Technical sheet:

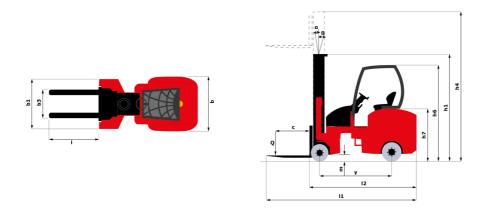
## EMA II 18 HL-1





1.2       Model Name       EMA II 18 HL-1         1.3       Power source       Electrical - Lead         1.4       Operator type       Seated         1.5       Max. capacity       Q       1750 kg         1.6       Load center of gravity       c       500 mm         1.8       Load distance, centre of drive axle to fork       x       308 mm         1.9       Wheelbase       y       1745 mm         Weight         2.1       Service weight       6900 kg         2.2       Weight on front axle (laden) / rear axle (laden)       4200 kg / 4500 kg			EMA II 18 HL-1 Greater	u on September 9, 2025 at 11.53 PM t
Model Name		Technical characteristics		Metric
1.3   Power source	1.1	Manufacturer		Manitou
1.4   Openitor type	1.2	Model Name		EMA II 18 HL-1
Max. capacity	1.3	Power source		Electrical - Lead
Load center of gravity	1.4	Operator type		Seated
Load center of gravity	1.5	Max. capacity	Q	1750 kg
1.5   Load distance, centre of drive axie to fork   Y   1745 mm   Yeight   Yeight   Service weight   66900 kg   4200 kg / 4500 kg / 45	1.6		C	-
1.9   Wheelbase   Yought   Common   C	1.8		X	308 mm
Monghat	1.9	Wheelbase	٧	1745 mm
Service weight		Weight		
Weight on Front aste (laden) / rear aste (luiden)   200 kg / 4700 kg	2.1			6900 ka
Winght on front axle (Unladen) / rear axle (Unladen)	2.2	•		
Nine   Section   Solid times	2.3			
Times type				
Dimensions of front wheels	3 1			Solid tires
Dimensions of rear wheels				
3.5   Number of front wheels / rear wheels   2 / 2   2   3.5.2   Number of drive wheels   2   2   2   3.5.2   3.6   Ent wheel gauge   510   1110 mm   5100				
Number of drive wheels   2   2   3.6   Front wheel gauge   b10   1110 mm   3.7   Rear wheel gauge   b11   1250 mm   1110 mm   3.7   Rear wheel gauge   b11   1250 mm   1.8				
Sear wheel gauge				
Near wheel gauge			h10	
	0.7		511	1200 11111
4.8       Seat height/stand height       h7       1200 mm         4.19       Overall length       I1       3740 mm         4.20       Length to face of forks       I2       2590 mm         4.21       Overall width       b1       1250 mm         4.21       Fork section / width / length       s / e / I       40 mm x 125 mm x 1150 mm         4.22       Fork carriage width       b3       860 mm         4.23       Fork carriage width       b3       860 mm         4.31       Ground clearance below mast       m1       50 mm         4.32       Ground clearance below mast       m2       130 mm         4.33       Alsie Width for palets 1000 x 1200 crossways       Ast       1950 mm         4.34       Alsie width for 800 x 1200 pallet lengthways       Ast       200 mm         Performances       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.1       Travel speed (laden / unladen)       0.35 m/s-0.45 m/s         5.2       Liffing speed (laden / unladen)       8 % / 10.50 %         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.0       Service brake       Hydraulic         Engine       Hydraulic         6.1       Divke motor	47		h6	2260 mm
1				
Length to face of forks   12   2590 mm     A21   Overall width   Overall width   length   1250 mm     A22   Forks section / width / length   5 / e / 1   40 mm x 1250 mm x 1150 mm     A23   Fork carriage iSIO 2328 (class/form) A/B   2     A24   Fork carriage width   50 mm   50 mm     A31   Ground clearance below mast   m1   50 mm     A32   Ground clearance at centre of wheelbase   m2   130 mm     A33   Aisle width for pallets 1000 x 1200 crossways   Ast   1950 mm     A33   Aisle width for pallets 1000 x 1200 crossways   Ast   2200 mm     Performances		-		
		•		
4.22         Forks section / width / length         \$ / e / l         40 mm x 125 mm x 1150 mm           4.23         Fork carriage ISO 2328 (class/form) A/B         2           4.24         Fork carriage width         b3         8600 mm           4.31         Ground clearance at centre of wheelbase         m1         50 mm           4.32         Ground clearance at centre of wheelbase         m2         130 mm           4.33         Aisle width for pallets 1000 x 1200 crossways         Ast         1950 mm           4.34         Aisle width for gallets 1000 x 1200 pallet lengthways         Ast         2200 mm           Performances           5.1         Travel speed (laden / unladen)         9 km/h-9.50 km/h           5.2         Lifting speed (laden / unladen)         9 km/h-9.50 km/h           5.3         Lowering speed (laden / unladen)         9 km/h-9.50 km/s           5.7         Gradeability (laden / unladen)         8 % 10.50 %           5.7         Gradeability (laden / unladen)         8 % 10.50 %           5.10         Service brake         Hydraulic           Engine           6.1         Driv motor rating at 25 60 min         10 kW           6.2         Liff motor rating at 35 15%         9 kW <t< td=""><td></td><td>•</td><td></td><td></td></t<>		•		
