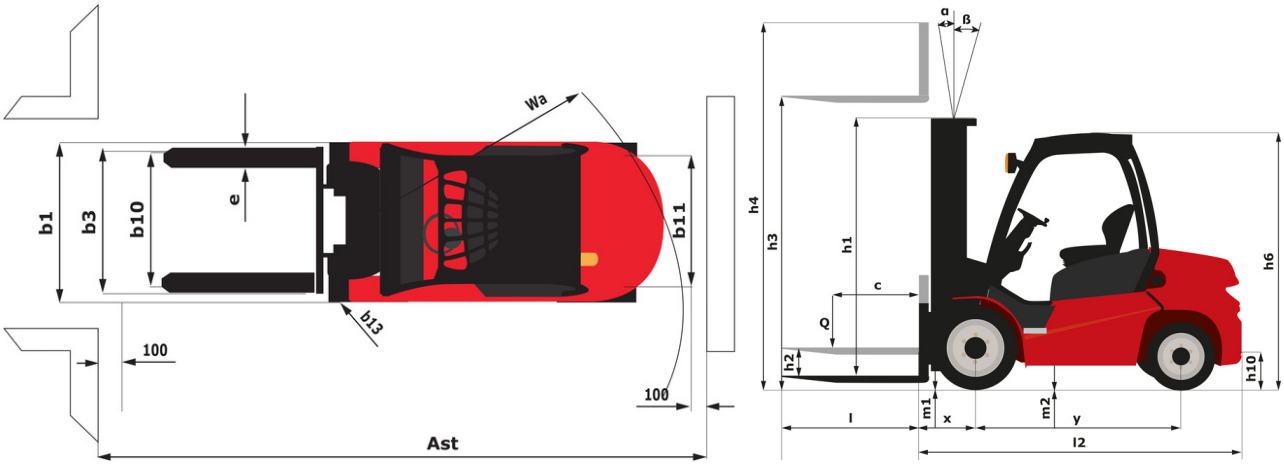
Technical sheet :

# MI 20 D ST5 FOB

MANITOU
HANDLING YOUR WORLD

| | Technical characteristics | | Metric |
|---|---|---|---|
| 1.1 | Manufacturer | | MANITOU |
| 1.2 | Model Name | | MI 20 D ST5 |
| 1.3 | Power source | | Diesel |
| 1.4 | Operator type | | Seated |
| 1.5 | Max. capacity | Q | 2000 kg |
| 1.6 | Load center of gravity | c | 500 mm |
| 1.8 | Load distance, centre of drive axle to fork | x | 465 mm |
| 1.9 | Wheelbase | y | 1600 mm |
| | **Weight** | | |
| 2.1 | Service weight | | 3725 kg |
| 2.2 | Weight on front axle (laden) / rear axle (laden) | | 5005 kg / 720 kg |
| 2.3 | Weight on front axle (Unladen) / rear axle (Unladen) | | 1765 kg / 1960 kg |
| | **Wheels** | | |
| 3.1 | Tires type | | Super Elastic |
| 3.2 | Dimensions of front wheels | | 7.00-12 12 |
| 3.3 | Dimensions of rear wheels | | 6.00-9 10 |
| 3.5 | Number of front wheels / rear wheels | | 2 / 2 |
| 3.5.2 | Number of drive wheels | | 2 |
| 3.6 | Front wheel gauge | b10 | 965 mm |
| 3.7 | Rear wheel gauge | b11 | 973 mm |
| | **Dimensions** | | |
| 4.7 | Height of overhead guard (cabin) | h6 | 2115 mm |
| 4.8 | Seat height/stand height | h7 | 1190 mm |
| 4.12 | Height of towing bar (coupling height) | h10 | 355 mm |
| 4.19 | Overall length | l1 | 3615 mm |
| 4.20 | Length to face of forks | l2 | 2465 mm |
| 4.21 | Overall width | b1 | 1155 mm |
| 4.21 | Overall width - Single wheels | b1 | 1155 mm |
| 4.21 | Overall width - Twinned wheels | b1 | 1595 mm |
| 4.22 | Forks section / width / length | s / e / l | 40 mm x 122 mm x 1150 mm |
| 4.23 | Fork carriage ISO 2328 (class/form) A/B | | 2A |
| 4.24 | Fork carriage width | b3 | 1038 mm |
| 4.31 | Ground clearance below mast | m1 | 115 mm |
| 4.32 | Ground clearance at centre of wheelbase | m2 | 175 mm |
| 4.33 | Aisle Width for pallets 1000 x 1200 crossways | Ast | 3865 mm |
| 4.34 | Aisle width for 800 x 1200 pallet lengthways | Ast | 4065 mm |
| 4.35 | Turning radius | Wa | 2200 mm |
| 4.36 | Internal turning radius (over tyres) | b13 | 145 mm |
| | **Performances** | | |
| 5.1 | Travel speed (laden / unladen) | | 18 km/h-18.50 km/h |
| 5.2 | Lifting speed (laden / unladen) | | 0.60 m/s-0.65 m/s |
| 5.3 | Lowering speed (laden / unladen) | | 0.48 m/s-0.55 m/s |
| 5.5 | Drawbar pull (Laden / Unladen) | | 1800 daN / 1230 daN |
| 5.7 | Gradeability (laden / unladen) | | 20 % / 20 % |
| 5.10 | Service brake | | Hydraulic |
| | **Engine** | | |
| 7.1 | Engine brand / model | | Kubota / V2607-CR-E5B |
| 7.2 | I.C. Engine power rating | | 37.40 kW |
| 7.3 | Rated speed | | 2400 rpm |
| 7.4 | Number of cylinders / Capacity of cylinders | | 4 - 2615 cm³ |
| | **Miscellaneous** | | |
| 8.2 | Working hydraulic pressure for attachments | | 160 bar |
| 8.3 | Oil flow rate for attachments | | 35 l/min |
| 8.4 | Measured/guaranteed mean noise level at the ear of the operator | | < 84 dB |

