



WORKOVER RIG PACKAGE • 225,000 LB HOOKLOAD • API 4F

XDR 250

The rig, the Range 3 Catwalk and two Tubular
Magazines — supplied and controlled as one machine.

API 4F

MAST MONOGRAM

SIL 2

RATED CONTROLS

18 m²

WORK FLOOR

0 to +55 °C

AMBIENT RANGE

THE PACKAGE

Three machines, one *operating* system.

The XDR 250 package comprises an **XDR 250 workover rig**, an **XDR Range 3 Catwalk** and **two XDR Tubular Magazines**. All three run on XDR Xenon, so one operator works the floor, the catwalk and tubular handling from a single air-conditioned cabin — with black-box logging across the whole site.

225,000 lb	24.00 m	100	SIL 2
Static hook capacity, single line — 102,000 kg	Mast height, bottom of crown to ground (79 ft)	Joints per hour through the catwalk and magazines	Rated control system with full rig control feedback

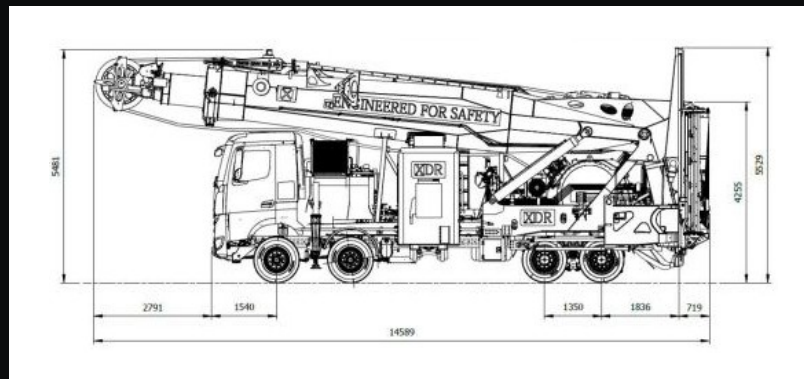
XDR 250 rig	Range 3 Catwalk	2 × Tubular Magazines
Freestanding telescopic mast on a Mercedes-Benz Arocs 4858 carrier. Hydraulically raised, extended and levelled.	Rotating trough and kicker mechanism keep positive control of every tubular through the trip.	Self jack-up, 40 ft lock positions, auto-levelling, feeding the catwalk without hands on pipe.

CONTENTS

01	XDR 250 rig	03
	Mast and structure, carrier, drawworks and hoisting, driller's console	
02	XDR Range 3 Catwalk	08
	Overview, trough, arms, control system, transport dimensions	
03	XDR Tubular Magazines	10
	Capacity by tubular size, levelling, integration	
04	XDR Xenon	11
	Operating system and the five scalable Live packages	
05	XDR Mud Systems	12
	Mud trailers and tanks — not included in this package	
06	Against a conventional hoist	13
	Six measured differences, and what they are worth	

Mounted on a custom Mercedes-Benz Arocs 4858. 580 hp. SIL 2 rated.

Self-propelled, left-hand drive, on an automatic transmission. The freestanding mast is hydraulically raised and extended, and the work platform is hydraulically deployed — no manual lifting of heavy loads during rig up or rig down.



TRANSPORT ENVELOPE – 14,589 MM LONG • 3,500 MM WIDE • 5,529 MM HIGH • DIMENSIONS IN MM

CONDITIONS OF SUPPLY

Ambient range

Suitable for operation from 0 °C to +55 °C.

Hazardous area

Compliant with API RP 505. Zone 2 is 3 metres.

Manufacture

Built to applicable API product specifications and standards, agreed before the final supply agreement.

Freestanding

Non-guyed mast. 111 km/h (60 knots) unexpected wind load; 80 km/h maximum working wind rating.

Cellar span

Rear outriggers span a 5 metre wide cellar, on grillage beams. Front jacks sit on jack stands.

No racking

The XDR 250 does not rack in the mast. Tubulars are handled by the catwalk and magazines.

