

Technical sheet :

# ES 612 LI

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 **MANITOU**  
HANDLING YOUR WORLD

|       | Technical characteristics                                   |           | Metric                   | Imperial              |
|-------|---|-----------|--------------------------|-----------------------|
| 1.1   | Manufacturer  |           | Manitou                  | Manitou               |
| 1.2   | Model Name  |           | ES 612 LI                | ES 612 LI             |
| 1.3   | Power source  |           | Electrical               | Electrical            |
| 1.4   | Operator type   |           | Pedestrian               | Pedestrian            |
| 1.5   | Max. capacity   | Q         | 1200 kg                  | 2646 lb               |
| 1.6   | Load center of gravity                                      | c         | 600 mm                   | 24 in                 |
| 1.8   | Distance from Load backrest to center of rear axle          | x         | 834 mm                   | 33 in                 |
| 1.9   | Wheelbase   | y         | 1492 mm                  | 59 in                 |
|       | Weight  |           |                          |                       |
| 2.1   | Service weight  |           | 1251 kg                  | 2758 lb               |
| 2.2   | Weight on front axle (laden) / rear axle (laden)            |           | 1295 kg / 1163 kg        | 2855 lb / 2564 lb     |
| 2.3   | Weight on front axle (Unladen) / rear axle (Unladen)        |           | 1328 kg / 1003 kg        | 2928 lb / 2211 lb     |
|       | Wheels  |           |                          |                       |
| 3.1   | Tires type  |           | Bandage                  | Bandage               |
| 3.3   | Number of load wheels / Size of load wheels                 |           | 2 / 140x60               | 2 / 140x60            |
| 3.4   | Number of stabilizer wheels / Size of the stabilizer wheels |           | 1 / 140x60               | 1 / 140x60            |
| 3.5   | Number of front wheels / rear wheels                        |           | 2 / 4                    | 2 / 4                 |
| 3.5.2 | Number of drive wheels / Size of drive wheels               |           | 1/230x70                 | 1/230x70              |
| 3.6   | Front wheel gauge   | b10       | 529 mm                   | 21 in                 |
| 3.7   | Rear wheel gauge  | b11       | 380 mm                   | 15 in                 |
|       | Dimensions  |           |                          |                       |
| 4.6   | Initial lift  | h5        | 110 mm                   | 4 in                  |
| 4.19  | Overall length  | l1        | 2162 mm                  | 85 in                 |
| 4.20  | Length to face of forks                                     | l2        | 973 mm                   | 38 in                 |
| 4.21  | Overall width   | b1        | 800 mm                   | 31 in                 |
| 4.22  | Forks section / width / length                              | s / e / l | 60 mm / 185 mm / 1190 mm | 2 in / 7 in / 47 in   |
| 4.24  | Fork carriage width   | b3        | 700 mm                   | 28 in                 |
| 4.32  | Ground clearance at centre of wheelbase                     | m2        | 30 mm                    | 1 in                  |
| 4.33  | Aisle Width for pallets 1000 x 1200 crossways               | Ast       | 2521 mm                  | 99 in                 |
| 4.34  | Aisle width for 800 x 1200 pallet lengthways                | Ast       | 2428 mm                  | 96 in                 |
| 4.35  | Turning radius  | Wa        | 1716 mm                  | 68 in                 |
| 4.9   | Height tiller min. / max.                                   | h14 / h14 | 750 mm / 1250 mm         | 30 in / 49 in         |
|       | Performances  |           |                          |                       |
| 5.1   | Travel speed (laden / unladen)                              |           | 4.50 km/h / 4.50 km/h    | 3 mph / 3 mph         |
| 5.2   | Lifting speed (laden / unladen)                             |           | 0.18 m/s / 0.30 m/s      | 0.59 ft/s / 0.98 ft/s |
| 5.3   | Lowering speed (laden / unladen)                            |           | 0.27 m/s / 0.22 m/s      | 0.89 ft/s / 0.72 ft/s |
| 5.8   | Max Gradeability (laden / unladen)                          |           | 7 % / 10 %               | 7 % / 10 %            |
| 5.10  | Service brake   |           | Electro magnetic         | Electro magnetic      |
|       | Engine  |           |                          |                       |
| 6.1   | Drive motor rating S2 60 min                                |           | 1.50 kW                  | 1.50 kW               |
| 6.2   | Lift motor rating at S3 15%                                 |           | 3 kW                     | 3 kW                  |
| 6.3   | Battery according to DIN 43531/35/36 A, B, C                |           | DIN 43535-B              | DIN 43535-B           |
| 6.4   | Battery voltage / capacity                                  |           | 24 V / 180 Ah            | 24 V / 180 Ah         |
| 6.5   | Battery weight (+/- 5%)                                     |           | 189 kg                   | 417 lb                |
|       | Miscellaneous   |           |                          |                       |
| 8.1   | Type of drive control                                       |           | AC                       | AC                    |
| 8.4   | Sound level at the driver's ear according to DIN 12 053     |           | 65 dB                    | 65 dB                 |

