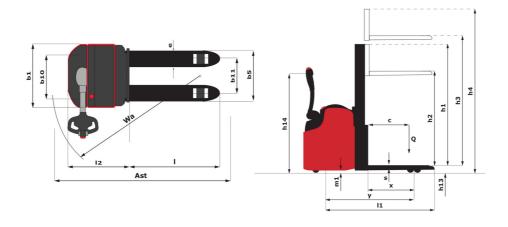
Technical sheet:

## ES 820 LI



1.2       Model Name       ES 820 LI         1.3       Power source       Electrical         1.4       Operator type       Pedestrian         1.5       Max. capacity       Q       2000 kg         1.51       Nominal capacity on wrapover forks       Q       2000 kg         1.6       Load center of gravity       c       600 mm         1.8       Distance from Load backrest to center of rear axle       x       674 mm         1.9       Wheelbase       y       1467 mm         Weight         2.1       Service weight       1800 kg         2.2       Weight on front axle (laden) / rear axle (laden)       1360 kg / 2500 kg			ES 820 Li Olcatet	1 On 21 Ocptember 2024 at 01.00.17
Model Name		Technical characteristics		Metric
Recircial   Reci	1.1	Manufacturer		Manitou
	1.2	Model Name		ES 820 LI
Max. capacity	1.3	Power source		Electrical
	1.4	Operator type		Pedestrian
Load center of gravity   Carlo	1.5	Max. capacity	Q	2000 kg
1.8   Distance from Load backrest to center of rear axle	1.51	Nominal capacity on wrapover forks	Q	2000 kg
Wheelbase   Y   1467 mm   Weight   Weight   Weight   Weight   Weight   Weight   Weight   Weight   Weight on front sale (Isden) / rear sale (Unladen)   1300 kg   1300 kg   2300 kg   1250 kg / 550 kg   Wheels   Wheels   Weight on front sale (Unladen) / rear sale (Unladen)   Wheels   Weight on front sale (Unladen) / rear sale (Unladen)   Wheels   Weight on front sale (Unladen) / rear sale (Unladen)   Wheels   Weight on front sale (Unladen) / rear sale (Unladen)   Wheels   Weight on front sale (Unladen) / rear sale (Unladen)   Weight on front sale (Unladen)	1.6	Load center of gravity	С	600 mm
Weight   Service weight   1800 kg   1300 kg   22   Weight on front axle (laden) / rear axle (Unladen)   1300 kg / 2500 kg   1300 kg / 2500 kg   1200 kg / 550 kg / 5	1.8	Distance from Load backrest to center of rear axle	х	674 mm
1800 kg   1800	1.9	Wheelbase	у	1467 mm
Weight on front azie (Indeen) / rear ratie (Indeen)   1305 kg / 2500 kg		Weight		
Weight on front axle (Unladen) / rear axle (Unladen)   1250 kg / 550 kg	2.1	Service weight		1800 kg
Weight on front axle (Unladen) / rear axle (Unladen)	2.2	Weight on front axle (laden) / rear axle (laden)		1360 kg / 2500 kg
Nomes   Street   St	2.3			
Sandage   Sandage   Sandage   Sandage   2 / 82x68   3.3   Number of load wheels / Size of the stabilizer wheels   1   1   1   1   1   1   1   1   1				3 3
3.3   Number of load wheels / Size of load wheels   2 / 82x68     3.4   Number of satior wheels   1   1     3.4   Number of stabilizer wheels   2 / 170x50     3.5   Number of front wheels / Fize of the stabilizer wheels   1 / 2     5.5   Number of front wheels / Fize of drive wheels   1 / 2     5.5   Number of front wheels / Fize of drive wheels   1 / 2     5.6   Number of drive wheels / Fize of drive wheels   1 / 2     5.7   Rear wheel gauge   bi1   375 mm     5   Fork height in low position   hi13   85 mm     1.19   Overall length   1   2123 mm     1.20   Overall width   1   2123 mm     1.21   Overall width   1   890 mm     1.21   Overall width   1   890 mm     1.22   Fork seedion / width / length   5 / e / /   70 mm / 200 mm / 1150 mm     1.24   Fork carriage width   1   20 mm     1.31   Ground clearance below mast   m1   20 mm     1.32   Ground clearance below mast   m1   20 mm     1.33   Alsle Width for pallets 1000 x 1200 crossways   Ast   2660 mm     1.34   Ford carriage width   1   975 mm / 1375 mm     1.35   Turning radius   Wa   1719 mm     4.9   Height tilter min. / max.   1   1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1	3.1			Bandage
1				-
Number of stabilizer wheels / Size of the stabilizer wheels   1 / 2				
1 / 2   1 /				
1,25.2   Number of drive wheels / Size of drive wheels   1/254x100   664 mm   1/254x100   664 mm   3.75 mm   1.75				
Sear Wheel gauge				
Near wheel gauge   bil   375 mm			h10	
Dimensions   1.15   Fork height in low position   1.15   Fork height in low position   1.17   2.123 mm   1.19   1.10   2.123 mm   1.20   1.2		* *		
Fork height in low position	0.7		3	575
19   Overall length   11   2123 mm     12	4 15		h13	85 mm
Length to face of forks   12   700 mm   1421   12   700 mm   1421   12   700 mm   1422   12   700 mm   1422   12   12   12   12   12   12				
1.21   Overall width   S   C   Forks section / width / length   S   C   C   Forks section / width / length   S   C   C   C   Forks section / width / length   S   C   C   C   Forks section / width / length   S   C   C   C   Forks section / width / length   S   C   C   C   Forks section / width / length   S   C   C   Forks section / width / length   S   C   C   Forks section / S		-		
Forks section / width / length		•		
Fork carriage width				
Ground clearance below mast   m1   20 mm     4.32   Ground clearance at centre of wheelbase   m2   21 mm     4.33   Aisle Width for pallets 1000 x 1200 crossways   Ast   2660 mm     4.35   Tuming radius   Wa   1719 mm     4.49   Height tiller min. / max.   h14 / h14   975 mm / 1375 mm     Perfomances		-		
1.32   Ground clearance at centre of wheelbase   m2   21 mm     1.33   Aisle Width for pallets 1000 x 1200 crossways   Ast   2660 mm     1.35   Tuming radius   Wa   1719 mm     1.49   Height tiller min. / max.   h14 / h14   975 mm / 1375 mm     1.37   Performances				
