

Pipe Bending Machine **BM 06-24**

Engine output:	53 kW / 72 HP
Operating weight:	9.250 kg 20.393 lb
Range:	6" - 24"



Basic machine

Engine

Diesel engine	Yanmar 4TNV98T-ZGA, Emission regulations according to EC(NRMM) Stage IIIA
Rating	50,4 kW / 68,5 HP
Rated speed	1.800 rpm
Displacement	3,319 l / 202,5 cu. In.
Design	4- stroke 4-cylinder-in-line engine, water cooled, turbocharged
Injection system	Direct fuel injection, pump with electric governor
Engine lubrication	Forced feed lube system, engine lubrication guaranteed for inclinations up to 30°
Operating voltage	12 V
Alternator	40 A
Starter	2.3 kW / 3,1 HP
Batteries	1 x 80 Ah / 12 V
Air cleaner	Dual stage dry type with safety element, precleaner / cyclofilter
Cooling system	Standard radiator with direct driven fan

Refill capacities

Fuel tank	90 l
Cooling system	4,2 l
Engine oil with filters	11,2 l
Hydraulic oil tank	185 l

Noise emission

Exterior sound pressure (2000/14/EC)	$L_{pA} = 74-87$ dB(A) (distance @ 1 m.)
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Hydraulic system

System	Load sensing proportional pump control
Pump type	Variable displacement piston pump, load sensing
Pump flow max.	130,5 l/min / 28,7 gpm (imperial)
Pressure limitation	250 bar / 3,625 PSI
Filter system	Return filter in hydraulic tank
Control	5 manually actuated levers for all functions

Hydraulic cylinders

Outboard cylinder (bore x stroke)	2x Liebherr, 250 x 315
Inboard cylinder (bore x stroke)	2x Liebherr, 200 x 132
Wedge cylinder (bore x stroke)	1x Liebherr, 125 x 585
Clamp cylinder (bore x stroke)	1x Liebherr, 70 x 300

Undercarriage

Tyre type	High load tyre
Tyre size	19,0 / 45-17

Winch

Rated line pull	4.082 kg / 9,000 lbs
Gearing	Wormgear
Gear ratio	54 : 1
Maximum oil pressure	124 bar / 1,800 PSI
Maximum oil flow	45 l/min / 9,9 gpm (imperial)
Cable length	25 m / 82.02 ft
Cable diameter	10 mm / 0.39"

Bending data

Maximum wall thickness by grade at max. system pressure of 250 bar / 3625 PSI (based on 85% efficiency)

Pipe size Inch / mm	X52 Inch / mm	X60 Inch / mm	X70 Inch / mm	X80 Inch / mm	X100 Inch / mm	Radius feet / meter	Max. degree per 40 feet / 12 meter joint
6 / 152	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	13 / 4,0	132,2
8 / 203	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	15 / 4,5	114,6
10 / 254	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	20 / 6,1	85,8
12 / 305	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	25 / 7,6	69
14 / 355	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	34 / 10,4	51
16 / 406	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	38 / 11,6	45,3
18 / 457	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	2,000 / 50,8	52 / 15,9	33
20 / 508	2,000 / 50,8	2,000 / 50,8	1,795 / 45,6	1,500 / 38,1	1,135 / 28,8	69 / 21,0	24,9
22 / 558	2,000 / 50,8	1,655 / 42,0	1,360 / 34,6	1,155 / 29,4	0,890 / 22,7	72 / 22,0	21,6
24 / 609	1,555 / 39,5	1,305 / 33,1	1,085 / 27,6	0,930 / 23,7	0,725 / 18,4	76 / 23,2	20,3

