

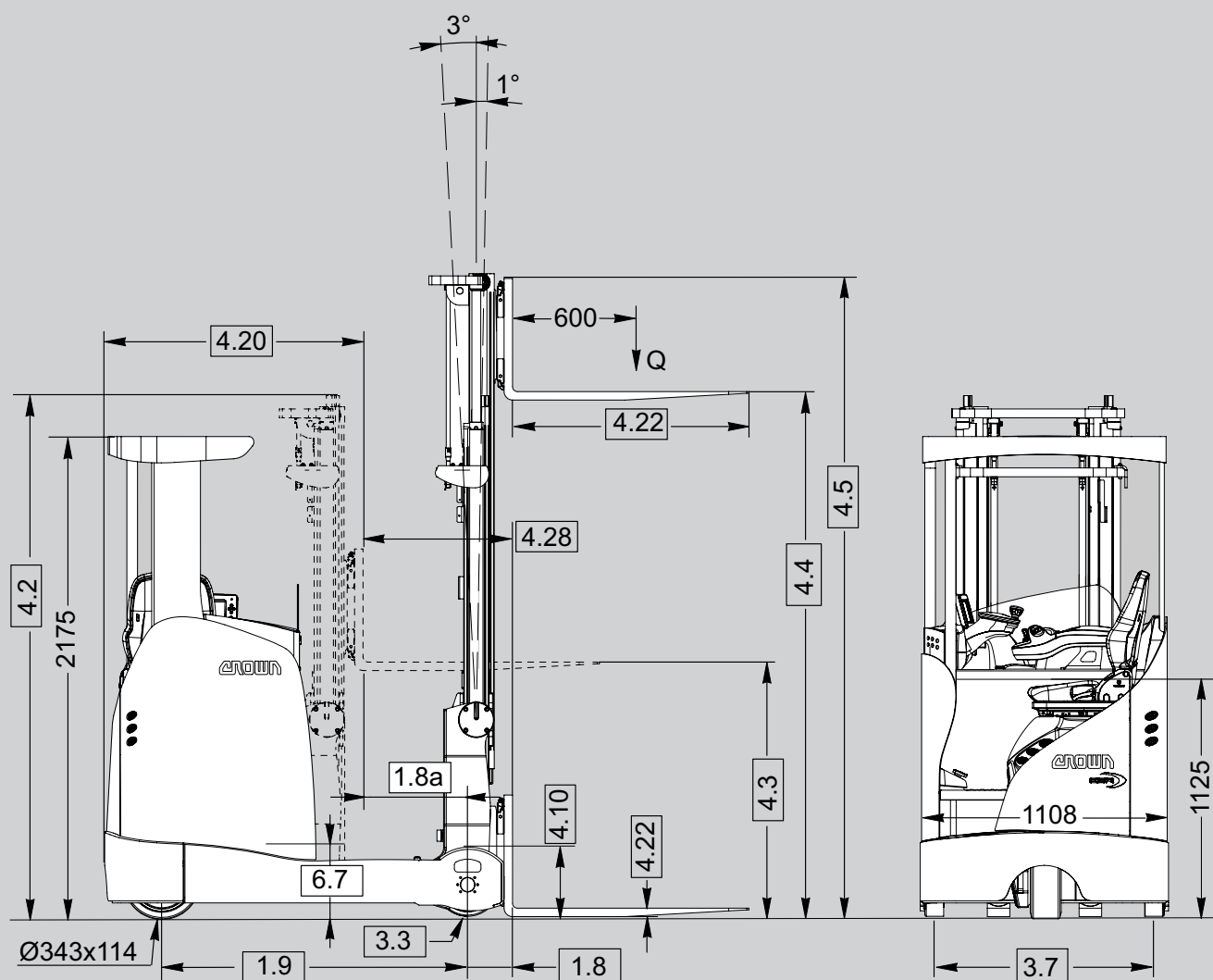
CROWN

# ESR 1000 SERIES

## Specifications

Reach Truck





|                      |        |                                             |                                           |           |      |                              |                                  |                              |                                  |             |
|----------------------|--------|---------------------------------------------|-------------------------------------------|-----------|------|------------------------------|----------------------------------|------------------------------|----------------------------------|-------------|
| Distinguishing Mark  | 1.1    | Manufacturer                                | Crown Equipment Corporation               |           |      |                              |                                  |                              |                                  |             |
|                      | 1.2    | Model                                       |                                           |           |      | ESR 1020-1.4<br>Tilting Mast | ESR 1020-1.4<br>Tilting Carriage | ESR 1020-1.6<br>Tilting Mast | ESR 1020-1.6<br>Tilting Carriage |             |
|                      | 1.3    | Power Source                                |                                           |           |      | Electric                     |                                  |                              |                                  |             |
|                      | 1.4    | Operator Type                               |                                           |           |      | Sit-down                     |                                  |                              |                                  |             |
|                      | 1.5    | Rated Capacity                              |                                           | Q         | t    | 1.4                          |                                  | 1.6                          |                                  |             |
|                      | 1.6    | Load Centre                                 |                                           | c         | mm   | 600                          |                                  |                              |                                  |             |
|                      | 1.8    | Load Distance                               | Fork advanced                             | x         | mm   | 202                          |                                  | 209                          |                                  |             |
|                      | 1.8a   |                                             | Fork retracted                            | x1        | mm   | see table 6                  |                                  |                              |                                  |             |
|                      | 1.9    | Wheelbase                                   |                                           | y         | mm   | 1380                         |                                  | 1475                         |                                  |             |
| Weight               | 2.1    | Service Weight                              | Less battery                              |           | kg   | 1855 <sup>1</sup>            | 2153 <sup>2</sup>                | 1990 <sup>3</sup>            | 2306 <sup>4</sup>                |             |
|                      | 2.4    | Axle Load                                   | Fork advanced                             |           | kg   | see table 3                  |                                  |                              |                                  |             |
|                      | 2.5    |                                             | Fork retracted                            |           | kg   | see table 3                  |                                  |                              |                                  |             |
| Tyres/Wheels/Chassis | 3.1    | Tyres                                       | Front/Rear                                |           |      | Vulkollan                    |                                  |                              |                                  |             |
|                      | 3.2    | Tyre Size                                   | Front                                     |           | mm   | 343 x 114                    |                                  |                              |                                  |             |
|                      | 3.3    |                                             | Rear                                      |           | mm   | 285 x 80                     |                                  |                              |                                  |             |
|                      | 3.5    | Wheels                                      | Number front/rear (x=driven wheels)       |           |      | 1x / 2                       |                                  |                              |                                  |             |
|                      | 3.7    | Tread                                       | Rear                                      | b11       | mm   | see table 2                  |                                  |                              |                                  |             |
| Dimensions           | 4.1    | Tilt of Mast                                | Forward/backward                          | α / β     | °    | see table 4                  | -                                | see table 4                  | -                                |             |
|                      |        | Tilt of Fork Carriage                       | Forward/backward                          | α / β     | °    | -                            | 2 / 4                            | -                            | 2 / 4                            |             |
|                      | 4.2    | Mast                                        | Collapsed height                          | h1        | mm   | see table 4                  | see table 5                      | see table 4                  | see table 5                      |             |
|                      | 4.3    | Free-lift                                   | Without load backrest                     | h2        | mm   | see table 4                  | see table 5                      | see table 4                  | see table 5                      |             |
|                      | 4.4    | Lift Height                                 |                                           | h3        | mm   | see table 4                  | see table 5                      | see table 4                  | see table 5                      |             |
|                      | 4.5    | Mast Extended Height                        | Extended height,<br>without load backrest | h4        | mm   | see table 4                  | see table 5                      | see table 4                  | see table 5                      |             |
|                      | 4.7    | Overhead Guard Height                       |                                           | h6        | mm   | 2175                         |                                  |                              |                                  |             |
|                      | 4.8    | Seat Height relating to SIP                 |                                           | h7        | mm   | 1125                         |                                  |                              |                                  |             |
|                      | 4.10   | Outrigger Height                            |                                           |           | mm   | 312                          |                                  |                              |                                  |             |
|                      | 4.15   | Fork Height                                 |                                           | h13       | mm   | 38                           |                                  | 45                           |                                  |             |
|                      | 4.20   | Head Length                                 |                                           | l2        | mm   | see table 6                  |                                  |                              |                                  |             |
|                      | 4.21   | Overall Width                               |                                           | b1        | mm   | 1120                         |                                  |                              |                                  |             |
|                      | 4.22   | Fork Dimensions                             | DIN ISO 2331                              | s         | mm   | 38                           |                                  | 45                           |                                  |             |
|                      |        |                                             |                                           | e x l     | mm   | 102 x 1145                   |                                  |                              |                                  |             |
|                      | 4.23   | Fork Carriage ISO 2328, Class/Type A, B     |                                           |           |      |                              | 2 A                              |                              |                                  |             |
|                      | 4.24   | Fork Carriage Width                         | Without load backrest                     | b3        | mm   | 750 <sup>5</sup>             | 750                              |                              |                                  |             |
|                      | 4.25   | Fork Spread                                 |                                           | b5        | mm   | see table 2                  |                                  |                              |                                  |             |
|                      | 4.26   | Inside Straddle Dimension                   |                                           |           | b4   | mm                           | see table 2                      |                              |                                  |             |
|                      | 4.28   | Reach                                       |                                           | l4        | mm   | see table 6                  |                                  |                              |                                  |             |
|                      | 4.32   | Ground Clearance                            | Centre wheelbase                          | m2        | mm   | 76                           |                                  |                              |                                  |             |
|                      | 4.34.1 | Aisle Width                                 | For pallets 1000×1200 crossways           | Ast       | mm   | see table 6                  |                                  |                              |                                  |             |
|                      | 4.34.2 |                                             | For pallets 800×1200 lengthways           | Ast       | mm   | see table 6                  |                                  |                              |                                  |             |
|                      | 4.35   | Turning Radius                              |                                           | Wa        | mm   | 1638                         |                                  | 1733                         |                                  |             |
|                      | 4.37   | Length across Wheel Arms                    |                                           |           | l7   | mm                           | 1800                             |                              | 1895                             |             |
| Performance Data     | 5.1    | Travel Speed                                | With load / without load                  |           | km/h | 11.0 / 11.0 <sup>6</sup>     | 11.0 / 11.0                      |                              |                                  |             |
|                      | 5.2    | Lift Speed                                  | With load / without load                  |           | m/s  | 0.4 / 0.6                    |                                  |                              |                                  |             |
|                      | 5.3    | Lowering Speed                              | With load / without load                  |           | m/s  | 0.5 / 0.5                    |                                  |                              |                                  |             |
|                      | 5.4    | Reaching Speed                              | With load / without load                  |           | m/s  | 0.18 / 0.18                  |                                  |                              |                                  |             |
|                      | 5.8    | Max. Gradeability                           | With load / without load                  |           | %    | 12 / 12                      |                                  |                              |                                  |             |
|                      | 5.10   | Service Brake                               | Regenerative, electric / load wheel brake |           |      |                              | regen. / no                      | regen. / 1x                  | regen. / 1x                      | regen. / 1x |
| Electric Motor       | 6.1    | Traction Motor                              | 60 min. rating                            |           | kW   | 9                            |                                  |                              |                                  |             |
|                      | 6.2    | Pump Motor                                  | 15% on time                               |           | kW   | 7.9                          |                                  |                              |                                  |             |
|                      | 6.3    | Max. Battery Box Size                       |                                           | l x h x w | mm   | see table 1                  |                                  |                              |                                  |             |
|                      | 6.4    | Battery Voltage                             | Nominal capacity 5 h rating               |           | V/Ah | 48 / see table 1             |                                  |                              |                                  |             |
|                      | 6.5    | Battery Weight                              |                                           |           | kg   | see table 1                  |                                  |                              |                                  |             |
|                      | 6.7    | Battery Tray Height                         | With rollers / without rollers            |           | mm   | 303 / 292                    |                                  |                              |                                  |             |
| Add.                 | 10.1   | Available Working Pressure for Attachments  |                                           |           |      | bar                          | 210                              |                              |                                  |             |
|                      | 10.7   | Sound Pressure Level at the Operator's seat |                                           |           |      | dB(A)                        | 65                               |                              |                                  |             |

