

BG825

MOTOR GRADER

- : High Performance
- : More Productivity
- : Smooth Operation
- : Operator Comfort



Flywheel power (net) : 209 KW (280 hp) @
2100 rpm

Blade Length : 4,928 mm

Operating Weight : 25,750 kg

BG825

MOTOR
GRADER

Salient Features:

Performance :

- With its high engine horse power and operating weight BG825, is ideal for heavy duty road construction / maintenance jobs at mining yards and demanding job sites.

Productivity :

- High Power BEML engine, high performance blade equipment and frame articulation ensure high productivity.

Operating Ease :

- The finger tip control of a smooth , electrically controlled transmission provides high maneuverability.

Comfort :

- Rear Frame Mounted Operator's compartment enables greater viewing ease of the machine's travelling direction. Operator's comfort is enhanced by adjustable oil suspension seat and rubber pad mounted Operator's compartment. Electronic display monitoring system facilitates daily maintenance checks and alerts the operator in the event of malfunction.



ENGINE

Make	BEML
Model	BS6D140
Type	Diesel, 4-Stroke, Water Cooled, Overhead Valve, turbocharged, direct Injection, Mechanical all speed governor.
Flywheel Power	209 kW(280 hp) @ 2100 rpm (SAE J1349)
No. of Cylinders	6, Inline
Bore X Stroke	Ø 140 x165 mm
Displacement	15,240 cc
Electricals	
Alternator	24V, 45A
Starting Motor	24V, 7.5 kW
Battery	2X12V, 200 Ah maintenance free batteries



TRANSMISSION

Make	BEML							
Type	Hydro shift Transmission							
Travel speeds (km/h) at rated engine rpm								
	1st	2nd	3rd	4th	5th	6th	7th	8th
Forward	4.0	5.4	8.0	11.5	15.8	21.4	31.3	44.9
Reverse	4.3	5.8	8.5	12.2	16.9	22.8	33.4	47.9
Max Drawbar pull	14,420kg							



AXLES

Front Axle	
Type	Reverse Elliot - Type
Center Ground Clearance	680 mm
Oscillation Angle	32° (total)
Front Wheel Leaning	18° (each side)
Rear Axle	Full- floating rear axle is made of forged heat treated steel.



FINAL DRIVE

Type	Double – reduction final drives of spiral bevel gears with electric - over hydraulically controlled differential lock-unlock device and planetary gear, roller-chain tandem drives for four rear wheels.
Tandem	Tandem case swings up to 15 degree assuring high machine stability and positive traction during operation.



BRAKES

Service Brake	Foot operated, oil disc brakes, air actuated on 4 rear wheels and sealed for adjustment- free operation. Two crossed brake lines for sure braking
Parking Brake	Mechanical, dry, disc type actuated on transmission output shaft, spring applied and air released.

STANDARD ACCESSORIES

Adjustable console and work-equipment control levers, Adjustable seat, Horn, Back-up alarm, Stop and tail lamps, Panel lamp, Pilot check valves for blade lift, Blade tipping, Front wheel leaning, Drawbar side shift and frame articulation cylinders, Turn single lights, Front working lights, Rear working lights, Head lights, Rear view mirrors, Front pull hook, Rear Drawbar, Fire extinguisher.

OPTIONAL ATTACHMENTS

Rear Mounted Ripper : Four, Parallel linkage type, with hydraulically controlled raise and lower functions, this ripper can be used to dig out rocks or hard ground not removed by a scarifier.

No. of shanks	3
(max. 4 shanks installable)	
Max. digging depth	480mm
Max. lift above ground	675mm
Max. digging width	2,980mm
Additional weight	2,585 kg

Push plate, Tyre inflation kit, AC Cabin, Auto lube system, Auto fire suppression system, ROPS mounted rear and front lamp.



