Technical sheet:

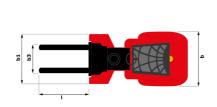
EMA II 18 HL-1

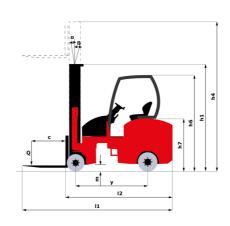




.2 Model Name EMA II 18 HL-1 EMA II 18 HL-1 .3 Power source Electrical Electrical .4 Operator type Seated Seated .5 Max. capacity Q 1750 kg 3858 lb .6 Load center of gravity c 500 mm 20 in .8 Load distance, centre of drive axle to fork x 308 mm 12 in				EMA II 18 HL-1 Created of	1 April 25, 2024 at 5.31.55 PM
Model Name EMAI 13 HL-1 EMAI 14 BL-1 Electrical		Technical characteristics		Metric	Imperial
Power source	1.1	Manufacturer		Manitou	Manitou
Seated S	1.2	Model Name		EMA II 18 HL-1	EMA II 18 HL-1
Max. capacity	.3	Power source		Electrical	Electrical
Commons	.4	Operator type		Seated	Seated
Commons	.5	Max. capacity	Q	1750 kg	3858 lb
Load distance, centre of drive axile to fork x y 1745 mm 69 in	.6		C	-	20 in
Wheelbase Wheelbase Wheelbase Wheelbase Wheelbase Wheelbase Wheelbase Wheelbase Weight on Front axiae (laden) / rear axie (laden) Weight on Front axiae (laden) / rear axie (laden) Weight on Front axiae (laden) / rear axie (laden) Weight on Front axiae (laden) / rear axie (laden) Weight on Front axiae (Unladen) Weight on Front axiae (Unladen) Weight on Front axiae (Unladen) Wheels	.8		Х	308 mm	12 in
Weight Service weight 6900 kg 15212 lb	.9		٧		
Service weight		Weight			
Weight on front axie (laden) / rear axie (laden) 4200 kg / 4500 kg 9259 lb / 9921 lb	.1	•		6900 kg	15212 lb
Weight on front axie (Unladen) / rear axie (Unladen) 2200 kg / 4700 kg 4850 lb / 10362 lb		-			
Wheels		. , , , ,			
Tires type					1000 10,7 10002 10
Dimensions of front wheels 412 x 178 412 x 178 457 x 178	1			Solid tires	Solid tires
Dimensions of rear wheels					
Number of front wheels / rear wheels 2 / 2 2 / 2					
Number of drive wheels 2 2 2 2 6 Front wheel gauge bi1 110 mm 44 in 7 8 7 8 8 7 8 8 8 9 1 1 1250 mm 49 in 110 mm 44 in 7 8 1250 mm 49 in 110 mm 44 in 7 1250 mm 49 in 110 mm 44 in 7 1250 mm 49 in 110 mm 47 in 1250 mm 47 in 1250 mm 47 in 1200 mm 47 in 1200 mm 47 in 1200 mm 147 in 1200 mm 147 in 1200 mm 147 in 1200 mm 147 in 1200 mm 102 in 1200 mm 1					
Front wheel gauge					
Rear wheel gauge			h10		
Dimensions Height of overhead guard (cabin) h6 2260 mm 89 in 89 in 89 in 89 in 100 werell length h7 1200 mm 47 in 1200 mm 47 in 1200 mm 147 in 1200 mm 149 in 1200 mm 149 in 1200 mm 1200 mm 149 in 1200 mm 149 in 1200 mm 149 in 1200 mm 140 mm x 125 mm 150 mm 140 mm x 125 mm 140 mm 14					
Height of overhead guard (cabin) h6 2260 mm 89 in	. /		DIT	1230 11111	49 111
Seath eight/stand height h7 1200 mm 47 in Overall length 11 3740 mm 147 in Length to face of forks 12 2590 mm 102 in Overall width b1 1250 mm 49 in Forks section / width / length s / e / I 40 mm x 125 mm x 1150 mm 2 in x 45 in Fork carriage ISO 2328 (class/form) A/B 2 2 2 Fork carriage ISO 2328 (class/form) A/B 2 2 2 Fork carriage width b3 860 mm 34 in Ground clearance below mast m1 50 mm 2 in Ground clearance at centre of wheelbase m2 130 mm 5 in A isle width for pallets 1000 x 1200 crossways Ast 1950 mm 77 in A isle width for 800 x 1200 pallet lengthways Ast 2200 mm 87 in Performances Performances International Performances Internat	7		h6	2260 mm	90 in
19 Overall length 11 3740 mm 147 in 20		3 , ,			
20 Length to face of forks 12 2590 mm 102 in 21 Overall width b1 1250 mm 49 in 22 Fork section / width / length s / e / l 40 mm x 125 mm x 1150 mm 2 in x 5 in x 45 in 23 Fork carriage ISO 2328 (class/form) A/B 2 2 2 24 Fork carriage ISO 2328 (class/form) A/B b3 860 mm 34 in 31 Ground clearance below mast m1 50 mm 2 in 32 Ground clearance at centre of wheelbase m2 130 mm 5 in 33 Aisle Width for pallets 1000 x 1200 crossways Ast 1950 mm 77 in 34 Aisle width for 800 x 1200 pallet lengthways Ast 2000 mm 87 in Performances B South of the state o		•			
Devail width Devail width Length S / e / I A0 mm x 125 mm x 1150 mm A9 in		•			
Forks section / width / length		, and the second			
Fork carriage ISO 2328 (class/form) A/B 2 2 2 2 2 2 2 4 Fork carriage width b3 860 mm 34 in 34 in 31 Ground clearance below mast m1 50 mm 2 in 50 mm 5 in 32 Ground clearance at centre of wheelbase m2 130 mm 5 in 77 in 33 Aisle Width for pallets 1000 x 1200 crossways Ast 1950 mm 77 in 34 Aisle width for 800 x 1200 pallet lengthways Ast 2200 mm 87 in 70 70 70 70 70 70 70 7					
Fork carriage width		·	5/6/1		
Ground clearance below mast m1 50 mm 2 in 32 Ground clearance at centre of wheelbase m2 130 mm 5 in 33 Aisle Width for pallets 1000 x 1200 crossways Ast 1950 mm 77 in 34 Aisle width for 800 x 1200 pallet lengthways Ast 2200 mm 87 in 57 in 587 in 587 in 587 in 588 in 587 in 588 in 5			LO.		
