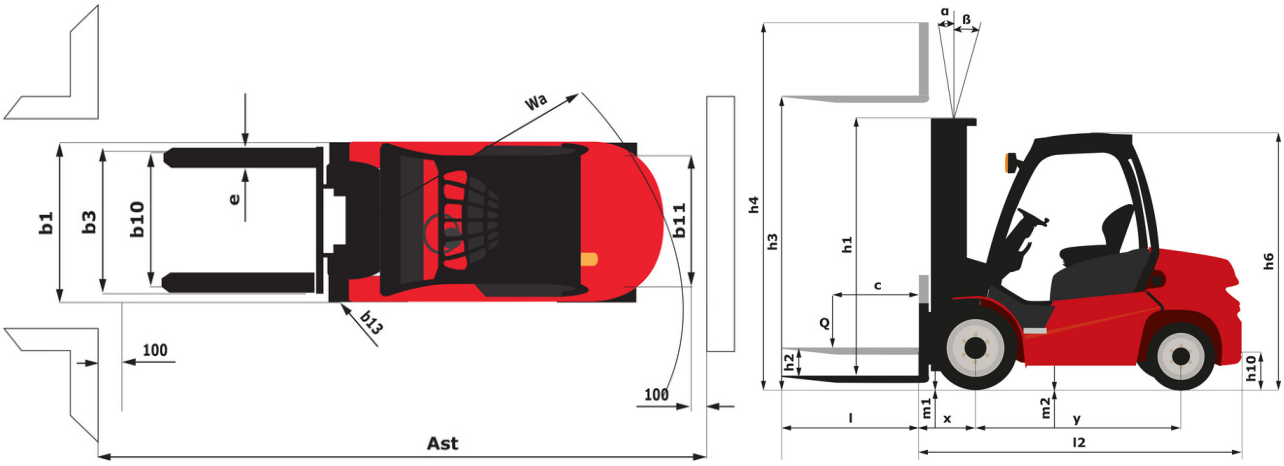
Technical sheet :

MI 45 D ST5

MANITOU
HANDLING YOUR WORLD

	Technical characteristics		Metric
1.1	Manufacturer		MANITOU
1.2	Model Name		MI 45 D ST5
1.3	Power source		Diesel
1.4	Operator type		Seated
1.5	Max. capacity	Q	4500 kg
1.6	Load center of gravity	c	500 mm
1.8	Load distance, centre of drive axle to fork	x	550 mm
1.9	Wheelbase	y	2000 mm
	Weight		
2.1	Service weight		6630 kg
2.2	Weight on front axle (laden) / rear axle (laden)		9850 kg / 1280 kg
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		3000 kg / 3630 kg
	Wheels		
3.1	Tires type		Solid tires
3.2	Dimensions of front wheels		300-15 18PR
3.3	Dimensions of rear wheels		7.00-12 12PR
3.5	Number of front wheels / rear wheels		2 / 2
3.5.2	Number of drive wheels		2
3.6	Front wheel gauge	b10	1190 mm
3.7	Rear wheel gauge	b11	1130 mm
	Dimensions		
4.7	Height of overhead guard (cabin)	h6	2390 mm
4.8	Seat height/stand height	h7	1370 mm
4.12	Height of towing bar (coupling height)	h10	445 mm
4.19	Overall length	l1	4315 mm
4.20	Length to face of forks	l2	3095 mm
4.21	Overall width	b1	1490 mm
4.21	Overall width - Single wheels	b1	1490 mm
4.21	Overall width - Twinned wheels	b1	1940 mm
4.22	Forks section / width / length	s / e / l	50 mm x 150 mm x 1220 mm
4.23	Fork carriage ISO 2328 (class/form) A/B		3A
4.24	Fork carriage width	b3	1250 mm
4.31	Ground clearance below mast	m1	170 mm
4.32	Ground clearance at centre of wheelbase	m2	230 mm
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	4550 mm
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	4350 mm
4.35	Turning radius	Wa	2800 mm
4.36	Internal turning radius (over tyres)	b13	100 mm
	Performances		
5.1	Travel speed (laden / unladen)		13 km/h-23 km/h
5.2	Lifting speed (laden / unladen)		0.49 m/s-0.52 m/s
5.3	Lowering speed (laden / unladen)		0.50 m/s-0.50 m/s
5.5	Drawbar pull (Laden / Unladen)		3800 daN / 2000 daN
5.7	Gradeability (laden / unladen)		20 % / 20 %
5.10	Service brake		Hydraulic
	Engine		
7.1	Engine brand / model / norm		Deutz / TCD2.9L4 / Stage V
7.2	Engine power (Hp / kW)		75 Hp/55.40 kW
7.3	Rated speed		2200 rpm
7.4	Number of cylinders / Capacity of cylinders		4 - 2920 cm³
	Miscellaneous		
8.2	Working hydraulic pressure for attachments		190 bar
8.3	Oil flow rate for attachments		90 l/min
8.4	Measured/guaranteed mean noise level at the ear of the operator		< 89 dB

