



GT SERIES

GTD GT45DR

GEOTHERMAL & WATER WELL DRILL RIG

SPEC SHEET

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GTD GT45DR DRILL RIG

The GT45DR builds on the trusted performance of our GT series, offering unparalleled efficiency in Geothermal drilling. With the innovative double-headed design, the **GT45DR** ensures borehole stability even in the most challenging formations and able to reach **depths beyond 850 feet** using **mud, air, and hammer** drilling methods

The **GT45DR** comes complete with our **unique rod rack and loading system**, the most **robust, reliable, and safest** rod handling system on the market, ensuring **maximum safety and efficiency** in all drilling operations.

FIELD-PROVEN UPTIME AND PERFORMANCE, BACKED BY CUSTOMER RESULTS

65,000 LBS
PULL - BACK

513HP
CUMMINS ENGINE

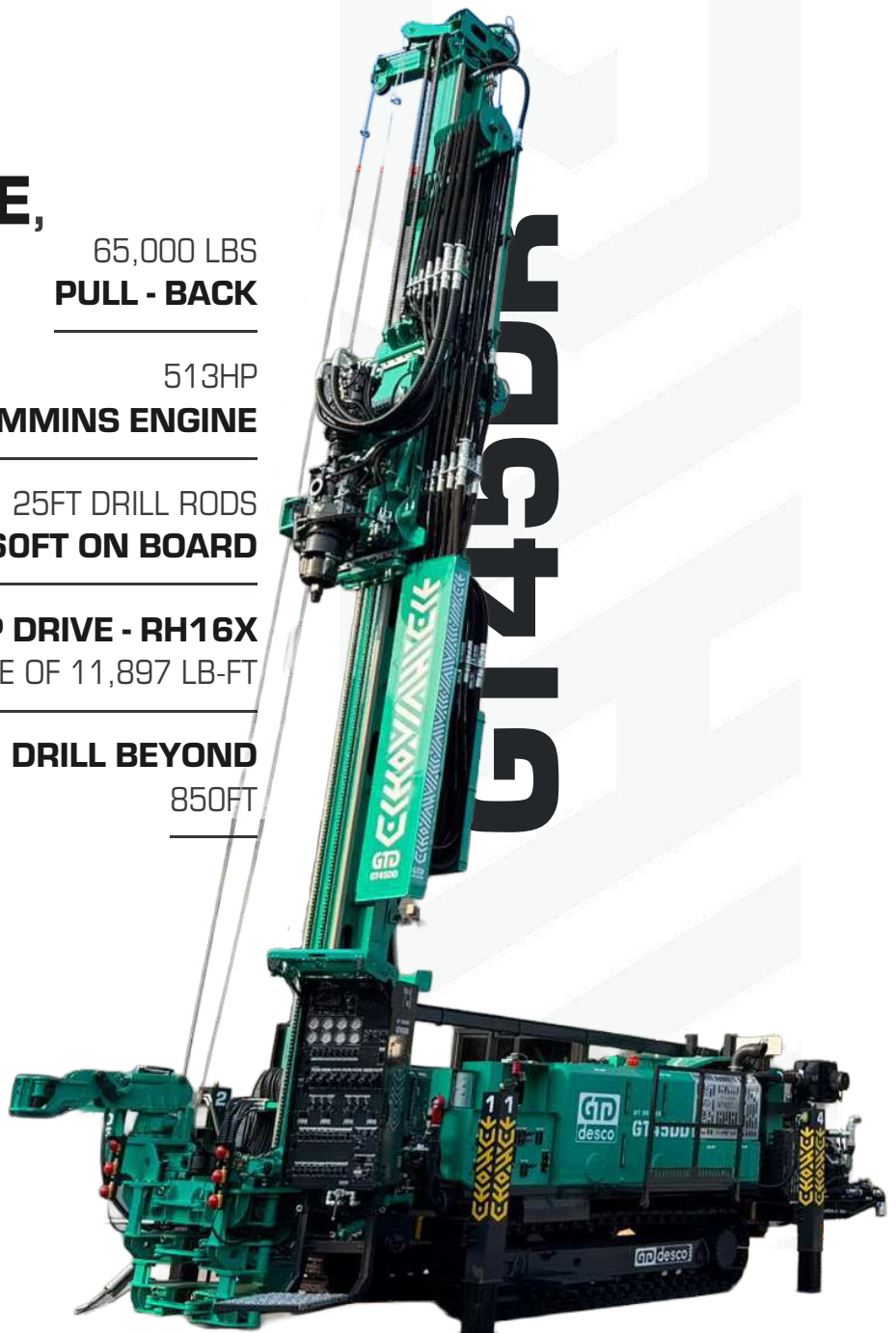
25FT DRILL RODS
960FT ON BOARD

EURODRILL TOP DRIVE - RH16X
TORQUE OF 11,897 LB-FT

DRILL BEYOND
850FT

DRILL DEEPER AND FASTER WITH MINIMAL COMPROMISE

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DIMENSIONS & WEIGHT

- ▶ Length 41' (12.5m)
- ▶ Width 8' 2" (2.5m)
- ▶ Height 10' 3" (3.2m)
- ▶ Weight 66,000 lbs - 77,000 lbs
(30,000 kg - 35,000 kg)
Actual weight will vary depending on the options selected and installed, e.g. Rods...

DERRICK & FEED SYSTEM

- ▶ 55,000 lbs - 66,000 lbs (25,000 kg - 30,000kg) pull-back
- ▶ 26,455 lbs (12,000 kg) push-down
- ▶ 25' (7.62 m) top head stroke

DRILL PIPE & CASING

- ▶ 3½" (88.9 mm) x 20' (7.62 m)
