

MANILEC

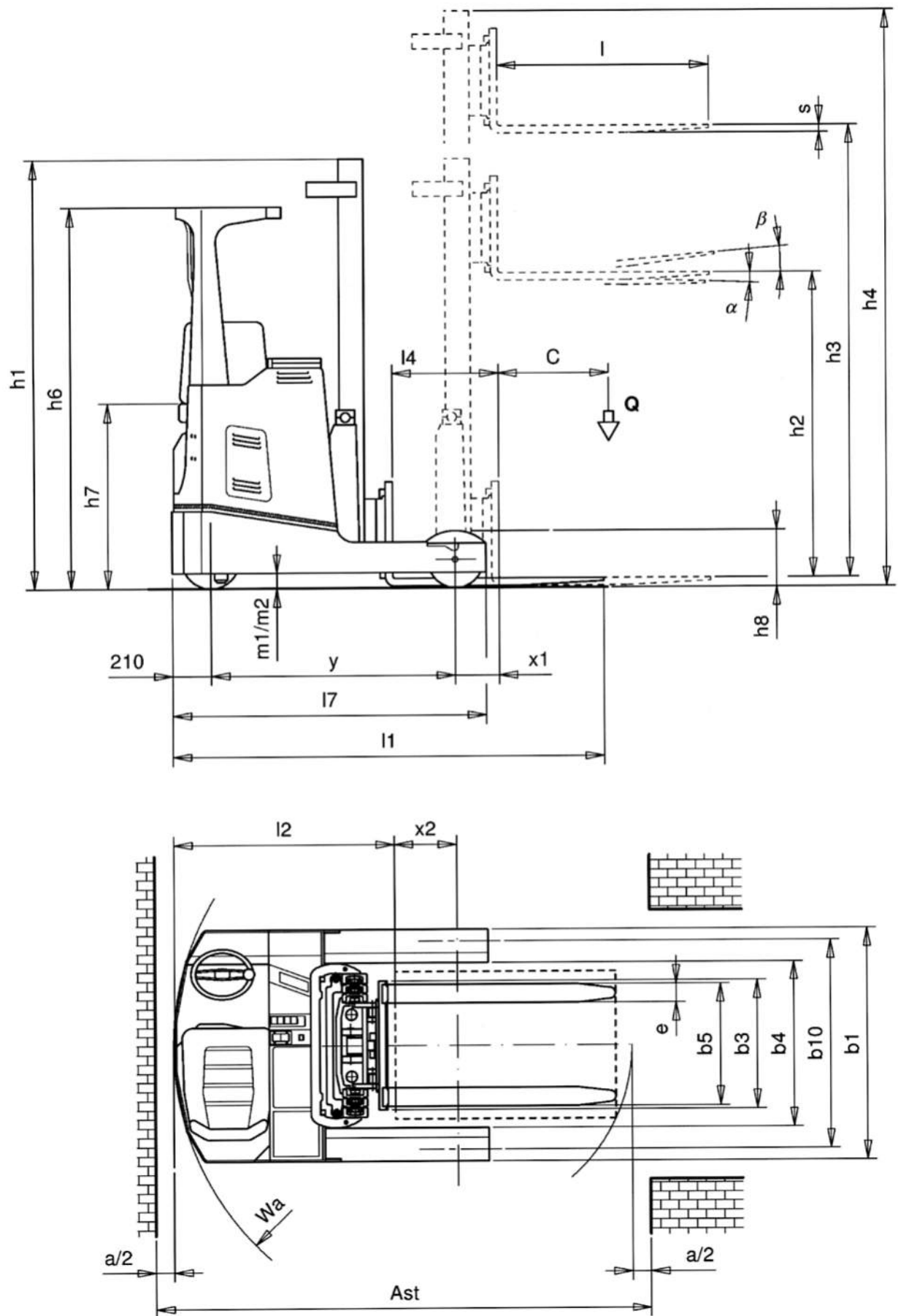
■ **ERS 14 - 16**

Reach truck



 **MANITOU**

ERS 14 - ERS 16 : Reach truck



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General description	MANITOU					
	ERS 14		ERS 16			
1.1	Manufacturer		MANITOU			
1.2	Model type		ERS 14 ERS 16			
1.3	Power source: battery, diesel, petrol, LPG, mains electricity		Battery Battery			
1.4	Driving method: manual, pedestrian, stand-on, sit-on, order picker		Sit-on Sit-on			
1.5	Nominal load capacity	Q t	1,4	1,6		
1.6	Centre of gravity	C mm	600	600		
1.8	Load front overhang	x mm	334 / 259 ⁽¹⁾	348 / 280 ⁽¹⁾		
	With mast out	x1 mm	246	236 / 246 ⁽¹⁾		
1.9	Wheelbase standard forks top/bottom position	y mm	1330	1420		
Weight	2.1	Weight in running order	kg	3180	3490	
	2.4	Load per axle with forks advanced driver side / load side	kg	1410 / 1770	1570 / 1920	
	2.5	Load per axle with forks retracted driver side / load side	kg	1955 / 1225	2100 / 1390	
	2.6	Axle loading with forks loaded and retracted driver side / load side	kg	1429 / 3241	1500 / 3680	
Wheels chassis	3.1	Tyres (Rubber, Inflatable, Polyurethane)		Polyurethane	Polyurethane	
	3.2	Wheel dimensions driver side	mm	343x114	343x114	
	3.3	Wheel dimensions load side	mm	300x90	300x90	
	3.5	Number of wheels (x = driven) driver side / load side		1x / 2	1x / 2	
	3.6	Track width load side	b10 mm	1132	1132	
Dimensions	4.1	Mast/fork carriage tilt, forward / backward	Degrees	3° / 5°	3° / 5°	
	4.2	Height of mast in down position	h1 mm	2385	2750	
	4.3	Free lift height	h2 mm	1770	2135	
	4.4	Top lift height	h3 mm	5200	6300	
	4.5	Overall height with mast fully raised	h4 mm	5785	6885	
	4.7	Height to top of protective canopy	h6 mm	2070	2070	
	4.8	Seat height	h7 mm	1020	1020	
	4.10	Outrigger height	h8 mm	310	310	
	4.19	Overall length	l1 mm	2356 / 2431 ⁽¹⁾	2431 / 2500 ⁽¹⁾	
	4.20	Length of motor/body unit to front face of forks	l2 mm	1206 / 1281 ⁽¹⁾	1281 / 1350 ⁽¹⁾	
	4.21	Overall chassis width	b1 mm	1258	1258	
	4.22	Fork dimensions	s/e/l mm	35 / 130 / 1150	35 / 130 / 1150	
	4.23	Fork carriage as per ISO 2328, class/shape A, B		2 / A	2 / A	
	4.24	Fork carriage width	b3 mm	730	730	
	4.25	External width across forks	b5 mm	311 / 691	311 / 691	
	4.26	Internal width between outriggers	b4 mm	900	900	
	4.28	Mast extension travel	I 4 mm	580 / 505 ⁽¹⁾	584 / 526 ⁽¹⁾	
	4.31	Floor clearance under mast with load	m1 mm	80	80	
	4.32	Floor clearance in middle of wheelbase	m2 mm	80	80	
	4.33	Aisle width for 1000x1200 pallet widthwise	AST mm	2645 / 2700 ⁽¹⁾	2725 / 2275 ⁽¹⁾	
4.34	Aisle width for 800x1200 pallet lengthwise	AST mm	2700 / 2770 ⁽¹⁾	2780 / 2840 ⁽¹⁾		
4.35	Turning radius (top/bottom position)	Wa mm	1548	1636		
4.37	Length to outriggers	I 7 mm	1707	1797		
