

Technical sheet :

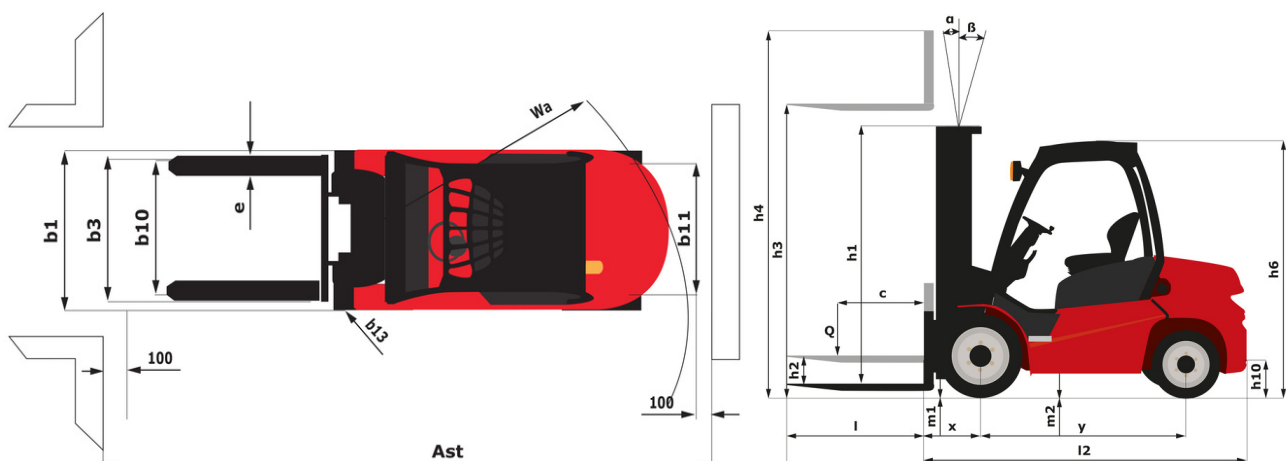
MI 20 D



 **MANITOU**
HANDLING YOUR WORLD

Technical characteristics			Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		MI 20 D	MI 20 D
1.3	Power source		Diesel	Diesel
1.4	Operator type		Seated	Seated
1.5	Max. capacity	Q	2000 kg	4409 lb
1.6	Load center of gravity	c	500 mm	20 in
1.8	Load distance, centre of drive axle to fork	x	465 mm	18 in
1.9	Wheelbase	y	1600 mm	63 in
Weight				
2.1	Service weight		3725 kg	8212 lb
2.2	Weight on front axle (laden) / rear axle (laden)		5005 kg / 720 kg	11034 lb / 1587 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1765 kg / 1960 kg	3891 lb / 4321 lb
Wheels				
3.1	Tires type		Solid tires	Solid tires
3.2	Dimensions of front wheels		7.00-12 12	7.00-12 12
3.3	Dimensions of rear wheels		6.00-9 10	6.00-9 10
3.5	Number of front wheels / rear wheels		2 / 2	2 / 2
3.5.2	Number of drive wheels		2	2
3.6	Front wheel gauge	b10	965 mm	38 in
3.7	Rear wheel gauge	b11	973 mm	38 in
Dimensions				
4.7	Height of overhead guard (cabin)	h6	2115 mm	83 in
4.8	Seat height/stand height	h7	1190 mm	47 in
4.12	Height of towing bar (coupling height)	h10	355 mm	14 in
4.19	Overall length	l1	3615 mm	142 in
4.20	Length to face of forks	l2	2465 mm	97 in
4.21	Overall width	b1	1155 mm	45 in
4.21	Overall width - Single wheels	b1	1155 mm	45 in
4.22	Forks section / width / length	s / e / l	40 mm x 122 mm x 1150 mm	2 in x 5 in x 45 in
4.23	Fork carriage ISO 2328 (class/form) A/B		2A	2A
4.24	Fork carriage width	b3	1038 mm	41 in
4.31	Ground clearance below mast	m1	115 mm	5 in
4.32	Ground clearance at centre of wheelbase	m2	175 mm	7 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	3865 mm	152 in
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	4065 mm	160 in
4.35	Turning radius	Wa	2200 mm	87 in
4.36	Internal turning radius (over tyres)	b13	145 mm	6 in
Performances				
5.1	Travel speed (laden / unladen)		18 km/h-18.50 km/h	11 mph-11 mph
5.2	Lifting speed (laden / unladen)		0.47 m/s-0.55 m/s	2 ft/s-2 ft/s
5.3	Lowering speed (laden / unladen)		0.48 m/s-0.55 m/s	2 ft/s-2 ft/s
5.5	Drawbar pull (Laden / Unladen)		1690 daN / 1230 daN	1690 daN / 1230 daN
5.7	Gradeability (laden / unladen)		20 % / 20 %	20 % / 20 %
5.10	Service brake		Hydraulic	Hydraulic
	Transmission type		Torque converter	Torque converter
