

Technical sheet :

# **ER 20 HD**



 **MANITOU**  
HANDLING YOUR WORLD

| Technical characteristics |   | Metric    |                          |
|---------------------------|---|-----------|--------------------------|
| 1.1                       | Manufacturer  |           | MANITOU                  |
| 1.2                       | Model Name  |           | ER 20 HD                 |
| 1.3                       | Power source  |           | Electrical - Lead        |
| 1.4                       | Operator type   |           | Seated                   |
| 1.5                       | Max. capacity   | Q         | 2000 kg                  |
| 1.6                       | Load center of gravity                                  | c         | 600 mm                   |
| 1.8                       | Load distance, centre of drive axle to fork             | x         | 416 mm                   |
| 1.9                       | Wheelbase   | y         | 1530 mm                  |
| <b>Weight</b>             |   |           |                          |
| 2.1                       | Service weight  |           | 4150 kg                  |
| <b>Wheels</b>             |   |           |                          |
| 3.1                       | Tires type  |           | Polyurethane cushion     |
| 3.5.2                     | Number of drive wheels - Size of drive wheels           |           | 0 x 355 x 155            |
| 3.3                       | Number of load wheels - Size of load wheels             |           | 2 x 285 x 105            |
| 3.5                       | Number of front wheels / rear wheels                    |           | 1 / 2                    |
| 3.6                       | Front wheel gauge                                       | b10       | 0 mm                     |
| 3.7                       | Rear wheel gauge  | b11       | 1128 mm                  |
| <b>Dimensions</b>         |   |           |                          |
| 4.8                       | Seat height/stand height                                | h7        | 1077 mm                  |
| 4.19                      | Overall length  | l1        | 2485 mm                  |
| 4.20                      | Length to face of forks                                 | l2        | 1335 mm                  |
| 4.21                      | Overall width   | b1        | 1270 mm                  |
| 4.22                      | Forks section / width / length                          | s / e / l | 40 mm x 100 mm / 1150 mm |
| 4.23                      | Fork carriage ISO 2328 (class/form) A/B                 |           | 2A                       |
| 4.26                      | Distance between wheel arms/loading surfaces            | b4        | 903 mm                   |
| 4.25.1                    | Width over forks min. / max.                            | b5        | 316 mm / 697 mm          |
| 4.32                      | Ground clearance at centre of wheelbase                 | m2        | 70 mm                    |
| 4.33                      | Aisle width for 1000 x 1200 pallet lengthways           |           | 2788 mm                  |
| 4.34                      | Aisle width for 800 x 1200 pallet lengthways            | Ast       | 2831 mm                  |
| 4.35                      | Turning radius  | Wa        | 1750 mm                  |
| 4.7                       | Height of overhead guard (cabin)                        | h6        | 2205 mm                  |
| <b>Performances</b>       |   |           |                          |
| 5.1                       | Travel speed (laden / unladen)                          |           | 14.30 km/h / 14.50 km/h  |
| 5.2                       | Lifting speed (laden / unladen)                         |           | 0.37 m/s / 0.63 m/s      |
| 5.3                       | Lowering speed (laden / unladen)                        |           | 0.55 m/s / 0.43 m/s      |
| 5.4.1                     | Reach speed (with load / without load)                  |           | 0.20 m/s / 0.20 m/s      |
| 5.7                       | Gradeability (laden / unladen)                          |           | 6.30 % / 9.40 %          |
| 5.10                      | Service brake   |           | Electric                 |
| <b>Engine</b>             |   |           |                          |
| 6.1                       | Drive motor rating S2 60 min                            |           | 7.20 kW                  |
| 6.2                       | Lift motor rating at S3 15%                             |           | 15 kW                    |
| 6.3                       | Battery according to DIN 43531/35/36 A, B, C            |           | DIN 43531 C              |
| 6.4                       | Battery voltage / capacity                              |           | 48 V / 620 Ah            |
| 6.5                       | Battery weight (+/- 5%)                                 |           | 920 kg                   |
| <b>Miscellaneous</b>      |   |           |                          |
| 8.1                       | Type of drive control                                   |           | Electronic               |
| 8.3                       | Oil flow rate for attachments                           |           | 25 l/min                 |
| 8.4                       | Sound level at the driver's ear according to DIN 12 053 |           | 60.80 dB                 |

ER 20 HD - Dimensional drawing



## Characteristics of masts and residual capacities

| Free Lift Triplex (FLT)                                    |    | FLT 64 | FLT 71 | FLT 76 | FLT 81 | FLT 85 | FLT 90 | FLT 96 | FLT 102 | FLT 114 | FLT 115 |
|--|----|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| $\alpha$ - Mast/fork carriage tilt, forward                | °  | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1       | 1       | 1       |
| $\beta$ - Mast/fork carriage tilt, backward                | °  | 4      | 4      | 1      | 1      | 4      | 4      | 4      | 4       | 4       | 1       |
| h1 - Mast lowered height                                   | mm | 2972   | 3205   | 3357   | 3523   | 3688   | 3838   | 4055   | 4255    | 4455    | 4673    |
| h2 - Mast free lift  | mm | 2400   | 2650   | 2800   | 2980   | 3100   | 3283   | 3500   | 3700    | 3900    | 4100    |
| h3 - Mast lifting height                                   | mm | 6350   | 7050   | 7550   | 8050   | 8500   | 8950   | 9600   | 10200   | 10800   | 11500   |
| h4 - Mast extended height                                  | mm | 6930   | 7630   | 8130   | 8630   | 9080   | 9530   | 10180  | 10780   | 11380   | 12080   |
| Residual capacity at max height                            | kg | 2000   | 2000   |        |        | 1350   | 1250   | 1100   | 900     | 700     | 600     |
| Residual capacity with integrated side shift at max height | kg | 1600   | 1600   | 1400   | 1300   | 1150   | 1000   | 800    |         |         |         |

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