

Technical sheet :

# M 50-2

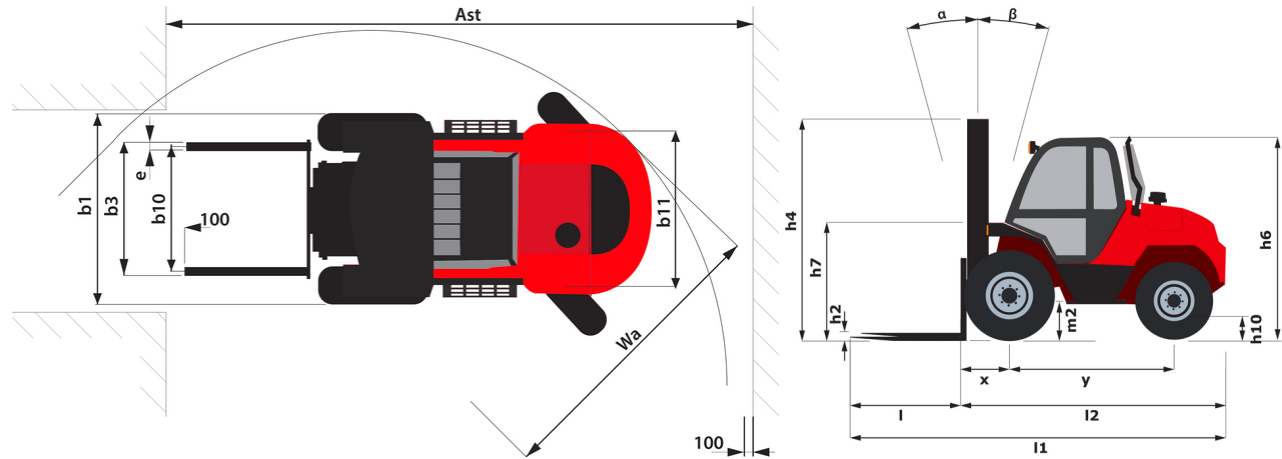
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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                               |           | Metric                               |
|-------|---------------------------------------------------------|-----------|--------------------------------------|
| 1.1   | Manufacturer                                            |           | MANITOU                              |
| 1.2   | Model Name                                              |           | M 50-2                               |
| 1.3   | Power source                                            |           | Diesel                               |
| 1.4   | Operator type                                           |           | Seated                               |
| 1.5   | Max. capacity                                           | Q         | 5000 kg                              |
| 1.6   | Load center of gravity                                  | c         | 600 mm                               |
| 1.8   | Load distance, centre of drive axle to fork             | x         | 772 mm                               |
| 1.9   | Wheelbase                                               | y         | 2120 mm                              |
|       | Weight                                                  |           |                                      |
|       | Standard mast reference of the machine                  |           | FVD 37                               |
| 2.1   | Service weight                                          |           | 8130 kg                              |
| 2.2   | Weight on front axle (laden) / rear axle (laden)        |           | 11106 kg / 2024 kg                   |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)    |           | 2870 kg / 5260 kg                    |
|       | Wheels                                                  |           |                                      |
| 3.1   | Tires type                                              |           | Pneumatic                            |
| 3.2   | Dimensions of front wheels                              |           | 18R22.5 XF TL 161A8/175A2            |
| 3.3   | Dimensions of rear wheels                               |           | 235/75R17.5 132/130M KM              |
| 3.5   | Number of front wheels / rear wheels                    |           | 2 / 2                                |
| 3.5.2 | Number of drive wheels                                  |           | 2                                    |
| 3.6   | Front wheel gauge                                       | b10       | 1620 mm                              |
| 3.7   | Rear wheel gauge                                        | b11       | 1680 mm                              |
|       | Dimensions                                              |           |                                      |
| 4.7   | Height of overhead guard (cabin)                        | h6        | 2525 mm                              |
| 4.8   | Seat height/stand height                                | h7        | 1452 mm                              |
| 4.19  | Overall length                                          | l1        | 4917 mm                              |
| 4.20  | Length to face of forks                                 | l2        | 3717 mm                              |
| 4.21  | Overall width                                           | b1        | 2076 mm                              |
| 4.22  | Forks section x width x length                          | s / e / l | 60 mm x 150 mm / 1200 mm             |
| 4.23  | Fork carriage ISO 2328 (class/form) A/B                 |           | FEM 4A                               |
| 4.24  | Fork carriage width                                     | b3        | 1670 mm                              |
| 4.31  | Ground clearance below mast                             | m1        | 346 mm                               |
| 4.32  | Ground clearance at centre of wheelbase                 | m2        | 400 mm                               |
| 4.33  | Aisle width for 1000 x 1200 pallet widthways            | Ast       | 5553 mm                              |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways            | Ast       | 5753 mm                              |
| 4.35  | Turning radius                                          | Wa        | 3581 m                               |
|       | Performances                                            |           |                                      |
| 5.1   | Travel speed (laden / unladen)                          |           | 26.30 km/h / 26.30 km/h              |
| 5.2   | Lifting speed (laden / unladen)                         |           | 0.34 m/s / 0.34 m/s                  |
| 5.3   | Lowering speed (laden / unladen)                        |           | 0.42 m/s / 0.32 m/s                  |
| 5.5   | Drawbar pull (Laden)                                    |           | 17307 daN                            |
| 5.7   | Gradeability (laden / unladen)                          |           | 51 % / 21 %                          |
| 5.10  | Service brake                                           |           | Hydraulic brakes by loss of pressure |
|       | Transmission type                                       |           | Torque converter                     |
|       | Engine                                                  |           |                                      |
| 7.1   | Engine brand / model                                    |           | Deutz / TCD 2,9                      |
| 7.2   | Engine power (kW)                                       |           | 55 kW                                |
| 7.3   | Rated speed                                             |           | 2300 rpm                             |
| 7.4   | Number of cylinders / Capacity of cylinders             |           | 4 - 2925 cm³                         |
| 7.5   | Fuel consumption according to VDI cycle                 |           | 5.86 l/h                             |
|       | Miscellaneous                                           |           |                                      |
| 8.2   | Working hydraulic pressure for attachments              |           | 210 bar                              |
| 8.3   | Oil flow rate for attachments                           |           | 67 l/min                             |
| 8.4   | Sound level at the driver's ear according to DIN 12 053 |           | 79.10 dB                             |

