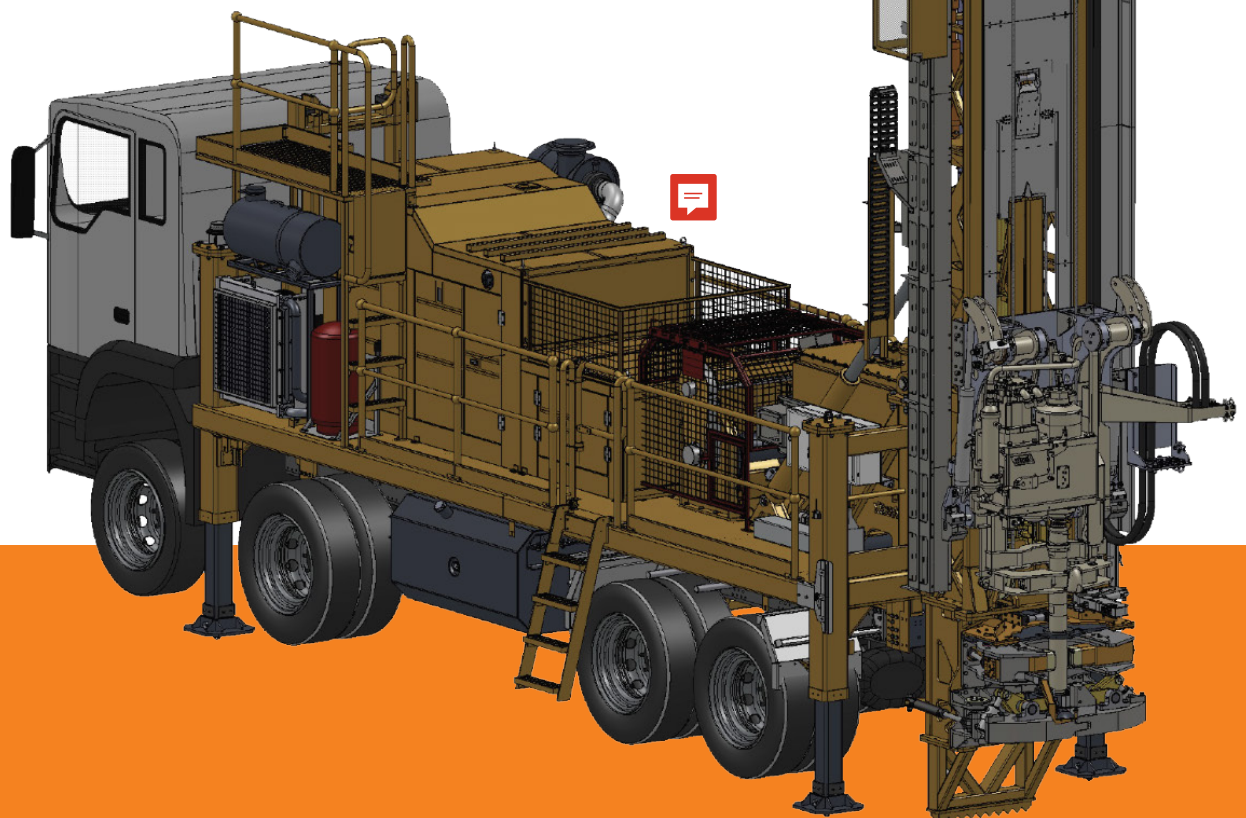




# AUSTEX X1550T MKII

• Safer drilling, smarter control, more uptime



## ❖ Introducing

### The AustEx X1550 MKII

The X1550 MKII is a truck mounted multipurpose drill rig for deep diamond core and large-diameter drilling up to 20 inches, featuring Cummins power, advance clamping, and fully automated, hands-free operation.

