

·WJ-3.5 DIESEL DRIVE UNDERGROUND WHEEL LOADER



WJ-3.5 Underground diesel drive production loader is the main equipment used for underground mining, it has the following features:

Power Train:

- Engine: Deutz BF6M1013EC water-cooled low pollution diesel engine with turbo charger;
- Exhaust system: Oxidate catalytic purifier from Canada CEP
- Starting method: Electric starter

Driveline:

- Transmission: DANA R32000 powershift transmission
- Converter: DANA C270 series
- Drive axle: DANA 16D series or KAMACH KTQ-30
- Driving method: 4WD
- Tires: mining cut-resistance pneumatic tires for all terrain working conditions

Braking system:

- Spring brake, hydraulic release; sealed wet multi-discs brake maintenance free, reliable;

Framework:

- Central articulated framework, power steering with two steering cylinders,
- Powershift steering system, with pilot valve control, easy to operate;

Service mechanism

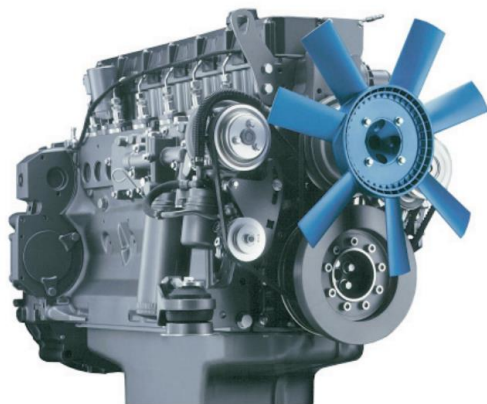
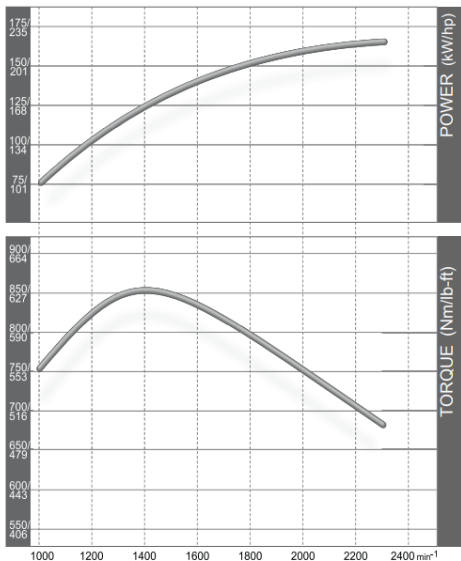
- Z-shape self-balance working device, compact in size;
- When tilt the bucket, big inlet flow to the tilting cylinder to achieve bigger over force;

Main parameter of the WJ-3.5 UG production loader	
Bucket volume	3~3.5 m ³
Rated loading capacity	7 metric ton
Maximum traction force	130 kN
Maximum shovel force	110 kN
Maximum unload height	1800 mm
Maximum unload distance	1018 mm
Minimum unload angle	40°
Maximum lifting height	4500 mm
Minimum ground clearance	280 mm
Rear axle swinging angle	±8°
Lifting capacity	7 metric ton
Turning radius (outer)	6100 mm
Turning radius (inner)	3300 mm
Grade ability (full load)	12°
Working device action time	In total 16 sec
Shovel	1.8 sec
Hoist	7.8 sec
Tilt	3.6 sec
Descent	2.8 sec
Speed when full load at flat horizontal hard road	
1 st Gear	4±0.5 km/h
2 nd Gear	9.1±0.5 km/h
3 rd Gear	17±0.5 km/h
4 th Gear	23±0.5 km/h
Dimensions when transport	
Length	8700±100 mm
Width	2100±50 mm
Height	2100±50 mm
Maximum dis-assemble size	4m*1.3m*2.6m
Wheel base	3150 mm
Tread	1745 mm
Empty weight	17.5 metric ton
Maximum dis-assemble weight	6.5 metric ton

Diesel engine	
Brand	Deutz
Model	BF6M1013EC
Type	Water-cooled low pollution diesel engine

Rated power output	165kw@2200rpm
Fuel consumption	205 g/kw·h
Starting method	Electric starter
Exhaust purifier	Oxidate catalytic

BF6M 1013EC - 165 kW|221 hp



BF 6 M 1013 EC

Modern water-cooled 6-cylinder in-line engine.

Three separate mounting options for gear-driven hydraulic pumps.

Easily accessible service points on one engine side.

Exchangeable cylinder liners in cooling water flow.

Displacement 1.2 liters per cylinder.

Compact design, high power-to-volume-ratio.

Turbocharging with charge air cooling, integrated engine cooling package optional.

