



CORING & RC • TRUCK-MOUNTED • ALL HYDRAULIC

EXPLORATION DRILLING • MULTI PURPOSE

XDR 1200_H

Multi purpose drill rig — a fully welded lattice mast on a 10.3 m structure, with a 9 m rod pull.

2,400 m +

HOLE DEPTH IN B ROD

21,500 kg

PULL BACK, VARIABLE

7,470 N·m

DRILL HEAD TORQUE, LOW RANGE

305 hp

CUMMINS QSC 8.3

EXPLORATION DRILL RIGS PTY LTD
REDBANK, QUEENSLAND, AUSTRALIA

TECHNICAL DATA
XDR.COM.AU

THE RIG

Thirty years of field evaluation, *in one machine.*

The XDR drilling platforms have evolved over thirty years of rugged field evaluation in Australia, and the 1200H is the culmination of that experience. It uses tried and proven components from world-recognised manufacturers, chosen so the rig withstands the environments where exploration drilling actually takes place — and so that parts and consumables are available when it doesn't.

10.3 m Fully welded lattice mast, plus winches	9 m Rod pull, with a 2.5 m mast dump	17,600 kg Main winch, single line pull	240 bar Operating pressure — 3,500 psi
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DRILLING CAPACITY — CORING, WIRELINE

ROD / CORE BARREL	ROD SIZE (MM)	CORE SIZE (MM)	HOLE DEPTH (M)
B	OD 55.6 ID 46.1	36.4	2,400 +
N	OD 69.9 ID 60.3	47.6	1,800 +
H	OD 88.9 ID 77.8	63.5	1,200 +

Depths depend on rock type, drilling technique, tools and overall conditions. The figures above are based on 90% of hydraulic efficiency.

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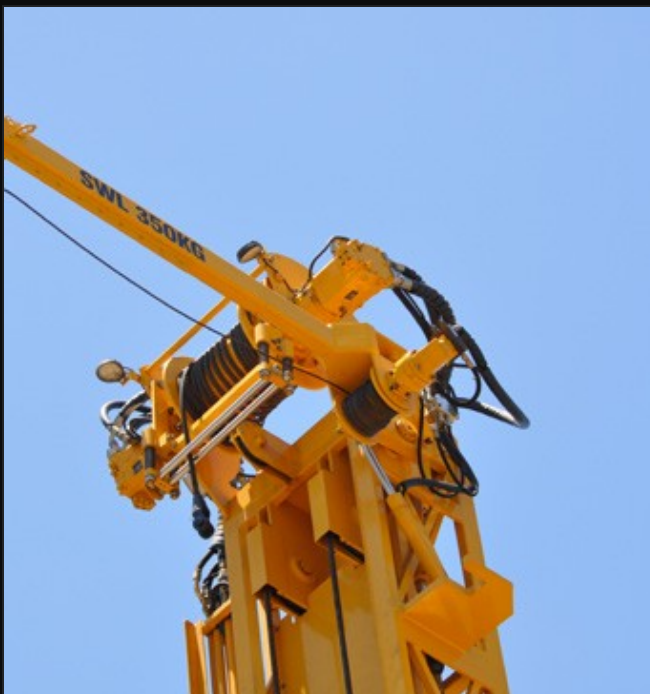
01	Mast, feed and drill head	04
	Base, mast, feed, dump mast, two-speed drill head	
02	Winches and hydraulics	05
	Main and wireline winches, pumps, valves, filtration, cooling	
03	Control, engine and safety	06
	Hydraulic panel, Cummins engine, water pump, guarding	
04	Options	07
	Make & Break, rod handling, RC fit out and more	



THE MACHINE

Truck-mounted. *Fully welded.*

Mounted on 8 × 4 or 8 × 8, on an 8 m fully welded channel and RHS base with four levelling jacks. The mast is a welded lattice frame with cross bracing — 10.3 m plus winches, with 7.5 m of drill head travel on a hydraulic slide.