Engine				
7.1	Engine brand / model		Yanmar / 4TNV94L-BXPHZ	Yanmar / 4TNV94L-BXPHZ
7.2	I.C. Engine power rating		35 kW	35 kW
7.3	Rated speed		2400 rpm	2400 rpm
7.4	Number of cylinders / Capacity of cylinders		4 - 3054 cm³	4 - 186 in³
Miscellaneous				
8.2	Working hydraulic pressure for attachments		160 bar	2321 PSI
8.3	Oil flow rate for attachments		69 l/min	18 US gpm
8.4	Measured/guaranteed mean noise level at the ear of the operator		< 84 dB	< 84 dB
8.4	Sound level at the driver's ear according to DIN 12 053		84 dB	84 dB

MI 20 D - Dimensional drawing



Full Visibility Duplex (FVD)		FVD 33	FVD 37	FVD 40
α - Mast/fork carriage tilt, forward	°	6	6	6
β - Mast/fork carriage tilt, backward	°	12	12	12
h1 - Mast lowered height	in (mm)	86 (2185)	95.9 (2435)	103.7 (2635)
h2 - Mast free lift	in (mm)	5.5 (140)	5.5 (140)	5.5 (140)
h3 - Mast lifting height	in (mm)	129.9 (3300)	145.7 (3700)	157.5 (4000)
h4 - Mast extended height	in (mm)	155.9 (3960)	171.7 (4360)	183.5 (4660)
Residual capacity at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with integrated side shift at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)
Height at max capacity	in (mm)	145.7 (3700)	157.5 (4000)	129.9 (3300)
Height at max capacity with integrated sideshift	in (mm)	145.7 (3700)	157.5 (4000)	129.9 (3300)

Free Lift Duplex (FLD)		FLD 33	FLD 37	FLD 40
α - Mast/fork carriage tilt, forward	°	6	6	6
β - Mast/fork carriage tilt, backward	°	12	12	12
h1 - Mast lowered height	in (mm)	85 (2160)	92.9 (2360)	100.8 (2560)
h2 - Mast free lift	in (mm)	58.3 (1480)	66.1 (1680)	74 (1880)
h3 - Mast lifting height	in (mm)	129.9 (3300)	145.7 (3700)	157.5 (4000)
h4 - Mast extended height	in (mm)	156.7 (3980)	170.5 (4330)	184.3 (4680)
Residual capacity at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with integrated side shift at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)
Height at max capacity	in (mm)	129.9 (3300)	157.5 (4000)	98.4 (2500)
Height at max capacity with integrated sideshift	in (mm)	129.9 (3300)	157.5 (4000)	

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Head Office

B.P. 249 - 430 rue de l'Aubinière

44150 Ancenis Cedex - France

Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97

www.manitou.com



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