



WJ-8(L-18) Underground Mining Loader

The WJ-8(L-18) is an intelligent and efficient 18 tons underground loader, belonging to XWD brand family. This underground loader has earned a reputation as a preferred loader in the industry and it can offer excellent operator ergonomics as well as uninterrupted high productivity with low cost.

Smart boom geometry and superior hydraulic power for fast bucket filling. Premium cabin ergonomics for operator comfort, State-of-the-art engine technology.

Intelligent Control System enabling multiple digital solutions, including maintenance friendly with smart placement of key service areas and service access.

Low cost per tonne by extended component lifetimes and robust structure.

Environment-friendly, Efficiently, Ergonomic-design.



MAIN SPECIFICATIONS

Tramming capacity	18 000 kg
Break out force, lift	35 000 kg
Break out force, tilt	29 450 kg
Standard bucket	7.5 m ³
Size	11190x3113x2745 (mm)

SPEEDS FORWARD & REVERSE WITH VOLVO TAD1352 VE

1st gear	4.9 km/h
2nd gear	8.6 km/h
3rd gear	14.9 km/h
4th gear	25.5 km/h

BUCKET MOTION TIMES

Raising time	8.3 sec
Lowering time	4.0 sec
Dumping time	2.0 sec

OPERATING WEIGHTS *

Total operating weight	47 000 kg
Front axle	20 500 kg
Rear axle	26 500 kg

LOADED WEIGHTS *

Total loaded weight	65 000 kg
Front axle	45 500 kg
Rear axle	19 500 kg

* Unit weight is dependent on the selected options



OPERATIONAL CONDITIONS AND LIMITS

Environmental temperature	-15°C~+50°C
Standard operating altitude	With engine Volvo TAD1352VE from -1500 m to +3000 m at 25 °C without rated power derate

REQUIREMENTS AND COMPLIANCE

JB/T 5500 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	Volvo TAD1352VE
Output	315 kW @ 1900 rpm
Torque	2 175 Nm @ 1200 rpm
Number of cylinders	In-line 6
Displacement	12.78 L
Cooling system	Liquid cooled and hydraulic motor driven cooler fan
Combustion principle	4-stroke, direct injection, turbo with intercooler
Air filtration	Two stage filtration, dry type
Electric system	24 V
Emissions	Tier 3, Euro Stage III
Euro III certificate number	96R-032943H
Exhaust system	DOC+POC+Silencer
Average fuel consumption at 50% load	31.5 L/h
Fuel tank capacity	620 L

CONVERTER

Dana C9572 Convertor

TRANSMISSION

Dana 6422 Transmission	Power shift transmission with modulation Integrate shift and steering operation
Electric control transmission	four gears forward and reverse
Fully automatic shift control transmission (optional)	

AXLES

Front axle, spring applied hydraulic operated brakes.	Kessler D111, Limited slip differential
Fixed	
Rear axle, spring applied hydraulic operated brakes.	Kessler D111, Limited slip differential
Oscillating ± 8°	

TIRES

Tire size	29.5x29 L5S 34 ply
Tire brand	TIANLI

HYDRAULICS

Door interlock for brakes,	Standard
Oil cooler for hydraulic and transmission oil	Capability up to 50°C ambient temperature
Fittings	JIC Standard
Hoses	GB3683
Hydraulic oil tank capacity	360L
Sight glass for oil level	2 pcs

STEERING HYDRAULICS

Full hydraulic, centre-point articulation, power steering with two double acting cylinders	Electric joystick
Steering main valve	Load sensitive multi-way valve Median closed core type
Steering hydraulic cylinders	2 pcs
Steering pump	Piston type, LS controlled

BUCKET HYDRAULICS

The oil flow from Steering hydraulic pump is directed to Bucket hydraulics when steering is not used.	Joystick controlled
Boom system	Z-LINK
Lift cylinders	2 pcs
Dump cylinder	1 pc
Main valve	Open circuit type
Pump for bucket hydraulics	Piston type, LS controlled

BRAKES

SAHR; hydraulically operated multidisc wet brakes on all wheels. Integrate service brake, park brake and emergency brake in a whole system. Two independent circuits: one for the front and one for the rear axle. Service brakes also function as an emergency and parking brake. Brake system performance complies with requirements of EN ISO 3450, AS2958.1 and SABS 1589

Automatic brake activation system, ABA	Standard
Electrically driven emergency brake release pump	Standard
Brake oil tank capacity	90L

OPERATOR'S COMPARTMENT

The L-18 cabin offers superior operator ergonomics through increased leg space and improved pedal position to reduce operator fatigue. With a slim line dash and greater headroom, the cabin is spacious for the operator's comfort, providing also additional storage for a water bottle and supplies needed for a full shift.

The cabin is ROPS/FOPS certified to protect the operator in case of roll over or falling objects. The interior side of the cab adopts 25mm flame-proof and noise-reducing materials and the external covering has flame-proof ABS material, which is not only beautiful and comfortable, but also effective in dustproof and noise-reducing functions. The cab has laminated safety glass windows, emergency exits which adopts sealing strip to remove the glass inside and outside for emergency escape. In addition, the cabin is mounted with rubber shock absorbers to reduce whole body vibration.

CABIN

ROPS certification according to ISO 3471
FOPS certification according to ISO 3449
Enclosed Cabin with Air Conditioner
Sound absorbent material to reduce noise
Laminated glass windows
Cabin mounted on rubber mounts to the frame to reduce vibrations
Air conditioning unit located inside the cabin
Powered pre-filter for A/C device
Adjustable joysticks and arm rest
No high pressure hoses in the operator's compartment
Emergency exit
Floor washable with water to reduce dust
Three-point contact access system to cabin
12V/24V output (optional) (Note: 12V needs to install power module)
Power off circuit breaker of the whole machine (except red, yellow and green flashing lights)

DASHBOARD AND DISPLAYS

A new 7" colour display with advanced screen functionality has all the needed information and alarms on one large display giving the operator more time to keep eyes on the road. New background graphics with clear symbols are designed for the underground mining environment to reduce eye fatigue, while red interior cabin lighting is also designed to not affect night vision during driving.

