

# Autopilot stacker truck 1.6 ton



**BT staxio**  
*AUTOPILOT*  
SAE160



# Autopilot stacker truck

Specifications					SAE160 (Duplex Tele)	SAE160 (Triplex Hi-Lo)
Identification	1.1	Manufacturer			Toyota	
	1.2	Model			SAE160	
	1.3	Drive			Electric	
	1.4	Operator type			Automatic/Pedestrian	
	1.5	Load capacity/rated load	Q	kg	1600	
	1.6	Load centre	c	mm	600	
	1.8	Load distance, centre of support arm wheel to face of forks	x	mm	See battery and options dependent table	
	1.9	Wheelbase	y	mm	See battery and options dependent table	
Weight	2.1	Service weight incl battery		kg	1513	1723
	2.2	Axle load, with load: Drive/Castor/Support arm wheel		kg	353/739/2033	353/849/2133
	2.3	Axle load, without load: Drive/Castor/Support arm wheel		kg	361/680/472	361/790/572
Wheels	3.1	Drive/Castor/Support arm wheel			Friction/Vulkollan®/Vulkollan®	
	3.2	Wheel size, front		mm	Ø 230x70	
	3.3	Wheel size, rear		mm	Ø 85x95	
	3.4	Additional wheels (dimensions)		mm	Ø 125x50	
	3.5	Wheels, number front/rear (x = driven wheels)			1x+2/2	
	3.6	Track width, front	b <sub>10</sub>	mm	585	
	3.7	Track width, rear (width over forks 520/570)	b <sub>11</sub>	mm	339/390	-/390
Dimensions	4.2	Height, mast lowered	h <sub>1</sub>	mm	1737	2162
	4.3	Free lift	h <sub>2</sub>	mm	-	1592
	4.4	Lift movement	h <sub>3</sub>	mm	2310	4658
		Lift height	h <sub>23</sub>	mm	2350 <sup>3)</sup>	4700 <sup>3)</sup>
	4.5	Height, mast extended	h <sub>4</sub>	mm	2892	5228
	4.9	Height of tiller in drive position, min./max.	h <sub>14</sub>	mm	1150/1485	
		Height with scanner	h <sub>20</sub>	mm	2381/2969	
		Height scanner eye	h <sub>21</sub>	mm	2362/2950	
	4.15	Height, fork lowered	h <sub>13</sub>	mm	87,5	
	4.19	Overall length	l <sub>1</sub>	mm	See battery and options dependent table	
		Overall length, fork tip stopping device	l <sub>1</sub>	mm		
	4.20	Length to face of forks	l <sub>2</sub>	mm	See battery and options dependent table	
	4.21	Overall width	b <sub>1</sub>	mm	930	
	4.22	Fork dimensions	s/e/l	mm	70/180/1200	
	4.25	Width over forks	b <sub>5</sub>	mm	520/570	-/570
	4.26	Distance between support arms	b <sub>4</sub>	mm	212/226	-/226
4.31	Ground clearance, with load, below mast	m <sub>1</sub>	mm	17		
4.32	Ground clearance, centre of wheelbase	m <sub>2</sub>	mm	24,5		
4.35	Turning radius	W <sub>a</sub>	mm	See battery and options dependent table		
Performance data	5.1	Travel speed, drive wheel/fork direction, manual mode with platform		km/h	6,0/6,0	
		Travel speed, drive wheel/fork direction, manual mode		km/h	2,0/4,0	
	5.1.1	Travel speed, drive wheel/fork direction, automatic mode		km/h	8,0/1,1 <sup>2)</sup>	
	5.2	Lift speed, with/without load		m/s	0,17/ 0,34	
	5.3	Lowering speed, with/without load		m/s	0,46/0,41	
	5.8	Max. gradeability, with/without load <sup>1)</sup>		%	6/10	
5.10	Service brake			Electromagnetic		
Electric motor	6.1	Drive motor rating S2 60 min		kW	1.8	
	6.2	Lift motor rating at S3 10%		kW	3	
	6.4	Battery voltage/nominal capacity K <sub>s</sub>		V/Ah	24/500	
	6.5	Battery weight		kg	345-403	
Other	8.1	Type of drive control			Variable AC	
	8.4	Sound level at the driver's ear according to EN 12 053		dB (A)	<70	
		Safety of laser products			Class 1 (EC 60825-1)	
		Height from floor to upside battery rollers		mm	140	

n) = New value / text since previous version of the data sheet

1) Measured according to company standard. 2) 4,3 km/h with optional safety scanner in fork direction. 3) Max height of load station in automode is h<sub>23</sub> - 200mm

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 and options dependent dimensions

