



TECHNICAL DATA

BEML BG825

MOTOR GRADER

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

Flywheel Power	: 209 kW (280 hp) @ 2100 rpm
Blade length	: 4,928 mm
Operating weight	: 25,750 kg

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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 highmanoeuvrability.
- **Comfort :**
Rear frame mounted operator's compartment enables greater viewing ease of the machine's traveling direction. Operator's Comfort is enhanced by adjustable oil suspension seats and rubber pad mounted operator's compartment. Electronic display monitoring system facilitates daily maintenance checks and alerts the operator in the event of malfunction.

Material and specifications are subject to change without notice. Illustrations may include optional equipment & accessories

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Accessories & Dimensions

STANDARD EQUIPMENT

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 _____ 480 mm
Max. lift above ground _____ 675 mm
Max. digging width _____ 2,980 mm
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.

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 x 165 mm
Displacement _____ 15,240 cc
Electricals
Alternator _____ 24 V, 45 A
Starting motor _____ 24V, 7.5 kW
Battery _____ 2x 12 V, 200 Ah maintenance free batteries

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Technical Specifications

TRANSMISSION

Make _____ BEML
Type _____ Hydrosift Transmission
Travel speeds (km/h) at
rated engine rpm
Max Drawbar pull _____ 14,420 kg

Gear Ration	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

AXLES

Front axle
Type _____ Reverse Elliot-type
Ground clearance (Centre) _____ 680 mm
Oscillation angle _____ 32° (each side)
Front wheel lean Angle _____ 18° (each side)

RearAxle
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 upto 15 degree assuring high machine stability and positive traction during operation.

BRAKES

Service brake _____ Foot operated, oil disk brakes, Air actuated on four 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.

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Technical Specifications

HYDRAULIC SYSTEM

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

Hydroshift 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 _____ 49 kW (66 hp)
(for blade rotation)

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/cm²

Steering _____ 175 kg/cm²

Transmission _____ 31 kg/cm²

STEERING

Type _____ Orbitrol, Full Hydraulic Steering System

Cylinders

Type _____ Double acting

Quantity _____ 2 nos.

Max. steering angle _____ 50° left & right of front wheels

Frame articulation angle _____ 25° left and right

Min. turning radius _____ 7.9 m
(Frame articulated)

WHEELS

Front & rear tyres _____ 18.00 x 25 - 12 PR (L-3)
rock-tyre tubeless tyres

Rims _____ 13.00 VA x 25 TB

Inflation pressure _____ 2.6 kg/cm² max.

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Technical Specifications

COOLANT AND LUBRICANT CAPACITY

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

BLADE RANGE

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

Max. lift above ground	490 mm
Max. drop below ground	680 mm
Max. Shoulder Reach Left	2400 mm
Right	2400 mm

Max. bank cutting angle	90°
Hydraulic blade tip	49° forward, 5° backward
Cutting angle	25,5° - 84°

BLADE EQUIPMENT

Draw Bar

Type A-shaped, U-section press-formed and welded construction for maximum strength.

Circle

Type Internal gear type hydraulically controlled with 6 guide shoes for 360° smooth rotation.

Circle diameter (outer) 1,775 mm

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 4928 mm x 800 mm x 25 mm

Blade base 3100 mm

Blade load 13720 kg

Cutting edges

Type Curved type cutting edges meet SAE standard J739b

No. of cutting edges 2

Length x Height x

Thickness 2438 mm x 203 mm x 19 mm

FRAME

Box section front frame, two box section rear frames are of steel-plate welded construction. One-piece-frame design for the front frame in which hydraulic pipings are installed.

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OPERATING MASS

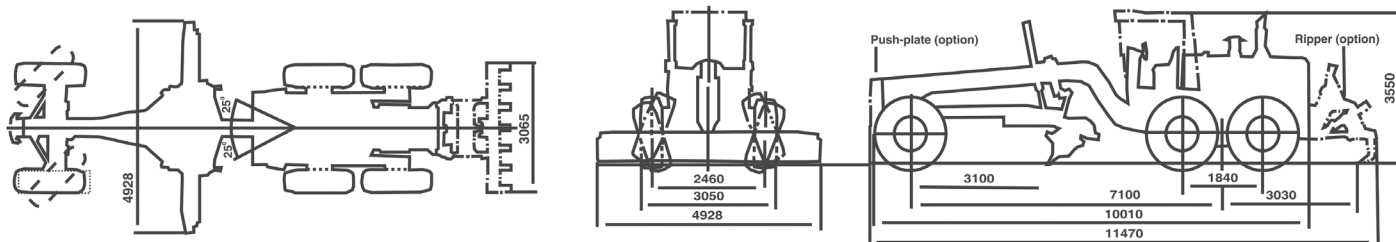
On front wheels 3700 kg
On rear wheels 12100 kg with cabin

Total Mass (approx.) 15800 kg with cabin

DIMENSIONS (in mm)

ROPS and cabin (low-profile type), push-plate and rear mounted ripper are optionally available.

Ground clearance 440 mm



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