Integrated high-pressure fuel injection system with single injection pumps.

Electronic engine governor with diagnostic facilities with CAN-Bus optional.

Drive line	
Power converter	DANA C273
Power transmission	DANA R32420 (4 speed)
Drive axle (front)	DANA 16D2149 with POSI-TORQ limited spin differential
Drive axle (rear)	DANA 16D2149 oscillate
Total ratio	26.11 (5.286×4.94)
Tires	17.5-25 smooth surface cut-resistance pneumatic tires



Brakes	
Service brake	
Method	Wheel side POSI-STOP spring brake
Charging valve	MICO 06-463-020
Footage valve	MICO 03-460-420
Parking brake & Emergency brake	
Method	Wheel side POSI-STOP spring brake, hydraulic reset
	controlled with button inside the driver's cab
	With solenoid braking valve

Steering system	
Type	All hydraulic pilot control power steering system
Steering valve	Hydra Force HC-D16/1+D20/1-ST0911
Pilot valve	Hydra Force HC-RCM/1
Steering cylinder×Qty	HSGL100-50 ×2
Steering pump	Parker high pressure oil pump
Steering angle (L+R)	40°

Service hydraulic system	
Control method	Pilot control shovel hydraulic system
Service pump	Parker
Displacement	48.5ml/r+48.5ml/r
Hoist cylinder	HSGL200-110 ×2
Tilt cylinder	HSGL160-90 ×1
Multiple directional valve	Hydra Force HC-D16/1+D20/1-ST0911
Pilot valve	Hydra Force HC-RCX

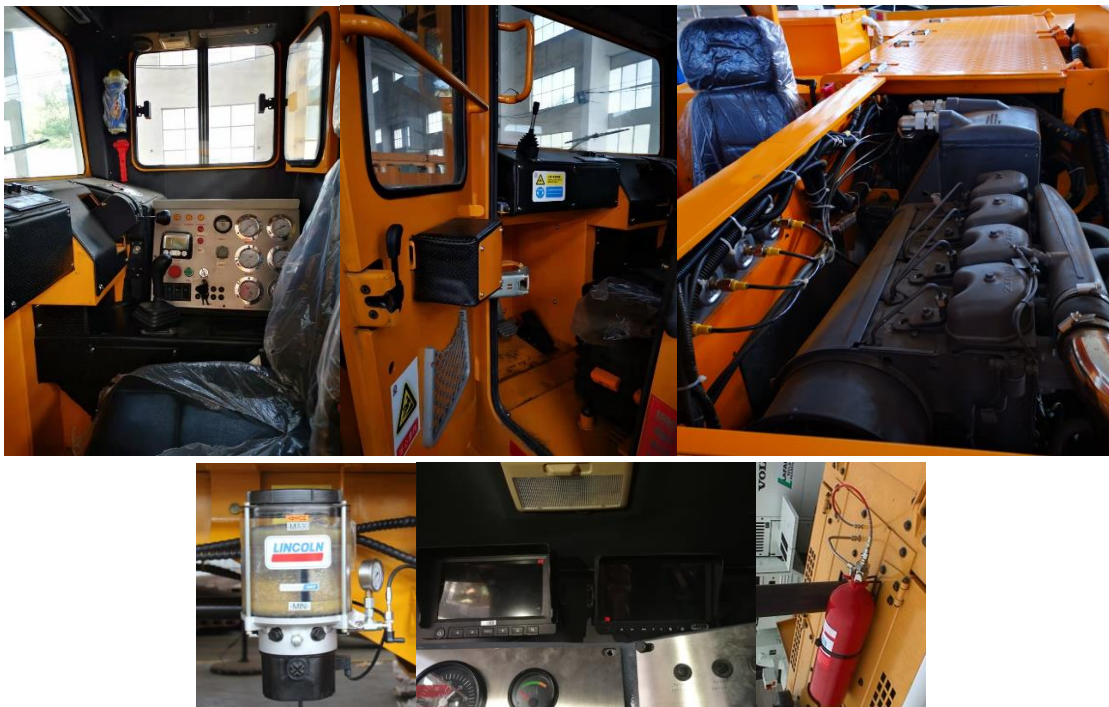
Electric system	
System voltage	24VDC
Starter motor	24V / 4kW
Mobilization light	Front and Rear 24VDC 70Wx4

