

# Reach truck 1.4 - 2.5 ton

## BT reflex

*R & E-series*

RRE140/E

RRE160/E

RRE180/E

RRE200/E

RRE250/E



**TOYOTA**

MATERIAL HANDLING

stronger together

# Reach truck

Truck specifications					RRE140,E/C	RRE160,E/C	RRE180,E/C	RRE200,E/C	RRE250,E/C	
Identification	1.1	Manufacturer			BT	BT	BT	BT	BT	
	1.2	Model			RRE140,E/C	RRE160,E/C	RRE180,E/C	RRE200,E/C	RRE250,E/C	
	1.3	Drive			Electric	Electric	Electric	Electric	Electric	
	1.4	Operator type			Seated	Seated	Seated	Seated	Seated	
	1.5	Load capacity/rated load	Q	kg	1400	1600	1800	2000	2500	
	1.6	Load centre	c	mm	600	600	600	600	600	
	1.8	Load distance, centre of support arm wheel to face of forks	x	mm	305*	347*	406*	446*	335*	
	1.9	Wheelbase	y	mm	1295	1335	1475	1515	1575	
	Weight	2.1	Service weight including battery		kg	3369	3370	3863	4046	4805
2.3		Axle load, mast retracted without load, drive/support arm wheel		kg	2040/1329	2073/1297	2424/1439	2546/1499	2858/1947	
2.4		Axle load, mast extended with load, drive/support arm wheel		kg	672/4097	586/4385	845/4819	863/5183	589/6446	
2.5		Axle load, mast retracted with load, drive/support arm wheel		kg	1701/3068	1745/3225	2165/3498	2318/3727	2454/4851	
Wheels		3.1	Drive/support arm wheel			Vulkollan	Vulkollan	Vulkollan	Vulkollan	Vulkollan
	3.2	Wheel size, front			350	350	400	400	400	
	3.3	Wheel size, rear			300	300*	350	350	350	
	3.5	Wheels, number front/rear (x=driven wheels)			1x/2	1x/2	1x/2	1x/2	1x/2	
	3.7	Track width, rear	b <sub>11</sub>	mm	1134	1134	1134	1134	1134	
	Dimensions	4.1	Tilt of fork, forward/backward	$\alpha/\beta$	deg	4°/-2°**	4°/-2°**	4°/-2°**	4°/-2°**	4°/-2°**
		4.2	Height, mast lowered	h <sub>1</sub>	mm	2732*	2732*	2732*	2732*	2771*
4.3		Free lift	h <sub>2</sub>	mm	1691*	1691*	1691	1691	1791*	
4.4		Lift	h <sub>3</sub>	mm	6260*	6260*	6260*	6260*	6255*	
		Lift height	h <sub>23</sub>	mm	6300*	6300*	6300*	6300*	6300*	
4.5		Height, mast extended	h <sub>4</sub>	mm	6940*	6940*	6940*	6940*	6881*	
4.7		Height of overhead guard (cab)	h <sub>6</sub>	mm	2198	2198	2260	2260	2260	
4.8		Seat height	h <sub>7</sub>	mm	1131	1131	1193	1193	1193	
4.10		Height of support arms	h <sub>8</sub>	mm	268	268	330	330	330	
4.15		Height of lowered forks	h <sub>13</sub>	mm	40	40	40	40	45	
4.19		Overall length	l <sub>1</sub>	mm	2362	2365	2446	2446	2607	
4.20		Length to face of forks	l <sub>2</sub>	mm	1252	1250	1331	1331	1502	
4.21		Overall width	b <sub>1</sub>	mm	1270	1270	1270	1270	1270	
4.22		Fork dimensions	s/e/l	mm	40/100/1150*	40/100/1150*	40/120/1150*	40/120/1150*	45/125/1150*	
4.23		Fork carriage ISO 2328, class/type A, B			II A	II A	II A	II A	II A	
4.25		Width over forks	b <sub>5</sub>	mm	250-738	250-738	250-738	250-738	250-738	
4.26		Distance between support arms	b <sub>4</sub>	mm	900*	900*	900*	900*	900*	
4.28		Reach distance	l <sub>4</sub>	mm	434*	474*	614*	670*	571*	
4.31		Ground clearance, with load, below mast	m <sub>1</sub>	mm	68	68	68	68	88	
4.32		Ground clearance, centre of wheelbase <sup>1)</sup>	m <sub>2</sub>	mm	74	74	77	77	77	
4.33	Aisle width for pallets 1000 x 1200 crossways	A <sub>st</sub>	mm	2675	2684	2781	2794	2933		
4.34	Aisle width for pallets 800 x 1200 lengthways	A <sub>st</sub>	mm	2737	2739	2826	2831	2990		
4.35	Turning radius	W <sub>a</sub>	mm	1557	1597	1737	1777	1837		
4.37	Length across support arms	l <sub>7</sub>	mm	1728	1768	1933	1973	2033		
Performance data	5.1	Travel speed, with/without load		km/h	11/11	10/11	11/11	11/11	11/11	
		Travel speed, High speed version, with/without load		km/h	14/14	14/14	14/14	14/14	14/14	
	5.2	Lift speed, with/without load		m/s	0,35/0,70	0,35/0,70	0,35/0,70	0,35/0,70	0,35/0,70	
	5.3	Lowering speed, with/without load		m/s	0,55/0,55	0,55/0,55	0,55/0,55	0,55/0,55	0,55/0,55	
	5.4	Reach speed, with/without load		m/s	0,25/0,25	0,25/0,25	0,25/0,25	0,25/0,25	0,25/0,25	
	5.8	Max. gradeability, with/without load <sup>2)</sup>		%	10/15	10/15	10/15	10/15	7/12	
5.10	Service brake			Electric	Electric	Electric	Electric	Electric		
Electric motor	6.1	Drive motor rating S2 60 min		kW	7,5	7,5	9,0	9,0	9,0	
	6.2	Lift motor rating S3 15%		kW	11	11	15	15	15	
	6.4	Battery voltage, nominal capacity K <sub>5</sub>		V/Ah	48/465*	48/465*	48/620*	48/620*	48/775*	
	6.5	Battery weight		kg	725*	725*	940*	940*	1150*	
	6.6	Energy consumption acc to VDI cycle <sup>3)</sup>		kWh/h						
	Other	8.1	Type of drive control			Variable AC	Variable AC	Variable AC	Variable AC	Variable AC
8.4		Sound level at the driver's ear according to EN 12 053		dB(A)	66	66	66	66	66	