32 Ground clearance at centre of wheelbase m2 130 mm 5 in 33 Aisle Width for pallets 1000 x 1200 crossways Ast 1950 mm 77 in 34 Aisle width for 800 x 1200 pallet lengthways Ast 2200 mm 87 in Performances 1 Travel speed (laden / unladen) 9 km/h-9.50 km/h 6 mph-6 mph 2 Lifting speed (laden / unladen) 0.35 m/s-0.45 m/s 1 ft/s-1 ft/s 3 Lowering speed (laden / unladen) 0.40 m/s-0.36 m/s 1 ft/s-1 ft/s 4 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % 5 Engine Hydraulic Hydraulic 10 Service brake Hydraulic Hydraulic 11 Drive motor rating 82 60 min 10 kW 10 kW 12 Lift motor rating at S3 15% 9 kW 9 kW 13 Battery woltage / capacity 48 V / 775 Ah 48 V / 775 Ah 14 Battery weight (+/- 5%) 1435 kg 3164 lb		-			
Ast 1950 mm 77 in 34 Aisle Width for pallets 1000 x 1200 crossways Ast 2200 mm 87 in 88 in 88 in 89 in					
Ast 2200 mm 87 in Performances 1 Travel speed (laden / unladen) 9 km/h-9.50 km/h 6 mph-6 mph 1 Lifting speed (laden / unladen) 0.35 m/s-0.45 m/s 1 ft/s-1 ft/s 1 Lowering speed (laden / unladen) 0.40 m/s-0.36 m/s 1 ft/s-1 ft/s 1 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % 10 Service brake Hydraulic Hydraulic Engine 1 Drive motor rating S2 60 min 10 kW 10 kW 2 Lift motor rating at S3 15% 9 kW 9 kW 3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 4 Battery voltage / capacity 48 V / 775 Ah 5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous					
Performances .1 Travel speed (laden / unladen) 9 km/h-9.50 km/h 6 mph-6 mph .2 Lifting speed (laden / unladen) 0.35 m/s-0.45 m/s 1 ft/s-1 ft/s .3 Lowering speed (laden / unladen) 0.40 m/s-0.36 m/s 1 ft/s-1 ft/s .7 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % .10 Service brake Hydraulic Hydraulic Engine Hydraulic Hydraulic .1 Drive motor rating S2 60 min 10 kW 10 kW .2 Lift motor rating at S3 15% 9 kW 9 kW .3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous					
1.1 Travel speed (laden / unladen) 9 km/h-9.50 km/h 6 mph-6 mph 2.2 Lifting speed (laden / unladen) 0.35 m/s-0.45 m/s 1 ft/s-1 ft/s 3.3 Lowering speed (laden / unladen) 0.40 m/s-0.36 m/s 1 ft/s-1 ft/s 4.7 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % 5.0 Service brake Hydraulic Hydraulic 6.0 Engine Hydraulic Hydraulic 6.1 Drive motor rating S2 60 min 10 kW 10 kW 10 kW 6.2 Lift motor rating at S3 15% 9 kW 9 kW 9 kW 6.3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 DIN 43595 6.4 Battery voltage / capacity 48 V / 775 Ah 6.5 Battery weight (+/- 5%) 1435 kg 3164 lb 3164 lb	34		Ast	2200 mm	87 In
.2 Lifting speed (laden / unladen) 0.35 m/s-0.45 m/s 1 ft/s-1 ft/s .3 Lowering speed (laden / unladen) 0.40 m/s-0.36 m/s 1 ft/s-1 ft/s .7 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % 10 Service brake Hydraulic Hydraulic Engine .1 Drive motor rating S2 60 min 10 kW 10 kW .2 Lift motor rating at S3 15% 9 kW 9 kW .3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous	4			01 // 0.501 //	
Lowering speed (laden / unladen) Gradeability (laden / unladen) Service brake Engine Drive motor rating S2 60 min Lift motor rating at S3 15% Battery according to DIN 43531/35/36 A, B, C Battery weight (+/- 5%) Miscellaneous 1 0.40 m/s-0.36 m/s 1 1 ft/s-1 ft/s 8 % / 10.50 % 9 kW 9 kW 9 kW 9 kW 48 V / 775 Ah 48 V / 775 Ah 48 V / 775 Ah 5 Battery weight (+/- 5%) Miscellaneous					
77 Gradeability (laden / unladen) 8 % / 10.50 % 8 % / 10.50 % 10 Service brake Hydraulic Hydraulic Engine .1 Drive motor rating S2 60 min 10 kW 10 kW .2 Lift motor rating at S3 15% 9 kW 9 kW .3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous		- , ,			
Service brake		, ,			
Engine Incomplete of the property of t					
.1 Drive motor rating S2 60 min 10 kW 10 kW .2 Lift motor rating at S3 15% 9 kW 9 kW .3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous	10			Hydraulic	Hydraulic
.2 Lift motor rating at S3 15% 9 kW 9 kW .3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous		-			40.111
.3 Battery according to DIN 43531/35/36 A, B, C DIN 43595 DIN 43595 .4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous Miscellaneous		-			
.4 Battery voltage / capacity 48 V / 775 Ah 48 V / 775 Ah .5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous 3164 lb					
.5 Battery weight (+/- 5%) 1435 kg 3164 lb Miscellaneous		•			
Miscellaneous		, - , ,			
	.5			1435 kg	3164 lb
.1 Type of drive control Mosfet AC speed controller Mosfet AC speed controller					
		•		•	·
2 Working hydraulic pressure for attachments 200 bar 2901 PSI					
Oil flow rate for attachments 25 l/min 7 US gpm					
4 Measured/guaranteed mean noise level at the ear of the operator < 73 dB < 73 dB					
Sound level at the driver's ear according to DIN 12 053 73 dB 73 dB	3.4	Sound level at the driver's ear according to DIN 12 053		73 dB	73 dB

