

·WJ-3.5 Underground Diesel Drive Production 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

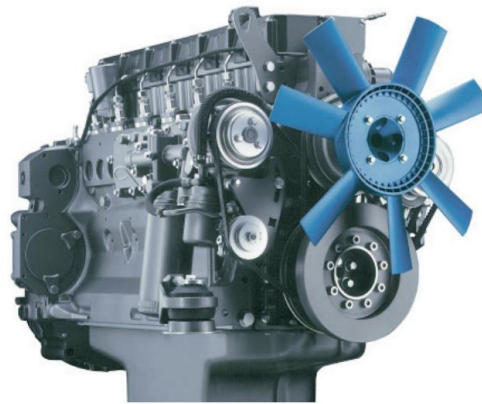
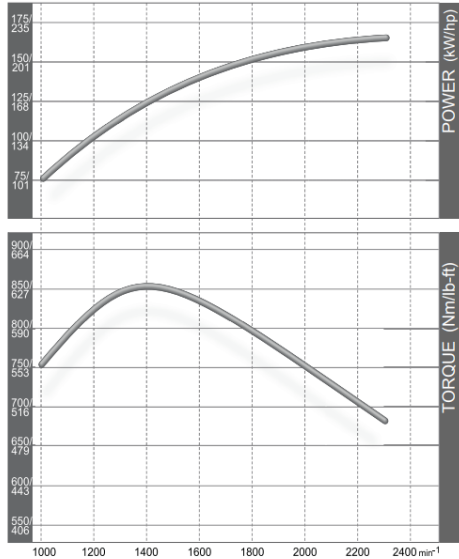
- Z-shape self-balance working device, compact in size;
- When tilt the bucket, big inlet flow to the tilting cylinder to achieve bigger force;

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	工作时间	In total 16 sec
Shovel	铲取	1.8 sec
Hoist	举升	7.8 sec
Tilt	卸料	3.6 sec
Descent	收斗下降	2.8 sec
Speed when full load at flat horizontal hard road 平地行驶速度		
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 运输尺寸		
Length	长度	8700±100 mm
Width	宽度	2100±50 mm
Height	高度	2100±50 mm
Maximum dis-assemble size 最大解体尺寸 4m*1.3m*2.6m		
Wheel base	轴距	3150 mm
Tread	轮距	1745 mm
Empty weight	空载质量	17.5 metric ton
Maximum dis-assemble weight 最大解体质量 6.5 metric ton		

Diesel engine 柴油发动机		
Brand	品牌	沃尔沃 Deutz
Model	排放	欧2/3 BF6M1013EC
Type	冷却方式	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		动力传输
Power converter	变矩器	DANA C273
Power transmission	4速变速箱	DANA R32420 (4 speed)
Drive axle (front)	DANA 16D2149 with POSI-TORQ limited spin differential	
Drive axle (rear)	前桥有限防滑,后桥摆动	DANA 16D2149 oscillate
Total ratio	总速比	26.11 (5.286×4.94)
Tires	轮胎	17.6-25 smooth surface cut-resistance pneumatic tires

17.5-25 光面 耐切割轮胎



Brakes 制动器	
Service brake	
Method 制动方式	Wheel side POSI-STOP spring brake
Charging valve 充液阀	MICO 06-463-020
Footage valve 脚踏阀	MICO 03-460-420
Parking brake & Emergency brake 停车制动 & 紧急制动	
Method 方式	Wheel side POSI-STOP spring brake, hydraulic reset
	按钮回位 controlled with button inside the driver's cab
	带电磁阀 With solenoid braking valve

Steering system 转向系统	
Type 全液压助力转向	All hydraulic pilot control power steering system
Steering valve 转向阀	海德福斯公司 Hydra Force HC-D16/1+D20/1-ST0911
Pilot valve 先导阀	海德福斯公司 Hydra Force HC-RCM/1
Steering cylinder×Qty	转向油缸 HSGL100-50 ×2
Steering pump	转向泵 Parker high pressure oil pump
Steering angle (L+R)	转向油缸 40°

