



RHAM
EQUIPMENT

RHAM ROOF BOLTER
MODEL TB2245



**THE BEST EQUIPMENT
UNDER THE EARTH**

www.rhamequipment.co.za

TECHNICAL SPECIFICATIONS OF EQUIPMENT

SPECIFICATIONS

TB 2245 Capacities

Seam Height (Minimum)	2 600 mm
Seam Height (Maximum)	4 500 mm

Dimensions

Length	8 150 mm
Width	2 800 mm
Height	2 500 mm
Ground Clearance	429 mm

General

Weight	23 421 kg
Speed	0 - 3,2 km/h

KEY BENEFITS OF OUR ROOF BOLTERS

Rham Equipment has an extensive fleet of Roof Bolters that can be used in tough underground mining conditions with seam heights ranging from 1. m to 7,5 m.

All our roof bolters are locally manufactured in South Africa and use high quality components from reputable suppliers. These machines are designed to work in any underground mining operation and are exported globally.

The TB 2245 is designed to handle large drilling operations in seam heights ranging from 1.8m to 5.2m. This machine reduce the time spent on drilling operations by utilizing single pass drilling along with roof and Side Wall bolting.

Combined with industry leading technical support and a 98% availability of critical spare parts, our roof bolter designs reduce machine down time and can conduct bolting operations accurately and efficiently. This is achieved by:

- Simplistic machine design combined with over 40 years' experience in the underground mining sector equates to less machine complexity and an increased mean time to failure.
- Modular bolt-on components require less skill to install and reduces the mean time to repair of the machine.

These machines are designed with operator and underground safety in mind and have a proven track record as one of the safest Roof Bolters in the world :

- PDS level 9 and monitoring systems directly integrate with the design of the machine allowing complete control and feedback of the machine and its surroundings.
- Spring Applied Hydraulic Release (SAHR) brakes with integrated Park and Emergency Brake system.
- All Roof Bolters come standard with a heavy-duty canopy, stable platforms and ergonomic control layouts with emergency shut-down systems.

Rham Equipment provides tailor made solutions to meet every customer's specific needs and have successfully developed groundbreaking products whilst meeting tight deadlines.

DRILL/BOLT PARAMETERS

Hole Sizes	22 - 46 mm
Hole Length	Dependent on Seam Height
Drill Speed	450 rpm
Drill Thrust	5 - 8 kN
Penetration	2 - 4 m/min
Bolt Torque	<320 Nm
Resin Injection	Manual
Dust Suppression	Wet or Dry Systems available
Average Cycle	2 - 3 min (2 Bolts)
Bolting	Roof and Side Wall

DRIVETRAIN

The TB 2245 utilizes Hydrostatic 4 wheel drive, consisting of a fixed displacement pump and four individual wheel motors that ensures 100% ground engagement and traction to the wheels.

FLAMEPROOF

All electrical and mechanical components are certified according to international Flameproof Standard (IECEx).

All flameproofing is done in-house resulting in high quality products that comply with international standards and can easily be managed without third party involvement.

OPERATORS CABIN

Access	Door with safety switch
Canopy Type	Tubular frame with door machine cut-out. ROPS/FOPS Certified.
Controls	Direct response Valve Banks with large handles for control and comfort

HYDRAULICS

Fixed Displacement Multi stage Pump for Trimming and Auxiliary Functions.

Pressure Hoses for the Auxiliary Functions are 2 Wire Braid Type with Safe Operating Pressures of 24 MPa

All Fittings and Adaptors are JIC Configuration for Lower Pressure Fittings and O-ring Manifold Blocks on the Main Pressure Trimming Circuits ORFS Fitting Options available on Request.

Newly designed hydraulic filtration system eliminates the risk of contaminants, increasing reliability.

ELECTRICAL SYSTEM

Isolator	Lockable
Tram Lights	20 LUX @ 20m
Flashing Beacon	In-house Design with multiple options available.
Resin Timer	Adjustable to meet customer demands. Standard setting 20/10 stall.

BRAKES

Oil Immersed Spring Applied Hydraulic Release Multi Disk Brakes.

Integrated Park and Emergency Brake

Advanced Friction Paper Discs for Optimal Braking Performance, Superior Energy Compatibility, Low Wear with extended Service Life.

TYRES

Solid Bonded Tyres

Heavy Duty Steel Rims

PRIME MOVER

Prime Mover	75 kW, FLP, 4 Pole
Voltage	525 / 1000 V
Panel	Rham FE7 FLP
Isolator	Victor Type

TRAMMING

By combining skid steer controls and superior power delivery to each wheel, the TB 2245 can rotate on its own axis and achieve 100% gradeability making the machine easy to use for single pass drilling operations.

