

Technical sheet :

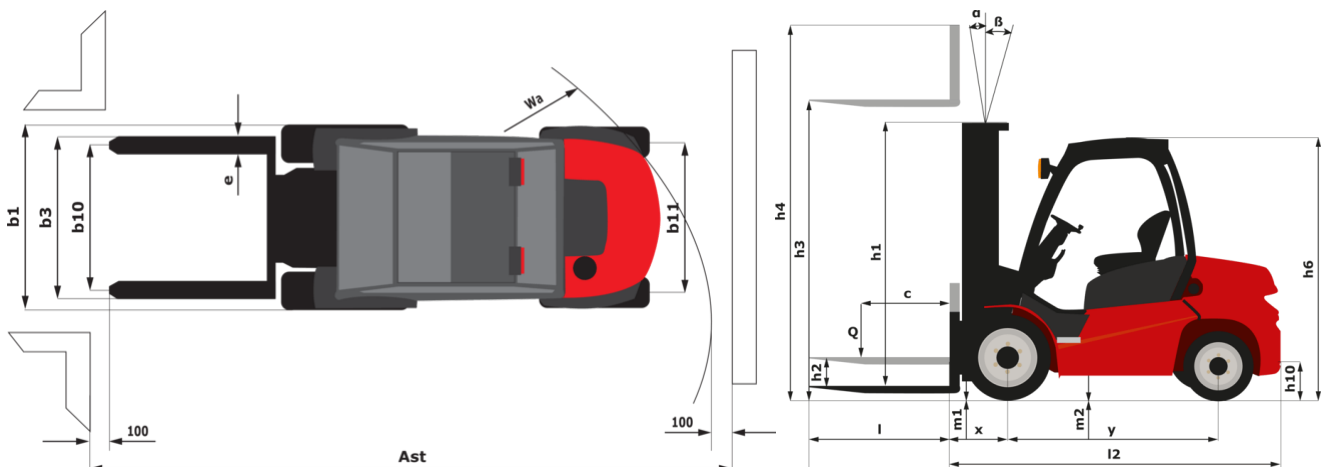
MSI 50 ST5



 **MANITOU**
HANDLING YOUR WORLD

| Technical characteristics | | Imperial | |
|---------------------------|---|-----------|---------------------|
| 1.1 | Manufacturer | | MANITOU |
| 1.2 | Model Name | | MSI 50 ST5 |
| 1.3 | Power source | | Diesel |
| 1.4 | Operator type | | Seated |
| 1.5 | Max. capacity | Q | 11023 lb |
| 1.6 | Load center of gravity | c | 24 in |
| 1.8 | Load distance, centre of drive axle to fork | x | 28 in |
| 1.9 | Wheelbase | y | 82 in |
| | Standard mast reference of the machine | | FVD 37 |
| Weight | | | |
| 2.1 | Service weight | | 18563 lb |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 25287 lb / 3660 lb |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 7694 lb / 10626 lb |
| Wheels | | | |
| 3.1 | Tires type | | Pneumatic |
| 3.2 | Dimensions of front wheels | | 315/70 R22,5 KMAX S |
| 3.3 | Dimensions of rear wheels | | 225/75 R15 XZM |
| 3.5 | Number of front wheels / rear wheels | | 2 / 2 |
| 3.5.2 | Number of drive wheels | | 2 |
| 3.6 | Front wheel gauge | b10 | 56 in |
| 3.7 | Rear wheel gauge | b11 | 45 in |
| Dimensions | | | |
| 4.7 | Height of overhead guard (cabin) | h6 | 96 in |
| 4.8 | Seat height/stand height | h7 | 56 in |
| 4.12 | Height of towing bar (coupling height) | h10 | 24 in |
| 4.19 | Overall length | l1 | 180 in |
| 4.20 | Length to face of forks | l2 | 133 in |
| 4.21 | Overall width | b1 | 68 in |
| 4.22 | Forks section / width / length | s / e / l | 2 in x 6 in x 47 in |
| 4.23 | Fork carriage ISO 2328 (class/form) A/B | | 4A |
| 4.24 | Fork carriage width | b3 | 66 in |
| 4.31 | Ground clearance below mast | m1 | 7 in |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 9 in |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 206 in |
| 4.35 | Turning radius | Wa | 116 in |
| Performances | | | |
| 5.1 | Travel speed (laden / unladen) | | 12 mph-12 mph |
| 5.2 | Lifting speed (laden / unladen) | | 1 ft/s-1 ft/s |
| 5.3 | Lowering speed (laden / unladen) | | 2 ft/s-1 ft/s |
| 5.5 | Drawbar pull (Laden / Unladen) | | 3393 daN / 2471 daN |
| 5.7 | Gradeability (laden / unladen) | | 32 % / 29 % |
| 5.10 | Service brake | | Hydraulic |
| Engine | | | |
| 7.1 | Engine brand / model | | Deutz / TCD 2,9L |
| 7.2 | I.C. Engine power rating | | 55 kW |
| 7.3 | Rated speed | | 2200 rpm |
| 7.4 | Number of cylinders / Capacity of cylinders | | 4 - 177 in³ |
| Miscellaneous | | | |
| 8.1 | Type of drive control | | Electronic |
| 8.2 | Working hydraulic pressure for attachments | | 3336 PSI |
| 8.3 | Oil flow rate for attachments | | 12 US gpm |
| 8.4 | Sound level at the driver's ear according to DIN 12 053 | | 81 dB |