48 rod capacity - 960' (288 m)
- ▶ 3¾" (95 mm) x 20' (6 m)
44 rod capacity - 880' (264 m)
- ▶ 4" (101.6 mm) x 20' (6 m)
30 rod capacity - 600' (180 m)
- ▶ Max diameter 12½" (320 mm)

ROTARY DRILL HEAD - RH16X

- ▶ EA61V head motors
- ▶ Swivel with 2" or 3" thru-hole
- ▶ 220rpm at 3,319 lb-ft (4.5 kNm)
- ▶ 77rpm at 9,293 lb-ft (12.6 kNm)
- ▶ Floating spindle (shock absorber)

CASING HEAD - EURODRILL RH26X

- ▶ Rotation: 180 rpm
- ▶ Torque 29,500 lb-ft (40 kNm)
- ▶ Dual Head Tip Out System
- ▶ Head 30° Angled Tip Out System
- ▶ Diverter: 4" (102 mm) with
Hydraulic adjustable compression
- ▶ Chuck: 3½" (89 mm), 5" (152 mm),
6" (168 mm), 7" (178 mm)

ENGINE

- ▶ Cummins X12 Tier 4 (Stage 5)
513 hp (377 kW)

CRAWLER (TRACK) BASE

- ▶ Doosan Solar 130
- ▶ Steel with rubber pads
- ▶ Wireless remote travel

GTD STANDARD FEATURES

- ▶ Sideshift - Sliding Drill Head
- ▶ KING OIL Swivel & Floating Spindle Sub 
- ▶ Height adjustable working table
- ▶ Triple Clamps - One rotating
- ▶ Hydraulic Centralizing Rollers
- ▶ Hydraulic Breakout Chain Wrench
- ▶ Auxiliary Hydraulic Ports and Controls
- ▶ Main Winch - 22,000 lbs (10,000 kg)
- ▶ Wire/Sandline Winch
- ▶ Water Injection Mist Pump
- ▶ DTH Lube System
- ▶ Rod Rack & Rod Loader
- ▶ Self Loading Jacks/ Outriggers
- ▶ Air Compressor: 24 cfm (673 lpm),
130 psi (9 bar)
- ▶ Centrifugal Pump: 4x3x13 Single-stage
- ▶ 5x6 Triplex Piston Pump: 317 gpm @ 580 psi
(1200 lpm @ 40 bar)
- ▶ Tablet Computer & Engine Diagnostics
Software
- ▶ Sandline Winch Length 1,000' - 6,500'
(300 m - 2,000 m)

