

# BD80

CRAWLER DOZER



## Salient Features :

- Turbocharged BEML BS6D125-1
- Helical Gear, Constant mesh, Hand Operated Transmission
- Sturdy Construction of Chassis & Track frame
- Groove type Floating Seals in all rollers



# BD80

Flywheel horsepower (net) : 134 kW (180 HP)  
@ 1850 rpm

Operating mass : 21550 kg  
(with Angle dozer )

# BD80

## CRAWLER DOZER

### Salient Features :

- BEML BS6D125-1 Direct-injection type Diesel engine for sustained power and economy.
- Sturdy box type construction Main frame designed to withstand shocks and stresses of heavy dozer work.
- Hydraulically actuated, oil cooled main clutch
- Heavy duty, constant mesh transmission with helical gears.
- Hydraulically actuated, self-adjusting oil cooled steering clutches for long life. Steering brakes are also oil cooled.
- Hydraulically controlled dozer blade with fully ribbed mould board.
- Floating - seals in all rollers, idlers and sprockets.
- Special dust seals for prevention of abrasive dirt entry into the pin and link bushing clearances which ensures longer track services.



### ENGINE

Make	BEML
Model	BS6D125-1
Type	Water cooled 4 cycle, Turbo charged, direct injection diesel engine.
No. of cylinders	6, inline
Bore x Stroke	Dia 125 x 150 mm
Displacement	0.01100m <sup>3</sup> (11.00ℓ)
<b>Horse Power</b>	
Rated bhp*	143 kW (196 HP) @ 1850 rpm
Fly wheel power **	134 kW (180 HP) @ 1850 rpm
Maximum torque	784.8 Nm @ 1100 rpm
<b>Fuel System</b>	
Type	Bosch type, FIP system
Governor	Mechanical, all speed control
<b>Lubrication System</b>	
Method	Forced lubrication
Pump	Gear pump
Filter	Full flow
Oil Cooler	Water cooled
<b>Cooling System</b>	
Type	Centrifugal water pump pusher type fan
<b>Air Cleaner</b>	
Type	Dry, horizontal type
<b>Electricals</b>	
Alternator	24 V, 55A
Starting motor	24 V, 7.5 kW

\* Rated bhp is the output of the engine as installed in the machine at governed rpm and with engine manufacturer's approved fuel setting. Accessory losses included are water pump, fuel pump and lube oil pump. Output guaranteed within ± 5%

\*\* Flywheel power is the rated bhp less the average accessory losses. Accessories included are fan, alternator and hydraulic pump at no load.



### POWER TRAIN

<b>Transmission System</b>	Direct drive		
<b>Main Clutch</b>			
Type	Wet, multiple disc overcenter engagement, hand operated with intertia brake and hydraulic booster		
<b>Transmission</b>			
Type	Helical gear, constant mesh, hand operated		
Bevel gear	Spiral type, single reduction		
<b>Final Drive</b>			
Type	Spur gear, double reduction		
Reduction ratio	17.187		
Gear Shift	5 Forward, 4 Reverse		
<b>Travel speeds km/h</b>			
Range	Forward	Drawbar - Pull (kg)	Reverse
1st	0-2.4	17,250	0-3.1
2nd	0-3.4	12,180	0-4.5
3rd	0-5.2	7,960	0-6.7
4th	0-7.4	5,600	0-9.6
5th	0-10.0	4,160	

### STANDARD ACCESSORIES

Ammeter	Water temperature gauge
Tacho hour meter	Tool kit
Head lamps & rear lamp	High water temperature Indicator
24V, 55 A alternator	Low engine oil pressure indicator
Warning lamp	Light switch
Engine oil pressure gauge	Canvas canopy

### OPTIONAL ATTACHMENTS

Steel Cabin	Straight Dozer
Steel top canopy	Straight Tilt Dozer
Rake dozer straight	Multi Shank Ripper

### COAL DOZER

Towing winch	Drawbar fixed type
Dozer for steel mill	Track shoe of width 610 mm
Pusher plate	Track shoe of width 660 mm
	Preheater



## HYDRAULIC SYSTEM

### Hydraulic Pump

Type	Gear pump
Capacity	269 ℓ / min @ 1850 r/min
Relief pressure	13.73 MPa (140 kg/cm <sup>2</sup> )

### Hydraulic Cylinders

Type	Double acting piston
Blade Lift	2 cylinders
Bore x Stroke	Dia120 x 1014 mm



## STEERING

### Steering clutch

Type	Wet, multiple disc hydraulic, together with spring type booster
Control	Hand operated with back - up booster

### Steering Brake

Type	Wet, contracting band
Control	Foot operated supported by efficient linkages for light touch actuation.



