

Technical sheet :

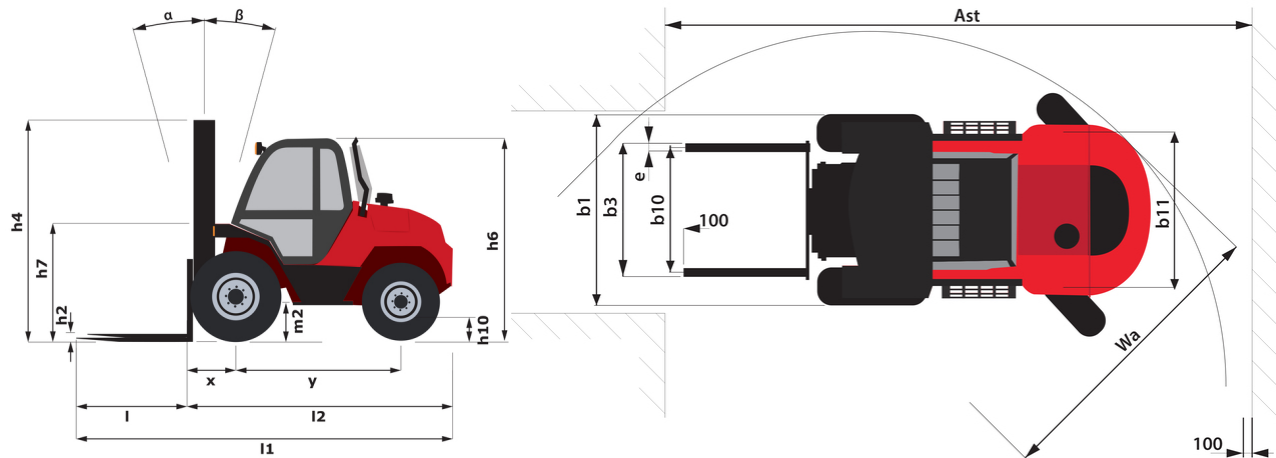
# **M 50-2 ST5**

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|       | Technical characteristics  |                  | Metric                   |
|-------|--|------------------|--------------------------|
| 1.1   | Manufacturer   |                  | MANITOU                  |
| 1.2   | Model Name   |                  | M 50-2 ST5               |
| 1.3   | Power source   |                  | Diesel                   |
| 1.4   | Operator type  |                  | Seated                   |
| 1.5   | Max. capacity  | Q                | 5000 kg                  |
| 1.6   | Load centre of gravity   | c                | 600 mm                   |
| 1.8   | Load distance, centre of drive axle to fork  | x                | 773 mm                   |
| 1.9   | Wheelbase  | y                | 2060 mm                  |
|       | <b>Weight</b>  |                  |                          |
| 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        |
|       | <b>Wheels</b>  |                  |                          |
| 3.1   | Tyres 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                  |
|       | <b>Dimensions</b>  |                  |                          |
| 4.1   | Tilt of Mast Forward (deg) / Backward (deg)  | $\alpha / \beta$ | 15 / 15                  |
| 4.7   | Height of overhead guard (cabin) / Overall height of low overhead guard (Buggie version) | h6 / 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  |                  | FEM 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                  |
|       | <b>Performances</b>  |                  |                          |
| 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                |
|       | <b>Engine</b>  |                  |                          |
| 7.1   | Engine brand / model   |                  | Deutz / TCD 2,9          |
| 7.2   | Engine power according to ISO 1585   |                  | 55 kW                    |
| 7.3   | Rated speed  |                  | 2300 rpm                 |
| 7.4   | Number of cylinders / Capacity of cylinders  |                  | 4 - 2925 cm <sup>3</sup> |
|       | <b>Miscellaneous</b>   |                  |                          |
| 8.1   | Type of drive control  |                  | Electric                 |
| 8.2   | Working hydraulic pressure for attachments   |                  | 230 Bar                  |
| 8.3   | Oil flow rate for attachments  |                  | 97 l/min                 |
| 8.4   | Sound level at the driver's ear according to DIN 12 053                                  |                  | 78 dB                    |

## M 50-2 ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex  |    | FVD 30  | FVD 33  | FVD 35  | FVD 37  | FVD 40  | FVD 45  | FVD 50  |
|---|----|---------|---------|---------|---------|---------|---------|---------|
| h1 - Height mast lowered *  | mm | 2475    | 2625    | 2725    | 2825    | 2975    | 3225    | 3475    |
| h4 - Height mast extended *                                       | mm | 4025    | 4325    | 4525    | 4725    | 5025    | 5525    | 6025    |
| h3 - Max. lifting height  | mm | 3000    | 3300    | 3500    | 3700    | 4000    | 4500    | 5000    |
| $\alpha / \beta$ - Mast inclination (front / rear)                | °  | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 |
| Residual capacity at max height                                   | kg | 5000    | 5000    | 5000    | 5000    | 5000    | 4750    | 3500    |
| Residual capacity without attachment (Off road load chart)        | kg | 5000    | 5000    | 5000    | 5000    | 5000    | 4570    | 3500    |
| Residual capacity with hooked-on side shift (Off road load chart) | 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 37  | FLT 40  | FLT 43  | FLT 45  | FLT 47  | FLT 50  | FLT 55  | FLT 60  |
|---|----|---------|---------|---------|---------|---------|---------|---------|---------|
| h2 - Free lift  | mm | 1255    | 1355    | 1455    | 1530    | 1590    | 1705    | 1855    | 2030    |
| h1 - Height mast lowered *  | mm | 2225    | 2325    | 2425    | 2500    | 2560    | 2675    | 2825    | 3000    |
| h4 - Height mast extended *                                       | mm | 4725    | 5025    | 5325    | 5525    | 5725    | 6025    | 6525    | 7025    |
| h3 - Max. lifting height  | mm | 3700    | 4000    | 4300    | 4500    | 4700    | 5000    | 5500    | 6000    |
| $\alpha / \beta$ - Mast inclination (front / rear)                | °  | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 | 15 / 15 | 10 / 15 | 10 / 15 | 10 / 15 |
| Residual capacity at max height                                   | kg |         | 4800    |         | 4500    |         | 2000    | 2000    |         |
| Residual capacity without attachment (Off road load chart)        | kg |         | 4800    |         | 4500    |         | 2000    | 2000    |         |
| Residual capacity with hooked-on side shift (Off road load chart) | kg |         | 4550    | 4400    |         |         | 3000    |         | 2500    |
| Height at max capacity  | mm |         | 3500    |         | 4000    |         | 3700    | 3700    |         |
| Height at max capacity with hooked-on sideshift                   | mm |         | 3500    | 3500    |         |         | 3700    |         | 3200    |



Siège Social

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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