

## ·WJ-3 DIESEL DRIVE UNDERGROUND WHEEL LOADER



WJ-3 Underground diesel drive production loader is the main equipment used for underground mining, it has the following features:

### **Power Train:**

- Engine: VOLVO PENTA water-cooled low pollution diesel engine with turbo charger;
- Exhaust system: Oxidate catalytic purifier
- Starting method: Electric starter

### **Driveline:**

- Transmission: DANA R32000 powershift transmission
- Converter: DANA C270 series
- Drive axle: DANA 16D series or Kessler+CO D81
- 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 UG production loader

Bucket volume	3 m <sup>3</sup>
Rated loading capacity	7 metric ton
Maximum traction force	155 kN
Maximum shovel force	115 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

Hoist	6.7 sec
Tilt	0.9 sec
Descent	3.3 sec

## Speed when full load at flat horizontal hard road

1 <sup>st</sup> Gear	4.4 km/h
2 <sup>nd</sup> Gear	8.9 km/h
3 <sup>rd</sup> Gear	16.6 km/h
4 <sup>th</sup> Gear	23.6 km/h

## Dimensions when transport

Length	9200 mm
Width	2355 mm
Height	2255 mm

## Maximum dis-assemble size

Wheel base	3150 mm
Tread	1745 mm

## Empty weight

Empty weight	19.2 metric ton
Front axle load	9.4 metric ton
Rear axle load	9.8 metric ton
Maximum dis-assemble weight	6.5 metric ton

## Full load weight

Wight full load	26.2 metric ton
Front axle load	20.7 metric ton
Rear axle load	5.5 metric ton

## Diesel engine

Brand	VOLVO PENTA
Model	TAD850 VE
Type	Water-cooled low pollution diesel engine
Rated power output	160 kw@2200rpm
Starting method	Electric starter
Exhaust purifier	Oxidate catalytic
Fuel consumption 50% load	16 L/hour