XINGYE Intelligent Control System Standard

Critical warnings and alarms	Displayed with sound and light
Instrument Panel	IFM 7" Color display Full-featured rocker switch control



OPERATOR'S SEAT

The cabin is fitted with an adjustable mechanical suspension seat with four-point seat belt. The seat can be adjusted up and down vertically. New softer padded arm rests and adjustable joysticks can be configured either fixed on the cabin door or on the cabin right wall

Mechanical suspension
Height adjustment
Adjustment according to the operator's weight
Adjustable arm rests
Adjustable lumbar support
Four-point seat belt

FRAME

REAR AND FRONT FRAME

A new heavy duty rear frame with added weight in the rear of the loader balances the machine perfectly when lifting and pushing into the muck pile. Heavy duty rear frame and mask with integrated reaction bars minimizes damage from wall impacts. High strength structure with optimized material thicknesses and reduced own weight contribute to higher overall hauling capacity and long structural lifetime.

Welded steel box structures used in the frame and boom provide strong resistance to shock loads and are optimized to reduce stresses and extend frame lifetime

Central hinge	Adjustable bearing
Tanks	Welded to the frame
Automatic central lubrication	Standard

ELECTRICAL EQUIPMENT

MAIN COMPONENTS

Alternator	28 V, 150 A
Batteries	2 x 12 V, 165Ah
Starter	7 kW, 24 V
Driving and working lights	LED lights 1PC under boom 2PCS on boom 4PCS in Cabin 4PCS in rear frame
Parking, brake and indicator lights	2 pcs in rear frame
Control system	PLC controller control Built-in diagnostic and alarm system
horn configuration	Standard
Rotation beacon	Standard
Red and green indicator lights	4PCS in front and rear frame

INCLUDED SAFETY FEATURES

FIRE SAFETY

Portable fire extinguisher	8kg 1PCS
Hot side - cold side design	Standard
Isolation of combustibles and ignition sources	Standard
Heat insulation on exhaust manifold and turbo	Standard

ENERGY ISOLATION

Lockable main switch	Standard
Starter isolator	Standard
Emergency stop push buttons according to EN ISO 13850	1 pc inside the cabin 2 pcs in the rear frame
Pressure release in the expansion tank cap	Standard
Manual discharge for pressure accumulators	Standard
Frame articulation locking device	Standard
Mechanical boom locking device	Standard

DOCUMENTATION

STANDARD MANUALS

Operator's Manual	English
Maintenance Manual	English
Parts Manual	English
Service and Repair Manual	English
Decals	English

OPTIONS

SAFETY OPTIONS

In-line or Tele remote control system
Retrieval hook (hydraulic brake release by pulling the hook)
Ansul Manual Fire suppression system with auto shutdown
Emergency steering
remote control system

ELECTRICAL OPTIONS

Imaging system

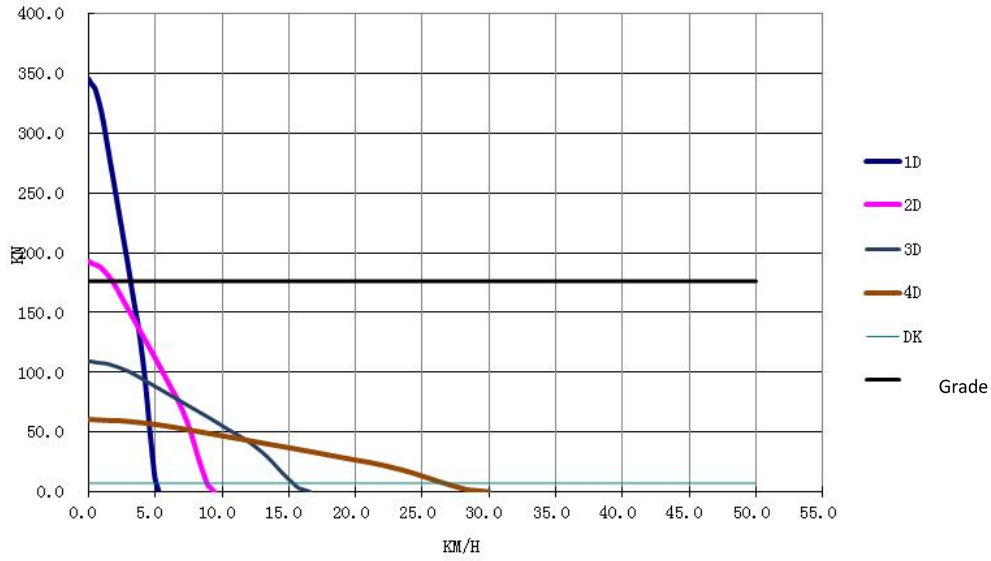
OTHER OPTIONS

Additional cabin heater element for air conditioning
29.5R29 radial steel tires
Boom suspension (ride control)
Wiggins quick filling set for fuel, coolant and oils (hydraulic, engine and transmission)
Electric Hydraulic Tank Fill up Pump
Customized Bucket Capacity

GRADE PERFORMANCE

Volvo TAD1352VE, Tier 3 emissions (3 % rolling resistance)

SPEED CURVE AT NO LOAD



SPEED CURVE AT FULL LOAD

