

# VL series

2,200kg / 2,500kg / 3,000kg / 3,500kg

## Electric forklift trucks



- High Visibility Masts and optional Side Shifting Fork Positioner
- Password protected eLo and HiP performance settings
- YaleStop automatic park brake
- Lowest whole body vibration (WBV) levels
- Continuous Stability Enhancement (CSE)
- Oil-immersed brakes
- CAN bus technology

## VDI 2198 - General Specifications

|                         |   | Distinguishing mark                   |                      |                      |                      |                      |
|-------------------------|---|---------------------------------------|----------------------|----------------------|----------------------|----------------------|
|                         |   | Yale                                  | Yale                 | Yale                 | Yale                 | Yale                 |
| 1.1                     | Manufacturer (abbreviation)                                     |                                       | Yale                 | Yale                 | Yale                 | Yale                 |
| 1.2                     | Manufacturer's type designation                                 |                                       | <b>ERP 22 VL MWB</b> | <b>ERP 22 VL MWB</b> | <b>ERP 25 VL MWB</b> | <b>ERP 25 VL MWB</b> |
|                         | Model   |                                       | Value                | Productivity         | Value                | Productivity         |
| 1.3                     | Drive: electric (battery or mains), diesel, petrol, fuel gas    |                                       | Electric (battery)   | Electric (battery)   | Electric (battery)   | Electric (battery)   |
| 1.4                     | Operator type: hand, pedestrian, standing, seated, order-picker |                                       | Seated               | Seated               | Seated               | Seated               |
| 1.5                     | Rated capacity/rated load                                       | Q (t)                                 | 2.2                  | 2.2                  | 2.5                  | 2.5                  |
| 1.6                     | Load centre distance  | c (mm)                                | 500                  | 500                  | 500                  | 500                  |
| 1.8                     | Load distance, centre of drive axle to fork                     | x (mm)                                | 419                  | 419                  | 419                  | 419                  |
| 1.9                     | Wheelbase   | y (mm)                                | 1606                 | 1606                 | 1606                 | 1750                 |
| <b>Weights</b>          |   |                                       |                      |                      |                      |                      |
| 2.1                     | Service weight ●  | kg                                    | 4520                 | 4670                 | 4520                 | 4870                 |
| 2.2                     | Axle loading, laden front/rear ●                                | kg                                    | 5739 / 977           | 5640 / 1224          | 6211 / 805           | 6114 / 1254          |
| 2.3                     | Axle loading, unladen front/rear ●                              | kg                                    | 2279 / 2236          | 2018 / 2646          | 2279 / 2236          | 1805 / 3063          |
| <b>Tyres/chassis</b>    |   |                                       |                      |                      |                      |                      |
| 3.1                     | Tyres: P = pneumatic, C = cushion, SE = superelastic            |                                       | SE                   | SE                   | SE                   | SE                   |
| 3.2                     | Tyre size, front  |                                       | 23 x 10 - 12         | 23 x 10 - 12         | 23 x 10 - 12         | 23 x 10 - 12         |
| 3.3                     | Tyre size, rear   |                                       | 18 x 7 - 8           | 18 x 7 - 8           | 18 x 7 - 8           | 18 x 7 - 8           |
| 3.5                     | Wheels, number front/rear (x = driven wheels)                   |                                       | 2X / 2               | 2X / 2               | 2X / 2               | 2X / 2               |
| 3.6                     | Tread, front  | b <sub>10</sub> (mm)                  | 938 / 1054           | 938 / 1054           | 938 / 1054           | 938 / 1054           |
| 3.7                     | Tread, rear   | b <sub>11</sub> (mm)                  | 992                  | 992                  | 992                  | 992                  |
| <b>Dimensions</b>       |   |                                       |                      |                      |                      |                      |
| 4.1                     | Tilt of mast/fork carriage forward/backward                     | α / β (°)                             | 5 / 5                | 5 / 5                | 5 / 5                | 5 / 5                |
| 4.2                     | Height of mast, lowered   | h <sub>1</sub> (mm)                   | 2192                 | 2192                 | 2192                 | 2192                 |
| 4.3                     | Free lift ▼   | h <sub>2</sub> (mm)                   | 100                  | 100                  | 100                  | 100                  |
| 4.4                     | Lift ▼  | h <sub>3</sub> (mm)                   | 3350                 | 3350                 | 3350                 | 3350                 |
| 4.5                     | Height, mast extended +   | h <sub>4</sub> (mm)                   | 3960                 | 3960                 | 3960                 | 3960                 |
| 4.7                     | Height of overhead guard (cabin) ○                              | h <sub>6</sub> (mm)                   | 2193                 | 2193                 | 2193                 | 2193                 |
| 4.7.1                   | Cab height (open cab)   |                                       | 2206                 | 2206                 | 2206                 | 2206                 |
| 4.8                     | Seat height/stand height ✕                                      | h <sub>7</sub> (mm)                   | 1070                 | 1070                 | 1070                 | 1070                 |
| 4.12                    | Coupling height   | h <sub>10</sub> (mm)                  | 262                  | 262                  | 262                  | 262                  |
| 4.19                    | Overall length  | l <sub>11</sub> (mm)                  | 3336                 | 3336                 | 3336                 | 3480                 |
| 4.20                    | Length to face of forks ◆                                       | l <sub>2</sub> (mm)                   | 2336                 | 2336                 | 2336                 | 2480                 |
| 4.21                    | Overall width*  | b <sub>1</sub> /b <sub>2</sub> (mm)   | 1173 / 1289          | 1173 / 1289          | 1173 / 1289          | 1173 / 1289          |
| 4.22                    | Fork dimensions ISO2331   | s/e/l (mm)                            | 40 / 100 / 1000      | 40 / 100 / 1000      | 40 / 100 / 1000      | 40 / 100 / 1000      |
| 4.23                    | Fork carriage ISO 2328, class/type A,B                          |                                       | 2A                   | 2A                   | 2A                   | 2A                   |
