



# DC-5A Low Profile Loader

DC-5A low profile underground mining loader is suitable for 4×4m low profile mine tunnel. The loader has been greatly improved in terms of operation and maintenance ergonomics. The lower height is more suitable for low profile tunnels.

The cabin is ROPS/FOPS certified to protect the operator in case of roll over or falling objects. The ergonomically designed cab provides a comfortable operating space and equipped with an adjustable spring-damped seat.

The whole working mechanism adopts Z-Link, which has strong shoveling force. There is a safety locking pin on the boom to ensure the safety of the staff during maintenance.

Working brake and parking brake are SAHR. Each lubrication point is arranged reasonably for easy maintenance.

Drive system is accurately matched for high transmission efficiency.



## MAIN SPECIFICATIONS

Tramming capacity	5 000 kg
Max.Break out force	90KN
Max. Tractive force	125N
Standard bucket	2.3m <sup>3</sup>
Size	8600×2400×1629 (mm)

## SPEEDS FORWARD & REVERSE

1st gear	4.1km/h
2nd gear	8.2km/h
3rd gear	23.2km/h

## BUCKET MOTION TIMES

Raising time	5.7sec
Lowering time	3.2sec
Dumping time	2.1sec

## OPERATING WEIGHTS \*

Total operating weight	15600 kg
Front axle	8200 kg
Rear axle	7400 kg

## LOADED WEIGHTS \*

Total loaded weight	20600 kg
Front axle	15600 kg
Rear axle	5000kg

\* Unit weight is dependent on the selected options

### OPERATIONAL CONDITIONS AND LIMITS

Environmental temperature	-15°C ~ +45°C
Standard operating altitude	from -1500 m to +3000 m at 25 °C without rated power derate

### REQUIREMENTS AND COMPLIANCE

JB/T5500 Underground Mining Loader
JB/T5501 Underground Mining Loader Test Method
JB 8518 Underground Mining Loader Safety Requirement
GB25518 Underground Mining Loader Safety Requirement
XY13.1-2013 Underground Mining Loader Company Standard

### POWER TRAIN

#### ENGINE

Diesel engine	DEUTZ/ TCD914L06
Output	119.9kW @2300rpm
Torque	625 Nm @ 1600rpm
Number of cylinders	6
Cooling system	Air cooled
Fuel System	4-stroke direct injection supercharged engine
Intake air filter	Dry air filtration
Control System	Fuel electronically controlled injection system
Electrical System	28V
Emission Standards	Euro Stage III
Exhaust system	Exhaust gas purifier
Average fuel consumption at 50% load	11.9L/h
Fuel tank capacity	240L

#### CONVERTER

Dana C270 Converter
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#### TRANSMISSION

Dana R20000 Transmission	Electric control shifting Three gears forward and reverse
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### AXLES

Front axle SAHR Fixed axle	KESSLER D81
Rear axle SAHR Fixed axle	KESSLER D81

### TIRE

Model	17.5-25
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### HYDRAULICS

Fittings	JIC
Hoses	GB 3683
Working Hydraulic oil tank capacity	250L

### STEERING HYDRAULICS

Full hydraulic, centre-point articulation, power steering with two double acting cylinders.	Hydraulic Pilot control
Steering main valve	Open circuit type
Steering hydraulic cylinders	1pcs
Steering pump	Gear type Quantitative pump

### BUCKET HYDRAULICS

The oil flow from Steering hydraulic pump is directed to Bucket hydraulics when steering is not used	Hydraulic Pilot control
Boom system	Z-link
Lift cylinders	2 pcs
Dump cylinder	1 pc
Main valve	Open circuit type
Pump for bucket hydraulics	Gear type Quantitative pump

### BRAKES

Fully closed multi-disc wet brake with spring brake; Integrated service brake, parking brake and emergency brake Brake system performance complies with requirements of EN ISO 3450, AS2958.1 and SABS 1589
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### OPERATOR'S COMPARTMENT

DC-5A cab provides superior ergonomic operating space to reduce operator fatigue by increasing legroom and improving pedal position.

DC-5A cab is front-mounted, has a good view and is ROPS/FOPS certified to protect the operator.

