

# Electric powered forklift 48V 1.6 - 2.0 ton

## **TRAIGO**

4 wheel

### **TRAIGO**



### **TRAIGO.i**



# Electric powered forklift 1.6 - 1,8 t

Truck specifications					9FBK16T	9FB16T	9FB18T
Identification	1.1	Manufacturer			Toyota	Toyota	Toyota
	1.2	Model			9FBK16T	9FB16T	9FB18T
	1.3	Drive			Electric	Electric	Electric
	1.4	Operator type			Rider seated	Rider seated	Rider seated
	1.5	Load capacity/rated load	Q	kg	1600	1600	1800
	1.6	Load centre	c	mm	500	500	500
	1.8	Load distance, centre of drive axle to fork	x	mm	317	317	317
	1.9	Wheelbase	Y	mm	1453	1561	1561
	Weight	2.1	Service weight			2968	3169
§		Axle load, with load, front/rear			4008/560	3999/770	4304/665
2.3		Axle load, without load, front/rear			1508/1460	1561/1608	1561/1608
Tyres	3.1	Tyre - pneumatic (P), pneumatic shaped cushion (SE), solid rubber (R)			SE	SE	SE
	3.2	Tyre size, front			18x7-8	18x7-8	18x7-8
	3.3	Tyre size, rear			16x6-8	16x6-8	16x6-8
	3.5	Wheels, number front/rear (x = driven wheels)			2x2	2x2	2x2
	3.6	Track width, front	b <sub>10</sub>	mm	905	905	905
	3.7	Track width, rear	b <sub>11</sub>	mm	880	880	880
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta$	deg	5/7	5/7
4.2		Height, mast lowered	h <sub>1</sub>	mm	2120	2120	2120
4.3		Free lift	h <sub>2</sub>	mm	115	115	115
4.4		Lift	h <sub>3</sub>	mm	3300	3300	3300
		Lift height	h <sub>23</sub>	mm	3335	3335	3335
4.5		Height, mast extended	h <sub>4</sub>	mm	3870	3870	3870
4.7		Height of overhead guard (cab)	h <sub>6</sub>	mm	2055	2055	2055
4.8		Seat height/stand height	h <sub>7</sub>	mm	1065	1065	1065
4.12		Coupling height	h <sub>10</sub>	mm	447	447	447
4.19		Overall length	l <sub>1</sub>	mm	3014	3122	3122
4.20		Length to face of forks	l <sub>2</sub>	mm	2014	2122	2122
4.21		Overall width	b <sub>1</sub>	mm	1060	1060	1060
4.22		Fork dimensions	s/e/l	mm	35/100/1000	35/100/1000	35/100/1000
4.23		Fork carriage DIN 15173, class/type A, B			IIA	IIA	IIA
4.24		Fork-carriage width	b <sub>3</sub>	mm	920	920	920
4.31		Ground clearance, with load, below mast	m <sub>1</sub>	mm	80	80	80
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub>	mm	81	81	81
4.33	Aisle width for pallets 1000x1200 crossways	A <sub>st</sub>	mm	3327	3438	3438	
4.34	Aisle width for pallets 800x1200 lengthways	A <sub>st</sub>	mm	3460	3568	3568	
4.35	Turning radius	W <sub>a</sub>	mm	1707	1811	1811	
4.36	Internal turning radius	b <sub>13</sub>	mm	68	49	49	
Performance data	5.1	Travel speed, with/without load   Li-ion Lite		km/h	20/20   16/16	20/20   16/16	20/20   16/16
	5.2	Lift speed, with/without load		m/s	0,43/0,61   0,54/0,75	0,43/0,61   0,54/0,75	0,42/0,61   0,52/0,75
	5.3	Lowering speed, with/without load		m/s	0,58/0,57	0,58/0,57	0,58/0,57
	5.5	Drawbar pull, with/without load		N	6982	6982	6982
	5.6	Max. drawbar pull, with/without load		N	12266	12266	12266
	5.7	Gradeability, with/without load		%	17,2/28,3	16,4/26,2	15,6/26,3
	5.8	Max. gradeability, with/without load		%	24,4/40,6	23,3/37,5	22,2/37,7
	5.9	Acceleration time, with/without load		s	4,6/4,2	4,6/4,2	4,7/4,3
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic
	Electric motor	6.1	Drive motor rating S2 60 min		kW	6,6 x 2	6,6 x 2
6.2		Lift motor rating S3 15% Standard   Performance		kW	11   12,5	11   12,5	11   12,5
6.3		Battery acc. to DIN 43 531/35/36 A, B, C, no			43 531A	43 531A	43 531A
6.4		Battery voltage, nominal capacity K <sub>5</sub>		V/Ah	48/525-575-625	48/630-690-750	48/630-690-750
6.5		Battery weight		kg	856	1013	1013
6.6		Energy consumption acc. to EN16796 Standard		kWh/h	4,3	4,3	4,6
6.6		Energy consumption acc. to EN16796 Performance		kWh/h	4,2	4,2	4,5
Other	8.1	Type of drive control			Inverter MOSFET	Inverter MOSFET	Inverter MOSFET
	8.2	Operating pressure for attachments		bar	183	183	183
	8.3	Oil volume for attachments		l/min	42	42	42
	8.4	Sound level at the driver's ear according to EN12053		dB(A)	68,5	68,5	68,5