## ES 612 LI - Dimensional drawing



# Characteristics of masts and residual capacities

| Central Cylinder Simplex (CCS)  |         | CCS 15      | CCS 17      |
|---------------------------------|---------|-------------|-------------|
| h1 - Mast lowered height        | in (mm) | 76.9 (1953) | 86.7 (2203) |
| h2 - Mast free lift             | in (mm) | 59.3 (1506) | 69.1 (1756) |
| h3 - Mast lifting height        | in (mm) | 59.3 (1506) | 69.1 (1756) |
| h4 - Mast extended height       | in (mm) | 77.2 (1960) | 87 (2210)   |
| Residual capacity at max height | lb (kg) | 2646 (1200) | 2646 (1200) |

| Full Visibility Duplex (FVD)    |         | FVD 29       | FVD 34       | FVD 38       |
|---------------------------------|---------|--------------|--------------|--------------|
| h1 - Mast lowered height        | in (mm) | 76.9 (1953)  | 86.7 (2203)  | 94.6 (2403)  |
| h3 - Mast lifting height        | in (mm) | 115.6 (2936) | 135.3 (3436) | 151 (3836)   |
| h4 - Mast extended height       | in (mm) | 133.5 (3390) | 153.1 (3890) | 168.9 (4290) |
| Residual capacity at max height | lb (kg) | 2646 (1200)  | 2315 (1050)  | 1764 (800)   |

| Free Lift Duplex (FLD)          |         | FLD 29                | FLD 34       |
|---------------------------------|---------|-----------------------|--------------|
| h1 - Mast lowered height        | in (mm) | 76.9 (1953)           | 86.7 (2203)  |
| h2 - Mast free lift             | in (mm) | 59.3 (1506)           | 69.1 (1756)  |
| h3 - Mast lifting height        | in (mm) | 115.4 (2931)          | 135.1 (3431) |
| h4 - Mast extended height       | in (mm) | 133267.7<br>(3385000) | 153 (3885)   |
| Residual capacity at max height | lb (kg) | 2646 (1200)           | 2315 (1050)  |

| Free Lift Triplex (FLT)         |         | FLT 42       | FLT 45       |
|---------------------------------|---------|--------------|--------------|
| h1 - Mast lowered height        | in (mm) | 75.2 (1911)  | 81.5 (2071)  |
| h2 - Mast free lift             | in (mm) | 57.7 (1466)  | 64 (1626)    |
| h3 - Mast lifting height        | in (mm) | 167.2 (4246) | 186.1 (4726) |
| h4 - Mast extended height       | in (mm) | 185.9 (4723) | 204.8 (5203) |
| Residual capacity at max height | lb (kg) | 1433 (650)   | 1279 (580)   |



**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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