

Technical sheet :

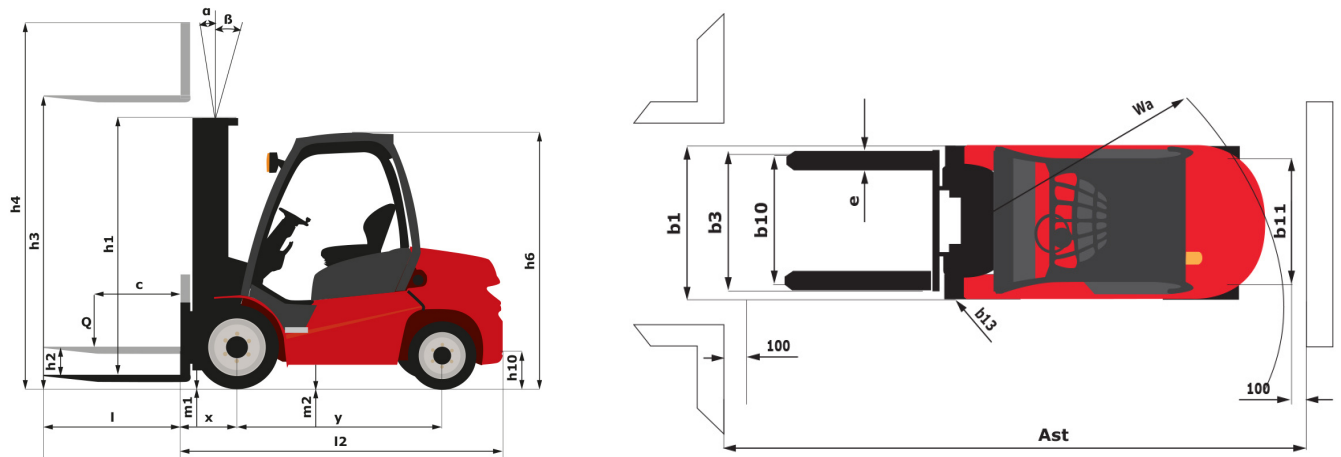
# **MI 20 D**

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	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		MI 20 D
1.3	Power source		Diesel
1.4	Operator type		Seated
1.5	Max. capacity	Q	2000 kg
1.6	Load centre of gravity	c	500 mm
1.8	Load distance, centre of drive axle to fork	x	465 mm
1.9	Wheelbase	y	1600 mm
	<b>Weight</b>		
2.1	Service weight		3725 kg
2.2	Weight on front axle (laden) / rear axle (laden)		5005 kg / 720 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1765 kg / 1960 kg
	<b>Wheels</b>		
3.1	Tyres type		PPS
3.2	Dimensions of front wheels		7.00-12 12
3.3	Dimensions of rear wheels		6.00-9 10
3.5	Number of front wheels / rear wheels		2 / 2
3.5.2	Number of drive wheels		2
3.6	Front wheel gauge	b10	965 mm
3.7	Rear wheel gauge	b11	973 mm
	<b>Dimensions</b>		
4.1	Tilt of Mast Forward (deg) / Backward (deg)	$\alpha / \beta$	6 / 12
4.7	Height of overhead guard (cabin)	h6	2115 mm
4.8	Seat height/stand height	h7	1190 mm
4.12	Height of towing bar (coupling height)	h10	355 mm
4.19	Overall length	l1	3615 mm
4.20	Length to face of forks	l2	2465 mm
4.21	Overall width	b1	1155 mm
4.22	Forks section / width / length	s / e / l	40 mm x 122 mm / 1150 mm
4.23	Fork carriage ISO 2328 (class/form) A/B		FEM 2A
4.24	Fork carriage width	b3	1038 mm
4.31	Ground clearance below mast	m1	115 mm
4.32	Ground clearance at centre of wheelbase	m2	175 mm
4.33	Aisle width for 1000 x 1200 pallet widthways	Ast	3865 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	4065 mm
4.35	Turning radius	Wa	2200 mm
4.36	Internal turning radius (over tyres)	b13	145 mm
	<b>Performances</b>		
5.1	Travel speed (laden / unladen)		18 km/h / 18.5 km/h
5.2	Lifting speed (laden / unladen)		0.47 m/s / 0.55 m/s
5.3	Lowering speed (laden / unladen)		0.48 m/s / 0.55 m/s
5.5	Drawbar pull (Laden / Unladen)		1690 daN / 1230 daN
5.7	Gradeability (laden / unladen)		20 % / 20 %
5.10	Service brake		Hydraulic
	<b>Engine</b>		
6.4	Battery		0 V
7.1	Engine brand / model / norm		Yanmar / 4TNV94L-BXPHZ / Stage III A
7.2	Engine power according to ISO 1585		35 kW
7.3	Rated speed		2400 rpm
7.4	Number of cylinders / Capacity of cylinders		4 - 3054 cm <sup>3</sup>
7.5	Fuel consumption according to VDI cycle		3.56 l/h
	<b>Miscellaneous</b>		
8.2	Working hydraulic pressure for attachments		160 Bar
8.3	Oil flow rate for attachments		69 l/min
8.4	Measured/guaranteed mean noise level at the ear of the operator		< 84 dB(A)