<sup>1</sup> TL mast 2760 mm + option 5 battery type

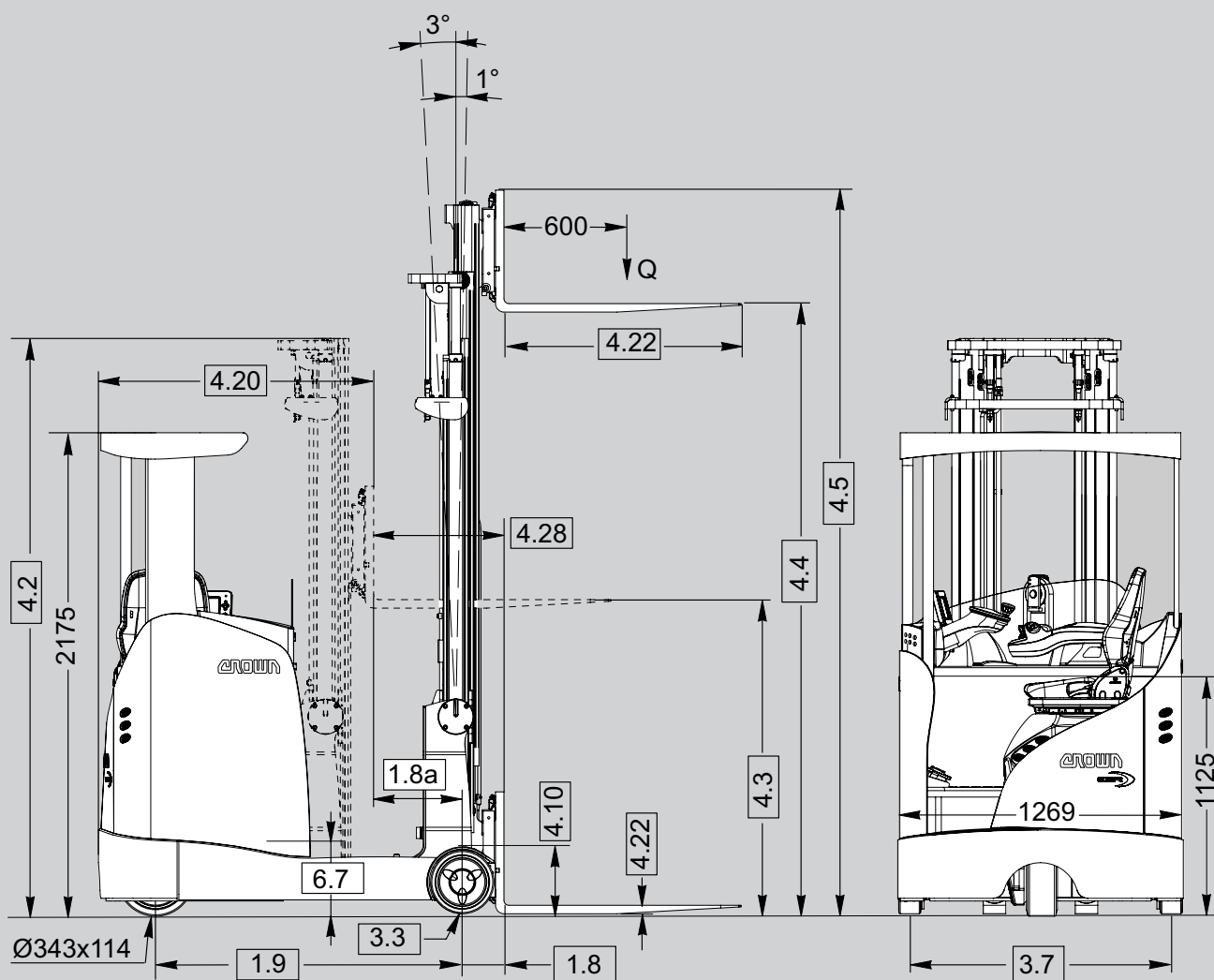
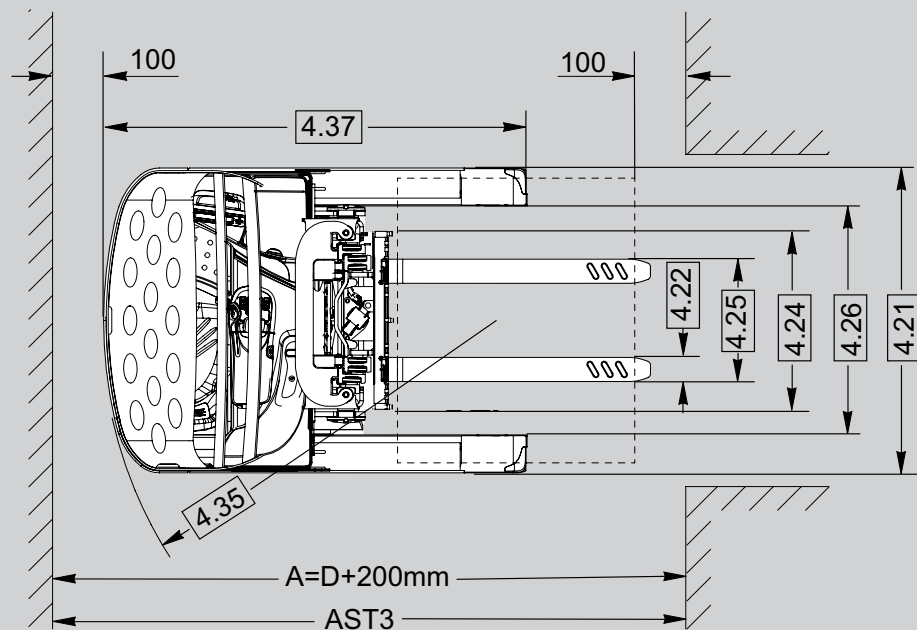
<sup>2</sup> TT mast 4440 mm + option 5 battery type