HYDRAULICS

Hydraulic pumps	
Type	Three gear pump (tandem) type
Capacity (total)	268 ℓ / min (steering, work equipment control LH and RH)
1st Pump	131 ℓ / min - steering
2nd pump	74 ℓ / min - control LH work equipment
3rd pump	63 ℓ / min - control RH work equipment
Hydro shift transmission pump	
Type	Gear type
Capacity	133 ℓ / min
Differential pump	
Type	Gear type
Capacity	17 ℓ / min
Hydraulic motor	
Type	Piston type hydraulic motor
Output power (for blade rotation)	49kW (66 hp)
Hydraulic cylinders	
Type	Double acting piston type, each connected to pilot check valve for positive cylinder action.
Operation Qty. in numbers	
Blade lifting	2 (without pilot check valve)
Blade side shifting	1
Drawbar side shifting	1
Front wheel leaning	1
Blade tipping	1
Frame articulation	2
Front wheel steering	2
Control valves	
Type	5-spool type, two valves (LH & RH) with built-in relief valve
Relief valve settings	
Work equipment	210 kg/cm ²
Steering	175 kg/cm ²
Transmission	31 kg/cm ²

STEERING

Type	Orbitrol, full hydraulic steering system
Cylinders	
Type	Double acting
Quantity	2 nos.
Max. steering angle	50° left and right of front wheels
Frame articulation angle	25° left and right
Min. turning radius (Frame articulated)	7.9m

WHEELS

Front & rear tyres	18.00 x 25 - 12PR(L-3) rock-type tubeless tyres
Rims	13.00 VA X 25TB
Inflation pressure	2.6 kg/cm ² max.

SYSTEM REFILL CAPACITIES

Systems	Capacity (Liters)
Coolant	58
Fuel tank	500
Engine	38
Transmission	25
Tandem case (each side)	190
Final drive case	34
Hydraulic oil	105

BLADE RANGE

All blade movements and positions can be hydraulically controlled from the operator's seat.

Max. lift above ground	490mm
Max. drop below ground	680mm
Max. shoulder reach : Left	2,400mm
: Right	2,400mm
Max. bank cutting angle	90°
Hydraulic blade tip	49° forward, 5° backward
Cutting angle	25.5° ~ 84°

BLADE EQUIPMENT

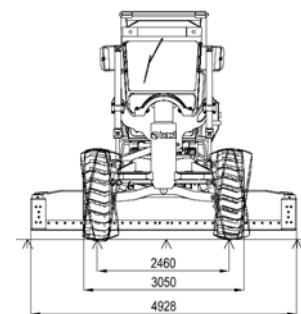
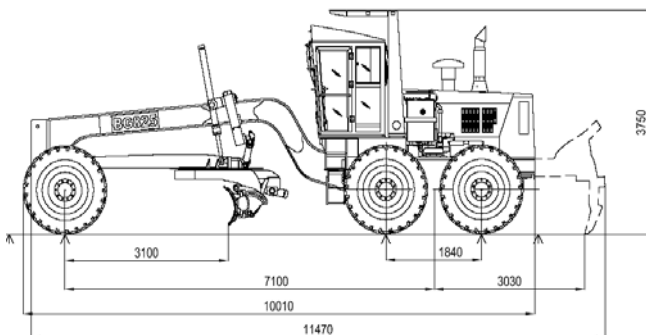
Drawbar	
Type	A-shaped, U-section press - formed and welded construction for maximum strength
Circle	
Type	Internal gear type, hydraulically controlled with six guide shoes for 360° smooth rotation.
Circle diameter (outer)	1,775mm
Mould Board	
Type	Box-section construction with wear resistant steel, hydraulic blade side shift and tip control. Reversible overlay end bits, side edges are attached.
Length X height X thickness	4,928mm X 800mm X 25mm
Blade Base	3,100mm
Blade Load	13,720kg
Cutting Edges	
Type	Curved type cutting edges meet SAE standard J739b
No. of cutting edges	2
Length X height X thickness	2,438mm X203mm X19mm

FRAMES

Type	Frames are articulated by two hydraulic cylinders. Box sectioned front and rear frames are of steel plate welded construction and connected with an articulation pin. One-piece frame design for the Front Frame in which hydraulic pipings are installed.
Front frame section	350mm(width) x 400mm(height)

OPERATING WEIGHT

On front wheels	7,730 kg
On rear wheels	18,020 kg
Total weight (approx.)	25,750 kg



GROUND CLEARANCE - 440mm

ROPS and Cabin (low - profile type), push-plate and rear mounted ripper are optionally available
Material and Specifications are subjected to change without notice, Illustrations may include optional equipment & accessories.

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