SAFETY

Operator Station fitted with an emergency stop switch.

High Visibility from the operator's cabin, level 9 PDS compatibility and Flashing Beacons provide a safe work environment for the operators on the machine and on the ground.

All Bolting is done underneath the Temporary Roof Support (TRS) system inside a protective ensuring uncompromised safety of the operator.

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Safe reloading with ergonomic drill frame design that has less pinch points.

OPTIONAL

Dust Suppression

Drilling Pattern Grid

Gas Detection

Remote Control

DOCUMENTS

Spare Parts, Maintenance and Repair Manual.

Operations and Risk Assessment.



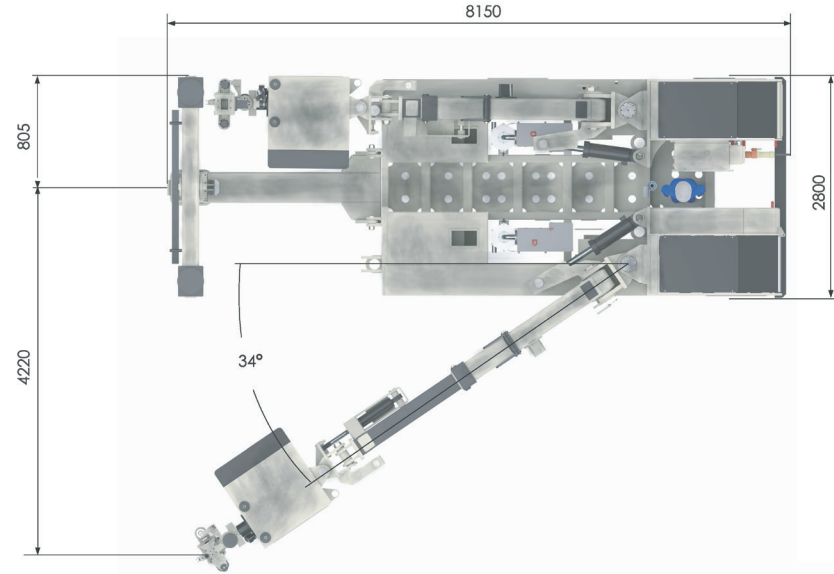
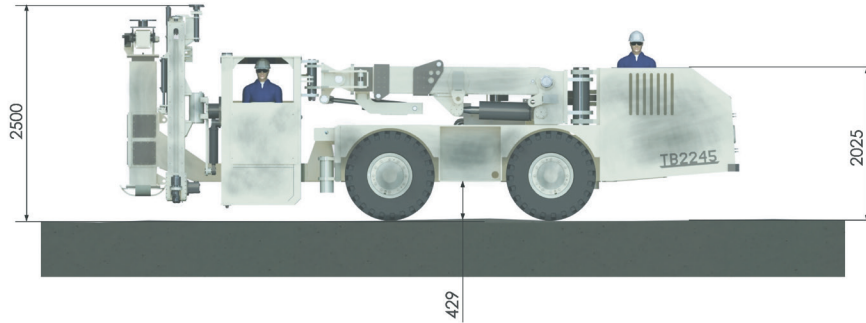
TECHNICAL SPECIFICATIONS OF EQUIPMENT

SAFETY

RHAM EQUIPMENT HAS A PROVEN SAFETY TRACK RECORD OF THE MOST UNITS STILL IN OPERATION WITHOUT A SERIOUS INJURY. HEAVY DUTY CABINS, EMERGENCY SHUT DOWN SWITCHES AND HIGH VISIBILITY FROM THE OPERATOR'S CABIN MAKE THIS MACHINE ONE OF THE SAFEST IN ITS' CLASS.

FUNCTIONALITY

SINGLE PASS, TWIN BOOM DRILLING ENSURES THIS MACHINE CAN HANDLE LARGE DRILLING OPERATIONS IN SEAM HEIGHTS OF 1.8m TO 5.2m WHILE SIMULTANEOUSLY REDUCING TIME IT TAKES TO COMPLETE A BOLTING OPERATION.



REAL-TIME MACHINE DATA

THE MACHINE IS INDUSTRY 4.0 READY AND OPTIONAL PERFORMANCE MONITORING, SERVICE PLANNING AND REMOTE MACHINE DIAGNOSTICS SYSTEMS ARE AVAILABLE.

OPERATOR HEALTH

ERGONOMIC BOLT RELOADING, USER FRIENDLY CONTROL INTERFACES AND ADJUSTABLE DRILLING PROCEDURES PROVIDE THE OPERATOR WITH A HEALTHY WORK ENVIRONMENT AND REDUCED FATIGUE.

