Power Source: Gasoline or Diesel Engine
Maximum Gross Spindle Torque: 2320 ft. lbs. (3145 Nm) to 3066 ft. lbs. (4156 Nm)
Spindle Bore: 2-3/8” (60mm)
Spindle Travel: 66” (1,676mm)
Spindle & Retract Force Up: 11,784 lbs. (52.4 kN)
Spindle & Retract Force Down: 7,536 lbs. (33.5 kN)
Spindle Speed: 7 forward, 3 reverse
  46 rpm to 652 rpm
Rotary Box: Consists of a #60 double strand roller chain drive, totally enclosed and running in oil
Clutch and Transmission: 7” automotive type
Right Angle Drive: heavy duty gear box totally enclosed and running in oil
Frame & Base: The drill frame is a weldment constructed of heavy wall rectangular steel tubing with sufficient strength and rigidity for heavy duty use. A hydraulically operated sliding base provides 16” (406mm) of travel to provide clearance for hoisting tools. The sliding base can be mounted on any flat surface of adequate size. Hydraulic system oil is supplied by a heavy-duty gear type two-section pump rated at a 6gpm (23l/min) and 12gpm (46 l/min) at 3,600rpm. Maximum operating pressure is 2,400psi (16,597k Pa).

The D-25 is a heavy-duty small sized rig capable of performing both geotechnical and environmental investigation using augers, rotary, or core drilling. The D-25 is related to depths of up to 100ft (30.5m) with hollow stem or continuous flight augers. It is rated to depths of up to 200ft (61m) of core drilling using N size tools.

Various Options Available:
Mast
Cathead
Hydraulic Hoist
Slide Base
Leveling Jacks
Hydraulic & Mechanical
Water Pump
Skid
Feed Frame Sheave Mount
Towing Rack
Casters
Trailers
Drill Platform
Loading Ramp & Tow Anchor
Water Tank
Tool Boxes
Spindle Adapter
Vertical Drop Hammer Tube
Carrier Mast Safety Interlock System
  (US Patent No. 5,647,442)
Drillers Safety Barrier
  (US Patent No. 5,360,072)
Alternator Spindle Motor
  (US Patent No. 5,524,713)
Diedrich D-25 Drill Rig Specifications

GENERAL
All purpose drill rig for shallow soil and rock exploration, and monitoring well installation. Ideal for drilling in areas with low overhead clearance of difficult access.
Rated for 3-1/4" (83mm) I.D. hollow stem auger to 50ft (16m) depth.
Standard Penetration Test 50-100ft (16-60m) depth.
Rated to 150 linear feet (45m) of core drilling using N series tools.

FRAME & BASE
The drill frame is a weldment, constructed of heavy wall rectangular steel tubing, with sufficient strength and rigidity for heavy duty use.

POWER SOURCE
27 HP Kohler 2 cylinder, air cooled gasoline engine with 12V electric start.
18HP Deutz (Rugerini) 2 cylinder air cooled diesel engine with 12V electric start.
(Cold weather start kit available)

CLUTCH AND TRANSMISSION
Clutch- 8” (203mm) automotive type
Three speed forward and one reverse.

RIGHT ANGLE DRIVE
The right angle drive is a heavy duty gear box, totally enclosed and running in oil

ROTARY BOX
The rotary box consists of a #60 two strand roller chain drive totally enclosed and running in SAE 90W gear oil

SPECIFICATIONS
Spindle Bore ..................................................2.375 ID (60mm)
Spindle Travel ..................................................66” (1676mm) 1,778
Maximum Gross Spindle Torque* ......................2320 ft.lb to 3104 ft. lbs
                              (3145Nm) to (4207Nm)
Thrust ..................................................................up 9800lb (43.6kN)
                                             down 7300 lbs (32.5kN)
Maximum Spindle Speed* ...............................7 forward 3 reverse
                             low range
                             46 rpm
                             high range
                             652 rpm

*Varies with engine choice
HYDRAULIC SYSTEM
On the D-25 oil is supplied by a heavy duty gear type two-section pump rated at 6gpm (23l/min) & 12gpm (46l/min) at 3600rpm. Maximum operating pressure is 2000psi (13800 k Pa).
The hydraulic valves are stock sectional body directional control valves with integral non-adjustable relief valve.

DRILL UNIT DIMENSIONS
Overall length- 102 1/2’’ (2603 mm)
Overall width basic unit- 33 1/2’’ (851 mm)
Overall height (mast down) 54 ½’’ (1384mm)
Overall weight (depending on options) 2600-3200 lbs (1180-1453 kg)

AUGER ADAPTER
A heavy duty universal joint which mounts to the spindle with a single nut is provided for ease in hook up and adjusting for misalignment. All components are sized to withstand torque and axial loads encountered under most drilling conditions. 1 5/8’’ (41.3mm) female hex is standard, other sizes available.

D-25 OPTIONAL EQUIPMENT

MAST
The mast is approximately 14 ¾ ft (4.5m) from the bottom of the slide base. The mast is pivoted on the drill frame, permitting operation of the drill with the mast horizontal. Quick mast disconnect is standard. Sheaves are provided for the cathead rope and the winch cable.