M 50-2 - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                              |    | FVD 30 | FVD 33 | FVD 35 | FVD 37 | FVD 40 | FVD 45 | FVD 50 |
|-----------------------------------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °  | 15     | 15     | 15     | 15     | 15     | 15     | 15     |
| β - Mast/fork carriage tilt, backward                     | °  | 12     | 12     | 12     | 12     | 12     | 12     | 12     |
| h1 - Mast lowered height                                  | mm | 2475   | 2625   | 2725   | 2825   | 2975   | 3225   | 3475   |
| h3 - Mast lifting height                                  | mm | 3000   | 3300   | 3500   | 3700   | 4000   | 4500   | 5000   |
| h4 - Mast extended height                                 | mm | 4025   | 4325   | 4525   | 4725   | 5052   | 5525   | 6025   |
| Residual capacity at max height                           | kg | 5000   | 5000   | 5000   | 5000   | 5000   | 4750   | 3500   |
| Residual capacity with hooked-on side shift at max height | kg | 4700   | 4700   | 4700   | 4700   | 4700   | 4400   |        |
| Height at max capacity                                    | mm | 3000   | 3300   | 3500   | 3700   | 4000   | 4000   | 4000   |
| Height at max capacity with hooked-on sideshift           | mm | 3000   | 3300   | 3500   | 3700   | 4000   | 4000   |        |

| Free Lift Triplex (FLT)                                   |    | FLT 37 | FLT 40 | FLT 43 | FLT 45 | FLT 47 | FLT 50 | FLT 55 | FLT 60 |
|-----------------------------------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °  | 15     | 15     | 15     | 15     | 15     | 10     | 10     | 10     |
| β - Mast/fork carriage tilt, backward                     | °  | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     |
| h1 - Mast lowered height                                  | mm | 2225   | 2325   | 2425   | 2500   | 2560   | 2675   | 2825   | 3000   |
| h2 - Mast free lift                                       | mm | 1255   | 1355   | 1455   | 1530   | 1590   | 1705   | 1855   | 2030   |
| h3 - Mast lifting height                                  | mm | 3700   | 4000   | 4300   | 4500   | 4700   | 5000   | 5500   | 6000   |
| h4 - Mast extended height                                 | mm | 4725   | 5025   | 5325   | 5525   | 5725   | 6025   | 6525   | 7025   |
| Residual capacity at max height                           | kg |        | 4800   |        | 4500   | 3500   | 2000   | 2000   |        |
| Residual capacity with hooked-on side shift at max height | kg |        | 4550   | 4400   |        |        | 3000   | 1600   | 250    |
| Height at max capacity                                    | mm |        | 3500   |        | 4000   | 4000   | 3700   | 3700   |        |
| Height at max capacity with hooked-on sideshift           | mm |        | 3500   | 3500   |        |        | 3700   | 3700   | 3200   |



**Head Office**

B.P. 249 - 430 rue de l'Aubinière

44150 Ancenis Cedex - France

Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97

[www.manitou.com](http://www.manitou.com)



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