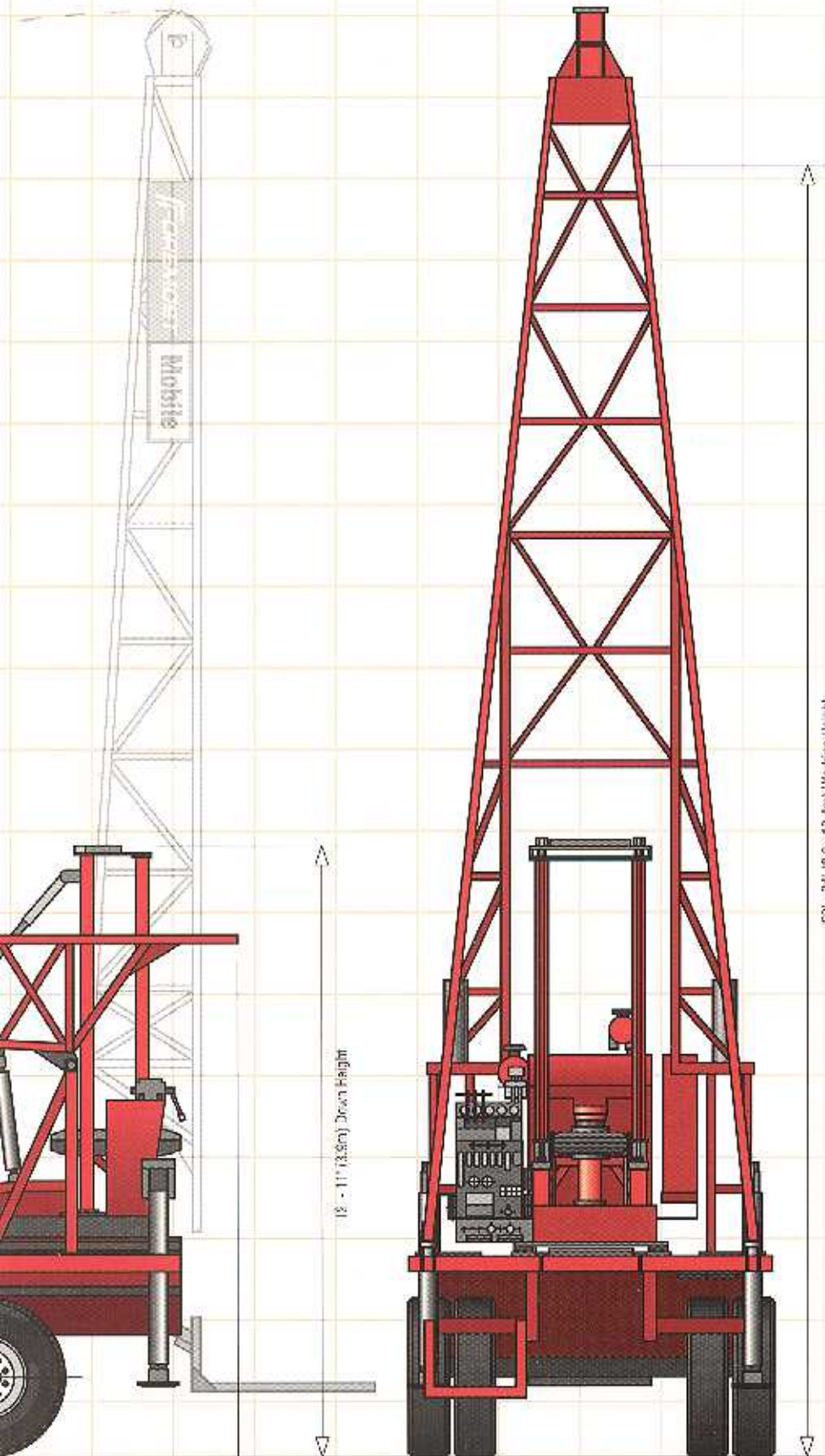
CONTROL PANEL

All controls are mounted on the left rear of the drill for maximum visibility to the hole collar. All necessary engine and hydraulic circuit controls and gauges are on the panel to monitor all functions from one location.

POWER SOURCE

Both gas and diesel engines are available. The Ford 300 GTV 300 CID industrial power unit provides 126 intermittent gross horsepower and 246 ft/lbs (334 Nm) of torque. The Cummins 4BT3.9 turbo-charged diesel engine provides 100 intermittent gross horsepower and 260 ft/lbs (353 Nm) of torque.





OPERATING CAPACITIES

Hollow Stem Auger/ Soil Sampling	300 ft (91 m)
Auger Drilling	375 ft (114 m)
Rotary Drilling	1,200 ft (366 m)
Diamond Coring	2,000 ft (610 m)

HYDRAULIC FEED SYSTEM

Two double-acting hydraulic cylinders attached to the rotary table is a simpler design which provides more efficient power transfer. A coring feed regulator allows infinite adjustment of downfeed speed and unrestricted retract speed.

Pulldown Force	23,300 lbs (3,221 kg)
Retract Force	31,000 lbs (4,286 kg)
Rate of Feed	36.8 fpm (11.2 m/min)
Rate of Retract	45.3 fpm (13.8 m/min)
Regenerative Retract	70 fpm (21.3 m/min)

ROTARY DRIVE SYSTEM

Rotary torque (max)	19,175 ft/lbs (26,001 Nm) @ 81 rpm (8.48 rad/s)
Rotary speed	to 488 rpm (49 rad/s)

* Optional rpm packages available.

TRUCK REQUIREMENTS

SINGLE AXLE - 33,000 lb (14,969 kg) GVWR

Basic Drill - 12 ft 6 in (3.81m) body
102 in (2.6m) C.A.

