

Technical sheet :

# MI 50L D

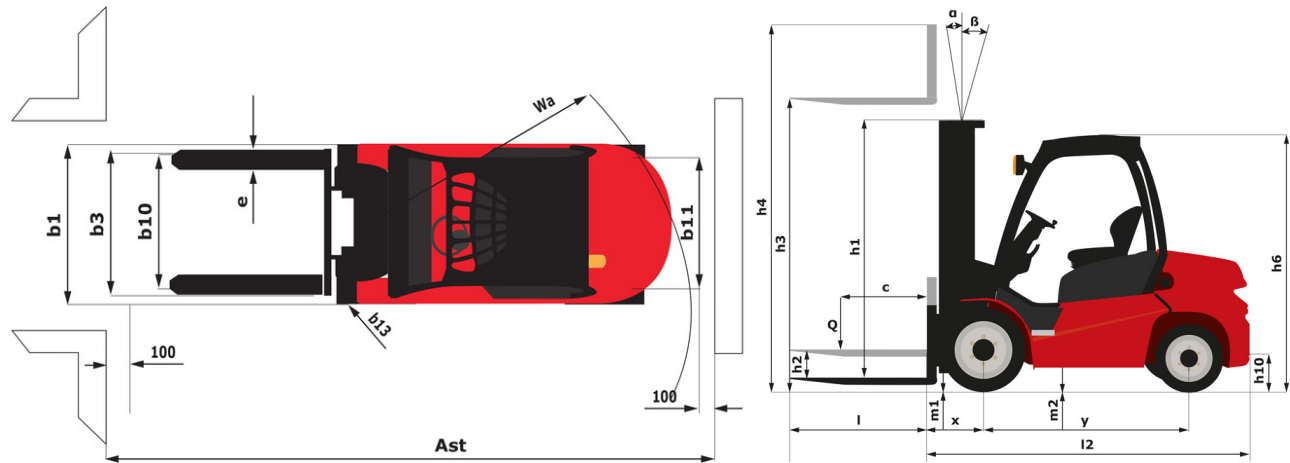
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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                                       |           | Metric                   | Imperial            |
|-------|-----------------------------------------------------------------|-----------|--------------------------|---------------------|
| 1.1   | Manufacturer                                                    |           | Manitou                  | Manitou             |
| 1.2   | Model Name                                                      |           | MI 50L D                 | MI 50L D            |
| 1.3   | Power source                                                    |           | Diesel                   | Diesel              |
| 1.4   | Operator type                                                   |           | Seated                   | Seated              |
| 1.5   | Max. capacity                                                   | Q         | 5000 kg                  | 11023 lb            |
| 1.6   | Load center of gravity                                          | c         | 600 mm                   | 24 in               |
| 1.8   | Load distance, centre of drive axle to fork                     | x         | 598 mm                   | 24 in               |
| 1.9   | Wheelbase                                                       | y         | 2300 mm                  | 91 in               |
|       | Weight                                                          |           |                          |                     |
| 2.1   | Service weight                                                  |           | 8810 kg                  | 19423 lb            |
| 2.2   | Weight on front axle (laden) / rear axle (laden)                |           | 12250 kg / 1560 kg       | 27007 lb / 3439 lb  |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)            |           | 4330 kg / 4480 kg        | 9546 lb / 9877 lb   |
|       | Wheels                                                          |           |                          |                     |
| 3.1   | Tires type                                                      |           | Pneumatic                | Pneumatic           |
| 3.2   | Dimensions of front wheels                                      |           | 8.25-15-14PR             | 8.25-15-14PR        |
| 3.3   | Dimensions of rear wheels                                       |           | 8.25-15-14PR             | 8.25-15-14PR        |
| 3.5   | Number of front wheels / rear wheels                            |           | 4 / 2                    | 4 / 2               |
| 3.5.2 | Number of drive wheels                                          |           | 2                        | 2                   |
| 3.6   | Front wheel gauge                                               | b10       | 1489 mm                  | 59 in               |
| 3.7   | Rear wheel gauge                                                | b11       | 1700 mm                  | 67 in               |
|       | Dimensions                                                      |           |                          |                     |
| 4.7   | Height of overhead guard (cabin)                                | h6        | 2430 mm                  | 96 in               |
| 4.8   | Seat height/stand height                                        | h7        | 1350 mm                  | 53 in               |
| 4.12  | Height of towing bar (coupling height)                          | h10       | 710 mm                   | 28 in               |
| 4.19  | Overall length                                                  | l1        | 4719 mm                  | 186 in              |
| 4.20  | Length to face of forks                                         | l2        | 3499 mm                  | 138 in              |
| 4.21  | Overall width                                                   | b1        | 1990 mm                  | 78 in               |
| 4.21  | Overall width - Twinned wheels                                  | b1        | 1990 mm                  | 78 in               |
| 4.22  | Forks section / width / length                                  | s / e / l | 60 mm x 150 mm x 1220 mm | 2 in x 6 in x 48 in |
| 4.23  | Fork carriage ISO 2328 (class/form) A/B                         |           | 4A                       | 4A                  |
| 4.24  | Fork carriage width                                             | b3        | 1700 mm                  | 67 in               |
| 4.31  | Ground clearance below mast                                     | m1        | 190 mm                   | 7 in                |
| 4.32  | Ground clearance at centre of wheelbase                         | m2        | 270 mm                   | 11 in               |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways                   | Ast       | 5157 mm                  | 203 in              |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways                    | Ast       | 5272 mm                  | 208 in              |
| 4.35  | Turning radius                                                  | Wa        | 3230 mm                  | 127 in              |
| 4.36  | Internal turning radius (over tyres)                            | b13       | 1222 mm                  | 48 in               |
|       | Performances                                                    |           |                          |                     |
| 5.1   | Travel speed (laden / unladen)                                  |           | 18 km/h-24 km/h          | 11 mph-15 mph       |
| 5.2   | Lifting speed (laden / unladen)                                 |           | 0.38 m/s-0.46 m/s        | 1 ft/s-2 ft/s       |
| 5.3   | Lowering speed (laden / unladen)                                |           | 0.48 m/s-0.42 m/s        | 2 ft/s-1 ft/s       |
| 5.5   | Drawbar pull (Laden / Unladen)                                  |           | 6280 daN / 3600 daN      | 6280 daN / 3600 daN |
| 5.7   | Gradeability (laden)                                            |           | 43 %                     | 43 %                |
| 5.10  | Service brake                                                   |           | Hydraulic                | Hydraulic           |
|       | Engine                                                          |           |                          |                     |
| 7.1   | Engine brand / model                                            |           | Deutz / TCD 3.6L 4       | Deutz / TCD 3.6L 4  |
| 7.2   | Engine power according to ISO 1585                              |           | 55.40 kW                 | 55.40 kW            |
| 7.3   | Rated speed                                                     |           | 2200 rpm                 | 2200 rpm            |
| 7.4   | Number of cylinders / Capacity of cylinders                     |           | 4 - 3600 cm³             | 4 - 220 in³         |
|       | Miscellaneous                                                   |           |                          |                     |
| 8.2   | Working hydraulic pressure for attachments                      |           | 195 bar                  | 2828 PSI            |
| 8.3   | Oil flow rate for attachments                                   |           | 55 l/min                 | 15 US gpm           |
| 8.4   | Measured/guaranteed mean noise level at the ear of the operator |           | < 84 dB                  | < 84 dB             |
| 8.4   | Sound level at the driver's ear according to DIN 12 053         |           | 84 dB                    | 84 dB               |