The equipment controller collects, organizes and controls various parameters, which can realize automatic alarm and shutdown when the parameters are abnormal.



### INCLUDED SAFETY FEATURES

#### FIRE SAFETY

Portable fire extinguisher	Centralized extinguisher
Main power switch	Standard
Emergency stop push buttons	1 pc rear frame/1 pc cabin
Manual discharge for pressure accumulators	Standard
Mechanical boom locking	Standard

### DOCUMENTATION

#### STANDARD MANUALS

Operator's and Maintenance Manual	English or Chinese
Parts Manual	English or Chinese
Decals	English or Chinese

### ELECTRICAL SYSTEM

#### MAIN COMPONENTS

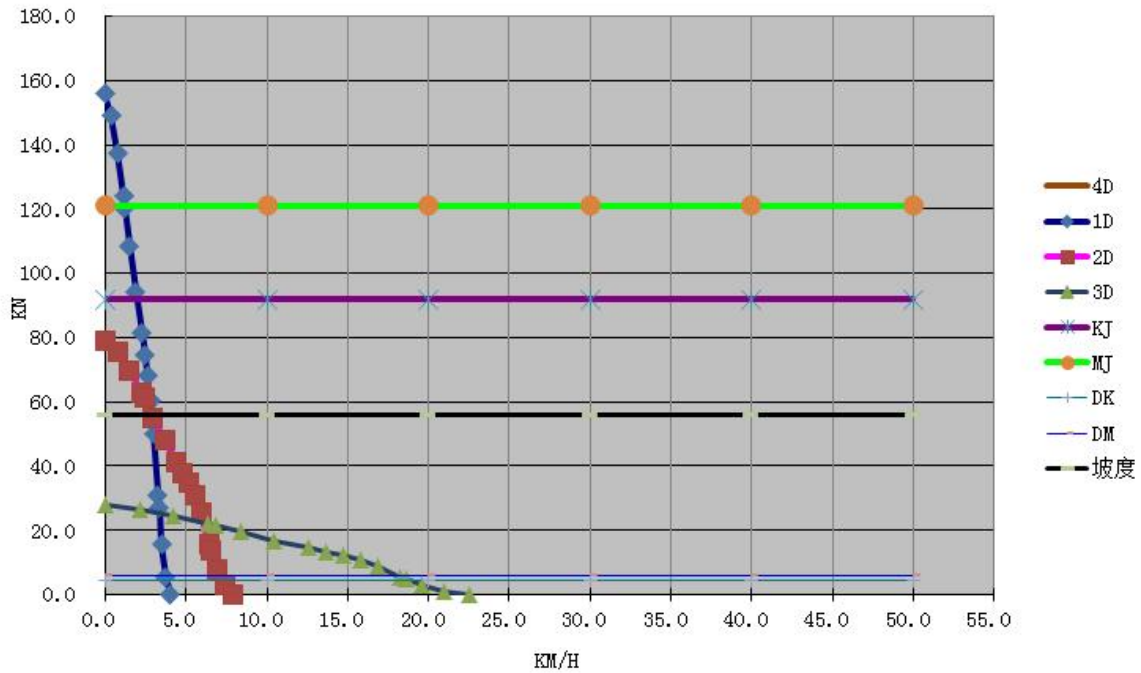
Alternator	28 V,35 A
Batteries	2×12 V, 120Ah
Starter	24V/4KW
Driving and working lights	LED 2 PCS in front frame 2 PCS in rear frame
Sensors	Diesel, hydraulic oil level sensor, working, steering, and braking system pressure sensor
Alarm	Low oil level warning/ Oil pressure warning Rotation Warning Lamp
Screen	IFM CR1083 7" LED
Control system	IFM CR2532 CPU 50MHz
Horn	Standard
Red and green indicator	4PCS in front and rear frame

**GRADE PERFORMANCE**

TCD914L06, 119.6KW@2300 rpm (3 % rolling resistance)

**EMPTY AND LOADED SPEED**

速度牵引力曲线



1D, 2D, 3D, 4D: Gear Positions;

KJ is the static friction force at empty load, and MJ is the static friction force at full load;

DK is the dynamic friction force at empty load, and DM is the dynamic friction force at full load;



