

# 528-D

## CRAWLER MOUNTED DRILL

CUMMINS 6BTA 5.9 (BSII) - 169 C ENGINE | GROSS POWER 169 HP  
(126 KW) @ 2100 RPM | LONG UNDERCARRIAGE | DTH DRILLING  
HOLE DIAMETER 6.5 INCHES | SINGLE PASS UPTO 7.6 M | SINGLE  
ROD DESIGN FOR ENHANCED PRODUCTIVITY | ERGONOMICALLY  
DESIGNED CABIN WITH EXCELLENT VISIBILITY.

# LeeBoy



**Unmatched Power, Performance & Productivity**

MOTOR GRADERS | CRAWLER EXCAVATORS | BACKHOE LOADERS | CONCRETE BATCHING PLANTS | DRILL RIGS

**BUILTBY**  
LISTENING  
KNOWLEDGE  
EXPERTISE

# 528-D CRAWLER MOUNTED DRILL

The LeeBoy 528-D Crawler Mounted Drill-rig is a customized solution for blast hole drilling applications in quarries and mines.



## ENGINE

**Model:** Cummins 6BTA 5.9 C 169 C (BS II Certified)  
**Type:** Liquid-cooled, 6 cylinder, 4-Stroke, direct injection with turbo charged engine

**Cylinders:** 6  
**Bore/ stroke:** 102 mm/ 120 mm  
**Displacement:** 5.9 Liters  
**Fuel:** Diesel  
**Fuel filter:** 3 Micron & 10 micron + moisture separator

**Air intake system:** Dry type two stage filter with active pre-cleaner

**Cooling:** Water Glycol 50:50

**Horse power @2100 rpm**

- Gross: 126 kw (169 hp)
- Net: 112 kw (150 hp)

**Net maximum torque:**

Gross 660 Nm @ 1500 rpm

## TRAVEL SYSTEM

**Travel motor:** Variable displacement cartridge type

**Travel brakes:** Hydrostatic braking with makeup direct relief and over centre to prevent vehicle over running on inclines.

**Parking brakes:** Hydraulic negative oil disc brakes inbuilt in motor

**Travel speed:** 0 – 3 km/hour

**Drawbar pull:** 230 kN

**Gradeability:** 70% (35 °)



## HYDRAULIC CYLINDERS

	Qty	Bore	Stroke	Rod dia.
Boom cylinders	2	120 mm	1320 mm	85 mm
Arm cylinders	1	135 mm	1675 mm	95 mm

## HYDRAULICS

**Type:** Open loop, variable displacement, summation horsepower control, Negacon system

**Max. Hydraulic flow:** 2 variable displacement pumps & 1 gear pump, 2 x 224 lpm, 1 x 21 lpm

# TECHNICAL S

ELECTRICAL

- Voltage:** 24 volts  
**Alternator rating:** 90 amps  
**Batteries:** 2 x 12 Volts  
**Batteries reserve capacity:** 800 CCA/ 50 ah x 2nos.  
**Work lights - 6 nos:** 24 Volts/ 90 amp
- Halogen type work lights on boom (2 nos.)
  - Halogen type work lights on frame (2 nos.)
  - Halogen dual type work lights on cabin top (2 nos.)
  - Strobe light - Amber LED type dual flash

SWING SYSTEM

- Swing drive motor:** Axial piston with in-built static brakes, rebound damping valve and anti-shock, anti-cavitation valve
- Service brake:** Hydraulic brake with static park brake when the lever is in neutral position with 5-second delay ramp
- Parking brake:** Hydraulic negative disc brake inbuilt in motor
- Swing speed:** 0 - 6 km/hour  
**Tail swing radius:** 2.985 m  
**Swing torque:** 67,408 Nm

UNDER CARRIAGE

- Type:** Heavy duty, triple grouser shoe profile undercarriage from BERCO
- Track gauge:** 2.58 m  
**No. of carrier rollers on each side:** 2  
**No. of bottom rollers on each side:** 9  
**Shoe width:** 600 mm  
**Type of shoes:** Heavy duty, triple grouser  
**No. of shoes per side:** 51

CABIN CONTROLS

- Drilling controls**
- Fast & Slow Rotation
  - Fast & Micro feed
  - Gauge for Micro feed and Rotation
- Setting controls**
- Bucket cylinder, Guide Swing, Guide extension Fork chuck and Breakout Wrench
  - Setting cannot operate while drilling is on unless the lever is moved to setting position
  - Traction, slew and Boom cannot operate when the drilling is on unless joystick selector switch moved to travel mode
  - Water Injection and Dust collector will be actuated by single spool valve.

