

Technical sheet :

# ***TMM 20 ST5***

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 **MANITOU**  
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| Technical characteristics |   |           | Metric                               |
|---------------------------|---|-----------|--------------------------------------|
| 1.1                       | Manufacturer  |           | MANITOU                              |
| 1.2                       | Model Name  |           | TMM 20 ST5                           |
| 1.2.1                     | Reach out equipment                                     |           | Pantograph                           |
| 1.3                       | Power source  |           | Diesel                               |
| 1.4                       | Operator type   |           | Seated                               |
| 1.5                       | Max. capacity   | Q         | 2000 kg                              |
| 1.6                       | Load center of gravity                                  | c         | 500 mm                               |
| 1.8                       | Load distance, centre of drive axle to fork             | x         | 490 mm                               |
| 1.9                       | Wheelbase   | y         | 1598 mm                              |
| Weight                    |   |           |                                      |
| 2.1                       | Service weight  |           | 2290 kg                              |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)        |           | 3050 kg / 1240 kg                    |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)    |           | 1050 kg / 1240 kg                    |
| Wheels                    |   |           |                                      |
| 3.1                       | Tires type  |           | Pneumatic                            |
| 3.2                       | Dimensions of front wheels                              |           | 27x10-12 IC30                        |
| 3.3                       | Dimensions of rear wheels                               |           | 27x10-12 IC30                        |
| 3.5                       | Number of front wheels / rear wheels                    |           | 2 / 1                                |
| 3.5.2                     | Drive wheels (front / rear)                             |           | 2 / 1                                |
| 3.6                       | Front wheel gauge                                       | b10       | 2151 mm                              |
| Dimensions                |   |           |                                      |
| 4.4                       | Max. lifting height                                     | h3        | 4200 mm                              |
| 4.7                       | Height of overhead guard (cabin)                        | h6        | 2120 mm                              |
| 4.8                       | Seat height/stand height                                | h7        | 1070 mm                              |
| 4.19                      | Overall length  | l1        | 2650 mm                              |
| 4.21                      | Overall width   | b1        | 2406 mm                              |
| 4.22                      | Forks section / width / length                          | s / e / l | 40 mm x 122 mm x 1200 mm             |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                 |           | 2A                                   |
| 4.24                      | Fork carriage width                                     | b3        | 1260 mm                              |
| 4.26                      | Distance between support arms                           | b5        | 1165 mm                              |
| 4.26                      | Distance between wheel arms/loading surfaces            | b4        | 1600 mm                              |
| 4.28                      | Maximum horizontal extension at COG 600                 | l4        | 1000 mm                              |
| 4.32                      | Ground clearance at centre of wheelbase                 | m2        | 272 mm                               |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways            | Ast       | 3363 mm                              |
| 4.35                      | Turning radius  | Wa        | 2463 mm                              |
| Performances              |   |           |                                      |
| 5.1                       | Travel speed (laden / unladen)                          |           | 9.40 km/h - 9.50 km/h                |
| 5.2                       | Lifting speed (laden / unladen)                         |           | 0.26 m/s / 0.24 m/s                  |
| 5.3                       | Lowering speed (laden / unladen)                        |           | 0.38 m/s / 0.24 m/s                  |
| 5.7                       | Gradeability (laden / unladen)                          |           | 56 % / 51 %                          |
| 5.9                       | Acceleration time (laden / unladen)                     |           | 4.10 s / 2.60 s                      |
| 5.10                      | Service brake   |           | Hydraulic brakes by loss of pressure |
| 5.11                      | Transmission type                                       |           | Hydrostatic                          |
| Engine                    |   |           |                                      |
| 7.1                       | Engine brand / norm                                     |           | Kubota - Stage V                     |
| 7.2                       | I.C. Engine power rating                                |           | 18.50 kW                             |
| 7.3                       | Rated speed   |           | 3000 rpm                             |
| 7.4                       | Number of cylinders / Capacity of cylinders             |           | 3 - 1123 cm³                         |
| Miscellaneous             |   |           |                                      |
| 8.1                       | Type of drive control                                   |           | Cable                                |
| 8.2                       | Working hydraulic pressure for attachments              |           | 190 bar                              |
| 8.3                       | Oil flow rate for attachments                           |           | 43 l/min                             |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053 |           | 84 dB                                |

### TMM 20 ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

|  |  | Full Visibility Duplex (FVD)                  |        |        |      |      |
|--|--|---|--------|--------|------|------|
|  |  | FVD 30  | FVD 36 | FVD 42 |      |      |
| Residual Capacity (Maximum Height & LC = 600 mm) | Simple Reach                                   | h1 - Mast lowered height                      | mm     | 2352   | 2702 | 3090 |
|  |  | h3 - Mast lifting height                      | mm     | 3000   | 3600 | 4200 |
|  |  | h4 - Mast extended height                     | mm     | 4455   | 5055 | 5695 |
|  |  | Pantograph reach in                           | kg     | 2000   | 2000 | 2500 |
|  | Pantograph reach out with stabilizers          | kg  | 1750   | 1750   |      |      |
|  | Pantograph reach out without stabilizers       | kg  | 1050   | 1050   |      |      |
|  | Telescopic forks reach in                      | kg  | 2000   | 2000   |      |      |
|  | Telescopic Forks reach out with stabilizers    | kg  | 1300   | 1300   |      |      |
|  | Telescopic Forks reach out without stabilizers | kg  | 1100   | 1100   |      |      |
|  | Double Reach                                   | Pantograph & TF reach in                      | kg     | 2000   | 2000 |      |
|  |  | Pantograph & TF reach out with stabilizers    | kg     | 1100   | 1100 |      |
|  |  | Pantograph & TF reach out without stabilizers | kg     | 550    | 550  |      |
|  |  |   |        |        |      |      |



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