OPTIONS

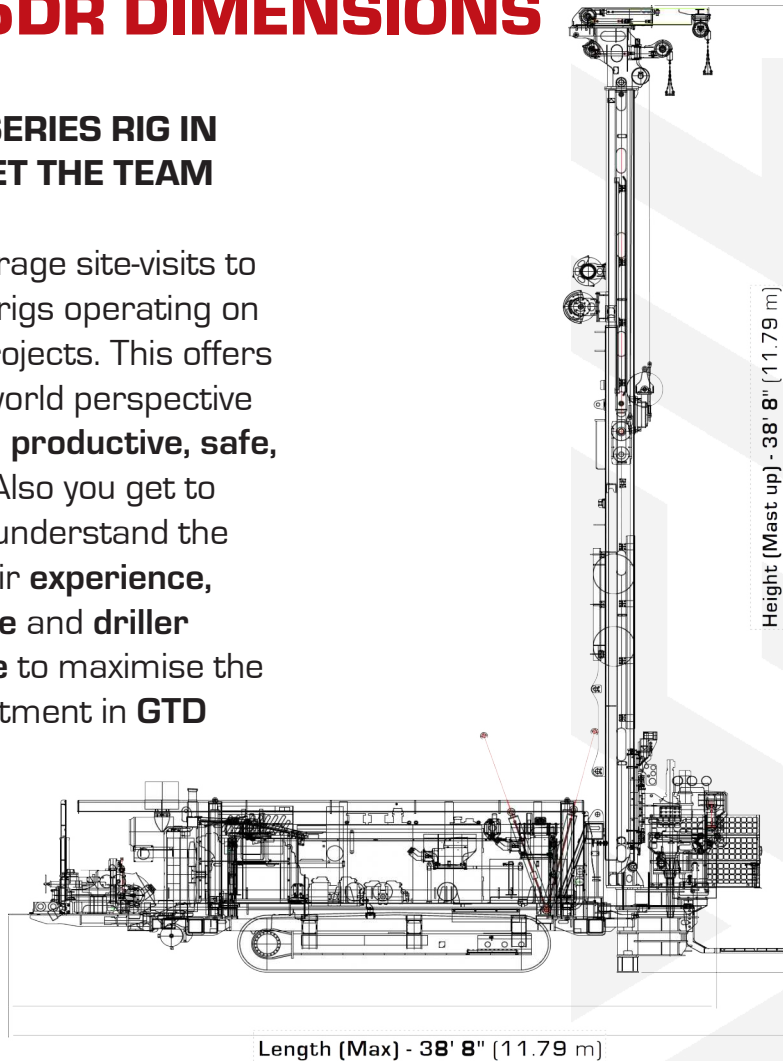
- ☐ Hydraulic Sliding Rod Wrench
- ☐ Angled Drilling
- ☐ Triple Clamps
- ☐ Safety Cage
- ☐ Head 30° Angled Tip Out System
- ☐ Hydraulic Welder & Generator (7.5 kW)



GTD GT45DR DIMENSIONS

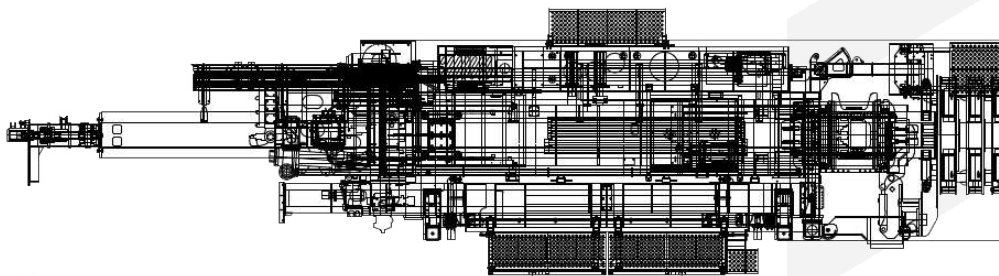
COME SEE A GT SERIES RIG IN ACTION AND MEET THE TEAM

We strongly encourage site-visits to see our **GT Series** rigs operating on 'live' commercial projects. This offers an authentic, real-world perspective on why our rigs are **productive, safe,** and **user-friendly**. Also you get to **meet the team** to understand the additional value their **experience, abundance attitude** and **driller focused knowledge** to maximise the return on any investment in **GTD desco** equipment.

