

Autopilot reach truck 1.6 - 2.5 ton



BT reflex *AUTOPILOT*

RAE160

RAE250



Autopilot reach truck

| Truck specifications | | | | | RAE160 | RAE250 |
|----------------------|---|---|----------------------------------|-------|---------------------------|---------------------------|
| Identification | 1.1 | Manufacturer | | | Toyota | Toyota |
| | 1.2 | Model | | | RAE160 | RAE250 |
| | 1.3 | Drive | | | Electric | Electric |
| | 1.4 | Operator type | | | Seated/Automatic | Seated/Automatic |
| | 1.5 | Load capacity/rated load | Q | kg | 1600 | 2500/2300 ¹⁾ |
| | 1.6 | Load centre | c | mm | 650 | 650/650 ¹⁾ |
| | 1.8 | Load distance, centre of support arm wheel to face of forks | x | mm | See mast dimensions table | |
| | 1.9 | Wheelbase | y | mm | 1395 | 1575 |
| | Weight | 2.1 | Service weight including battery | | kg | 3927 |
| 2.3 | | Axle load, mast retracted without load, drive/support arm wheel | | kg | 2616/1313 | 3180/1649 |
| 2.4 | | Axle load, mast extended with load, drive/support arm wheel | | kg | 793/4734 | 729/6601 |
| 2.5 | | Axle load, mast retracted with load, drive/support arm wheel | | kg | 2101/3426 | 2630/4700 |
| Wheels | | 3.1 | "Drive/support arm wheel" | | | Vulkollan®/Vulkollan® |
| | 3.2 | Wheel size, front | | mm | Ø 343x140 | Ø 360x160 |
| | 3.3 | Wheel size, rear | | mm | Ø 300x106 | Ø 350x106 |
| | 3.5 | Wheels, number front/rear (x=driven wheels) | | | 1x / 2 | 1x / 2 |
| | 3.7 | Track width, rear | b ₁₁ | mm | 1134/1334 | 1134/1334 |
| Dimensions | 4.1 | Tilt of fork, forward/backward (up/down) | α/β | deg | 4°/-2° | 4°/-2° |
| | 4.2 | Height, mast lowered | h ₁ | mm | See mast dimensions table | |
| | 4.3 | Free lift | h ₂ | mm | See mast dimensions table | |
| | | Lift height | h ₂₃ | mm | See mast dimensions table | |
| | 4.5 | Height, mast extended | h ₄ | mm | See mast dimensions table | |
| | | Height with navigation scanner | h ₂₀ | mm | 2605/2955/3405 | 2667/3017/3467 |
| | | Height eye navigation scanner | h ₂₁ | mm | 2586/2936/3386 | 2648/2998/3448 |
| | 4.7 | Height of overhead guard (cab) | h ₆ | mm | 2426 | 2488 |
| | 4.10 | Height support arms | h ₈ | mm | 329 | 363 |
| | 4.15 | Height of lowered forks | h ₁₃ | mm | 55 | 60 |
| | 4.19 | Overall length | l ₁ | mm | 2649 | 2755 |
| | 4.20 | Length to face of forks | l ₂ | mm | 1399 | 1505 |
| | 4.21 | Overall width ²⁾ | b ₁ | mm | 1270/1470 | 1270/1470 |
| | 4.22 | Overall width over support arms (including scanners) ²⁾ | b ₂ | mm | 1570/1770 | 1570/1770 |
| | 4.23 | Fork dimensions | s/e/l | mm | 40/100/1250 ³⁾ | 45/125/1250 ³⁾ |
| | 4.24 | Fork carriage ISO 2328, class/type A, B | | | 2A | 2A |
| | 4.25 | Fork carriage width | b ₃ | mm | 843 | 843 |
| | 4.26 | Width over forks ⁴⁾ | b ₅ | mm | 252/392/516/622/698 | 277/417/541/647 |
| | 4.27 | Distance between support arms | b ₄ | mm | 900/1100 | 900/1100 |
| | 4.28 | Reach distance | l ₄ | mm | 509 | 609 |
| 4.31 | Ground clearance, with load, below mast | m ₁ | mm | 38 | 38 | |
| 4.32 | Ground clearance, centre of wheelbase | m ₂ | mm | 38 | 38 | |
| 4.37 | Length across support arms | l ₇ | mm | 1877 | 2091 | |
| Performance data | 5.1a | Travel speed, with/without load Auto mode | | km/h | 7,2/7,2 | 7,2/7,2 |
| | 5.1b | Travel speed, with/without load Manual mode | | km/h | 7,2/7,2 | 7,2/7,2 |
| | 5.2 | Lift speed, with/without load | | m/s | 0,36/0,68 | 0,37/0,64 |
| | 5.3 | Lowering speed, with/without load | | m/s | 0,55/0,59 | 0,53/0,58 |
| | 5.4 | Reach speed, with/without load | | m/s | 0,20/0,28 | 0,20/0,28 |
| | 5.8 | Max. gradeability, with/without load | | % | 8/8 | 7/7 |
| | 5.10 | Service brake | | | Electric | Electric |
| Electric motor | 6.1 | Drive motor rating S2 60 min | | kW | 9,0 | 10,5 |
| | 6.2 | Lift motor rating S3 15% | | kW | 11,0 | 15,0 |
| | 6.4 | Battery voltage, nominal capacity K _s | | V/Ah | 48/420 | 48/420 |
| | 6.5 | Battery weight | | kg | 875-1030 | 1055-1235 |
| | 6.6 | Energy consumption acc. to VDI cycle ⁵⁾ | | kWh/h | 3,7 | 5,2 |
| | Other | 8.1 | Type of drive control | | | Variable AC |
| 8.4 | | Sound level at driver's ear according to EN 12 053 | | dB(A) | 64 | 62 |
| | | Safety of laser products | | | Class 1 (EC 60825-1) | |
| | | Height from floor to centre of auto-charging plate | | mm | 693 | 686 |
| | | Longitudinal distance from reference point to centre of auto-charging plate | | mm | 916 | 1089 |

