Technical sheet :

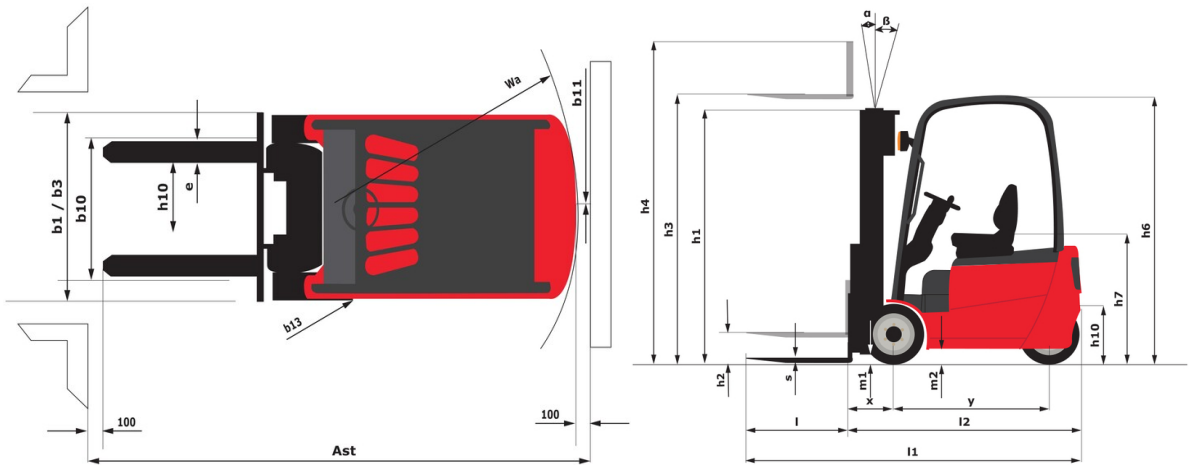
ME 420



MANITOU
HANDLING YOUR WORLD

	Technical characteristics		Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		ME 420	ME 420
1.3	Power source		Electrical	Electrical
1.4	Operator type		Sitting	Sitting
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	448 mm	18 in
1.9	Wheelbase	y	1485 mm	58 in
	Weight			
2.1	Service weight		4000 kg	8818 lb
2.2	Weight on front axle (laden) / rear axle (laden)		5360 kg / 640 kg	11817 lb / 1411 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1910 kg / 2090 kg	4211 lb / 4608 lb
	Wheels			
3.1	Tires type		PPS	PPS
3.2	Dimensions of front wheels		23 x 9-10	23 x 9-10
3.3	Dimensions of rear wheels		18 x 7-8	18 x 7-8
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	1058 mm	42 in
3.7	Rear wheel gauge	b11	960 mm	38 in
	Dimensions			
4.7	Height of overhead guard (cabin)	h6	2155 mm	85 in
4.8	Seat height/stand height	h7	1070 mm	42 in
4.12	Height of towing bar (coupling height)	h10	303 mm	12 in
4.19	Overall length	l1	3492 mm	137 in
4.20	Length to face of forks	l2	2342 mm	92 in
4.21	Overall width	b1	1265 mm	50 in
4.22	Forks section / width / length	s / e / l	122 mm x 1150 mm x 40 mm	5 in x 45 in x 2 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	112 mm	4 in
4.32	Ground clearance at centre of wheelbase	m2	120 mm	5 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	3738 mm	147 in
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	3938 mm	155 in
4.35	Turning radius	Wa	2090 mm	82 in
4.36	Internal turning radius (over tyres)	b13	730 mm	29 in
	Performances			
5.1	Travel speed (laden / unladen)		14 km/h-14 km/h	9 mph-9 mph
5.2	Lifting speed (laden / unladen)		0.28 m/s-0.40 m/s	0.92 ft/s-1 ft/s
5.3	Lowering speed (laden / unladen)		0.42 m/s-0.29 m/s	1 ft/s-0.95 ft/s
5.5	Drawbar pull (Laden / Unladen)		1400 daN / 1250 daN	1400 daN / 1250 daN
5.7	Gradeability (laden / unladen)		11 % / 12 %	11 % / 12 %
5.10	Service brake		Hydraulic	Hydraulic
	Engine			
6.1	Drive motor rating S2 60 min		11 kW	11 kW
6.2	Lift motor rating at S3 15%		8.60 kW	8.60 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		DIN43531 B	DIN43531 B
6.4	Battery voltage / capacity		48 V / 700 Ah	48 V / 700 Ah
6.6	Energy consumption		5 kWh	5 kWh
	Miscellaneous			
8.1	Type of drive control		Electronic	Electronic
8.2	Working hydraulic pressure for attachments		175 bar	2538 PSI
8.3	Oil flow rate for attachments		35 l/min	9 US gpm
8.4	Measured/guaranteed mean noise level at the ear of the operator		< 71 dB	< 71 dB
8.4	Sound level at the driver's ear according to DIN 12 053		71 dB	71 dB