EMA II 18 HL-1 - Dimensional drawing





Characteristics of masts and residual capacities

Free Lift Triplex (FLT)	FLT 80	FLT 84	FLT 86	FLT 90	FLT 95	FLT 100	FLT 102	FLT 106	
Mast/fork carriage tilt, forward	٠	1	1	1	1	1	1	1	1
Mast/fork carriage tilt, backward	۰	4	4	4	4	4	4	4	4
h1 - Mast lowered height	in (mm)	146.5 (3720)	153.5 (3900)	158.3 (4020)	163.4 (4150)	177.2 (4500)	180.7 (4590)	184.6 (4690)	189.8 (4820)
h2 - Mast free lift	in (mm)	114.2 (2900)	121.3 (3080)	126 (3200)	131.1 (3330)	143.7 (3650)	148.4 (3770)	152.4 (3870)	157.5 (4000)
h3 - Mast lifting height	in (mm)	315.4 (8010)	330.7 (8400)	339 (8610)	354.3 (9000)	374 (9500)	394.5 (10020)	401.6 (10200)	415.7 (10560)
h4 - Mast extended height	in (mm)	348 (8840)	363.4 (9230)	371.7 (9440)	387 (9830)	412.4 (10475)	427.2 (10850)	440 (11175)	454.1 (11535)
Residual capacity with integrated side shift at max heigth	lb (kg)	2756 (1250)	2535 (1150)	2535 (1150)	2205 (1000)	2205 (1000)	1653 (750)	1653 (750)	1433 (650)





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