SERVICE CAPACITY

- Fuel tank:** 700 litres  
**Hydraulic system:** 260 litres  
**Hydraulic tank:** 210 litres  
**Engine oil:** 20 litres  
**Swing motor & reduction unit:** 5 litres  
**Travel motor & reduction unit:** 5 x 2 litres  
**Coolant:** 20 litres (Premixed 50% Glycol)  
**Slew ring grease:** 10 kgs

DRILL PACK TECHNICAL DATA

Part	Major Specs	Details
General:	Hole size Drill method	165 mm DTH
Dimensions with tower up	Length Width Standard weight	11.1 m 3.2 m 27,600 kg
Rotary Head	Rotation Speed (Variable) Max. Torque 3390 Nm Motor OMT	0-100 rpm (345 Kgm) 315
Feed System	Type Operating Pressure Pull down / Pullback Pull down/ Pull back Speed Micro feed with Load on bit control Drill pipe length Rotary Head Travel Length Drill Pipe thread type	Motor Driven Chain System 250 bar 4,236 kgf 30-35 m/min Yes 6 m 8 m API / Beco
Water Injection Pump	Pump flow Pump Pressure Type Drive Water Tank Capacity	10-15 lpm 300 psi Reciprocating Hydraulic Motor Drive Stainless Steel 500 litres
Air Compressor	Model Engine Max. Pressure (psi) Max. flow (cfm) Type of mounting & amp; drive	Elgi PG 650-200 Cummins 6CTA 8.3 200 650 Skid Mounting and driven by Independent Engine
Lubricator	Type Capacity	Venturi 20 litres
Centralizer	Max. Opening Fork chuck Operation	330 mm Hydraulic
Dust Collector	Type Drive Drive motor capacity No of cartridges Cleaning mechanism  Type of fabric Cartridges Area Piping	Cyclone with Cartridge filtration Hydraulic 11 kW 4 Auto cleaning through compressed air Polyester needle felt 20 – 24 sqm From Centralizer to Dust collector

PECIFICATIONS



# 528-D

## CRAWLER MOUNTED DRILL

### Standard features

- Ergonomically designed, steel cabin mounted on viscous vibration dampeners
- 150° reclining, adjustable seat, retractable seat belt
- Sunroof
- Differential piston joysticks for highly cushioned operations,
- Foot pedals for traction along with inching levers
- Stereo
- Windshield washer and wiper for the front windshield

### Advanced electronic, centralized integrated display

- LCD colour display 7- inch size (futuristic) with day and night vision
- 2 cameras installed into the display for right and back positions (Optional)
- Drill and hole parameters, compressor controls and all warning icons (with a warning buzzer) added into the display system
- Troubleshooting screen incorporated into the display for faster resolution of any issues on the machines

### Drilling controls

- Fast and slow rotation
- Fast and micro-feed
- Water injection/ dust collector actuation

### Drilling auxiliary controls

- Guide swing
- Guide extension
- Fork chuck and breakout wrench
- Dust hood controls

### Selling controls

- Slew, boom, and travel

### Safety interlocks and features

- Drilling auxiliary and setting controls cannot be operated while the drilling is in progress and vice versa
- Compressor controls placed inside the cabin for ease and safety in operations
- Hi-visibility Xenon beacon with dual of quad flash
- Travel alarm
- 2 cameras for rear and RHS views (optional)

### Others

#### Carousel rod changer:

- Multi-pass: 3 rods • Rod Dia: 3"; 6"
- Total Drilling Depth: 60 m • Special Features:
  - Auto thread greasing system on every rod change
  - Carousel indexing
- Automatic Breakout system:
  - Chain link Breaking system, that has the flexibility of Breaking the Drill Rod
  - Dia Ranging from 2 7/8" through 5"



### Others

- Water injection and dust collector for excellent environment control of dust around the operator cabin
- HVAC (optional)
- CAN-controlled engine throttle and pump flow control for ease in operations
- Automatic Fire suppression system that uses Linear Heat Detection (LHD) cable for detection & dry chemical powder for fire suppression (optional)

LeeBoy makes continuous improvements to all its products and reserves the right to change specifications without notice. Photos and illustrations may contain standard and optional equipment.



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