Technical sheet :

MI 50 D

MANITOU
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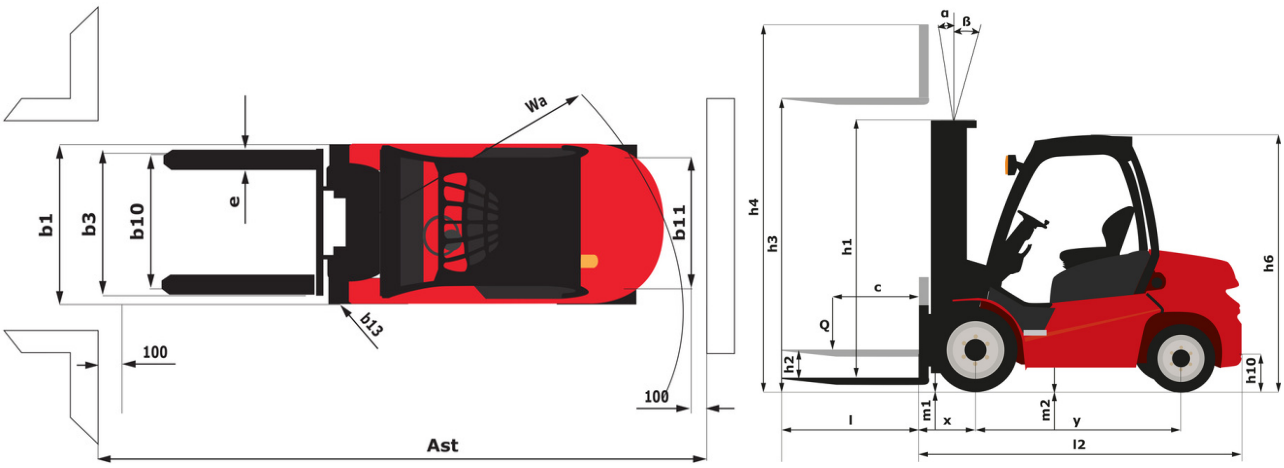
	Technical characteristics		Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		MI 50 D	MI 50 D
1.3	Power source		Diesel	Diesel
1.4	Operator type		Seated	Seated
1.5	Max. capacity	Q	5000 kg	11023 lb
1.6	Load center of gravity	c	500 mm	20 in
1.8	Load distance, centre of drive axle to fork	x	560 mm	22 in
1.9	Wheelbase	y	2150 mm	85 in
	Weight			
2.1	Service weight		6800 kg	14991 lb
2.2	Weight on front axle (laden) / rear axle (laden)		10450 kg / 1350 kg	23038 lb / 2976 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		3000 kg / 3800 kg	6614 lb / 8378 lb
	Wheels			
3.1	Tires type		Pneumatic	Pneumatic
3.2	Dimensions of front wheels		300-15-18PR	300-15-18PR
3.3	Dimensions of rear wheels		7.00-12-12PR	7.00-12-12PR
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	1190 mm	47 in
3.7	Rear wheel gauge	b11	1130 mm	44 in
	Dimensions			
4.7	Height of overhead guard (cabin)	h6	2390 mm	94 in
4.8	Seat height/stand height	h7	1370 mm	54 in
4.12	Height of towing bar (coupling height)	h10	445 mm	18 in
4.19	Overall length	l1	4475 mm	176 in
4.20	Length to face of forks	l2	3255 mm	128 in
4.21	Overall width	b1	1490 mm	59 in
4.21	Overall width - Single wheels	b1	1490 mm	59 in
4.22	Forks section / width / length	s / e / l	50 mm x 150 mm x 1220 mm	2 in x 6 in x 48 in
4.23	Fork carriage ISO 2328 (class/form) A/B		3A	3A
4.24	Fork carriage width	b3	1250 mm	49 in
4.31	Ground clearance below mast	m1	170 mm	7 in
4.32	Ground clearance at centre of wheelbase	m2	230 mm	9 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	4791 mm	189 in
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	4925 mm	194 in
4.35	Turning radius	Wa	2920 mm	115 in
4.36	Internal turning radius (over tyres)	b13	130 mm	5 in
	Performances			
5.1	Travel speed (laden / unladen)		22 km/h-24 km/h	14 mph-15 mph
5.2	Lifting speed (laden / unladen)		0.40 m/s-0.43 m/s	1 ft/s-1 ft/s
5.3	Lowering speed (laden / unladen)		0.50 m/s-0.50 m/s	2 ft/s-2 ft/s
5.5	Drawbar pull (Laden / Unladen)		4000 daN / 2100 daN	4000 daN / 2100 daN
5.7	Gradeability (laden / unladen)		31 % / 34 %	31 % / 34 %
5.10	Service brake		Hydraulic	Hydraulic
	Engine			
7.1	Engine brand / model		Cummins / QSF2.8T4F	Cummins / QSF2.8T4F
7.2	Engine power according to ISO 1585		55 kW	55 kW
7.3	Rated speed		2600 rpm	2600 rpm
7.4	Number of cylinders / Capacity of cylinders		4 - 2800 cm³	4 - 171 in³
	Miscellaneous			
8.2	Working hydraulic pressure for attachments		160 bar	2321 PSI
8.3	Oil flow rate for attachments		90 l/min	24 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 50 D - Dimensional drawing



Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 30	FVD 33	FVD 35	FVD 37	FVD 40	FVD 45	FVD 50
Mast/fork carriage tilt, forward	°	6	6	6	6	6	6	6
Mast/fork carriage tilt, backward	°	12	12	12	12	12	12	12
h1 - Mast lowered height	in (mm)	88.4 (2245)	94.3 (2395)	98.2 (2495)	102.2 (2595)	110 (2795)	120.9 (3070)	131.7 (3345)
h2 - Mast free lift	in (mm)	6.3 (160)	6.3 (160)	6.3 (160)	6.3 (160)	6.3 (160)	6.3 (160)	6.3 (160)
h3 - Mast lifting height	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)	157.5 (4000)	177.2 (4500)	196.9 (5000)
h4 - Mast extended height	in (mm)	171.9 (4365)	183.7 (4665)	191.5 (4865)	199.4 (5065)	211.2 (5365)	230.9 (5865)	250.6 (6365)
Residual capacity at max height	lb (kg)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)	10362 (4700)	9039 (4100)
Residual capacity with integrated side shift at max heigth	lb (kg)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)	10141 (4600)	8818 (4000)
Height at max capacity	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)	157.5 (4000)	157.5 (4000)	157.5 (4000)
Height at max capacity with integrated sideshift	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)	157.5 (4000)	157.5 (4000)	157.5 (4000)

Free Lift Duplex (FLD)		FLD 30	FLD 33	FLD 35	FLD 37
Mast/fork carriage tilt, forward	°	6	6	6	6
Mast/fork carriage tilt, backward	°	12	12	12	12
h1 - Mast lowered height	in (mm)	87.6 (2226)	93.5 (2376)	97.5 (2476)	101.4 (2576)
h2 - Mast free lift	in (mm)	53.7 (1364)	59.6 (1514)	63.5 (1614)	67.5 (1714)
h3 - Mast lifting height	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)
h4 - Mast extended height	in (mm)	171.9 (4365)	183.7 (4665)	191.5 (4865)	199.4 (5065)
Residual capacity at max height	lb (kg)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)
Residual capacity with integrated side shift at max heigth	lb (kg)	11023 (5000)	11023 (5000)	11023 (5000)	11023 (5000)
Height at max capacity	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)
Height at max capacity with integrated sideshift	in (mm)	118.1 (3000)	129.9 (3300)	137.8 (3500)	145.7 (3700)

Free Lift Triplex (FLT)		FLT 40	FLT 43	FLT 45	FLT 47	FLT 50	FLT 55	FLT 60
Mast/fork carriage tilt, forward	°	6	6	6	6	6	3	3
Mast/fork carriage tilt, backward	°	12	6	6	6	6	6	6
h1 - Mast lowered height	in (mm)	81.9 (2080)	85.8 (2180)	88.5 (2248)	90.9 (2310)	94.9 (2410)	101.4 (2575)	109.8 (2790)
h2 - Mast free lift	in (mm)	48.1 (1222)	52 (1322)	54.7 (1390)	57.2 (1452)	61.1 (1552)	67.6 (1718)	76.1 (1932)
h3 - Mast lifting height	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	185 (4700)	196.9 (5000)	216.5 (5500)	236.2 (6000)
h4 - Mast extended height	in (mm)	211.2 (5365)	223 (5665)	231.5 (5880)	239 (6070)	250.8 (6370)	270.5 (6870)	290.6 (7380)
Residual capacity at max height	lb (kg)	10692 (4850)	10362 (4700)	10141 (4600)	9480 (4300)	8598 (3900)	7496 (3400)	5952 (2700)
Residual capacity with integrated side shift at max heigth	lb (kg)	10472 (4750)	10141 (4600)	9921 (4500)	9259 (4200)	8378 (3800)	7275 (3300)	5732 (2600)
Height at max capacity	in (mm)	98.4 (2500)	98.4 (2500)	98.4 (2500)	98.4 (2500)	98.4 (2500)	98.4 (2500)	98.4 (2500)

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