<sup>3</sup> TL mast 2760 mm + option 6 battery type

<sup>4</sup> TT mast 4440 mm + option 6 battery type

<sup>5</sup> Fork carriage without integrated side shift: 810 mm

<sup>6</sup> 1 km/h less in fork direction for trucks without load wheel brakes



|                      |        |                                             |                                            |                    |       |                                    |                                        |                                    |                                        |                                        |  |
|----------------------|--------|---------------------------------------------|--------------------------------------------|--------------------|-------|------------------------------------|----------------------------------------|------------------------------------|----------------------------------------|----------------------------------------|--|
| Distinguishing Mark  | 1.1    | Manufacturer                                | Crown Equipment Corporation                |                    |       |                                    |                                        |                                    |                                        |                                        |  |
|                      | 1.2    | Model                                       |                                            |                    |       | ESR 1040<br>1.4<br>Tilting<br>Mast | ESR 1040<br>1.4<br>Tilting<br>Carriage | ESR 1040<br>1.6<br>Tilting<br>Mast | ESR 1040<br>1.6<br>Tilting<br>Carriage | ESR 1040<br>2.0<br>Tilting<br>Carriage |  |
|                      | 1.3    | Power Source                                |                                            |                    |       | Electric                           |                                        |                                    |                                        |                                        |  |
|                      | 1.4    | Operator Type                               |                                            |                    |       | Sit-down                           |                                        |                                    |                                        |                                        |  |
|                      | 1.5    | Rated Capacity                              |                                            | Q                  | t     | 1.4                                |                                        | 1.6                                |                                        | 2.0                                    |  |
|                      | 1.6    | Load Centre                                 |                                            | c                  | mm    | 600                                |                                        |                                    |                                        |                                        |  |
|                      | 1.8    | Load Distance                               | Fork advanced                              | x                  | mm    | 187                                |                                        | 217                                |                                        |                                        |  |
|                      | 1.8a   |                                             | Fork retracted                             | x1                 | mm    | see table 7                        | see table 8                            | see table 7                        | see table 8                            |                                        |  |
|                      | 1.9    | Wheelbase                                   |                                            | y                  | mm    | 1380                               |                                        | 1475                               |                                        |                                        |  |
| Weight               | 2.1    | Service Weight                              | Less battery                               |                    | kg    | 2055 <sup>1</sup>                  | 2387 <sup>2</sup>                      | 2190 <sup>1</sup>                  | 2467 <sup>2</sup>                      | 2555 <sup>3</sup>                      |  |
|                      | 2.4    | Axle Load                                   | Fork advanced                              |                    | kg    | see table 3                        |                                        |                                    |                                        |                                        |  |
|                      | 2.5    |                                             | Fork retracted                             |                    | kg    | see table 3                        |                                        |                                    |                                        |                                        |  |
| Tyres/Wheels/Chassis | 3.1    | Tyres                                       | Front/Rear                                 |                    |       | Vulkollan                          |                                        |                                    |                                        |                                        |  |
|                      | 3.2    | Tyre Size                                   | Front                                      |                    | mm    | 343 x 114                          |                                        |                                    |                                        | 343 x 140                              |  |
|                      | 3.3    |                                             | Rear                                       |                    | mm    | 285 x 100 <sup>4</sup>             |                                        | 330 x 100 <sup>5</sup>             |                                        | 330 x 100                              |  |
|                      | 3.5    | Wheels                                      | Number front/rear (x=driven wheels)        |                    |       |                                    | 1x / 2                                 |                                    |                                        |                                        |  |
|                      | 3.7    | Tread                                       | Rear                                       | b11                | mm    | see table 2                        |                                        |                                    |                                        |                                        |  |
| Dimensions           | 4.1    | Tilt of Mast                                | Forward/backward                           | $\alpha$ / $\beta$ | °     | see table 4                        | -                                      | see table 4                        | -                                      |                                        |  |
|                      |        | Tilt of Fork Carriage                       | Forward/backward                           | $\alpha$ / $\beta$ | °     | -                                  | 2 / 4                                  | -                                  | 2 / 4                                  |                                        |  |
|                      | 4.2    | Mast                                        | Collapsed height                           | h1                 | mm    | see table 4                        | see table 5                            | see table 4                        | see table 5                            |                                        |  |
|                      | 4.3    | Free-lift                                   | Without load backrest                      | h2                 | mm    | see table 4                        | see table 5                            | see table 4                        | see table 5                            |                                        |  |
|                      | 4.4    | Lift Height                                 |                                            | h3                 | mm    | see table 4                        | see table 5                            | see table 4                        | see table 5                            |                                        |  |
|                      | 4.5    | Mast Extended Height                        | Extended height, without load backrest     | h4                 | mm    | see table 4                        | see table 5                            | see table 4                        | see table 5                            |                                        |  |
|                      | 4.7    | Overhead Guard Height                       | Low / Standard / Angled                    | h6                 | mm    | 2175 / 2375 / 2554                 |                                        |                                    |                                        |                                        |  |
|                      | 4.8    | Seat Height relating to SIP                 |                                            | h7                 | mm    | 1125                               |                                        |                                    |                                        |                                        |  |
|                      | 4.10   | Outrigger Height                            |                                            |                    | mm    | 301                                |                                        | 346                                |                                        |                                        |  |
|                      | 4.15   | Fork Height                                 |                                            | h13                | mm    | 38                                 |                                        | 45                                 |                                        |                                        |  |
|                      | 4.20   | Head Length                                 |                                            | l2                 | mm    | see table 7                        | see table 8                            | see table 7                        | see table 8                            |                                        |  |
|                      | 4.21   | Overall Width                               |                                            | b1                 | mm    | 1285                               |                                        |                                    |                                        |                                        |  |
|                      | 4.22   | Fork Dimensions                             | DIN ISO 2331                               | s                  | mm    | 38                                 |                                        | 45                                 |                                        |                                        |  |
|                      |        |                                             |                                            | e x l              | mm    | 102 x 1145                         |                                        |                                    |                                        |                                        |  |
|                      | 4.23   | Fork Carriage ISO 2328, Class/Type A, B     |                                            |                    |       |                                    | 2 A                                    |                                    |                                        |                                        |  |
|                      | 4.24   | Fork Carriage Width                         | Without load backrest                      | b3                 | mm    | 750 <sup>6</sup>                   | 750                                    |                                    |                                        |                                        |  |
|                      | 4.25   | Fork Spread                                 |                                            | b5                 | mm    | see table 2                        |                                        |                                    |                                        |                                        |  |
|                      | 4.26   | Inside Straddle Dimension                   |                                            |                    | b4    | mm                                 | see table 2                            |                                    |                                        |                                        |  |
|                      | 4.28   | Reach                                       |                                            | l4                 | mm    | see table 7                        | see table 8                            | see table 7                        | see table 8                            |                                        |  |
|                      | 4.32   | Ground Clearance                            | Centre wheelbase                           | m2                 | mm    | 76                                 |                                        |                                    |                                        |                                        |  |
|                      | 4.34.1 | Aisle Width                                 | For pallets 1000x1200 crossways            | Ast                | mm    | see table 7                        | see table 8                            | see table 7                        | see table 8                            |                                        |  |
|                      | 4.34.2 |                                             | For pallets 800x1200 lengthways            | Ast                | mm    | see table 7                        | see table 8                            | see table 7                        | see table 8                            |                                        |  |
|                      | 4.35   | Turning Radius                              |                                            | Wa                 | mm    | 1645                               |                                        | 1734                               |                                        |                                        |  |
|                      | 4.37   | Length across Wheel Arms                    |                                            |                    | l7    | mm                                 | 1785                                   |                                    | 1903                                   |                                        |  |
| Performance Data     | 5.1    | Travel Speed                                | With load / without load                   |                    | km/h  | 11.0/11.0 <sup>7</sup>             | 11.0/11.0 <sup>8</sup>                 | 11.0/11.0                          | 11.0/11.0 <sup>8</sup>                 |                                        |  |
|                      | 5.2    | Lift Speed                                  | With load / without load                   |                    | m/s   | 0.4 / 0.6                          |                                        |                                    |                                        |                                        |  |
|                      | 5.3    | Lowering Speed                              | With load / without load                   |                    | m/s   | 0.5 / 0.5                          |                                        |                                    |                                        |                                        |  |
|                      | 5.4    | Reaching Speed                              | With load / without load                   |                    | m/s   | 0.18 / 0.18                        |                                        |                                    |                                        |                                        |  |
|                      | 5.8    | Max. Gradeability                           | With load / without load                   |                    | %     | 12 / 12                            |                                        |                                    |                                        |                                        |  |
|                      | 5.10   | Service Brake                               | Regenerative, electric / load wheel brake  |                    |       | regen./no                          | regen./1x <sup>9</sup>                 | regen./1x                          | regen./1x <sup>9,10</sup>              | regen./2x                              |  |
| Electric Motor       | 6.1    | Traction Motor                              | 60 min. rating                             |                    | kW    | 9                                  |                                        |                                    |                                        |                                        |  |
|                      | 6.2    | Pump Motor                                  | 15% on time                                |                    | kW    | 7.9                                |                                        |                                    | 7.9 <sup>11</sup>                      | 17.1                                   |  |
|                      | 6.3    | Max. Battery Box Size                       |                                            | lxhwxw             | mm    | see table 1                        |                                        |                                    |                                        |                                        |  |
|                      | 6.4    | Battery Voltage                             | Nominal capacity 5 h rating                |                    | V/Ah  | 48 / see table 1                   |                                        |                                    |                                        |                                        |  |
|                      | 6.5    | Battery Weight                              |                                            |                    | kg    | see table 1                        |                                        |                                    |                                        |                                        |  |
|                      | 6.7    | Battery Tray Height                         | With rollers / without rollers             |                    | mm    | 303 / 292                          |                                        |                                    |                                        |                                        |  |
|                      | Add.   | 10.1                                        | Available Working Pressure for Attachments |                    |       | bar                                | 210                                    |                                    |                                        |                                        |  |
| 10.7                 |        | Sound Pressure Level at the Operator's seat |                                            |                    | dB(A) | 65                                 |                                        |                                    |                                        |                                        |  |