CATHEAD
The cathead is hydraulically driven from the drill rig hydraulic system. The cathead drum is 6’’ (152mm) in diameter.

| Line Pull | 1000lb (454kg) |
| Speed     | 415ft/min (126m/min) |

HYDRAULIC HOIST
They hydraulic hoist utilizes a worm gear drive with a sealed case. Gears and tapered roller bearings run in oil. Housing and drum are designed to prevent fouling of the cable. Hoist is provided with a safety brake to prevent roll-back.

SLIDE BASE
A hydraulically operated sliding base provides 16’’ (406mm) of travel to provide clearance for hoisting tools. The sliding base can be mounted on any flat surface of adequate size.

LEVELING JACKS
Jacks are available for rear and front mounting. Mechanical dropleg jacks with a 12’’ (305mm) drop and 13 ½’’ (343mm) lift capacity are standard. Heavy duty 2 ½’’ x 30’’ stroke hydraulic jacks are also available.

TRAILER ASSEMBLY
Double axle trailers are available in 7000lb and 9000lb capacities for transporting and drilling with the rig. Steel ramps are provided for removing the rig from the trailer.

700 Hicks Drive | Elburn, IL 60119-9059 | www.rigsourceinc.com
Phone: 630-365-1649 | fax: 630-365-1650 | toll free: 877-365-1649
**WATER TANK**
Welded steel water tanks mount at the front of the drill platform.

**DRILL PLATFORM**
Dimensions vary with the truck or carrier size. Welded construction consists of structural steel and deck plates. Running lights are included.

**ROD RACK**
Above deck rod rack and underbody rod rack are standard with drill platform. Optional rod storage

**AUGER RACK**
Above deck auger rack is standard with drill platform. Underbody fixed or hinged auger racks are available.

**TOOL BOXES**
Tool boxes are available for above or below deck mounting in several sizes.

**WATER PUMP**
Pump is frame mounted and driven form the rig’s hydraulic system.
Moyno 3L4................. variable speed

**FEED FRAME SHEAVE MOUNT**
The feed frame sheave mount bolts to the top of the feed frame to allow use of the cathead when drilling with the mast horizontal. This permits drilling in 10ft (3m) overhead clearances with a skid mounted rig.

**SKID**
The drill can be mounted on a steel skid with an overall length of 116” (2946mm) and a width of 48” (1219mm). The arm of the skid id removable for ease of drilling.

**TOWING RACK**
The towing rack mounts to the front of the main frame. This allows movement of a skid mounted rig in either direction using the hydraulic winch.

**CASTER ASSEMBLY**
Casters clamp to the skid frame for ease of movement on hard surfaces.

**DRILLERS STEP**
Heavy duty drillers step can be mounted on the right and/or left side of the drill platform. The step folds up for storage.

**VERTICAL DROP HAMMER RACK**
The storage rack for the 140lb safety hammer can be mounted in the drill platform or on the back of the hydraulic leveling jack on the cathead side of the drill rig.
HYDRAULIC CHUCK
Hydraulic chuck mounts to top of spindle with jaws available through 3 ¼” (89mm)

WATER PUMP
Pump is frame or deck mounted and driven from the rigs; hydraulic system.
- FMC L0918 (425) …………………...variable speed
- Moyno 3L6………………………...variable speed
- P40 Hose Pump…………………..variable speed
Other water pumps available on request.

HIGH RISE PUMP MOUNT
Allows the Moyno 3L6 water pump to be mounted above two 36” (915mm) tool boxes on the drill platform.

HYDRAULIC ROD HOLDER AND BREAKOUT WRENCH
This device is capable of holding up to 8” (203mm) OD drill rods of casing. It slices on and off the hole and also moves side to side. The device stores easily under the rig. A hydraulic breakout wrench is provided.

140LB AUTOMATIC SPT HAMMER SYSTEM
The DDI automatic SPT hammer system hydraulically lifts a 140lb (63.5Kg) drive weight and completely releases the weight for a 30” (762mm) free fall. The drive weight does not have a cable or rope attached that may impede its fall. The hammer can be operated at a rate of up to 50 blows per minute. The tolerance of the fall height is plus or minus 3/8” (9.5mm). The hammer mounts on the guide tube so that it can be hydraulically raised and lowered and easily moved to the on-hole driving position. The hammer can also be operated while suspended from a winch cable. The hammer driving force is transmitted only to the anvil and rods and the hammer allows for up to 24” (610mm) of driving without movement of the hammer body. The drive weight, lifting mechanism, and anvil impact surface are enclosed to provide optimum safety.

DIEDRICH POSITIVE CATHEAD BRAKE
In-line positive cathead brake stops the mechanical cathead rotation in less than one revolution when the emergency stop switch is activated. At the same time, the clutch is disengaged and the drill rig engine is shut down. Once the emergency stop system is deactivated the brake is released, and the cathead can be operated as usual.

CARRIER / MAST SAFETY INTERLOCK SYSTEM* (*Patent Number 5647442)
The Carrier/Mast Safety Interlock* prevents the carrier from running while the mast is up. This safety device prevents driving the rig into overhead wires with the mast up.