01.1 / MAST AND STRUCTURE

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
01 Mast	— Make: XDR250 — Type: telescopic single (Range II) — Freestanding mast, hydraulically raised and extended — Designed and built to API 4F monogram — Mast height: 24.00 m (79 ft), bottom of crown to ground — Static hook capacity, single line: 102,000 kg (225,000 lb) — Mast luffing to 10° — Pick-up hook load from 5° to 10° past vertical: 18,000 kg (39,650 lb)	
02 Racking capacity	— Not applicable — the XDR 250 does not rack in the mast	
03 Lighting plan	— To be advised	
04 Mast safety	— 2 × crown saver (1 automatic, 1 manual pendant) — Alarm system — Auto lift-capability reduction dependent on mast angle past 5° — 2 × remote emergency shutdown, with auto shutout of setup functions when in winching mode — Floor saver — Mast overpull protection	
05 Auxiliary winches	— 1 × 3,000 kg jib winch — 2 × 3,800 kg auxiliary tugger winches — The auxiliary winches double as the torque rein system during power swivel operations. Maximum power swivel torque 10,450 ft-lb	
06 Standpipe	— 2" pipe, 5,000 psi, with integral butt-weld 1502 hammer unions bolted to the mast	
07 Anchoring system	— Freestanding, non-guyed mast — Maximum wind rating 111 km/h (60 knots) unexpected wind load; 80 km/h maximum working wind rating — 2 × grillage beams for rear outriggers; 2 × jack stands for front jacks	
08 Travelling block / hook	— Verope single line 56 mm, 3:1 safety factor at 225,000 lb — no travelling block, no reeving — Dual load path bullhorn, 225,000 lb WLL bail link ears (102 t)	

01.2 / WORK PLATFORM, CABIN AND CARRIER

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
09 Work platform	— Make: XDR — Hydraulic cantilever work platform, variable from ground 2,300 to 6,500 mm (21 ft); setup height 1,800 mm (5.9 ft) — Work area 18 m² — Hydraulic operating work floor, certified man-riding for two — Capable of 90°, 180° and 270° operation. Handrails, kick rails, tool board. Two points of access / egress — Distributed safe work limit 3,000 kg — Hydraulically deployed, reducing manual lifting and increasing rig up / down efficiency — Automatic locking pin system	OPTION 6.5 m work platform
10 Air-conditioned control cabin	— Make: XDR — Two points of access / egress — Packed on the rig during transport; handled with a telehandler, placed on the work platform and locked in using a cylinder	
11 Carrier	— Make: Mercedes-Benz Arocs 4858, self-propelled — Left-hand drive — Transport dimensions 14.589 m (L) × 3.5 m (W) × 5.529 m (H) — Headlights, revolving beacons front and rear, blinkers, side lights — Anti-lock braking system (ABS)	
12 Carrier powertrain	— Arocs 580 hp — High ambient temperature radiator — Rig saver, spark arrestor — Thermal lagging — PTO for hydraulic and rig air systems	
13 Transmission	— Automatic	
14 Levelling jacks	— 2 × mechanical hydraulic locking jacks at the front — 2 × fold-out outrigger jacks at the rear	
15 Fuel tank	— 1 × 420 l fuel tank c/w check valve and drain	

