Technical sheet:

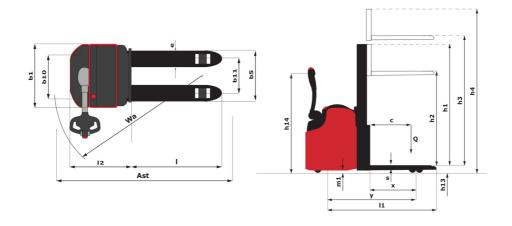
ES 614





Technical characteristics				ES 614 Createu on	Aprii 26, 2024 at 1.37.00 Aivi i
1.2 Model Name	Technic	cal characteristics		Metric	Imperial
1.3 Power source	1.1 Manufac	cturer		Manitou	Manitou
1.4 Operator type	1.2 Model N	Name		ES 614	ES 614
1.5	1.3 Power so	ource		Electrical	Electrical
Load center of gravity	1.4 Operator	r type		Pedestrian	Pedestrian
1.8	1.5 Max. ca	apacity	Q	1400 kg	3086 lb
1.9 Wheelbase y 1250 mm 49 in	1.6 Load ce	enter of gravity	С	600 mm	24 in
Melght Service weight 1092 kg 2407 lb	1.8 Distance	e from Load backrest to center of rear axle	X	687 mm	27 in
2.1 Service weight	1.9 Wheelba	ase	у	1250 mm	49 in
2.1 Service weight	Weight				
Weight on front axie (Unladen) / rear axie (Unladen) 851 kg / 240 kg 1876 lb / 529 lb	2.1 Service	weight		1092 kg	2407 lb
Weight on front axie (Unladen) / rear axie (Unladen) 851 kg / 240 kg 1876 lb / 529 lb	2.2 Weight of	on front axle (laden) / rear axle (laden)		1037 kg / 1453 kg	2286 lb / 3203 lb
Number of load wheels / Size of load wheels Size of load wheels / Size of load wheels Size of load wheels / Size of the stabilizer wheels Size of three stabilizer wheels Size of three stabilizer wheels Size of three stabilizer wheels Size of drive wheels / Size of drive wheels Size of drive wheels of Size of Size of Size of Size of Size	2.3 Weight of	on front axle (Unladen) / rear axle (Unladen)			1876 lb / 529 lb
3.1 Tires type Bandage Bandage 3.3 Number of load wheels / Size of load wheels 2 / 82x68 2 / 82x68 3.4 Number of stabilizer wheels / Size of the stabilizer wheels 1 / 140x60 1 / 140x60 3.5 Number of firort wheels / Size of drive wheels 2 / 4 2 / 4 3.5 Number of drive wheels / Size of drive wheels 1 / 230x70 1 / 230x70 3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length i1 1910 mm 75 in 4.20 Length to face of forks i2 76 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Forks section / width / length s / e/1 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.22 Fork carriage width b3 700 mm 2 in / 7 in / 45 in 4.24 Fork carriage width for palle	Wheels				
3.3 Number of load wheels / Size of load wheels 2 / 82x68 2 / 82x68 3.4 Number of stabilizer wheels / Size of the stabilizer wheels 1 / 140x60 1 / 140x60 3.5 Number of front wheels / Fize of drive wheels 2 / 4 2 / 4 3.5 Number of front wheels / Size of drive wheels 1 / 230x70 1 / 230x70 3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length 11 1910 mm 75 in 4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Fork section / width / length s / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 9 in				Bandage	Bandage
3.4 Number of stabilizer wheels / Izer wheels 1 / 140x60 1 / 140x60 3.5 Number of front wheels / Izer wheels 2 / 4 2 / 4 3.5.2 Number of drive wheels / Size of drive wheels 1 / 120x70 1/230x70 3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in Dimensions 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length 11 1910 mm 75 in 4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Forks section / width / length 5 / 2 / 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width 5 / 2 / 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.23 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for ablets 1000 x 1200 crossways A					
3.5 Number of front wheels / Foar wheels 2 / 4 2 / 4 3.5.2 Number of drive wheels / Size of drive wheels 1/230x70 1/230x70 3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in Unmensions 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length l1 1910 mm 75 in 4.20 Length to face of forks l2 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Fork section / width / length s / e1 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.22 Fork camiage width b3 700 mm 28 in 4.23 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.24 Aisle Width for gallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. 114 / h14 750 mm / 1250 mm					
3.5.2 Number of drive wheels / Size of drive wheels 1/230x70 1/230x70 3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in United Signals 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length I1 1910 mm 75 in 4.20 Length to face of forks I2 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Fork section / width / length s / e / I 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 28 in 4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 66 in 4.35 Turning radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 </td <td></td> <td></td> <td></td> <td></td> <td></td>					
3.6 Front wheel gauge b10 529 mm 21 in 3.7 Rear wheel gauge b11 380 mm 15 in Uninersions 4.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length 11 1910 mm 75 in 4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Fork section / width / length 5 / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width 5 / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. Max 1588 mm 63 in 5.1					
