

BP70

PIPE LAYER

Salient Features :

- BEML BS6D170-1 Diesel Engine
- Powershift Transmission
- Wet type inter-connected steering clutches and brakes
- Sturdy construction
- Segmented sprockets
- Grooved type floating seals
- Hydraulically actuated counter weights
- Automatic Kickout device for Boom
- Pilot operated work attachment



Flywheel Power (net) : 242 kW (324 hp) @ 2000 rpm

Max. Lifting Capacity: As per lifting performance curve.

BP70

PIPE LAYER

Salient Features :

BEML BS6D170-1 Diesel Engine : Features a generous HP to weight ratio for wide range of pipelaying work.

Powershift transmission :

Smooth and responsive power shift with single-lever control for instant speed and directional changes.

Wet type inter-connected steering clutches and brakes :

Interconnected wet-type steering clutches and brakes for easy operation and long service life. Steering clutches requires no adjustment

Sturdy construction :

The boom is welded box section and operated by wire cables. Track roller frames are made of high tensile steel of maximum rigidity.

Segmented sprockets :

Sprockets with bolt on rim segments permit quick onsite replacement without track removal.

Grooved type floating seals :

These special seals are used in idlers, track and carrier rollers to keep dirt out and lubricant in for extended undercarriage life, as well as reduced maintenance cost.

Faster operation due to 2 raise and lowering speeds.

Automatic kickout device for Boom

Hydraulically actuated counter weights for increased stability

Lifting Performance :

Maximum lifting capacity as per lifting performance curve to cater wide range of pipe laying work with joystick control.



ENGINE

Make	BEML
Model	BS6D170-1
Type	Diesel, 4 stroke, water cooled, direct injection, turbocharged
Net Power (fhp)	242 kW (324 hp) @ 2000 rpm (ISO-9249)
Maximum torque	1456 N-m (148.5 kg-m) @ 1400 rpm
No of cylinders	6, inline
Bore & Stroke	∅ 170 x 170 mm
Displacement	0.023150 m ³
Electricals	
Alternator	24 V, 55 A / 140A 24V, 100A / 140A
Starting motor	24 V, 9.0 kW
Battery	2 x 12 V, 200 Ah



TRANSMISSION

Torque Converter		
Model	TCS43-4C	
Type	3 element, single stage, single phase	
Stall ratio	2.4	
Transmission		
Model	Planetary gear, Power Shift 3 forward / 3 reverse	
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 (0-3.7)	0-1.25 (0-4.5)
2nd	0-1.89 (0-6.8)	0-2.3 (0-8.2)
3rd	0-3.3 (0-11.8)	0-3.8 (0-13.7)



BRAKES

Type	Wet contracting band. 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.



STEERING SYSTEM

Type	Wet, multiple-disc steering clutches are hydraulically actuated and require no adjustment
Turning radius	3.0 m 3.8 m



FILTER SYSTEM

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



MASS

Shipping Mass (Basic tractor with lubricating hydraulic, cooling systems and 10% of fuel capacity)	37,000 kg
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STANDARD EQUIPMENT

- Hook & Boom Winches
- Counter weight mechanism
- 6.2m boom with cables
- Hydraulic track adjusters
- Bottom Guards (3 pieces)
- Adequate lighting system
- **Safe load indicator system**

OPTIONAL ATTACHMENTS

- Rops Cabin
- Insulated Canopy
- **Safe Load Indicator System**
- Air conditioner with heater
- Longer Length Boom (7.3m)



HYDRAULIC SYSTEM

Hydraulic Pump (winch)

Type	Gear pump
Capacity	335.5 l/min
Relief pressure	13.73 MPa (140kg/cm ²)

Hydraulic pump (Counter weight)

Type	Tandem pump
Capacity	85 l/min
Relief pressure	13.73 MPa (140kg/cm ²)

Hydraulic Cylinder

Type	Double acting piston
No. of cylinders	2 cylinders
Bore x Stroke	∅ 120 x 475 mm



DIMENSIONS & OPERATING DATA

Overall length	5660 mm
Overall width	3760 mm
Overall height	3640 mm

Operating data

Pipe Laying equipment

Crane	See chart
Boom overhang	1.2 m to 6.2 m
Hook speed (1st layer)	