| 4.24                    | Fork carriage width ▶   | b <sub>3</sub> (mm)                   | 1067                 | 1067                 | 1067                 | 1067                 |
| 4.31                    | Ground clearance, laden, below mast                             | m <sub>1</sub> (mm)                   | 83                   | 83                   | 83                   | 83                   |
| 4.32                    | Ground clearance, centre of wheelbase                           | m <sub>2</sub> (mm)                   | 137                  | 137                  | 137                  | 137                  |
| 4.33                    | Load dimension b12 x l6 crossways                               | b <sub>12</sub> x l <sub>6</sub> (mm) | 1200 x 1000          | 1200 x 1000          | 1200 x 1000          | 1200 x 1000          |
| 4.34                    | Aisle width predetermined load dimensions                       | A <sub>st</sub> (mm)                  | 3613                 | 3613                 | 3613                 | 3750                 |
| 4.34.1                  | Aisle width for pallets 1000 x 1200 crossways                   | A <sub>st</sub> (mm)                  | 3613                 | 3613                 | 3613                 | 3750                 |
| 4.34.2                  | Aisle width for pallets 800 x 1200 lengthways                   | A <sub>st</sub> (mm)                  | 3766                 | 3766                 | 3766                 | 3906                 |
| 4.35                    | Turning radius  | W <sub>a</sub> (mm)                   | 1931                 | 1931                 | 1931                 | 2073                 |
| 4.36                    | Internal turning radius   | b <sub>13</sub> (mm)                  | 173                  | 173                  | 173                  | 189                  |
| 4.41                    | 90° intersecting aisle (With pallet W = 1200mm, L = 1000mm)     | mm                                    | 1981                 | 1981                 | 1981                 | 2043                 |
| 4.42                    | Step Height (from ground to running board) ▲                    | mm                                    | 706 / 810            | 706 / 810            | 706 / 810            | 706 / 810            |
| 4.43                    | Step Height   | mm                                    | 475                  | 475                  | 475                  | 475                  |
| <b>Performance data</b> |   |                                       |                      |                      |                      |                      |
| 5.1                     | Travel speed, laden/unladen *                                   | km/h                                  | 18.0 / 18.0          | 21.0 / 21.0          | 18.0 / 18.0          | 21.0 / 21.0          |
| 5.2                     | Lift speed, laden/unladen                                       | m/s                                   | 0.40 / 0.63          | 0.52 / 0.72          | 0.38 / 0.63          | 0.49 / 0.72          |
| 5.3                     | Lowering speed, laden/unladen                                   | m/s                                   | 0.57 / 0.51          | 0.57 / 0.51          | 0.57 / 0.51          | 0.57 / 0.51          |
| 5.5                     | Drawbar pull, laden/unladen **                                  | N                                     | 5468 / 5773          | 6015 / 6235          | 5591 / 5726          | 6037 / 6185          |
| 5.6                     | Max. drawbar pull, laden/unladen ***                            | N                                     | 18045 / 19052        | 19849 / 20576        | 18451 / 18897        | 19927 / 20409        |
| 5.7                     | Gradeability, laden/unladen ****                                | %                                     | 10 / 14              | 11 / 16              | 9 / 13               | 10 / 14              |
| 5.8                     | Max. gradeability, laden/unladen ***                            | %                                     | 26 / 39              | 28 / 42              | 24 / 35              | 26 / 38              |
| 5.9                     | Acceleration time, laden/unladen *                              | s                                     | 4.42 / 4.11          | 4.04 / 3.71          | 4.45 / 4.11          | 4.04 / 3.71          |
| 5.10                    | Service brake   |                                       | Hydraulic            | Hydraulic            | Hydraulic            | Hydraulic            |
| <b>Electric-engine</b>  |   |                                       |                      |                      |                      |                      |
| 6.1                     | Drive motor rating S2 60 min                                    | kW                                    | 2 x 10.0             | 2x 10.0              | 2x 10.0              | 2x 10.0              |
| 6.2                     | Lift motor rating at S3 15%                                     | kW                                    | 16.0                 | 24.0                 | 16.0                 | 24.0                 |
| 6.3                     | Battery according to DIN 43531/35/36 A, B, C, no                |                                       | 43536A               | 43536A               | 43536A               | 43536A               |
| 6.4                     | Battery voltage/nominal capacity K5                             | (V)/(ah)                              | 80 / 560             | 80 / 560             | 80 / 560             | 80 / 700             |
| 6.5                     | Battery weight  | kg                                    | 1480 / 1635          | 1480 / 1635          | 1480 / 1635          | 1480 / 1635          |
| 6.6                     | Energy consumption according to VDI cycle □                     | kWh/h @ no. of cycles                 | 6.68                 | 7.51                 | 7.00                 | 7.87                 |
| 8.1                     | Type of drive unit  |                                       | AC electronic        | AC electronic        | AC electronic        | AC electronic        |
| <b>Addition data</b>    |   |                                       |                      |                      |                      |                      |
| 10.1                    | Operating pressure for attachments                              | bar                                   | 155                  | 155                  | 155                  | 155                  |
| 10.2                    | Oil volume for attachments ☼                                    | l/min                                 | 20 - 40              | 20-40                | 20-40                | 20-40                |
| 10.3                    | Hydraulic oil tank, capacity                                    | l                                     | 29.3                 | 29.3                 | 29.3                 | 29.3                 |
| 10.7                    | Sound pressure level at the driver's seat ★                     | dB(A)                                 | 67                   | 68                   | 67                   | 68                   |
| 10.8                    | Towing coupling, type DIN                                       |                                       | Pin                  | Pin                  | Pin                  | Pin                  |