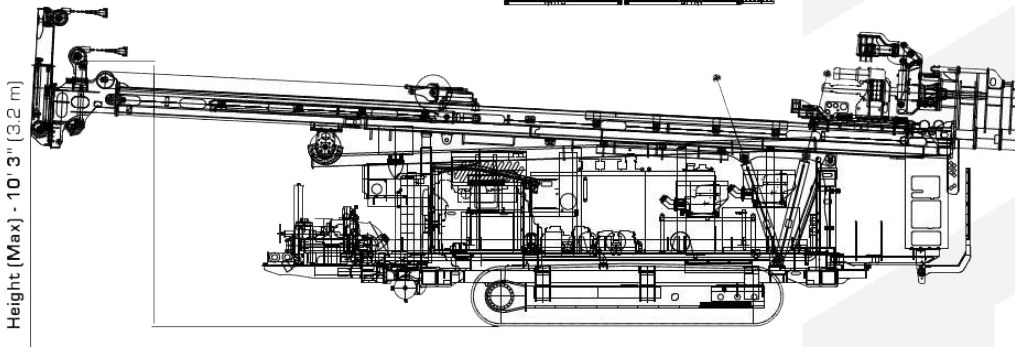


Height (Mast up) - 38' 8" (11.79 m)

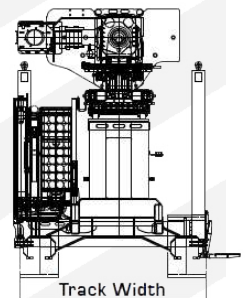
Length (Max) - 38' 8" (11.79 m)



W (Max) - 7' 8" (2.4 m)



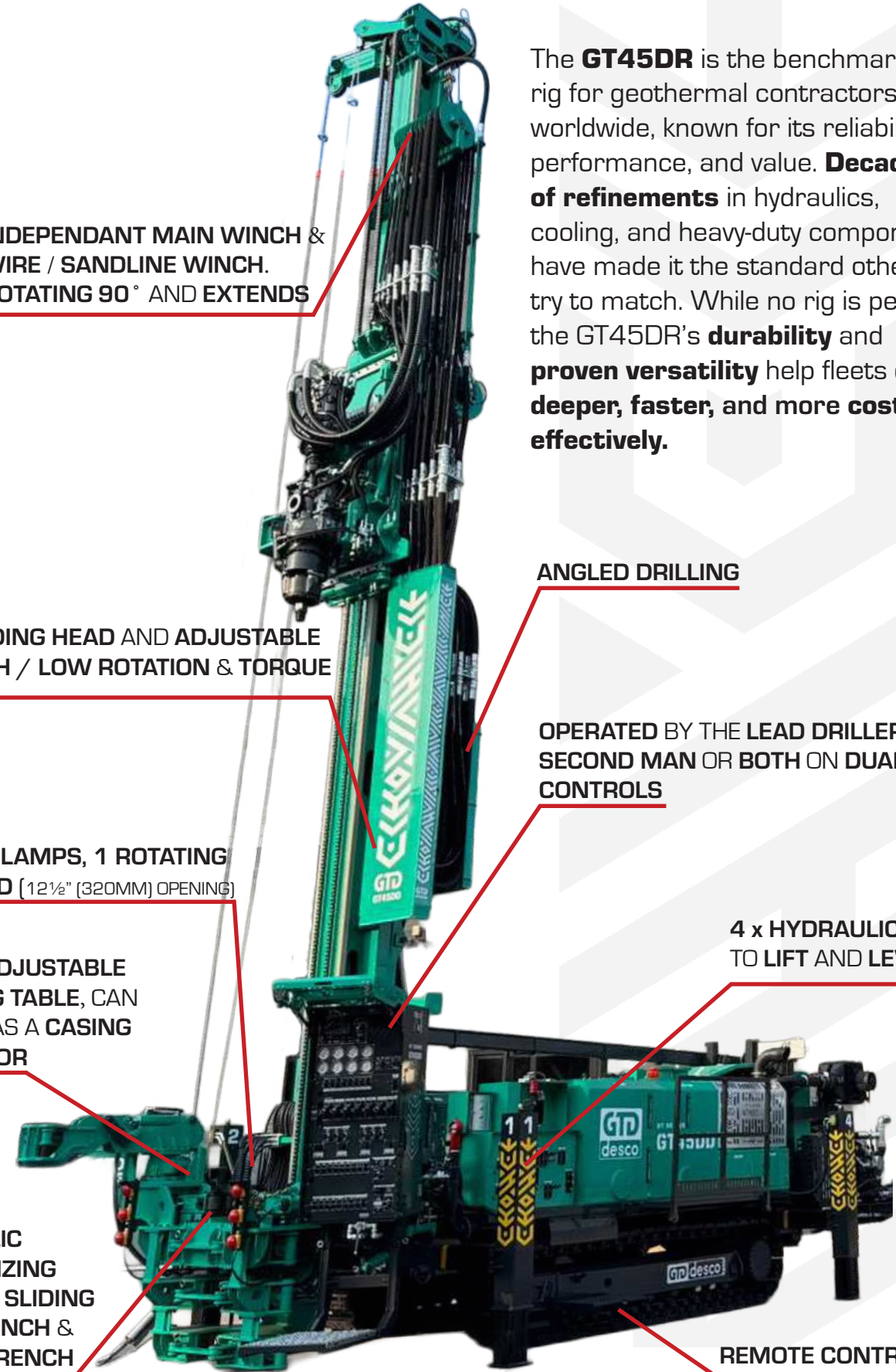
Length (Max) - 38' 7" (11.8 m)



