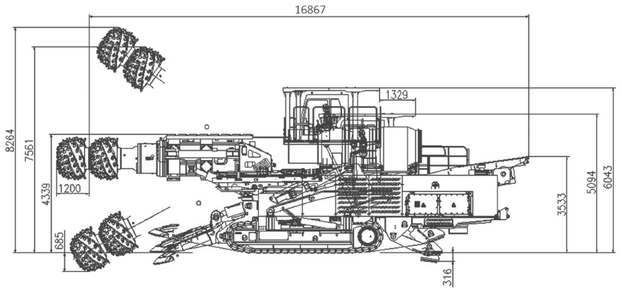
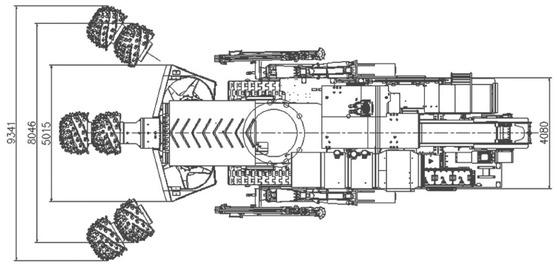
CREG CTR450
Roadheader

TECHNICAL DRAWING





CREG
Underground Solutions

CREG

MakeTunnelling Safer,Better and Faster

China:
China Railway Engineering Equipment Group Co.,Ltd.
E-mail: info_intl@crectbm.com
Tel: +86 0371 6581 5987
Address: No.99, 6th Avenue National Economic & Technical Development Zone 450016 Zhengzhou, Henan Province People's Republic of China

Europe & South & North Americans:
CREG TBM Germany GmbH
E-mail: info@creg-germany.com
Tel: +49 211 52288900
Address: CREG TBM Germany GmbH Willstätterstraße 15 40549 Düsseldorf Germany

Southeast Asia:
China Railway Engineering Equipment Group Co., Ltd. Singapore Branch
E-mail: info_singapore@crectbm.com
Tel: +65 6747 8091
Address: 1004 Toa Payoh North, #06-15/16/17, Singapore 318995

Italy:
China Railway Engineering Equipment Group Co.Ltd Italy Branch
Email: creg.italy@legalmail.it
Address: Viale Giuseppe Mazzini 55, 00195 Roma

Korea:
CREG Co.,Ltd. South Korea Branch
E-mail: info_korea@crectbm.com
Tel: +82 010-2156-8662
Address: No.1521, Building B, Terra-tower, 651, Songpa-gu, Seoul, Republic of Korea

Oceania:
CREGA Australia Office
Email: info@crega.com.au
Tel: +612 9698 0018
Address: Unit 1, 118 Bourke Road Alexandria NSW 2015 Australia

CREG CTR450
Roadheader

PRODUCT LEAFLET

CREG
Underground Solutions

CREG CTR450

CTR series roadheaders of CREG are efficient combined operation machines integrating cutting, traveling, loading, spraying and dust suppression functions. They have the characteristics of a high degree of mechanization, less damage and disturbance to surrounding rocks, good section forming, easy control of over-excavation and under-excavation, continuous excavation and mucking, few operators, low labor intensity, high safety, and flexible adaptability to sections. They are the most suitable mechanical excavation equipment for tunnels constructed using mining methods in line with the principles of the New Austrian Tunneling Method. Because of the crawler-type traveling mechanism, they are easy to turn and climb slopes, and have strong adaptability to complex geological conditions. They are widely used in tunnel construction for subways, municipal projects, highways, and water conservancy projects. At present, CREG has mass-produced three series of roadheaders: CTR450, CTR323 and CTR300A, as well as a range of specialized products such as hard rock type, soft rock type, plateau type, metro type, water conservancy type and mine type roadheaders. They have been successfully applied to various complex strata such as old hard loess, broken mudstone/sandstone/dolomite/limestone/glutenite, intact mudstone/sandstone/dolomite/limestone, carbonaceous slate/phyllite with high geostress, and red beds in central Yunnan. The strength of surrounding rock is 5-120 MPa, and the construction methods include full-section method, two-bench method, circular excavation reserved core soil method, double sidewall heading method, and CD method. The application fields cover various sizes of single-track, double-track and double-arch tunnels and adits for railways, highways, subways, water conservancy projects, municipal projects, and mines. The excavation sections include circular, rectangular, and horseshoe sections, which are highly recognized by customers.

KEY FEATURES AND BENEFITS

1. Wide cutting range:With a cutting width of 9.34 m, a cutting height of 8.26 m, and a single cutting area of up to 76.2 m²;
2. Excellent overall machine stability: Its 450/350 kW dual-speed cutting motor enables cutting rocks with compressive strength up to 80 Mpa;
3. A 1.2 m cutting boom extension supports efficient operation without repositioning the machine;
4. Equipped with a closed cab (with optional cab air treatment and air-conditioning systems), and a high-strength protective shed to ensure operator safety during operation;
5. An optional intelligent system enables status monitoring of key components of the entire machine, automatic adjustment and control of cutting parameters after sensing working conditions, measurement of excavation volume and footage, detection and control of over-excavation and under-excavation, three-dimensional data archiving of the tunnel excavation profile, and semi-automated cutting path planning and operation;

TECHNICAL DATA

Machine model	CTR450
Overall length w/wo second belt conveyor, min. (m)	23.7/16.9
Height, min (m)	6.05
Total weight +/-5 (t)	188
Ground pressure (MPa)	0.23
Cutting height, max. (m)	8.26
Cutting width, max. (m)	9.34
Undercut max. (mm)	685
Cutting speed, 50 Hz (m/sec)	1.55/1.1
Loading table width (m)	5
Maximum navigable in-&decline gradient	±16
Maximum navigable side gradient (°)	±8.5
Navigable cone radius, min. (m)	26
Navigable basin radius, min. (m)	20
Electric supply voltage (V)	1140
Cutter motor (kW)	450/350
Tramming speed, max. (m/min)	7
Total installed power (kW)	772.6

KEY COMPONENTS AND FUNCTIONS OF CTR450 ROADHEADER