Service hydraulic system 工作液压系统	
Control method	先导控制铲装 Pilot control shovel hydraulic system
Service pump	工作泵 帕克 Parker
Displacement	排量 48.5ml/r+48.5ml/r
Hoist cylinder	举升油缸 HSGL200-110 ×2
Tilt cylinder	卸料油缸 HSGL160-90 ×1
Multiple directional valve	Hydra Force HC-D16/1+D20/1-ST0911
Pilot valve	Hydra Force HC-RCX

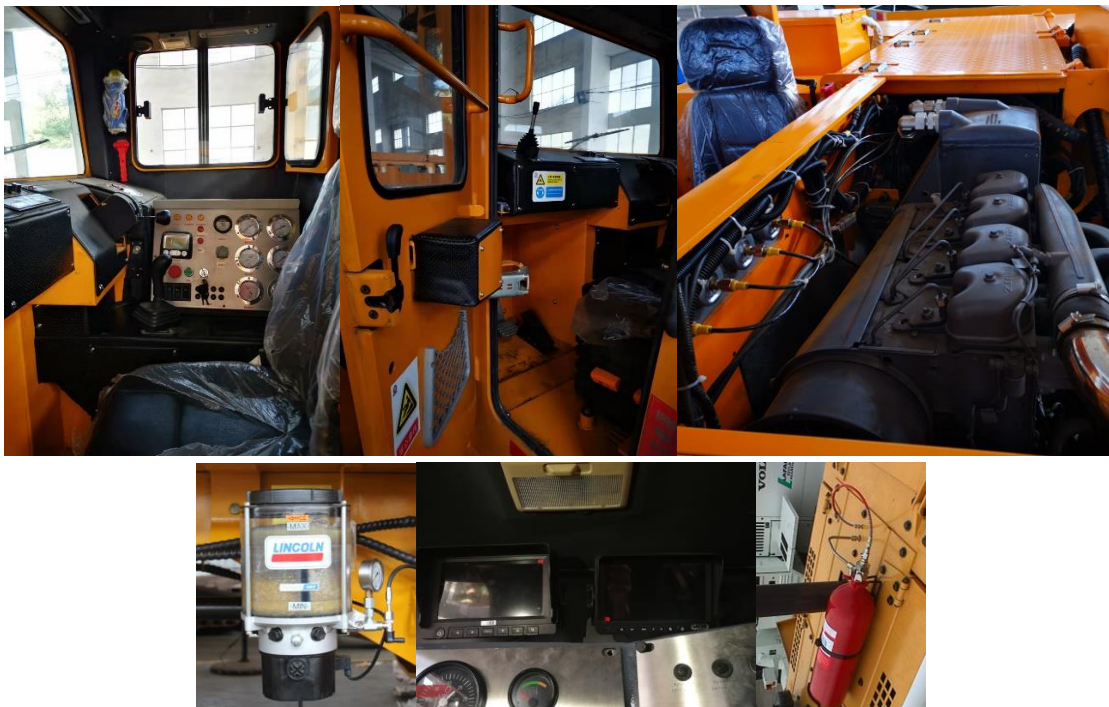
Electric system 电气系统	
System voltage	系统工作电压 24VDC
Starter motor	启动马达 24V / 4kW
Mobilization light	行驶大灯(前2后2* 70W) Front and Rear 24VDC 70Wx4

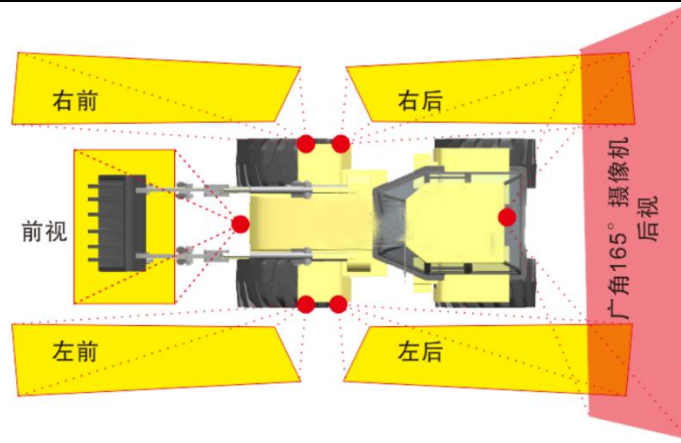
VCU for show data, diagnostic, etc 系统集成诊断 VCU 显示屏