1) 15 mm under studs

2) Measured according to company standard

3) Contact your supplier for information

\*) Other alternatives are available

All data are based on table configuration. Other configurations may give other values. Truck performance and dimensions are nominal and subject to tolerances. BT products and specifications are subject to change without notice.

# Battery compartment

# BT reflex

Dimensions				RRE140,E/C			RRE160,E/C			RRE180,E/C		RRE200,E/C			RRE250,E/C	
Reflex	Depth		mm	275 <sup>1)</sup>	347	419	275 <sup>1)</sup>	347 <sup>2)</sup>	419	347 <sup>2)</sup>	419	347 <sup>2)</sup>	419 <sup>3)</sup>	491	419 <sup>3)</sup>	491
	4.20 Length to face of forks ***	$l_2$	mm	1252	1324	1396	1250	1322	1394	1331	1403	1331	1403	1475	1502	1574
	4.33 Aisle width for pallets 1000x1200 crossways ***	$A_{st}$	mm	2675	2731	2848	2684	2738	2795	2781	2833	2794	2844	2897	2933	2987
	4.34 Aisle width for pallets 800x1200 lengthways ***	$A_{st}$	mm	2737	2803	2870	2739	2805	2871	2826	2891	2831	2895	2960	2990	3056
	6.4 Battery voltage, nominal capacity $K_5$		V/Ah	48/465	48/620	48/775	48/465	48/620	48/775	48/620	48/775	48/620	48/775	48/930	48/775	48/930
	6.5 Battery weight, min.—max.		kg	685-825	875-1030	1055-1235	685-825	875-1030	1055-1235*	875-1030	1055-1235	875-1030	1055-1235	1055-1240	1240-1440**	1055-1235
1.8 Load distance, centre of support arm wheel to face of forks	x	mm	305	233	161	347	275	203	406	334	446	374	302	335	263	

