

Technical sheet :

# **MSI 25 ST5**

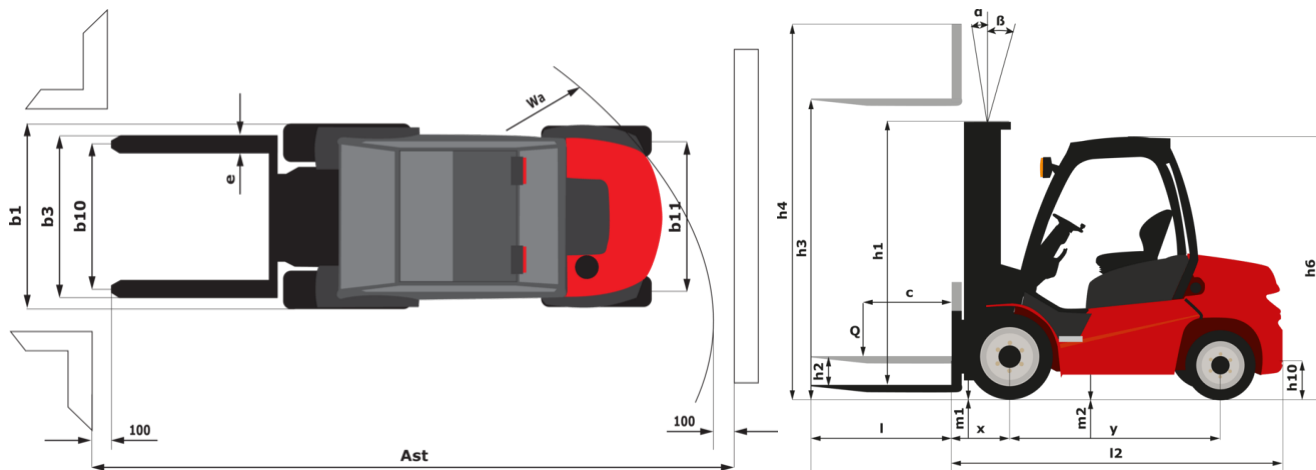
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 **MANITOU**  
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| Technical characteristics |   |           | Metric                               | Imperial                             |
|---------------------------|---|-----------|--------------------------------------|--------------------------------------|
| 1.1                       | Manufacturer  |           | Manitou                              | Manitou                              |
| 1.2                       | Model Name  |           | MSI 25 ST5                           | MSI 25 ST5                           |
| 1.3                       | Power source  |           | Diesel                               | Diesel                               |
| 1.4                       | Operator type   |           | Seated                               | Seated                               |
| 1.5                       | Max. capacity   | Q         | 2500 kg                              | 5512 lb                              |
| 1.6                       | Load center of gravity                                  | c         | 500 mm                               | 20 in                                |
| 1.8                       | Load distance, centre of drive axle to fork             | x         | 621 mm                               | 24 in                                |
| 1.9                       | Wheelbase   | y         | 1900 mm                              | 75 in                                |
| Weight                    |   |           |                                      |                                      |
|                           | Standard mast reference of the machine                  |           | FVD 33                               | FVD 33                               |
| 2.1                       | Service weight  |           | 3900 kg                              | 8598 lb                              |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)        |           | 5730 kg / 670 kg                     | 12632 lb / 1477 lb                   |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)    |           | 1590 kg / 2310 kg                    | 3505 lb / 5093 lb                    |
| Wheels                    |   |           |                                      |                                      |
| 3.1                       | Tires type  |           | Pneumatic                            | Pneumatic                            |
| 3.2                       | Dimensions of front wheels                              |           | 300-15/18 6T P43                     | 300-15/18 6T P43                     |
| 3.3                       | Dimensions of rear wheels                               |           | 7.00-12/12 ED PLUS                   | 7.00-12/12 ED PLUS                   |
| 3.5                       | Number of front wheels / rear wheels                    |           | 2 / 2                                | 2 / 2                                |
| 3.5.2                     | Number of drive wheels                                  |           | 2                                    | 2                                    |
| 3.6                       | Front wheel gauge                                       | b10       | 1044 mm                              | 41 in                                |
| 3.7                       | Rear wheel gauge  | b11       | 1108 mm                              | 44 in                                |
| Dimensions                |   |           |                                      |                                      |
| 4.7                       | Height of overhead guard (cabin)                        | h6        | 2095 mm                              | 82 in                                |
| 4.8                       | Seat height/stand height                                | h7        | 972 mm                               | 38 in                                |
| 4.19                      | Overall length  | l1        | 4193 mm                              | 165 in                               |
| 4.20                      | Length to face of forks                                 | l2        | 2993 mm                              | 118 in                               |
| 4.21                      | Overall width   | b1        | 1330 mm                              | 52 in                                |
| 4.22                      | Forks section / width / length                          | s / e / l | 40 mm x 100 mm x 1200 mm             | 2 in x 4 in x 47 in                  |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                 |           | 2A                                   | 2A                                   |
| 4.24                      | Fork carriage width                                     | b3        | 1260 mm                              | 50 in                                |
| 4.31                      | Ground clearance below mast                             | m1        | 260 mm                               | 10 in                                |
| 4.32                      | Ground clearance at centre of wheelbase                 | m2        | 238 mm                               | 9 in                                 |
| 4.33                      | Aisle Width for pallets 1000 x 1200 crossways           | Ast       | 4641 mm                              | 183 in                               |
| 4.35                      | Turning radius  | Wa        | 2620 mm                              | 103 in                               |
| Performances              |   |           |                                      |                                      |
| 5.1                       | Travel speed (laden / unladen)                          |           | 21 km/h-21 km/h                      | 13 mph-13 mph                        |
| 5.2                       | Lifting speed (laden / unladen)                         |           | 0.50 m/s-0.50 m/s                    | 2 ft/s-2 ft/s                        |
| 5.3                       | Lowering speed (laden / unladen)                        |           | 0.50 m/s-0.30 m/s                    | 2 ft/s-0.98 ft/s                     |
| 5.5                       | Drawbar pull (Laden)                                    |           | 1900 daN                             | 1900 daN                             |
| 5.7                       | Gradeability (laden)                                    |           | 31 %                                 | 31 %                                 |
| 5.10                      | Service brake   |           | Hydraulic brakes by loss of pressure | Hydraulic brakes by loss of pressure |
| Engine                    |   |           |                                      |                                      |
| 7.1                       | Engine brand / model / nom                              |           | Kubota / D1803 CRT E5B / Stage V     | Kubota / D1803 CRT E5B / Stage V     |
| 7.2                       | I.C. Engine power rating                                |           | 37 kW                                | 37 kW                                |
| 7.3                       | Rated speed   |           | 2700 rpm                             | 2700 rpm                             |
| 7.4                       | Number of cylinders / Capacity of cylinders             |           | 3 - 1826 cm³                         | 3 - 111 in³                          |
| Miscellaneous             |   |           |                                      |                                      |
| 8.1                       | Type of drive control                                   |           | Electronic                           | Electronic                           |
| 8.2                       | Working hydraulic pressure for attachments              |           | 220 bar                              | 3191 PSI                             |
| 8.3                       | Oil flow rate for attachments                           |           | 45 l/min                             | 12 US gpm                            |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053 |           | 81 dB                                | 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       |
|---|---------|--------------|--------------|--------------|--------------|--------------|
| $\alpha$ - Mast/fork carriage tilt, forward               | °       | 12           | 12           | 12           | 12           | 12           |
| $\beta$ - Mast/fork carriage tilt, backward               | °       | 10           | 10           | 10           | 10           | 10           |
| h1 - Mast lowered height                                  | in (mm) | 84.1 (2136)  | 90 (2286)    | 100.2 (2546) | 107.7 (2736) | 117.6 (2986) |
| h2 - Mast free lift                                       | in (mm) | 3.3 (85)     | 3.3 (85)     | 3.3 (85)     | 3.3 (85)     | 3.3 (85)     |
| h3 - Mast lifting height                                  | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) | 177.2 (4500) |
| h4 - Mast extended height                                 | in (mm) | 147.2 (3738) | 159 (4038)   | 174.7 (4438) | 186.5 (4738) | 206.2 (5238) |
| Residual capacity at max height                           | lb (kg) | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  |
| Residual capacity with hooked-on side shift at max height | lb (kg) | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  |
| Height at max capacity                                    | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) | 177.2 (4500) |
| Height at max capacity with hooked-on sideshift           | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) | 177.2 (4500) |

