TECHNICAL SPECIFICATION

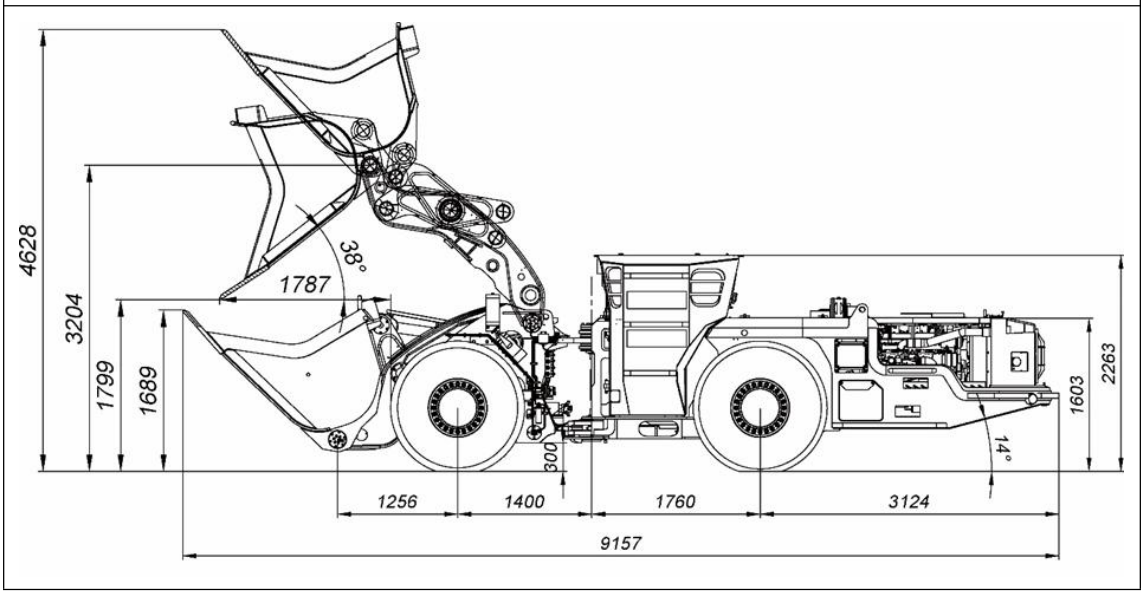
DRWJ-3 UNDERGROUND Load Haul Dump(LHD) Loaders

The DRWJ-3 Underground Diesel LHD Loader is a diesel-powered load-haul-dump machine with a payload capacity of up to 6 tons. Its compact design allows it to operate efficiently in confined spaces, making it particularly suitable for medium to large-scale underground mining operations.

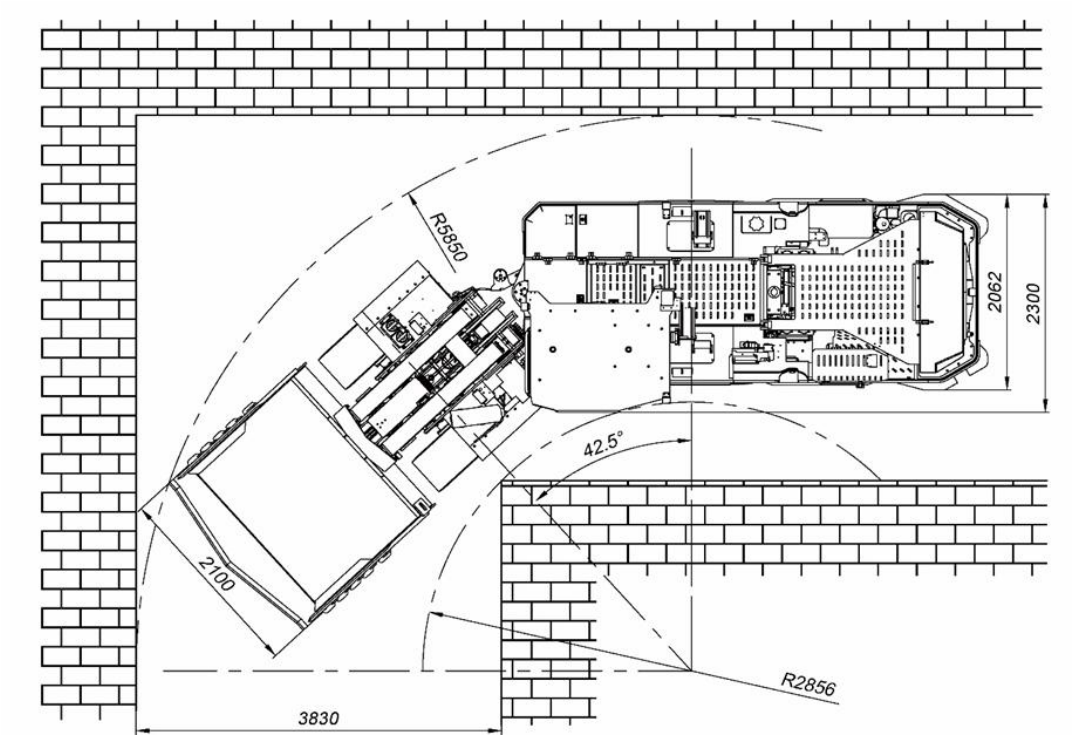
Main Technical Parameters of the Complete Machine		
No.	Parameter Description	Value
1	Bucket Capacity (m^3)	3.5
2	Rated Payload (kg)	7,000
3	Operating Weight, Empty (kg)	19,300
4	Max. Digging Force (kN)	≥135
5	Max. Dump Height (mm)	≥160
6	Transport Dimensions (L×W×H) (mm)	9157×2300×2387