- Max. battery
- \* Standard/Wide tread.
- \*\* 60 minute rating
- \*\*\* 5 minute rating
- \*\*\*\* 30 minute rating
- ✚ Without load backrest.
- h<sub>6</sub> subject to +/- 5 mm tolerance.
- ▲ Add 20mm with cab option.
- ▶ Add 104mm for battery side removal option.
- ▼ Bottom of forks.
- ✕ Full suspension in compressed position specified.
- ▲ Add 40mm for nominal position.
- ▶ Add 104mm for battery side removal option.
- ▶ Add 28mm with load backrest.
- ▲ Vertical / horizontal battery removal.
- \* HiP performance settings.
- eLo performance settings.
- ☼ Manual hydraulics, maximum flow set through dash display.
- ◆ With sideshift carriage add 32mm for ERP22VL - ERP25VL MWB, 34mm for ERP25VL LWB, 33mm for ERP30VL LWB, 32mm for ERP35VL LWB

| Yale                 | Yale                 | Yale                 | Yale                 | Yale                 |                                       | Manufacturer (abbreviation)                                   | 1.1    | Distinguishing mark |
|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------------------|---|--------|---------------------|
| <b>ERP 25 VL LWB</b> | <b>ERP 30 VL LWB</b> | <b>ERP 30 VL LWB</b> | <b>ERP 35 VL LWB</b> | <b>ERP 35 VL LWB</b> |                                       | Manufacturer's type designation                               | 1.2    |                     |
| Productivity         | Value                | Productivity         | Value                | Productivity         |                                       | Model   | 1.3    |                     |
| Electric (battery)   | Electric (battery)   | Electric (battery)   | Electric (battery)   | Electric (battery)   |                                       | Drive: electric (battery or mains), diesel, petrol, fuel gas  | 1.4    |                     |
| Seated               | Seated               | Seated               | Seated               | Seated               |                                       | Operator type: hand, pedestrian, standing, seated, order-pick | 1.5    |                     |
| 2.5                  | 3.0                  | 3.0                  | 3.5                  | 3.5                  | Q (t)                                 | Rated capacity/rated load                                     | 1.6    |                     |
| 500                  | 500                  | 500                  | 500                  | 500                  | c (mm)                                | Load centre distance  | 1.8    |                     |
| 419                  | 431                  | 431                  | 431                  | 431                  | x (mm)                                | Load distance, centre of drive axle to fork                   | 1.9    |                     |
| 1750                 | 1750                 | 1750                 | 1750                 | 1750                 | y (mm)                                | Wheelbase   | 2.1    |                     |
| 4860                 | 5000                 | 5300                 | 5320                 | 5370                 | kg                                    | Service weight ●  | 2.2    |                     |
| 6183 / 1167          | 7157 / 841           | 7055 / 1244          | 7871 / 942           | 7752 / 1115          | kg                                    | Axle loading, laden front/rear ●                              | 2.3    |                     |
| 2067 / 2783          | 2560 / 2438          | 2090 / 3209          | 2508 / 2805          | 2209 / 3158          | kg                                    | Axle loading, unladen front/rear ●                            | 3.1    |                     |
| SE                   | SE                   | SE                   | SE                   | SE                   |                                       | Tyres: P = pneumatic, C = cushion, SE = superelastic          | 3.2    |                     |
| 23 x 10 - 12         | 23 x 10 - 12         | 23 x 10 - 12         | 23 x 10 - 12         | 23 x 10 - 12         |                                       | Tyre size, front  | 3.3    |                     |
| 18 x 7 - 8           | 18 x 7 - 8           | 18 x 7 - 8           | 18 x 7 - 8           | 18 x 7 - 8           |                                       | Tyre size, rear   | 3.5    |                     |
| 2X / 2               | 2X / 2               | 2X / 2               | 2X / 2               | 2X / 2               |                                       | Wheels, number front/rear (x = driven wheels)                 | 3.6    |                     |
| 938 / 1054           | 938 / 1054           | 938 / 1054           | 938 / 1054           | 938 / 1054           | b <sub>10</sub> (mm)                  | Tread, front  | 3.7    |                     |
| 992                  | 992                  | 992                  | 992                  | 992                  | b <sub>11</sub> (mm)                  | Tread, rear   | 4.1    |                     |
| 5 / 5                | 5 / 5                | 5 / 5                | 5 / 5                | 5 / 5                | α / β (°)                             | Tilt of mast/fork carriage forward/backward                   | 4.2    |                     |
| 2192                 | 2192                 | 2192                 | 2192                 | 2192                 | h <sub>1</sub> (mm)                   | Height of mast, lowered                                       | 4.3    |                     |
| 100                  | 100                  | 100                  | 100                  | 100                  | h <sub>2</sub> (mm)                   | Free lift ▼   | 4.4    |                     |
| 3350                 | 3155                 | 3155                 | 3155                 | 3155                 | h <sub>3</sub> (mm)                   | Lift ▼  | 4.5    |                     |
| 3960                 | 3865                 | 3865                 | 3865                 | 3865                 | h <sub>4</sub> (mm)                   | Height, mast extended +                                       | 4.7    |                     |
| 2193                 | 2193                 | 2193                 | 2193                 | 2193                 | h <sub>6</sub> (mm)                   | Height of overhead guard (cabin) ○                            | 4.7.1  |                     |
| 2206                 | 2206                 | 2206                 | 2206                 | 2206                 |                                       | Cab height (open cab)   | 4.8    |                     |
| 1070                 | 1070                 | 1070                 | 1070                 | 1070                 | h <sub>7</sub> (mm)                   | Seat height/stand height ✕                                    | 4.12   |                     |
| 262                  | 262                  | 262                  | 262                  | 262                  | h <sub>10</sub> (mm)                  | Coupling height   | 4.19   |                     |
| 3480                 | 3492                 | 3492                 | 3570                 | 3570                 | l <sub>11</sub> (mm)                  | Overall length  | 4.20   |                     |
| 2480                 | 2492                 | 2492                 | 2570                 | 2570                 | l <sub>2</sub> (mm)                   | Length to face of forks ◆                                     | 4.21   |                     |
| 1173 / 1289          | 1173 / 1289          | 1173 / 1289          | 1173 / 1289          | 1173 / 1289          | b <sub>1</sub> /b <sub>2</sub> (mm)   | Overall width*  | 4.22   |                     |
| 40 / 100 / 1000      | 50 / 120 / 1000      | 50 / 120 / 1000      | 50 / 120 / 1000      | 50 / 120 / 1000      | s/e/l (mm)                            | Fork dimensions ISO2331                                       | 4.23   |                     |
| 2A                   | 3A                   | 3A                   | 3A                   | 3A                   |                                       | Fork carriage ISO 2328, class/type A,B                        | 4.24   |                     |
