

Technical sheet :

# ME 435

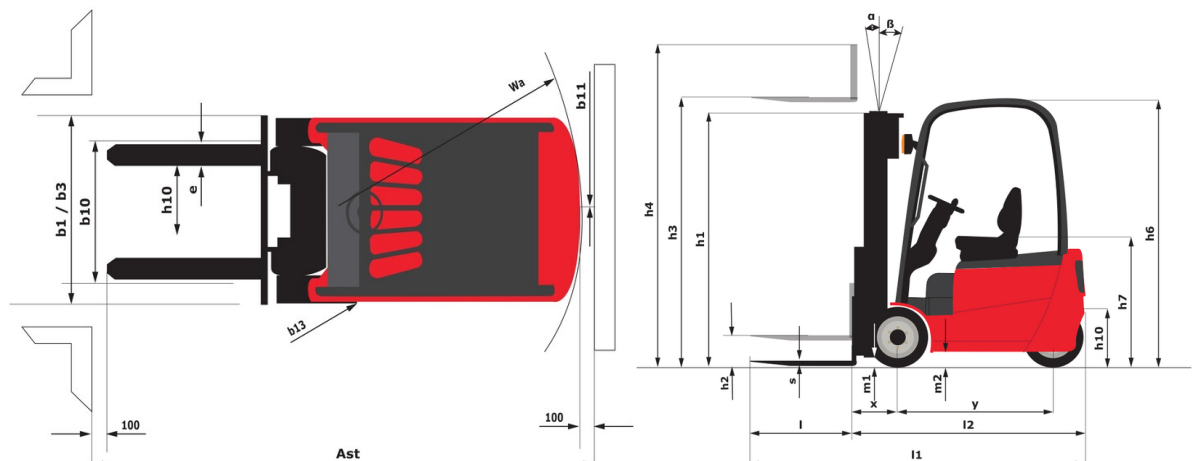
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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                                       |           | Metric                   | Imperial            |
|-------|-----------------------------------------------------------------|-----------|--------------------------|---------------------|
| 1.1   | Manufacturer                                                    |           | Manitou                  | Manitou             |
| 1.2   | Model Name                                                      |           | ME 435                   | ME 435              |
| 1.3   | Power source                                                    |           | Electrical               | Electrical          |
| 1.4   | Operator type                                                   |           | Seated                   | Seated              |
| 1.5   | Max. capacity                                                   | Q         | 3500 kg                  | 7716 lb             |
| 1.6   | Load center of gravity                                          | c         | 500 mm                   | 20 in               |
| 1.8   | Load distance, centre of drive axle to fork                     | x         | 445 mm                   | 18 in               |
| 1.9   | Wheelbase                                                       | y         | 1750 mm                  | 69 in               |
|       | <b>Weight</b>                                                   |           |                          |                     |
| 2.1   | Service weight                                                  |           | 5550 kg                  | 12236 lb            |
| 2.2   | Weight on front axle (laden) / rear axle (laden)                |           | 8050 kg / 1000 kg        | 17747 lb / 2205 lb  |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)            |           | 2720 kg / 2830 kg        | 5997 lb / 6239 lb   |
|       | <b>Wheels</b>                                                   |           |                          |                     |
| 3.1   | Tires type                                                      |           | Solid tires              | Solid tires         |
| 3.2   | Dimensions of front wheels                                      |           | 23 x 10 -12              | 23 x 10 -12         |
| 3.3   | Dimensions of rear wheels                                       |           | 200/50 - 10              | 200/50 - 10         |
| 3.5   | Number of front wheels / rear wheels                            |           | 2 / 2                    | 2 / 2               |
| 3.5.2 | Number of drive wheels                                          |           | 2                        | 2                   |
| 3.6   | Front wheel gauge                                               | b10       | 1085 mm                  | 43 in               |
| 3.7   | Rear wheel gauge                                                | b11       | 960 mm                   | 38 in               |
|       | <b>Dimensions</b>                                               |           |                          |                     |
| 4.7   | Height of overhead guard (cabin)                                | h6        | 2240 mm                  | 88 in               |
| 4.8   | Seat height/stand height                                        | h7        | 1190 mm                  | 47 in               |
| 4.12  | Height of towing bar (coupling height)                          | h10       | 625 mm                   | 25 in               |
| 4.19  | Overall length                                                  | l1        | 3650 mm                  | 144 in              |
| 4.20  | Length to face of forks                                         | l2        | 2500 mm                  | 98 in               |
| 4.21  | Overall width                                                   | b1        | 1315 mm                  | 52 in               |
| 4.22  | Forks section / width / length                                  | s / e / l | 50 mm x 122 mm x 1150 mm | 2 in x 5 in x 45 in |
| 4.23  | Fork carriage ISO 2328 (class/form) A/B                         |           | 3A                       | 3A                  |
| 4.24  | Fork carriage width                                             | b3        | 1100 mm                  | 43 in               |
| 4.31  | Ground clearance below mast                                     | m1        | 112 mm                   | 4 in                |
| 4.32  | Ground clearance at centre of wheelbase                         | m2        | 115 mm                   | 5 in                |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways                   | Ast       | 4045 mm                  | 159 in              |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways                    | Ast       | 4245 mm                  | 167 in              |
| 4.35  | Turning radius                                                  | Wa        | 2400 mm                  | 94 in               |
| 4.36  | Internal turning radius (over tyres)                            | b13       | 730 mm                   | 29 in               |
|       | <b>Performances</b>                                             |           |                          |                     |
| 5.1   | Travel speed (laden / unladen)                                  |           | 19 km/h-20 km/h          | 12 mph-12 mph       |
| 5.2   | Lifting speed (laden / unladen)                                 |           | 0.39 m/s-0.54 m/s        | 1 ft/s-2 ft/s       |
| 5.3   | Lowering speed (laden / unladen)                                |           | 0.47 m/s-0.42 m/s        | 2 ft/s-1 ft/s       |
| 5.5   | Drawbar pull (Laden / Unladen)                                  |           | 1690 daN / 1700 daN      | 1690 daN / 1700 daN |
| 5.7   | Gradeability (laden / unladen)                                  |           | 12 % / 18 %              | 12 % / 18 %         |
| 5.10  | Service brake                                                   |           | Oil bath                 | Oil bath            |
|       | <b>Engine</b>                                                   |           |                          |                     |
| 6.1   | Drive motor rating S2 60 min                                    |           | 18.50 kW                 | 18.50 kW            |
| 6.2   | Lift motor rating at S3 15%                                     |           | 25.40 kW                 | 25.40 kW            |
| 6.3   | Battery according to DIN 43531/35/36 A, B, C                    |           | DIN43536 A               | DIN43536 A          |
| 6.4   | Battery voltage / capacity                                      |           | 80 V / 700 Ah            | 80 V / 700 Ah       |
| 6.6   | Energy consumption                                              |           | 12.50 kWh                | 12.50 kWh           |
|       | <b>Miscellaneous</b>                                            |           |                          |                     |
| 8.1   | Type of drive control                                           |           | Electronic               | Electronic          |
| 8.2   | Working hydraulic pressure for attachments                      |           | 210 bar                  | 3046 PSI            |
| 8.3   | Oil flow rate for attachments                                   |           | 65 l/min                 | 17 US gpm           |
| 8.4   | Measured/guaranteed mean noise level at the ear of the operator |           | < 74 dB                  | < 74 dB             |