Basic Drill with water tank
14 ft 6 in (4.4m) body
126 in (3.2m) C.A.

TANDEM AXLE - 34,000 lb (15,422 kg) GVWR

Basic Drill - 16 ft 6 in (5m) body
126 in (3.2m) C.A.

EXCLUSIVE SAFETY AWARENESS

Operator safety is a paramount concern with Mobile Drilling. Our exclusive LIFELINE emergency shutdown system has been designed and manufactured with a 15 in (381mm) trip wire located at the right and left rear of the drill that shuts the engine off instantly.

A mast alarm helps to alert the operator that overhead obstructions and high-voltage power lines are a constant danger and must be clearly avoided when raising and lowering the mast.

FOREMOST **Mobile**

B-61 HDX AVAILABLE OPTIONS

SLIDEBASE AND SIDE SLIDE

Our hydraulic in-out slidebase is used for on- and off-hole movement. An advanced side slide provides a total of 12 in (305mm) travel. Together with the base plate, it permits increased flexibility.

UNDER BODY ROD CLAMP

A hydraulically controlled clamp retracts under the drill body when not in use. Jaw size capacities range from 1-9/16 to 5-7/8 in (39.7 to 149mm).

MANUAL AND HYDRAULIC ROD CHUCKS

Both manual and hydraulic drill rod chucks accept jaws for AW, BW, NW, NQ 2-7/8 in (73mm) and 3-1/2 in (89mm). The manual rod chuck mounts to the bottom of the rotary head spindle and allows a 2-15/16 in (74.6mm) diameter clearance hole. The hydraulic rod chuck, with hood bushing and three jaw set, mounts on top of the rotary head.

AUTOMATIC PULLDOWN

The pulldown is complete with jaws, kelly drive bushing and 2-7/8 in (73mm) O.D. 3-fluted kelly x 17 ft (5.18m) long.

HYDRAULIC BREAKOUT WRENCH

The hydraulic cylinder, mounted under the drill body, is connected to a 36 in pipe wrench by a 1/2 in (12.7mm) diameter cable.

PATENTED GIMBAL COUPLING

A heavy-duty, open-center universal auger coupling is used with Mobile's exclusive in-hole sampling hammer and large diameter continuous sampling tools.

REDI-RACK™

Designed by Mobile Drilling, the Redi-Rack helps increase production time by putting a working supply of augers near the operator's station.

MASTS

Mast sizes are available in 29 ft or 34 ft (8.9m or 10.4m) lengths. The Crown Block provides for three wire lines plus a cathead.

AUTOMATIC HAMMER

The SPT Automatic Hammer meets all requirements of ASTM-D 1586-84 Standard Penetration Test without weight or pressure on the drill string at 50 strokes/min.

HYDRAULIC MAIN HOISTS

8,500 lb (3,856 kg) and 12,000 lb (5,443 kg) main hoists permit free-spooling capacity for kelly drilling. The B-61 HDX's design accommodates either size on the same rig.

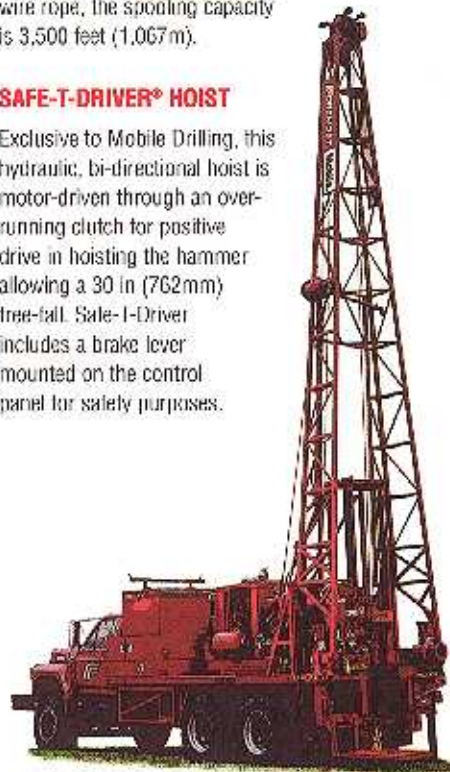
A hydraulic control allows infinite line speed on the 8,500 lb (3,856 kg) from 0-68 fpm (0-211.7 m/min) in forward gear and 0-290 fpm (0-88 m/min) in reverse gear. The 12,000 lb (5,443 kg) hoist allows 0-80 fpm (0-24.4 m/min) in forward gear and 0-325 (0-99 m/min) in reverse gear. A failsafe brake is hydraulically released when switched to hoisting mode.

WIRELINE HOIST

Infinite line speed range from 0-500 fpm in (0-152 m/min) is provided by the wireline hoist. Hydraulically controlled with separate speed controls, the hoist's capacity is 1,200 lbs (544 kg). Using a 3/16 in (4.7mm) wire rope, the spooling capacity is 3,500 feet (1,067m).

SAFE-T-DRIVER® HOIST

Exclusive to Mobile Drilling, this hydraulic, bi-directional hoist is motor-driven through an over-running clutch for positive drive in hoisting the hammer allowing a 30 in (762mm) free-fall. Safe-T-Driver includes a brake lever mounted on the control panel for safety purposes.



B-61HDX Environmental & Geotechnical Drill

For more information on the B-61 HDX, please call or write us.

Foremost Drills/Mobile
Drilling Company, Inc.
3807 Madison Avenue
Indianapolis, Indiana 46227 USA
800 766-3745
317 787-6371
Fax -317-784-5661

Foremost Drills
1225 64 Avenue N.E.
Calgary, Canada T2E 8P9
800 661-9190
403 295-5800
Fax - 403-295-5810

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