

Technical sheet :

MSI 50 ST5



 **MANITOU**
HANDLING YOUR WORLD

| Technical characteristics | | | Metric |
|---------------------------|---|-----------|--------------------------|
| 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 | 5000 kg |
| 1.6 | Load center of gravity | c | 600 mm |
| 1.8 | Load distance, centre of drive axle to fork | x | 701 mm |
| 1.9 | Wheelbase | y | 2075 mm |
| | Standard mast reference of the machine | | FVD 37 |
| Weight | | | |
| 2.1 | Service weight | | 8420 kg |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 11470 kg / 1660 kg |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 3490 kg / 4820 kg |
| 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 | 1420 mm |
| 3.7 | Rear wheel gauge | b11 | 1142 mm |
| Dimensions | | | |
| 4.7 | Height of overhead guard (cabin) | h6 | 2440 mm |
| 4.8 | Seat height/stand height | h7 | 1435 mm |
| 4.12 | Height of towing bar (coupling height) | h10 | 605 mm |
| 4.19 | Overall length | l1 | 4584 mm |
| 4.20 | Length to face of forks | l2 | 3384 mm |
| 4.21 | Overall width | b1 | 1732 mm |
| 4.22 | Forks section / width / length | s / e / l | 60 mm x 150 mm x 1200 mm |
| 4.23 | Fork carriage ISO 2328 (class/form) A/B | | 4A |
| 4.24 | Fork carriage width | b3 | 1670 mm |
| 4.31 | Ground clearance below mast | m1 | 185 mm |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 220 mm |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 5241 mm |
| 4.35 | Turning radius | Wa | 2950 mm |
| Performances | | | |
| 5.1 | Travel speed (laden / unladen) | | 20 km/h-20 km/h |
| 5.2 | Lifting speed (laden / unladen) | | 0.37 m/s-0.39 m/s |
| 5.3 | Lowering speed (laden / unladen) | | 0.48 m/s-0.34 m/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 - 2900 cm³ |
| Miscellaneous | | | |
| 8.1 | Type of drive control | | Electronic |
| 8.2 | Working hydraulic pressure for attachments | | 230 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 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 | mm | 2425 | 2575 | 2675 | 2775 | 2925 | 3175 | 3425 |
| h3 - Mast lifting height | mm | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 |
| h4 - Mast extended height | mm | 3972 | 4272 | 4472 | 4672 | 4972 | 5472 | 5972 |
| Residual capacity at max height | kg | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 |
| Residual capacity with hooked-on side shift at max height | kg | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 |
| Height at max capacity | mm | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 |
| Height at max capacity with hooked-on sideshift | mm | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 |

| 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 | mm | 2175 | 2275 | 2375 | 2450 | 2510 | 2625 | 2775 | 2950 |
| h2 - Mast free lift | mm | 1258 | 1358 | 1458 | 1533 | 1593 | 1708 | 1858 | 2033 |
| h3 - Mast lifting height | mm | 3700 | 4000 | 4300 | 4500 | 4700 | 5000 | 5500 | 6000 |
| h4 - Mast extended height | mm | 4672 | 4972 | 5272 | 5472 | 5672 | 5972 | 6472 | 6972 |
| Residual capacity at max height | kg | 5000 | 5000 | 5000 | 5000 | | | | 4300 |
| Residual capacity with hooked-on side shift at max height | kg | 5000 | 5000 | 5000 | 5000 | | | | |
| Height at max capacity | mm | 3700 | 4000 | 4300 | 4500 | 2500 | 2500 | 2500 | 2500 |
| Height at max capacity with hooked-on sideshift | mm | 3700 | 4000 | 4300 | 4500 | | | | |



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