MI 45 D ST5 - 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
α - Mast/fork carriage tilt, forward	°	6	6	6	6	6	6	6
β - Mast/fork carriage tilt, backward	°	12	12	12	12	12	12	12
h1 - Mast lowered height	mm	2245	2395	2495	2595	2795	3070	3345
h2 - Mast free lift	mm	160	160	160	160	160	160	160
h3 - Mast lifting height	mm	3000	3300	3500	3700	4000	4500	5000
h4 - Mast extended height	mm	4170	4470	4670	4870	5170	5670	6170
Residual capacity at max height	kg	4500	4500	4500	4500	4500	4100	3700
Residual capacity with integrated side shift at max heigth	kg	4500	4500	4500	4500	4500	4100	3600
Height at max capacity	mm	3000	3300	3500	3700	4000	4000	4000
Height at max capacity with integrated sideshift	mm	3000	3300	3500	3700	4000	4000	4000

Free Lift Duplex (FLD)		FLD 30	FLD 33	FLD 35	FLD 37
α - Mast/fork carriage tilt, forward	°	6	6	6	6
β - Mast/fork carriage tilt, backward	°	12	12	12	12
h1 - Mast lowered height	mm	2226	2376	2476	2576
h2 - Mast free lift	mm	1364	1514	1614	1714
h3 - Mast lifting height	mm	3000	3300	3500	3700
h4 - Mast extended height	mm	4170	4470	4670	4870
Residual capacity at max height	kg	4500	4500	4500	4500
Residual capacity with integrated side shift at max heigth	kg	3000	4500	4500	4500
Residual capacity with hooked-on side shift at max heigth	kg	4500			
Height at max capacity	mm	3000	3300	3500	3700
Height at max capacity with integrated sideshift	mm		3300	3500	3700

Free Lift Triplex (FLT)		FLT 40	FLT 43	FLT 45	FLT 47	FLT 50	FLT 55	FLT 60
α - Mast/fork carriage tilt, forward	°	6	6	6	6	6	3	3
β - Mast/fork carriage tilt, backward	°	12	6	6	6	6	6	6
h1 - Mast lowered height	mm	2080	2180	2248	2310	2410	2575	2790
h2 - Mast free lift	mm	1229	1329	1395	1459	1559	1724	1939
h3 - Mast lifting height	mm	4000	4300	4500	4700	5000	5500	6000
h4 - Mast extended height	mm	5170	5470	5685	5870	6170	6670	7180
Residual capacity at max height	kg	4500	4300	4100	3900	3600	3100	2500
Residual capacity with integrated side shift at max heigth	kg	4350	4200	4000	3800	3500	3000	2400
Height at max capacity	mm	2500	2500	2500	2500	2500	2500	2500

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