Sear wheel gauge			h10		
Dimensions Hard Hard Hard Hard Hard Hard Hard Hard					
A.15 Fork height in low position h13 85 mm 3 in 4.19 Overall length 11 1910 mm 75 in 4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Forks section / width / length 5 / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 28 in 4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in 4.35 Turning radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Forformances			511	333 Hilli	10 111
4.19 Overall length 11 1910 mm 75 in 4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Forks section / width / length \$ / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 28 in 4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 A isle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 A isle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.72 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max			h13	85 mm	3 in
4.20 Length to face of forks 12 761 mm 30 in 4.21 Overall width b1 800 mm 31 in 4.22 Forks section / width / length \$ / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in 4.24 Fork carriage width b3 700 mm 28 in 4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 % <td></td> <td></td> <td></td> <td></td> <td></td>					
A 21 Overall width b1 800 mm 31 in A 22 Forks section / width / length s / e / l 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in A 24 Fork carriage width b3 700 mm 28 in A 25 Ground clearance at centre of wheelbase m2 30 mm 1 in A 26 A 26 A 27 A 28 A 28 A 2464 mm 97 in A 27 A 28 A 28 A 2438 mm 96 in A 28 A 2438 mm 96 in A 29 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in A 27 A 28 A 39 A 30 A 49 in A 28 A 30 A 49 A 49 A 49 A 49 A 49 A 29 A 29 A 49 A 49 A 49 A 49 A 49 A 49 A 29 A 49 A 49 A 49 A 49 A 49 A 49 A 29 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 49 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 50 A 60 A 70 A 70 A 70 A 70 A 70		<u> </u>			
Forks section / width / length S / e / I 60 mm / 185 mm / 1150 mm 2 in / 7 in / 45 in	3				
A24 Fork carriage width b3 700 mm 28 in A32 Ground clearance at centre of wheelbase m2 30 mm 1 in A33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in A34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in A35 Tuming radius Wa 1588 mm 63 in A4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances					
4.32 Ground clearance at centre of wheelbase m2 30 mm 1 in 4.33 Aisle Width for pallets 1000 x 1200 crossways Ast 2464 mm 97 in 4.34 Aisle width for 800 x 1200 pallet lengthways Ast 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %		•			
4.33 A is le Width for pallets 1000 x 1200 crossways A st 2464 mm 97 in 4.34 A is le width for 800 x 1200 pallet lengthways A st 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %		•			
4.34 A is le width for 800 x 1200 pallet lengthways A st 2438 mm 96 in 4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %					
4.35 Tuming radius Wa 1588 mm 63 in 4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %					
4.9 Height tiller min. / max. h14 / h14 750 mm / 1250 mm 30 in / 49 in Performances 5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %		, , ,			
Height tiller min. / max.	1.35 Tulling	Taulus		1588 11111	03 111
5.1 Travel speed (laden / unladen) 6 km/h / 6 km/h 4 mph / 4 mph 5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %	4.9 Height ti	iller min. / max.		750 mm / 1250 mm	30 in / 49 in
5.2 Lifting speed (laden / unladen) 0.18 m/s / 0.30 m/s 0.59 ft/s / 0.98 ft/s 5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %	Performa	ances			
5.3 Lowering speed (laden / unladen) 0.27 m/s / 0.22 m/s 0.89 ft/s / 0.72 ft/s 5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %	5.1 Travel s	peed (laden / unladen)		6 km/h / 6 km/h	4 mph / 4 mph
5.8 Max Gradeability (laden / unladen) 7 % / 10 % 7 % / 10 %	5.2 Lifting s	speed (laden / unladen)		0.18 m/s / 0.30 m/s	0.59 ft/s / 0.98 ft/s
	5.3 Lowering	g speed (laden / unladen)		0.27 m/s / 0.22 m/s	0.89 ft/s / 0.72 ft/s
5.10 Service brake Electro magnetic Electro magnetic	5.8 Max Gra	adeability (laden / unladen)		7 % / 10 %	7 % / 10 %
·	5.10 Service I	brake		Electro magnetic	Electro magnetic
Engine	Engine				
6.1 Drive motor rating \$2.60 min 1.50 kW 1.50 kW	6.1 Drive mc	otor rating S2 60 min		1.50 kW	1.50 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 voltage / capacity 24 V / 180 Ah 24 V / 180 Ah	,	•			
6.5 Battery weight (+/- 5%) 189 kg 417 lb					
Miscellaneous		- , ,		.05 kg	
8.1 Type of drive control AC AC				A.C.	Δ.
8.4 Sound level at the driver's ear according to DIN 12 053 65 dB 65 dB					

