



## **Electric three-wheel counterbalance forklift truck**

**EFG BA 113/115**

Lift height: 3000-6500 mm / Load capacity: 1300-1500 kg

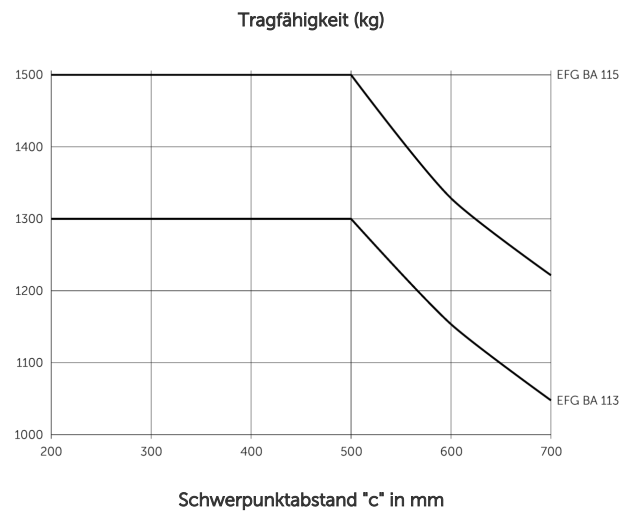
The drawing consists of two views of a forklift: a side view (top) and a top view (bottom).

**Side View Dimensions:**

- Vertical dimensions:  $h_1$  (total height),  $h_2$  (height to the center of gravity),  $h_3$  (height to the mast),  $h_4$  (height to the top of the mast),  $h_6$  (height to the top of the cab),  $h_7$  (height to the top of the rear counterweight), and  $h_{10}$  (height to the bottom of the rear counterweight).
- Horizontal dimensions:  $l$  (distance from the front wheel to the center of gravity),  $x$  (distance from the front wheel to the mast),  $y$  (distance from the front wheel to the rear wheel),  $l_1$  (total wheelbase), and  $l_2$  (distance from the rear wheel to the center of gravity).
- Other labels:  $s$  (mast height),  $\alpha$  (mast tilt angle),  $Q$  (weight),  $c$  (center of gravity),  $m_1$  (front wheel mass),  $m_2$  (rear wheel mass), and  $80$  (ground level).

**Top View Dimensions:**

- Overall width:  $b_{10}$ .
- Width at the front:  $b_{12}$ .
- Width at the rear:  $b_{11}$ .
- Distance from the front wheel to the center of gravity:  $e_1$ .
- Radius of the front wheel:  $R$ .
- Distance from the front wheel to the rear wheel:  $l_6$ .
- Distance from the front wheel to the center of gravity:  $a/2$ .
- Distance from the rear wheel to the center of gravity:  $a/2$ .
- Distance from the rear wheel to the center of gravity:  $W/a$ .
- Label  $As_{10}$  is also present.



# EFG BA 113/115

| EFG BA 113, EFG BA 115 | Lift (h3) | Retracted mast height (h1) | Free lift (h2) | Extended mast height (h4) | Forward/backward tilt of fork carriage |
|------------------------|-----------|----------------------------|----------------|---------------------------|----------------------------------------|
| Duplex mast ZT         | 3000 mm   | 2000 mm                    | 150 mm         | 3555 mm                   | 7 / 5 °                                |
|                        | 3300 mm   | 2150 mm                    | 150 mm         | 3855 mm                   | 7 / 5 °                                |
|                        | 3600 mm   | 2300 mm                    | 150 mm         | 4155 mm                   | 7 / 5 °                                |
|                        | 5000 mm   | 3050 mm                    | 150 mm         | 5555 mm                   | 7 / 5 °                                |
| Duplex mast ZZ         | 3300 mm   | 2105 mm                    | 1470 mm        | 3855 mm                   | 7 / 5 °                                |
|                        | 3600 mm   | 2255 mm                    | 1620 mm        | 4155 mm                   | 7 / 5 °                                |
| Triplex mast DZ        | 4500 mm   | 2005 mm                    | 1360 mm        | 5055 mm                   | 7 / 5 °                                |
|                        | 4800 mm   | 2105 mm                    | 1460 mm        | 5355 mm                   | 7 / 5 °                                |
|                        | 5000 mm   | 2180 mm                    | 1530 mm        | 5555 mm                   | 7 / 5 °                                |
|                        | 5500 mm   | 2355 mm                    | 1710 mm        | 6055 mm                   | 7 / 5 °                                |
|                        | 6000 mm   | 2555 mm                    | 1910 mm        | 6555 mm                   | 7 / 5 °                                |
|                        | 6500 mm   | 2805 mm                    | 2160 mm        | 7055 mm                   | 7 / 5 °                                |