<sup>1</sup> TL mast 2760 mm + option 1 battery type

<sup>2</sup> TT mast 4440 mm + option 1 battery type

<sup>3</sup> TT mast 4145 mm + option 2 battery type

<sup>4</sup> Narrow outriggers 285 x 80 mm

<sup>5</sup> Narrow outriggers 330 x 80 mm

<sup>6</sup> Fork carriage without integrated side shift: 810 mm

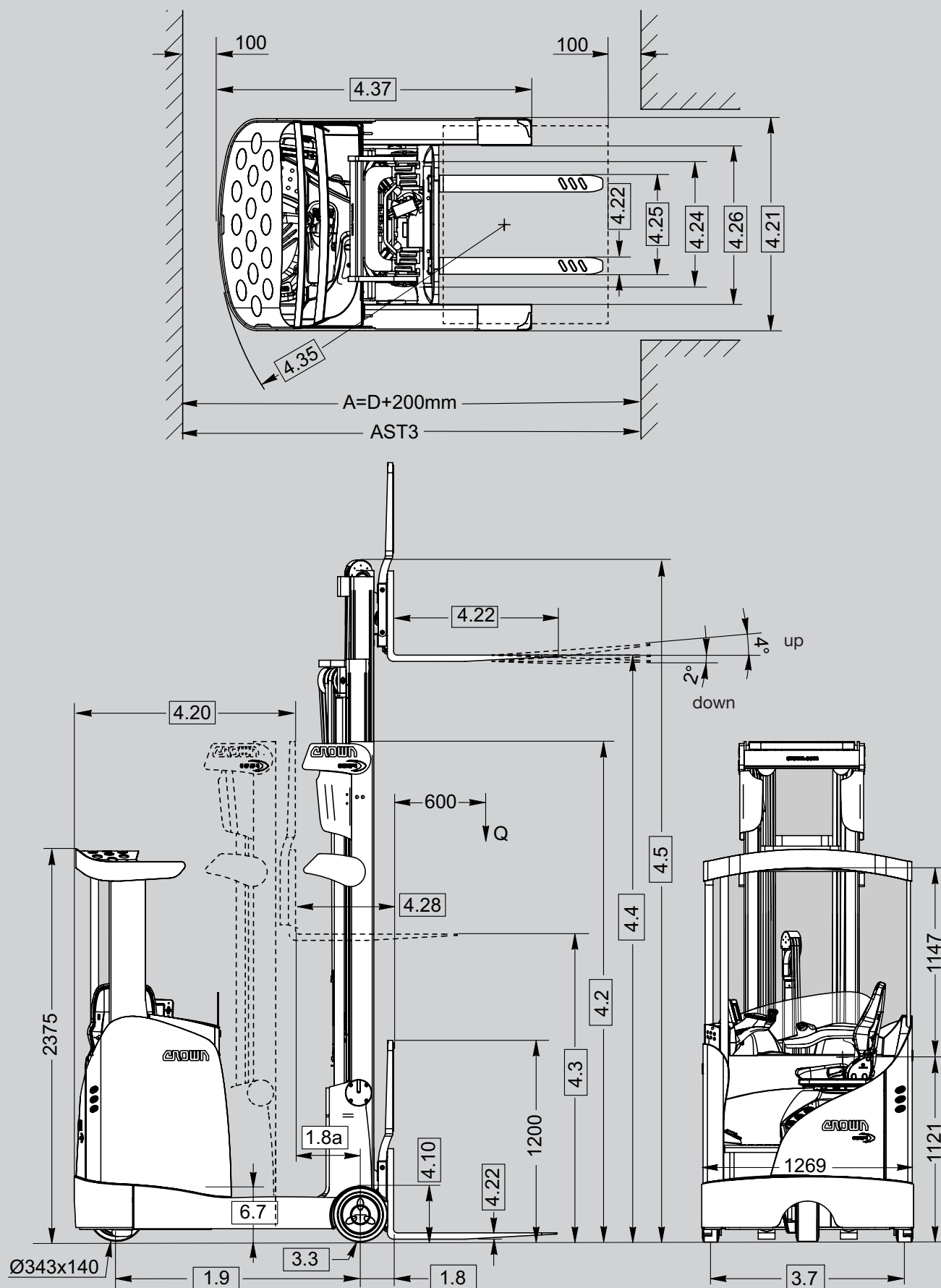
<sup>7</sup> 1 km/h less in fork direction for trucks without load wheel brakes

<sup>8</sup> High travel speed option: 14.0 / 14.0 km/h

<sup>9</sup> For high travel speed 14.0 km/h: 2x

<sup>10</sup> For super duty mast: 2x

<sup>11</sup> For super duty mast: 17.1 kW



|                      |        |                                             |                                           |       |            |                        |                        |                   |
|----------------------|--------|---------------------------------------------|-------------------------------------------|-------|------------|------------------------|------------------------|-------------------|
| Distinguishing Mark  | 1.1    | Manufacturer                                | Crown Equipment Corporation               |       |            |                        |                        |                   |
|                      | 1.2    | Model                                       |                                           |       |            | ESR 1060-1.4           | ESR 1060-1.6           | ESR 1060-2.0      |
|                      | 1.3    | Power Source                                |                                           |       |            | Electric               |                        |                   |
|                      | 1.4    | Operator Type                               |                                           |       |            | Sit-down               |                        |                   |
|                      | 1.5    | Rated Capacity                              |                                           | Q     | t          | 1.4                    | 1.6                    | 2.0               |
|                      | 1.6    | Load Centre                                 |                                           | c     | mm         | 600                    |                        |                   |
|                      | 1.8    | Load Distance                               | Fork advanced                             | x     | mm         | 187                    | 217                    |                   |
|                      | 1.8a   |                                             | Fork retracted                            | x1    | mm         | see table 8            |                        |                   |
|                      | 1.9    | Wheelbase                                   |                                           | y     | mm         | 1380                   | 1475                   |                   |
| Weight               | 2.1    | Service Weight                              | Less battery                              |       | kg         | 2534 <sup>1</sup>      | 2557 <sup>1</sup>      | 2661 <sup>2</sup> |
|                      | 2.4    | Axle Load                                   | Fork advanced                             |       | kg         | see table 3            |                        |                   |
|                      | 2.5    |                                             | Fork retracted                            |       | kg         | see table 3            |                        |                   |
| Tyres/Wheels/Chassis | 3.1    | Tyres                                       | Front/Rear                                |       |            | Vulkollan              |                        |                   |
|                      | 3.2    | Tyre Size                                   | Front                                     |       | mm         | 343 x 140              |                        |                   |
|                      | 3.3    |                                             | Rear                                      |       | mm         | 285 x 100 <sup>3</sup> | 330 x 100 <sup>4</sup> | 330 x 100         |
|                      | 3.5    | Wheels                                      | Number front/rear (x=driven wheels)       |       |            | 1x / 2                 |                        |                   |
|                      | 3.7    | Tread                                       | Rear                                      | b11   | mm         | see table 2            |                        |                   |
|                      | 4.1    | Tilt of Fork Carriage                       | Forward/backward                          | α / β | °          | 2 / 4                  |                        |                   |
|                      | 4.2    | Mast                                        | Collapsed height                          | h1    | mm         | see table 5            |                        |                   |
|                      | 4.3    | Free-lift                                   | Without load backrest                     | h2    | mm         | see table 5 *          |                        |                   |
|                      | 4.4    | Lift Height                                 |                                           | h3    | mm         | see table 5            |                        |                   |
|                      | 4.5    | Mast Extended Height                        | Extended height, without load backrest    | h4    | mm         | see table 5 **         |                        |                   |
|                      | 4.7    | Overhead Guard Height                       | Low / Standard / Angled                   | h6    | mm         | 2175 / 2375 / 2554     |                        |                   |
|                      | 4.8    | Seat Height relating to SIP                 |                                           | h7    | mm         | 1113                   |                        |                   |
|                      | 4.10   | Outrigger Height                            |                                           |       | mm         | 301                    | 346                    |                   |
|                      | 4.15   | Fork Height                                 |                                           | h13   | mm         | 38                     | 45                     |                   |
|                      | 4.20   | Head Length                                 |                                           | l2    | mm         | see table 8            |                        |                   |
|                      | 4.21   | Overall Width                               | Front/rear                                | b1    | mm         | see table 2            |                        |                   |
|                      | 4.22   | Fork Dimensions                             | DIN ISO 2331                              | s     | mm         | 38                     | 45                     |                   |
|                      | e x l  |                                             |                                           | mm    | 102 x 1145 |                        |                        |                   |
|                      | 4.23   | Fork Carriage ISO 2328, Class/Type A, B     |                                           |       |            | 2 A                    |                        |                   |
|                      | 4.24   | Fork Carriage Width                         | With / without load backrest              | b3    | mm         | 770 / 750              |                        |                   |
|                      | 4.25   | Fork Spread                                 |                                           | b5    | mm         | see table 2            |                        |                   |
|                      | 4.26   | Inside Straddle Dimension                   |                                           | b4    | mm         | see table 2            |                        |                   |
|                      | 4.28   | Reach                                       |                                           | l4    | mm         | see table 8            |                        |                   |
|                      | 4.32   | Ground Clearance                            | Centre wheelbase                          | m2    | mm         | 76                     |                        |                   |
|                      | 4.34.1 | Aisle Width                                 | For pallets 1000×1200 crossways           | Ast   | mm         | see table 8            |                        |                   |
|                      | 4.34.2 |                                             | For pallets 800×1200 lengthways           | Ast   | mm         | see table 8            |                        |                   |
|                      | 4.35   | Turning Radius                              |                                           | Wa    | mm         | 1645                   | 1734                   |                   |
|                      | 4.37   | Length across Wheel Arms                    |                                           | l7    | mm         | 1785                   | 1903                   |                   |
| Performance Data     | 5.1    | Travel Speed                                | With load / without load                  |       | km/h       | 14.0 / 14.0            |                        |                   |
|                      | 5.2    | Lift Speed                                  | With 1000 kg load / without load          |       | m/s        | 0.58 / 0.80            |                        | 0.58 / 0.71       |
|                      | 5.3    | Lowering Speed                              | With load / without load                  |       | m/s        | 0.57 / 0.57            |                        | 0.57 / 0.50       |
|                      |        | Xpress Lowering Speed                       | With load / without load                  |       | m/s        | 1.1 / 1.1              |                        |                   |
|                      | 5.4    | Reaching Speed                              | With load / without load                  |       | m/s        | 0.21 / 0.21            |                        |                   |
|                      | 5.8    | Max. Gradeability                           | With load / without load                  |       | %          | 12 / 12                |                        |                   |
|                      | 5.10   | Service Brake                               | Regenerative, electric / load wheel brake |       |            |                        | regen. / 2x            |                   |
| Electric Motor       | 6.1    | Traction Motor                              | 60 min. rating                            |       | kW         | 9                      |                        |                   |
|                      | 6.2    | Pump Motor                                  | 15% on time                               |       | kW         | 17.1                   |                        |                   |
|                      | 6.3    | Max. Battery Box Size                       |                                           | l×h×w | mm         | see table 1            |                        |                   |
|                      | 6.4    | Battery Voltage                             | Nominal capacity 5 h rating               |       | V/Ah       | 48 / see table 1       |                        |                   |
|                      | 6.5    | Battery Weight                              |                                           |       | kg         | see table 1            |                        |                   |
|                      | 6.7    | Battery Tray Height                         | With rollers / without rollers            |       | mm         | 303 / 292              |                        |                   |
| Add.                 | 10.1   | Available Working Pressure for Attachments  |                                           |       | bar        | 210                    |                        |                   |
|                      | 10.7   | Sound Pressure Level at the Operator's seat |                                           |       | dB(A)      | 65                     |                        |                   |

