

Technical sheet :

# **MI 80 D ST5**

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| Technical characteristics |   |           | Metric                    |
|---------------------------|---|-----------|---------------------------|
| 1.1                       | Manufacturer  |           | MANITOU                   |
| 1.2                       | Model Name  |           | MI 80 D ST5               |
| 1.3                       | Power source  |           | Diesel                    |
| 1.4                       | Operator type   |           | Seated                    |
| 1.5                       | Max. capacity   | Q         | 8000 kg                   |
| 1.6                       | Load center of gravity  | c         | 600 mm                    |
| 1.8                       | Load distance, centre of drive axle to fork                     | x         | 714 mm                    |
| 1.9                       | Wheelbase   | y         | 2600 mm                   |
|                           | Standard mast reference of the machine                          |           | FVD 30                    |
| Weight                    |   |           |                           |
| 2.1                       | Service weight  |           | 12540 kg                  |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)                |           | 18340 kg / 2200 kg        |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)            |           | 5180 kg / 7360 kg         |
| Wheels                    |   |           |                           |
| 3.1                       | Tires type  |           | Pneumatic                 |
| 3.2                       | Dimensions of front wheels                                      |           | 9.00-20-14PR              |
| 3.3                       | Dimensions of rear wheels                                       |           | 9.00-20-14PR              |
| 3.5                       | Number of front wheels / rear wheels                            |           | 4 / 2                     |
| 3.5.2                     | Number of drive wheels  |           | 4                         |
| 3.6                       | Front wheel gauge   | b10       | 1628 mm                   |
| 3.7                       | Rear wheel gauge  | b11       | 1700 mm                   |
| Dimensions                |   |           |                           |
| 4.7                       | Height of overhead guard (cabin)                                | h6        | 2580 mm                   |
| 4.8                       | Seat height/stand height  | h7        | 1350 mm                   |
| 4.12                      | Height of towing bar (coupling height)                          | h10       | 505 mm                    |
| 4.19                      | Overall length  | l1        | 5524 mm                   |
| 4.20                      | Length to face of forks   | l2        | 4004 mm                   |
| 4.21                      | Overall width   | b1        | 2165 mm                   |
| 4.21                      | Overall width - Twinned wheels                                  | b1        | 2165 mm                   |
| 4.22                      | Forks section / width / length                                  | s / e / l | 75 mm x 160 mm x 1520 mm  |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                         |           | 4A                        |
| 4.24                      | Fork carriage width   | b3        | 2100 mm                   |
| 4.31                      | Ground clearance below mast                                     | m1        | 250 mm                    |
| 4.32                      | Ground clearance at centre of wheelbase                         | m2        | 339 mm                    |
| 4.33                      | Aisle Width for pallets 1000 x 1200 crossways                   | Ast       | 5644 mm                   |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways                    | Ast       | 5844 mm                   |
| 4.35                      | Turning radius  | Wa        | 3730 mm                   |
| 4.36                      | Internal turning radius (over tyres)                            | b13       | 1327 mm                   |
| Performances              |   |           |                           |
| 5.1                       | Travel speed (laden / unladen)                                  |           | 26 km/h-27 km/h           |
| 5.2                       | Lifting speed (laden / unladen)                                 |           | 0.38 m/s-0.40 m/s         |
| 5.3                       | Lowering speed (laden / unladen)                                |           | 0.43 m/s-0.39 m/s         |
| 5.5                       | Drawbar pull (Laden / Unladen)                                  |           | 6500 daN / 4500 daN       |
| 5.7                       | Gradeability (laden / unladen)                                  |           | 35 % / 35 %               |
| 5.10                      | Service brake   |           | Hydraulic                 |
| Engine                    |   |           |                           |
| 7.1                       | Engine brand / model / nom                                      |           | Deutz / TCD 3.6 / Stage V |
| 7.2                       | I.C. Engine power rating  |           | 85 kW                     |
| 7.3                       | Rated speed   |           | 2200 rpm                  |
| 7.4                       | Number of cylinders / Capacity of cylinders                     |           | 4 - 3600 cm³              |
| Miscellaneous             |   |           |                           |
| 8.2                       | Working hydraulic pressure for attachments                      |           | 195 bar                   |
| 8.3                       | Oil flow rate for attachments                                   |           | 55 l/min                  |
| 8.4                       | Measured/guaranteed mean noise level at the ear of the operator |           | < 84 dB                   |

### MI 80 D ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                     |    | FVD 30 | FVD 33 | FVD 36 | FVD 40 | FVD 45 | FVD 50 |
|--|----|--------|--------|--------|--------|--------|--------|
| $\alpha$ - Mast/fork carriage tilt, forward      | °  | 6.20   | 6.20   | 6.20   | 6.20   | 6.20   | 6.20   |
| $\beta$ - Mast/fork carriage tilt, backward      | °  | 12.20  | 12.20  | 12.20  | 12.20  | 6.20   | 6.20   |
| h1 - Mast lowered height                         | mm | 2700   | 2850   | 3000   | 3200   | 3500   | 3750   |
| h2 - Mast free lift                              | mm | 200    | 200    | 200    | 200    | 200    | 200    |
| h3 - Mast lifting height                         | mm | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |
| h4 - Mast extended height                        | mm | 4210   | 4510   | 4810   | 5210   | 5710   | 6210   |
| Residual capacity at max height                  | kg | 8000   | 8000   | 8000   | 8000   | 8000   | 8000   |
| Height at max capacity                           | mm | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |
| Height at max capacity with integrated sideshift | mm | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |

| Free Lift Triplex (FLT)                          |    | FLT 45 | FLT 48 | FLT 50 | FLT 55 | FLT 60 |
|--|----|--------|--------|--------|--------|--------|
| $\alpha$ - Mast/fork carriage tilt, forward      | °  | 6.20   | 6.20   | 6.20   | 3.20   | 3.20   |
| $\beta$ - Mast/fork carriage tilt, backward      | °  | 6.20   | 6.20   | 6.20   | 6.20   | 6.20   |
| h1 - Mast lowered height                         | mm | 2750   | 2850   | 2950   | 3100   | 3250   |
| h2 - Mast free lift                              | mm | 1485   | 1585   | 1600   | 1800   | 1985   |
| h3 - Mast lifting height                         | mm | 4500   | 4800   | 5000   | 5500   | 6000   |
| h4 - Mast extended height                        | mm | 5775   | 6075   | 6360   | 6810   | 7275   |
| Residual capacity at max height                  | kg | 7000   | 7000   | 6500   | 6100   | 5600   |
| Height at max capacity                           | mm | 4500   | 4800   | 5000   | 5500   | 6000   |
| Height at max capacity with integrated sideshift | mm | 4500   | 4800   | 5000   | 5500   | 6000   |



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