Track Width
7' 2" (2.2 m)

NOTE: THE MEASUREMENTS ABOVE ARE THE BASE DIMENSIONS WHICH MAY BE SUBJECT TO VARIATION DEPENDENT ON FINAL DESIGN SPECIFICATIONS. SPECIFICATIONS SHOWN ARE ONLY INDICATIVE AND SUBJECTED TO CHANGE WITHOUT PRIOR NOTICE

GTD GT45DR CORE FEATURES

A large green and black geothermal drilling rig, the GTD GT45DR, is shown from a side-on perspective. It has a tall vertical mast with various components, including a winch at the top, a sliding head, and a base with hydraulic legs. Red lines connect specific features to descriptive text blocks.

INDEPENDANT MAIN WINCH &
WIRE / SANDLINE WINCH.
ROTATING 90° AND EXTENDS

The **GT45DR** is the benchmark rig for geothermal contractors worldwide, known for its reliability, performance, and value. **Decades of refinements** in hydraulics, cooling, and heavy-duty components have made it the standard others try to match. While no rig is perfect, the GT45DR's **durability** and **proven versatility** help fleets **drill deeper, faster, and more cost-effectively**.

SLIDING HEAD AND ADJUSTABLE
HIGH / LOW ROTATION & TORQUE

ANGLED DRILLING

OPERATED BY THE LEAD DRILLER,
SECOND MAN OR BOTH ON DUAL
CONTROLS

TRIPLE CLAMPS, 1 ROTATING
& 2 FIXED (12½" [320MM] OPENING)

HEIGHT ADJUSTABLE
WORKING TABLE, CAN
BE USED AS A CASING
EXTRACTOR

4 x HYDRAULIC LEGS
TO LIFT AND LEVEL

HYDRAULIC
CENTRALIZING
ROLLERS, SLIDING
ROD WRENCH &
CHAIN WRENCH

REMOTE CONTROL

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GTD GT45DR ADDITIONAL INFO

HYDRAULIC WELDER

Ideal for welding casing and for on-site power and welding requirements.

HYDRAULIC SLIDING ROD & WRENCH

Used if you are not confident with clamps and are worried about dropping rods.

ANGLED DRILLING

Drill up to 45° angles. As standard 20 degrees is achievable, but for greater angles we recommend moving the table travel. Keeps the site tidy when not using surface casing and diverter when air drilling.

TRIPLE CLAMPS

Useful if drilling with a lot of casing.

AIR DRILLING SKIRT

Keeps the site tidy when not using surface casing and acts as a diverter when air drilling.

HIGH TORQUE MOTORS & REDUCTION GEARBOX

Upgrade the standard head with high-speed bent-axis motors and a reduction gearbox, giving a 24% increase in torque and increased motor life.

EURODRILL RH16X

With almost double the torque of the standard GT35 drill head from a world-renowned manufacturer.

SAFETY CAGE

Meets your country-specific requirements with a safety cage and rotation cut-off.