\* = Lh 10000 and 10500 mm: 1060-1235 kg

1) Lh max 7500 mm

Figures above are for Lh 6300 mm and shortest standard battery fitting

\*\* = Lh 12000 and 12500 mm: 1250-1440 kg

2) Lh max 9500 mm

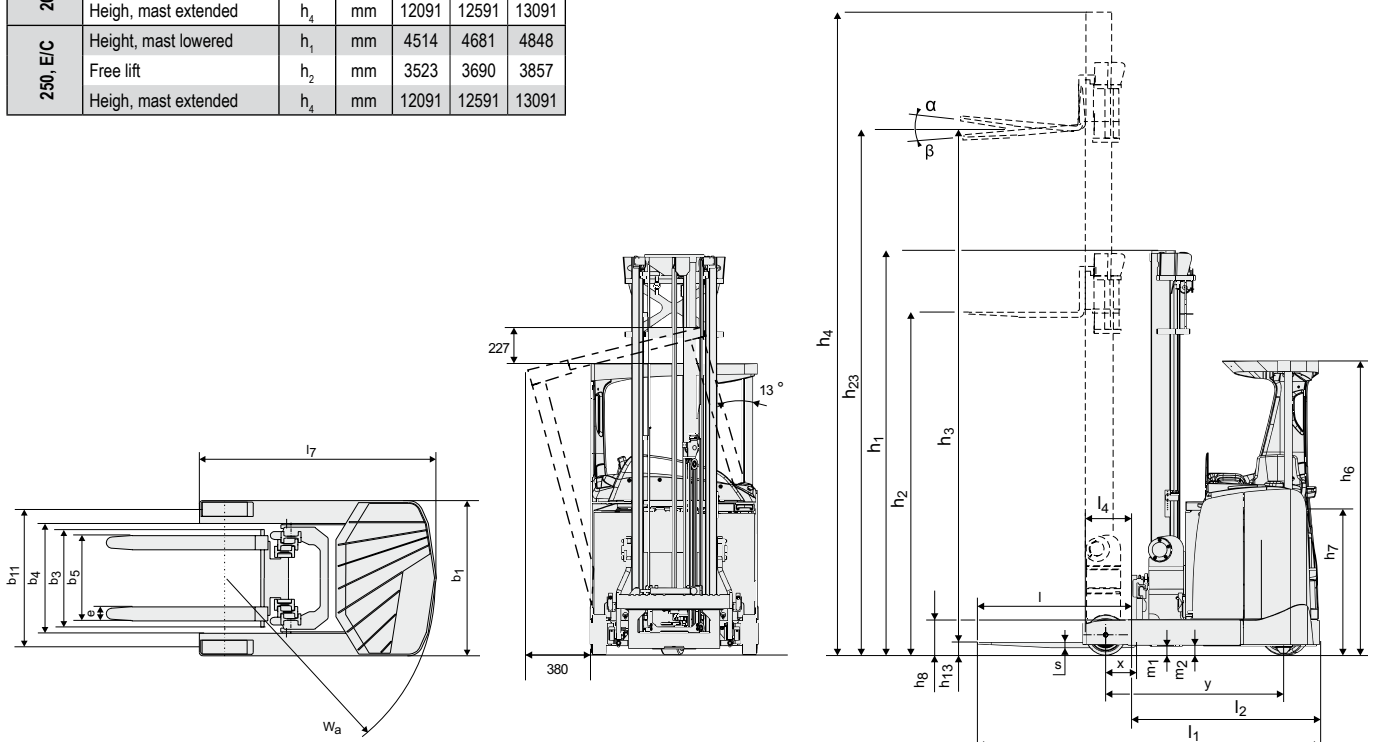
\*\*\* = Inclusive sideshift

3) Lh max 11500 mm

## Mast dimensions, mm

RRE			Triplex Hi-Lo																		
Lift height	$h_{23}$	mm	4400	4600	4800	5400	5700	6300	6750	7000	7150	7500	8000	8500	9000	9500	10000	10500	10800	11000	
	Lift	$h_3$	mm	4360	4560	4760	5360	5660	6260	6710	6960	7110	7460	7960	8460	8960	9460	9960	10460	10760	10960
140,E/C	Height, mast lowered	$h_1$	mm	2067	—	2200	2400	2500	2742	—	3074	2991	3241	3408	3574	3741	—	—	—	—	
	Free lift	$h_2$	mm	1016	—	1149	1349	1449	1691	—	2023	1940	2190	2357	2523	2690	—	—	—	—	
	Height, mast extended	$h_4$	mm	5050	—	5450	6050	6350	6950	—	7650	7450	8150	8650	9150	9650	—	—	—	—	
160,E/C	Height, mast lowered	$h_1$	mm	2067	—	2200	2400	2500	2742	2991	3074	2991	3241	3408	3574	3741	3908	4300	4467	—	—
	Free lift	$h_2$	mm	1016	—	1149	1349	1449	1691	1940	2023	1940	2190	2357	2523	2690	2857	3249	3416	—	—
	Height, mast extended	$h_4$	mm	5050	—	5450	6050	6350	6950	7400	7650	7450	8150	8650	9150	9650	10150	10650	11150	—	—
180,E/C	Height, mast lowered	$h_1$	mm	—	2175	2242	2442	2542	2742	2991	3074	2991	3241	3408	3575	3741	3908	4467	4800	—	4800
	Free lift	$h_2$	mm	—	1124	1191	1391	1491	1691	1940	2023	1940	2190	2357	2523	2690	2857	3416	3749	—	3749
