

Technical sheet :

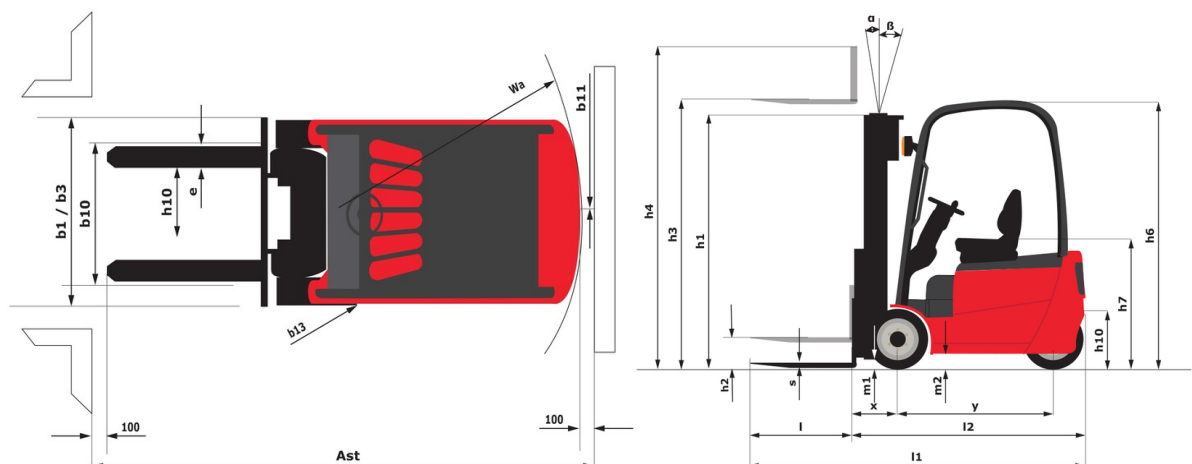
ME 420



 **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		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	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		Solid tires		Solid tires
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 heigh	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 heigh	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 heigh	lb (kg)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)	4409 (2000)
Residual capacity with hooked-on side shift at max heigh	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 heigh	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 heigh	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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