

Technical sheet :

ME 316 US



 **MANITOU**
HANDLING YOUR WORLD

| Technical characteristics | | Imperial | |
|---------------------------|---|-----------|---------------------|
| 1.1 | Manufacturer | | Manitou |
| 1.2 | Model Name | | ME 316 US |
| 1.3 | Power source | | Electrical |
| 1.4 | Operator type | | Seated |
| 1.5 | Max. capacity | Q | 3527 lb |
| 1.6 | Load center of gravity | c | 20 in |
| 1.8 | Load distance, centre of drive axle to fork | x | 14 in |
| 1.9 | Wheelbase | y | 53 in |
| Weight | | | |
| 2.1 | Service weight | | 6878 lb |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 9039 lb / 1367 lb |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 3175 lb / 3704 lb |
| 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 | 36 in |
| 3.7 | Rear wheel gauge | b11 | 7 in |
| Dimensions | | | |
| 4.7 | Height of overhead guard (cabin) | h6 | 80 in |
| 4.8 | Seat height/stand height | h7 | 39 in |
| 4.12 | Height of towing bar (coupling height) | h10 | 20 in |
| 4.19 | Overall length | l1 | 117 in |
| 4.20 | Length to face of forks | l2 | 75 in |
| 4.21 | Overall width | b1 | 43 in |
| 4.22 | Forks section / width / length | s / e / l | 1 in x 4 in x 42 in |
| 4.23 | Fork carriage ISO 2328 (class/form) A/B | | 2A |
| 4.24 | Fork carriage width | b3 | 39 in |
| 4.31 | Ground clearance below mast | m1 | 4 in |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 4 in |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 127 in |
| 4.34 | Aisle width for 800 x 1200 pallet lengthways | Ast | 132 in |
| 4.35 | Turning radius | Wa | 61 in |
| Performances | | | |
| 5.1 | Travel speed (laden / unladen) | | 10 mph-11 mph |
| 5.2 | Lifting speed (laden / unladen) | | 1 ft/s-2 ft/s |
| 5.3 | Lowering speed (laden / unladen) | | 2 ft/s-1 ft/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 |
| Miscellaneous | | | |
| 8.1 | Type of drive control | | Electronic |
| 8.2 | Working hydraulic pressure for attachments | | 2611 PSI |
| 8.3 | Oil flow rate for attachments | | 9 US gpm |
| 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 US - 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 | 72.6 | 78.5 | 84.4 | 90.4 | 100.2 | 106.7 | 111 |
| h2 - Mast free lift | in | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 |
| h3 - Mast lifting height | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 | 169.3 | 177.2 |
| h4 - Mast extended height | in | 128.5 | 140.4 | 152.2 | 164 | 179.7 | 191.5 | 199.4 |
| Residual capacity at max height | lb | 3527 | 3527 | 3527 | 3527 | 3527 | 3527 | 3307 |
| Residual capacity with integrated side shift at max height | lb | 3527 | 3527 | 3527 | 3527 | 3527 | 3527 | 3307 |
| Residual capacity with hooked-on side shift at max height | lb | 3527 | 3527 | 3527 | 3527 | 3417 | 3307 | 3086 |
| Height at max capacity | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 | 169.3 | 177.2 |
| Height at max capacity with integrated sideshift | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 | 169.3 | 177.2 |

| 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 | 72.6 | 78.5 | 84.4 | 90.4 | 100.2 |
| h2 - Mast free lift | in | 49.6 | 55.5 | 61.4 | 67.3 | 77.2 |
| h3 - Mast lifting height | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 |
| h4 - Mast extended height | in | 129.7 | 141.5 | 153.3 | 165.2 | 180.9 |
| Residual capacity at max height | lb | 3527 | 3527 | 3527 | 3527 | 3527 |
| Residual capacity with integrated side shift at max height | lb | 3527 | 3527 | 3527 | 3527 | 3527 |
| Residual capacity with hooked-on side shift at max height | lb | 3527 | 3527 | 3527 | 3527 | 3417 |
| Height at max capacity | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 |
| Height at max capacity with integrated sideshift | in | 106.3 | 118.1 | 129.9 | 141.7 | 157.5 |

| 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 | 75.2 | 79.1 | 81.7 | 85.6 | 88.2 | 94.9 | 103.3 | 111.8 |
| h2 - Mast free lift | in | 52.2 | 56.1 | 58.7 | 62.6 | 65.2 | 71.9 | 79.1 | 79.1 |
| h3 - Mast lifting height | in | 157.5 | 169.3 | 177.2 | 189 | 196.9 | 216.5 | 236.2 | |
| h4 - Mast extended height | in | 180.9 | 192.7 | 200.6 | 212.4 | 220.3 | 240 | 260.8 | 282.3 |
| Residual capacity at max height | lb | 3527 | 3417 | 3307 | 3197 | 3086 | 2756 | 2425 | 1984 |
| Residual capacity with integrated side shift at max height | lb | 3527 | 3417 | 3307 | 3197 | 3086 | 2756 | 2425 | 1984 |
| Residual capacity with hooked-on side shift at max height | lb | 3307 | 3197 | 3086 | 2976 | 2866 | 2535 | 2205 | 1764 |
| Height at max capacity | in | 157.5 | 169.3 | 177.2 | 189 | 196.9 | 216.5 | 236.2 | 255.9 |

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