

# BD155

**CRAWLER DOZER**



## Salient Features :

- Turbo charged BEML BS6D170-1 Engine
- Power Shift Transmission
- Sturdy construction of Track frames & Mainframe
- 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
- Reduced vibration and noise levels
- Hexagonal ROPS-FOPS Cabin for better visibility



# BD155

Flywheel Power (FHP) : 242 kW (324 HP) @ 2000 rpm

Operating Mass : 39,105 kg  
(With Straight tilt Dozer)

# BD155

## CRAWLER DOZER

### Salient Features :

**BEML BS6D170-1 Engine :** Engine is environment friendly as it ensures low level of vibration, noise and smoke.

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

**Operator Comfort:** Conveniently located armchair steering control for enhancement 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 configurations 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.

**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.

**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.



### OPTIONAL FEATURES :

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



### ENGINE

Make & Model	BEML BS6D 170-1 / BS6D170EG(optional)	
Type	6 inline Diesel, 4 stroke, water cooled, turbo-charged, direct injection, Mechanical Governed (Electronic Governed as optional)	
Flywheel Power	242 kW (324 hp) @ 2000 rpm in accordance with IS:13116 / ISO:9249	
Max. Torque	1456N-m (148.5 kg-m) at 1400 rpm	
No. of cylinders	6, inline	
Bore x Stroke	ø 170 x 170 mm	
Displacement	23.15 l (0.02315m <sup>3</sup> )	
Electrical	Alternator	24 V, 100A / 140A
	Starting Motor	24 V / 9 kW
	Battery	2x12 V, 200 Ah / 160 Ah



### POWER TRAIN

Torque Converter	Stall Ratio	2.4
	Type	3 element, single stage single phase
Transmission	Type	3F/3R, Planetary powershift transmission (Electronically controlled as optional.)



### FINAL DRIVE

Type	Spur gear double reduction		
Lubrication	Splash type		
Total reduction	40.104		
Travel Speeds m/sec (km/h)	Range	Forward	Reverse
	1st	0-1.03 (0-3.70)	0-1.25 (0-4.50)
	2nd	0-1.89 (0-6.80)	0-2.30 (0-8.20)
	3rd	0-3.28 (0-11.8)	0-3.81 (0-13.7)



### HYDRAULIC SYSTEM

HYDRAULIC PUMP		
Type	Gear pump	
Capacity	335 lpm	
Relief Pressure	13.73 MPa (140 kg/cm <sup>2</sup> )	
HYDRAULIC CYLINDERS		
Type	Double acting piston type	
Blade Lift	2 cylinders	ø 140 mm x 1346 mm (Bore x stroke)
Blade Tilt	1 cylinder (In)	ø 225 mm x 160 mm (Bore x stroke)
	(Out)	ø 225 mm x 500 mm (Bore x stroke)

### 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
- Toolkit
- Audio visual backup alarm
- Lighting system (including 4 front and 1 rear lights)
- Safety lock for blade lever
- Straight Tilt Blade
- Hex. ROPS-FOPS cabin

### METERS AND GAUGES

- Engine Oil Pressure
- Engine Water Temperature
- Torque converter oil temperature
- Engine tachometer, hour meter
- Volt meter
- 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

Semi-U Blade	Pusher plate for straight tilt dozer
U Blade	Scoria Disposal
Angle Blade	Multi Shank Ripper
Coal Blade	Rake dozer
Giant Ripper	Auto Lubrication System
Pin-puller equipment (for Giant ripper)	Fast fill fuel System
Track shoe of 610mm	Warning System for Operator's Fatigue.
Track shoe of 660mm	Automatic temperature control unit for AC
Rear vision system	Auto fire detection & suppression system
	AC with Heater & Defroster

## STEERING

Type	Wet, Multiple disc hydraulically actuated and require no adjustment
Min turning radius	3.8 m
Steering Control	Hydraulic through linkages (Joy stick as optional)

## UNDER CARRIAGE

Suspension	Oscillation type equalizer bar
Track frame	Box section High tensile strength steel construction
Track Pitch	2140 mm
Track Roller	7 No. Each side
Carrier Rollers	2 No. Each side
Track Shoes	41 No. Each side
Grouser Height	80 mm
Shoe type	Single Grouser
Shoe Width	560mm
Ground Pressure	84.13kPa (0.86kg/cm <sup>2</sup> ) - Bare Tractor
Ground contact area	3.528m <sup>2</sup>

## FILTRATION

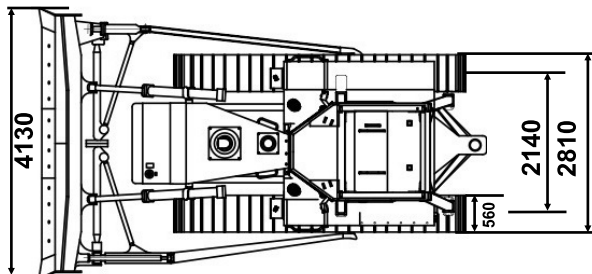
Engine	Double element dry type with pre-cleaner & automatic dust ejector for intake air. Cartridge type filter for oil & fuel.
Transmission	Magnetic oil strainer and pressure line filters.
Steering & brake	Magnetic oil strainer and pressure line filters.
Hydraulic System	Magnetic iron particles separator & return line filters. Pilot filter with cleanable element.

