

Technical sheet :

# **M 50-4 D ST5**

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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics  |           | Imperial                  |
|-------|--|-----------|---------------------------|
| 1.1   | Manufacturer   |           | MANITOU                   |
| 1.2   | Model Name   |           | M 50-4 D 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         | 30 in                     |
| 1.9   | Wheelbase  | y         | 83 in                     |
|       | <b>Weight</b>  |           |                           |
|       | Standard mast reference of the machine   |           | FVD 37                    |
| 2.1   | Service weight   |           | 18353 lb                  |
| 2.2   | Weight on front axle (laden) / rear axle (laden)   |           | 25397 lb / 3979 lb        |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)                                     |           | 7242 lb / 11111 lb        |
|       | <b>Wheels</b>  |           |                           |
| 3.1   | Tires type   |           | Pneumatic                 |
| 3.2   | Dimensions of front wheels   |           | 18-22,5 MPT-06            |
| 3.3   | Dimensions of rear wheels  |           | 340/80 R18 XMCL           |
| 3.5   | Number of front wheels / rear wheels   |           | 2 / 2                     |
| 3.5.2 | Number of drive wheels   |           | 4                         |
| 3.6   | Front wheel gauge  | b10       | 64 in                     |
| 3.7   | Rear wheel gauge   | b11       | 69 in                     |
|       | <b>Dimensions</b>  |           |                           |
| 4.7   | Height of overhead guard (cabin) / Overall height of low overhead guard (Buggie version) | h6 / h6*  | 98 in / 98 in             |
| 4.8   | Seat height/stand height   | h7        | 57 in                     |
| 4.19  | Overall length   | l1        | 195 in                    |
| 4.20  | Length to face of forks  | l2        | 148 in                    |
| 4.21  | Overall width  | b1        | 82 in                     |
| 4.22  | Forks section x width x length   | s / e / l | 2 in x 6 in / 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        | 12 in                     |
| 4.32  | Ground clearance at centre of wheelbase  | m2        | 17 in                     |
| 4.33  | Aisle width for 1000 x 1200 pallet widthways   | Ast       | 268 in                    |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways   | Ast       | 268 in                    |
| 4.35  | Turning radius   | Wa        | 183 in                    |
|       | <b>Performances</b>  |           |                           |
| 5.1   | Travel speed (laden / unladen)   |           | 6 mph / 14 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)   |           | 11000 daN                 |
| 5.10  | Service brake  |           | Hydraulic                 |
|       | Transmission type  |           | Torque converter          |
|       | <b>Engine</b>  |           |                           |
| 7.1   | Engine brand / model / norm  |           | Deutz / TCD 2,9 / Stage V |
| 7.2   | Engine power (Hp / kW)   |           | 75 Hp/55 kW               |
| 7.3   | Rated speed  |           | 2300 rpm                  |
| 7.4   | Number of cylinders / Capacity of cylinders  |           | 4 - 178 in³               |
|       | <b>Miscellaneous</b>   |           |                           |
| 8.2   | Working hydraulic pressure for attachments   |           | 3336 PSI                  |
| 8.3   | Oil flow rate for attachments  |           | 26 US gpm                 |
| 8.4   | Sound level at the driver's ear according to DIN 12 053                                  |           | 78 dB                     |

## M 50-4 D ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                              |    | FVD 33 | FVD 35 | FVD 37 | FVD 40 | FVD 45 | FVD 50 |
|---|----|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °  | 15     | 15     | 15     | 15     | 15     | 10     |
| β - Mast/fork carriage tilt, backward                     | °  | 15     | 15     | 15     | 15     | 15     | 15     |
| h1 - Mast lowered height                                  | in | 105.1  | 109.1  | 113    | 118.9  | 128.7  | 138.6  |
| h3 - Mast lifting height                                  | in | 129.9  | 137.8  | 145.7  | 157.5  | 177.2  | 196.9  |
| Residual capacity at max height                           | lb | 11023  | 11023  | 11023  | 11023  | 7937   | 4850   |
| Residual capacity with hooked-on side shift at max height | lb | 10362  | 10362  | 10362  | 8818   | 8818   | 8378   |
| Height at max capacity                                    | in | 129.9  | 137.8  | 145.7  | 157.5  | 157.5  | 157.5  |
| Height at max capacity with hooked-on sideshift           | in | 129.9  | 137.8  | 145.7  | 157.5  | 157.5  | 157.5  |

| Free Lift Triplex (FLT)                                   |    | FLT 43 | FLT 45 | FLT 47 | FLT 50 | FLT 55 | FLT 60 |
|---|----|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | °  | 15     | 15     | 15     | 10     | 10     | 10     |
| β - Mast/fork carriage tilt, backward                     | °  | 15     | 15     | 15     | 15     | 15     | 15     |
| h1 - Mast lowered height                                  | in | 97.2   | 100.2  | 102.6  | 107.1  | 113    | 119.9  |
| h2 - Mast free lift                                       | in | 57.3   | 60.2   | 62.6   | 67.1   | 73     | 79.9   |
| h3 - Mast lifting height                                  | in | 169.3  | 177.2  | 185    | 196.9  | 216.5  | 236.2  |
| Residual capacity at max height                           | lb | 9921   | 9590   | 7716   | 6173   | 3968   | 1984   |
| Residual capacity with hooked-on side shift at max height | lb |        | 9039   | 7937   | 4630   | 4409   | 1984   |
| Height at max capacity                                    | in | 149.6  | 157.5  | 157.5  | 157.5  | 157.5  | 157.5  |
| Height at max capacity with hooked-on sideshift           | in |        | 157.5  | 157.5  | 157.5  | 157.5  | 157.5  |

## Equipment

| Standard                                       |
|--|
| Battery cut-off                                |
| Easy link                                      |
| Front and rear road lighting                   |
| Front tires - Rough terrain profil             |
| Mechanical suspension PVC seat - Grammer MSG65 |
| Open cab                                       |
| Oscillating rear axle                          |
| Rear tires - Rough terrain profil              |
| Windshield wiper (front and rear)              |

| Optional                           |
|------------------------------------|
| Audio warning on reverse movements |
| Enclosed Cab with Heat and A/C     |
| Hydraulic kit 4th element          |
| LED Rotative Beacon                |
| Load backrest                      |
| Pneumatic seat                     |
| Sideshift carriage                 |



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