n) Note, new value/text in this version of data sheet.

1) Load centre 650mm in auto mode

2) Distance between supportarms 900/1100 mm.

3) Other alternative are available.

4) For the load camera usable width over fork distance at fork length 1250 mm.

5) Based on RRE-H2 Contact your supplier for more information.

All data are based on table configuration. Other configurations may give other values.

Truck performance and dimensions are nominal and subject to tolerances.

Toyota Material Handling Manufacturing Sweden AB products and specifications are subject to change without notice.

Battery dependent dimensions

| Dimensions | | | | RAE160 | RAE250 | |
|------------|---|-------|----|-------------------|---------------------------------|-------------------|
| Mast type | | | | Triplex Hi-Lo - B | Triplex Hi-Lo - C ¹⁾ | Triplex Hi-Lo - D |
| | Battery compartment | | mm | 347 | 419 | 419 |
| 1.8 | Load distance, centre of support arm wheel to face of forks | x | mm | 307 | 390 | 334 |
| 4.20 | Length to face of forks | l_2 | mm | 1399 | 1505 | 1561 |
| 4.35 | Turning radius Rotate on point. | W_a | mm | 1715 | 1903 | 1903 |

1) Max lift height 9000mm

Mast dimensions

| | | | | RAE160 | | | | | | RAE250 | | | | | | |
|-----|-----------------------|----------|----|-------------------|------|------|------|-------|-------|-------------------|------|------|------|-------|-------|-------------------|
| | | | | Triplex Hi-Lo - B | | | | | | Triplex Hi-Lo - C | | | | | | Triplex Hi-Lo - D |
| | Lift height | h_{23} | mm | 4850 | 5700 | 7000 | 8000 | 9000 | 10000 | 4850 | 5700 | 7000 | 8000 | 9000 | 10000 | |
| 4.4 | Lift | h_3 | mm | 4795 | 5645 | 6945 | 7945 | 8945 | 9945 | 4795 | 5645 | 6945 | 7945 | 8945 | 9945 | |
| 4.2 | Height, mast lowered | h_1 | mm | 2249 | 2532 | 2966 | 3299 | 3632 | 3966 | 2247 | 2530 | 2936 | 3297 | 3630 | 3963 | |
| 4.3 | Free lift | h_2 | mm | 1741 | 2025 | 2459 | 2791 | 3125 | 3459 | 1733 | 2017 | 2449 | 2783 | 3117 | 3449 | |
| 4.5 | Height, mast extended | h_4 | mm | 6026 | 6876 | 8176 | 9176 | 10176 | 11176 | 6026 | 6876 | 8176 | 9176 | 10176 | 11176 | |