MI 50L D - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                             |         | FVD 30       | FVD 33       | FVD 36       | FVD 40       | FVD 45       | FVD 50       |
|----------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                         | °       | 6            | 6            | 6            | 6            | 6            | 6            |
| Mast/fork carriage tilt, backward                        | °       | 12           | 12           | 12           | 12           | 6            | 6            |
| h1 - Mast lowered height                                 | in (mm) | 98.4 (2500)  | 104.3 (2650) | 110.2 (2800) | 118.1 (3000) | 129.9 (3300) | 139.8 (3550) |
| h2 - Mast free lift                                      | in (mm) | 6.3 (160)    | 6.3 (160)    | 6.3 (160)    | 6.3 (160)    | 6.3 (160)    | 6.3 (160)    |
| h3 - Mast lifting height                                 | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) | 177.2 (4500) | 196.9 (5000) |
| h4 - Mast extended height                                | in (mm) | 157.3 (3995) | 169.1 (4295) | 180.9 (4595) | 196.7 (4995) | 216.5 (5500) | 236.2 (6000) |
| Residual capacity at max height                          | lb (kg) | 11023 (5000) | 11023 (5000) | 11023 (5000) | 11023 (5000) | 11023 (5000) | 11023 (5000) |
| Residual capacity with hooked-on side shift at max heigh | lb (kg) | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  |
| Height at max capacity                                   | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) | 177.2 (4500) | 196.9 (5000) |
| Height at max capacity with hooked-on sideshift          | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) | 177.2 (4500) | 196.9 (5000) |

