



75,000 LB HOOKLOAD • 80 M/MIN • SIL 2

WORKOVER RIG • TRUCK-MOUNTED, GENERATION 2

XDR 75_{G2}

Patented wedge-locked telescopic mast on a Scania G 560 — inherently stable on four jack legs, with no guy lines.

34,000 kg

MAXIMUM DRAWWORKS LIFT

80 m/min

DRAWWORKS ROPE SPEED

21.0 m

MAXIMUM LIFT HEIGHT

16 m²

WORK PLATFORM FLOOR

EXPLORATION DRILL RIGS PTY LTD
REDBANK, QUEENSLAND, AUSTRALIA

RIG SPECIFICATION
XDR.COM.AU

THE RIG

Light workover, *fully instrumented.*

The XDR 75 G2 is a truck-mounted workover rig on a Scania G 560 carrier. The single-stage telescopic mast is **wholly tubular**, luffed and telescoped hydraulically, and locked by a **patented wedge and tension rod system** that adjusts infinitely through the working range. Four wide-footprint jack legs make the rig inherently stable — no stabilising weights, no guy lines.

75,000 lb Maximum drawworks lift — 34,000 kg	80 m/min Maximum drawworks rope speed	560 hp Scania DC13 173, Euro 6 (417 kW)	SIL 2 Safety control system level, where required
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STANDARDS, COMPLIANCE AND SCOPE

SAFETY INTEGRITY

Safety control system typically achieving a level equivalent to SIL 2 where required, using safety relays and a safety PLC.

GROUND BEARING

Front jack leg stools 850 kPa; grillage beam 650 kPa at 75 kip hook load plus wind load.

PRESSURE SYSTEMS

5,000 psi standpipe for drilling operations, including rated whip checks.

LIFTING APPLIANCES

Jib winch classified C4 M5 to AS 1418. Fall-arrestor hard point rated to AS/NZS 1891.3.

CARRIER

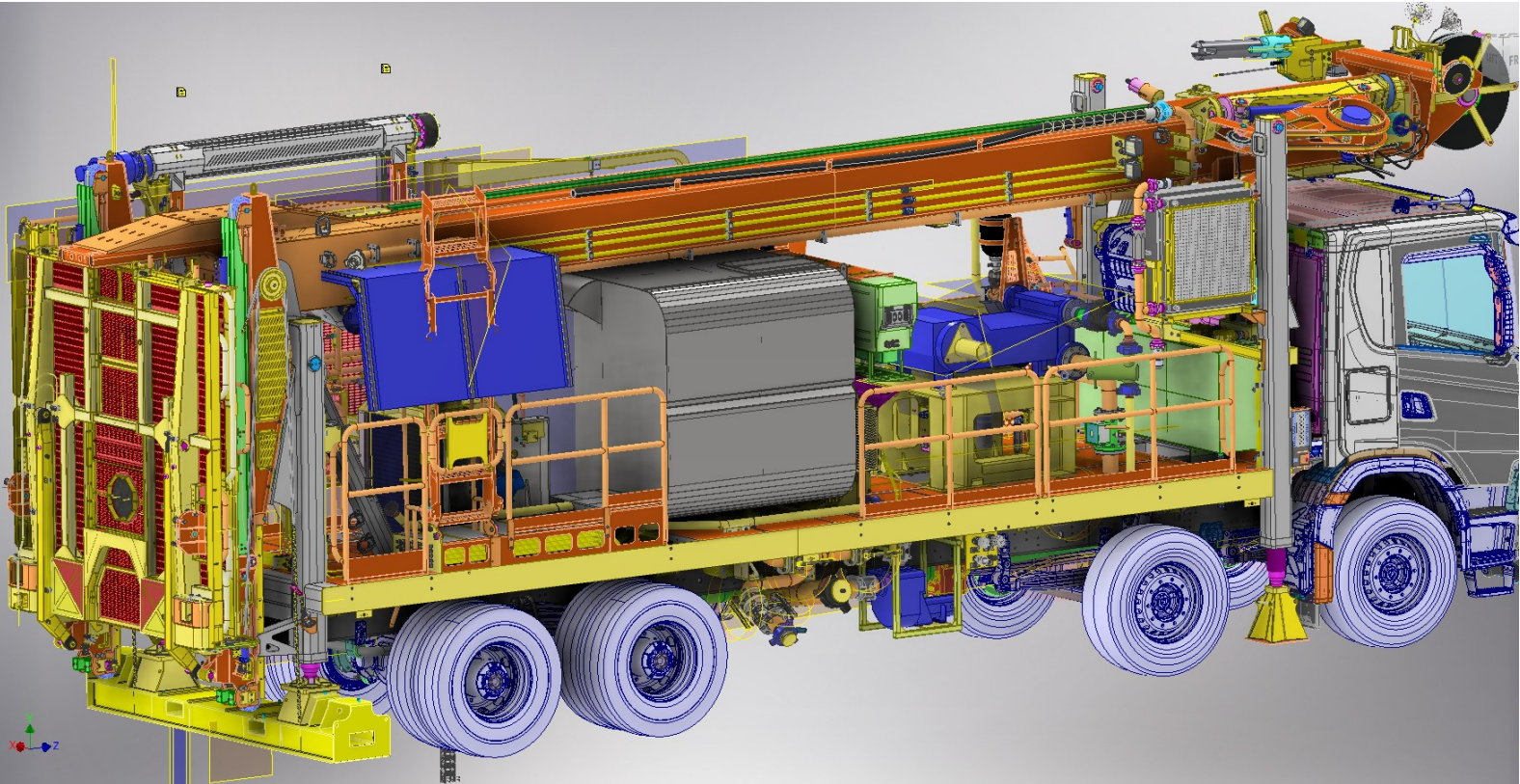
Scania G 560 B8×4 XT with a DC13 173 engine, 560 hp, to Euro 6.