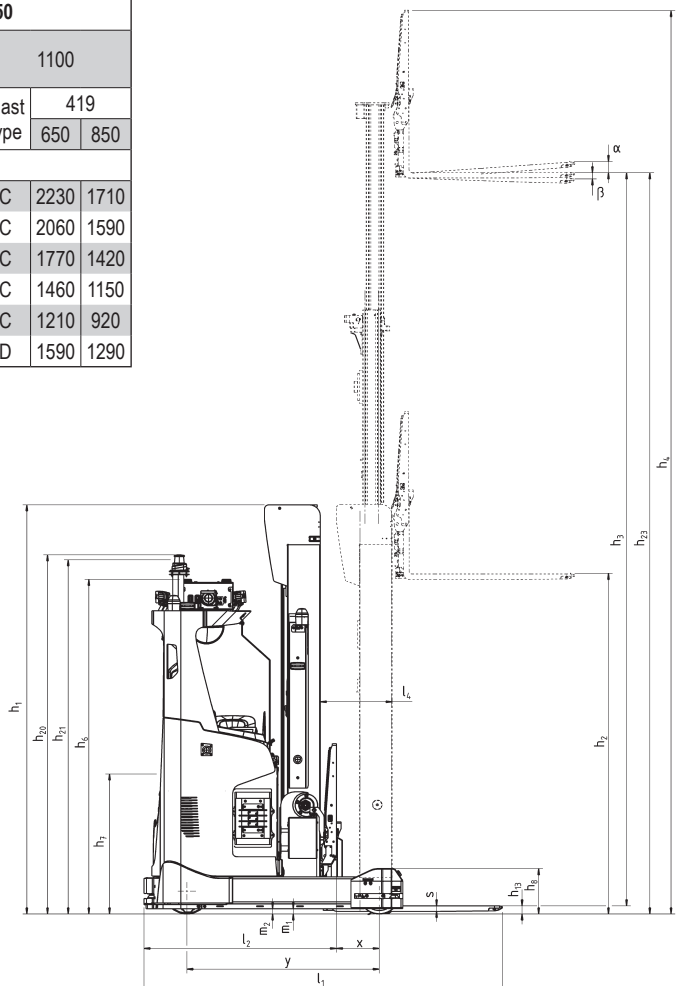
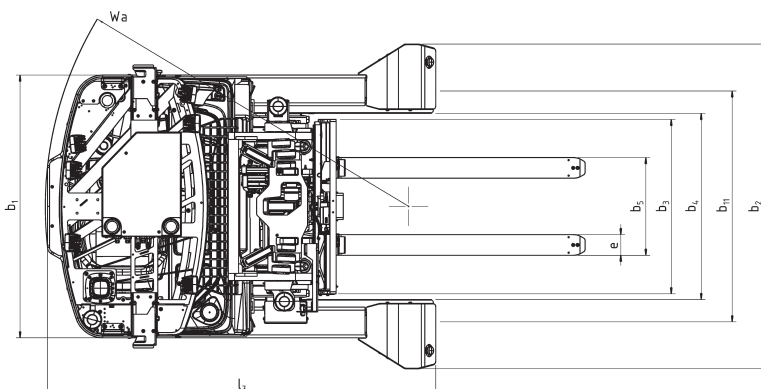
Aisle width Auto mode

| | | | | A_{st} Rotate on point, PPS Muted | | | |
|---------------|-------------------|---------------|----|-------------------------------------|------|------|------|
| | Load length | mm | | 800 | 1000 | 1200 | |
| | Load width | mm | | 1200 | 1200 | 800 | 1000 |
| Model | Mast type | Battery comp. | | | | | |
| RAE160 | Triplex Hi-Lo - B | 347 | mm | 2744 | 2890 | 2959 | 3002 |
| RAE250 | Triplex Hi-Lo - C | 419 | mm | 2879 | 3015 | 3071 | 3118 |
| | Triplex Hi-Lo - D | 419 | mm | 2914 | 3057 | 3123 | 3167 |

Lift capacities RAE160 - RAE250

Actual Capacity (kg)

| Model | RAE160 | | | | | | RAE250 | | | | | |
|--|-----------|------|-----------|-----|-----------|------|-----------|------|------|---|------|------|
| | 900 | | 1100 | | 900 | | 1100 | | | | | |
| Distance between support arms b_4 (mm) | 900 | | 1100 | | 900 | | 1100 | | | | | |
| Battery compartment (mm) | Mast type | 347 | Mast type | 347 | Mast type | 419 | Mast type | 419 | | | | |
| Load center LCP (mm) | 650 | 850 | 650 | 850 | 650 | 850 | 650 | 850 | | | | |
| Lift height h_{23} (mm) | | | | | | | | | | | | |
| 4850 | B | 1600 | 1260 | B | 1600 | 1280 | C | 2190 | 1680 | C | 2230 | 1710 |
| 5700 | B | 1520 | 1180 | B | 1540 | 1200 | C | 2030 | 1560 | C | 2060 | 1590 |
| 7000 | B | 1380 | 1080 | B | 1410 | 1100 | C | 1770 | 1390 | C | 1770 | 1420 |
| 8000 | B | 1290 | 1010 | B | 1310 | 1030 | C | 1460 | 1150 | C | 1460 | 1150 |
| 9000 | B | 1180 | 930 | B | 1200 | 950 | C | 1210 | 920 | C | 1210 | 920 |
| 10000 | B | 1070 | 840 | B | 1090 | 860 | D | 1510 | 1260 | D | 1590 | 1290 |



Truck features:

- Automatic
 - loading and unloading
 - horizontal transport
 - vertical stacking
 - horizontal deep stacking
 - RS150 handling
- Maintenance handling
- Laser precision navigation
- Personal safety protection drive direction
- Personal safety protection fork direction
- Personal safety protection on sides
- Load presence and push detection
- Information display
- Auto charging Lithium-Ion battery
- Obstacle detection system forward (optional)
- Obstacle detection system sides (optional)
- Barcode scanner (optional)
- Blue/Red LED warning light fork/drive direction (optional)
- Advanced vision aided load handling (optional)
- Multi-load detection (optional)

