

Technical sheet :

# MSI-X 35



 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                                       |           | Metric                               |
|-------|---|-----------|--------------------------------------|
| 1.1   | Manufacturer  |           | Manitou                              |
| 1.2   | Model Name  |           | MSI-X 35                             |
| 1.3   | Power source  |           | Diesel                               |
| 1.4   | Operator type   |           | Seated                               |
| 1.5   | Max. capacity   | Q         | 3500 kg                              |
| 1.6   | Load center of gravity  | c         | 500 mm                               |
| 1.8   | Load distance, centre of drive axle to fork                     | x         | 631 mm                               |
| 1.9   | Wheelbase   | y         | 1900 mm                              |
|       | Weight  |           |                                      |
| 2.1   | Service weight  |           | 4645 kg                              |
| 2.2   | Weight on front axle (laden) / rear axle (laden)                |           | 7260 kg / 885 kg                     |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)            |           | 1680 kg / 2965 kg                    |
|       | Wheels  |           |                                      |
| 3.1   | Tires type  |           | Pneumatic                            |
| 3.2   | Dimensions of front wheels                                      |           | 300-15/18 6T P43                     |
| 3.3   | Dimensions of rear wheels                                       |           | 7.00-12/12 ED PLUS                   |
| 3.5   | Number of front wheels / rear wheels                            |           | 2 / 2                                |
| 3.5.2 | Number of drive wheels  |           | 2                                    |
| 3.6   | Front wheel gauge   | b10       | 1044 mm                              |
| 3.7   | Rear wheel gauge  | b11       | 1108 mm                              |
|       | Dimensions  |           |                                      |
| 4.7   | Height of overhead guard (cabin)                                | h6        | 2095 mm                              |
| 4.8   | Seat height/stand height  | h7        | 972 mm                               |
| 4.19  | Overall length  | l1        | 4239 mm                              |
| 4.20  | Length to face of forks   | l2        | 3189 mm                              |
| 4.21  | Overall width   | b1        | 1330 mm                              |
| 4.22  | Forks section / width / length                                  | s / e / l | 50 mm x 122 mm x 1150 mm             |
| 4.23  | Fork carriage ISO 2328 (class/form) A/B                         |           | 3A                                   |
| 4.24  | Fork carriage width   | b3        | 1260 mm                              |
| 4.31  | Ground clearance below mast                                     | m1        | 260 mm                               |
| 4.32  | Ground clearance at centre of wheelbase                         | m2        | 238 mm                               |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways                   | Ast       | 4661 mm                              |
| 4.35  | Turning radius  | Wa        | 2680 m                               |
|       | Performances  |           |                                      |
| 5.1   | Travel speed (laden / unladen)                                  |           | 18 km/h-22 km/h                      |
| 5.2   | Lifting speed (laden / unladen)                                 |           | 0.50 m/s-0.50 m/s                    |
| 5.3   | Lowering speed (laden / unladen)                                |           | 0.50 m/s-0.30 m/s                    |
| 5.5   | Drawbar pull (Laden / Unladen)                                  |           | 2070 daN / 1380 daN                  |
| 5.7   | Gradeability (laden / unladen)                                  |           | 26 % / 31 %                          |
| 5.10  | Service brake   |           | Hydraulic brakes by loss of pressure |
|       | Engine  |           |                                      |
| 7.1   | Engine brand / model / norm                                     |           | Kubota / V2403 / Stage IIIA          |
| 7.2   | I.C. Engine power rating  |           | 36 kW                                |
| 7.3   | Rated speed   |           | 2700 rpm                             |
| 7.4   | Number of cylinders / Capacity of cylinders                     |           | 4 - 2434 cm³                         |
|       | Miscellaneous   |           |                                      |
| 8.1   | Type of drive control   |           | Cable                                |
| 8.2   | Working hydraulic pressure for attachments                      |           | 180 bar                              |
| 8.3   | Oil flow rate for attachments                                   |           | 45 l/min                             |
| 8.4   | Measured/guaranteed mean noise level at the ear of the operator |           | < 80 dB                              |
| 8.4   | Sound level at the driver's ear according to DIN 12 053         |           | 80 dB                                |

## MSI-X 35 - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)         |    | FVD 30 | FVD 33 | FVD 37 | FVD 40 | FVD 45 |
|--------------------------------------|----|--------|--------|--------|--------|--------|
| α - Mast/fork camiage tilt, forward  | °  | 10     | 10     | 3500   | 10     | 10     |
| β - Mast/fork camiage tilt, backward | °  | 12     | 12     | 3500   | 12     | 12     |
| h1 - Mast lowered height             | mm | 2136   | 2286   | 2546   | 2736   | 2986   |
| h2 - Mast free lift                  | mm | 90     | 90     | 90     | 90     | 90     |
| h3 - Mast lifting height             | mm | 3000   | 3300   | 3700   | 4000   | 4500   |
| h4 - Mast extended height            | mm | 3738   | 4038   | 4438   | 4738   | 5238   |
| Residual capacity at max height      | kg | 3500   | 3500   |        |        |        |
| Height at max capacity               | mm | 3000   | 3700   | 3700   | 2500   | 2500   |

| Free Lift Triplex (FLT)              |    | FLT 34 | FLT 37 | FLT 40 | FLT 43 | FLT 47 | FLT 55 | FLT 60 |
|--------------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| α - Mast/fork camiage tilt, forward  | °  | 10     | 10     | 10     | 10     | 10     | 6      | 6      |
| β - Mast/fork camiage tilt, backward | °  | 12     | 12     | 12     | 12     | 12     | 6      | 6      |
| h1 - Mast lowered height             | mm | 1936   | 2036   | 2136   | 2286   | 2386   | 2736   | 2986   |
| h2 - Mast free lift                  | mm | 1208   | 1308   | 1408   | 1558   | 1658   | 2008   | 2258   |
| h3 - Mast lifting height             | mm | 3400   | 3700   | 4000   | 4300   | 4700   | 5500   | 6000   |
| h4 - Mast extended height            | mm | 4184   | 4484   | 4784   | 5084   | 5484   | 6284   | 6784   |
| Residual capacity at max height      | kg | 3500   |        |        |        |        |        |        |
| Height at max capacity               | mm | 3400   | 2500   | 2500   | 2500   | 2500   | 2500   | 2500   |

| Full Visibility Triplex (FVT)        |    | FVT 33 |
|--------------------------------------|----|--------|
| α - Mast/fork camiage tilt, forward  | °  | 10     |
| β - Mast/fork camiage tilt, backward | °  | 12     |
| h1 - Mast lowered height             | mm | 1826   |
| h2 - Mast free lift                  | mm | 82     |
| h3 - Mast lifting height             | mm | 3300   |
| h4 - Mast extended height            | mm | 4027   |
| Height at max capacity               | mm | 2500   |



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