## MI 20 D ST5 FOB - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD) | | FVD 37 | FVD 40 |
|---|---|---|---|
| α - Mast/fork carriage tilt, forward | ° | 6 | 6 |
| β - Mast/fork carriage tilt, backward | ° | 12 | 12 |
| h1 - Mast lowered height | mm | 2435 | 2635 |
| h2 - Mast free lift | mm | 140 | 140 |
| h3 - Mast lifting height | mm | 3700 | 4000 |
| h4 - Mast extended height | mm | 4360 | 4660 |
| Residual capacity at max height | kg | 2000 | 2000 |
| Residual capacity with integrated side shift at max heigth | kg | 2000 | 2000 |
| Height at max capacity | mm | 3700 | 4000 |
| Height at max capacity with integrated sideshift | mm | 3700 | 4000 |

| Free Lift Duplex (FLD) | | FLD 33 | FLD 37 | FLD 40 | FLT 60 | FVD 33 |
|---|---|---|---|---|---|---|
| α - Mast/fork carriage tilt, forward | ° | 6 | 6 | 6 | 3 | 6 |
| β - Mast/fork carriage tilt, backward | ° | 12 | 12 | 12 | 6 | 12 |
| h1 - Mast lowered height | mm | 2160 | 2360 | 2560 | 2750 | 2185 |
| h2 - Mast free lift | mm | 1480 | 1680 | 1880 | 2070 | 140 |
| h3 - Mast lifting height | mm | 3300 | 3700 | 4000 | 6000 | 3300 |
| h4 - Mast extended height | mm | 3980 | 4330 | 4680 | 6730 | 3960 |
| Residual capacity at max height | kg | 2000 | 2000 | 2000 | 900 | 2000 |
| Residual capacity with integrated side shift at max heigth | kg | 2000 | 2000 | 2000 | 800 | 2000 |
| Height at max capacity | mm | 3300 | 3700 | 4000 | 2500 | 3300 |
| Height at max capacity with integrated sideshift | mm | 3300 | 3700 | 4000 | | 3300 |

| Free Lift Triplex (FLT) | | FLT 43 | FLT 45 | FLT 47 | FLT 48 | FLT 50 | FLT 55 | FLT 65 |
|---|---|---|---|---|---|---|---|---|
| α - Mast/fork carriage tilt, forward | ° | 6 | 6 | 6 | 6 | 6 | 3 | 3 |
| β - Mast/fork carriage tilt, backward | ° | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| h1 - Mast lowered height | mm | 2100 | 2150 | 2200 | 2250 | 2300 | 2500 | 2900 |
| h2 - Mast free lift | mm | 1400 | 1470 | 1520 | 1570 | 1620 | 1820 | 2200 |
| h3 - Mast lifting height | mm | 4300 | 4500 | 4700 | 4800 | 5000 | 5500 | 6500 |
| h4 - Mast extended height | mm | 5000 | 5230 | 5380 | 5480 | 5680 | 6180 | 7200 |
| Residual capacity at max height | kg | 1850 | 1800 | 1750 | 1750 | 1700 | 1300 | 800 |
| Residual capacity with integrated side shift at max heigth | kg | 1750 | 1700 | 1650 | 1650 | 1600 | 1200 | 700 |
| Height at max capacity | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

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