ES 614 - Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	in (mm)	76 (1930)	85.8 (2180)
h2 - Mast free lift	in (mm)	59.3 (1505)	69.1 (1755)
h3 - Mast lifting height	in (mm)	59.3 (1505)	69.1 (1755)
h4 - Mast extended height	in (mm)	76.5 (1944)	86.4 (2194)
Residual capacity at max height	lb (kg)	3086 (1400)	3086 (1400)

Full Visibility Duplex (FVD)		FVD 29	FVD 34	FVD 38
h1 - Mast lowered height	in (mm)	76 (1930)	85.8 (2180)	93.7 (2380)
h3 - Mast lifting height	in (mm)	115.6 (2935)	135.2 (3435)	151 (3835)
h4 - Mast extended height	in (mm)	132.8 (3374)	152.5 (3874)	168.3 (4274)
Residual capacity at max height	lb (kg)	2976 (1350)	2425 (1100)	1984 (900)

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	in (mm)	76 (1930)	85.8 (2180)
h2 - Mast free lift	in (mm)	59.3 (1505)	69.1 (1755)
h3 - Mast lifting height	in (mm)	115.4 (2930)	135 (3430)
h4 - Mast extended height	in (mm)	132.6 (3369)	152.3 (3869)
Residual capacity at max height	lb (kg)	2976 (1350)	2425 (1100)

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	in (mm)	74.4 (1889)	80.7 (2049)	90.6 (2300)
h2 - Mast free lift	in (mm)	57.7 (1465)	64 (1625)	73.8 (1875)
h3 - Mast lifting height	in (mm)	167.1 (4245)	186 (4725)	214.8 (5455)
h4 - Mast extended height	in (mm)	185.1 (4701)	204 (5181)	231.5 (5880)
Residual capacity at max height	lb (kg)	1543 (700)	1213 (550)	1102 (500)





Head Office

B.P. 249 - 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 publication provides a description of the configuration versions and options for Manitou products, which may differ for equipment. The equipment presented in this brochure may be part of a series, as an option, or it may not be available, depending on the versions. Manitou reserves the right, at any time and without notice, to amend the specifications described and represented. The specifications provided do not bind the manufacturer. For more details, please contact your Manitou agent. This is not a contractually binding document. The presentation of the products is not contractually binding. List of specifications non-exhaustive. The logos as well as the visual identity of the company are owned by Manitou and cannot be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are only provided for consultation and information purposes.

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