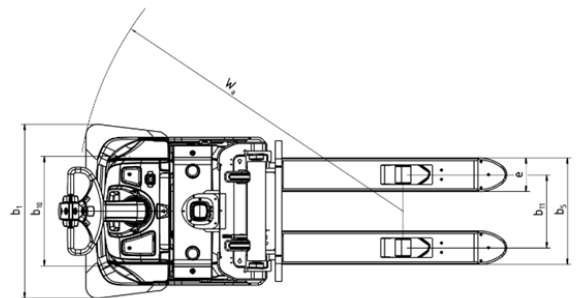
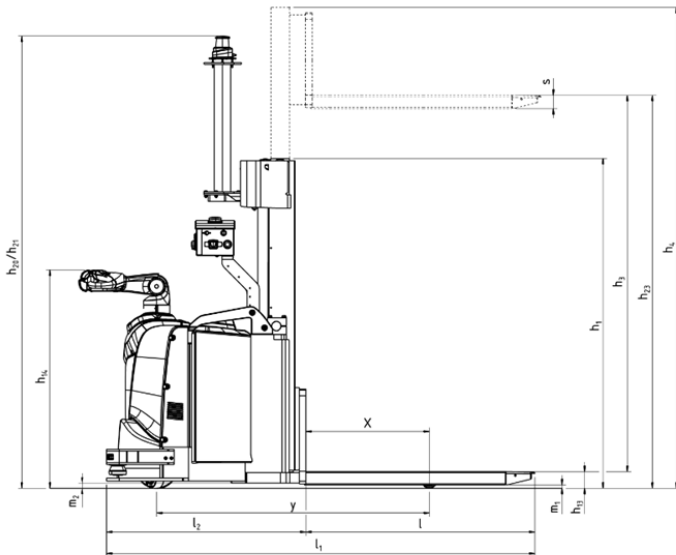
Dimensions			Battery compartment	DX Tele mast		TX Hi-Lo mast	
	Fork length		mm	1200	1600	1200	1600
1.8	Load distance	x	mm	657	979	660	982
	Load distance, with safety scanner rear	x	mm	707	1029	660	982
1.9	Wheelbase	y	mm	1452	1774	1452	1774
	Wheelbase, with safety scanner rear.	y	mm	1502	1824	1502	1824
4.19	Overall length <sup>4)</sup>	$l_1$	mm	2261	2661	2258	2658
	Overall length, with safety scanner rear. <sup>4)</sup>	$l_1$	mm	2261	2661	2308	2708
4.20	Length to face of forks.	$l_2$	mm	1061	1061	1058	1058
	Length to face of forks, with safety scanner rear.	$l_2$	mm	1161	1161	1108	1108
4.33	Aisle width for load 800x1200 short side handling. Manual mode	$A_{st}$	mm	2646	-	2646	-
	Aisle width for load 800x1600 short side handling Manual mode	$A_{st}$	mm	-	3023	-	3023
4.35	Turning radius	$W_a$	mm	1767	2080	1767	2080
	Turning radius, with safety scanner rear.	$W_a$	mm	1815	2130	1825	2140

4) Mechanical fork bumper will extend forks 91mm (41mm is suspension movement)

## Aisle width Auto mode

SAE160 Large batt. compartment	$A_{st}$ Rotate on point. PPS muted *)			
	Load width	mm	800	800
	Load length	mm	1200	1600
Short side handling	<b>PPS in fork direction</b>			
DX Tele	Yes	mm	2734	3115
	No	mm	2686	3065
TX Hi-Lo	Yes	mm	2774	3125
	No	mm	2686	3065

\*) Add 50mm with Tx 4,7m mast. Add 41mm with mechanical fork bumper.

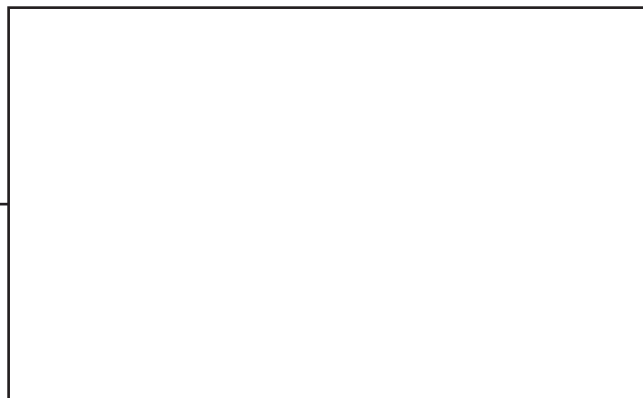


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## Truck features:

- Automatic
  - loading and unloading
  - horizontal transport
  - horizontal deep stacking
- Manual handling
- Laser precision navigation
- Personal safety protection drive direction
- Personal safety protection along sides
- Personal safety protection fork direction (optional)
- Obstacle detection, top (optional)
- Obstacle detection, front (optional)
- Mechanical fork bumper (optional)
- Auto charging Lithium Ion battery (optional)
- Load detection & fork tip sensors
- Information display
- Electronic regenerative braking system
- Sideway battery change

*Other features are available on request.*



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**TOYOTA**