## ME 435 - Dimensional drawing



# Characteristics of masts and residual capacities

| Full Visibility Duplex (FVD)                               |         | FVD 30       | FVD 33       | FVD 35       | FVD 37       | FVD 40       | FVD 43       | FVD 45       | FVD 48       | FVD 50       |
|------------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                           | °       | 5            | 5            | 5            | 5            | 5            | 5            | 5            | 5            | 5            |
| Mast/fork carriage tilt, backward                          | °       | 8            | 8            | 8            | 8            | 8            | 5            | 5            | 5            | 5            |
| h1 - Mast lowered height                                   | in (mm) | 88 (2235)    | 93.9 (2385)  | 97.8 (2485)  | 112.5 (2858) | 111.6 (2835) | 117.5 (2985) | 121.5 (3085) | 127.4 (3235) | 131.3 (3335) |
| h2 - Mast free lift                                        | in (mm) | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    | 5.9 (150)    |
| h3 - Mast lifting height                                   | in (mm) | 118.1 (3000) | 129.9 (3300) | 137.8 (3500) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 177.2 (4500) | 189 (4800)   | 196.9 (5000) |
| h4 - Mast extended height                                  | in (mm) | 151.1 (3838) | 162.9 (4138) | 170.8 (4338) | 178.7 (4538) | 190.5 (4838) | 202.3 (5138) | 210.2 (5338) | 222 (5638)   | 229.8 (5838) |
| Residual capacity at max height                            | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7496 (3400)  |
| Residual capacity with integrated side shift at max height | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7496 (3400)  | 7385 (3350)  | 7496 (3400)  |
| Residual capacity with hooked-on side shift at max height  | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7496 (3400)  | 7275 (3300)  | 7055 (3200)  |
| Height at max capacity                                     | in (mm) | 118.1 (3000) | 129.9 (3300) | 137.8 (3500) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 177.2 (4500) | 189 (4800)   | 157.5 (4000) |
| Height at max capacity with integrated sideshift           | in (mm) | 118.1 (3000) | 129.9 (3300) | 137.8 (3500) | 145.7 (3700) | 157.5 (4000) | 169.3 (4300) | 157.5 (4000) | 157.5 (4000) | 157.5 (4000) |