MSI 50 ST5 - Dimensional drawing



Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD) | | FVD 30 | FVD 33 | FVD 35 | FVD 37 | FVD 40 | FVD 45 | FVD 50 |
|---|----|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward | ° | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| β - Mast/fork carriage tilt, backward | ° | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| h1 - Mast lowered height | in | 95.5 | 101.4 | 105.3 | 109.3 | 115.2 | 125 | 134.8 |
| h3 - Mast lifting height | in | 118.1 | 129.9 | 137.8 | 145.7 | 157.5 | 177.2 | 196.9 |
| h4 - Mast extended height | in | 156.4 | 168.2 | 176.1 | 183.9 | 195.7 | 215.4 | 235.1 |
| Residual capacity at max height | lb | 11023 | 11023 | 11023 | 11023 | 11023 | 11023 | 11023 |
| Residual capacity with hooked-on side shift at max height | lb | 11023 | 11023 | 11023 | 11023 | 11023 | 11023 | 11023 |
| Height at max capacity | in | 118.1 | 129.9 | 137.8 | 145.7 | 157.5 | 177.2 | 196.9 |
| Height at max capacity with hooked-on sideshift | in | 118.1 | 129.9 | 137.8 | 145.7 | 157.5 | 177.2 | 196.9 |

| Free Lift Triplex (FLT) | | FLT 37 | FLT 40 | FLT 43 | FLT 45 | FLT 47 | FLT 50 | FLT 55 | FLT 60 |
|---|----|--------|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward | ° | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| β - Mast/fork carriage tilt, backward | ° | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| h1 - Mast lowered height | in | 85.6 | 89.6 | 93.5 | 96.5 | 98.8 | 103.3 | 109.3 | 116.1 |
| h2 - Mast free lift | in | 49.5 | 53.5 | 57.4 | 60.4 | 62.7 | 67.2 | 73.1 | 80 |
| h3 - Mast lifting height | in | 145.7 | 157.5 | 169.3 | 177.2 | 185 | 196.9 | 216.5 | 236.2 |
| h4 - Mast extended height | in | 183.9 | 195.7 | 207.6 | 215.4 | 223.3 | 235.1 | 254.8 | 274.5 |
| Residual capacity at max height | lb | 11023 | 11023 | 11023 | 11023 | | | | 9480 |
| Residual capacity with hooked-on side shift at max height | lb | 11023 | 11023 | 11023 | 11023 | | | | |
| Height at max capacity | in | 145.7 | 157.5 | 169.3 | 177.2 | 98.4 | 98.4 | 98.4 | 98.4 |
| Height at max capacity with hooked-on sideshift | in | 145.7 | 157.5 | 169.3 | 177.2 | | | | |



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