Instrument panel 仪表盘		发动机油温,机油压力,发动机速度	
Engine oil temperature	Engine oil pressure	Engine speed	
Fuel level 燃油油位	Fuel consumption 油耗	Fuel filter jam 燃油滤芯堵塞	
Hydraulic oil pressure	Hydraulic oil level	Hydraulic filter jam	
Other features needed.	液压油油压, 油位, 滤芯堵塞		

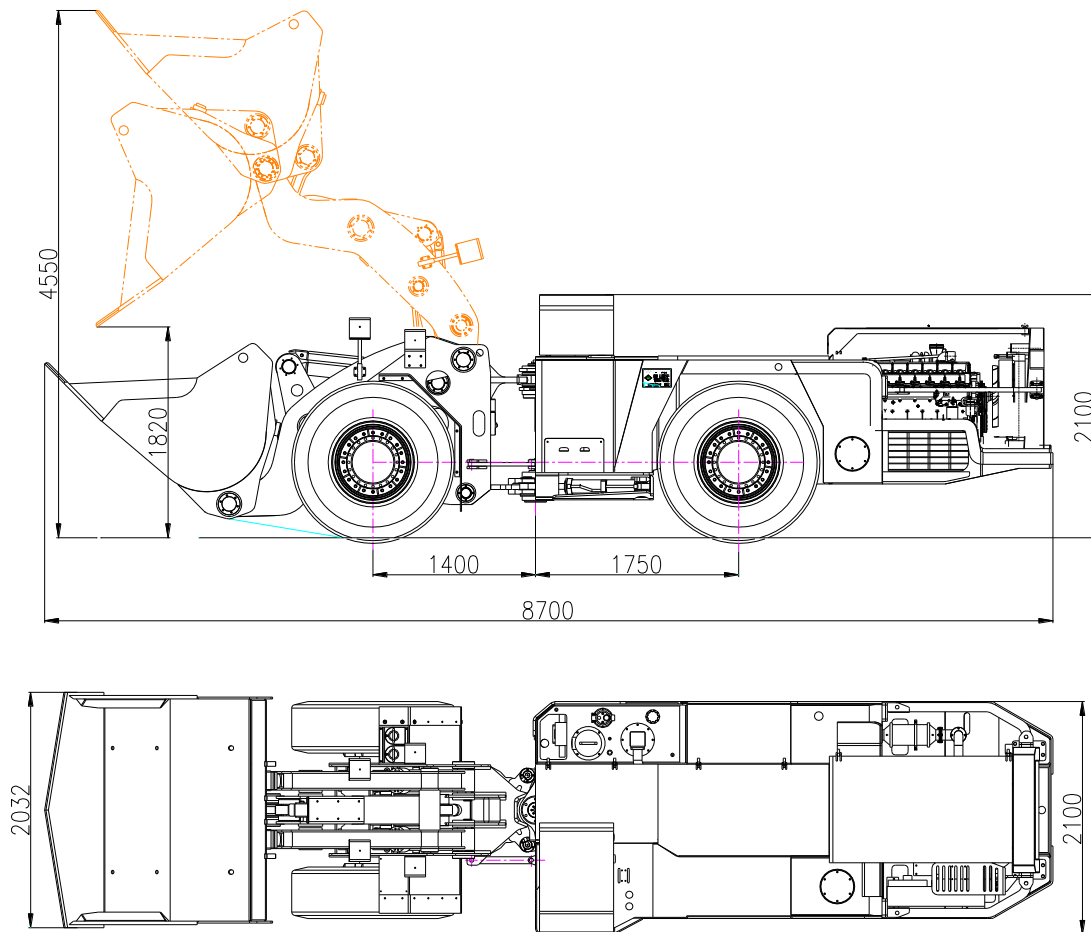
Liquid fill-in 流体加注	
Transmission	35 liter 6# or 8# hydraulic drive oil
Hydraulic oil tank	330 liter 68# wear resistance hydraulic oil
Drive axle	
Main drive	14 liters
Wheel side reducer	4 liters
Lubricant	GL-4 85W/90 heavy-load gear oil
Diesel	120 liters 0#