ROBUST DESIGN

SOLID STEEL FRAME WITH INDUSTRY PROVEN HYDRAULIC COMPONENTS PROVIDE A BETTER MEAN TIME TO FAILURE AND INCLUDES A REBUILD PROGRAMME OF MORE THAN 20 000 HOURS.

FLAMEPROOFING

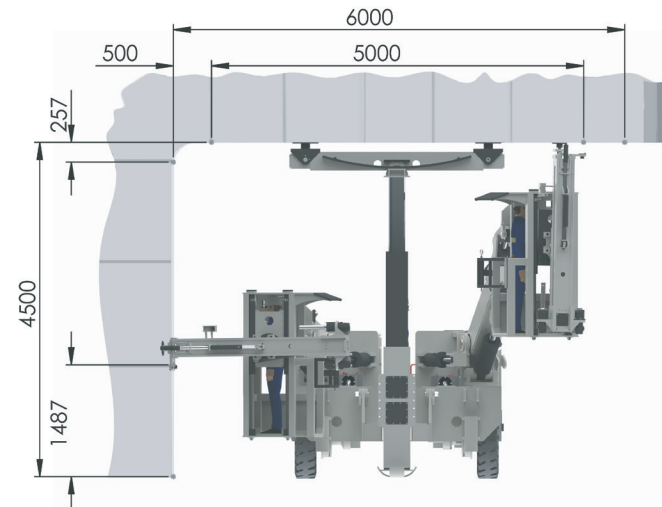
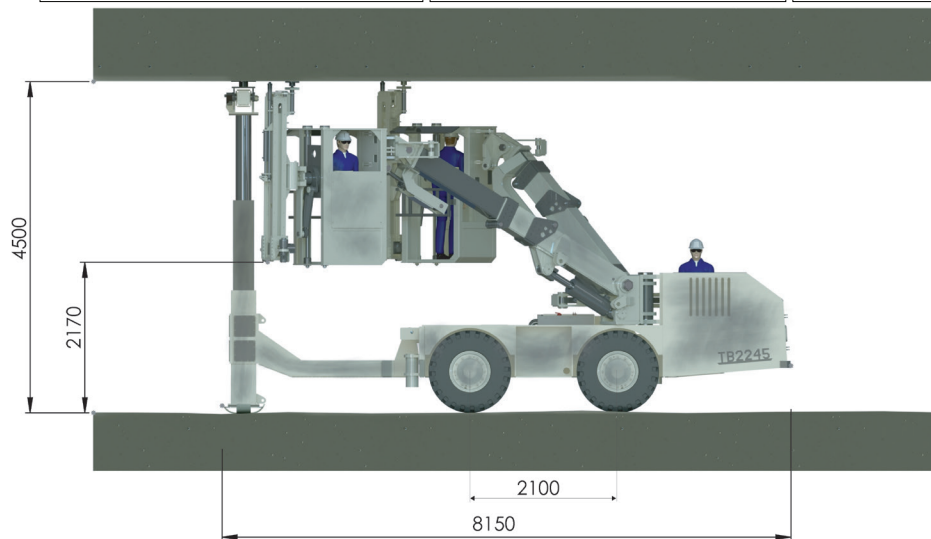
ALL FLAMEPROOFING IS DONE IN-HOUSE AND COMPLY WITH INTERNATIONAL STANDARDS (IECex) WITHOUT UNNECESSARY THIRD PARTY INVOLVEMENT.

IMPROVED EFFICIENCY

ADJUSTABLE HYDRAULIC COMPONENTS WHICH CAN BE INDIVIDUALLY SET TO ENSURE OPTIMAL ENERGY CONSUMPTION DURING OPERATION.

MANOEUVRABILITY

SKID STEER CONTROLS AND POWERFULL HYDROSTATIC DRIVE ENSURE THIS ROOFBOLTER CAN TURN ON ITS' OWN AXIS AND ACHIEVE 100% GRADEABILITY.





A PARTNERSHIP WITH RHAM MEANS:

- A Mining Charter III Preferential Procurement & Supplier Enterprise Development Contributor.
- A B-BBEE Level 3 Contributor.
- Internationally accredited ISO 90001 Certified Quality Systems.
- Strategically located warehouses that ensures a 98% availability of critical parts.
- Tailor made products to suit your specific needs.
- 40+ years of experience from a proudly South African OEM Supplier established in 1980.
- Safe durable products that can be fitted with the latest technologies (Industry 4.0).
- The shortest lead times on new machines, rebuilds and repairs.
- Reliable and proven product performance in all the mining sectors.
- Rental and Financing options available.
- 24 Hour Service and Technical Support.

CONTACT US

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