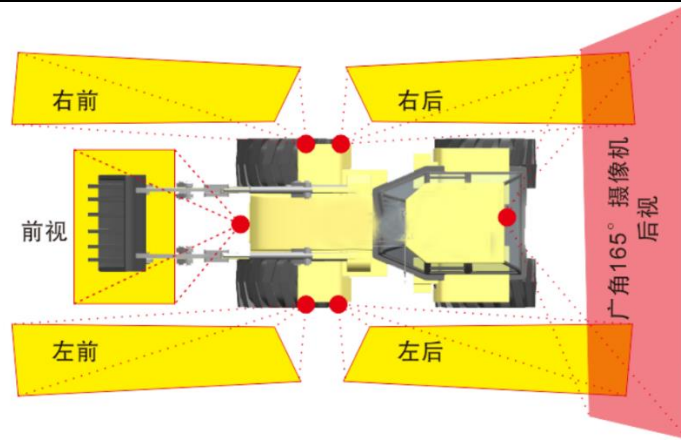
VCU for show data, diagnostic, etc

Instrument panel		
Engine oil temperature	Engine oil pressure	Engine speed
Fuel level	Fuel consumption	Fuel filter jam
Hydraulic oil pressure	Hydraulic oil level	Hydraulic filter jam
Other features needed.		

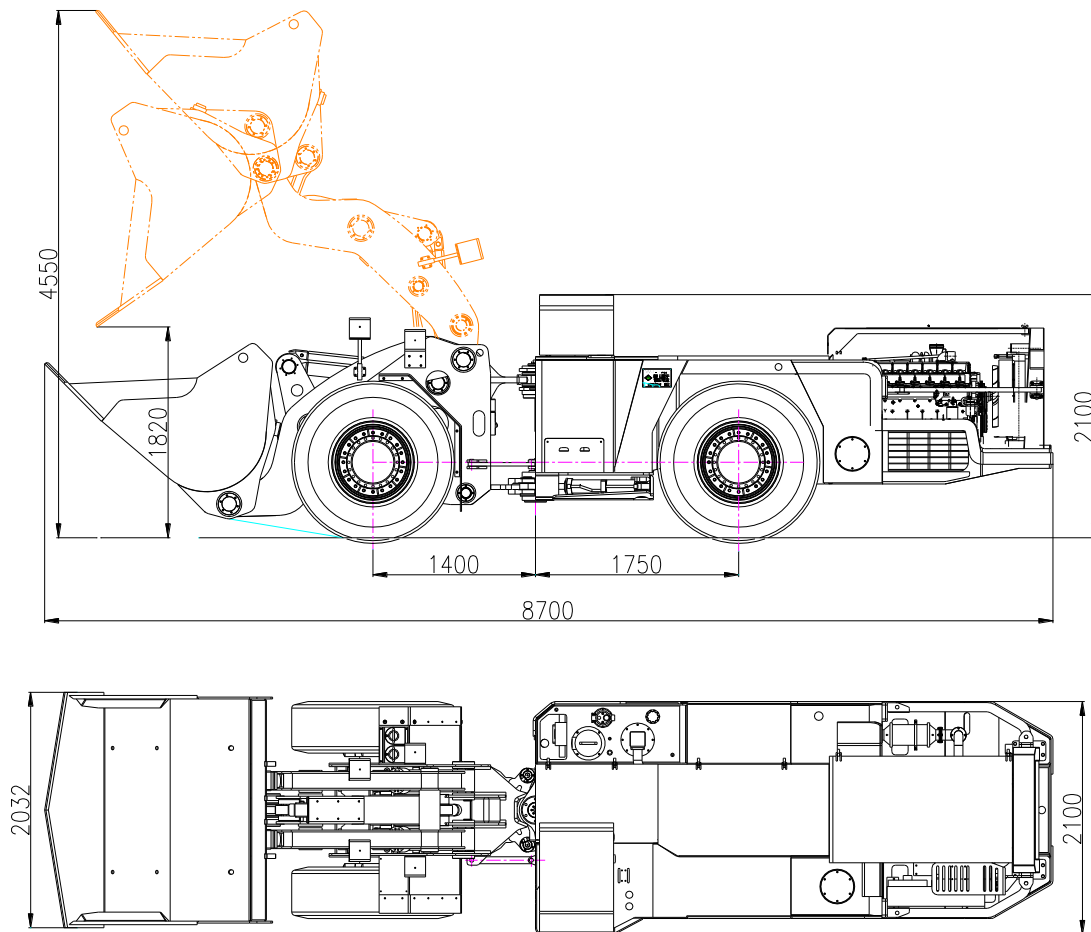
Liquid fill-in	
Transmission	35 liter 6# or 8# hydraulic drive oil
Hydraulic oil tank	330 liter 68# wear resistance hydraulic oil
Drive axle	
Main drive	14 liters
Wheel side reducer	4 liters
Lubricant	GL-4 85W/90 heavy-load gear oil
Diesel	120 liters 0#

