

Technical sheet :

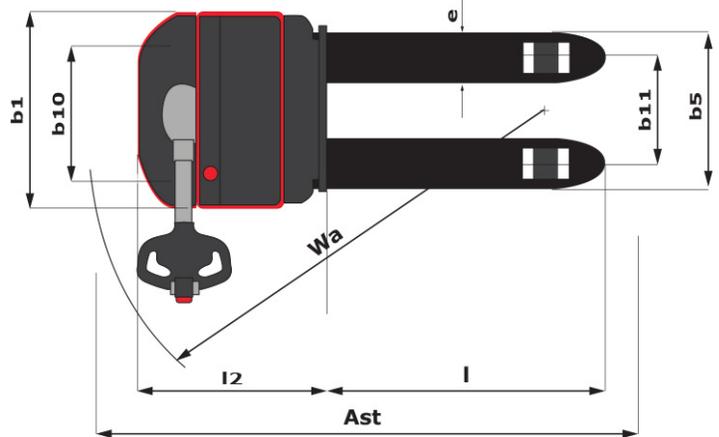
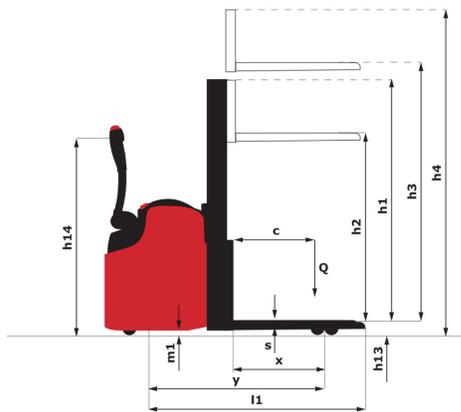
ES 414



Technical characteristics			Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		ES 414	ES 414
1.3	Power source		Battery	Battery
1.4	Operator type		Pedestrian	Pedestrian
1.5	Max. capacity	Q	1400 kg	3086 lbs
1.6	Load centre of gravity	c	600 mm	23.622 in
1.8	Distance from Load backrest to center of rear axle	x	723 mm	28.465 in
1.9	Wheelbase	y	1285 mm	50.591 in
Weight				
2.1	Service Weight		911 kg	2008 lbs
2.2	Weight on front axle (laden) / rear axle (laden)		808 kg / 1505 kg	1781 lbs / 3318 lbs
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		638 kg / 273 kg	1407 lbs / 602 lbs
Wheels				
3.1	Tyres type		Polyurethane	Polyurethane
3.2	Number of drive wheels / Size of drive wheels		1x230x75	1x230x75
3.3	Number of load wheels / Size of load wheels		2 / 82x70	2 / 82x70
3.4	Number of castor wheels		1	1
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 125x50	2 / 125x50
3.5	Number of front wheels / rear wheels		2 / 2	2 / 2
3.6	Front wheel gauge	b10	517 mm	20.354 in
3.7	Rear wheel gauge	b11	380 mm	14.961 in
Dimensions				
4.2	Height mast Lowered	h1	1940 mm	76.378 in
4.4	Lifting Height	h3	2940 mm	115.748 in
4.5	Height mast extended	h4	3365 mm	132.48 in
4.9	Height tiller up max.	h14	1050 mm	41.339 in
4.15	Fork height in low position	h13	85 mm	3.346 in
4.19	Overall length	l1	1870 mm	73.622 in
4.20	Length to face of forks	l2	720 mm	28.346 in
4.21	Overall width	b1	800 mm	31.496 in
4.22	Forks section / width / length	s / e / l	60 mm / 180 mm / 1150 mm	2.362 in / 7.087 in / 45.276 in
4.24	Fork carriage width	b3	680 mm	26.772 in
4.31	Ground clearance below mast	m1	35 mm	1.378 in
4.32	Ground clearance at centre of wheelbase	m2	20 mm	0.787 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2200 mm	86.614 in
4.34	Aisle Width for pallets 800 x 1200 crossways	Ast	2287 mm	90.039 in
4.35	Turning radius	Wa	1400 mm	55.118 in
Performances				
5.1	Travel speed (laden / unladen)		6 km/h / 6 km/h	3.7 mph / 3.7 mph
5.2	Lifting speed (laden / unladen)		0.1 m/s / 0.24 m/s	0.33 ft/s / 0.79 ft/s
5.3	Lowering speed (laden / unladen)		0.3 m/s / 0.2 m/s	0.98 ft/s / 0.66 ft/s
5.8	Max Gradeability (laden / unladen)		8 % / 10 %	8 % / 10 %
5.9	Service brake		Electro magnetic	Electro magnetic
Engine				

	Engine			
6.1	Drive motor rating S2 60 min		1.2 kW	1.2 kW
6.2	Lift motor rating at S3 15%		3 kW	3 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		DIN 43535-B	DIN 43535-B
6.4	Battery / Batteries capacity		24 V / 250 Ah	24 V / 250 Ah
6.5	Battery weight (+/- 5%)		213 kg	470 lbs
	Miscellaneous			
8.1	Type of drive control		AC	AC
8.4	Sound level at the driver's ear according to DIN 12 053		65 dB(A)	65 dB(A)

Dimensional drawing



Characteristics of masts and residual capacities

Full Visibility Duplex		FVD 29	FVD 34	FVD 38
h3 - Mast lifting height	mm	2940	3440	3840
h1 - Mast height lowered	mm	1940	2190	2390
h4 - Mast height extended	mm	3365	3865	4265
Residual capacity at max height	kg	1200	900	800
Height at max capacity	mm	2700000	2700000	2700

Free Lift Duplex		FLD 29	FLD 34
h3 - Mast lifting height	mm	2935	3435
h2 - Mast free lift	mm	1510	1760
h1 - Mast height lowered	mm	1940	2190
h4 - Mast height extended	mm	3365	3865
Residual capacity at max height	kg	1200	900
Height at max capacity	mm	2700	2700

Free Lift Triplex		FLT 42
h3 - Mast lifting height	mm	4240
h2 - Mast free lift	mm	1470
h1 - Mast height lowered	mm	1960
h4 - Mast height extended	mm	4730
Residual capacity at max height	kg	650
Height at max capacity	mm	2700



Siège Social

430 rue de l'Aubinière - 44150 Ancenis Cedex - France

Tel: +33(0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97

www.manitou.com



This brochure describes versions and configuration options for Manitou products which may be fitted with different equipment. The equipment described in this brochure may be standard, optional or not available depending on version. Manitou reserves the right to change the specifications shown and described at any time and without prior warning. The manufacturer is not liable for the specifications given. For more information, contact your Manitou dealer. Non-contractual document. Product descriptions may differ from actual products. List of specifications is not comprehensive. The logos and visual identity of the company are the property of Manitou and may not be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are provided for information only.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,668,399 euros - 857 802 508
RCS Nantes