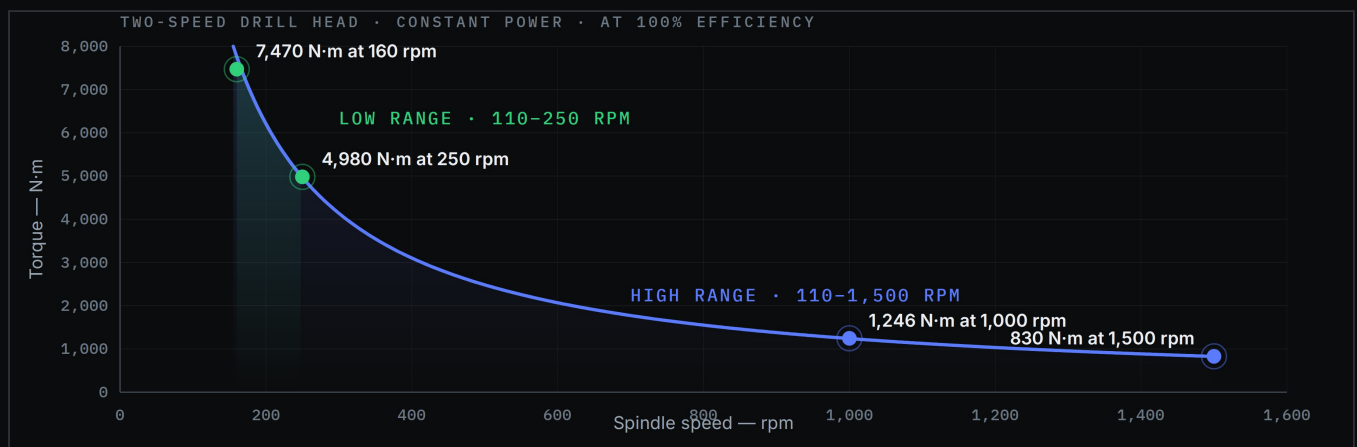
DRILL HEAD ON THE HYDRAULIC SLIDE, 22 MM NON-ROTATING ROPES WITH HYDRAULIC TENSIONING



XDR HYDRAULIC DRILL ROD CLAMP AT THE TABLE

01 / MAST, FEED AND DRILL HEAD

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE RIG	NOTES
01 Base	8 m fully welded structure — channel and RHS - Four levelling jacks	
02 Drill mast	- Fully welded lattice frame with cross bracing - Mast length 10.3 m plus winches - Drill head travel 7.5 m, on a hydraulic head slide 22 mm non-rotating wire ropes with hydraulic tensioning - XDR hydraulic drill rod clamp	
03 Feed	- Variable feed pressure control - Pull back 21,500 kg, variable - Pull down 12,500 kg, variable	
04 Dump mast	- Heavy duty 2.5 m mast dump - UHMWPE slides	
05 Drill head	- Two-speed hollow floating spindle drill head - Variable speed hydraulic piston motor, pressure lubricated - Gears hardened and ground High range — 110 to 1,500 rpm: 830 N·m at 1,500 rpm, 1,246 N·m at 1,000 rpm Low range — 110 to 250 rpm: 4,980 N·m at 250 rpm, 7,470 N·m at 160 rpm	NOTE Speed and torque quoted at 100% efficiency



TWO-SPEED DRILL HEAD – THE FOUR SPECIFICATION POINTS PLOTTED AGAINST THE CONSTANT-POWER CURVE. LOW RANGE TRADES SPEED FOR TORQUE AT THE SAME POWER

02 / WINCHES AND HYDRAULICS

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE RIG	NOTES
06 Main winch	- Capacity 17,600 kg single line pull - Speed 35 to 85 m per minute 20 mm non-rotating rope, 35 × 7 construction - Variable speed hydraulic motors with wire rope overrun cutout - Planetary reduction gearbox; fail-safe brake complete with over-centre valve	
07 Wireline winch	- Capacity 2,100 m of 6 mm non-rotating rope, 18 × 7 construction - Wire rope level winder - Planetary reduction gearbox; fail-safe brake complete with over-centre valve	
08 Pumps	1 × main pump — Kawasaki K3VL200, pressure compensated load sensing 2 × auxiliary pumps — Kawasaki Series 45, 75 cc + 60 cc, pressure compensated load sensing	
09 Valves	- AMCA main directional valve 2 × Danfoss PVG 32 / 8 auxiliary valves - Proportional load sensing valves - Operating pressure 240 bar (3,500 psi)	
10 Hydraulic tank, filtration and cooling	600 l tank capacity - Hydac pressure filtration; Arlon magnetic core return line filters - Circuits 10 micron absolute - Hydac hydraulic fan-driven oil cooler	

