

Technical sheet :

# **MI-X 60 D**

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| Technical characteristics |                                                                 |           | Metric                   |
|---------------------------|-----------------------------------------------------------------|-----------|--------------------------|
| 1.1                       | Manufacturer                                                    |           | Manitou                  |
| 1.2                       | Model Name                                                      |           | MI-X 60 D                |
| 1.3                       | Power source                                                    |           | Diesel                   |
| 1.4                       | Operator type                                                   |           | Seated                   |
| 1.5                       | Max. capacity                                                   | Q         | 6000 kg                  |
| 1.6                       | Load center of gravity                                          | c         | 600 mm                   |
| 1.8                       | Load distance, centre of drive axle to fork                     | x         | 598 mm                   |
| 1.9                       | Wheelbase                                                       | y         | 2300 mm                  |
| Weight                    |                                                                 |           |                          |
| 2.1                       | Service weight                                                  |           | 8825 kg                  |
| 2.2                       | Weight on front axle (laden) / rear axle (laden)                |           | 13000 kg / 1825 kg       |
| 2.3                       | Weight on front axle (Unladen) / rear axle (Unladen)            |           | 3960 kg / 4865 kg        |
| Wheels                    |                                                                 |           |                          |
| 3.1                       | Tires type                                                      |           | Pneumatic                |
| 3.2                       | Dimensions of front wheels                                      |           | 8.25-15-14PR             |
| 3.3                       | Dimensions of rear wheels                                       |           | 8.25-15-14PR             |
| 3.5                       | Number of front wheels / rear wheels                            |           | 4 / 2                    |
| 3.5.2                     | Number of drive wheels                                          |           | 4                        |
| 3.6                       | Front wheel gauge                                               | b10       | 1489 mm                  |
| 3.7                       | Rear wheel gauge                                                | b11       | 1700 mm                  |
| Dimensions                |                                                                 |           |                          |
| 4.7                       | Height of overhead guard (cabin)                                | h6        | 2430 mm                  |
| 4.8                       | Seat height/stand height                                        | h7        | 1350 mm                  |
| 4.12                      | Height of towing bar (coupling height)                          | h10       | 710 mm                   |
| 4.19                      | Overall length                                                  | l1        | 4729 mm                  |
| 4.20                      | Length to face of forks                                         | l2        | 3509 mm                  |
| 4.21                      | Overall width                                                   | b1        | 1990 mm                  |
| 4.21                      | Overall width - Single wheels                                   | b1        | 1990 mm                  |
| 4.22                      | Forks section / width / length                                  | s / e / l | 60 mm x 150 mm x 1220 mm |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                         |           | 4A                       |
| 4.24                      | Fork carriage width                                             | b3        | 1700 mm                  |
| 4.31                      | Ground clearance below mast                                     | m1        | 190 mm                   |
| 4.32                      | Ground clearance at centre of wheelbase                         | m2        | 270 mm                   |
| 4.33                      | Aisle Width for pallets 1000 x 1200 crossways                   | Ast       | 5167 mm                  |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways                    | Ast       | 5302 mm                  |
| 4.35                      | Turning radius                                                  | Wa        | 3260 mm                  |
| 4.36                      | Internal turning radius (over tyres)                            | b13       | 1222 mm                  |
| Performances              |                                                                 |           |                          |
| 5.1                       | Travel speed (laden / unladen)                                  |           | 27 km/h-29 km/h          |
| 5.2                       | Lifting speed (laden / unladen)                                 |           | 0.46 m/s-0.49 m/s        |
| 5.3                       | Lowering speed (laden / unladen)                                |           | 0.48 m/s-0.42 m/s        |
| 5.5                       | Drawbar pull (Laden / Unladen)                                  |           | 6500 daN / 2672 daN      |
| 5.7                       | Gradeability (laden)                                            |           | 43 %                     |
| 5.10                      | Service brake                                                   |           | Hydraulic                |
|                           | Transmission type                                               |           | Torque converter         |
| Engine                    |                                                                 |           |                          |
| 7.1                       | Engine brand / model                                            |           | Cummins / QSB3,3         |
| 7.2                       | I.C. Engine power rating                                        |           | 74 kW                    |
| 7.3                       | Rated speed                                                     |           | 2200 rpm                 |
| 7.4                       | Number of cylinders / Capacity of cylinders                     |           | 4 - 3300 cm³             |
| Miscellaneous             |                                                                 |           |                          |
| 8.2                       | Working hydraulic pressure for attachments                      |           | 195 bar                  |
| 8.3                       | Oil flow rate for attachments                                   |           | 55 l/min                 |
| 8.4                       | Measured/guaranteed mean noise level at the ear of the operator |           | < 88 dB                  |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053         |           | 88 dB                    |

