

MANILEC

ES 503/506/509 GPF

ES 711/713/716/720 GPF

ES 713/716 GPFR

Counterbalanced electric stackers

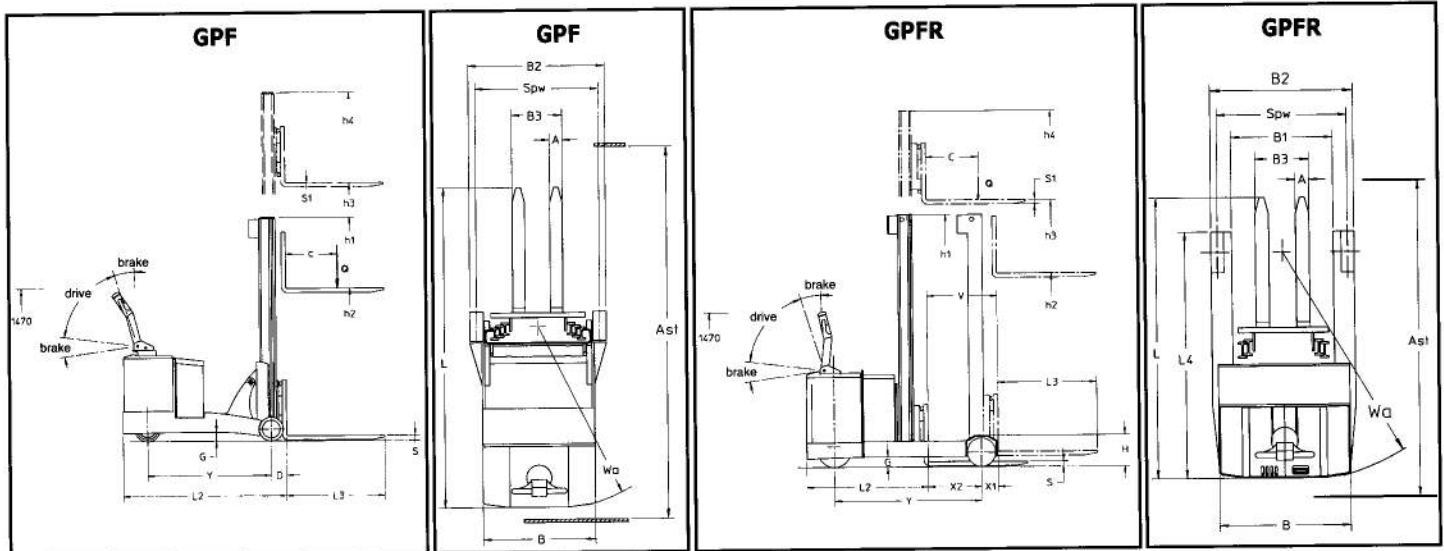
Counterbalanced electric stackers with reach mast



 **MANITOU**

Fixed mast

Code	1	Manufacturer	MANITOU				
			2	Type	ES 503 GPF	ES 506 GPF	ES 509 GPF
Specifications	3	Nominal load capacity	Q	kg	300	600	900
	4	Nominal load center	C	mm	400	400	400
	5	Forks maximum lifting height	h3	mm	See lifting masts table		
Fork	6	Fork type	Adjustable				
	7	Fork length	L3	mm	800	800	800
	8	Minimum external width	B3	mm	120	180	200
	9	Maximum external width	B3	mm	680	680	680
	10	Arm cross section (width x thickness)	A x S1	mm	60x30	90x30	100x35
	11	Distance from ground to fork top, low position	S	mm	35	35	40
Supporting legs	12	External width	B2	mm	923	923	923
	13	Internal width	B1	mm	-	-	-
	14	Distance from ground to leg top, low position	H	mm	-	-	-
	15	Ground clearance (wheelbase center)	G	mm	90	90	95
Dimensions	16	Overall length (*duplex)	L	mm	*1880	*1983	*2098
	17	Length without forks	L4	mm	-	-	-
	18	Overall chassis length at fork heel (*duplex)	L2	mm	*1080	*1183	*1298
	19	Overall width	B2	mm	923	923	923
	20	Chassis width on operators side	B	mm	891	891	891
	21	Overall height (fork lowered/lifted)	h1/h4	mm	See lifting masts table		
	22	Distance from fork back to wheel axis (forward position)	X1	mm	-		
	23	Distance from fork back to wheel axis (retracted position)	X2	mm	-		
	24	Width between load bearing wheels	Spw	mm	828	828	828
	25	Wheelbase (drive wheel to load bearing wheels)	Y	mm	747	850	960
Weight	26	Turning radius	Wa	mm	1047	1142	1244
	27	Counterbalance (*duplex)	D	mm	*97	*97	*102
Wheels P = polyurethane C = rubber	28	Net weight with standard duplex 3.3 m mast, without battery		kg	960	1000	1200
	29	Batteries net weight		kg	180	180	180
Performances	30	Drive & directing wheel (material / Ø x L)		mm	P/250x80	P/250x80	P/250x80
	31	Load bearing wheels (material / Ø x L)		mm	P/150 x 70	P/150 x 70	P/150 x 70
	32	Driving speed : unladen / laden		km/h	5,5 / 4,4	5,5 / 4,2	5,5 / 4
	33	Lifting speed : unladen / laden		cm/s	12,9 / 12	12,9 / 11	12,9 / 10
	34	Lowering speed : unladen / laden		cm/s	18 / 18,7	18 / 19,5	18 / 20,2
Power	35	Gradient (dry ground) : unladen / laden		%	8 / 5	8 / 5	8 / 5
	36	Stacking aisle with palet 800 x 1200	Ast	mm	2530	2640	2740
Power	37	Drive motor 24 V (S2-60 mn)		W	800	800	800
	38	Speed control		type	Adjustable electronic controller		
	39	Brakes		type	Electromagnetic and auto reverse on controller		
	40	Lifting motor 24 V (S3-10 %)		W	2000	2000	2000
	41	Traction battery 24 V		A/h	180 / 225	180 / 225	180 / 225
	42	Charger with electronic regulation, single phase 220V		Amp	In built 25 A		



