

Maximum availability. Maximum productivity. 100 percent mining

# 280 SM(i) SURFACE MINER



#### TECHNICAL SPECIFICATIONS 280 SM (i)

Cutting drum		Engine	
Cutting width	9 ft (2,750 mm)	Rated power at 2,100 rpm	783 kW / 1,050 hp / 1,065 PS
Cutting depth *1	0 - 2 ft 2 in (0 - 650 mm)	Exhaust emission standards	280 SM: US EPA Tier 2
Cutting diameter	4 ft 11 in (1,500 mm)		280 SM i: US EPA Tier 4f
Engine		Weight and Filling Capacities	
Manufacturer	Cummins	Operating weight	280 SM: 254,965 lbs (115,650 kg)
Туре	QST 30		280 SM i: 256,949 lbs (116,550 kg)
Number of cylinders	12	Water tank	872 gal (3,300 l)
Displacement	1,861 in³ (30.5 l)	Fuel tank	621 gal (2,350 l)

<sup>\*1 =</sup> The maximum cutting depth may deviate from the value indicated due to tolerances and wear

# **HIGHLIGHTS**

# Superior technology for efficient mining

# 01 Reliability and Availability

- > 30.5-liter diesel engine with long-life service components
- > FEM-supported chassis design for a theoretical service life of 45,000 operating hours
- > Robust, modular CAN bus system, in part with dualchannel signal transmission
- > Balanced load distribution on the track units thanks to the machine's optimized center of gravity

# 04 Advanced Engine Technology

- > Field-tested high-performance engine cooler with individually exchangeable segments for maximum availability
- > Variable cooler fan control for optimum power utilization and low fuel consumption
- > Powerful diesel engine with high maximum torque compliant with US EPA Tier 2 + US EPA Tier 4f exhaust emission standards
- > Efficient engine control for low fuel consumption and low exhaust gas and noise emissions



# 02 Highly Efficient Cutting Technology

- > Wear-resistant HT6, HT14 & HT15 toolholder systems for optimal pick utilization and minimal downtimes
- > Soft rock cutting drum unit for minimized resistance in the drum housing and optimal material flow
- > Hard rock cutting drum unit for maximum durability in hard rocks
- > Reinforced cutting drum drive stands up to even the toughest mining conditions

# 03 High Productivity

- > High-performance conveyor unit with movable counterweight for loading mine trucks
- > High machine availability for maximum mining productivity
- > Fuel tank capacity designed for 24-hour operations
- > Water tank capacity of 872 gal (3,300 l) for long refilling intervals
- > Six cutting drum speed settings

# 05 Intelligent Maintenance Concept

- > Direct access to all service and maintenance points
- > Safe and easy assembly and dismantling of the primary conveyor in around six hours when changing belts
- > On-board computer displays service reminders, error messages and diagnostics functions in plain text

## **06 Effective Safety Concept**

- > Lockout-station mechanical power-on-disabled switch for the electrical system when machine stands idle or maintenance is required
- > Operator's cabin with operator's seat and built-in, certified ROPS / FOPS set-up as well as trainer's seat for safe, practice-oriented driver training
- > Dust-tight pressurized operator's cabin and fresh air filtration effectively prevent dust ingress
- > Comprehensive machine lighting with LED lights for the working area, discharge conveyor lights, and illuminated access ladders and walkways

## 07 High Operator Comfort - Perfect Ergonomics

- > Rotating operator's cabin and a camera / monitor system with six cameras provide a permanently optimal overview of the working area
- > Operating concept based on the latest ergonomic standards for long, fatigue-free, working shifts
- > Operator's cabin mounted on the front left chassis column and decoupled from the machine body

# Fast Turning & Easy Maneuvering

- > Large B8 crawler units all-round
- > Four steering modes and separately steerable rear axle
- > Hydraulic all-track steering with Ackermann steering system for optimal maneuverability
- > Automatic leveling parallel to the ground

## 09 Precise Leveling & Automatic Functions

- > Automatic function for the creation of smooth ramps
- > **LEVEL PRO PLUS** leveling system integrated in the on-board computer
- > Manual floating position of side plate lifting cylinders

## 10 Environmentally Friendly Machine Technology

- > Efficient water management with automatic functions
- > Enclosed material transfer point on the conveyor unit reduces dust emissions
- > Sealed cutting drum housing
- > Automatic central lubrication system with monitored lubricant circuit





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