

Technical sheet :

# ME 316 LIFT



 **MANITOU**  
HANDLING YOUR WORLD

| Technical characteristics |   | Metric |                     |
|---------------------------|---|--------|---------------------|
| 1.1                       | Manufacturer  |        | Manitou             |
| 1.2                       | Model Name  |        | ME 316 LIFT         |
| 1.3                       | Power source  |        | Electrical          |
| 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      | 359.50 mm           |
| 1.9                       | Wheelbase   | y      | 1277 mm             |
|                           | Standard mast reference of the machine                  |        | FVD 30              |
| Weight                    |   |        |                     |
| 2.1                       | Service weight  |        | 2940 kg             |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)        |        | 3950 kg / 590 kg    |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)    |        | 1340 kg / 1600 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    | 914 mm              |
| 3.7                       | Rear wheel gauge  | b11    | 178 mm              |
| Dimensions                |   |        |                     |
| 4.7                       | Height of overhead guard (cabin)                        | h6     | 2147 mm             |
| 4.8                       | Seat height/stand height                                | h7     | 1120 mm             |
| 4.12                      | Height of towing bar (coupling height)                  | h10    | 525 mm              |
| 4.19                      | Overall length  | l1     | 2776 mm             |
| 4.20                      | Length to face of forks                                 | l2     | 1856 mm             |
| 4.21                      | Overall width   | b1     | 1086 mm             |
| 4.22.1                    | Forks width / length                                    | e / l  | 35 mm x 100 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    | 3156 mm             |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways            | Ast    | 3280 mm             |
| 4.35                      | Turning radius  | Wa     | 1470 mm             |
| Performances              |   |        |                     |
| 5.1                       | Travel speed (laden / unladen)                          |        | 16 km/h-16 km/h     |
| 5.2                       | Lifting speed (laden / unladen)                         |        | 0.45 m/s-0.60 m/s   |
| 5.3                       | Lowering speed (laden / unladen)                        |        | 0.46 m/s-0.44 m/s   |
| 5.5                       | Drawbar pull (Laden / Unladen)                          |        | 3300 daN / 3900 daN |
| 5.7                       | Gradeability (laden / unladen)                          |        | 16 % / 18 %         |
| 5.10                      | Service brake   |        | Hydraulic           |
| Engine                    |   |        |                     |
| 6.1                       | Drive motor rating S2 60 min                            |        | 2.50 kW             |
| 6.2                       | Lift motor rating at S3 15%                             |        | 11 kW               |
| 6.3                       | Battery according to DIN 43531/35/36 A, B, C            |        | No                  |
| 6.4                       | Battery voltage / capacity                              |        | 76.80 V / 230 Ah    |
| 6.5                       | Battery weight (+/- 5%)                                 |        | 185 kg              |
| 6.6                       | Energy consumption according to VDI cycle (kWh/h)       |        | 4.60 kWh/h          |
| Miscellaneous             |   |        |                     |
| 8.2                       | Working hydraulic pressure for attachments              |        | 185 bar             |
| 8.3                       | Oil flow rate for attachments                           |        | 30 l/min            |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053 |        | 70 dB               |

### ME 316 LIFT - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                               |    | FVD 30 | FVD 33 | FVD 40 | FVD 45 |
|--|----|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                       | °  | 7      | 7      | 7      | 7      |
| β - Mast/fork carriage tilt, backward                      | °  | 6      | 6      | 6      | 6      |
| h1 - Mast lowered height                                   | mm | 1988   | 2138   | 2588   | 2838   |
| h2 - Mast free lift  | mm | 140    | 140    | 140    | 140    |
| h3 - Mast lifting height                                   | mm | 3000   | 3300   | 4000   | 4500   |
| h4 - Mast extended height                                  | mm | 3560   | 3860   | 4560   | 5060   |
| Residual capacity at max height                            | kg | 1600   | 1600   | 1600   | 1500   |
| Residual capacity with integrated side shift at max height | kg | 1550   | 1550   | 1550   | 1450   |

| Free Lift Triplex (FLT)                                    |    | FLT 40 | 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   |
| β - Mast/fork carriage tilt, backward                      | °  | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| h1 - Mast lowered height                                   | mm | 1888   | 2038   | 2138   | 2213   | 2388   | 2588   | 2788   |
| h2 - Mast free lift  | mm | 1292   | 1392   | 1492   | 1582   | 1792   | 1992   | 2192   |
| h3 - Mast lifting height                                   | mm | 4000   | 4500   | 4800   | 5000   | 5500   | 6000   | 6500   |
| h4 - Mast extended height                                  | mm | 4552   | 5052   | 5352   | 5552   | 6052   | 6552   | 7052   |
| Residual capacity at max height                            | kg | 1600   | 1500   | 1450   | 1400   | 1250   | 1100   | 900    |
| Residual capacity with integrated side shift at max height | kg | 1550   | 1450   | 1400   | 1350   | 1200   | 1050   | 850    |



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