## MASS (approximate)

Operating Mass	39105kg
(Standard equipment with straight tilt dozer)	
Shipping Mass	30525kg
(Basic tractor with lubricants, Hydraulic system, cooling system and 10% of fuel tank capacity)	

## DOZER ATTACHMENT

Dozer type	Straight	Angle	Semi-U	U	Coal
Overall length with Dozer	6555	6630	6560	6970	7015
Blade Length x Height	4130x 1590	4850x 1140	4130x 1790	4225x 1590	5260x 1795
Max. Lift above ground	1560	1475	1560	1560	1625
Max. Drop Below ground	560	625	560	560	545
Max. Tilt Adjust	1000	400	1000	1020	-
Blade Capacity (Cum)	7.9	4.2	9.7	10.1	17.4
Addl. Gr. Pressure Kpa	18.15	15.20	18.54	20.11	17.66
	(Kg/cm <sup>2</sup> ) (0.185)	(0.155)	(0.189)	(0.205)	(0.180)
Mass (kg) Dozer Eqpt.	5740	4800	5930	6480	5730
Mass (kg) Hyd.Control unit	760	700	760	760	770



Ground Clearance : 500mm

## SYSTEM FLUID CAPACITY

System	Specific amount (ltr.)	Refill capacity(ltr.)
Cooling System	165	--
Fuel tank	590	--
Engine Oil Pan	58	43
Transmission, Bevel Gear, Torque Converter & Steering	185	135
Final Drive (each side)	55	55
Hydraulic oil	295	185

## BRAKE

Type	Wet, Contracting band
Actuation Type	Foot operated Mechanical linkage assisted by hydraulic booster for light touch and easy actuation. Brakes and steering clutches are hydraulically interconnected for easy steering
Parking Brake	Hand operated with mechanical linkage

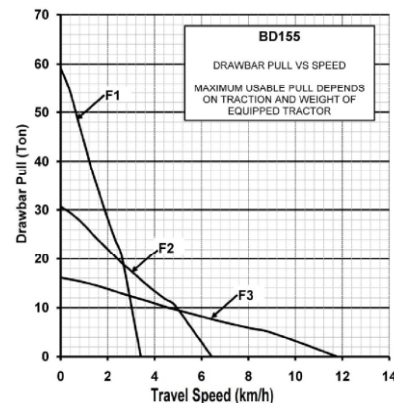
## CABIN

Hexagonal shaped, ergonomically designed ROPS-FOPS cabin provides excellent visibility and operator comfort.

## INSTRUMENTATION

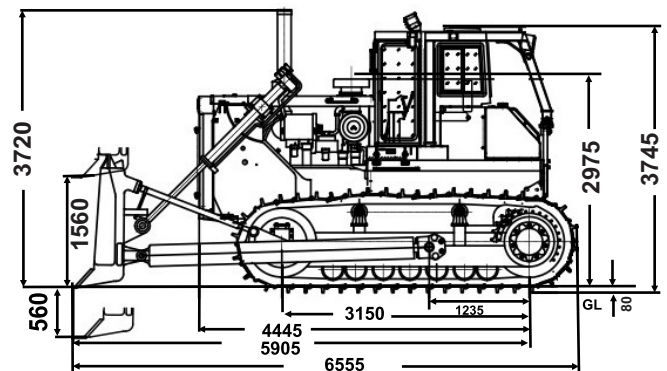
LCS based centralized monitoring system within the operator's cabin has in-built diagnostics which allow fast daily checks and also keeps the operator constantly informed of any abnormality during operation. All important equipment parameters and warning indicators are displayed in the LCS display unit. The display unit is suitable for day and night visibility.

## Drawbar pull Travel Speed



TRAVEL SPEED

## DIMENSIONS mm



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

BD155

CRAWLER  
DOZER

TECHNICAL SPECIFICATIONS

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Represented by:

बी ई एम एल लिमिटेड

**BEML LIMITED**

Schedule 'A' Company under Ministry of Defence, Govt. of India

Crawler Dozers From BEML :

BD50

BD65-1

BD80

BD85

**BD155**

BD355

BD475

Form No. BD155/01/2020