

BD46W WHEELDOZER

SALIENT FEATURES

- **Productivity:** High power engine, rugged transmission featuring 4 forward and 4 reverse with heavy duty planetary axle, high tractive effort and gradability at all operating conditions.
- **Reliability:** Attention free wet multiple disc brakes for front and rear axles, box type chassis construction for uniform stress distribution. The cutting edges, end bits, pins and bushings are highly reliable and durable.
- **Manoeuvrability:** Articulation with power steering, optimum combination of travel speed, turning radius and wheel base.
- **Serviceability & Maintainability:** Electronic display and monitoring system helps to prevent minor problems from becoming major ones. Dozer linkage pins account for higher performance and less maintenance.
- **Comfort:** Roomy walk-through cab, with ergonomically arranged feather touch control levers and instruments, cushioned suspension seat with five mode adjustments. Excellent visibility assures easy dozing, levelling etc.


Blade capacity : 7.9m³


Operating mass : 38700 kg


Flywheel power(net) : 338.1kW (460 HP) @ 2100 r/min





BD46W WHEEL DOZER SPECIFICATIONS

 Engine		
Make	Cummins	BEML
Model	KTA - 1150-C	BSA6D140-1
Type	Diesel, 4 cycle, water cooled, direct injection.	
Aspiration	Turbocharged with after cooler.	
Flywheel power(net)	338.1kW(460 HP) @ 2100 r/min	
Maximum torque	1845 Nm (188 kgm) @ 1500 r/min	
No. of Cylinders	6	
Bore & Stroke	159 x 159 mm	140 x 165mm
Piston Displacement	18.9 litres	15.24 litres


 Transmission	
Torque converter	3 element single stage, single phase.
Stall torque ratio	3.05:1
Transmission	Full power shift counter shaft type 4 forward, 4 reverse.
Forward / Reverse speeds	
Range	Km/h (m/s)
1st	5.1 (1.4)
2nd	9.7 (2.7)
3rd	17.9 (5.0)
4th	33.2 (9.2)


 Tyre	
Front & Rear	35 /65-33, 24PR(L-4).
Rims	28.00 - 33.


 Electrical	
Alternator	24 V/ 44 A
Starting motor	24 V/ 7.5 kW
Battery	2 x 12 V/200 Ah


 Final Drive & Axles	
Drive system	4 wheel drive .
Front & Rear axle	Full floating type.
Ratio	33.188:1
Differential	Spiral bevel gear
Final drive	Planetary gear
Mounting	
Front:	Fixed
Rear:	Oscillates +/- 13 degrees


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 Brake	
Service brakes	4 wheel, wet multiple disc brakes, hydraulically actuated. Independent front & rear brake.
Parking brake	Dry disc spring applied and hydraulically released
Emergency brake	Automatically actuates when hydraulic pressure goes below the rated value.

 Filteration System	
Engine fuel & oil	Full flow spin-on-type
Air	Double element, dry type with pre-cleaner and auto dust ejector
Transmission	Pressure line filter
Hydraulic steering & braking	Return line filter


 Hydraulic System	
Main pump	Gear pump
Capacity	200 litres / min. @ engine 2100 r / min
Relief pressure	20.6 MPa(210 kg/cm ²)
Lift Cylinder (1)	
Bore x Stroke	160mm x 870 mm
Tilt & pitch cylinders (2)	
Bore x Stroke	dia 180mm x 272 mm


 Steering	
Type	Center pivot frame articulation
Steering mechanism	Full hydraulic power steering system independent of engine speed.
Steering pump	Gear pump
Capacity	450 litres / min @ engine 2100 r / min.
Relief Pressure	17.2 MPa (175kg / cm ²).
Steering angle	Wide articulation of 38 degrees on each side
Turning radius	7245 mm
Steering cylinders (2)	dia 130mm bore x 515mm stroke.