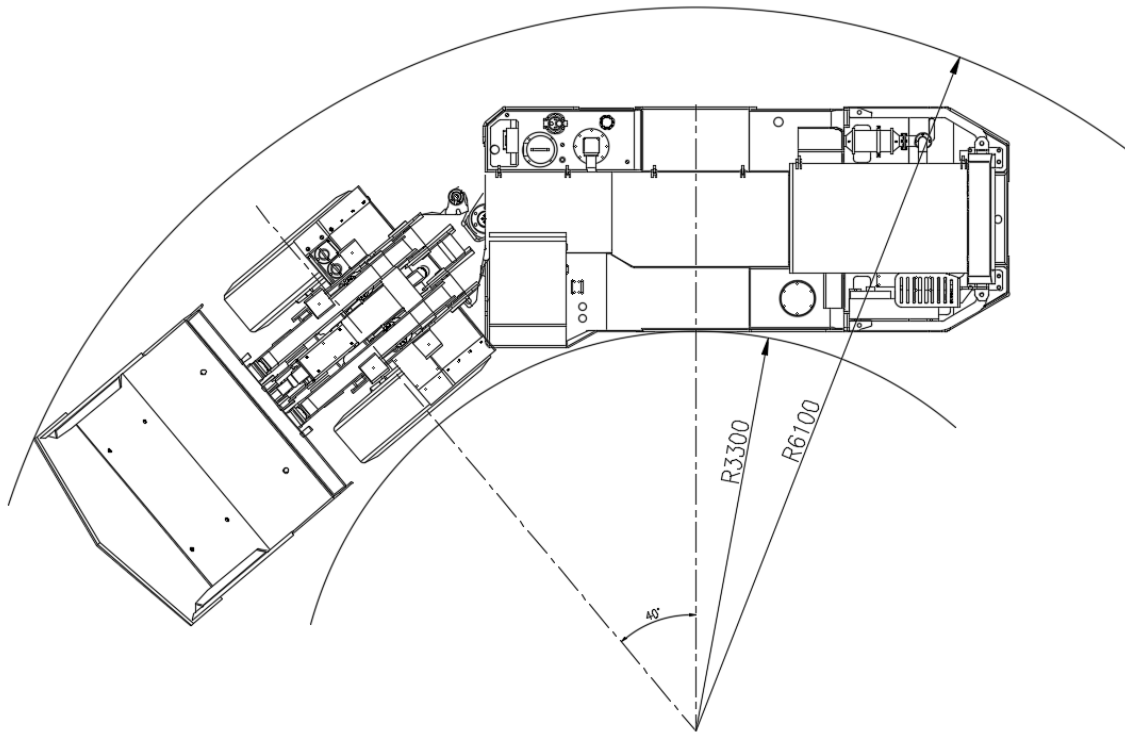
Options
✓ Lincoln Automatic lubricate system
✓ Batec Engine apartment fire suppression system
✓ Veise travel aid system
✓ Veise record and monitoring system
✓ Port for remote control for the whole vehicle
✓ Sealed cabin with air-conditioner (FOPs+ROPs and GB/T5143 standard)





External dimensions





Delivery reference





Consumables for WJ-3 Production Loader

S/N	Parts Name	Parts Number	Unit	Quantity
1	Bolts-transfer shaft	3/8-24UNF×50	pc	9
2	Bolts-transfer shaft	1/2-20UNF×65	pc	9
3	Bolts-transfer shaft	1/2-20UNF×60	pc	9
4	Bolts-transfer shaft	1/2-20UNF×70	pc	9
5	Repair kit-steering cylinder	HSGK01-100/50	pc	2
6	Repair kit-hoist cylinder	HSGK01-160/90	pc	2
7	Repair kit-tilting cylinder	HSGK01-200/110	pc	1
8	Filter element-travelling hydraulic	P165569	pc	2
9	Primary filter cartridge-diesel	R90P	pc	9
10	Fine filter cartridge-diesel	0118 2673	pc	9
11	Air filter element	EF5-65	pc	9
12	Filter element-oil suction	WU-630X100F-Y	pc	9
13	Filter element-return oil	WY-600X20	pc	9
14	Filter element-return oil	FBX-63X20	pc	9
15	Filter element-hydraulic oil	LH0060D010BN3HC	pc	5
16	Belt-engine fan		pc	1
17	Belt-generator		pc	1
18	Cardan	5C	pc	2
19	Cardan	7C	pc	4
20	Front fixed transfer shaft	7C840+20Z7C	pc	1
21	Middle transfer shaft	7C295+307C	pc	1
22	Transition transfer shaft	7C425Z7C	pc	1
23	Rear transfer shaft	7C345+357C	pc	1
24	Main transfer shaft	5C1140+505C	pc	1