#### Features and Benefits

- Compact robust design
- Tier 1 safety features
- Drilling capacity up to 2500m NQ
- Total weight 36,000k g (79,300 lbs)



#### Safer Drilling Through Remote Operation

- Enables remote control of all drilling functions from a stationary control terminal, keeping operators up to ~20 m away wirelessly or 10 m tethered, within line of sight
- Integrated emergency stop system, fire suppression control, and safety-controlled power shutdown to reduce risk during operations
- Extensive interlock system designed to prevent collisions, equipment damage, and unsafe movements

## Advanced Operator Control & Visibility

- Portable Pelican-case control terminal with industrial touch HMI and secondary display for dedicated camera views
- Joystick, dial, and switch-panel controls combined with software automation reduce operator workload
- Real-time display of key drilling parameters such as pressures, flows, weight-on-bit, and depth

## Built-In Diagnostics & System Intelligence

- Comprehensive diagnostics covering communications, inputs/outputs, engine, CAN network, and control hardware
- Over 1,300 monitored alarms and events, with live alerts and historical logs for troubleshooting and analysis
- Pre-emptive fault detection for sensors and hydraulic valves to minimise downtime

## Situational Awareness with Integrated Cameras

- On-rig cameras:
  - Three operational views (drill head, breakout/slips, wireline winch)
  - Two surveillance views (front and rear)
  - Two AI Human identifying cameras on the Uni Sloop that will isolate the uni sloop if humans are within the operational area of the equipment.
- Optional telemetry integration allows live viewing and historical footage access via the Cortex SmartDrill platform (subscription-based) 

## Increased Productivity & Operational Efficiency

- Automatic setup and pack-up routines, including base levelling, mast angle control, and mast locking, reduce non-productive time
- Supports manual, supervised, and automatic operating modes, allowing progressive automation as site confidence grows
- Remote engine start/stop, RPM control, and monitoring streamline daily operations

## Telemetry & Future-Ready Automation

- Telemetry-ready architecture supporting GPS, GSM, MWD sensors, data logging, and remote access (subscription required)
- Designed to align with the industry's transition toward greater automation and unmanned drilling operations

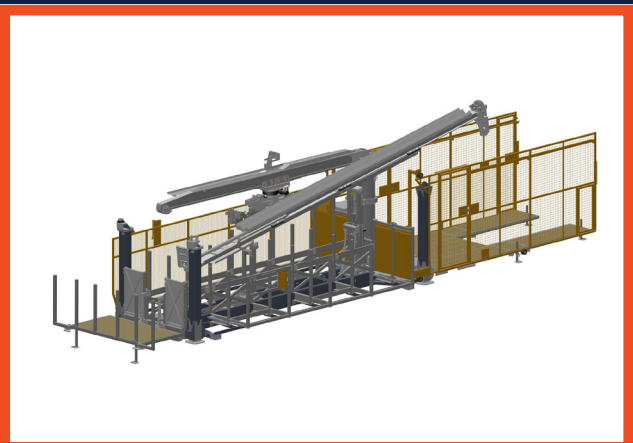
## Robust, Mine-Ready System Design

- Industrial PLC-based control system using electric-over-hydraulic closed-loop control
- Designed for harsh outdoor environments, with IP65-rated on-rig equipment and ruggedised cabling and connectors
- Operating temperature range up to 50 °C on-rig, supporting year-round exploration drilling