<sup>1</sup> TT mast 4890 mm + option 1 battery type

\* with load backrest 1.4 / 1.6 t -650 mm; 2.0 t -535 mm

<sup>2</sup> TT mast 4595 mm + option 2 battery type

\*\* with load backrest 1.4 / 1.6 t +650 mm; 2.0 t +535 mm

<sup>3</sup> Narrow outriggers 285 x 80 mm

<sup>4</sup> Narrow outriggers 330 x 80 mm



Table 1 Battery

|     | Battery Type                    |    | DIN C    |          |           |           | DIN B    |          |          |           |        |        |
|-----|---------------------------------|----|----------|----------|-----------|-----------|----------|----------|----------|-----------|--------|--------|
|     |                                 |    | Option 1 | Option 2 | Option 3  | Option 4  | Option 5 | Option 6 | Option 7 | Option 8  |        |        |
| 6.4 | <b>Battery Capacity</b>         | Ah | 420-465  | 560-620  | 700-775   | 840-930   | 280-310  | 420-465  | 560-620  | 700-775   |        |        |
| 6.5 | <b>Battery Weight min.-max.</b> | kg | 713-838  | 892-1056 | 1063-1258 | 1241-1467 | 542-621  | 709-816  | 890-1027 | 1063-1202 |        |        |
| 6.3 | <b>Battery Box Size</b>         |    | Width    |          |           |           | Width    |          |          |           | Length | Height |
|     | <b>ESR 1020 -1.4</b>            | mm | -        | -        | -         | -         | 263      | 353      | 443      | -         | 1035   | 784    |
|     | <b>ESR 1020 -1.6</b>            | mm | -        | -        | -         | -         | -        | 353      | 443      | 533       |        |        |
|     | <b>ESR 1040 -1.4</b>            | mm | 283      | 355      | 427       | -         | -        | -        | -        | -         | 1223   | 784    |
|     | <b>ESR 1040 -1.6</b>            | mm | 283      | 355      | 427       | 499       | -        | -        | -        | -         |        |        |
|     | <b>ESR 1040 -2.0</b>            | mm | -        | 355      | 427       | 499       | -        | -        | -        | -         |        |        |
|     | <b>ESR 1060 -1.4</b>            | mm | 283      | 355      | 427       | -         | -        | -        | -        | -         |        |        |
|     | <b>ESR 1060 -1.6</b>            | mm | 283      | 355      | 427       | 499       | -        | -        | -        | -         |        |        |
|     | <b>ESR 1060 -2.0</b>            | mm | -        | 355      | 427       | 499       | -        | -        | -        | -         |        |        |

Table 2 Chassis Frame

|      |                                                    |  |              | ESR 1020<br>ESR 1040<br>ESR 1060 | Standard | Standard<br>Standard | Option<br>Option | Option<br>Option | Option<br>Option |
|------|----------------------------------------------------|--|--------------|----------------------------------|----------|----------------------|------------------|------------------|------------------|
| 3.7  | <b>Tread rear</b>                                  |  | b11          | mm                               | 985      | 1177                 | 1146             | 1317             | 1476             |
| 4.21 | <b>Overall width rear – chassis bottom</b>         |  | b1           | mm                               | 1120     | 1285*                | 1285*            | 1425*            | 1575*            |
|      | <b>Overall width rear – chassis middle section</b> |  | b1           | mm                               | 1108     | 1269                 | 1269             | 1269             | 1269             |
| 4.24 | <b>Fork Carriage</b>                               |  | b3           | mm                               | 750      | 750                  | 750              | 750              | 980              |
| 4.25 | <b>Fork Spread</b>                                 |  | b5           | mm                               | 695      | 695                  | 695              | 695              | 925              |
| 4.26 | <b>Inside Straddle Dimension</b>                   |  | b4           | mm                               | 905      | 965                  | 1070             | 1105             | 1255             |
|      | <b>Sideshift movement</b>                          |  | left / right | mm                               | 50       | 70                   | 70               | 70               | 100              |

\* Load Wheel Protection: add 20 mm

Table 3 Axle Load

|                                              |         |      |           | without load |      |       | with load |      |       |      |
|----------------------------------------------|---------|------|-----------|--------------|------|-------|-----------|------|-------|------|
|                                              |         | Fork |           | front        | rear | total | front     | rear | total |      |
| <b>ESR 1020-1.4</b><br>with battery option 5 | 7500 TT | 2.4  | advanced  | kg           | 1558 | 1442  | 3000      | 783  | 3617  | 4400 |
|                                              |         | 2.5  | retracted | kg           | 1882 | 1118  |           | 1626 | 2774  |      |
| <b>ESR 1040-1.4</b><br>with battery option 1 | 7500 TT | 2.4  | advanced  | kg           | 1536 | 1664  | 3200      | 730  | 3870  | 4600 |
|                                              |         | 2.5  | retracted | kg           | 1930 | 1270  |           | 1596 | 3004  |      |
| <b>ESR 1040-2.0</b><br>with battery option 3 | 9155 TT | 2.4  | advanced  | kg           | 2150 | 2373  | 4523      | 1042 | 5481  | 6523 |
|                                              |         | 2.5  | retracted | kg           | 2660 | 1863  |           | 2043 | 4480  |      |
| <b>ESR 1060-1.4</b><br>with battery option 1 | 6090 TT | 2.4  | advanced  | kg           | 1607 | 1796  | 3403      | 807  | 3996  | 4803 |
|                                              |         | 2.5  | retracted | kg           | 2164 | 1239  |           | 1941 | 2862  |      |
| <b>ESR 1060-1.6</b><br>with battery option 3 | 7950 TT | 2.4  | advanced  | kg           | 1890 | 2103  | 3993      | 1037 | 4556  | 5593 |
|                                              |         | 2.5  | retracted | kg           | 2437 | 1556  |           | 2174 | 3419  |      |
| <b>ESR 1060-2.0</b><br>with battery option 3 | 9155 TT | 2.4  | advanced  | kg           | 2150 | 2373  | 4523      | 1042 | 5481  | 6523 |
|                                              |         | 2.5  | retracted | kg           | 2660 | 1863  |           | 2043 | 4480  |      |

front = drive wheel      rear = load wheels



Table 4 Mast Chart **ESR 1020 / ESR 1040 Tilting Mast**

| Mast            |                  |    |    | 4.4            | 4.2       | 4.3       | 4.5      | 4.1 Tilt of Mast             |                |                              |                |
|-----------------|------------------|----|----|----------------|-----------|-----------|----------|------------------------------|----------------|------------------------------|----------------|
|                 |                  |    |    | Lift<br>Height | Collapsed | Free-lift | Extended | ESR 1020-1.4<br>ESR 1040-1.4 |                | ESR 1020-1.6<br>ESR 1040-1.6 |                |
|                 |                  |    |    |                |           |           |          | h <sub>3</sub>               | h <sub>1</sub> | h <sub>2</sub>               | h <sub>4</sub> |
| Tilting<br>Mast | Standard<br>Duty | TL | mm | 2760           | 1990      | 100       | 3305     | 2°                           | 4°             | 0,5°                         | 3°             |
|                 |                  |    | mm | 3070           | 2150      |           | 3620     |                              |                |                              |                |
|                 |                  |    | mm | 3490           | 2360      |           | 4045     | 1°                           | 3°             |                              |                |
|                 |                  |    | mm | 3810           | 2520      |           | 4360     |                              |                |                              |                |
|                 |                  |    | mm | 4080           | 2650      |           | 4630     |                              |                |                              |                |
|                 |                  |    | mm | 4480           | 2850      |           | 5030     |                              |                |                              |                |
|                 |                  |    | mm | 4710           | 2970      |           | 5260     |                              |                |                              |                |
|                 |                  |    | mm | 4950           | 3090      |           | 5500     |                              |                |                              |                |
|                 |                  |    | mm | 5250           | 3240      |           | 5800     |                              |                |                              |                |
|                 |                  | TT | mm | 4210           | 1935      | 1415*     | 4740     | 1°                           | 3°             | 0,5°                         | 3°             |
|                 |                  |    | mm | 4680           | 2090      | 1570*     | 5210     |                              |                |                              |                |
|                 |                  |    | mm | 5315           | 2305      | 1785*     | 5850     |                              |                |                              |                |
|                 |                  |    | mm | 5790           | 2465      | 1945*     | 6325     |                              |                |                              |                |
|                 |                  |    | mm | 6190           | 2595      | 2075*     | 6725     | 0,5°                         |                |                              |                |
|                 |                  |    | mm | 6795           | 2795      | 2275*     | 7320     |                              |                |                              |                |
|                 |                  |    | mm | 7140           | 2915      | 2395*     | 7675     |                              |                |                              |                |
|                 |                  |    | mm | 7500           | 3030      | 2515*     | 8035     |                              |                |                              |                |
|                 |                  |    | mm | 7700           | 3235      | 2710*     | 8235     |                              |                |                              |                |