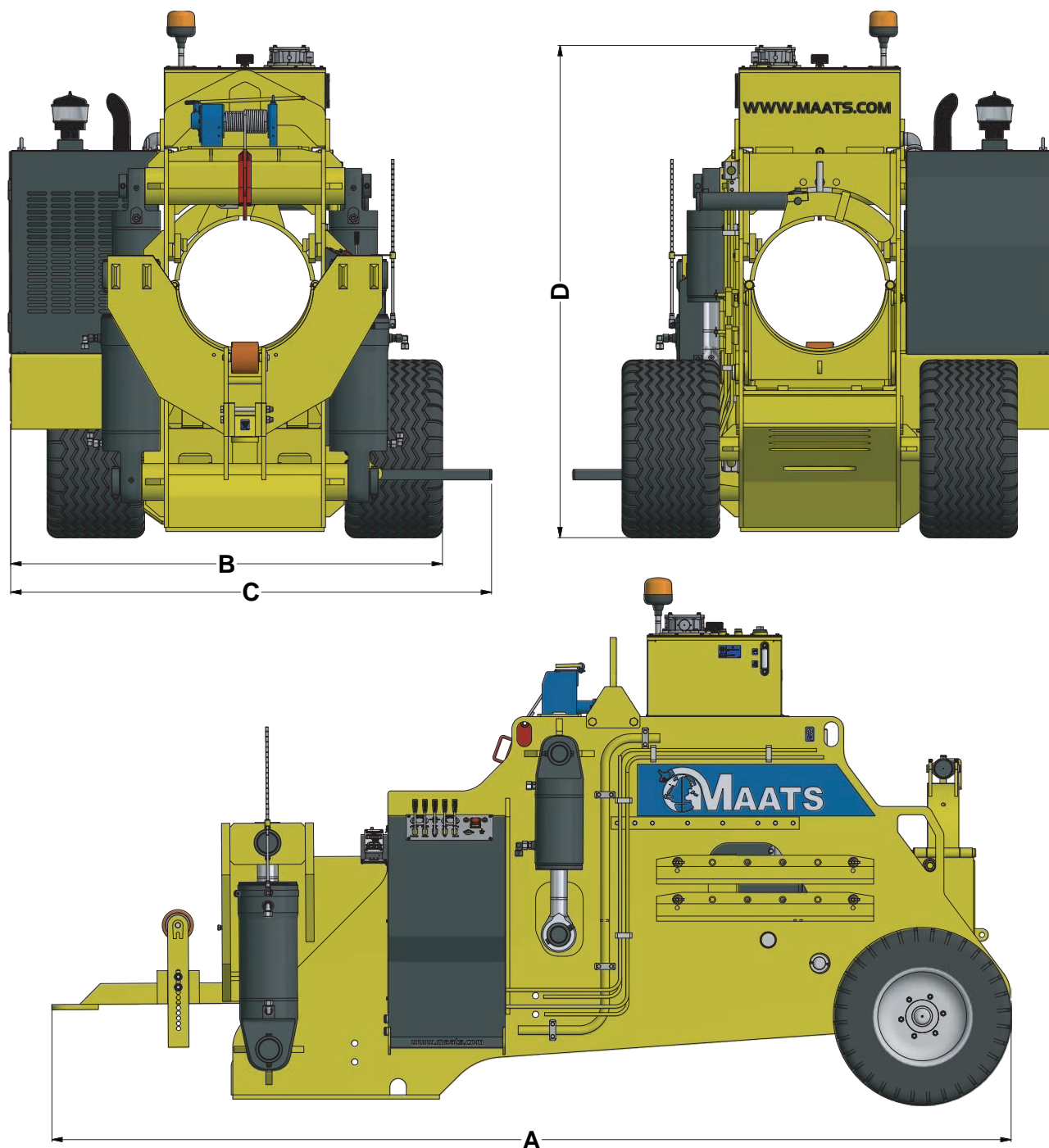
These figures are recommended only and do not constitute a warranty

All bends shown are based on the use of Maats bending mandrels and bending dies. The figures given are "average", they will vary due to:

- The wall thickness of the pipe
- The actual (as opposed to the nominal) yield of the pipe
- Skill of the operator in handling the bending machine and the mandrel
- The origin of the pipe (pipe mill, plate mill, etc.) and quality of the pipe
- The type of pipe, spiral seam pipe will normally accept 75% of the recommended bend
- The type of die and or bending set being used (eg. polyurethane lining or special radius dies)

An unbent end (tangent) is produced at each end of the pipe where the pipe contacts the stiff back and the pin up. Minimum unbent tangents are approx. 1,9 m. at stiffback / 1,35 m. at pin-up

Dimensions and weights



Dimensions

A (Length)	4.640 mm / 15.22 ft
B (Shipping width)	2.090 mm / 6.86 ft
C (Operating width)	2.330 mm / 7.64 ft
D (Height)	2.380 mm / 7.81 ft

Bending sets

Standard sizes	6", 8", 10", 12", 14", 16", 18", 20", 24"
Special sizes are available on request	
Standard sets are bare. Coated sets are available on request	

Weights

Operating weight	9.250 kg / 20.393 lb
Weight bending set (avg.)	400 kg / 882 lb

Equipment

Basic machine S O

Towing lug front	●
Battery compartment, lockable	●
Cold start device	●
Radiator guard	●
Engine doors, hinged, lockable	●
Lugs for crane lifting	●
Fuel water separator	●
Air filter, dry-type, dual step	●
Toolkit	●
Cyclon pre-filter	●

Undercarriage S O

Tyres	●
Track	●

Electrical system S O

Starter motor 2,3 kW	●
Working lights	●
Battery main switch, mechanical	●
On-board system 12V	●
Alternator 40A	●
Beacon	●

Winch S O

High torque motor	●
Manually engaged freespooling clutch	●
Cable 13 mm x 25 m	●

Control and warning lights S O

Hydraulic system pressure (analog)	●
Engine RPM (digital)	●
Machine hours (digital)	●
% Engine load at current RPM (digital)	●
Coolant temperature (digital)	●
Oil pressure (digital)	●
Fuel economy (digital)	●
Active service codes (digital)	●

Attachments S O

Hydraulic PTO for mandrel	●
Compressor for mandrel	●

S = Standard, O = Option

Subject to change

Options and / or special attachments, supplied by vendors other than Maats, are only to be installed with the knowledge and approval of Maats to retain warranty.