



GEOMECH AFRICA
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FACT SHEET

**Boart Lonyear
LF90D**

**GEOTECHNICAL
AND EXPLORATION
DRILLING RIG**

**GEOMECH AFRICA
LEVEL 1 - B-BBEE**

www.geogroup.co.za



Boart Longyear LF90D

Engineered for mobility, the LF™90D surface coring drill features a telescoping mast with dump capability. The telescoping features afford a compact size during transport while the dump capability lowers the working height of the machine to enable mounting on a crawler, truck, or skid. A simple hydraulic and structural design makes this drill easy to operate and maintain.

Technical Specifications

BASE

BASE FRAME	2 350 mm w/o extended jacks in width with fold down operator's stand, 12 volt battery and a 243ℓ fuel tank.
DRILL MAST & FEED SYSTEM	The mast is capable of 45-90 degree vertical drilling. Dual mast raising cylinders equipped with counterbalance valves for increase safety. with a feed stroke of 3,35 m, a feed pull of 111,797N and rod pull of 6 m.
HYDRAULIC ROD CLAMP	Holds the rods while the joints are broken with the head. Features up to HWT capacity and is hydraulically operated.
HYDRAULIC LEVELING JACKS	Four powerful, independently operated leveling jacks with a 2,2 m stroke to help reduce drill setup time. Each leveling jack is equipped with hydraulic valves and mechanical lockout for secure drill setup.

ENGINE

CUMMINS ENGINE	Cummins QSB 6,7ℓ liquid cooled, turbo charged, after cooled, diesel engine. With 6,7ℓ displacement, max power of 2 200 rpm at 153 kW and a tier 3 emissions certificate.
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DRAW WORKS

MAIN HOIST	A single speed motor, single line pull-hydraulic driven and spring applied failsafe brake. It has 7 258 kg capacity, 15 mm diameter hoisting cable and a hoisting speed of 53 m/min. The hoist cable is 22,86 m in length.
WIRELINE WINCH	Hydraulic driven wireline hoist with hydraulic motor counter balance valve and spooling capacity, 1 890 m, swaged 4,8 mm cable with line speed of 145 m/min with a bare drum and 433 m/min with a full drum.
SPOOLED WIRELINE DRUM	4000' of 4,76 mm cable.

BOAT LONGYEAR LF90D

Technical Specifications

FLUID SYSTEMS

MANIFOLD

This includes hydraulic pumps, valves, reservoir, hydraulic hoses, function controls, filters and gauges. Fitted with 3 psi vacuum bypass valves which allow full oil flow access to the pumps in case the strainer becomes blocked or starting up in sub-zero temperature.

W11 FLUID CIRCULATION PUMP

R35 Bean / FMC water pump with direct coupled hydraulic motor. Equipped with relief valve, pressure gauge, suction and discharge assemblies and lifting bar. Infinitely variable pump speeds controlled from operators console. Includes 50,8 mm ID x 4,5 m suction hose and 25,4 mm ID x 9,1 m swivel hose.

REQUIRED ACCESSORIES

HEAD BUSHING SPINDLE ROD

BW/NQ

NW/HQ

CHUCK BUSHING

BW/NQ

NW/HQ

CHUCK JAW

BW/NQ

NW/HQ

HWT/PHD

FOOT CLAMP

BW/NQ

NW/HQ

HWT/PHD

BUSHING CASING GUIDE

NW

HW

CASING ADAPTER COLLAR

NQ

NW

HQ

HOIST PLUG ADAPTER SUBS

NQ

DEPTH CAPACITIES

DRILL ROD

PQ

HQ

NQ

BQ

METERS

367

551

924

1 173



About Geomech Africa

Geomech Africa (Pty) Ltd is an industry leader in the geotechnical investigations in Southern Africa. Certified as a **Level 1 B-BBEE** contributor. Providing drilling and testing services to the minerals exploration market, as well as geotechnical and civil industries in and around Southern Africa and Africa.

Geomechanics has long-term policies of developing operational/maintenance staff and upgrading equipment, to ensure that geotechnical investigations conducted for our clients are accurate, timely, cost effective and easily interpreted.

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The GeoGroup

GeoGroup comprises of a group of companies, each a leader in its own field, providing a range of services to the geotechnical, civil, mining and energy industries.

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