\* Free-lift h<sub>2</sub> with sideshift: -100 mmExtended height h<sub>4</sub> with sideshift: +15 mmTable 5 Mast Chart **ESR 1000 Tilting Carriage (\*Xpress Lower)**

| Mast                      |            |    | 4.4                           | 4.2                         | 4.3                         | 4.5                        | ESR 1020-1.4<br>ESR 1020-1.6 | ESR 1040-1.4<br>ESR 1060-1.4 | ESR 1040-1.6<br>ESR 1060-1.6 | ESR 1040-2.0<br>ESR 1060-2.0 |
|---------------------------|------------|----|-------------------------------|-----------------------------|-----------------------------|----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| TT                        |            |    | Lift Height<br>h <sub>3</sub> | Collapsed<br>h <sub>1</sub> | Free-lift<br>h <sub>2</sub> | Extended<br>h <sub>4</sub> |                              |                              |                              |                              |
| 4-Roller Tilting Carriage | Heavy Duty | mm | 4440                          | 2020                        | 1345                        | 5015                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 4890                          | 2170                        | 1495                        | 5465                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 5340                          | 2320                        | 1645                        | 5915                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 5790                          | 2470                        | 1795                        | 6365                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 6090                          | 2570                        | 1895                        | 6665                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 6690                          | 2770                        | 2095                        | 7265                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 7140                          | 2920                        | 2245                        | 7715                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 7500                          | 3040                        | 2365                        | 8075                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 7950                          | 3190                        | 2515                        | 8525                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 8415                          | 3345                        | 2670                        | 8990                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 8850                          | 3490                        | 2815                        | 9425                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 9090                          | 3570                        | 2895                        | 9665                       | ●                            | ●                            | ●                            | —                            |
|                           |            | mm | 9450                          | 3690                        | 3015                        | 10025                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 9900                          | 3840                        | 3170                        | 10475                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 10230                         | 3950                        | 3280                        | 10805                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 10500                         | 4040                        | 3365                        | 11070                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 10700                         | 4205                        | 3535                        | 11270                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 10835                         | 4250                        | 3580                        | 11405                      | —                            | ●                            | ●                            | —                            |
|                           |            | mm | 11045                         | 4320                        | 3650                        | 11615                      | —                            | ●                            | ●                            | —                            |
| 6-Roller Tilting Carriage | Super Duty | mm | 10835                         | 4250                        | 3580                        | 11460                      | —                            | —                            | ①                            | —                            |
|                           |            | mm | 11045                         | 4320                        | 3650                        | 11670                      | —                            | —                            | ①                            | —                            |
|                           |            | mm | 11435                         | 4450                        | 3780                        | 12060                      | —                            | —                            | ①                            | —                            |
| 6-Roller Tilting Carriage | Heavy Duty | mm | 4145                          | 2020                        | 1350                        | 4770                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 4595                          | 2170                        | 1500                        | 5220                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 5495                          | 2470                        | 1800                        | 6120                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 6395                          | 2770                        | 2100                        | 7020                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 6845                          | 2920                        | 2250                        | 7470                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 7205                          | 3040                        | 2370                        | 7830                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 8120                          | 3345                        | 2675                        | 8745                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 9155                          | 3690                        | 3020                        | 9780                       | —                            | —                            | —                            | ①                            |
|                           |            | mm | 9605                          | 3840                        | 3170                        | 10230                      | —                            | —                            | —                            | ①                            |
|                           |            | mm | 9935                          | 3950                        | 3280                        | 10560                      | —                            | —                            | —                            | ①                            |
|                           |            | mm | 10835                         | 4250                        | 3580                        | 11460                      | —                            | —                            | —                            | ①                            |
|                           |            | mm | 11435                         | 4450                        | 3780                        | 12060                      | —                            | —                            | —                            | ①                            |
|                           |            | mm | 12010                         | 4640                        | 3970                        | 12635                      | —                            | —                            | —                            | ①                            |
|                           | Super Duty | mm | 9935                          | 4420                        | 3750                        | 10560                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 10835                         | 4720                        | 4050                        | 11460                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 11435                         | 4920                        | 4250                        | 12060                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 12000                         | 5110                        | 4435                        | 12620                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 12600                         | 5310                        | 4635                        | 13220                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 13000                         | 5445                        | 4770                        | 13625                      | —                            | —                            | —                            | ②                            |
|                           |            | mm | 13560                         | 5630                        | 4960                        | 14185                      | —                            | —                            | —                            | ②                            |

\* ESR 1060 Xpress Lower collapsed h<sub>1</sub> & free lift h<sub>2</sub> add 80 ± 5 mm and extd h<sub>4</sub> add max. 90 mm

● = available

① = option 1 battery type not available

② = option 1 battery type and option 2 battery type not available

Table 6 Aisle Width **ESR 1020**

| Pallet Size      |                | ESR 1020            |                               |      | 1.8a          |     | 4.20        |      | 4.28  |     | 4.33        |      |                                |                       |
|------------------|----------------|---------------------|-------------------------------|------|---------------|-----|-------------|------|-------|-----|-------------|------|--------------------------------|-----------------------|
|                  |                | Truck Configuration |                               |      | Load Distance |     | Head Length |      | Reach |     | Aisle Width |      | Add dimension                  |                       |
| Pallet           | Length x Width | Capacity            | Battery Size<br>DIN<br>43531B | Mast | X1            |     | L2          |      | L4    |     | AST3        |      | Integrated<br>Sideshift<br>1.4 | Triplex<br>Mast<br>TT |
|                  |                |                     |                               |      | 1.4           | 1.6 | 1.4         | 1.6  | 1.4   | 1.6 | 1.4         | 1.6  |                                |                       |
|                  | mm             | Ah                  |                               | Type | mm            | mm  | mm          | mm   | mm    | mm  | mm          | mm   | mm                             | mm                    |
| Euro             | 800 x 1200     | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2522        | -    | 17                             | 14                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2567        | 2612 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2621        | 2659 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2713 |                                |                       |
| Euro             | 1200 x 800     | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2669        | -    | 26                             | 22                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2745        | 2755 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2826        | 2835 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2917 |                                |                       |
| BSI              | 1000 x 1200    | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2638        | -    | 21                             | 17                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2696        | 2726 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2763        | 2788 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2854 |                                |                       |
| BSI              | 1200 x 1000    | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2722        | -    | 25                             | 21                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2793        | 2808 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2871        | 2884 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2961 |                                |                       |
| Australian       | 1165 x 1165    | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2744        | -    | 23                             | 19                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2810        | 2831 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2884        | 2901 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2975 |                                |                       |
| Asian            | 1200 x 1200    | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2782        | -    | 23                             | 19                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2849        | 2869 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2923        | 2940 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 3013 |                                |                       |
| GMA<br>40" x 48" | 1219 x 1016    | 280 - 310           | Option 5                      | TL   | 472           | -   | 1166        | -    | 674   | -   | 2742        | -    | 25                             | 21                    |
|                  |                | 420 - 465           | Option 6                      | TL   | 387           | 482 | 1251        | 1251 | 589   | 684 | 2813        | 2829 |                                |                       |
|                  |                | 560 - 620           | Option 7                      | TL   | 297           | 392 | 1341        | 1341 | 499   | 594 | 2891        | 2904 |                                |                       |
|                  |                | 700 - 775           | Option 8                      | TL   | -             | 302 | -           | 1431 | -     | 504 | -           | 2982 |                                |                       |

 Table 7 Aisle Width **ESR 1040 Tilting Mast**

| Pallet Size      |                | ESR 1040            |                               |      | 1.8a          |     | 4.20        | 4.28  |     | 4.33        |      |                                |                 |
|------------------|----------------|---------------------|-------------------------------|------|---------------|-----|-------------|-------|-----|-------------|------|--------------------------------|-----------------|
|                  |                | Truck Configuration |                               |      | Load Distance |     | Head Length | Reach |     | Aisle Width |      | Add dimension                  |                 |
| Pallet           | Length x Width | Capacity            | Battery Size<br>DIN<br>43531C | Mast | X1            |     | L2          | L4    |     | AST3        |      | Integrated<br>Sideshift<br>1.4 | Triplex<br>Mast |
|                  |                |                     |                               |      | 1.4           | 1.6 | 1.4/1.6     | 1.4   | 1.6 | 1.4         | 1.6  |                                |                 |
|                  | mm             | Ah                  |                               | Type | mm            | mm  | mm          | mm    | mm  | mm          | mm   | mm                             | mm              |
| Euro             | 800 x 1200     | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2539        | 2591 | 16                             | 12              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2575        | 2620 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2617        | 2656 |                                |                 |
| Euro             | 1200 x 800     | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2694        | 2706 | 26                             | 21              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2753        | 2764 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2816        | 2825 |                                |                 |
| BSI              | 1000 x 1200    | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2658        | 2692 | 20                             | 16              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2705        | 2734 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2756        | 2781 |                                |                 |
| BSI              | 1200 x 1000    | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2745        | 2763 | 24                             | 20              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2802        | 2817 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2861        | 2875 |                                |                 |
| Australian       | 1165 x 1165    | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2766        | 2790 | 23                             | 19              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2819        | 2840 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2875        | 2894 |                                |                 |
| Asian            | 1200 x 1200    | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2804        | 2827 | 23                             | 19              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2857        | 2878 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2914        | 2932 |                                |                 |
| GMA<br>40" x 48" | 1219 x 1016    | 420 - 465           | Option 1                      | TL   | 452           | 547 | 1186        | 639   | 734 | 2765        | 2783 | 24                             | 20              |
|                  |                | 560 - 620           | Option 2                      | TL   | 385           | 480 | 1253        | 572   | 667 | 2822        | 2837 |                                |                 |
|                  |                | 700 - 775           | Option 3                      | TL   | 315           | 410 | 1323        | 503   | 598 | 2882        | 2895 |                                |                 |