Performance data	5.1	Driving speed with/without load	km/h	9.5 / 10.5	9 / 10	
	5.2	Lifting speed with/without load	m/s	0.34 / 0.54	0.3 / 0.54	
	5.3	Lowering speed with/without load	m/s	0.41 / 0.31	0.42 / 0.31	
	5.4	Extension speed with/without load	m/s	0.082 / 0.088	0.082 / 0.088	
	5.7	Gradient with/without load	%	10 / 15	10 / 15	
	5.8	Maximum gradient with/without load	%	10 / 15	10 / 15	
	5.9	Acceleration (over 10 m) with/without load	s	5.46 / 5.28	5.62 / 5.28	
	5.10	Service brake		Electric / Hydraulic	Electric / Hydraulic	
	Electric motor	6.1	Drive motor (power S2 = 60 min)	kW	5	5
		6.2	Lift motor (power S3 = 15%)	kW	9	9
6.3		Battery type as per standard IEC 254-2; A,B,C, no		no	no	
6.4		Battery voltage, nominal capacity K5	V/Ah	48 / 420	48 / 560	
6.5		Battery weight (± 5% depending on supplier)	kg	710	890	
Misc	8.1	Driving speed control		Mosfet AC	Mosfet AC	
	8.2	Auxiliary equipment hydraulic pressure	bar	175	190	
	8.3	Auxiliary equipment oil flowrate	l/min	20	20	
	8.4	Mean noise level at driver's ears (while moving)	dB (A)	< 70	< 70	

(1) Battery: ERS 14 = 420 / 560 Ah - ERS 16 = 560 / 700 Ah

Lift mast (mm)

ERS 16	ERS 14	h3	h1	h4	h2
		4200	2040	4785	1425
5200	2385	5785	1770		
5800	2585	6385	1970		
6300	2750	6885	2135		
7000	3018	7585	2403		
7500	3184	8085	2569		
8000	3380	8585	2765		
8500	3575	9085	2960		
9000	3770	9585	3155		



MAST

- Full visibility triplex mast
- 2 free lift cylinders
- Narrow profiles



FORK CARRIAGE

- Fixed mast
- Fork carriage tilting forward/backward 3° / 5°
- Integrated side shift as standard
- Increase residual capacity

MOTORISATION

- AC technology motors,
 - drive,
 - lift,
 - steer.
- Increased autonomy
- Easy maintenance
- Higher performances



CONTROL UNIT AND WIRING

- MOSFET control unit
- Setting of all parameters with external programming console
- Smooth and silent performances
- CAN BUS technology for a 60% gain in wiring



OPERATOR CABIN

- Electrically assisted power steering
- Drive wheel (180°/360° steering mode)
- Adjustable steering wheel Ø 200 mm
- Finger tip hydraulic controls
- Emergency stop, contact key
- Low/high speed selector for drive and hydraulic functions
- Full LCD display, operating hours display, travel direction display, access to error codes through menu button
- Pre-selection of lifting height (optional)
- Fork height indicator (optional)
- Integrated scale (optional)



MAINTENANCE

- Easily accessible components
- Control and programming of parameters by console
- Maintenance reduced thanks to AC technology



SAFETY

- Regenerative braking gear
- Hydraulic brakes in load wheels
- Anti roll-back and anti-racing system
- Dead man pedal
- Automatic electric parking brake

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