## 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 pump	Parker high pressure oil pump
Steering angle (L+R)	42°

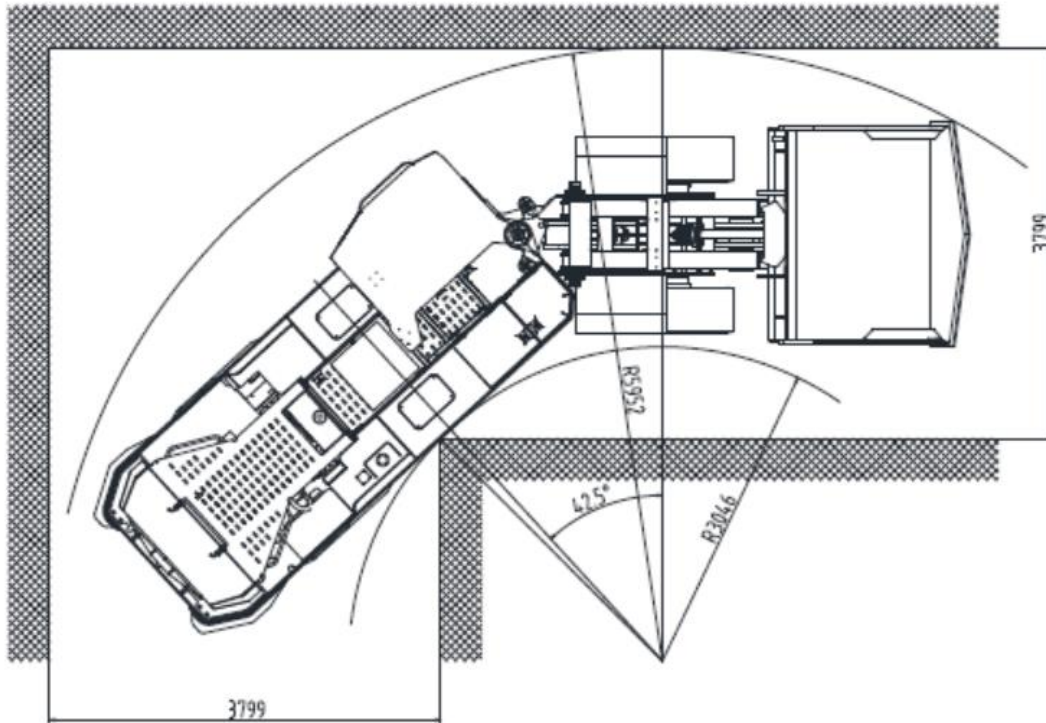
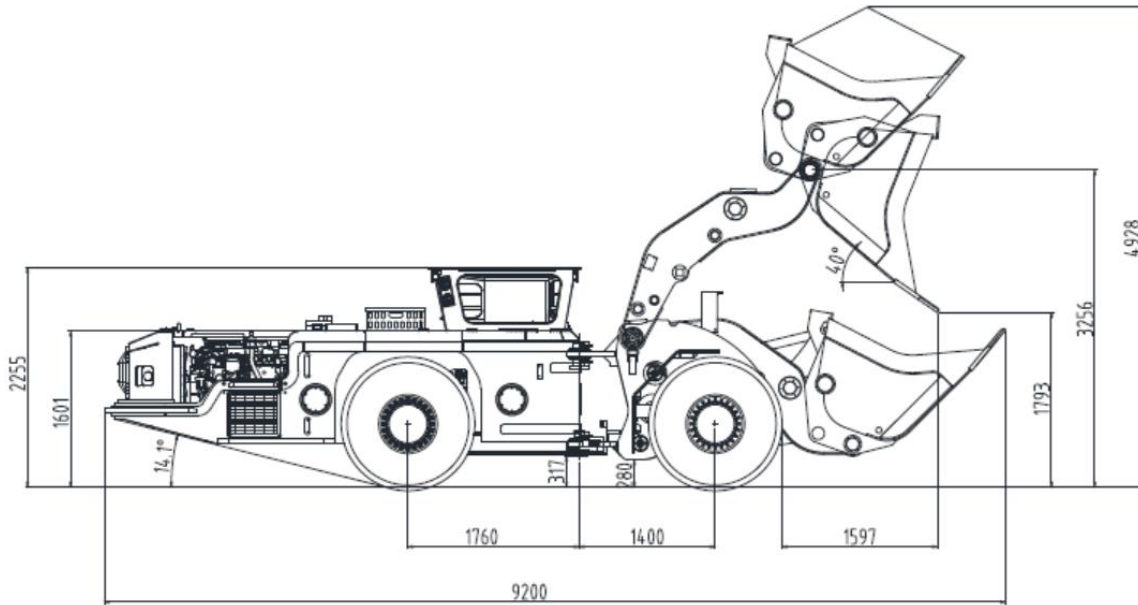
## Liquid fill-in

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	200 liters 0#

## Options

- ✓ Automatic lubricate system
- ✓ Engine apartment fire suppression system
- ✓ Travel aid system
- ✓ 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**



### 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

KAMACH reserves the right to modify above specifications due to detailed customer need per delivery.



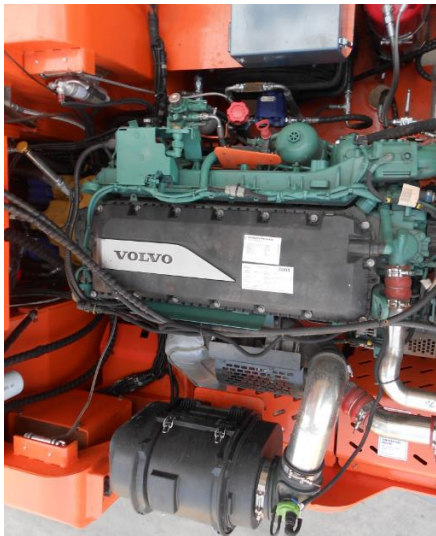
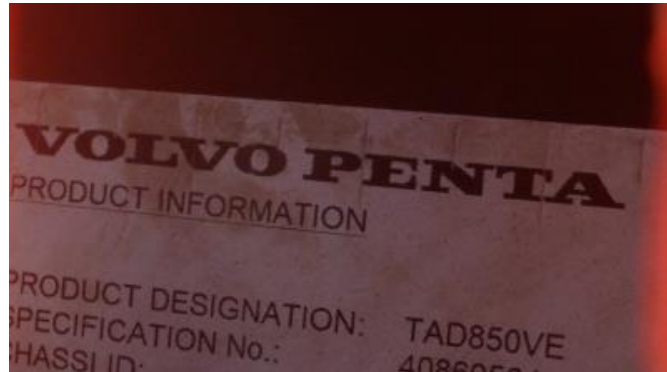
## DETAILED PICTURES FOR REFERENCE:



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