

Technical sheet :

# ***MSI 25 ST5***

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 **MANITOU**  
HANDLING YOUR WORLD

| Technical characteristics |   | Metric    |                                      |
|---------------------------|---|-----------|--------------------------------------|
| 1.1                       | Manufacturer  |           | Manitou                              |
| 1.2                       | Model Name  |           | MSI 25 ST5                           |
| 1.3                       | Power source  |           | Diesel                               |
| 1.4                       | Operator type   |           | Seated                               |
| 1.5                       | Max. capacity   | Q         | 2500 kg                              |
| 1.6                       | Load center of gravity                                  | c         | 500 mm                               |
| 1.8                       | Load distance, centre of drive axle to fork             | x         | 621 mm                               |
| 1.9                       | Wheelbase   | y         | 1900 mm                              |
|                           | Standard mast reference of the machine                  |           | FVD 33                               |
| Weight                    |   |           |                                      |
| 2.1                       | Service weight  |           | 3900 kg                              |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)        |           | 5730 kg / 670 kg                     |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)    |           | 1590 kg / 2310 kg                    |
| Wheels                    |   |           |                                      |
| 3.1                       | Tires type  |           | Pneumatic                            |
| 3.2                       | Dimensions of front wheels                              |           | 300-15/18 6T P43                     |
| 3.3                       | Dimensions of rear wheels                               |           | 7.00-12/12 ED PLUS                   |
| 3.5                       | Number of front wheels / rear wheels                    |           | 2 / 2                                |
| 3.5.2                     | Number of drive wheels                                  |           | 2                                    |
| 3.6                       | Front wheel gauge                                       | b10       | 1044 mm                              |
| 3.7                       | Rear wheel gauge  | b11       | 1108 mm                              |
| Dimensions                |   |           |                                      |
| 4.7                       | Height of overhead guard (cabin)                        | h6        | 2095 mm                              |
| 4.8                       | Seat height/stand height                                | h7        | 972 mm                               |
| 4.19                      | Overall length  | l1        | 4193 mm                              |
| 4.20                      | Length to face of forks                                 | l2        | 2993 mm                              |
| 4.21                      | Overall width   | b1        | 1330 mm                              |
| 4.22                      | Forks section / width / length                          | s / e / l | 40 mm x 100 mm x 1200 mm             |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                 |           | 2A                                   |
| 4.24                      | Fork carriage width                                     | b3        | 1260 mm                              |
| 4.31                      | Ground clearance below mast                             | m1        | 260 mm                               |
| 4.32                      | Ground clearance at centre of wheelbase                 | m2        | 238 mm                               |
| 4.33                      | Aisle Width for pallets 1000 x 1200 crossways           | Ast       | 4641 mm                              |
| 4.35                      | Turning radius  | Wa        | 2620 mm                              |
| Performances              |   |           |                                      |
| 5.1                       | Travel speed (laden / unladen)                          |           | 21 km/h-21 km/h                      |
| 5.2                       | Lifting speed (laden / unladen)                         |           | 0.50 m/s-0.50 m/s                    |
| 5.3                       | Lowering speed (laden / unladen)                        |           | 0.50 m/s-0.30 m/s                    |
| 5.5                       | Drawbar pull (Laden)                                    |           | 1900 daN                             |
| 5.7                       | Gradeability (laden)                                    |           | 31 %                                 |
| 5.10                      | Service brake   |           | Hydraulic brakes by loss of pressure |
|                           | Transmission type                                       |           | Hydrostatic                          |
| Engine                    |   |           |                                      |
| 7.1                       | Engine brand / model / norm                             |           | Kubota / D1803 CRT E5B / Stage V     |
| 7.2                       | I.C. Engine power rating                                |           | 37 kW                                |
| 7.3                       | Rated speed   |           | 2700 rpm                             |
| 7.4                       | Number of cylinders / Capacity of cylinders             |           | 3 - 1826 cm³                         |
| Miscellaneous             |   |           |                                      |
| 8.1                       | Type of drive control                                   |           | Electronic                           |
| 8.2                       | Working hydraulic pressure for attachments              |           | 220 bar                              |
| 8.3                       | Oil flow rate for attachments                           |           | 45 l/min                             |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053 |           | 81 dB                                |

MSI 25 ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                              | FVD 30 | FVD 33 | FVD 37 | FVD 40 | FVD 45 |
|---|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °      | 12     | 12     | 12     | 12     |
| β - Mast/fork carriage tilt, backward                     | °      | 10     | 10     | 10     | 10     |
| h1 - Mast lowered height                                  | mm     | 2136   | 2286   | 2546   | 2736   |
| h2 - Mast free lift                                       | mm     | 85     | 85     | 85     | 85     |
| h3 - Mast lifting height                                  | mm     | 3000   | 3300   | 3700   | 4000   |
| h4 - Mast extended height                                 | mm     | 3738   | 4038   | 4438   | 4738   |
| Residual capacity at max height                           | kg     | 2500   | 2500   | 2500   | 2500   |
| Residual capacity with hooked-on side shift at max height | kg     | 2500   | 2500   | 2500   | 2500   |
| Height at max capacity                                    | mm     | 3000   | 3300   | 3700   | 4000   |
| Height at max capacity with hooked-on sideshift           | mm     | 3000   | 3300   | 3700   | 4000   |

| Free Lift Triplex (FLT)                                   | FLT 34 | FLT 37 | FLT 40 | FLT 43 | FLT 47 | FLT 55 | FLT 60 |
|---|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °      | 12     | 12     | 12     | 12     | 6      | 6      |
| β - Mast/fork carriage tilt, backward                     | °      | 10     | 10     | 10     | 10     | 6      | 6      |
| h1 - Mast lowered height                                  | mm     | 1936   | 2036   | 2136   | 2286   | 2386   | 2986   |
| h2 - Mast free lift                                       | mm     | 1183   | 1283   | 1383   | 1483   | 1633   | 2083   |
| h3 - Mast lifting height                                  | mm     | 3400   | 3700   | 4000   | 4300   | 4700   | 6000   |
| h4 - Mast extended height                                 | mm     | 4184   | 4484   | 4784   | 5116   | 5484   | 6916   |
| Residual capacity at max height                           | kg     | 2500   | 2500   | 2500   | 2500   | 2500   | 2300   |
| Residual capacity with hooked-on side shift at max height | kg     | 2500   | 2500   | 2500   | 2500   | 2500   | 2300   |
| Height at max capacity                                    | mm     | 3400   | 3700   | 4000   | 4300   | 4700   | 5200   |
| Height at max capacity with hooked-on sideshift           | mm     | 3400   | 3700   | 4000   | 4300   | 4700   | 5200   |

| Full Visibility Triplex (FVT)         | FVT 33 |
|---------------------------------------|--------|
| α - Mast/fork carriage tilt, forward  | °      |
| β - Mast/fork carriage tilt, backward | °      |
| h1 - Mast lowered height              | mm     |
| h2 - Mast free lift                   | mm     |
| h3 - Mast lifting height              | mm     |
| h4 - Mast extended height             | mm     |
| Height at max capacity                | mm     |



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