Asia Width for pallets 1000 x 1200 crossways Tuming radius Wa 1719 mm Height tiller min. / max.  Perfomances  5.1 Travel speed (laden / unladen) 6.2 Lifting speed (laden / unladen) 6.3 Service brake Engine 6.1 Drive motor rating \$2.60 min 6.2 Lift motor rating at \$3.15% Battery according to DIN 43531/35/36 A, B, C 6.4 Battery voltage / capacity 6.5 Battery weight (+/- 5%) Miscellaneous 8.1 Type of drive control  Ast 2660 mm Wa 1719 mm Hat 2660 mm Hat 4 h14 h14 h14 h14 h14 h14 h14 h14 h14 h				
1.35       Tuming radius       Wa       1719 mm         4.9       Height tiller min. / max.       h14 / h14       975 mm / 1375 mm         Performances         5.1       Travel speed (laden / unladen)       6 km/h / 6 km/h         5.2       Lifting speed (laden / unladen)       0.11 m/s / 0.20 m/s         5.3       Lowering speed (laden / unladen)       0.22 m/s / 0.21 m/s         5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.8       Service brake       Electro magnetic         Engine         6.1       Drive motor rating \$2 60 min       2 kW         6.2       Lift motor rating at \$3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC				
Height tiller min. / max.				
Performances         5.1       Travel speed (laden / unladen)       6 km/h / 6 km/h         5.2       Lifting speed (laden / unladen)       0.11 m/s / 0.20 m/s         5.3       Lowering speed (laden / unladen)       6 % / 10 %         5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.10       Service brake       Electro magnetic         Engine         6.1       Drive motor rating \$2 60 min       2 kW         6.2       Lift motor rating at \$3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC				
5.1       Travel speed (laden / unladen)       6 km/h / 6 km/h         5.2       Lifting speed (laden / unladen)       0.11 m/s / 0.20 m/s         5.3       Lowering speed (laden / unladen)       0.22 m/s / 0.21 m/s         5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.10       Service brake       Electro magnetic         Engine         6.1       Drive motor rating \$2 60 min       2 kW         6.2       Lift motor rating at \$3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC	4.7	-	11147 1114	373 mm / 1373 mm
5.2       Lifting speed (laden / unladen)       0.11 m/s / 0.20 m/s         5.3       Lowering speed (laden / unladen)       0.22 m/s / 0.21 m/s         5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.10       Service brake       Electro magnetic         Engine         6.1       Drive motor rating S2 60 min       2 kW         6.2       Lift motor rating at S3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC	5.1			6 km/h / 6 km/h
5.3       Lowering speed (laden / unladen)       0.22 m/s / 0.21 m/s         5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.10       Service brake       Electro magnetic         Engine         6.1       Drive motor rating S2 60 min       2 kW         6.2       Lift motor rating at S3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC				
5.8       Max Gradeability (laden / unladen)       6 % / 10 %         5.10       Service brake       Electro magnetic         6.1       Drive motor rating S2 60 min       2 kW         6.2       Lift motor rating at S3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous       DC				
Electro magnetic   Engine   Electro magnetic		,		
Engine         Company           6.1         Drive motor rating \$2 60 min         2 kW           6.2         Lift motor rating at \$3 15%         4 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         Traction           6.4         Battery voltage / capacity         24 V / 315 Ah           6.5         Battery weight (+/- 5%)         275 kg           Miscellaneous           8.1         Type of drive control         DC				
6.1       Drive motor rating \$2 60 min       2 kW         6.2       Lift motor rating at \$3 15%       4 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC	5.10			Liecuo magnetic
6.2 Lift motor rating at \$3 15%	6.1			2 kW
6.3       Battery according to DIN 43531/35/36 A, B, C       Traction         6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC		•		
6.4       Battery voltage / capacity       24 V / 315 Ah         6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC				
6.5       Battery weight (+/- 5%)       275 kg         Miscellaneous         8.1       Type of drive control       DC		•		
Miscellaneous 8.1 Type of drive control DC		, , ,		
8.1 Type of drive control DC	0.3			2/5 Kg
	0 1			00
		**		

## ES 820 LI - Dimensional drawing



## Characteristics of masts and residual capacities

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	mm	1955	2205
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	1510	1760
h4 - Mast extended height	mm	1965	2215
Residual capacity at max height	kg	2000	2000

Full Visibility Duplex (FVD)		FVD 29	FVD 34
h1 - Mast lowered height	mm	1955	2205
h3 - Mast lifting height	mm	2940	3440
h4 - Mast extended height	mm	3400	3900
Residual capacity at max height	ka	1600	1300

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	mm	2205	2205
h2 - Mast free lift	mm	1510	1760
h3 - Mast lifting height	mm	2935	3435
h4 - Mast extended height	mm	3895	3895
Residual capacity at max height	kg	1600	1300

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	mm	1915	2075	2315
h2 - Mast free lift	mm	1470	1630	1880
h3 - Mast lifting height	mm	4250	4730	5460
h4 - Mast extended height	mm	4725	5205	5895
Residual capacity at max height	kg	750	550	450





## **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