

BD355

CRAWLER DOZER



Salient Features :

- Turbocharged BEML BS6D170-1
- Power Shift Transmission
- Operator Comfort with Arm chair steering
- Pilot Operated Hydraulic System for work attachment
- Wet Multiple disc steering clutches and brakes
- Durable work attachment
- Segmented Sprockets
- Grooved-type Floating Seals
- Reduced vibration and noise level
- Hexagonal ROPS-FOPS Cabin for better visibility



BD355

Flywheel horsepower (net) : 310 kW (416HP) @ 2000 rpm

Operating mass : 46550 kg
(with Semi-U dozer)

BD355

CRAWLER DOZER

Salient Features :

BEML BS6D170-1 Diesel Engine : Features a generous power to weight ratio for dynamic dozing performance.

Power Shift Transmission: Smooth and responsive gear shifts with single-lever for instant speed and directional changes.

Operator Comfort: Conveniently located armchair steering control for enhanced operator comfort with Hexagonal sound suppressive cabin.

Pilot Operated Hydraulic System : It offers effortless fine control blade through joystick.

Wet multiple disc steering clutches and brakes : Hydraulically inter linked steering clutch and brakes provide excellent maneuverability during gradual and pivot turns.

BEML unique engine speed control mechanism through braking (patent pending) gives better equipment control and helps reduces brake band wear and oil contamination.

Sturdy Construction: Track-roller frames are made of high tensile steel for maximum rigidity

Durable Work Attachment: High tensile steel blades of different configuration available for varying types of working conditions and applications. The attachment is sturdy in construction to withstand adverse ground conditions.

Segmental Sprockets : Bolt-on type segmented sprocket permits quick on site replacement. Special grooved type floating seals and unique dust seals provide extended undercarriage life.

Groove-type Floating Seals : These special seals are used in the idlers, track and carrier rollers to keep dirt out and lubricant in for extended undercarriage life, as well as reduced maintenance cost.

Reduced vibration and noise levels: Radiator, fuel tank, floor frame, Engine and cabin are mounted on anti-vibration rubber cushions to isolate vibration and reduce noise levels.



OPTIONAL FEATURES :

Electronic Governed engine is available
Electronic Transmission with Joystick control for Steering and Transmission is available.



ENGINE

Make	BEML
Model	BS6D170-1 / BS6D170EG (Optional)
Type	6 inline, Diesel, 4-stroke, water cooled, turbo-charged, direct injection, Mechanical Governed (Electronic Governed as Optional)
Flywheel power	310 kW (416 HP) @ 2000 rpm in accordance with IS:13116 / ISO: 9249
Maximum torque	1780 N-m (181.5 kg-m) @ 1400 rpm
No. of Cylinders	6, inline
Bore & Stroke	ø170 mm x 170 mm
Displacement	23.15 l (0.02315 m³)
Electrical	
Alternator	24V, 100 A / 140 A
Starter Motor	24V, 9 kW
Battery	2x12V, 200 Ah



TRANSMISSION

Torque Converter			
Type	3 element, single stage single phase		
Stall Ratio	2.6		
Transmission Type	4F/4R, Planetary power shift, transmission (Electronically Controlled as Optional)		
Final Drive Type	Spur and planetary gear, double reduction		
Lubrication	Splash type		
Total reduction	37.0		
Travel Speeds m/sec (km/h)	Range	Forward	Reverse
	1st	0-0.92 (0-3.30)	0-0.89 (0-3.20)
	2nd	0-1.42 (0-5.10)	0-1.39 (0-5.00)
	3rd	0-2.36 (0-8.50)	0-2.35 (0-8.47)
	4th	0-3.53 (0-12.7)	0-3.50 (0-12.6)



STEERING

Type	Wet, multiple disc steering clutches are hydraulically actuated and require no adjustment
Min. Turning Radius	3.7 m
Steering Control	Hydraulic through linkages (Joystick as optional)

STANDARD EQUIPMENT :

Hydraulic Track Adjusters
Air cleaner inner element lock
Track roller guard (each side)
Decelerator pedal
7 Roller track frame
Lower guard (3 pieces)
Fixed type draw bar
Joystick for work attachment
Adequate lighting system
Front pull hook
In-line radiator
Tool kit
Audio visual backup alarm
Lighting System (including 4 front and 2 rear lights)
Safety lock for blade lever
Semi-U Blade
Hex. ROPS- FOPS cabin

METERS & GAUGES

Engine oil pressure
Engine water temperature
Torque converter oil temperature
Engine tachometer
Hour meter
Voltmeter
Transmission oil pressure
Fuel level
Engine oil temperature

WARNING INDICATORS

Engine oil filter clog
Battery Charging (indicator only)
Engine oil pressure
Torque converter oil temperature
Engine coolant level
Engine coolant temperature
Engine oil temperature
Dust Indicator (Mechanical on engine)
Seat Belt Indicator
Engine Auto shut off for low engine oil pressure and high water temperature abnormalities.