PUMPS

Centrifugal pump: 4×3×13 single-stage

Mud Puppy 250 or GTD own 4×3×13" heavy-duty chromoly pump
Interchangeable parts between both

Configured for dual mud pumps of your choice:

- Two centrifugal pumps or
- One centrifugal and one piston pump

High-Pressure Piston Pump

- MP1200 5×6 Triplex Piston Pump
- 317 gpm @ 580 psi (1,200 lpm @ 40 bar)

RODS AND CASING

PP52 tapered flush thread delivers maximum flow and joint strength without the limitations of API designs, ensuring full hydraulic performance with leak-free connections.

Premium friction-welded joints with extended, thick transition zones reduce stress concentrations and improve resistance to cyclic fatigue under high torque.



GTDData MONITORING SYSTEM

TURN YOUR DRILL SITE INTO A SMART, CONNECTED SYSTEM WITH GTDData.

With **real-time data** and **remote access**, you can keep your team **informed** and in control — reducing risk, boosting performance, and cutting downtime.

WIRELESS SYNC

Wireless sync keeps your rig, solids control equipment, and data logger in constant communication.

Stay ahead with alerts that predict maintenance and catch anomalies early.

LIVE DATA

Live data puts speed, torque, and fluid control at your fingertips.

Cloud dashboards keep your data within reach, wherever you are.

HOW IT LOOKS



(Live data read-outs positioned right above main drillers controls)

MONITORED PARAMETERS: WHAT YOU CAN SEE

Parameter	Purpose / Insight
RATE OF PENETRATION (ROP)	Tracks drilling progress; alerted drop identifies bit wear
TORQUE	Prevents overloading; flags formation changes or stuck pipe
RPM	Optimizes bit performance and drilling efficiency
MUD PUMP PRESSURE	Ensures hole cleaning, formation stability, avoids stuck pipe
MUD VOLUME / FLOW RATE	Monitors fluid usage; supports environmental compliance
HYDRAULIC OIL TEMPERATURE	Prevents overheating; aligns with GTD's upgraded cooling systems
FUEL CONSUMPTION	Tracks rig efficiency vs. torque/RPM output
WEIGHT ON BIT (WOB)	Refines ROP control; critical for bit and formation optimization
DEPTH & DRILL TIME	Tracks progress; enables per-foot cost/performance KPIs
SYSTEMS DIAGNOSTIC LOG	Includes sensor health, alerts, and error messages

GTD SUPPORT

FULL LIFECYCLE SUPPORT

GTD'S COMMITMENT TO UPTIME DOESN'T END AT DELIVERY — IT BEGINS.

A well-maintained GTD rig delivers strong ROI, safer operations, and longer service intervals, ensuring expert support is always within reach, wherever your operation is based.

KEY SUPPORT FEATURES

- ▶ **Rapid spare parts replenishment** across the **USA**, **Canada**, and the **Rest of the World**.
- ▶ **Remote diagnostics** and **alert configuration** through GTD's **integrated data system**.
- ▶ Multiple **service hubs** and **parts stores** in **New Hampshire (USA)** and **Ontario (Canada)** **Tonbridge (UK)**.
- ▶ **On-site commissioning, training, and inspections** by **GTD North American** and **Global Service Teams**.
- ▶ **Comprehensive service kit** covering the first **2,000+ operating hours**.
- ▶ **Fully bespoke support** and **service packages** and be created to **suit your business needs**.



GTD LOCATIONS

GTD'S GLOBAL SUPPORT HUB NETWORK MEANS WE CAN DELIVER, WHEREVER, WHENEVER...

Multiple strategically located facilities around the world enabling us to respond quickly, mobilise efficiently, and provide seamless support tailored to our customers' needs across regions, time zones, and operational demands.

GTD USA

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SWANZEY,
NH, 03446,
USA

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ON, M6M 2L6,
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UNITED KINGDOM

GTD SOUTH KOREA

NAM-MYEON,
JEOLLANAM-DO,
SOUTH KOREA

GTD GLOBAL SUPPORT TEAMS

GTD DOESN'T JUST SELL RIGS — WE SUPPORT YOUR FLEET FOR LIFE.

Our North American field teams and global engineering group ensure your rigs stay productive, safe, and efficient year after year.

NORTH AMERICAN FIELD TEAM



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GET IN TOUCH NOW TO DISCUSS HOW WE CAN IMPROVE THE EFFICIENCY AND SAFETY OF YOUR DRILLING OPERATION...

For more information, contact us on **INFO@GTD-DESCO.COM**



GT45DR SPEC SHEET

WWW.GTD-DESCO.COM