

Technical sheet :

ME 316



 **MANITOU**
HANDLING YOUR WORLD

Technical characteristics			Metric	Imperial
1.1	Manufacturer		Manitou	Manitou
1.2	Model Name		ME 316	ME 316
1.3	Power source		Electrical	Electrical
1.4	Operator type		Seated	Seated
1.5	Max. capacity	Q	1600 kg	3527 lb
1.6	Load center of gravity	c	500 mm	20 in
1.8	Load distance, centre of drive axle to fork	x	355 mm	14 in
1.9	Wheelbase	y	1358 mm	53 in
Weight				
	Standard mast reference of the machine		FVD 30	FVD 30
2.1	Service weight		3120 kg	6878 lb
2.2	Weight on front axle (laden) / rear axle (laden)		4100 kg / 620 kg	9039 lb / 1367 lb
2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1440 kg / 1680 kg	3175 lb / 3704 lb
Wheels				
3.1	Tires type		Solid tires	Solid tires
3.2	Dimensions of front wheels		18x7-8	18x7-8
3.3	Dimensions of rear wheels		15x4,5-8	15x4,5-8
3.5	Number of front wheels / rear wheels		2 / 1	2 / 1
3.5.2	Number of drive wheels		2	2
3.6	Front wheel gauge	b10	910 mm	36 in
3.7	Rear wheel gauge	b11	175 mm	7 in
Dimensions				
4.7	Height of overhead guard (cabin)	h6	2040 mm	80 in
4.8	Seat height/stand height	h7	1000 mm	39 in
4.12	Height of towing bar (coupling height)	h10	500 mm	20 in
4.19	Overall length	l1	2968 mm	117 in
4.20	Length to face of forks	l2	1898 mm	75 in
4.21	Overall width	b1	1086 mm	43 in
4.22	Forks section / width / length	s / e / l	35 mm x 100 mm x 1070 mm	1 in x 4 in x 42 in
4.23	Fork carriage ISO 2328 (class/form) A/B		2A	2A
4.24	Fork carriage width	b3	1000 mm	39 in
4.31	Ground clearance below mast	m1	100 mm	4 in
4.32	Ground clearance at centre of wheelbase	m2	110 mm	4 in
4.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	3237 mm	127 in
4.34	Aisle width for 800 x 1200 pallet lengthways	Ast	3365 mm	132 in
4.35	Turning radius	Wa	1555 mm	61 in
Performances				
5.1	Travel speed (laden / unladen)		16 km/h-18 km/h	10 mph-11 mph
5.2	Lifting speed (laden / unladen)		0.40 m/s-0.47 m/s	1 ft/s-2 ft/s
5.3	Lowering speed (laden / unladen)		0.46 m/s-0.44 m/s	2 ft/s-1 ft/s
5.5	Drawbar pull (Laden / Unladen)		750 daN / 772 daN	750 daN / 772 daN
5.7	Gradeability (laden / unladen)		16 % / 18 %	16 % / 18 %
5.10	Service brake		Oil bath	Oil bath
Engine				
6.1	Number of drive motor / Drive motor rating S2 60 min		2 / 4.50 kW	2 / 4.50 kW
6.2	Lift motor rating at S3 15%		8.60 kW	8.60 kW
6.3	Battery according to DIN 43531/35/36 A, B, C		DIN43531 A	DIN43531 A
6.4	Battery voltage / capacity		48 V / 575 Ah	48 V / 575 Ah
6.6	Energy consumption according to VDI cycle (kW/h)		4.30 kWh	4.30 kWh
Miscellaneous				
8.1	Type of drive control		Electronic	Electronic
8.2	Working hydraulic pressure for attachments		180 bar	2611 PSI
8.3	Oil flow rate for attachments		35 l/min	9 US gpm
8.4	Measured/guaranteed mean noise level at the ear of the operator		< 70 dB	< 70 dB
8.4	Sound level at the driver's ear according to DIN 12 053		70 dB	70 dB