LOAD SENSING THROUGHOUT

The main pump, both auxiliaries and the proportional valves are all pressure-compensated load sensing. The pumps deliver only the flow the circuit is asking for, so the rig is not burning engine power across a relief valve when the head is idling — which shows up as fuel burn, oil temperature and pump life over a season.

03 / CONTROL, ENGINE AND SAFETY

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE RIG	NOTES
11 Control system	— All rig functions and gauges at the panel, including water flow and pressures — All engine controls, with shut down in the panel — Hydraulic pivoting control panel — Three emergency stops — one on the panel, one either side of the rig	NOTE Direct hydraulic control — no electronic control system to configure or fault-find
12 Engine	— Cummins Diesel QSC 8.3 custom pack — 305 hp at 2,100 rpm	
13 Water pump	— FMC John Bean L09-18HD-BCD — Variable speed, maximum 250 l/min at 70 bar	



THE HYDRAULIC PIVOTING CONTROL PANEL

14 / SAFETY AND FINISH

- Guarding to table with rotation shut off
- Guarding to all rotating items
- Rig safety rails including toe kicks
- Enclosed pulleys
- Driller's operating platform
- Fold-down ladder to deck
- Rig lighting
- Two-pack paint

Every rig function, engine control and gauge sits on one pivoting panel — no electronic control system between the driller and the machine, and nothing that needs a laptop to diagnose in the field.

Make & Break takes the hands off the joint.

Everything specified on pages 4 to 6 is included in the base rig. The items below are quoted separately — and the first of them removes one of drilling's highest safety-risk activities.

Make & Break	Allows RC drill rod joints to be mechanically tightened and un-tightened without any physical contact from the drill operators — eliminating one of drilling's highest safety-risk activities. The 10.3 m mast provides the internal room the unit needs.
Rod loader and rod spinner	Mechanical rod handling to and from the drill head.
Multi-purpose (RC) drill fit out	Reverse circulation configuration alongside the coring capability.
Fire suppression system	Onboard fire suppression.
Hydraulic lighting pack	Hydraulically driven lighting for night operations.
Hydraulic generator set	Onboard hydraulic generator for site power.
Mast ladder and jib	Mast access ladder and jib.
Rod winch	Auxiliary winch for rod handling.



THE TABLE AND ROD CLAMP — WHERE MAKE & BREAK REMOVES THE OPERATOR'S HANDS FROM THE JOINT

WHY OPERATORS SPECIFY IT

Proven components, *simple control*.

Thirty years in the field

The XDR platform has evolved over thirty years of rugged field evaluation in Australia. The 1200H is the culmination of that experience.

Nothing to reboot

Direct hydraulic control. Every function on gauges and levers at the pivoting panel, with no electronic control system to configure or fault-find in the field.

Hands off the rod joint

The optional Make & Break unit removes operator contact from RC rod joints entirely.

Components you can get

Tried and proven components from world-recognised manufacturers — Cummins, Kawasaki, Danfoss, Hydac, FMC John Bean — carrying international warranties, with parts and consumables available in Australia and worldwide.

Built for the environment

A fully welded mast and deck designed to withstand the harsh conditions where exploration drilling actually takes place.

Configurable

Truck-mounted on 8 × 4 or 8 × 8, with customisation available and a full options list.

SUPPLIED BY

Exploration Drill Rigs Pty Ltd
27 General Macarthur Place
Redbank QLD 4301, Australia

ENQUIRIES

admin@xdr.com.au
xdr.com.au

TELEPHONE

+61 (0) 7 3381 5363

SCOPE

Any equipment not clearly specified in this document is not included in XDR's scope of supply.

These technical specifications are based on theoretical engineering calculations. Actual capacity will depend on specific drilling conditions and materials. Exploration Drill Rigs Pty Ltd reserves the right to change or modify designs and specifications without prior notice or obligation.

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