	Height, mast extended	$h_4$	mm	—	5250	5450	6050	6350	6950	7400	7650	7450	8150	8650	9150	9650	10150	10650	11150	—	11650
200,E/C	Height, mast lowered	$h_1$	mm	—	2175	2242	2442	2542	2742	2991	3074	2991	3241	3408	3575	3741	3908	4014	4181	4281	—
	Free lift	$h_2$	mm	—	1124	1191	1391	1491	1691	1940	2023	1940	2190	2357	2523	2690	2857	3025	3191	3291	—
	Height, mast extended	$h_4$	mm	—	5250	5450	6050	6350	6950	7400	7650	7450	8150	8650	9150	9650	10150	10591	11091	11391	—
250,E/C	Height, mast lowered	$h_1$	mm	—	—	2281	2481	—	2781	—	3014	—	—	3348	3514	3681	3848	4014	4181	4281	—
	Free lift	$h_2$	mm	—	—	1291	1491	—	1791	—	2025	—	—	2357	2525	2691	2857	3025	3191	3291	—
	Height, mast extended	$h_4$	mm	—	—	5391	5981	—	6891	—	7591	—	—	8591	9091	9591	10091	10591	11091	11391	—

RRE			Triplex Hi-Lo			
Lift height	$h_{23}$	mm	11500	12000	12500	
Lift	$h_3$	mm	11460	11960	12460	
200,E/C	Height, mast lowered	$h_1$	mm	4514	4681	4848
	Free lift	$h_2$	mm	3523	3690	3857
	Height, mast extended	$h_4$	mm	12091	12591	13091
250,E/C	Height, mast lowered	$h_1$	mm	4514	4681	4848
	Free lift	$h_2$	mm	3523	3690	3857
	Height, mast extended	$h_4$	mm	12091	12591	13091



## Truck features:

- Total view concept
- Car pedal layout
- Automatic parking brake
- TLC, Transitional Lift Control
- 360° steering
- Simultaneous hydraulic control
- Single function levers or multi function control
- Heavy duty drive unit and gear box