### MI-X 60 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 |
|-----------------------------------------------------------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | 6      | 6      | 6      | 6      | 6      | 6      |
| β - Mast/fork carriage tilt, backward                     | 12     | 12     | 12     | 12     | 6      | 6      |
| h1 - Mast lowered height                                  | 2500   | 2650   | 2800   | 3000   | 3300   | 3550   |
| h2 - Mast free lift                                       | 1600   | 160    | 160    | 160    | 160    | 160    |
| h3 - Mast lifting height                                  | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |
| h4 - Mast extended height                                 | 3995   | 4295   | 4595   | 4995   | 5500   | 6000   |
| Residual capacity at max height                           | 6000   | 6000   | 6000   | 6000   | 6000   | 6000   |
| Residual capacity with hooked-on side shift at max height | 5500   | 5500   | 5500   | 5500   | 5500   | 5500   |
| Height at max capacity                                    | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |
| Height at max capacity with hooked-on sideshift           | 3000   | 3300   | 3600   | 4000   | 4500   | 5000   |

| Free Lift Duplex (FLD)                                    | FLD 30 | FLD 33 | FLD 36 | FLD 40 |
|-----------------------------------------------------------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | 6      | 6      | 6      | 6      |
| β - Mast/fork carriage tilt, backward                     | 12     | 12     | 12     | 12     |
| h1 - Mast lowered height                                  | 2450   | 2600   | 2750   | 2950   |
| h2 - Mast free lift                                       | 1495   | 1645   | 1795   | 1995   |
| h3 - Mast lifting height                                  | 3000   | 3300   | 3600   | 4000   |
| h4 - Mast extended height                                 | 3955   | 4255   | 4555   | 4955   |
| Residual capacity at max height                           | 6000   | 6000   | 6000   | 6000   |
| Residual capacity with hooked-on side shift at max height | 5500   | 5500   | 5500   | 5500   |
| Height at max capacity                                    | 3000   | 3300   | 3600   | 4000   |
| Height at max capacity with hooked-on sideshift           | 3000   | 3300   | 3600   | 4000   |

| Free Lift Triplex (FLT)                                   | FLT 45 | FLT 48 | FLT 50 | FLT 55 | FLT 60 |
|-----------------------------------------------------------|--------|--------|--------|--------|--------|
| α - Mast/fork carriage tilt, forward                      | 6      | 6      | 6      | 3      | 3      |
| β - Mast/fork carriage tilt, backward                     | 6      | 6      | 6      | 6      | 6      |
| h1 - Mast lowered height                                  | 2725   | 2825   | 2875   | 3075   | 3225   |
| h2 - Mast free lift                                       | 1500   | 1600   | 1672   | 1800   | 2000   |
| h3 - Mast lifting height                                  | 4500   | 4800   | 5000   | 5500   | 6000   |
| h4 - Mast extended height                                 | 5735   | 6035   | 6213   | 6785   | 7235   |
| Residual capacity at max height                           | 5500   | 5500   | 5500   | 5200   | 5000   |
| Residual capacity with hooked-on side shift at max height | 5000   | 5000   | 5000   | 4700   | 4500   |
| Height at max capacity                                    | 4500   | 4800   | 5000   | 5500   | 6000   |
| Height at max capacity with hooked-on sideshift           | 4500   | 4800   | 5000   | 5500   | 6000   |



 **MANITOU**  
**HANDLING YOUR WORLD**

**Head Office**

B.P. 249 - 430 rue de l'Aubinière

44150 Ancenis Cedex - France

Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97

[www.manitou.com](http://www.manitou.com)



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