7	Min. Ground Clearance (mm)		300
8	Max. Dump Height (mm)		1,799
9	Min. Dump Reach (mm)		170
10	Steering Angle (°)		42.5
11	Dump Angle (°)		38
12	Departure Angle (°)		≥14
13	Frame Oscillation Angle (°)		±7~±10
14	Max. Gradability (Loaded) (°)		≥14
15	Min. Turning Radius (Outside) (mm)		5,850
16	Min. Turning Radius (Inside) (mm)		2,856
17	Travel Speed(km/h)	1gear	4.0
		2gear	8.1
		3gear	13.7
		4gear	22.5

Front View



Steering View



Main Benefits

Hight efficiency

- A payload capacity of 7 tons ensures a productivity increase of at least **16% or more** compared to other LHDs in the same class. Equipped with an extra-large capacity bucket, operational efficiency is significantly enhanced, enabling maximized production output.
- The equipment features a **reverse six- linkage working mechanism** and **fully hydraulic center- articulated steering**. An integrated lever control system has been developed based on ergonomic principles, and through scientific design, the product significantly enhances operational efficiency.
- The equipment is equipped with a **DANA torque converter** and **power- shift transmission** from the United States, achieving optimal integration with the

Volvo engine. This configuration maximizes engine efficiency while improving equipment availability and ore- handling productivity.

Durability

- The equipment adopts an **FEA- optimized front frame and box- section boom**, specifically designed to withstand extreme impact forces during loading and hauling operations. The entire frame features deep- penetration, uniform welding throughout, ensuring robust structural fusion and delivering over **12% higher load- bearing capacity** compared to similar- class products. This results in a more durable and rugged overall structure, enabling greater ore loading and hauling capacity while significantly extending the product lifecycle.

- The hydraulic oil tank undergoes **acid pickling, phosphating, and high- pressure cleaning treatment**, providing reliable protection for the service life of the vehicle's core components, including the transmission, torque converter, and hydraulic pump.

Engine			
Brand/Model	Volvo TAD850VE	DEUTZ BF6M1013EC	Cummins F4.5
Rated Power	160kW	165kW	164kW
Standard	Water cooling	Water cooling	Water cooling

Hydraulic System	**Brand**	
Working Pump(Gear Pump)	Permco	√
Steering Pump(Gear Pump)	Permco	√
Multi - way Control Valve	Parker	√
Steering Control Valve	Parker	√
Make - up Valve / Replenishing Valve	Mico	√
Pedal - operated Valve	Mico	√

Electric system	
Working Voltage,24V	√
7-inch Color Display Screen	√
Real-time Monitoring of Operating Status of Main System Components	√
CAN Bus Communication	√

Fuel	Litres
Fuel tank capacity	210
Travel Hydraulic Oil Tank	320

Transmission		
Torque Converter	DANA C270	√
Gearbox	DANA R32000	√
Drive Axle	Dana 16D / Kessler D91	√
Tyre	17.5-25	√

Main frame	
KA requirement	√
Center hinge and boom up lock device	√
Central manual lubrication	√
Knockdown construction	√
Handheld fire extinguisher	√
Dump cylinder rod protector	√
Front & Rear Camera Monitoring System	√
Tool box	√

Control system	
Engine date display	√
Audio-visual reverse alarm	√
Yellow strobe light-power on	√
Steering Wheel Control	√
Single level dump and hoist control	√

Documentation	
Parts manual	√
Operational manual	√
Maintenance and service manual	√

Operator's compartment	
Canopy(ISO ROPS and FOPS approved)	√
Side seated operator for bi-directional operation and maximum visibility	√
Two-Point Seat Belt	√
Laminated Tempered Glass	√
Door Interlock Protection	√
Dual - Lever Operation	√
LED Front and Rear Lighting	√

Optional Configurations
Automatic Fire Suppression System
Radio remote control
Harmful Gas Monitoring
360° Surround View
Weighing System
Central manual lubrication
Boom Shock Absorption System
Hydraulic Oil Electric Heating System
Coolant Auxiliary Heating System