Basic - 1st	6.5 m/min
- 2nd	13.0 m/min
Lower - 1st	6.5 m/min
- 2nd	13.0 m/min

Boom

Type	Welded box section and operated by wire cables
Length	6200 mm (Optional 7300 mm)
Weight	1600 kg

Winch

Type	Hydraulically operated, two speed, reversible
Driving System	Powered continuously by hydraulic pump
Drum brake	Automatic braking system
Transmission	Built in planetary system

Winch drum

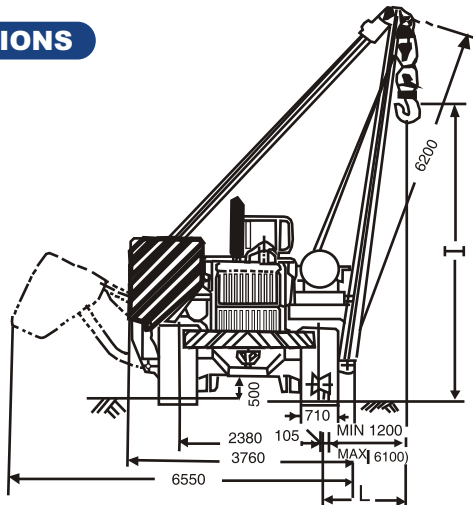
Hook (dia x width)	∅ 323.85 x 431.8 mm
Boom (dia x width)	∅ 323.85 x 431.8 mm
Wire rope	
Hook (dia x length)	∅ 20 mm x 100 m
Boom (dia x length)	∅ 20 mm x 55 m

Counter weight

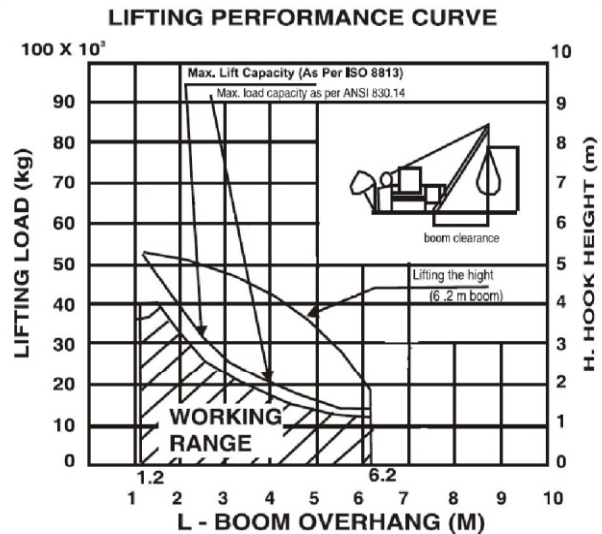
Type	Segmented plate type, Hydraulically actuated
Weight (Incl. bracket)	9500 kg ± 6%
No. of plates	10
Safety Equipment boom	Automatic max. kick-out device



DIMENSIONS



CHART



Lifting Performance (as per ISO 8813)

Based on the firm level ground operation and standard 9500 kg counter weight fully extended, 6.2 m boom, 20 mm dia wire rope, 27000 kg min. breaking strength 3-partload line.



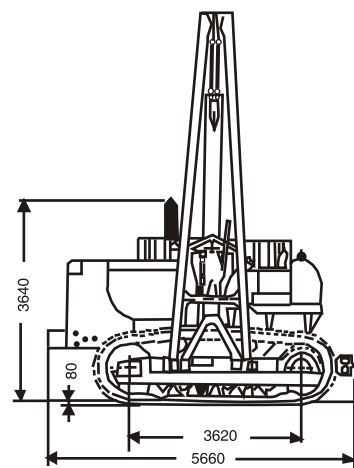
UNDER CARRIAGE

Suspension	Non-Oscillation type equalizer bar
Track Frame	Box section, high tensile strength steel construction
Track Rollers	8 nos. each side
Carrier Rollers	2 nos. each side
Track Shoes	45 nos. each side
Track Pitch	2380 mm
Grouser-Height	80 mm
Shoe width	710 mm (std)
Ground Pressure	80.4 kPa (0.89 kg/cm ²)
Ground contact area	5.140 m ²



COOLANT & LUBRICANTS CAPACITY (Refill)

System	Litres
Fuel Tank	600 (600)
Cooling System	165 (165)
Torque converter, Transmission, Bevel gear case, steering case	185 (135)
Final drive case (each side)	55 (55)
Hydraulic tank	185
Engine lub oil	58 (43)



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

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