SCOPE OF SUPPLY

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

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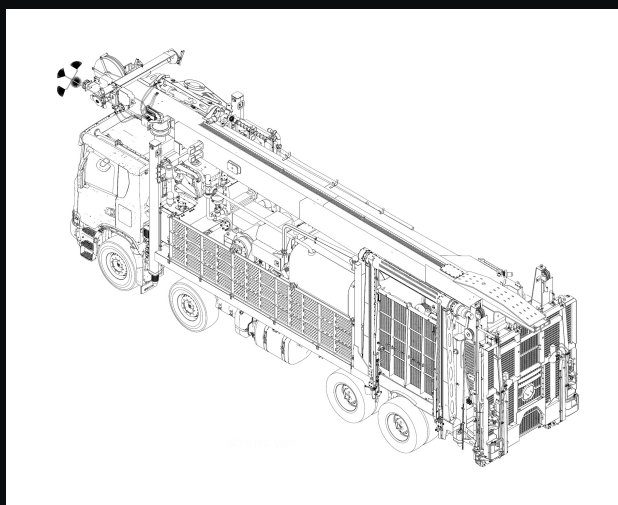
CONFIGURATIONS

Rigged down on one truck. *Up in thirty minutes.*

The mast travels laid down with the inner boom stowed inside the outer boom. On site it is luffed upright on two cylinders, telescoped out, and locked by the wedge and tension rod system.



OPERATIONAL SETUP – MAST LUFFED, TELESOPED AND WEDGE-LOCKED



GENERAL ARRANGEMENT – TRANSPORT CONFIGURATION

01 / DRAWWORKS, ENVELOPE AND MAST

EQUIPMENT	DESCRIPTION & SPECIFICATION	NOTES
01 Drawworks	— Maximum lift 75,000 lb (34,000 kg) — Maximum rope speed 80 m/min — Single line pull — no travelling block, no reeving — 32 mm rope, 66 m, on a grooved barrel; single layer in operation mode — Position control by absolute encoder — Two dedicated transmission pumps feeding two hydraulic motors, each with a disc brake	
02 Operating envelope	— Maximum lift height of rope adaptor 21.0 m (69 ft) — Mast angle range at full lift 94.5° to 94.9° — Maximum lift luffing without wedge 10,000 lb (4,537 kg) — Mast angle range at luffing lift 94.0° to 97.0°	
03 Mast	— Single-stage telescopic mast of wholly tubular construction — not a lattice mast — Inner boom transported inside the outer boom; telescoped on site with the mast vertical only — Luffed from transport to operating position on two luffing cylinders, which also hold it there — 5,000 psi standpipe for drilling operations, including rated whip checks	
04 Crown	— Crown sheaves manufactured from nylon molybdenum disulphide — far better rope life than steel, through lower crushing and friction forces on the rope — Main sheave load pin for hook load measurement — Main anti-two-block with proximity sensors — Tugger sheaves on spreader arms, set wide to suit the power swivel arms — Anti-two-block devices on the tugger ropes — Aircraft light; fall-arrestor hard point rated to AS/NZS 1891.3	