ME 316 - Dimensional drawing



Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 27	FVD 30	FVD 33	FVD 36	FVD 40	FVD 43	FVD 45
α - Mast/fork carriage tilt, forward	°	5.50	5.50	5.50	5.50	3.50	3.50	3.50
β - Mast/fork carriage tilt, backward	°	6	6	6	6	5	5	5
h1 - Mast lowered height	in (mm)	72.6 (1845)	78.5 (1995)	84.4 (2145)	90.4 (2295)	100.2 (2545)	106.7 (2710)	111 (2820)
h2 - Mast free lift	in (mm)	5.7 (145)	5.7 (145)	5.7 (145)	5.7 (145)	5.7 (145)	5.7 (145)	5.7 (145)
h3 - Mast lifting height	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)
h4 - Mast extended height	in (mm)	128.5 (3265)	140.4 (3565)	152.2 (3865)	164 (4165)	179.7 (4565)	191.5 (4865)	199.4 (5065)
Residual capacity at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3307 (1500)
Residual capacity with integrated side shift at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3307 (1500)
Residual capacity with hooked-on side shift at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3417 (1550)	3307 (1500)	3086 (1400)
Height at max capacity	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)
Height at max capacity with integrated sideshift	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)	169.3 (4300)	177.2 (4500)

Free Lift Duplex (FLD)		FLD 27	FLD 30	FLD 33	FLD 36	FLD 40
α - Mast/fork carriage tilt, forward	°	5.50	5.50	5.50	5.50	3.50
β - Mast/fork carriage tilt, backward	°	6	6	6	6	5
h1 - Mast lowered height	in (mm)	72.6 (1845)	78.5 (1995)	84.4 (2145)	90.4 (2295)	100.2 (2545)
h2 - Mast free lift	in (mm)	49.6 (1260)	55.5 (1410)	61.4 (1560)	67.3 (1710)	77.2 (1960)
h3 - Mast lifting height	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)
h4 - Mast extended height	in (mm)	129.7 (3295)	141.5 (3595)	153.3 (3895)	165.2 (4195)	180.9 (4595)
Residual capacity at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)
Residual capacity with integrated side shift at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)
Residual capacity with hooked-on side shift at max height	lb (kg)	3527 (1600)	3527 (1600)	3527 (1600)	3527 (1600)	3417 (1550)
Height at max capacity	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)
Height at max capacity with integrated sideshift	in (mm)	106.3 (2700)	118.1 (3000)	129.9 (3300)	141.7 (3600)	157.5 (4000)

Free Lift Triplex (FLT)		FLT 40	FLT 43	FLT 45	FLT 48	FLT 50	FLT 55	FLT 60	FLT 65
α - Mast/fork carriage tilt, forward	°	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
β - Mast/fork carriage tilt, backward	°	5	5	5	5	5	5	5	5
h1 - Mast lowered height	in (mm)	75.2 (1910)	79.1 (2010)	81.7 (2075)	85.6 (2175)	88.2 (2240)	94.9 (2410)	103.3 (2625)	111.8 (2840)
h2 - Mast free lift	in (mm)	52.2 (1325)	56.1 (1425)	58.7 (1490)	62.6 (1590)	65.2 (1655)	71.9 (1825)	79.1 (2010)	79.1 (2010)
h3 - Mast lifting height	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	189 (4800)	196.9 (5000)	216.5 (5500)	236.2 (6000)	255.9 (6500)
h4 - Mast extended height	in (mm)	180.9 (4595)	192.7 (4895)	200.6 (5095)	212.4 (5395)	220.3 (5595)	240 (6095)	260.8 (6625)	282.3 (7170)
Residual capacity at max height	lb (kg)	3527 (1600)	3417 (1550)	3307 (1500)	3197 (1450)	3086 (1400)	2756 (1250)	2425 (1100)	1984 (900)
Residual capacity with integrated side shift at max height	lb (kg)	3527 (1600)	3417 (1550)	3307 (1500)	3197 (1450)	3086 (1400)	2756 (1250)	2425 (1100)	1984 (900)
Residual capacity with hooked-on side shift at max height	lb (kg)	3307 (1500)	3197 (1450)	3086 (1400)	2976 (1350)	2866 (1300)	2535 (1150)	2205 (1000)	1764 (800)
Height at max capacity	in (mm)	157.5 (4000)	169.3 (4300)	177.2 (4500)	189 (4800)	196.9 (5000)	216.5 (5500)	236.2 (6000)	255.9 (6500)



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