| Free Lift Duplex (FLD)                                   |         | FLD 30       | FLD 33       | FLD 36       | FLD 40       |
|----------------------------------------------------------|---------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                         | °       | 6            | 6            | 6            | 6            |
| Mast/fork carriage tilt, backward                        | °       | 12           | 12           | 12           | 12           |
| h1 - Mast lowered height                                 | in (mm) | 96.5 (2450)  | 102.4 (2600) | 108.3 (2750) | 116.1 (2950) |
| h2 - Mast free lift                                      | in (mm) | 58.9 (1495)  | 64.8 (1645)  | 70.7 (1795)  | 78.5 (1995)  |
| h3 - Mast lifting height                                 | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) |
| h4 - Mast extended height                                | in (mm) | 155.7 (3955) | 167.5 (4255) | 179.3 (4555) | 195.1 (4955) |
| Residual capacity at max height                          | lb (kg) | 11023 (5000) | 11023 (5000) | 11023 (5000) | 11023 (5000) |
| Residual capacity with hooked-on side shift at max heigh | lb (kg) | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  |
| Height at max capacity                                   | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) |
| Height at max capacity with hooked-on sideshift          | in (mm) | 118.1 (3000) | 129.9 (3300) | 141.7 (3600) | 157.5 (4000) |

| Free Lift Triplex (FLT)                                  |         | FLT 45       | FLT 48       | FLT 50       | FLT 55       | FLT 60       |
|----------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                         | °       | 6            | 6            | 6            | 3            | 3            |
| Mast/fork carriage tilt, backward                        | °       | 6            | 6            | 6            | 6            | 6            |
| h1 - Mast lowered height                                 | in (mm) | 107.3 (2725) | 111.2 (2825) | 113.2 (2875) | 121.1 (3075) | 127 (3225)   |
| h2 - Mast free lift                                      | in (mm) | 59.1 (1500)  | 63 (1600)    | 65.8 (1672)  | 70.9 (1800)  | 78.7 (2000)  |
| h3 - Mast lifting height                                 | in (mm) | 177.2 (4500) | 189 (4800)   | 196.9 (5000) | 216.5 (5500) | 236.2 (6000) |
| h4 - Mast extended height                                | in (mm) | 225.8 (5735) | 237.6 (6035) | 244.6 (6213) | 267.1 (6785) | 284.8 (7235) |
| Residual capacity at max height                          | lb (kg) | 9921 (4500)  | 9921 (4500)  | 9921 (4500)  | 9259 (4200)  | 8818 (4000)  |
| Residual capacity with hooked-on side shift at max heigh | lb (kg) | 8818 (4000)  | 8818 (4000)  | 8818 (4000)  | 8157 (3700)  | 7716 (3500)  |
| Height at max capacity                                   | in (mm) | 177.2 (4500) | 189 (4800)   | 196.9 (5000) | 216.5 (5500) | 236.2 (6000) |
| Height at max capacity with hooked-on sideshift          | in (mm) | 177.2 (4500) | 189 (4800)   | 196.9 (5000) | 216.5 (5500) | 236.2 (6000) |



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