

Technical sheet :

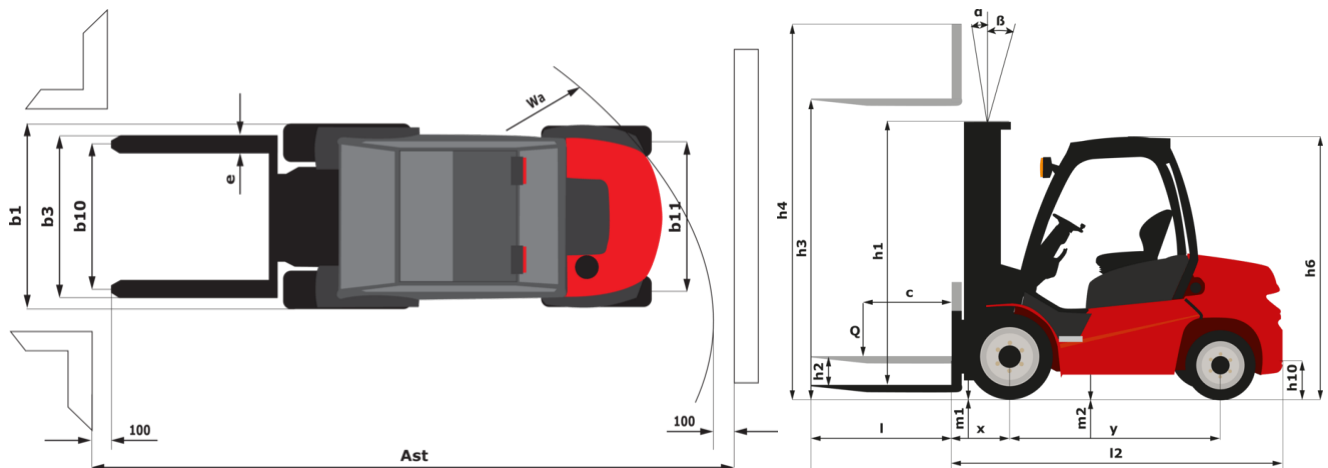
MSI 50 ST5



 **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 | | Sitting |
| 1.5 | Max. capacity | Q | 11023 lb |
| 1.6 | Load centre of gravity | c | 24 in |
| 1.8 | Load distance, centre of drive axle to fork | x | 28 in |
| 1.9 | Wheelbase | y | 82 in |
| | 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 | Tyres 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 mi/h / 12 mi/h |
| 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 | Engine power according to ISO 1585 | | 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 |
|---|----|----------|----------|----------|----------|----------|----------|----------|
| h1 - Height mast lowered * | in | 7' 11" | 8' 5" | 8' 9" | 9' 1" | 9' 7" | 10' 5" | 11' 3" |
| h3 - Lifting Height | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" | 14' 9" | 16' 5" |
| h4 - Height mast extended * | in | 13' | 14' | 14' 8" | 15' 4" | 16' 4" | 17' 11" | 19' 7" |
| α / β - Mast inclination (front / rear) | ° | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 |
| Residual capacity at max height | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 |
| Residual capacity with hooked-on side shift (Industrial load chart) | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 |
| Height at max capacity | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" | 14' 9" | 16' 5" |
| Height at max capacity with hooked-on sideshift | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" | 14' 9" | 16' 5" |

| Free Lift Duplex (FLD) | | FLD 30 | FLD 33 | FLD 35 | FLD 37 | FLD 40 |
|---|----|----------|----------|----------|----------|----------|
| h1 - Height mast lowered * | in | 8' | 8' 6" | 8' 10" | 9' 2" | 9' 8" |
| h2 - Free lift | in | 5' | 5' 6" | 5' 10" | 6' 2" | 6' 8" |
| h3 - Lifting Height | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" |
| h4 - Height mast extended * | in | 13' | 14' | 14' 8" | 15' 4" | 19' 7" |
| α / β - Mast inclination (front / rear) | ° | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 |
| Residual capacity at max height | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 |
| Residual capacity with hooked-on side shift (Industrial load chart) | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | 11023.11 |
| Height at max capacity | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" |
| Height at max capacity with hooked-on sideshift | in | 9' 10" | 10' 10" | 11' 6" | 12' 2" | 13' 1" |

| Free Lift Triplex (FLT) | | FLT 37 | FLT 40 | FLT 43 | FLT 45 | FLT 47 | FLT 50 | FLT 55 | FLT 60 |
|---|----|----------|----------|----------|----------|---------|---------|---------|---------|
| h1 - Height mast lowered * | in | 7' 2" | 7' 6" | 7' 10" | 8' | 8' 3" | 8' 7" | 9' 1" | 9' 8" |
| h2 - Free lift | in | 4' 2" | 4' 5" | 4' 9" | 5' | 5' 3" | 5' 7" | 6' 1" | 6' 8" |
| h3 - Lifting Height | in | 12' 2" | 13' 1" | 14' 1" | 14' 9" | 15' 5" | 16' 5" | 18' 1" | 19' 8" |
| h4 - Height mast extended * | in | 15' 4" | 16' 4" | 17' 4" | 17' 11" | 18' 7" | 19' 7" | 21' 3" | 22' 10" |
| α / β - Mast inclination (front / rear) | ° | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 | 10 / 12 |
| Residual capacity at max height | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | | | | |
| Residual capacity with hooked-on side shift (Industrial load chart) | lb | 11023.11 | 11023.11 | 11023.11 | 11023.11 | | | | |
| Height at max capacity | in | 12' 2" | 13' 1" | 14' 1" | 14' 9" | | | | |
| Height at max capacity with hooked-on sideshift | in | 12' 2" | 13' 1" | 14' 1" | 14' 9" | | | | |



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