

Technical sheet :

# **MSI 30 ST5**

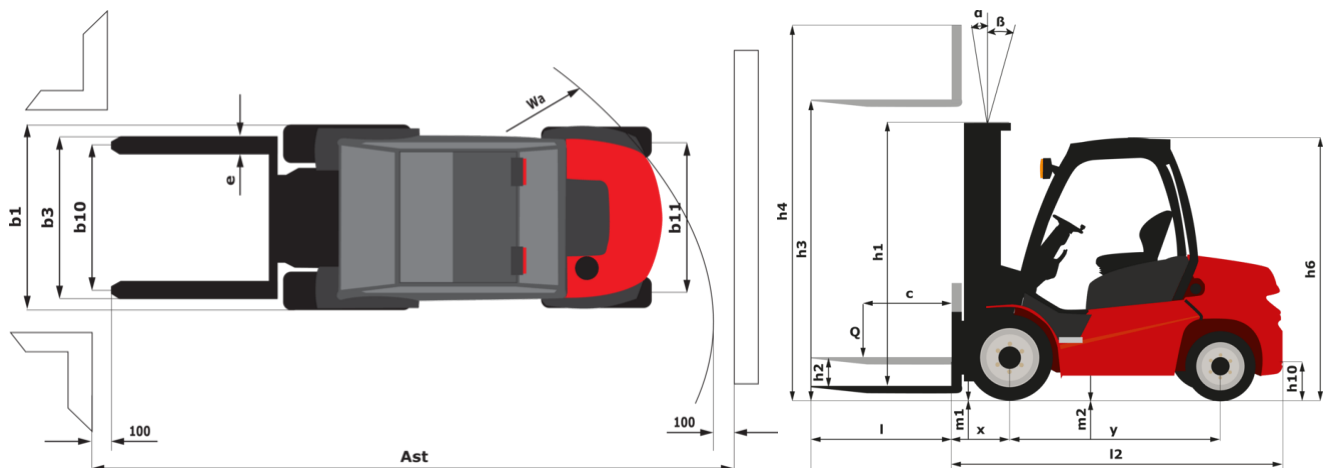
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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                               |           | Metric                               | Imperial                             |
|-------|---------------------------------------------------------|-----------|--------------------------------------|--------------------------------------|
| 1.1   | Manufacturer                                            |           | Manitou                              | Manitou                              |
| 1.2   | Model Name                                              |           | MSI 30 ST5                           | MSI 30 ST5                           |
| 1.3   | Power source                                            |           | Diesel                               | Diesel                               |
| 1.4   | Operator type                                           |           | Seated                               | Seated                               |
| 1.5   | Max. capacity                                           | Q         | 3000 kg                              | 6614 lb                              |
| 1.6   | Load center of gravity                                  | c         | 500 mm                               | 20 in                                |
| 1.8   | Load distance, centre of drive axle to fork             | x         | 626 mm                               | 25 in                                |
| 1.9   | Wheelbase                                               | y         | 1900 mm                              | 75 in                                |
|       | Weight                                                  |           |                                      |                                      |
| 2.1   | Service weight                                          |           | 4400 kg                              | 9700 lb                              |
| 2.2   | Weight on front axle (laden) / rear axle (laden)        |           | 6560 kg / 840 kg                     | 14462 lb / 1852 lb                   |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)    |           | 1660 kg / 2740 kg                    | 3660 lb / 6041 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        | 4234 mm                              | 167 in                               |
| 4.20  | Length to face of forks                                 | l2        | 3034 mm                              | 119 in                               |
| 4.21  | Overall width                                           | b1        | 1330 mm                              | 52 in                                |
| 4.22  | Forks section / width / length                          | s / e / l | 45 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                 |           | 3A                                   | 3A                                   |
| 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       | 4676 mm                              | 184 in                               |
| 4.35  | Turning radius                                          | Wa        | 2650 mm                              | 104 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)                                    |           | 27 %                                 | 27 %                                 |
| 5.10  | Service brake                                           |           | Hydraulic brakes by loss of pressure | Hydraulic brakes by loss of pressure |
|       | Engine                                                  |           |                                      |                                      |
| 7.1   | Engine brand / model                                    |           | Kubota / D1803 CRT E5B               | Kubota / D1803 CRT E5B               |
| 7.2   | Engine power according to ISO 1585                      |           | 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 30 ST5 - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                             |         | FVD 30       | FVD 33       | FVD 37       | FVD 40       | FVD 45       |
|----------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                         | °       | 12           | 12           | 12           | 12           | 12           |
| 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) | 3.5 (90)     | 3.5 (90)     | 3.5 (90)     | 3.5 (90)     | 3.5 (90)     |
| 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) | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  |
| Residual capacity with hooked-on side shift at max heigh | lb (kg) | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  |              |
| 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) |              |

| Free Lift Triplex (FLT)                                  |         | FLT 34       | FLT 37       | FLT 40       | FLT 43       | FLT 47       | FLT 55       | FLT 60       |
|----------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                         | °       | 12           | 12           | 12           | 12           | 12           | 6            | 6            |
| 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) | 47.6 (1208)  | 51.5 (1308)  | 55.4 (1408)  | 61.3 (1558)  | 65.3 (1658)  | 79.1 (2008)  | 88.9 (2258)  |
| 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) | 200.2 (5084) | 215.9 (5484) | 247.4 (6284) | 267.1 (6784) |
| Residual capacity at max height                          | lb (kg) | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 5952 (2700)  | 5071 (2300)  | 4850 (2200)  |
| Residual capacity with hooked-on side shift at max heigh | lb (kg) | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 6614 (3000)  | 5181 (2350)  |              | 4850 (2200)  |
| Height at max capacity                                   | in (mm) | 133.9 (3400) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 169.3 (4300) | 165.4 (4200) | 165.4 (4200) |
| Height at max capacity with hooked-on sideshift          | in (mm) | 133.9 (3400) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 165.4 (4200) |              | 165.4 (4200) |

| Full Visibility Triplex (FVT)     |         | FVT 33       |
|-----------------------------------|---------|--------------|
| Mast/fork carriage tilt, forward  | °       | 12           |
| Mast/fork carriage tilt, backward | °       | 10           |
| h1 - Mast lowered height          | in (mm) | 71.9 (1826)  |
| h2 - Mast free lift               | in (mm) | 3 (77)       |
| 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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