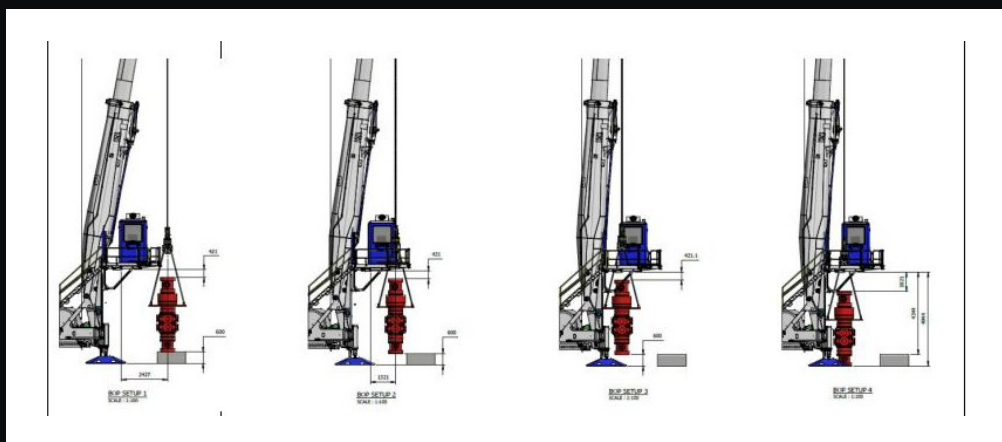
01.3 / POWER, DRAWWORKS AND HOISTING

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
16 Hydraulic system	— PTO-driven HPU from the carrier engine — 850 l hydraulic tank — Parker gold cup pumps — 6 Brevini hydraulic drive motors and 6 sets of wet disc park brakes or equivalent; 5 of the 6 brakes can hold the full 225,000 lb load — Powers all carrier auxiliary equipment for rig set-up — Provides oil to the power tong — Powers the hydraulic power swivel — no additional HPU required	
17 Pneumatic system	— Driven from the carrier engine — 18 cfm at 125 psi — 100 l tank capacity	
18 Drawworks	— Make: XDR — 102,000 kg (225,000 lb) lift capacity — Variable-speed hydraulic drawworks, single line pull, 56 mm rope — Integral hydraulic braking, wet disc park braking — Dynamic brake for controlled lowering of load	
19 Drill line	— 56 mm Verope — No spooler required — Grooved drum	
20 Tugger winches	— 2 × Pullmaster M8 tugger winches, one either side of the crown — Maximum lift 3,800 kg each; can be operated simultaneously	
21 Deadline anchor	— Not applicable	
22 Crown	— Crown saver — electronic and anti-collision — Floor saver — Overpull limiter — All crown block sheaves mounted on tapered roller bearings, fitted with jumper bar covering a 100° arc — Crown block assembly manufactured to API Spec 4F (4th edition) — Crown block sheaves manufactured to API Spec 8C (5th edition) — Drawworks sheave 44" (1,120 mm) × 1 — Tugger winch sheaves 20" (510 mm) × 2, each rated to 2,000 kg — One certified pad-eye (10 t SWL) for installation of the ESP cable sheave, and a second pad-eye for rigging up secondary retention, mounted at the top of the base boom	