| 1067                 | 1067                 | 1067                 | 1067                 | 1067                 | b <sub>3</sub> (mm)                   | Fork carriage width ▶   | 4.31   |                     |
| 83                   | 83                   | 83                   | 83                   | 83                   | m <sub>1</sub> (mm)                   | Ground clearance, laden, below mast                           | 4.32   |                     |
| 137                  | 137                  | 137                  | 137                  | 137                  | m <sub>2</sub> (mm)                   | Ground clearance, centre of wheelbase                         | 4.33   |                     |
| 1200 x 1000          | 1200 x 1000          | 1200 x 1000          | 1200 x 1000          | 1200 x 1000          | b <sub>12</sub> x l <sub>6</sub> (mm) | Load dimension b12 x l6 crossways                             | 4.34   |                     |
| 3750                 | 3762                 | 3762                 | 3828                 | 3828                 | A <sub>st</sub> (mm)                  | Aisle width predetermined load dimensions                     | 4.34.1 |                     |
| 3750                 | 3762                 | 3762                 | 3828                 | 3828                 | A <sub>st</sub> (mm)                  | Aisle width for pallets 1000 x 1200 crossways                 | 4.34.2 |                     |
| 3906                 | 3918                 | 3918                 | 3984                 | 3984                 | A <sub>st</sub> (mm)                  | Aisle width for pallets 800 x 1200 lengthways                 | 4.35   |                     |
| 2073                 | 2073                 | 2073                 | 2139                 | 2139                 | W <sub>a</sub> (mm)                   | Turning radius  | 4.36   |                     |
| 189                  | 189                  | 189                  | 189                  | 189                  | b <sub>13</sub> (mm)                  | Internal turning radius                                       | 4.41   |                     |
| 2043                 | 2043                 | 2043                 | 2076                 | 2076                 | mm                                    | 90° intersecting aisle (With pallet W = 1200mm, L = 1000mm)   | 4.42   |                     |
| 706 / 810            | 706 / 810            | 706 / 810            | 706 / 810            | 706 / 810            | mm                                    | Step Height (from ground to running board) ▲                  | 4.43   |                     |
| 475                  | 475                  | 475                  | 475                  | 475                  | mm                                    | Step Height   | 5.1    |                     |
| 21.0 / 21.0          | 17.0 / 18.0          | 19.5 / 21.0          | 16.0 / 18.0          | 18.0 / 21.0          | km/h                                  | Travel speed, laden/unladen *                                 | 5.1.1  |                     |
| 0.49 / 0.72          | 0.33 / 0.59          | 0.42 / 0.63          | 0.31 / 0.59          | 0.37 / 0.63          | m/s                                   | Lift speed, laden/unladen                                     | 5.2    |                     |
| 0.57 / 0.51          | 0.56 / 0.46          | 0.56 / 0.46          | 0.58 / 0.46          | 0.58 / 0.46          | m/s                                   | Lowering speed, laden/unladen                                 | 5.3    |                     |
| 6037 / 6185          | 5441 / 5588          | 5877 / 6035          | 5478 / 5720          | 5918 / 6177          | N                                     | Drawbar pull, laden/unladen **                                | 5.5    |                     |
| 19927 / 20409        | 17956 / 18441        | 19393 / 19916        | 18076 / 18875        | 19522 / 20385        | N                                     | Max. drawbar pull, laden/unladen ***                          | 5.6    |                     |
| 10 / 14              | 8 / 12               | 9 / 13               | 7 / 12               | 8 / 13               | %                                     | Gradeability, laden/unladen ****                              | 5.7    |                     |
| 26 / 38              | 22 / 34              | 24 / 37              | 20 / 32              | 22 / 35              | %                                     | Max. gradeability, laden/unladen ***                          | 5.8    |                     |
| 4.04 / 3.71          | 4.56 / 4.18          | 4.14 / 3.78          | 4.60 / 4.23          | 4.19 / 3.83          | s                                     | Acceleration time, laden/unladen *                            | 5.9    |                     |
| Hydraulic            | Hydraulic            | Hydraulic            | Hydraulic            | Hydraulic            |                                       | Service brake   | 5.10   |                     |
| 2x 10.0              | 2x 10.0              | 2x 10.0              | 2x 10.0              | 2x 10.0              | kW                                    | Drive motor rating S2 60 min                                  | 6.1    |                     |
| 24.0                 | 16.0                 | 24.0                 | 16.0                 | 24.0                 | kW                                    | Lift motor rating at S3 15%                                   | 6.2    |                     |
| 43536A               | 43536A               | 43536A               | 43536A               | 43536A               |                                       | Battery according to DIN 43531/35/36 A, B, C, no              | 6.3    |                     |
| 80 / 700             | 80 / 700             | 80 / 700             | 80 / 700             | 80 / 700             | (V)/(ah)                              | Battery voltage/nominal capacity K5                           | 6.4    |                     |
| 1770 / 1956          | 1770 / 1956          | 1770 / 1956          | 1770 / 1956          | 1770 / 1956          | kg                                    | Battery weight  | 6.5    |                     |
| 8.86                 | 8.66                 | 9.74                 | 10.03                | 11.28                | kWh/h @ no. of cycles                 | Energy consumption according to VDI cycle □                   | 6.6    |                     |
| AC electronic        | AC electronic        | AC electronic        | AC electronic        | AC electronic        |                                       | Type of drive unit  | 8.1    |                     |
| 155                  | 155                  | 155                  | 155                  | 155                  | bar                                   | Operating pressure for attachments                            | 10.1   |                     |
| 20-40                | 20-40                | 20-40                | 20-40                | 20-40                | l/min                                 | Oil volume for attachments ☉                                  | 10.2   |                     |
| 29.3                 | 29.3                 | 29.3                 | 29.3                 | 29.3                 | l                                     | Hydraulic oil tank, capacity                                  | 10.3   |                     |
| 68                   | 67                   | 68                   | 67                   | 68                   | dB(A)                                 | Sound pressure level at the driver's seat ★                   | 10.7   |                     |
| Pin                  | Pin                  | Pin                  | Pin                  | Pin                  |                                       | Towing coupling, type DIN                                     | 10.8   |                     |