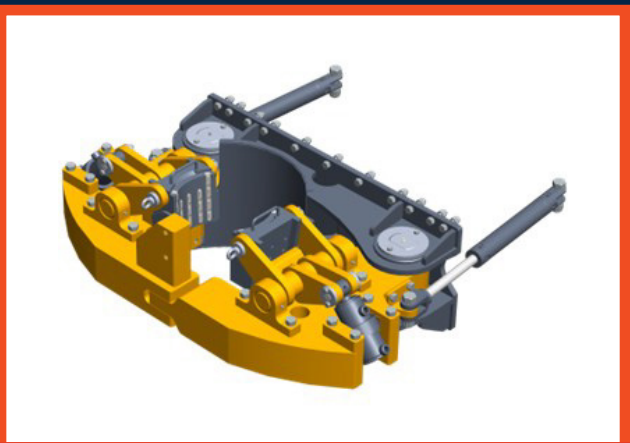
# X1550 MKII SPECIFICATIONS

|                      |                             |
|----------------------|-----------------------------|
| Max. Pull Back       | 23,000 kg (50,700 lbs)      |
| Max. Pull down       | 11,500 (25,353 lbs)         |
| Drilling Diametres   | BQ (2.19”) to 20 inch       |
| Max. Rotation Torque | 17,800 Nm (13,128 Ft lbs)   |
| Max. Feed Speeds     | 875 mm / sec (2.8 f / sec)  |
| Hydraulics           | Load Sensing Piston Pumps   |
| Final Drive          | CAT 330 or 8x8 or 8x4 truck |



## UNI SLOOP

|                    |                                                                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capacity           | 9-meter rod pulls and 500 kg WLL                                                                                                                                         |
| Safety             | <ul style="list-style-type: none"><li>• 2 x AI LUIS Human sensing cameras and warning lights</li><li>• Sliding safety gates with access doors and RFID sensors</li></ul> |
| Offsiders Platform | Fold down hydraulically                                                                                                                                                  |
| Rod Handling       | Rod stabilises and non-magnetic rods handled automatically                                                                                                               |
| Rod Storage        | 4 x rod bins rated to 5000 kg each                                                                                                                                       |
| Rod Handling Range | BQ to 18-inch, up to 9 m lengths and 500 kg capacity                                                                                                                     |
| Control Consoles   | 25 m wireless remote control consoles                                                                                                                                    |



## POWER FOOT

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Foot                  | Hydraulically operated, self-energising power foot clamp                              |
| Jaw Options           | 60 mm to 273 mm                                                                       |
| Available Jaw Sizes   | Standard and deep-hole jaw sizes from 2-3/16” to 10-3/4”                              |
| Jaw Inserts           | Bolt-in tungsten jaw inserts for easy replacement and extended life                   |
| Available Casing Jaws | Long-series low-pressure casing jaws from 2 3/8” to 7”                                |
| Clamp System          | 10 <sup>3/4</sup> -foot hydraulic clamp that opens to pass large stabilisers and bits |



## DRILL RIG MAST

|             |                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Feed Stroke | 9.75 m (32 ft)                                                                                                                                                                                     |
| Mast Dump   | 1.8 m (5.9 ft)                                                                                                                                                                                     |
| Feed system | <ul style="list-style-type: none"> <li>• Heavy duty dual 20 mm pull-back ropes</li> <li>• Heavy duty dual 20 mm pull-down ropes</li> <li>• 6.5" feed cylinder delivering 23 t pull back</li> </ul> |
| RC Boom     | Hydraulic slewing / lifting boom with winch and static brake (500 kg WLL)                                                                                                                          |
| Overshot    | Handfree overshot handling                                                                                                                                                                         |
| Breakout    | <ul style="list-style-type: none"> <li>• Hands free NQ to 20"</li> <li>• 20,000 Nm breaking torque</li> </ul>                                                                                      |

## CONTROL PANEL & HYDRAULICS

|                  |                                                                                                                                                                                                                          |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydraulic Valves | Rexroth and Linde                                                                                                                                                                                                        |
| Pumps            | <ul style="list-style-type: none"> <li>• Linde 280 cc main pump with high pressure filtration</li> <li>• Linde 105 cc water pump</li> <li>• Linde 75 cc AUX pump</li> <li>• Triple gear hydraulic cooler pump</li> </ul> |
| Filtration       | <ul style="list-style-type: none"> <li>• High pressure, tank and case drain filters</li> <li>• 1 x hydraulic tank and case oil return filtration</li> <li>• Main circuit hydraulic pressure filtration</li> </ul>        |
| Water pump       | <ul style="list-style-type: none"> <li>• Retractable wash down hose</li> <li>• FMC L18 (69 GPM) Piston Pump</li> </ul>                                                                                                   |
| Tanks            | <ul style="list-style-type: none"> <li>• 800 L capacity hydraulic oil tank</li> <li>• AustEx Hammer Oiler (optional)</li> <li>• 1000 L diesel tank</li> </ul>                                                            |
| Overshot         | 25 m wireless remote control consoles                                                                                                                                                                                    |