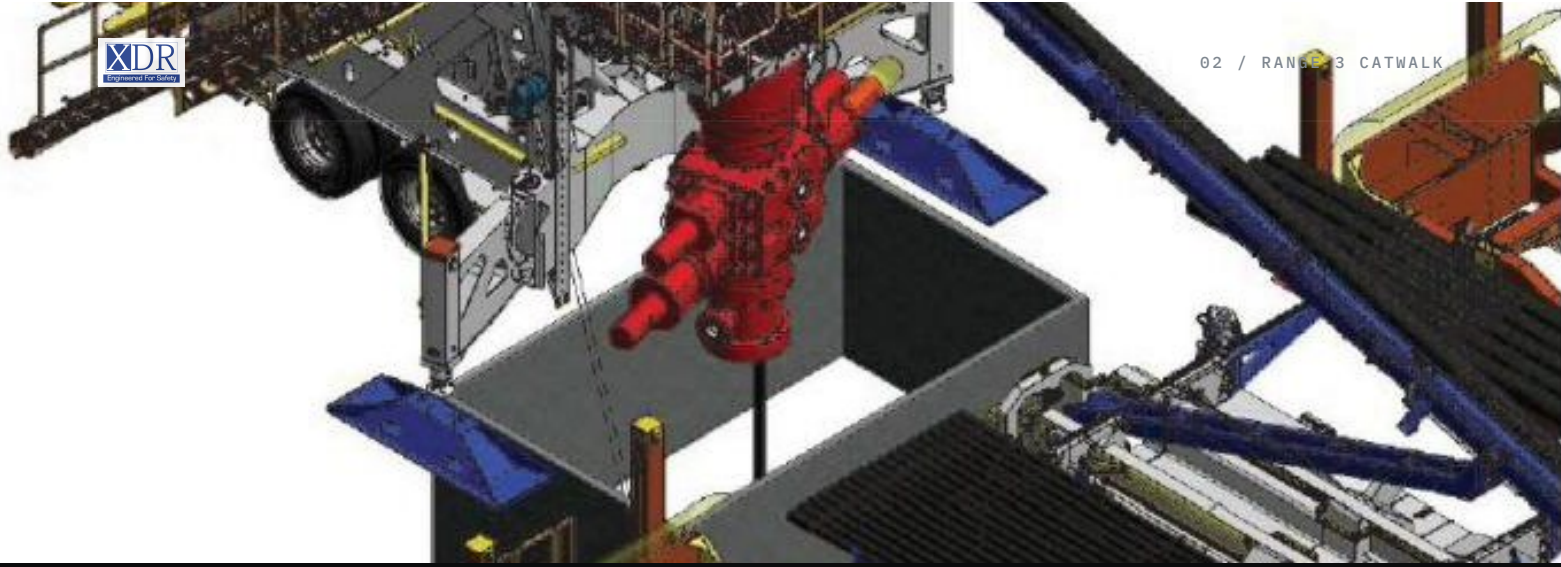
01.4 / DRILLER'S CONSOLE AND CONTROL

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
23 Control desk	— All controls required to operate the carrier equipment, inside an air-conditioned cabin — Adjustable to suit various operations	
24 Control system	— XDR Xenon operating system — PLC controlled via 1 × driller HMI screen — Integrated IP 67 rated levers and joysticks — Full rig control feedback, SIL 2 rated	OPTION Full plant integration with live telemetry — full Xenon Telemetry package
25 HMI screens	— Standpipe pressure — Rig air pressure — Electronic weight indicator — Hydraulic system pressure — Weight on bit — Weight on drill line, among others	
26 Remote BOP controls	— Wall-mount API 16D compliant control panel, supplied by the customer, fitted into the rear of the air-conditioned control cabin, or to the PLC screen	OPTION Panel not supplied by XDR
27 Remote mud pump controls	— Remote controls for operation of the XDR mud trailer system	OPTION Requires an additional HMI screen and XDR Xenon integration

MAST LUFFING



LUFFING THE BOP TO WELL CENTRE – FOUR SETUP POSITIONS • REAR OUTRIGGERS SPAN A 5 METRE WIDE CELLAR



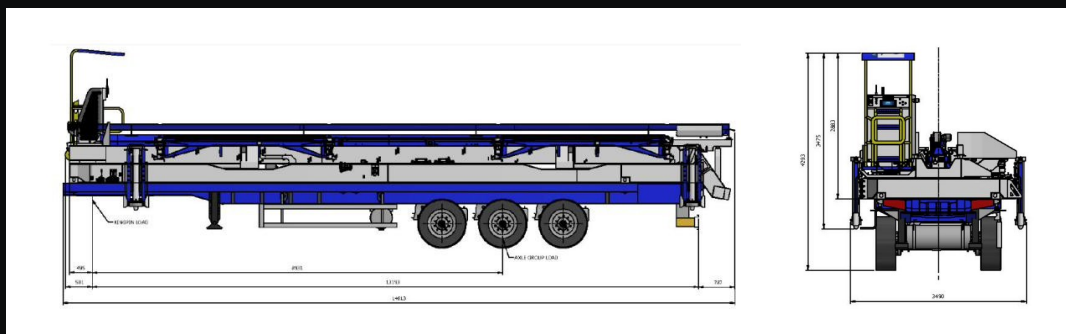
02 / XDR RANGE 3 CATWALK

Hands stay off the pipe.

The Range 3 Catwalk uses a rotating trough and a kicker mechanism to keep complete control of tubulars through the whole trip — PLC-controlled stopping at user-defined points, IECEx rated remote control, and direct integration with the rig and the magazines.