01.1 / WINCHES, CHASSIS AND WORK PLATFORM

EQUIPMENT	DESCRIPTION & SPECIFICATION	NOTES
05 Tugger / torque rein winches	— 2 × winches, DS and ODS — Maximum lift 1,000 kg each; maximum speed 20 m/min — 8 mm rope, 45 m — Double as torque reins for the power swivel — rope runs through the work platform to the grillage beam, with the brake released and hydraulic tension applied	
06 Jib winch	— Lifts, rotates and luffs — positions a load over most of the work platform — Commonly used to hold power tongs at the work floor — MRC 1,000 kg; maximum speed 10 m/min — Classification C4 M5 to AS 1418 — 9 mm rope — 32.5 m two-line, 19 m single-line	
07 Service winch	— Maximum lift 1,000 kg; maximum speed 20 m/min — 9 mm rope, 49 m	
08 Chassis	— Custom-built deck bolted to the carrier, designed for the best strength-to-weight ratio — Four jack legs — two front, two rear — to stabilise and level the rig — No stabilising weights or guy lines required to raise the mast or operate the drawworks; the wide jack leg footprint makes the rig inherently stable — Hydraulically deployed walkways, foldable ladder, headache rack	
09 Pivot wedge assembly	— Patented wedge and tension rod system — Mast infinitely adjustable within its working range, then locked mechanically — and very quickly — Duckbill tension rod and nut assembly	NOTE Patented XDR system
10 Work platform	— Self-supporting cantilever design at the rear of the rig, with two hydraulically deployed wings — Floor size 16 m² — Working height 2,300 mm to 5,000 mm; minimum setup height 1,400 mm — WLL main floor and wings 2,000 kg; DS wing 450 kg; ODS wing 450 kg — Maximum point load 150 kg over 100 × 100 mm, on the main floor and each wing — All folding and movement hydraulic, by push-button control	

02 / CARRIER, DRIVELINE AND GROUND BEARING

EQUIPMENT	DESCRIPTION & SPECIFICATION	NOTES
11 Driller's platform	— Control console on a moveable arm, positioned to view the work platform — Console stored on the platform during transport	
12 Carrier and engine	— Scania G 560 B8×4 XT — DC13 173 — 560 hp Euro 6 (417 kW) — Idle 600 rpm; maximum 1,600 rpm — Rig 24 V supply drawn from the truck batteries, charged by the engine alternator	
13 Splitter box	— Omsi PFT-PCV 3000, four-module pump drive — Maximum input speed 2,500 rpm; maximum input torque 2,711 Nm — Ratio 1.468; oil capacity 10 l — Drives two Rexroth transmission pumps for the drawworks and one for the mud pump	
14 Ground bearing	— Front jack leg stools — 850 kPa minimum ground bearing capacity, the highest pressure case, with the rig on stools and the mast laid down — Grillage beam — 650 kPa, the maximum occurring at 75 kip hook load plus wind load	
15 Bullhorn	— Single rope pull bullhorn — the XDR 75 uses a single line pull and so has no hook and sheave block	NOTE Bullhorn is not an XDR supply item

03 / SAFETY SYSTEMS

EQUIPMENT	DESCRIPTION & SPECIFICATION	NOTES
16 Safety control system	— Integrated safety control system with risk mitigation designed into every function — Typically achieves a level equivalent to SIL 2 where required, using safety relays and a safety PLC — All automatic functions require a man-present button held down, or positive operation of a control	
17 Emergency stops	— E-stops at all control positions and close to where personnel work — Hydraulic pumps de-stroke and open-loop circuits return to tank in approximately one second — The truck engine shuts down two seconds after the E-stop is pressed — Pressing the E-stop removes hydraulic drive power from the drawworks and applies the park brakes	
18 Redundant control valving	— Drawworks and mud pump closed-loop circuits each use two solenoid valves in parallel, so either valve performs the function should the other fail — Drawworks park brakes engage by dropping brake pressure to tank, through two parallel solenoid valves	
19 Counterbalance valves	— Every cylinder, actuator and motor is fitted with a counterbalance valve — Loads lock in their final set position if hydraulic power fails, is shut down, or a hydraulic line is damaged	
20 Hydraulic oil protection	— Low-level sensor stops the power pack and all machine motion; the rig cannot restart until oil is added — High-temperature sensor shuts down the power pack; the rig cannot restart until the oil has cooled	
21 Power failure	— On power failure the machine shuts down and all motion stops, held in position by the counterbalance valves — The machine does not restart automatically when power returns	