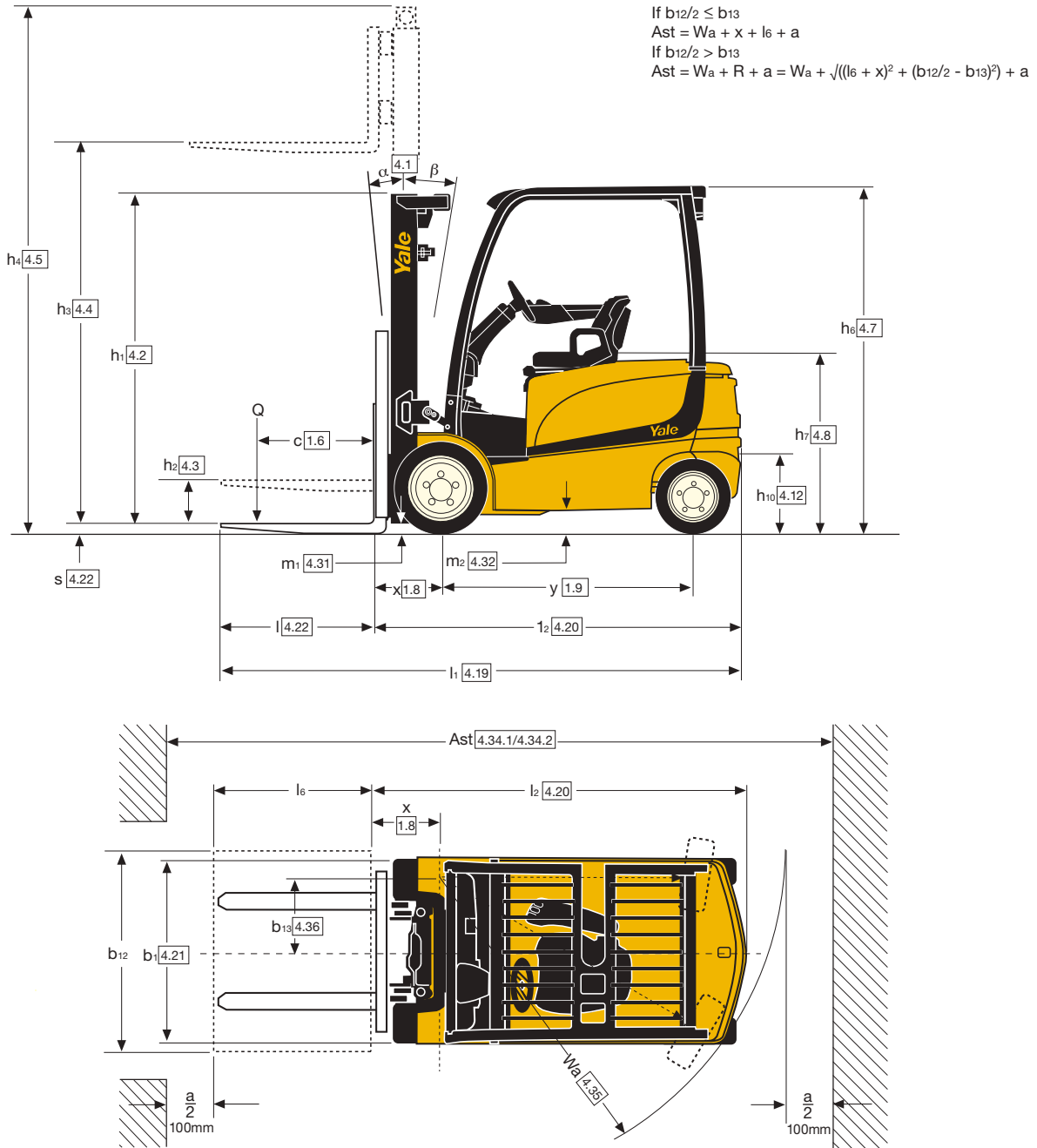
\* LPAZ, measured according to the test cycles and based on the weighting values contained in EN12053.

**Spec sheet truck based on :-** 3390mm (ERP22-25 VL) or 3200mm (ERP30 - 35 VL) 2 stage LFL mast with standard carriage, 1000mm forks and load backrest with extended shift on with DIN battery configuration, standard seat and overhead guard, manual hydraulics, superelastic drive and steer tyres.