Table 8 Aisle Width **ESR 1040 / ESR 1060 Tilting Carriage**

| ESR 1060    |          | 6.4<br>Battery | 4.20<br>Head Length | 1.8a<br>Load Distance | 4.28<br>Reach | 4.33 & 4.34  |             |             |
|-------------|----------|----------------|---------------------|-----------------------|---------------|--------------|-------------|-------------|
| kg          | Wa<br>mm | Ah             | l2<br>mm            | x1<br>mm              | l4<br>mm      | Load Size    |             | Aisle Width |
|             |          |                |                     |                       |               | length<br>mm | width<br>mm | VDI<br>mm   |
| <b>1400</b> | 1645     | 420 - 465      | 1281                | 357                   | 544           | 800          | 1200        | 2591        |
|             |          |                |                     |                       |               | 1200         | 800         | 2778        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2724        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2825        |
|             |          | 560 - 620      | 1338                | 300                   | 487           | 800          | 1200        | 2626        |
|             |          |                |                     |                       |               | 1200         | 800         | 2830        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2767        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2875        |
|             |          | 700 - 775      | 1410                | 228                   | 415           | 800          | 1200        | 2674        |
|             |          |                |                     |                       |               | 1200         | 800         | 2896        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2823        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2938        |
| <b>1600</b> | 1734     | 420 - 465      | 1288                | 445                   | 662           | 800          | 1200        | 2631        |
|             |          |                |                     |                       |               | 1200         | 800         | 2788        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2751        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2840        |
|             |          | 560 - 620      | 1345                | 388                   | 605           | 800          | 1200        | 2662        |
|             |          |                |                     |                       |               | 1200         | 800         | 2839        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2791        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2888        |
|             |          | 700 - 775      | 1417                | 316                   | 533           | 800          | 1200        | 2705        |
|             |          |                |                     |                       |               | 1200         | 800         | 2904        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2844        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2950        |
|             |          | 840 - 930      | 1489                | 244                   | 461           | 800          | 1200        | 2752        |
|             |          |                |                     |                       |               | 1200         | 800         | 2970        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2899        |
|             |          |                |                     |                       |               | 1200         | 1000        | 3013        |
| <b>2000</b> | 1734     | 560 - 620      | 1345                | 388                   | 605           | 800          | 1200        | 2662        |
|             |          |                |                     |                       |               | 1200         | 800         | 2839        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2791        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2888        |
|             |          | 700 - 775      | 1417                | 316                   | 533           | 800          | 1200        | 2705        |
|             |          |                |                     |                       |               | 1200         | 800         | 2904        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2844        |
|             |          |                |                     |                       |               | 1200         | 1000        | 2950        |
|             |          | 840 - 930      | 1489                | 244                   | 461           | 800          | 1200        | 2752        |
|             |          |                |                     |                       |               | 1200         | 800         | 2970        |
|             |          |                |                     |                       |               | 1000         | 1200        | 2899        |
|             |          |                |                     |                       |               | 1200         | 1000        | 3013        |

| Standard ● / Optional ○                                    | ESR 1020 | ESR 1040 | ESR 1060 |
|------------------------------------------------------------|----------|----------|----------|
| <b>Truck Features</b>                                      |          |          |          |
| 1120 mm overall width                                      | ●        |          |          |
| 1285 mm overall width                                      |          | ●        | ●        |
| 1425 mm overall width                                      |          | ○        | ○        |
| 1575 mm overall width                                      |          | ○        | ○        |
| 1400 kg lift capacity at 600 mm load centre                | ●        | ●        | ●        |
| 1600 kg lift capacity at 600 mm load centre                | ●        | ●        | ●        |
| 2000 kg lift capacity at 600 mm load centre                |          | ●        | ●        |
| <b>Battery Compartment</b>                                 |          |          |          |
| 48V 280-310 Ah                                             | ①        |          |          |
| 48V 420-465 Ah                                             | ○        | ②        | ②        |
| 48V 560-620 Ah                                             | ○        | ○        | ○        |
| 48V 700-775 Ah                                             | ③        | ○        | ○        |
| 48V 840-930 Ah                                             |          | ④        | ④        |
| Battery rollers for horizontal extraction                  | ○        | ○        | ○        |
| DIN 160 Rema connector                                     | ●        | ●        | ●        |
| SBE 160 connector blue                                     | ○        | ○        | ○        |
| SB 350 connector blue                                      | ○        | ○        | ○        |
| Lithium-Ion ready                                          | ○        | ○        | ○        |
| <b>Controls and Instruments</b>                            |          |          |          |
| Gena® operating system control                             | ●        | ●        | ●        |
| 7" colour touch screen display with navigation keypad      | ●        | ●        | ●        |
| Display control via C-Drive                                | ○        | ○        | ○        |
| Keyless start-up with PIN code                             | ●        | ●        | ○        |
| Keyless start-up with prox reader (HID)                    | ○        | ○        | ●        |
| Key switch                                                 | ○        | ○        | ○        |
| Travel/steer direction indicator                           | ●        | ●        | ●        |
| Real-time clock and date                                   | ●        | ●        | ●        |
| Battery discharge indicator with lift lockout              | ●        | ●        | ●        |
| Hour meters for various system functions                   | ●        | ●        | ●        |
| Fingertip hydraulic controls                               | ●        | ●        | ●        |
| Dual lever hydraulic controls                              | ○        | ○        | ○        |
| Multi-task hydraulic controls                              | ○        | ○        | ○        |
| <b>Driving Features</b>                                    |          |          |          |
| Speed reduction in turns                                   | ●        | ●        | ●        |
| e-GEN® braking system                                      | ●        | ●        | ●        |
| OnTrac™ anti-slip traction control                         | ●        | ●        | ●        |
| Load wheel brake system                                    | ⑤        | ⑤        | ●        |
| Ramp hold automatic braking for slopes + push-back rack    | ●        | ●        | ●        |
| Electro-mechanical parking brake                           | ●        | ●        | ●        |
| Selectable performance levels (F1, F2, P1, P2, P3)         | ●        | ●        | ●        |
| 360 Select™ steering system + indicator                    | ●        | ●        | ●        |
| <b>Lifting Features</b>                                    |          |          |          |
| Patented offset mast design                                | ●        | ●        | ●        |
| Tilting duplex mast (TL)                                   | ○        | ○        |          |
| Tilting triplex mast (TT)                                  | ○        | ○        |          |
| Integrated sideshift for tilting masts                     | ○        | ○        |          |
| Triplex mast (TT) with tilting fork carriage and sideshift | ○        | ○        | ●        |
| Xpress Lower™ faster mast lowering speed incl. Regen Lower |          |          | ○        |
| Tilt and sideshift single activation                       | ⑥        | ⑥        |          |
| Tilt Position Assist (TPA)                                 | ⑦        | ⑦        | ○        |
| Lift height indicator                                      | ⑦        | ⑦        | ○        |
| Load weight indicator                                      | ○        | ○        | ○        |
| Free lift indicator                                        | ●        | ●        | ●        |
| Auto Height Select (AHS)                                   | ⑦        | ⑦        | ○        |
| Capacity Data Monitor (CDM)                                | ⑦        | ⑦        | ○        |
| Sideshift Position Assist (SPA)                            | ⑦        | ⑦        | ○        |
| Lift speed reduction before maximum height                 | ●        | ●        | ●        |
| Travel speed reduction above 1000 mm lift height           | ○        | ○        | ○        |
| Travel speed reduction above free lift                     | ●        | ●        | ●        |
| No load on outrigger function + override switch            | ⑧        | ⑧        | ⑧        |
| Retract limit and override switch                          | ⑦        | ⑦        | ○        |
| Five raise cutouts with override switch incl. zone select  | ⑦        | ⑦        | ○        |
| Colour camera system (fork or mast mounted)                | ⑨        | ⑨        | ⑨        |
| ISO class 2A fork carriage                                 | ●        | ●        | ●        |
| Forktip indicators                                         | ●        | ●        | ●        |
| Load backrest                                              | ○        | ○        | ○        |
| <b>Hydraulic Features</b>                                  |          |          |          |
| 4 <sup>th</sup> hydraulic function                         | ○        | ○        | ●        |
| 5 <sup>th</sup> hydraulic function                         | ⑦        | ⑦        | ○        |
| 6 <sup>th</sup> hydraulic function                         |          |          | ⑭        |