Fork carriage ISO 2328 (class/form) A/B   2				
Fork carriage width		-	37071	
4.3.1         Ground clearance below mast         m1         50 mm           4.3.2         Ground clearance at centre of wheelbase         m2         130 mm           4.3.3         Aisle Width for pallets 1000 x 1200 crossways         Ast         1950 mm           4.3.4         Aisle width for 800 x 1200 pallet lengthways         Ast         2200 mm           Performances           5.1         Travel speed (laden / unladen)         9 km/h-9.50 km/h           5.2         Lifting speed (laden / unladen)         0.35 m/s-0.45 m/s           5.3         Lowering speed (laden / unladen)         0.40 m/s-0.36 m/s           5.7         Gradeability (laden / unladen)         8 % / 10.50 %           5.10         Service brake         Hydraulic           6.1         Drive motor rating \$260 min         10 kW           6.2         Lift motor rating \$250 min         10 kW           6.2         Lift motor rating \$250 min         9 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         9 kW           6.4         Battery weight (+/- 5%)         48 V / 775 Ah           6.5         Battery weight (+/- 5%)         48 V / 775 Ah           8.1         Type of drive control         Mosfet AC speed controller           8.2 <td></td> <td>, ,</td> <td>h3</td> <td></td>		, ,	h3	
4.32       Ground clearance at centre of wheelbase       m2       130 mm         4.33       Aisle Width for pallets 1000 x 1200 crossways       Ast       1950 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2200 mm         Perfomances         5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating \$2.60 min       10 kW         6.2       Lift motor rating at \$3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min </td <td></td> <td>-</td> <td></td> <td></td>		-		
4.33       Aisle Width for pallets 1000 x 1200 crossways       Ast       1950 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       2200 mm         Performances         Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating \$2.60 min       10 kW         6.2       Lift motor rating at \$3.15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator				
Asile width for 800 x 1200 pallet lengthways  Performances  5.1 Travel speed (laden / unladen) 5.2 Lifting speed (laden / unladen) 5.3 Lowering speed (laden / unladen) 5.7 Gradeability (laden / unladen) 5.8 Service brake  Engine  6.1 Drive motor rating \$2 60 min 6.2 Lift motor rating \$3 15% 6.3 Battery according to DIN 43531/35/36 A, B, C 6.4 Battery voltage / capacity 6.5 Battery voltage / capacity 6.6 Battery voltage / capacity 6.7 Type of drive control 8.1 Type of drive control 8.2 Working hydraulic pressure for attachments 8.3 Oil flow rate for attachments 8.4 Measured/guaranteed mean noise level at the ear of the operator  Ast 2200 mm  9 km/h-9.50 km/h 6.9 Ast 2200 mm  9 km/h-9.50 km/h 6.9 Ast 35 m/s 6.4 Ast 2200 mm  9 km/h-9.50 km/h 6.5 Battery or 136 m/s 6.6 Ast 2000 bar 6.7 Ast 300 bar 6.7 Barbary 5.0 bar 6.7 Barba				
Performances           5.1         Travel speed (laden / unladen)         9 km/h-9.50 km/h           5.2         Lifting speed (laden / unladen)         0.35 m/s-0.45 m/s           5.3         Lowering speed (laden / unladen)         8 % / 10.50 %           5.7         Gradeability (laden / unladen)         8 % / 10.50 %           5.10         Service brake         Hydraulic           Engine           6.1         Drive motor rating \$2.60 min         10 kW           6.2         Lift motor rating at \$3.15%         9 kW           6.3         Battery according to DIN 43531/35/36 A, B, C         DIN 43595           6.4         Battery voltage / capacity         48 V / 775 Ah           6.5         Battery weight (+/- 5%)         1435 kg           Miscellaneous           8.1         Type of drive control         Mosfet AC speed controller           8.2         Working hydraulic pressure for attachments         200 bar           8.3         Oil flow rate for attachments         25 l/min           8.4         Measured/guaranteed mean noise level at the ear of the operator         < 73 dB				
5.1       Travel speed (laden / unladen)       9 km/h-9.50 km/h         5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating \$2.60 min       10 kW         6.2       Lift motor rating at \$3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voitage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 1/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	4.54		Ast	2200 111111
