

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 - Lithium |
| 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               |
|        | <b>Weight</b>   |       |                      |
| 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    |
|        | <b>Wheels</b>   |       |                      |
| 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               |
|        | <b>Dimensions</b>                                       |       |                      |
| 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              |
|        | <b>Performances</b>                                     |       |                      |
| 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            |
|        | <b>Engine</b>   |       |                      |
| 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)       |       | 3.80 kWh/h           |
|        | <b>Miscellaneous</b>                                    |       |                      |
| 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 heigh | 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 heigh | kg | 1550   | 1450   | 1400   | 1350   | 1200   | 1050   | 850    |



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