

Technical sheet :

ES 820 LI



 **MANITOU**
HANDLING YOUR WORLD

	Technical characteristics		Imperial
1.1	Manufacturer		Manitou
1.2	Model Name		ES 820 LI
1.3	Power source		Electrical
1.4	Operator type		Pedestrian
1.5	Max. capacity	Q	4409 lb
1.51	Nominal capacity on wrapover forks	Q	4409 lb
1.6	Load center of gravity	c	24 in
1.8	Distance from Load backrest to center of rear axle	x	27 in
1.9	Wheelbase	y	58 in
	Weight		
2.1	Service weight		3968 lb
2.2	Weight on front axle (laden) / rear axle (laden)		2998 lb / 5512 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		2756 lb / 1213 lb
	Wheels		
3.1	Tires type		Bandage
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
3.5.2	Number of drive wheels / Size of drive wheels		1/254x100
3.6	Front wheel gauge	b10	26 in
3.7	Rear wheel gauge	b11	15 in
	Dimensions		
4.15	Fork height in low position	h13	3 in
4.19	Overall length	l1	84 in
4.20	Length to face of forks	l2	28 in
4.21	Overall width	b1	35 in
4.22	Forks section / width / length	s / e / l	3 in / 8 in / 45 in
4.24	Fork carriage width	b3	28 in
4.31	Ground clearance below mast	m1	0.79 in
4.32	Ground clearance at centre of wheelbase	m2	0.83 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	105 in
4.35	Turning radius	Wa	68 in
4.9	Height tiller min. / max.	h14 / h14	38 in / 54 in
	Performances		
5.1	Travel speed (laden / unladen)		4 mph / 4 mph
5.2	Lifting speed (laden / unladen)		0.36 ft/s / 0.66 ft/s
5.3	Lowering speed (laden / unladen)		0.72 ft/s / 0.69 ft/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%)		606 lb
	Miscellaneous		
8.1	Type of drive control		DC
8.4	Sound level at the driver's ear according to DIN 12 053		65 dB

ES 820 LI - Dimensional drawing



Characteristics of masts and residual capacities

Central Cylinder Simplex (CCS)		CCS 15	CCS 17
h1 - Mast lowered height	in	77	86.8
h2 - Mast free lift	in	59.4	69.3
h3 - Mast lifting height	in	59.4	69.3
h4 - Mast extended height	in	77.4	87.2
Residual capacity at max height	lb	4409	4409

Full Visibility Duplex (FVD)		FVD 29	FVD 34
h1 - Mast lowered height	in	77	86.8
h3 - Mast lifting height	in	115.7	135.4
h4 - Mast extended height	in	133.9	153.5
Residual capacity at max height	lb	3527	2866

Free Lift Duplex (FLD)		FLD 29	FLD 34
h1 - Mast lowered height	in	86.8	86.8
h2 - Mast free lift	in	59.4	69.3
h3 - Mast lifting height	in	115.6	135.2
h4 - Mast extended height	in	153.3	153.3
Residual capacity at max height	lb	3527	2866

Free Lift Triplex (FLT)		FLT 42	FLT 47	FLT 54
h1 - Mast lowered height	in	75.4	81.7	91.1
h2 - Mast free lift	in	57.9	64.2	74
h3 - Mast lifting height	in	167.3	186.2	215
h4 - Mast extended height	in	186	204.9	232.1
Residual capacity at max height	lb	1653	1213	992



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