 System Refill Capacities		
System	Cummins Litres	BEML Litres
Cooling System	180	155
Crank case	51	35
Fuel Tank	600	
Hydraulic Tank	181	
Axle (each front & rear)	118	
Converter & transmission	60	

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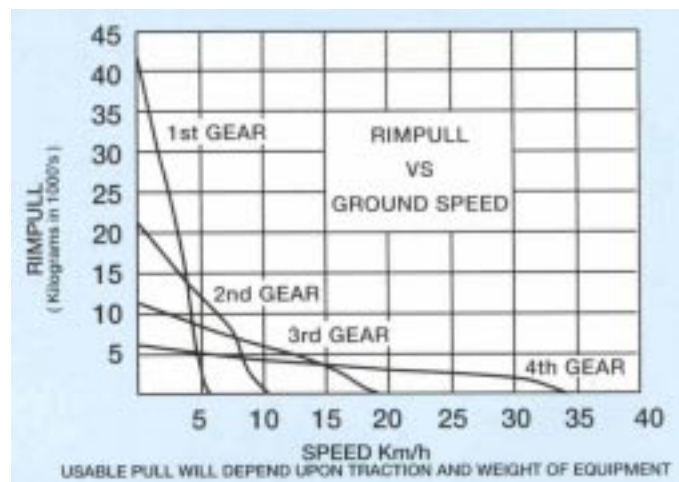


 Blade Controls	
Single joystick with pilot operated control assures light - touch work equipment actuation.	
Control positions	
Blade lift	Raise, hold, lower and float.
Blade tilt	Tilt left, hold, tilt right
Blade pitch	Pitch forward and back.

 Operating and Shipping Mass
Operating mass: Including rated capacity of lubricant, coolant, fuel, 35/65-33, 24PR(L-4) tyres, 7.9 m ³ capacity blade and the standard equipment= 38700 kg
Shipping mass: Without work equipment and tyres.=24100 kg

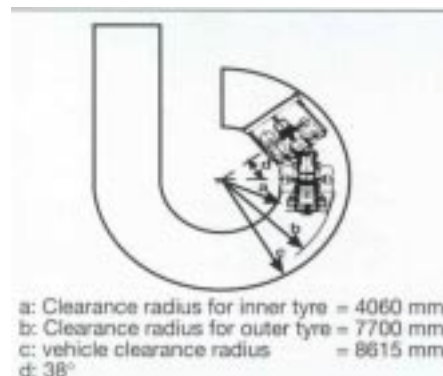
 Blade
A large capacity 7.9 m ³ blade delivers fast production dozing in stock piled material and general earth moving. The complete unit consists of blade, push arms, trunion mounting, reversible cutting edges, self sharpening end bits, hydraulic lineguards and hydraulic lift, tilt & pitch cylinders. Mono lever at operator's right, to control dozer, lift, tilt & pitch.

DRAWBAR PULL Vs TRAVEL SPEED

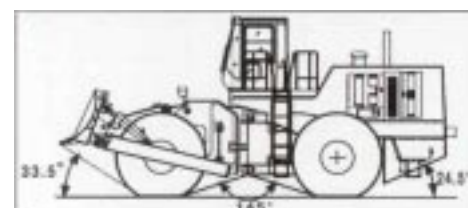


Operating Parameters	
Blade type	Straight
Blade capacity (ISO rated)	7.9 m ³
Blade width (over end bits)	4800 mm
Blade height	1485 mm
Max. lift above ground	1240 mm
Max. depth of cut	465 mm
Max. tilt adjustment	1320 mm
Max. pitch adjustment	23 degrees
Type	Center pivot frame articulation

TURNING RADIUS



ANGLE



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ELECTRONIC MONITORING SYSTEM