**All values are nominal values and they are subject to tolerances. For further information, please contact the manufacturer.**  
**Yale products might be subject to change without notice.**

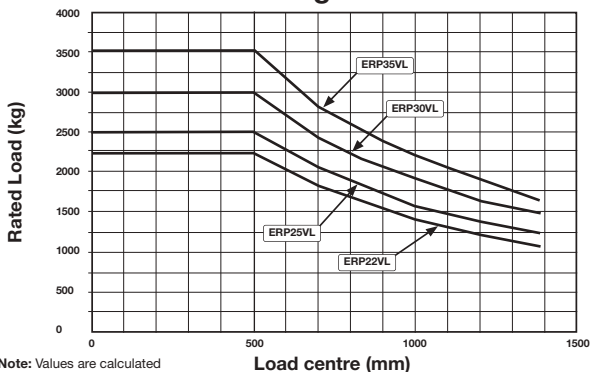
**Lift trucks illustrated may feature optional equipment.**  
**Values may vary with alternative configurations.**

# Truck Dimensions



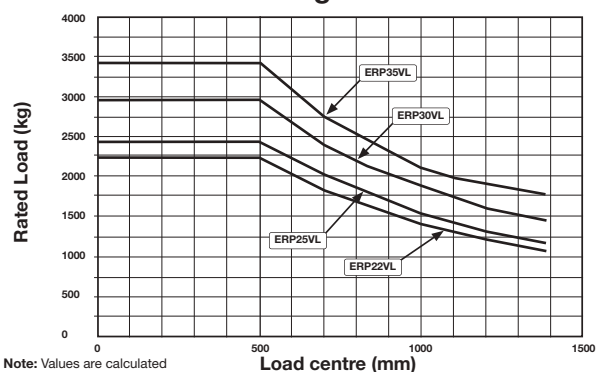
## Rated Load vs. Load Centre

### Standard Carriage



## Rated Load vs. Load Centre

### Sideshift Carriage and Fork Positioner



### Calculations based on:

5100mm (ERP20-25 VL MWB), 4650mm (ERP25VL LWB) or 4460mm (ERP30-35 VL) 3 stage FFL mast with 1067mm standard carriage with load backrest.

## ERP 22VL MWB Mast details and capacity ratings (kg) - superelastic tyres

| Model                |                        |                          |                          |                        |      | ERP 22 VL MWB |                  |      |      |                    |      |      |
|----------------------|------------------------|--------------------------|--------------------------|------------------------|------|---------------|------------------|------|------|--------------------|------|------|
| Tyre size, front     |                        |                          |                          |                        |      | 23 x 10-12    |                  |      |      |                    |      |      |
| Overall width, front |                        |                          |                          |                        |      | 1173mm        |                  |      |      |                    |      |      |
| Mast                 | h <sub>1</sub><br>(mm) | h <sub>2+s</sub><br>(mm) | h <sub>3+s</sub><br>(mm) | h <sub>4</sub><br>(mm) | Tilt |               | Forks            |      |      | Integral sideshift |      |      |
|                      |                        |                          |                          |                        | F    | B             | Load centre (kg) |      |      | Load centre (kg)   |      |      |
|                      |                        |                          |                          |                        |      |               | 500              | 600  | 700  | 500                | 600  | 700  |
| 2 Stage<br>LFL       | 2195                   | 140                      | 3390                     | 3956                   | 5    | 5             | 2200             | 2000 | 1900 | 2200               | 2000 | 1830 |
|                      | 2395                   | 140                      | 3790                     | 4356                   | 5    | 5             | 2200             | 2000 | 1900 | 2200               | 2000 | 1820 |
|                      | 2745                   | 140                      | 4330                     | 4896                   | 5    | 5             | 2200             | 2000 | 1890 | 2200               | 1990 | 1810 |
|                      | 2995                   | 140                      | 4830                     | 5396                   | 5    | 5             | 2200             | 2000 | 1880 | 2190               | 1980 | 1800 |
| 2 Stage FFL          | 2195                   | 1625                     | 3400                     | 3966                   | 5    | 5             | 2200             | 2000 | 1900 | 2200               | 2000 | 1830 |
| 3 Stage<br>FFL       | 2145                   | 1595                     | 4950                     | 5496                   | 5    | 5             | 2200             | 2000 | 1870 | 2180               | 1970 | 1790 |
|                      | 2395                   | 1845                     | 5550                     | 6096                   | 5    | 5             | 2110             | 1920 | 1780 | 2070               | 1870 | 1700 |
|                      | 2595                   | 2045                     | 6000                     | 6546                   | 5    | 5             | 2020             | 1830 | 1700 | 1980               | 1790 | 1630 |

All capacities calculated with 1000mm long forks and are less load backrest.