RANGE 3 CATWALK — SELF-SUPPORTING ARMS, ROTATING UPPER CHASSIS FOR ALIGNMENT WITH WELL CENTRE



SIDE AND FRONT ELEVATIONS — TRAVEL CONFIGURATION • DIMENSIONS IN MM

02.1 / CATWALK SPECIFICATION

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
01 Catwalk overview	— Rotating trough — Kicker mechanism — Self-supporting arms — Rotating upper chassis for better alignment with well centre — User-defined stop points for tripping in and out, providing PLC-controlled stopping — Safety-integrity assessed control systems — IECEx rated remote control — Integration with the XDR rig and magazines — The rotating trough and kicker mechanism together maintain complete control of tubulars throughout tripping operations	
02 Catwalk trough	— Maximum lift 1,000 kg — Maximum height 6.5 m — Maximum length API 5CT Range 3 — Sucker rod sizes 5/8" to 1-1/8" API 11B — Standard tubing sizes 2-3/8" to 4-1/2" API 5CT — Standard casing sizes 4-1/2" to 8-5/8" API 5CT — Rotation on DS and ODS sides, 90° from vertical — Skate for pulling and pushing tubulars — Interchangeable head, size dependent — Tubular processing 100 joints per hour — Slew capability at full height, both DS and ODS, 5° horizontally	
03 Catwalk arms	— Maximum capacity per side 5,000 kg — Maximum length API 5CT Range 3 — Minimum length 7.2 m — Running surface in ultra-high-molecular-weight polyethylene (UHMWPE) for lower noise — Levelling system, independent or together — Electronic inclinometer	
04 Control system	— Full PLC control with HMI and control paddles — XDR Xenon operating system — IECEx rated remote control — Semi-automated processing of tubulars — Onboard inclination sensors — Onboard absolute encoders for distance measuring — SIL 2 rated with control safety interlocks	OPTION Full plant integration with live telemetry — full Xenon Telemetry package

Pipe arrives on site *already handled.*

The magazines carry tubulars and drill string to and from site, and store and inspect production tubing. They deliver to, or retrieve from, the XDR catwalk — seamless processing of tubulars without direct human intervention.



MAGAZINE ALIGNED TO THE CATWALK ON SITE

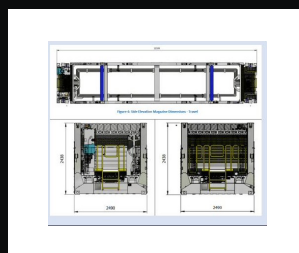


ASSEMBLY – XDR PREMISES



FABRICATION OF THE MAGAZINE FRAME

EQUIPMENT	DESCRIPTION & SPECIFICATION – BASE PACKAGE	OPTIONS
01 Pipe magazines — Range 2 only	— Self jack-up; transported on a flatbed trailer — Uses standard 40 ft container lock positions — Range II tubulars, 9.6 m maximum length — 2-7/8" tube — 240 units — 3-1/2" tube — 160 units — 4-1/2" tube (not drill pipe) — 126 units — Auto levelling — Variable pitch and yaw for uneven terrain, to maintain alignment with the XDR catwalk — Maximum payload 30,000 kg — Processes 100 joints per hour	OPTION Full plant integration with live telemetry — full Xenon Telemetry package



SIDE AND END ELEVATIONS – TRAVEL • DIMENSIONS IN MM



One operating system for the *whole site*.

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



DRILLER'S HMI — HOOK LOAD, TORQUE, STANDPIPE AND TONG PRESSURE · CATWALK AND TROUGH POSITION

- | | |
|---|---|
| <p>01</p> <p>Xenon Live Telemetry</p> | <p>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.</p> |
| <p>02</p> <p>Xenon Live Integration</p> | <p>Gives the rig operator control of the plant on site from the rig control cabin.</p> |
| <p>03</p> <p>Xenon Live Remote Control</p> | <p>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.</p> |
| <p>04</p> <p>Xenon Live Maintenance</p> | <p>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.</p> |
| <p>05</p> <p>Xenon Live Black Box</p> | <p>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.</p> |

Above the Live packages sits **Xenon Prevent**, the back end that watches the rig. 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.