5.2       Lifting speed (laden / unladen)       0.35 m/s-0.45 m/s         5.3       Lowering speed (laden / unladen)       0.40 m/s-0.36 m/s         5.7       Gradeability (laden / unladen)       8 % / 10.50 %         5.10       Service brake       Hydraulic         Engine         6.1       Drive motor rating S2 60 min       10 kW         6.2       Lift motor rating at S3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	5.1			0 km/h-0 50 km/h
Lowering speed (laden / unladen)  Gradeability (laden / unladen)  Service brake  Engine  6.1 Drive motor rating S2 60 min  6.2 Lift motor rating at S3 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  8.2 Working hydraulic pressure for attachments  8.3 Oil flow rate for attachments  8.4 Measured/guaranteed mean noise level at the ear of the operator  8.5 Gradeability (laden / unladen)  8.6 8 % / 10.50 %  8.7 Hydraulic  8.7 Hydraulic  8.8 Hydraulic  8.9 kW  8.9 kW  8.1 Type of drive control  8.2 Working hydraulic pressure for attachments  8.4 Measured/guaranteed mean noise level at the ear of the operator  8.7 3 dB				
5.7 Gradeability (laden / unladen)  5.10 Service brake  6.1 Drive motor rating \$2.60 min  6.2 Lift motor rating at \$3.15%  6.3 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  8.2 Working hydraulic pressure for attachments  8.3 Oil flow rate for attachments  8.4 Measured/guaranteed mean noise level at the ear of the operator  8.7 3 dB				
Engine         6.1       Drive motor rating \$2 60 min       10 kW         6.2       Lift motor rating at \$3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB				
Engine         Common of the common of t				
6.1       Drive motor rating S2 60 min       10 kW         6.2       Lift motor rating at S3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	3.10			riyaladile
6.2       Lift motor rating at \$3 15%       9 kW         6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB	6.1			10 kW
6.3       Battery according to DIN 43531/35/36 A, B, C       DIN 43595         6.4       Battery voltage / capacity       48 V / 775 Ah         6.5       Battery weight (+/- 5%)       1435 kg         Miscellaneous         8.1       Type of drive control       Mosfet AC speed controller         8.2       Working hydraulic pressure for attachments       200 bar         8.3       Oil flow rate for attachments       25 l/min         8.4       Measured/guaranteed mean noise level at the ear of the operator       < 73 dB		•		
6.4 Battery voltage / capacity 48 V / 775 Ah 6.5 Battery weight (+/- 5%) 1435 kg  Miscellaneous Use 1 8.1 Type of drive control Mosfet AC speed controller 8.2 Working hydraulic pressure for attachments 200 bar 8.3 Oil flow rate for attachments 25 l/min 8.4 Measured/guaranteed mean noise level at the ear of the operator < 73 dB		-		
6.5 Battery weight (+/- 5%)  Miscellaneous  8.1 Type of drive control  8.2 Working hydraulic pressure for attachments  8.3 Oil flow rate for attachments  8.4 Measured/guaranteed mean noise level at the ear of the operator  1 435 kg  Mosfet AC speed controller  200 bar  25 l/min  473 dB				
Miscellaneous       8.1     Type of drive control     Mosfet AC speed controller       8.2     Working hydraulic pressure for attachments     200 bar       8.3     Oil flow rate for attachments     25 l/min       8.4     Measured/guaranteed mean noise level at the ear of the operator     < 73 dB				
8.1Type of drive controlMosfet AC speed controller8.2Working hydraulic pressure for attachments200 bar8.3Oil flow rate for attachments25 l/min8.4Measured/guaranteed mean noise level at the ear of the operator< 73 dB	0.0	, , ,		1433 Kg
8.2     Working hydraulic pressure for attachments     200 bar       8.3     Oil flow rate for attachments     25 l/min       8.4     Measured/guaranteed mean noise level at the ear of the operator     < 73 dB	0 1			Mosfet AC and controller
8.3 Oil flow rate for attachments 25 l/min 8.4 Measured/guaranteed mean noise level at the ear of the operator <73 dB				·
8.4 Measured/guaranteed mean noise level at the ear of the operator <73 dB				
, ,				• •
8.4 Sound level at the drivers ear according to DIN 12 US3 73 dB		·		
	ď.4	Sound level at the drivers ear according to DIN 12 053		\3 QR

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
α - Mast/fork carriage tilt, forward	۰	1	1	1	1	1	1	1	1
β - Mast/fork carriage tilt, backward	٠	4	4	4	4	4	4	4	4
h1 - Mast lowered height	mm	3720	3900	4020	4150	4500	4590	4690	4820
h2 - Mast free lift	mm	2900	3080	3200	3330	3650	3770	3870	4000
h3 - Mast lifting height	mm	8010	8400	8610	9000	9500	10020	10200	10560
h4 - Mast extended height	mm	8840	9230	9440	9830	10475	10850	11175	11535
Residual capacity with integrated side shift at max heigth	kg	1250	1150	1150	1000	1000	750	750	650





## **Head Office**

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