

Technical sheet :

ME 316



 **MANITOU**
HANDLING YOUR WORLD

| Technical characteristics | | Metric | |
|---------------------------|---|-----------|--------------------------|
| 1.1 | Manufacturer | | Manitou |
| 1.2 | Model Name | | ME 316 |
| 1.3 | Power source | | Electrical - Lead |
| 1.4 | Operator type | | Seated |
| 1.5 | Max. capacity | Q | 1600 kg |
| 1.6 | Load center of gravity | c | 500 mm |
| 1.8 | Load distance, centre of drive axle to fork | x | 355 mm |
| 1.9 | Wheelbase | y | 1358 mm |
| | Standard mast reference of the machine | | FVD 30 |
| Weight | | | |
| 2.1 | Service weight | | 3120 kg |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 4100 kg / 620 kg |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 1440 kg / 1680 kg |
| Wheels | | | |
| 3.1 | Tires type | | Solid tires |
| 3.2 | Dimensions of front wheels | | 18x7-8 |
| 3.3 | Dimensions of rear wheels | | 15x4,5-8 |
| 3.5 | Number of front wheels / rear wheels | | 2 / 1 |
| 3.5.2 | Number of drive wheels | | 2 |
| 3.6 | Front wheel gauge | b10 | 910 mm |
| 3.7 | Rear wheel gauge | b11 | 175 mm |
| Dimensions | | | |
| 4.8 | Seat height/stand height | h7 | 1000 mm |
| 4.7 | Height of overhead guard (cabin) | h6 | 2040 mm |
| 4.12 | Height of towing bar (coupling height) | h10 | 500 mm |
| 4.19 | Overall length | l1 | 2968 mm |
| 4.20 | Length to face of forks | l2 | 1898 mm |
| 4.21 | Overall width | b1 | 1086 mm |
| 4.22 | Forks section / width / length | s / e / l | 35 mm x 100 mm x 1070 mm |
| 4.23 | Fork carriage ISO 2328 (class/form) A/B | | 2A |
| 4.24 | Fork carriage width | b3 | 1000 mm |
| 4.31 | Ground clearance below mast | m1 | 100 mm |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 110 mm |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 3237 mm |
| 4.34 | Aisle width for 800 x 1200 pallet lengthways | Ast | 3365 mm |
| 4.35 | Turning radius | Wa | 1555 mm |
| Performances | | | |
| 5.1 | Travel speed (laden / unladen) | | 16 km/h-18 km/h |
| 5.2 | Lifting speed (laden / unladen) | | 0.40 m/s-0.47 m/s |
| 5.3 | Lowering speed (laden / unladen) | | 0.46 m/s-0.44 m/s |
| 5.5 | Drawbar pull (Laden / Unladen) | | 750 daN / 772 daN |
| 5.7 | Gradeability (laden / unladen) | | 16 % / 18 % |
| 5.10 | Service brake | | Oil bath |
| Engine | | | |
| 6.1 | Number of drive motor / Drive motor rating S2 60 min | | 2 / 4.50 kW |
| 6.2 | Lift motor rating at S3 15% | | 8.60 kW |
| 6.3 | Battery according to DIN 43531/35/36 A, B, C | | DIN43531 A |
| 6.4 | Battery voltage / capacity | | 48 V / 575 Ah |
| 6.6 | Energy consumption according to VDI cycle (kWh/h) | | 4.30 kWh/h |
| Miscellaneous | | | |
| 8.1 | Type of drive control | | Electronic |
| 8.2 | Working hydraulic pressure for attachments | | 180 bar |
| 8.3 | Oil flow rate for attachments | | 35 l/min |
| 8.4 | Measured/guaranteed mean noise level at the ear of the operator | | < 70 dB |
| 8.4 | Sound level at the driver's ear according to DIN 12 053 | | 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 | mm | 1845 | 1995 | 2145 | 2295 | 2545 | 2710 | 2820 |
| h2 - Mast free lift | mm | 145 | 145 | 145 | 145 | 145 | 145 | 145 |
| h3 - Mast lifting height | mm | 2700 | 3000 | 3300 | 3600 | 4000 | 4300 | 4500 |
| h4 - Mast extended height | mm | 3265 | 3565 | 3865 | 4165 | 4565 | 4865 | 5065 |
| Residual capacity at max height | kg | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1500 |
| Residual capacity with integrated side shift at max height | kg | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1500 |
| Residual capacity with hooked-on side shift at max height | kg | 1600 | 1600 | 1600 | 1600 | 1550 | 1500 | 1400 |
| Height at max capacity | mm | 2700 | 3000 | 3300 | 3600 | 4000 | 4300 | 4500 |
| Height at max capacity with integrated sideshift | mm | 2700 | 3000 | 3300 | 3600 | 4000 | 4300 | 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 | mm | 1845 | 1995 | 2145 | 2295 | 2545 |
| h2 - Mast free lift | mm | 1260 | 1410 | 1560 | 1710 | 1960 |
| h3 - Mast lifting height | mm | 2700 | 3000 | 3300 | 3600 | 4000 |
| h4 - Mast extended height | mm | 3295 | 3595 | 3895 | 4195 | 4595 |
| Residual capacity at max height | kg | 1600 | 1600 | 1600 | 1600 | 1600 |
| Residual capacity with integrated side shift at max height | kg | 1600 | 1600 | 1600 | 1600 | 1600 |
| Residual capacity with hooked-on side shift at max height | kg | 1600 | 1600 | 1600 | 1600 | 1550 |
| Height at max capacity | mm | 2700 | 3000 | 3300 | 3600 | 4000 |
| Height at max capacity with integrated sideshift | mm | 2700 | 3000 | 3300 | 3600 | 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 | mm | 1910 | 2010 | 2075 | 2175 | 2240 | 2410 | 2625 | 2840 |
| h2 - Mast free lift | mm | 1325 | 1425 | 1490 | 1590 | 1655 | 1825 | 2010 | 2010 |
| h3 - Mast lifting height | mm | 4000 | 4300 | 4500 | 4800 | 5000 | 5500 | 6000 | 6500 |
| h4 - Mast extended height | mm | 4595 | 4895 | 5095 | 5395 | 5595 | 6095 | 6625 | 7170 |
| Residual capacity at max height | kg | 1600 | 1550 | 1500 | 1450 | 1400 | 1250 | 1100 | 900 |
| Residual capacity with integrated side shift at max height | kg | 1600 | 1550 | 1500 | 1450 | 1400 | 1250 | 1100 | 900 |
| Residual capacity with hooked-on side shift at max height | kg | 1500 | 1450 | 1400 | 1350 | 1300 | 1150 | 1000 | 800 |
| Height at max capacity | mm | 4000 | 4300 | 4500 | 4800 | 5000 | 5500 | 6000 | 2500 |

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