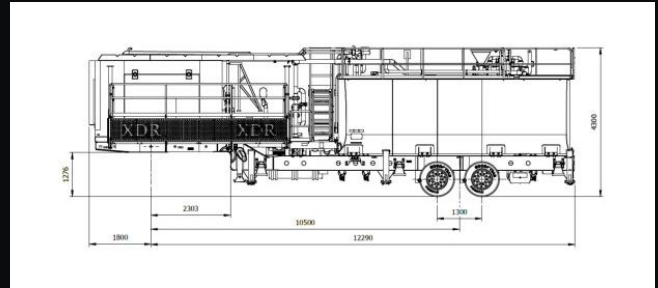
05 / XDR MUD SYSTEMS

Started, stopped and controlled from the *rig's main screen*.

Not included in this package. XDR builds a range of mud trailers and tanks that are unique in design and integrate with the rest of the XDR plant on site.



XDR MUD TRAILER



SIDE ELEVATION • DIMENSIONS IN MM

AGAINST A CONVENTIONAL HOIST

Six differences that *show up on the invoice.*

Measured across XDR's operating fleet, against the conventional hoists the XDR 250 package replaces. Six of them, and what each is worth.

	XDR 250 PACKAGE	CONVENTIONAL HOIST
Setup and pack-up time	30 min / 30 min	120 min / 120 min
	Hydraulically deployed work platform, no guy lines, final adjustment by the mast over the well.	
Tubular handling	100 joints per hour through the Hands Free System	50 joints per hour
	The catwalk and magazines process tubulars without hands on pipe, and without operator fatigue setting the pace.	
Luffing mast	Tilts 18,000 kg to 10° — lifts the BOP from the edge of the cellar onto the well	Not capable
	Removes a crane from the wellsite for BOP handling.	
Hydraulic power	One onboard supply powers the catwalk, magazines and power swivel	Two HPUs — one for power tongs, one for the power swivel
	Eliminates separate HPUs, one load from every rig move, and the HPU setup time with it.	
Drill line	Single line, 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.	
Non-productive time	Under 1% for XDR hoists working in the field	Around 5% reported
	33.7 hours saved per well across the hoist, catwalk and magazines — equivalent to 6.4 additional wells per rig per year.	

WHY OPERATORS SPECIFY IT

Built to take people *off the floor*.

Fewer people on the floor

Simple setup and fully integrated plant and controls significantly reduce crew numbers.

100 joints per hour

Trip rates of up to 100 joints per hour using the XDR Hands Free System.

No slip and cut

The drawworks and drill line arrangement removes the slip-and-cut requirement.

Drill string protection

Drawworks speed and lift-capacity control avoid drill string damage.

Small footprint

A compact plant footprint reduces loads between wells.

Support from Australia

Online troubleshooting from Australia over an internet connection.

Rapid setup and pack-up

The freestanding mast and hydraulically deployed platforms cut rig-up and rig-down time.

Proven in the field

14 rig packages already operating in Australia, with non-productive time under 1% annually.

Low-cost maintenance

Designed for serviceability, with condition monitoring through Xenon Live Maintenance.

One power source

The rig powers the catwalk, magazines and power swivels — no other HPUs on site.

5 m cellars

Rear outriggers span a 5 metre wide cellar.

SUPPLIED BY

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

ENQUIRIES

andrew@dri.com.sg
xdr.com.au

TELEPHONE

Ph +61 (0) 7 3381 5363
Fax +61 (0) 7 3381 5365
WhatsApp +61 427 616 214
UAE mobile +971 50 947 4388

MANUFACTURE

Some equipment may be made at XDR premises in Australia, India and the UAE.

Workover rig and associated equipment will be produced in accordance with applicable API product specifications and standards. Standards are to be agreed prior to issue of the final supply agreement. Any equipment not clearly specified in this document is not included in XDR's scope of supply.

Drill Rig Spares Pty Ltd has patent protection, in Australia and overseas, for the technologies it develops. This includes technologies the subject of this document for which protection is being sought. Patents pending to images and descriptions of our technologies. You cannot reproduce (completely or in parts), forward (electronically or in any other manner), modify, make links to, or use for any public or commercial purpose whatsoever this document and the products included in this document without the explicit written permission of Drill Rig Spares Pty Ltd obtained in advance.

© Copyright 2025 Exploration Drill Rigs Pty Ltd.