Tilting mast

Reach mast

MANITOU			
ES 711 GPF	ES 713 GPF	ES 716 GPF	ES 720 GPF
1100	1300	1600	2000
500	500	500	500
See lifting masts table			
Adjustable			
950	950	950	950
200	200	200	250
680	680	680	680
100x35	100x40	100x40	125x40
40	45	45	45
-	-	-	-
-	-	-	-
-	-	-	-
75	75	75	75
*2436	*2541	*2636	*2835
See lifting masts table			
-			
-			
975	975	975	1010
1100	1200	1300	1470
1377	1472	1568	1805
*145	*150	*145	*150
1600	1850	2100	2430
180	220	290	290
P/270x90	P/270x90	P/270x90	P/320x120
P/230 x 110	P/230 x 110	P/230 x 110	C/250x140
See lifting masts table			
-			
-			
5,4 / 4,5	5,2 / 4,2	5 / 4	5,2 / 4
12,9 / 9,3	12,9 / 8,6	13,9 / 10	10 / 6
18 / 21	18 / 21,5	17,5 / 22	8 / 9
8 / 5	8 / 5	8 / 5	8 / 5
2920	3020	3120	3300
1200	1200	1200	1800
Sepex Mosfet Variator			
Electromagnetic and auto reverse on controller			
2000 / 3000	2000 / 3000	3000	3000 / 4000
	180 / 225 / 300		300
External 25 A or 40 A		Externe 40 A	

MANITOU	
ES 713 GPFR	ES 716 GPFR
1300	1600
500	500
See lifting masts table	
Adjustable	
950	950
200	200
600	600
100x40	100x40
50	50
1060	1060
754	754
285	285
86	86
*2050	*2050
1820	1820
*1100	*1100
1060	1060
980	980
See lifting masts table	
160	160
570	570
970	970
1406	1406
1710	1710
-	-
1920	2080
190 / 280	190 / 280
P/270x90	P/320x120
P/250 x 80	P/250 x 80
See lifting masts table	
5 / 4,2	5,2 / 4
12 / 6	12 / 6
10 / 13	10 / 13
8 / 5	8 / 5
2650	2650
1200	1800
Sepex Mosfet Variator	
Electromagnetic and auto reverse on controller	
2000 / 3000	3000 / 4000
189 / 312	312
External 25 A or 40 A	

LIFTING FIXED MASTS ON ES 503 - 506 - 509 GPF										
Mast type & reference	Simplex		Duplex			Duplex GLL			Triplex GLL	
	S14	S17	D28	D33	D37	DLL28	DLL33	DLL37	TLL42	TLL47
FORK HEIGHT (in mm)										
In maximum lift H3	1420	1680	2790	3290	3690	2795	3295	3695	4190	
In free lift H2	1420	1680	-	-	-	1420	1670	1870	1420	
OVERALL MAST HEIGHT (in mm)										
Mast folded H1	1945	2195	1945	2195	2395	1945	2195	2395	1975	
Mast extended H4	1945	2195	3330	3830	4230	3330	3830	4230	4745	

LIFTING TILTING MASTS ON ES 720 GPF										
Mast type & reference	Simple		Duplex			Duplex GLL			Triplex GLL	
	S14	S17	D27	D33	D37	DLL27	DLL33	DLL37	TLL42	TLL47
FORK HEIGHT (in mm)										
In maximum lift H3	1350	1650	2700	3300	3700	2700	3300	3700	4200	4700
In free lift H2	1450	1700	110	110	110	1350	1650	1850	1400	1560
OVERALL MAST HEIGHT (in mm)										
Mast folded H1	1915	2215	1915	2215	2415	1915	2215	2415	1965	2120
Mast extended H4	1915	2215	3260	3860	4260	3260	3860	4260	4765	5265

LIFTING TILTING MASTS ON ES 711 - 713 - 716 GPF										
Mast type & reference	Simplex		Duplex			Duplex GLL			Triplex GLL	
	S14	S17	D28	D33	D37	DLL28	DLL33	DLL37	TLL42	TLL47
FORK HEIGHT (in mm)										
In maximum lift H3	1420	1680	2790	3290	3690	2795	3295	3695	4190	4740
In free lift H2	1420	1680	-	-	-	1420	1670	1870	1420	1640
OVERALL MAST HEIGHT (in mm)										
Mast folded H1	1965	2215	1965	2215	2415	1965	2215	2415	1995	2160
Mast extended H4	1965	2215	3350	3850	4250	3350	3850	4250	4765	5260

LIFTING MASTS ON ES 713 - 716 GPFR										
Mast type & reference	Simplex		Duplex			Duplex GLL			Triplex GLL	
	S14	S17	D27	D33	D37	DLL27	DLL33	DLL37	TLL42	TLL47
FORK HEIGHT (in mm)										
In maximum lift H3	1350	1650	2700	3300	3700	2700	3300	3700	4200	4700
In free lift H2	1350	1650	160	160	160	1350	1650	1850	1400	1560
OVERALL MAST HEIGHT (in mm)										
Mast folded H1	1950	2250	1950	2250	2450	1950	2250	2450	2000	2170
Mast extended H4	1950	2250	3300	3900	4300	3300	3900	4300	4800	5300