| Free Lift Duplex (FLD)                                     |         | FLD 30       | FLD 33       | FLD 37       | FLD 40       |
|------------------------------------------------------------|---------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                           | °       | 5            | 5            | 5            | 5            |
| Mast/fork carriage tilt, backward                          | °       | 8            | 8            | 8            | 8            |
| h1 - Mast lowered height                                   | in (mm) | 84.1 (2135)  | 90 (2285)    | 97.8 (2485)  | 105.7 (2685) |
| h2 - Mast free lift                                        | in (mm) | 50.2 (1275)  | 56.1 (1425)  | 64 (1625)    | 71.9 (1825)  |
| h3 - Mast lifting height                                   | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) |
| h4 - Mast extended height                                  | in (mm) | 152 (3860)   | 163.8 (4160) | 179.5 (4560) | 191.3 (4860) |
| Residual capacity at max height                            | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  |
| Residual capacity with integrated side shift at max height | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  |
| Residual capacity with hooked-on side shift at max height  | lb (kg) | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  | 7716 (3500)  |
| Height at max capacity                                     | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) |
| Height at max capacity with integrated sideshift           | in (mm) | 118.1 (3000) | 129.9 (3300) | 145.7 (3700) | 157.5 (4000) |

| Free Lift Triplex (FLT)                                    |         | FLT 40       | FLT 43       | FLT 48       | FLT 50       | FLT 55       | FLT 60       |
|------------------------------------------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| Mast/fork carriage tilt, forward                           | °       | 5            | 5            | 5            | 5            | 5            | 5            |
| Mast/fork carriage tilt, backward                          | °       | 5            | 5            | 5            | 5            | 5            | 5            |
| h1 - Mast lowered height                                   | in (mm) | 84.1 (2135)  | 88 (2235)    | 95.9 (2435)  | 99.8 (2535)  | 107.7 (2735) | 117.5 (2985) |
| h2 - Mast free lift                                        | in (mm) | 50.2 (1275)  | 54.1 (1375)  | 62 (1575)    | 65.9 (1675)  | 73.8 (1875)  | 83.7 (2125)  |
| h3 - Mast lifting height                                   | in (mm) | 157.5 (4000) | 169.3 (4300) | 189 (4800)   | 196.9 (5000) | 216.5 (5500) | 236.2 (6000) |
| h4 - Mast extended height                                  | in (mm) | 184.3 (4680) | 203.1 (5160) | 222.8 (5660) | 230.7 (5860) | 250.4 (6360) | 270.1 (6860) |
| Residual capacity at max height                            | lb (kg) | 7716 (3500)  | 7496 (3400)  | 7275 (3300)  | 7055 (3200)  | 6945 (3150)  | 6614 (3000)  |
| Residual capacity with integrated side shift at max height | lb (kg) | 7716 (3500)  | 7385 (3350)  | 7165 (3250)  | 7055 (3200)  | 6945 (3150)  | 6614 (3000)  |
| Residual capacity with hooked-on side shift at max height  | lb (kg) | 7496 (3400)  | 7165 (3250)  | 6834 (3100)  | 6724 (3050)  | 6614 (3000)  | 6283 (2850)  |
| Height at max capacity                                     | in (mm) | 98.4 (2500)  | 98.4 (2500)  | 98.4 (2500)  | 98.4 (2500)  | 98.4 (2500)  | 98.4 (2500)  |



**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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