## ERP 25VL MWB, ERP 25VL LWB Mast details and capacity ratings (kg) - superelastic tyres

| Model                |                        |                          |                          |                        |      | ERP 25 VL MWB |                  |      |      |                    |      | ERP 25 VL LWB |                  |      |      |                    |      |      |
|----------------------|------------------------|--------------------------|--------------------------|------------------------|------|---------------|------------------|------|------|--------------------|------|---------------|------------------|------|------|--------------------|------|------|
| Tyre size, front     |                        |                          |                          |                        |      | 23 x 10-12    |                  |      |      |                    |      | 23 x 10-12    |                  |      |      |                    |      |      |
| Overall width, front |                        |                          |                          |                        |      | 1173mm        |                  |      |      |                    |      | 1173mm        |                  |      |      |                    |      |      |
| Mast                 | h <sub>1</sub><br>(mm) | h <sub>2+s</sub><br>(mm) | h <sub>3+s</sub><br>(mm) | h <sub>4</sub><br>(mm) | Tilt |               | Forks            |      |      | Integral sideshift |      |               | Forks            |      |      | Integral sideshift |      |      |
|                      |                        |                          |                          |                        | F    | B             | Load centre (kg) |      |      | Load centre (kg)   |      |               | Load centre (kg) |      |      | Load centre (kg)   |      |      |
|                      |                        |                          |                          |                        |      |               | 500              | 600  | 700  | 500                | 600  | 700           | 500              | 600  | 700  | 500                | 600  | 700  |
| 2 Stage<br>LFL       | 2195                   | 140                      | 3390                     | 3956                   | 5    | 5             | 2500             | 2270 | 2140 | 2490               | 2250 | 2060          | 2500             | 2270 | 2170 | 2500               | 2270 | 2090 |
|                      | 2395                   | 140                      | 3790                     | 4356                   | 5    | 5             | 2500             | 2270 | 2130 | 2490               | 2250 | 2050          | 2500             | 2270 | 2170 | 2500               | 2270 | 2090 |
|                      | 2745                   | 140                      | 4330                     | 4896                   | 5    | 5             | 2500             | 2270 | 2120 | 2470               | 2240 | 2040          | 2500             | 2270 | 2160 | 2500               | 2270 | 2080 |
|                      | 2995                   | 140                      | 4830                     | 5396                   | 5    | 5             | 2480             | 2250 | 2090 | 2440               | 2210 | 2010          | 2500             | 2270 | 2150 | 2500               | 2270 | 2070 |
| 2 Stage FFL          | 2195                   | 1625                     | 3400                     | 3966                   | 5    | 5             | 2500             | 2270 | 2140 | 2500               | 2600 | 2060          | 2500             | 2270 | 2170 | 2500               | 2270 | 2090 |
| 3 Stage<br>FFL       | 2145                   | 1595                     | 4950                     | 5496                   | 5    | 5             | 2440             | 2210 | 2060 | 2400               | 2170 | 1980          | 2500             | 2270 | 2140 | 2500               | 2250 | 2060 |
|                      | 2395                   | 1845                     | 5550                     | 6096                   | 5    | 5             | 2310             | 2100 | 1930 | 2250               | 2030 | 1850          | 2410             | 2190 | 2050 | 2380               | 2150 | 1960 |
|                      | 2595                   | 2045                     | 6000                     | 6546                   | 5    | 5             | 2210             | 2000 | 1840 | 2150               | 1940 | 1770          | 2310             | 2100 | 1960 | 2290               | 2070 | 1890 |

All capacities calculated with 1000mm long forks and are less load backrest.

## ERP 30VL LWB, ERP 35VL LWB Mast details and capacity ratings (kg) - superelastic tyres

| Model                |                        |                          |                          |                        |      | ERP 25 VL MWB |                  |      |      |                    |      | ERP 25 VL LWB |                  |       |       |                    |       |       |
|----------------------|------------------------|--------------------------|--------------------------|------------------------|------|---------------|------------------|------|------|--------------------|------|---------------|------------------|-------|-------|--------------------|-------|-------|
| Tyre size, front     |                        |                          |                          |                        |      | 23 x 10-12    |                  |      |      |                    |      | 23 x 10-12    |                  |       |       |                    |       |       |
| Overall width, front |                        |                          |                          |                        |      | 1173mm        |                  |      |      |                    |      | 1173mm        |                  |       |       |                    |       |       |
| Mast                 | h <sub>1</sub><br>(mm) | h <sub>2+s</sub><br>(mm) | h <sub>3+s</sub><br>(mm) | h <sub>4</sub><br>(mm) | Tilt |               | Forks            |      |      | Integral sideshift |      |               | Forks            |       |       | Integral sideshift |       |       |
|                      |                        |                          |                          |                        | F    | B             | Load centre (kg) |      |      | Load centre (kg)   |      |               | Load centre (kg) |       |       | Load centre (kg)   |       |       |
|                      |                        |                          |                          |                        |      |               | 500              | 600  | 700  | 500                | 600  | 700           | 500              | 600   | 700   | 500                | 600   | 700   |
| 2 Stage<br>LFL       | 2195                   | 145                      | 3200                     | 3861                   | 5    | 5             | 3000             | 2720 | 2550 | 2960               | 2680 | 2440          | 3500             | 3130  | 2680  | 3440               | 3110  | 2680  |
|                      | 2395                   | 145                      | 3600                     | 4261                   | 5    | 5             | 3000             | 2720 | 2540 | 2950               | 2670 | 2440          | 3500             | 3130  | 2680  | 3430               | 3100  | 2680  |
|                      | 2745                   | 145                      | 4100                     | 4761                   | 5    | 5             | 3000             | 2720 | 2530 | 2940               | 2660 | 2430          | 3500             | 3130  | 2680  | 3420               | 3090  | 2680  |
|                      | 2995                   | 145                      | 4600                     | 5261                   | 5    | 5             | 2920             | 2650 | 2460 | 2850               | 2580 | 2360          | 3410             | 3090  | 2680  | 3330               | 3010  | 2680  |
| 2 Stage FFL          | 2195                   | 1535                     | 3205                     | 3862                   | 5    | 5             | 3000             | 2720 | 2550 | 2960               | 2680 | 2440          | 3500             | 3130  | 2680  | 3440               | 3110  | 2680  |
| 3 Stage<br>FFL       | 2145                   | 1500                     | 4610                     | 5252                   | 5    | 5             | 2970             | 2690 | 2500 | 2900               | 2620 | 2390          | 3460             | 3130  | 2680  | 3470               | 3050  | 2680  |
|                      | 2295                   | 1650                     | 4910                     | 5552                   | 5    | 5             | 2900             | 2630 | 2440 | 2830               | 2560 | 2340          | 3400             | 3080  | 2680  | 3300               | 2980  | 2680  |
|                      | 2395                   | 1750                     | 5210                     | 5852                   | 5    | 5             | 2840             | 2570 | 2380 | 2760               | 2500 | 2280          | 3320*            | 3010* | 2680* | 3220*              | 2920* | 2660* |
|                      | 2645                   | 2000                     | 5810                     | 6452                   | 5    | 5             | 2690             | 2440 | 2250 | 2600               | 2350 | 2150          | 3170*            | 2870* | 2640* | 3060*              | 2760* | 2520* |

All capacities calculated with 1000mm long forks and are less load backrest.

\* Wide Tread Required

All values are nominal values and they are subject to tolerances. For further information, please contact the manufacturer.

Yale products might be subject to change without notice.

Lift trucks illustrated may feature optional equipment.