# VDI table

|                          |        |                                             |          |                    |                 |
|--------------------------|--------|---------------------------------------------|----------|--------------------|-----------------|
| Characteristic           | 1.1    | Manufacturer (abbreviated description)      |          | Jungheinrich       |                 |
|                          | 1.2    | Manufacturer's type designation             |          | EFG BA 113         | EFG BA 115      |
|                          | 1.3    | Drive                                       |          | Electric           |                 |
|                          | 1.4    | Operation                                   |          | Seat               |                 |
|                          | 1.5    | Load capacity/load                          | Q kg     | 1300               | 1500            |
|                          | 1.6    | Load centre distance                        | c mm     | 500                |                 |
|                          | 1.8    | Load distance, centre of drive axle to fork | x mm     | 387                | 392             |
|                          | 1.9    | Wheelbase                                   | y mm     | 1156               | 1249            |
| Weights                  | 2.1.1  | Service weight (incl. battery)              | kg       | 3045               | 3221            |
|                          | 2.2    | Axle load laden front/rear                  | kg       | 3753 / 592         | 3974 / 747      |
|                          | 2.3    | Axle load unladen front/rear                | kg       | 1422 / 1623        | 1482 / 1739     |
| Wheels/suspension system | 3.1    | Tyres                                       |          | Super-elastic (SE) |                 |
|                          | 3.2    | Tyre size, front                            |          | 18x6-12/1/8        |                 |
|                          | 3.3    | Tyre size, rear                             |          | 140/55-9           |                 |
|                          | 3.5    | Wheels, number front/back (x=driven)        |          | 2x / 2             |                 |
|                          | 3.6    | Tread width, front                          | b10 mm   | 838                |                 |
|                          | 3.7    | Tread width, rear                           | b11 mm   | 211                |                 |
|                          |        |                                             |          |                    |                 |
| Basic dimensions         | 4.1    | Forward/backward tilt of mast               | a/β °    | 7 / 5              |                 |
|                          | 4.2    | Retracted mast height (h1)                  | h1 mm    | 2000               |                 |
|                          | 4.2.1  | total height                                | h15 mm   | 2080               |                 |
|                          | 4.3    | Free lift (h2)                              | h2 mm    | 150                |                 |
|                          | 4.4    | Lift (h3)                                   | h3 mm    | 3000               |                 |
|                          | 4.5    | Extended mast height (h4)                   | h4 mm    | 3555               |                 |
|                          | 4.7    | Height of overhead guard (cab)              | h6 mm    | 2080               |                 |
|                          | 4.8    | Seat height/stand height                    | h7 mm    | 1030               |                 |
|                          | 4.12   | Coupling height                             | h10 mm   | 560                |                 |
|                          | 4.19   | total length                                | l1 mm    | 2732               | 2830            |
|                          | 4.20   | Length including fork shank                 | l2 mm    | 1732               | 1830            |
|                          | 4.21.1 | total width                                 | b1 mm    | 990                |                 |
|                          | 4.22   | Fork dimensions                             | s/e/l mm | 35 x 100 x 1000    | 40 x 100 x 1000 |
|                          | 4.23   | Fork carriage connection class              |          | 2A                 |                 |
|                          | 4.24   | Fork carriage width                         | b3 mm    | 950                |                 |
|                          | 4.31   | Ground clearance laden under mast           | m1 mm    | 97                 |                 |
|                          | 4.32   | Ground clearance centre of wheelbase        | m2 mm    | 88                 |                 |
|                          | 4.34.1 | Aisle width (pallet 1000x1200 sideways)     | Ast mm   | 3056               | 3154            |
|                          | 4.34.2 | Aisle width (pallet 800x1200 length)        | Ast mm   | 3182               | 3279            |
|                          | 4.35   | Turning radius                              | Wa mm    | 1345               | 1438            |
|                          | 4.36   | Smallest pivot point distance               | b13 mm   | 0                  |                 |

