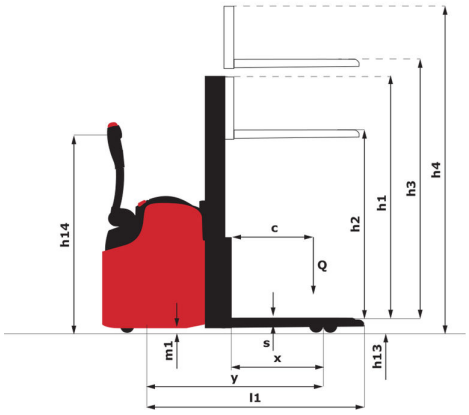
Technical sheet :

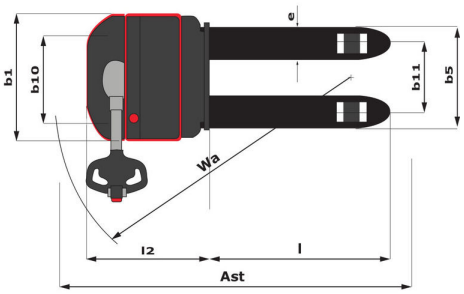
ES 820 LI

MANITOU
HANDLING YOUR WORLD

	Technical characteristics		Metric
1.1	Manufacturer		Manitou
1.2	Model Name		ES 820 LI
1.3	Power source		Battery
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 centre 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
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1250 kg / 550 kg
	Wheels		
3.1	Tyres type		Bandage
3.5.2	Number of drive wheels / Size of drive wheels		1x254x100
3.3	Number of load wheels / Size of load wheels		2 / 82x68
3.4	Number of castor wheels		1
3.4	Number of stabilizer wheels / Size of the stabilizer wheels		2 / 120x50
3.5	Number of front wheels / rear wheels		1 / 2
3.6	Front wheel gauge	b10	664 mm
3.7	Rear wheel gauge	b11	375 mm
	Dimensions		
4.2	Height mast lowered *	h1	1956 mm
4.4	Lifting Height	h3	2850 mm
4.5	Height mast extended *	h4	3400 mm
4.9	Height tiller up min. / max.	h14 / h14	975 mm / 1375 mm
4.15	Fork height in low position	h13	85 mm
4.19	Overall length	l1	2123 mm
4.20	Length to face of forks	l2	700 mm
4.21	Overall width	b1	890 mm
4.22	Forks section / width / length	s / e / l	70 mm / 200 mm / 1150 mm
4.24	Fork carriage width	b3	700 mm
4.31	Ground clearance below mast	m1	20 m
4.32	Ground clearance at centre of wheelbase	m2	21 m
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	2660 mm
4.35	Turning radius	Wa	1719 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 %
5.10	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 / Batteries capacity		24 V / 315 Ah
6.5	Battery weight (+/- 5%)		275 kg
	Miscellaneous		
8.1	Type of drive control		DC
8.4	Sound level at the driver's ear according to DIN 12 053		65 dB(A)

Dimensional drawing





Characteristics of masts and residual capacities

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

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

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	2205	2205
h4 - Mast height extended	mm	3895	3895
Residual capacity at max height	kg	1600	1300

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

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

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