## DRILL RIG

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine             | <ul style="list-style-type: none"> <li>• Cummins M11 @400 HP at 1800 rpm</li> <li>• Engine Acoustic Enclosure</li> </ul>                                                                                                                                                                                                                                                                                                                                                           |
| Optimal Compressor | <ul style="list-style-type: none"> <li>• Sullair HP500 with 1162cfm at 500 psi</li> <li>• Atlas ORX10 with 1240cfm at 435psi</li> <li>• Separator / Fuel Save System</li> <li>• Thermal Valve and High-Pressure Filter</li> </ul>                                                                                                                                                                                                                                                  |
| Cooler             | Vertical Pack rated to 55c                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Features           | <ul style="list-style-type: none"> <li>• Wireline winch with spooler and static brake, 2500 m (8,200 ft) of 8 mm (5/16") capacity</li> <li>• Hydraulic mast angle locking system</li> <li>• Jack leg counter-balance valves coupled directly to cylinders</li> <li>• Fold up ladder with self-closing gate and Australian Standard handrails</li> <li>• Centralised pre-start and service area</li> <li>• 2 x 9 kg fire extinguishers</li> <li>• Fire Supression System</li> </ul> |

## ROTATION DRIVE HEAD

|        |                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------|
| Ratio  | <ul style="list-style-type: none"> <li>• High speed 1.9 : 1</li> <li>• Low speed 16.4 : 1</li> </ul>       |
| Head   | <ul style="list-style-type: none"> <li>• 2 speed floating spindle</li> <li>• Tilting drive head</li> </ul> |
| Motors | Linde HMV210 rotation motor                                                                                |
| Gears  | <ul style="list-style-type: none"> <li>• Hardened and ground</li> <li>• Handfree gear changing</li> </ul>  |
| Speed  | 0 - 1500 rpm providing 17,800 Nm (13,128 Ft lbs)                                                           |
| Cooler | Drive Head Oil Cooler                                                                                      |

## ⋮ Our Clients

At Lucas, we consider ourselves privileged to have a diverse range of clients, from global industry leaders to local councils. Our commitment to understanding and adapting to each of our client's unique challenges is what drives us. By forging strong, collaborative relationships, we consistently deliver tailored solutions that meet our clients specific needs, exceed expectations, and contribute directly to their success.

GLENCORE

arrowenergy

RioTinto

**BMA**  
BHP Mitsubishi Alliance

**Peabody**

AngloAmerican

QPM  
ENERGY

CENTENNIAL

Whitehaven

Evolution  
MINING

KESTREL COAL  
RESOURCES

fitzroy

origin

TRI-STAR

Santos

GM<sup>3</sup>

# ✧ Certifications

Our position as the **industry leader** is reinforced by a rigorous framework of **certifications** and **compliance**.

Our certifications demonstrate our adherence to the **highest standards** of **quality**, **safety**, and **environmental management**.



## ✧ ISO 45001:2018

### Occupational Health & Safety Management

ISO 45001 is an international standard that specifies requirements for an **occupational health and safety (OH&S) management system**. It provides a framework for Lucas to manage risks and improve OH&S performance.

## ✧ ISO 14001:2015

### Environmental Management

ISO 14001 is the internationally recognised standard for environmental management systems (EMS). It provides a framework for Lucas to design and implement an EMS, and continually improve their environmental performance.

## ✧ ISO 9001:2015

### Quality Management

ISO 9001 is a **globally recognised standard for quality management**. It helps Lucas to improve their performance, meet customer expectations and demonstrate their commitment to quality.



## Contact Us

**Address:** Level 22, 167 Eagle Street  
Brisbane QLD 4000

**Phone:** +61 7 3363 7333

**E-mail:** [sales@lucas.com.au](mailto:sales@lucas.com.au)

**Web:** [www.lucas.com.au](http://www.lucas.com.au)