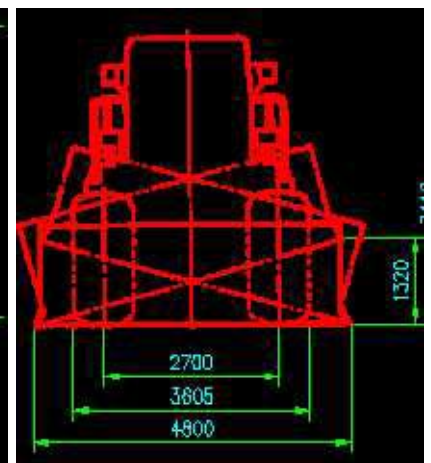
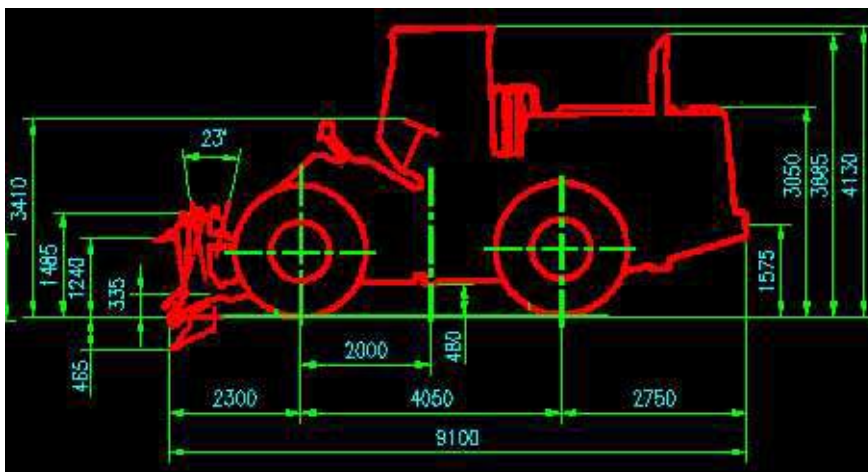
The EMS is designed to monitor the health of the equipment and provide an audio-visual warning to prevent equipment breakdown through early detection. The entire operator controls, warning displays, control switches are fitted on a FRP dashboard with high degree of ergonomics and comfort. Besides gauges and electronic hour meter, four pilot indications for status monitoring, additional eight warning parameters are monitored to provide audio visual signal. Also a "SYSTEM CHECK" facility simulates all faults together to check proper functioning of the electronic unit and lamp assemblies.

CABIN

The "WALK THROUGH" cab has doors on both sides making it easier to park, enter and exit, in confined space, and is rubber mounted, sealed to reduce vibration and sound levels.

The windows feature a large glass area for greater visibility

To gain maximum operator comfort control levers and pedals, meters and gauges are arranged in the cab.



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BD46W WHEEL DOZER STANDARD ACCESSORIES
Engine
Starter, Alternator ,Pre-heater
Electrical Components
Head lights (2) ,Back-up alarm, Rear working lights (2),Brake lamp, Turn indicators (front & rear), Electrical monitoring system, Stop / tail lamp
Gauges
Fuel level, Engine oil pressure, T/C oil temperature, RPM Meter, Service Meter , Coolant temperature, Voltmeter
Pilot Lamps
High beam, Turn indicators, Parking brake applied
Caution Lamps
Battery charging ,Oil filters clogging, Engine oil pressure ,Brake oil temp ,Brake oil pressure ,Coolant temp
Others
Steel cab ,Wind shield washer & wiper, sight gauges ,Dust indicators, Emergency brake, 35/65-33, 24PR Tyres, Straight Blade (7.9 m ³), Suspension seat
OPTIONAL EQUIPMENT
ROPS canopy ,Canopy,Seat belt ,Fire extinguisher, Floor mat ,Front working lights (2) ,Rear view mirrors,Electric fan ,Sun visor, Tool kit,Room mirrors
MONITOR LIGHTS
Engine oil level,Pre-heat

Note :

- 1) Materials & Specifications are subject to change without notice.
- 2) Illustrations may include optional equipment and accessories and may not include all standard accessories.
- 3) All the specifications meets relevant ISO Standard