## UNDER CARRIAGE

Suspension	Semi-rigid equalizer bar type
Track frame	Box-section, high tensile strength steel construction
Track rollers	6 nos. each side
Carrier rollers	2 nos. each side

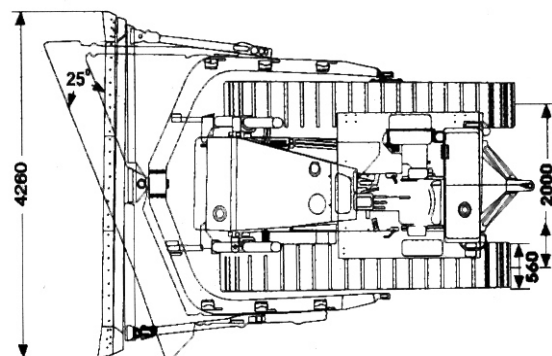
### Track shoes

Type	Assembled, single grouser
Grouser height	65 mm
Shoe with	560 mm
No. of shoes	38 nos. on each side
Ground pressure (Tractor only)	0.58 kg/cm <sup>2</sup>
Ground contact area	30576 cm <sup>2</sup>

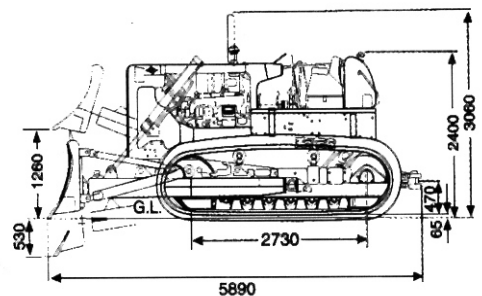
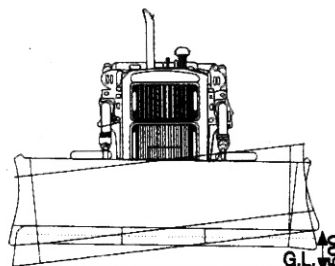


## OPERATING MASS

Operating mass - Tractor only (Including rated capacity of lubricant, coolant and fuel) **17630 kg**



Ground Clearance - 400 mm



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



## DOZER EQUIPMENT

	Angle Dozer	Straight Tilt dozer	Coal dozer
Over length with dozer (mm)	5890	5660	6000
Blade length x height (mm)	4260 x 1080	3460 x 1280	4450 x 1540
Max. life above ground (mm)	1260	1175	1275
Max. drop below ground (mm)	530	610	535
Max. tilt adjustment (mm)	500	735	*
Additional ground pressure kPa (kg/cm <sup>2</sup> )	0.13	0.11	0.13
<b>Mass (kg)</b>			
Blade	3470	2880	3540
Hydraulic Control Unit	450	450	450

\* Tilt cylinder for coal dozer is optional

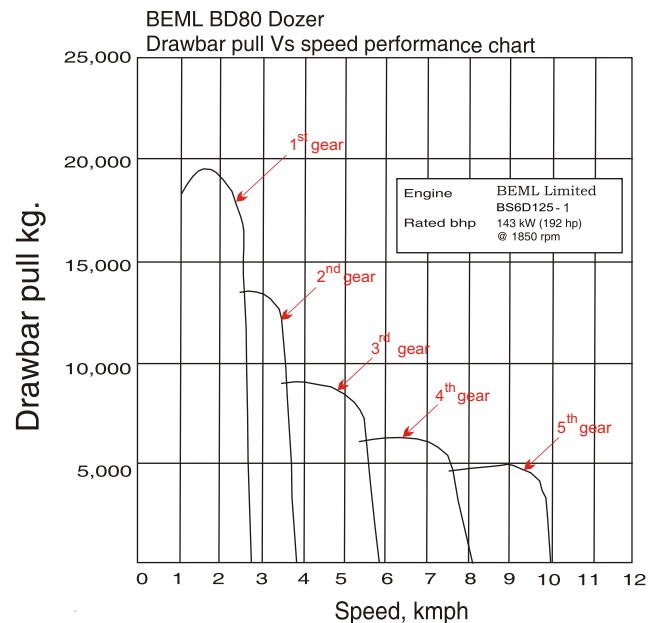


## COOLANT & LUBRICANT

System (Refilling)	Capacity in ℓ
Crank case	32
Fuel Tank	420
Cooling System	65
Transmission (including steering system)	75
Final drive (each side)	36
Hydraulic tank	105
Main clutch	25



## DRAWBAR PULL



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