| Free Lift Triplex (FLT)                                   |         | FLT 34       | FLT 37       | FLT 40       | FLT 43       | FLT 47       | FLT 55       | FLT 60       |
|---|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| $\alpha$ - Mast/fork carriage tilt, forward               | °       | 12           | 12           | 12           | 12           | 12           | 6            | 6            |
| $\beta$ - Mast/fork carriage tilt, backward               | °       | 10           | 10           | 10           | 10           | 10           | 6            | 6            |
| h1 - Mast lowered height                                  | in (mm) | 76.2 (1936)  | 80.2 (2036)  | 84.1 (2136)  | 90 (2286)    | 93.9 (2386)  | 107.7 (2736) | 117.6 (2986) |
| h2 - Mast free lift                                       | in (mm) | 46.6 (1183)  | 50.5 (1283)  | 54.4 (1383)  | 58.4 (1483)  | 64.3 (1633)  | 74.5 (1893)  | 82 (2083)    |
| h3 - Mast lifting height                                  | in (mm) | 133.9 (3400) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 185 (4700)   | 216.5 (5500) | 236.2 (6000) |
| h4 - Mast extended height                                 | in (mm) | 164.7 (4184) | 176.5 (4484) | 188.3 (4784) | 201.4 (5116) | 215.9 (5484) | 250.2 (6356) | 272.3 (6916) |
| Residual capacity at max height                           | lb (kg) | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5071 (2300)  |              |
| Residual capacity with hooked-on side shift at max height | lb (kg) | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5512 (2500)  | 5071 (2300)  |              |
| Height at max capacity                                    | in (mm) | 133.9 (3400) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 185 (4700)   | 204.7 (5200) | 98.4 (2500)  |
| Height at max capacity with hooked-on sideshift           | in (mm) | 133.9 (3400) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 185 (4700)   | 204.7 (5200) |              |

| Full Visibility Triplex (FVT)               |         | FVT 33       |
|---|---------|--------------|
| $\alpha$ - Mast/fork carriage tilt, forward | °       | 12           |
| $\beta$ - Mast/fork carriage tilt, backward | °       | 10           |
| h1 - Mast lowered height                    | in (mm) | 71.9 (1826)  |
| h2 - Mast free lift                         | in (mm) | 2.8 (72)     |
| h3 - Mast lifting height                    | in (mm) | 129.9 (3300) |
| h4 - Mast extended height                   | in (mm) | 158.5 (4027) |
| Height at max capacity                      | in (mm) | 98.4 (2500)  |



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