

Technical sheet :

# **M 50-2 D ST5**

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| Technical characteristics |  | Metric    |                           |
|---------------------------|--|-----------|---------------------------|
| 1.1                       | Manufacturer   |           | MANITOU                   |
| 1.2                       | Model Name   |           | M 50-2 D ST5              |
| 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         | 773 mm                    |
| 1.9                       | Wheelbase  | y         | 2060 mm                   |
| Weight                    |  |           |                           |
|                           | Standard mast reference of the machine   |           | FVD 37                    |
| 2.1                       | Service weight   |           | 8275 kg                   |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)   |           | 11615 kg / 1660 kg        |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)                                     |           | 3285 kg / 4990 kg         |
| Wheels                    |  |           |                           |
| 3.1                       | Tires type   |           | Pneumatic                 |
| 3.2                       | Dimensions of front wheels   |           | 18-19,5 18PR A224         |
| 3.3                       | Dimensions of rear wheels  |           | 10R17,5 G291 GY           |
| 3.5                       | Number of front wheels / rear wheels   |           | 2 / 2                     |
| 3.5.2                     | Number of drive wheels   |           | 2                         |
| 3.6                       | Front wheel gauge  | b10       | 1600 mm                   |
| 3.7                       | Rear wheel gauge   | b11       | 1640 mm                   |
| Dimensions                |  |           |                           |
| 4.7                       | Height of overhead guard (cabin) / Overall height of low overhead guard (Buggie version) | h6        | 2440 mm / 2440 mm         |
| 4.8                       | Seat height/stand height   | h7        | 1407 mm                   |
| 4.19                      | Overall length   | l1        | 4948 mm                   |
| 4.20                      | Length to face of forks  | l2        | 3748 mm                   |
| 4.21                      | Overall width  | b1        | 2057 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  |           | 4A                        |
| 4.24                      | Fork carriage width  | b3        | 1670 mm                   |
| 4.31                      | Ground clearance below mast  | m1        | 250 mm                    |
| 4.32                      | Ground clearance at centre of wheelbase  | m2        | 377 mm                    |
| 4.33                      | Aisle width for 1000 x 1200 pallet widthways   | Ast       | 5640 mm                   |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways   | Ast       | 5640 mm                   |
| 4.35                      | Turning radius   | Wa        | 3465 mm                   |
| Performances              |  |           |                           |
| 5.1                       | Travel speed (laden / unladen)   |           | 22 km/h / 22 km/h         |
| 5.2                       | Lifting speed (laden / unladen)  |           | 0.40 m/s / 0.40 m/s       |
| 5.3                       | Lowering speed (laden / unladen)   |           | 0.50 m/s / 0.40 m/s       |
| 5.5                       | Drawbar pull (Laden)   |           | 6900 daN                  |
| 5.7                       | Gradeability (laden)   |           | 51 %                      |
| 5.10                      | Service brake  |           | Hydraulic                 |
|                           | Transmission type  |           | Torque converter          |
| Engine                    |  |           |                           |
| 7.1                       | Engine brand / model / norm  |           | Deutz / TCD 2,9 / Stage V |
| 7.2                       | Engine power (Hp / kW)   |           | 75 Hp/55 kW               |
| 7.3                       | Rated speed  |           | 2300 rpm                  |
| 7.4                       | Number of cylinders / Capacity of cylinders  |           | 4 - 2925 cm³              |
| Miscellaneous             |  |           |                           |
| 8.2                       | Working hydraulic pressure for attachments   |           | 230 bar                   |
| 8.3                       | Oil flow rate for attachments  |           | 52 l/min                  |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053                                  |           | 78 dB                     |

M 50-2 D ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                              | FVD 33 | FVD 35 | FVD 37 | FVD 40 | FVD 45 | FVD 50 |
|---|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | 15     | 15     | 15     | 15     | 15     | 10     |
| β - Mast/fork carriage tilt, backward                     | 15     | 15     | 15     | 15     | 15     | 15     |
| h1 - Mast lowered height                                  | 2625   | 2725   | 2825   | 2975   | 3225   | 3475   |
| h3 - Mast lifting height                                  | 3300   | 3700   | 3700   | 4000   | 4500   | 5000   |
| Residual capacity at max height                           | 5000   | 5000   | 5000   | 5000   | 4750   | 3500   |
| Residual capacity with hooked-on side shift at max height | 4700   | 4700   | 4700   | 4700   | 4400   |        |
| Height at max capacity                                    | 3300   | 3500   | 3700   | 4000   | 4000   | 4000   |
| Height at max capacity with hooked-on sideshift           | 3300   | 3500   | 3700   | 4000   | 4000   |        |

| Free Lift Triplex (FLT)                                   | FLT 43 | FLT 45 | FLT 47 | FLT 50 | FLT 55 | FLT 60 |
|---|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | 15     | 15     | 15     | 10     | 10     | 10     |
| β - Mast/fork carriage tilt, backward                     | 15     | 15     | 15     | 15     | 15     | 15     |
| h1 - Mast lowered height                                  | 2425   | 2500   | 2560   | 2675   | 2825   | 3000   |
| h2 - Mast free lift                                       | 1455   | 1530   | 1590   | 1705   | 1855   | 2030   |
| h3 - Mast lifting height                                  | 4300   | 4500   | 4700   | 5000   | 5500   | 6000   |
| Residual capacity at max height                           |        | 4500   | 3500   | 2000   | 2000   |        |
| Residual capacity with hooked-on side shift at max height | 4400   |        |        | 3000   | 1600   | 250    |
| Height at max capacity                                    | 2500   | 4000   | 4000   | 3700   | 5500   | 2500   |
| Height at max capacity with hooked-on sideshift           | 3500   |        |        | 3700   | 3700   | 3200   |



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