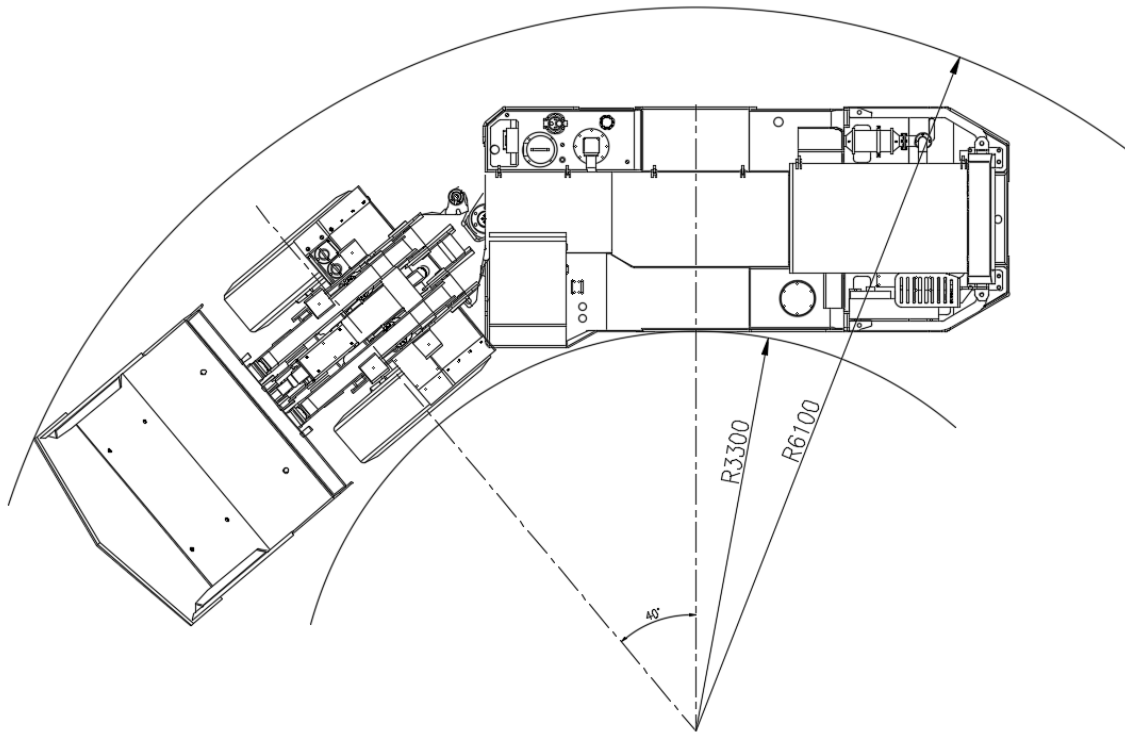
Options 选装	
✓ Lincoln Automatic lubricate system	林肯自动润滑系统
✓ Batec Engine apartment fire suppression system	德国BATEC 发动机机舱自动灭火
✓ Veise travel aid system	威视行驶辅助系统
✓ Veise record and monitoring system	威视行车记录和监控系统
✓ Port for remote control for the whole vehicle	整车远程控制接口
✓ Sealed cabin with air-conditioner (FOPs+ROPs and GB/T5143 standard)	带空调封闭驾驶室





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