ME 420 - Dimensional drawing



Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 27	FVD 30	FVD 33	FVD 36	FVD 40	FVD 43	FVD 45
Mast/fork carriage tilt, forward	°	5	5	5	5	5	5	5
Mast/fork carriage tilt, backward	°	6	10	10	10	10	6	6
h1 - Mast lowered height	in (mm)	73 (1855)	78.9 (2005)	85.4 (2170)	90.7 (2305)	100.6 (2555)	107.5 (2730)	111.4 (2830)
h2 - Mast free lift	in (mm)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)	5.5 (140)
h3 - Mast lifting height	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)
h4 - Mast extended height	in (mm)	131.9 (3350)	143.7 (3650)	156.7 (3980)	167.3 (4250)	183.1 (4650)	195.7 (4970)	202.8 (5150)
Residual capacity at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with integrated side shift at max heigth	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with hooked-on side shift at max heigth	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4299 (1950)	4189 (1900)
Height at max capacity	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)
Height at max capacity with integrated sideshift	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)

Free Lift Duplex (FLD)		FLD 27	FLD 30	FLD 33	FLD 36	FLD 40
Mast/fork carriage tilt, forward	°	5	5	5	5	5
Mast/fork carriage tilt, backward	°	6	10	10	10	10
h1 - Mast lowered height	in (mm)	73.5 (1866)	78 (1980)	83.9 (2130)	89.8 (2280)	99.6 (2530)
h2 - Mast free lift	in (mm)	49.2 (1250)	53.1 (1350)	59.1 (1500)	65 (1650)	74.8 (1900)
h3 - Mast lifting height	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)
h4 - Mast extended height	in (mm)	132.7 (3370)	143.1 (3635)	156.3 (3970)	168.1 (4270)	182.5 (4635)
Residual capacity at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with integrated side shift at max heigth	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with hooked-on side shift at max heigth	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Height at max capacity	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)
Height at max capacity with integrated sideshift	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)

Free Lift Triplex (FLT)		FLT 40	FLT 43	FLT 45	FLT 48	FLT 50	FLT 55	FLT 60	FLT 65
Mast/fork carriage tilt, forward	°	5	5	5	5	5	3	3	3
Mast/fork carriage tilt, backward	°	6	6	6	6	6	6	6	6
h1 - Mast lowered height	in (mm)	75.8 (1925)	79.7 (2025)	82.5 (2095)	86.4 (2195)	89 (2260)	95.5 (2425)	104.1 (2645)	111 (2820)
h2 - Mast free lift	in (mm)	49.4 (1255)	53.3 (1355)	56.1 (1425)	60 (1525)	62.6 (1590)	69.1 (1755)	77.8 (1975)	84.6 (2150)
h3 - Mast lifting height	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	189 (4800)	196.9 (5000)	216.5 (5500)	236.2 (6000)	255.9 (6500)
h4 - Mast extended height	in (mm)	184.3 (4680)	196.1 (4980)	205.9 (5230)	215.7 (5480)	223.6 (5680)	203.9 (5180)	263.4 (6690)	282.7 (7180)
Residual capacity at max height	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4299 (1950)	4079 (1850)	3968 (1800)	3638 (1650)	3417 (1550)
Residual capacity with integrated side shift at max heigth	lb (kg)	4409 (2000)	4409 (2000)	4299 (1950)	4189 (1900)	3968 (1800)	3858 (1750)	3527 (1600)	3307 (1500)
Residual capacity with hooked-on side shift at max heigth	lb (kg)	4189 (1900)	4189 (1900)	4079 (1850)	3968 (1800)	3748 (1700)	3638 (1650)	3307 (1500)	3086 (1400)
Height at max capacity	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	157.5 (4000)	157.5 (4000)	157.5 (4000)	157.5 (4000)	157.5 (4000)
Height at max capacity with integrated sideshift	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	157.5 (4000)	157.5 (4000)	157.5 (4000)	157.5 (4000)	157.5 (4000)

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