# Dimensional drawing



## Characteristics of masts and residual capacities

Full Visibility Duplex		FVD 33	FVD 37	FVD 40
h1 - Height mast lowered *	mm	2185	2435	2635
h2 - Free lift	mm	140	140	140
h3 - Lifting Height	mm	3300	3700	4000
h4 - Height mast extended *	mm	3960	4360	4660
$\alpha / \beta$ - Mast inclination (front / rear)	°	6 / 12	6 / 12	6 / 12
Height at max capacity	mm	3700	4000	3300
Height at max capacity with integrated sideshift	mm	3700	4000	3300
Residual capacity without attachment (Industrial load chart)	kg	2000	2000	2000
Residual capacity with integrated side shift (Industrial load chart)	kg	2000	2000	2000
Height at max capacity Fork positioner + DL	mm	3700	4000	3300

Free Lift Duplex		FLD 33	FLD 37	FLD 40
h1 - Height mast lowered *	mm	2160	2360	2560
h2 - Free lift	mm	1480	1680	1880
h3 - Lifting Height	mm	3300	3700	4000
h4 - Height mast extended *	mm	3980	4330	4680
$\alpha / \beta$ - Mast inclination (front / rear)	°	6 / 12	6 / 12	6 / 12
Height at max capacity	mm	3700	4000	
Height at max capacity with integrated sideshift	mm	3700	4000	
Residual capacity without attachment (Industrial load chart)	kg	2000	2000	2000
Residual capacity with integrated side shift (Industrial load chart)	kg	2000	2000	2000
Height at max capacity Fork positioner + DL	mm	3700	4000	

Free Lift Triplex		FLT 43	FLT 45	FLT 47	FLT 48	FLT 50	FLT 55	FLT 60	FLT 65
h1 - Height mast lowered *	mm	2100	2150	2200	2250	2300	2500	2750	2900
h2 - Free lift	mm	1400	1470	1520	1570	1620	1820	2070	2200
h3 - Lifting Height	mm	4300	4500	4700	4800	5000	5500	6000	6500
h4 - Height mast extended *	mm	5000	5230	5380	5480	5680	6180	6730	7200
$\alpha / \beta$ - Mast inclination (front / rear)	°	6 / 6	6 / 6	6 / 6	6 / 6	6 / 6	3 / 6	3 / 6	3 / 6
Residual capacity without attachment (Industrial load chart)	kg	1850	1800	1750	1750	1700	1300	900	800

Free Lift Triplex	FLT 43	FLT 45	FLT 47	FLT 48	FLT 50	FLT 55	FLT 60	FLT 65
Residual capacity with integrated side shift (Industrial load chart) kg	1750	1700	1650	1650	1600	1200	800	700



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