Values may vary with alternative configurations.

# VL series

Models: ERP 22VL MWB, ERP 25VL MWB, ERP 25VL LWB, ERP 30VL LWB, ERP 35VL LWB

## AC Technology

The VL series is available in two configurations – Value & Productivity.

With enhanced performance characteristics, the Productivity configuration has been designed to operate in intensive, high productivity applications with long runs and high lifts as an effective alternative to an engine-powered truck.

For example, in comparison to the Value configuration, top speed (laden) has been increased to up to 21 km/h with faster acceleration, and lifting speeds have been increased by 27%.

## AC Technology

Yale AC technology Class H traction motors are suitable for the most arduous applications. Smooth forward and reverse directional changes provide seamless driving action.

In the high-performance or 'HiP' setting, AC technology provides increased acceleration, even when fully laden and on gradients. As well as improving performance, AC technology reduces maintenance and allows service intervals of 1000 hours for most components.

## Brakes

The truck is equipped with oil immersed brakes and YaleStop an automatic park brake spring applied, electro magnetically released park brake. The park brake is automatically set by the control system, so that the brake is always set whenever the truck is not moving, and no traction has been requested. Moreover the park brake provides controllability on ramp applications.

When the footbrake is applied the intelligent control system uses 'e-Boost' which increases the strength of the 'autoregen' function of the traction motors. This also decreases the amount of work executed by the oil immersed disc brakes resulting in reduced wear on the brakes.

## Steering

A 16kW (Value) or 24kW (Productivity) AC motor drives a pump which provides oil pressure for the hydraulic pump and for steering, eliminating the need for a separate steering motor and pump. The steering column is infinitely adjustable in a range of 26°. During cornering the speed of the drive motors is continuously adjusted independently by the traction controller ensuring smooth operation.



The Yale VL features a state-of-the-art extended steer-axle that has increased articulation of the steer wheels, allowing it to turn in smaller spaces than a conventional 4-wheel steer-axle.

## Performance modes

Performance of the truck can be tailored via the enhanced overhead display, with 4 performance modes available to suit the requirements of the application or the preferences of the driver. For maximum speed and acceleration, choose mode 4, or for more delicate maneuvering and extended battery life, mode 1 is ideal.

Your service technician can alter the top speed and acceleration of mode 4, with modes 1, 2 and 3 being automatically adjusted as percentages of setting 4.

'eLo' and 'HiP' Settings Yale VL trucks feature an 'eLo' energy saving setting which provides exceptional energy efficient performance when required for continuous operation over longer periods without recharging the battery.

The 'HiP' high performance setting (accessible via the dash display with a service password) changes the torque curve characteristics of the motor to give the truck increased torque, faster acceleration and increased speed on a grade for the most demanding applications whilst maintaining the same top speed as the 'eLo' setting. 'eLo'



provides maximum battery autonomy.

## Ergonomics

The VL is designed for optimum operator comfort.

The overhead guard mounted grab handle, seat armrest (hinged) and very low step height provide class leading three point entry and exit to the operator module. The operator is seated in an ergonomically designed position for

maximum safety, comfort, visibility and ease of operation. A full suspension seat provides 80mm of suspension and the lowest WBV levels in the industry.

A swivel seat option for a superior reverse driving position is available. Both the mini-lever module and the manual levers have an integrated direction switch. The ergonomically designed gas spring assisted steering column has infinite forward and reverse adjustment through 26°, can be telescopically adjusted by 75mm. Synchronised steering which further increases operator comfort and operation also features steer column memory tilt (option).

The truck also features generous floor and storage space. The clear footwell allows easy access from both sides of the truck when the optional mini lever module fitted.

#### **Continuous Stability Enhancement (CSE)**

This is a mechanical system which uses gravity to optimize the design geometry of the Yale steer axle. It reduces lean by limiting the articulation of the steer axle and does not compromise the trucks ability to operate over poor ground conditions or traverse obstacles. It is also 100% maintenance free.

#### **Masts**

A full range of Yale Hi-Vis 2 stage LFL and 2 and 3 stage FFL masts are available. The redesigned Yale Hi-Vis mast incorporates new chain placement and hose routings that maximise fork visibility for the driver. As well as enlarging the window through the mast, the 180 degree panoramic field of vision is improved.

#### **Battery**

A choice of DIN batteries from 560Ah/620Ah - 700Ah/775Ah (wheelbase dependent) are available.

The medium wheelbase model (MWB) has a smaller capacity battery and delivers increased maneuverability and reduced stacking aisle dimensions. The long wheelbase model (LWB) provides extra battery space for longer shift life.

A battery discharge indicator (BDI) and lift interrupt are standard on all trucks.

#### **Low lifetime costs**

Lower service costs are achieved as a result of less maintenance associated with oil immersed brakes, Hall effect sensors, electric park brake and CAN bus and AC technology. The transmission is

sealed for life, eliminating the need for service, an oil change is required at 4000 hours. LED light packages are offered as an option.

Service intervals are 1000 hours for most components and 4000 hours for oil immersed brakes, drive axle, transmission and hydraulic oil.

Auto Regen Braking optimises the shift life of the battery and contributes to an increase in the life of parts.

#### **Options**

- AccuTouch mini-levers
- Return to set tilt (RTST)
- Foot directional control
- Lighting kits, including LED lights
- Reverse alarm
- Integrated sideshift
- Two battery extraction methods:-
  1. Overhead
  2. Side extraction
- Weather protection
- Low noise cab



# VL series

Models: ERP 22VL MWB, ERP 25VL MWB,  
ERP 25VL LWB, ERP 30VL LWB, ERP 35VL LWB



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
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Publication part no. 220990057 Rev.07 Printed in The Netherlands (0718HG) EN.

**Safety:** This truck conforms to the current EU requirements. Specification is subject to change without notice.

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Country of Registration: England and Wales. Company Registration Number: 02636775