| Standard ● / Optional ○                         | ESR 1020 | ESR 1040 | ESR 1060 |
|-------------------------------------------------|----------|----------|----------|
| <b>Operator Comfort</b>                         |          |          |          |
| Panoramic overhead guard                        |          | ○        | ○        |
| Patented high-visibility overhead guard         |          | ●        | ●        |
| Plexiglass or mesh overhead guard cover         | ○        | ○        | ○        |
| MSG 65 seat with adjustable lumbar support      | ○        | ○        | ●        |
| FlexBack™ seat backrest (only with MSG 65 seat) |          | ○        | ○        |
| Suspension seat                                 | ●        | ●        | ○        |
| Heated vinyl seat                               | ○        | ○        | ○        |
| Heated cloth seat                               | ○        | ○        | ○        |
| Headrest                                        | ○        | ○        | ○        |
| Controls mounted on armrest                     | ●        | ●        | ●        |
| Armrest adjustable back + forth                 | ⑩        | ●        | ●        |
| Tilttable armrest pad                           | ○        | ○        | ○        |
| Adjustable steering column with tools           | ●        | ●        | ○        |
| Adjustable steering column without tools        | ○        | ○        | ●        |
| Automotive-type accelerator and brake pedals    | ●        | ●        | ●        |
| Multiple storage areas for tools                | ●        | ●        | ●        |
| Low, wide entry step                            | ●        | ●        | ●        |
| Desktop with clipboard                          | ○        | ○        | ●        |
| Adjustable armrest                              | ●        | ●        | ○        |
| D4 armrest                                      | ⑪        | ⑪        | ●        |
| Compartment-mounted armrest                     | ●        | ●        | ○        |
| Seat-mounted armrest (only with MSG 65 seat)    | ○        | ○        | ●        |
| Tilttable display                               | ○        | ○        | ●        |
| <b>Safety Features</b>                          |          |          |          |
| Operator presence pedal                         | ●        | ●        | ●        |
| Seat switch                                     | ●        | ●        | ●        |
| Power disconnect switch                         | ●        | ●        | ●        |
| Safety reminders                                | ●        | ●        | ●        |
| Work lights (halogen or LED)                    | ○        | ○        | ○        |
| Flashing light (LED)                            | ○        | ○        | ○        |
| Floor spotlight (blue or red)                   | ○        | ○        | ○        |
| Audible travel alarm                            | ○        | ○        | ○        |
| Rearview mirror                                 | ○        | ○        | ○        |
| Laser guidance system                           | ○        | ○        | ○        |
| <b>Maintenance Features</b>                     |          |          |          |
| Event code history                              | ●        | ●        | ●        |
| Built-in diagnostic system                      | ●        | ●        | ●        |
| InfoPoint™ maps                                 | ●        | ●        | ●        |
| Brushless AC motors                             | ●        | ●        | ●        |
| Swing-out seat deck for easy access             | ●        | ●        | ●        |
| Connect Ready                                   | ⑫        | ⑫        | ●        |
| InfoLink® fleet management system, integrated   | ⑫        | ⑫        | ●        |
| <b>Work Assist® Accessoires</b>                 |          |          |          |
| Clipboard                                       | ○        | ○        | ○        |
| Scan-gun holder                                 | ○        | ○        | ○        |
| Adjustable arm for WMS monitor                  | ○        | ○        | ○        |
| 12, 24 or 48V power supply                      | ○        | ○        | ○        |
| Reading light                                   | ○        | ○        | ○        |
| Trash bin                                       |          | ⑦        | ○        |
| Beverage holder                                 | ○        | ○        | ○        |
| Storage pocket                                  | ○        | ○        | ○        |
| USB-Port                                        | ○        | ○        | ○        |
| <b>Special Applications</b>                     |          |          |          |
| Drive-in rack overhead guard                    | ○        | ○        | ○        |
| Aisle guide rollers                             | ○        | ○        | ○        |
| Coldstore condition to -30°C                    | ○        | ○        | ○        |
| Coldstore cabin with environmental control      |          | ○        | ○        |
| Narrow outriggers (1070 mm inside)              |          | ⑬        | ⑬        |
| Load wheel protection                           |          | ○        | ○        |

① Available on ESR 1020-1.4

② Not with Coldstore Cabin

③ Available on ESR 1020-1.6

④ 1600 and 2000 kg only

⑤ Depending on mast, capacity and travel speed

⑥ For tilting mast

⑦ Not applicable for tilting mast

⑧ Stops forks above outriggers if mast is retracted

⑨ Camera system not for tilting mast / mast camera only above 6090 mm

⑩ ESR 1020 armrest fixed

⑪ Mandatory for AHS, 5<sup>th</sup> hydraulic function, heated seat, override button

⑫ Deduct possible

⑬ All 1400/1600 kg lift heights incl. SD-mast, not with 420-465 Ah battery

⑭ Not available with Xpress Lower™

## Operator Compartment and Controls

A comfortable low, wide step speeds entry. Non-slip floor mat ensures smooth and safe entry/exit. Once seated, the operator position can be adjusted to suit small and large operators.

A 17,8 cm (7") colour touchscreen delivers real-time information on the truck's operating status. Thirteen selectable widgets allow the operator to customise the display.

The travel direction switch, accessory controls, Auto Height Select and all hydraulic functions are at the operator's fingertip. Operators can manoeuvre the truck while blending lift and attachment functions to increase productivity.

The ergonomic armrest is wide and soft with fore and aft adjustment. There are five easily accessible storage compartments and an optional on-board USB-Port for charging mobile devices.

## Gena® operating system

Crown's next-generation truck operating system with integrated InfoLink® provides optimum performance and makes vital information easy to see, understand and use for operators and technicians. It is an enhanced real-time truck management experience that gives you data-rich user experience and provides unmatched truck control for all primary truck systems:

- Traction motor control
- Hydraulic valve and motor control
- Steer & brake motor control
- Programmable performance profiles
- Personalised information/advanced diagnostic display/operator messaging
- Safety checklists and Dynamic Coaching

The Gena user experience is designed to let operators easily adapt the display for the specific task at hand. Screens also offer context-sensitive help including alerts, automated assistance, dynamic data and coaching.

The Crown display is used for easy troubleshooting, accessing service history and setting performance features. No handset or laptop required – all functions are on-board and easy to use.

## Productivity Features

Speed up your productivity with optional Xpress Lower™ and super duty mast. This exclusive technology lets you double lowering speeds, resulting in substantial savings in time and money.

Auto Height Select with one-touch control provides precise load stop at programmed rack heights. Tilt Position Assist with mast deflection compensation ensures the forks are level to the ground, regardless of load weight. Capacity Data Monitor provides visual indication and warning when limits are reached. Mast reach/retract speed adjusts depending on lift height and load, for more confident handling.

## Traction Control

OnTrac™ anti-slip traction control monitors truck dynamics, optimises tractive effort, reduces spinning during acceleration, prevents lock-up during braking, and can extend tyre life. It increases traction performance in wet, dusty or freezer conditions.

## Travel

Crown's AC traction system is a closed loop traction control system that maintains top speed throughout the battery charge. Engineered and manufactured by Crown, the AC motor, controller and drive unit are designed specifically for lift truck applications.

Crown's intelligent speed reduction in turns recognises whether the operator is driving into or out of a curve, with the system analysing steer tyre angle, driving direction and steering direction. It then automatically adjusts speed and acceleration for maximum safe performance. Ramp hold is an automatic braking function for slopes and push-back racks.

## Hydraulic System

The control system for the hydraulic pump motor and proportional valves facilitates precise and sensitive execution of all hydraulic functions. All hydraulic parameters such as lift, lower, tilt, side shift, and reach speeds are fully adjustable and can therefore be adapted to different applications.

## Moving Mast

Crown's unique offset, wide view mast delivers excellent visibility at height as well as for low-level operations. Mast cross-bracing and overhead guard bracing have been angled, and hose and chain rollers have been canted to further enhance visibility.

The ESR 1020 and ESR 1040 feature a range of duplex and triplex masts with limited or full free lift. Tilting masts can compensate for uneven floors, common in wet and outdoor applications.

The ESR 1040 and ESR 1060 feature heavy and super duty triplex masts with full free lift, integrated side shift and tilting fork carriage. Mast channels are reinforced to minimise static and dynamic deflection when storing heavy loads at tall lift heights.

## Drive unit

A highly efficient drive unit with Rheintacho tachometer, helical gear, integrated pinion and vertically mounted 3-phase (AC) noise reduced traction motor provides silent, powerful traction performance. The large Vulkollan™ drive wheel offers high load capacity, long life, and excellent travel comfort.

## Steering

360 Select™ control system allows the operator to choose between 180° and 360° steer tyre rotation to match driving conditions, experience level or personal preference. The system can be locked in either mode with password-protected access.

## Braking

A disc brake on the motor armature shaft combined with motor regenerative e-GEN braking provides sure braking with fewer parts and maintenance requirements.

A foot pedal applies the service brake. The truck can also be brought to a stop by reversing the travel direction using the electric regenerative plugging function.

The parking brake is activated automatically when the truck comes to a stop. Once the operator has the feet on both pedals and selected the travel direction, the parking brake will automatically be released.

## Motors

The Crown manufactured 3-phase (AC) motors deliver high torque and seamless reversal. Traction and hydraulic motors are oversized for superior thermal capability and are especially suitable for high lift heights, high loads and high ambient temperature applications.

## Safety Regulations

Conforms to European safety standards. Dimensions and performance data given may vary due to manufacturing tolerances. Performance is based on an average size vehicle and is affected by weight, condition of truck, how it is equipped and the conditions of the on-site operating area. Crown products and specifications are subject to change without notice.

## Data Communication

The truck is fitted with a wireless data communications system that electronically collects truck and usage data (in particular hours of operation, battery charge level, status of certain parts that are subject to wear and tear, impacts etc.) and automatically transmits such data to Crown for service and maintenance purposes as well as for statistical analysis (deduct possible for ESR 1020 and ESR 1040). Dealers have to inform their customers respectively.