04 / CONTROLS AND INSTRUMENTATION

EQUIPMENT	DESCRIPTION & SPECIFICATION	NOTES
22 Driller's control station	— Multifunction joysticks for drawworks, drilling and auxiliary winch — Power swivel torque, power tong pressure and slip controls — Winch selector and winch override; torque rein control — Turtle mode and permanent turtle mode for fine, slow movement — Safety reset, horn and emergency stop	
23 HMI and PLC	— PLC-controlled, with a driller's HMI carrying dedicated screens for setup, tripping, drilling, mud pump and engine management — Diagnostic and parameter screens for the PLC, hydraulics, remote IO modules, push-button stations, chassis inclinometer and drawworks encoder — Login and password levels, with manager-only access for restricted service resets — On-screen error messages with described cause and corrective action	
24 Sensors	— Inclinometers for chassis pitch and roll — Absolute encoders on the drawworks for hook position — Proximity sensors on mast lock pins, wedge and anti-two-block — Pressure sensors on brake, boost, drawworks, pilot, power swivel, power tong and test pump circuits — Temperature sensors on hydraulic oil	
25 Automated functions	— Set-up stop, set-down stop and clear stop — user-defined hook stop positions — Hook limit and hook speed control — Weight-on-bit limit and Auto-WOB drilling — Torque rein engagement from the console — Mud pump pressure cut-off and flow control	



DRILLER'S HMI, TRIPPING SCREEN – HOOK SPEED, HOOK LOAD, TONG PRESSURE, HOOK POSITION AND STOP POINTS



One operating system for the *whole site*.

Xenon sits at the heart of every piece of XDR third-generation oilfield equipment — built to increase productivity, cut non-productive time, add layers of safety and simplify troubleshooting. The standard operating system is scalable with the packages below.

01	Transmits selected parameters from any piece of XDR plant on site to anywhere in the world — equipment activity, hydraulic fluid levels, mud flows, pit volume totalisation and trending graphs.
Xenon Live Telemetry	
02	Gives the rig operator control of the plant on site from the rig control cabin.
Xenon Live Integration	
03	Repetitive tasks — magazine to catwalk, catwalk to rig floor — run from the site office. One operator runs the magazines and catwalk from a climate-controlled environment via PC or laptop. VOIP links the site team live. Fewer people are needed at the rig site, and they work out of harm's way. Programmed in C#, ISO/IEC 23270 compliant.
Xenon Live Remote Control	
04	Monitors the mechanical movement of moving parts and alerts the maintenance department to prepare spares — hydraulic, engine and gearbox oils, drawworks rope change and triplex pump lubrication.
Xenon Live Maintenance	
05	Tracks up to 175 data points and stores more than 12 months of operation. After an incident the CSV files graph directly, showing joystick positions, hydraulic pressures, hook loads and other parameters that contributed to it.
Xenon Live Black Box	

Xenon is XDR's control and telemetry brand — the PLC that runs the machine, the telemetry that streams off it, and **Xenon Prevent**, the back end that watches it. Prevent reads the rig's live telemetry and judges it against norms written by XDR's own engineers, working from the signal map taken from the rig's own control program. Deterministic safety checks — chassis stability, hook load against interlock state — sit above an AI layer that cross-references pressures, the loads they serve and the control states they depend on into subsystem findings. Issues become numbered cases with memory rather than alarms that fire and vanish, so the crew hears about the new, the worsening and the neglected, and is left alone otherwise.

Six differences that *show up on the invoice*.

Measured across XDR's operating fleet, against the conventional hoists the XDR 75 replaces. Six of them, and what each is worth.

	XDR	CONVENTIONAL HOIST
Setup and pack-up time	30 min / 30 min	120 min / 120 min
	Hydraulically deployed walkways and platform, no guy lines, final adjustment by the mast over the well.	
Stability	Inherently stable on four wide-footprint jack legs — no guy lines, no stabilising weights	Requires guy lines to set up
	Removes the anchoring, tensioning and inspection burden from every rig-up.	
Drill line	Single line pull, so no slip and cut	Line runs through the travelling block; slip and cut required on ton mileage
	Removes slip-and-cut time and the risk exposure that comes with it.	
Crown sheaves	Nylon molybdenum disulphide	Steel
	Lower crushing and friction forces on the rope give far better rope life and less maintenance.	
Set lifting capacity	Protects tubing strings from accidental overpulling	Not capable
	Crown sheave load pin and HMI setpoint prevent parting of the string and equipment damage.	
Non-productive time	Under 1% for XDR hoists working in the field	Around 5% reported
	20.4 hours saved per well — equivalent to 3.9 additional wells per rig per year.	

CONTACT

Spec the XDR 75 for *your operation.*

Tell us about the wells you service and we will come back with a configuration, lead time and a service plan.

SUPPLIED BY

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SCOPE

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

Specifications are transcribed from the XDR75 G2 Operations and Service Manual, revision R3, September 2025, and are subject to final configuration and to agreement of applicable standards prior to issue of the supply agreement.

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