|                                                                                                                                                                                                   |                     |                                            |                                    |                      |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------------------------------------|----------------------|-------------|
| Performance data                                                                                                                                                                                  | 5.1                 | Travel speed laden/unladen                 | km/h                               | 12.5 / 12.5          |             |
|                                                                                                                                                                                                   | 5.2                 | Lift speed laden/unladen                   | m/s                                | 0.25 / 0.53          | 0.24 / 0.53 |
|                                                                                                                                                                                                   | 5.3                 | Lowering speed laden/unladen               | m/s                                | 0.55 / 0.54          |             |
|                                                                                                                                                                                                   | 5.5                 | Drawbar pull laden                         | N                                  | 716                  | 886         |
|                                                                                                                                                                                                   | 5.6                 | Max. drawbar pull laden/unladen            | N                                  | 8752 / 8480          | 8675 / 9149 |
|                                                                                                                                                                                                   | 5.7                 | Gradeability laden/unladen                 | %                                  | 8 / 12               | 8 / 11      |
|                                                                                                                                                                                                   | 5.8                 | Max. gradeability laden/unladen            | %                                  | 15 / 20              | 14 / 19     |
|                                                                                                                                                                                                   | 5.9                 | Acceleration time laden/unladen            | s                                  | 7.1 / 6.1            | 7.1 / 6.5   |
|                                                                                                                                                                                                   | 5.10                | Service brake                              |                                    | mechanical/hydraulic |             |
|                                                                                                                                                                                                   | E-motor/Electronics | 6.1                                        | Drive motor, performance S2 60 min | kW                   | 3.7         |
| 6.1.1                                                                                                                                                                                             |                     | 2. Drive motor, performance S2 60 min      | kW                                 | 3.7                  |             |
| 6.2                                                                                                                                                                                               |                     | Lift motor, performance with S3            | kW                                 | 10                   |             |
| 6.3                                                                                                                                                                                               |                     | Battery according to DIN 43531/35/36       |                                    | DIN 43531 A          |             |
| 6.4                                                                                                                                                                                               |                     | Battery voltage/nominal capacity           | V / Ah                             | 48 / 375             | 48 / 500    |
| 6.5                                                                                                                                                                                               |                     | Battery weight                             | kg                                 | 560                  | 708         |
| 6.6.1                                                                                                                                                                                             |                     | Energy consumption according to EN cycle   | kWh/h                              | 3.33                 | 3.64        |
| 6.6.2                                                                                                                                                                                             |                     | CO2 equivalent as per EN 16796             | kg/h                               | 1.8                  | 1.9         |
| 6.7                                                                                                                                                                                               |                     | Throughput                                 | t/h                                | 86                   | 97          |
| 6.8.1                                                                                                                                                                                             |                     | Energy consumption with max. throughput    | kWh/h                              | 3.38                 | 3.92        |
| Other                                                                                                                                                                                             | 8.1                 | Type of drive control                      |                                    | Impulse/AC           |             |
|                                                                                                                                                                                                   | 10.1                | Operating pressure for attachment          | bar                                | 230                  |             |
|                                                                                                                                                                                                   | 10.2                | Oil flow for attachments                   | l/min                              | 17                   |             |
|                                                                                                                                                                                                   | 10.7                | Sound level as per EN12053, operator's ear | dB (A)                             | 72                   |             |
|                                                                                                                                                                                                   | 10.8                | Trailer coupling, model/type DIN           |                                    | Bolts                |             |
| - This data sheet according to VDI guideline 2198 only states the technical values of the standard truck. Different tyres, other masts, additional equipment etc. may result in different values. |                     |                                            |                                    |                      |             |

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