OPTIONAL ATTACHMENTS / SYSTEMS

Straight Tilt Blade
U-Blade
Angle Blade
Coal Blade
Giant Ripper
Pin puller equipment (for Giant ripper)
Track shoe 710mm
Track shoe 760mm
AC with Heater & Defroster

Pusher plate for straight tilt dozer
Scoria Disposal
Multi shank Ripper
Rake Dozer
Fast fill fuel system
Warning system for operator's fatigue.
Auto Lubrication system
Automatic temperature control unit for AC
Rear vision system
Auto fire detection & suppression system



HYDRAULIC SYSTEM

Hydraulic pump		Pilot pump
Type	Gear pump	Gear pump
Capacity	419.3 ℓ / min.	24.00 ℓ pm
Relief pressure	13.73 MPa (140 kg/cm²)	3.0 MPa
Hydraulic Cylinders		
Type	Double acting piston type	
Blade Lift	2 cylinders	
Bore x Stroke (mm)	∅ 160 mm x 1440 mm	
Blade Tilt	1 cylinder	
Bore x Stroke	∅250 mm x 180 mm	
For optional ripper attachment		
Ripper lift	2 Cylinders	
Bore x Stroke	∅ 225 mm x 600 mm	
Ripper tilt	2 Cylinders	
Bore x Stroke	∅ 225 mm x 500 mm	



FILTRATION

Engine	Replaceable cartridge type filter for lubrication as well as for fuel line.
Transmission	One magnetic oil strainer and one replaceable element pressure line filter
Steering & Brake	Magnetic oil strainer is common to transmission, steering & braking system. Separate replaceable element type pressure line filters are provided.
Hydraulic System	Magnetic plug & replaceable element type filter is provided. Pilot filter with cleanable element.



UNDER CARRIAGE

Suspension	Oscillation type equalizer bar
Track Frame	Box section High tensile strength steel construction
Track Roller	7 No. Each side
Carrier Rollers	2 No. Each side
Track Shoes	39 No. Each side
Track Pitch	2260 mm
Grouser Height	88 mm
Shoe Width	610mm (standard)
Ground Pressure	83.70 kPa (0.85 kg/cm ²) (Tractor)
Ground contact area	4.099 m ²



MASS (approximate)

Operating mass (Standard equipment with Semi-U dozer)	46550 kg
Shipping mass (Basic tractor with lubricants, Hydraulic system, cooling system and 10% of fuel tank capacity)	35000 kg

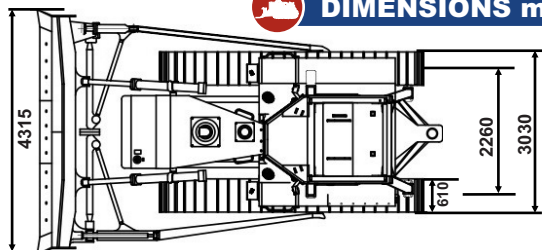


BRAKE

Type	Wet, contracting band,
Control	Foot operated steering brakes with hydraulic booster for light-touch actuation and long service life. Brakes and steering clutches are interconnected for easy steering.
Parking brake	Hand operated with mechanical linkage.



DIMENSIONS mm



Ground Clearance : 570mm

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



DOZER ATTACHMENT

Dozer type	Straight tilt dozer	Angle dozer	Semi-U dozer	U dozer	Coal dozer
Overall length with dozer (mm)	7120	7215	7163	7600	7760
Blade length x height (mm)	4315 x 1875	5230 x 1350	4315 x 1955	4715 x 1875	5530 x 2125
Max. lift above ground (mm)	1545	1640	1545	1545	1565
Max. drop below ground (mm)	700	720	700	700	650
Max. tilt adjustment (mm)	1000	550	1000	1000	*
Additional ground pressure kPa (kg/cm ²)	20.6 (0.21)	19.6 (0.20)	20.6 (0.21)	23.54 (0.24)	19.62 (0.20)
Blade Capacity (m ³)	11.6	5.9	13.0	15.6	24.5
Mass in kgs					
Dozer Attachment	7830	7200	8590	8830	7660
Hydraulic Control Unit	880	870	880	880	680

*Tilt Cylinder for coal dozer is optional

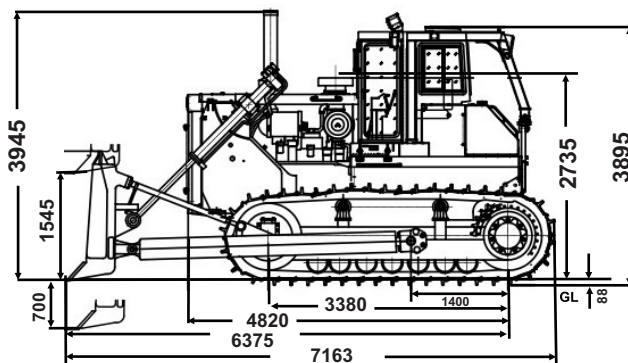
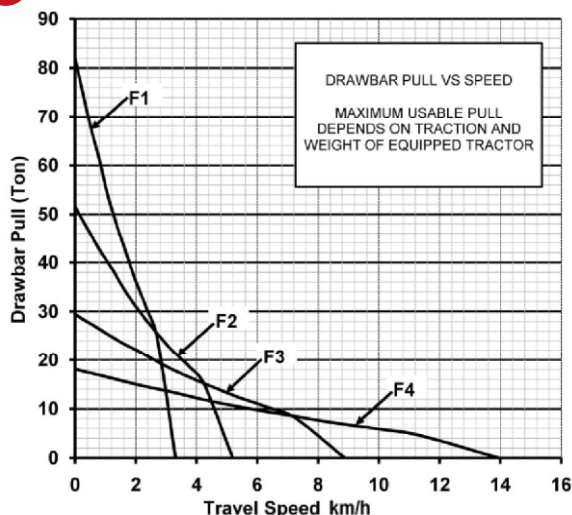


COOLANT & LUBRICANTS CAPACITY (Refill)

System	Specific amount(ltr.)	Refill capacity(ltr.)
Cooling System	180	—
Fuel tank	760	—
Engine Lub oil	58	43
Transmission, bevel gear torque converter & steering	230	190
Final Drive (each side)	68	68
Hydraulic System	350	185



BD355 DRAWBAR PULL Vs TRAVEL SPEED



BD355

CRAWLER DOZER

TECHNICAL SPECIFICATIONS

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