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

Truck performance and dimensions are nominal and subject to tolerances.

Products and specifications are subject to change without notice.

# Mast dimensions and rated capacities

Model			V								FV				FW				FSV					FSW								
9FBK16T/9FB16T	Lift height	$h_{23}$	3035	3335	3535	3735	4035	4535	5035	3035	3335	3535	3735	3035	3335	3535	3735	4335	4535	4735	5035	5535	6035	4335	4535	4735	5035	5535	6035	6535	7035	7535
	Lift	$h_3$	3000	3300	3500	3700	4000	4500	5000	3000	3300	3500	3700	3000	3300	3500	3700	4300	4500	4700	5000	5500	6000	4300	4500	4700	5000	5500	6000	6500	7000	7500
	Height, mast lowered	$h_1$	1970	2120	2220	2380	2570	2820	3070	1970	2120	2220	2380	2000	2150	2250	2350	1970	2040	2120	2220	2380	2570	1980	2050	2150	2250	2350	2600	2800	3000	3200
	Height, mast extended <sup>1)</sup>	$h_4$	3570	3870	4070	4270	4570	5070	5570	3580	3880	4080	4280	3555	3855	4055	4255	4845	5045	5245	5545	6045	6545	4845	5045	5245	5545	6045	6545	7045	7545	8045
	Height, mast extended <sup>2)</sup>	$h_4$	4220	4520	4720	4920	5220	5270	6220	4220	4520	4720	4920	4220	4520	4720	4920	5520	5720	5920	6220	6720	7220	5520	5720	5920	6220	6720	7220	7720	8220	8720
	Free lift, without load backrest	$h_2$	80	80	80	80	80	80	80	1430	1580	1680	1840	1440	1590	1690	1790	1460	1530	1610	1710	1870	2060	1430	1500	1600	1700	1900	2050	2250	2450	2650
Free lift, with load backrest	$h_2$	80	80	80	80	80	80	80	750	900	1000	1160	780	930	1030	1130	750	820	900	1000	1160	1350	760	830	930	1030	1230	1380	1580	1780	1980	
9FB18T	Lift height	$h_{23}$	3035	3335	3535	3735	4035	4535	5035	3035	3335	3535	3735	3035	3335	3535	3735	4335	4535	4735	5035	5535	6035	4335	4535	4735	5035	5535	6035	6535	7035	7535
	Lift	$h_3$	3000	3300	3500	3700	4000	4500	5000	3000	3300	3500	3700	3000	3300	3500	3700	4300	4500	4700	5000	5500	6000	4300	4500	4700	5000	5500	6000	6500	7000	7500
	Height, mast lowered	$h_1$	1970	2120	2220	2380	2570	2820	3070	1970	2120	2220	2380	2000	2150	2250	2350	1970	2040	2120	2220	2380	2570	1980	2050	2150	2250	2350	2600	2800	3000	3200
	Height, mast extended <sup>1)</sup>	$h_4$	3570	3870	4070	4270	4570	5070	5570	3580	3880	4080	4280	3555	3855	4055	4255	4845	5045	5245	5545	6045	6545	4845	5045	5245	5545	6045	6545	7045	7545	8045
	Height, mast extended <sup>2)</sup>	$h_4$	4220	4520	4720	4920	5220	5270	6220	4220	4520	4720	4920	4220	4520	4720	4920	5520	5720	5920	6220	6720	7220	5520	5720	5920	6220	6720	7220	7720	8220	8720
	Free lift, without load backrest	$h_2$	80	80	80	80	80	80	80	1430	1580	1680	1840	1440	1590	1690	1790	1460	1530	1610	1710	1870	2060	1430	1500	1600	1700	1900	2050	2250	2450	2650
Free lift, with load backrest	$h_2$	80	80	80	80	80	80	80	750	900	1000	1160	780	930	1030	1130	750	820	900	1000	1160	1350	760	830	930	1030	1230	1380	1580	1780	1980	

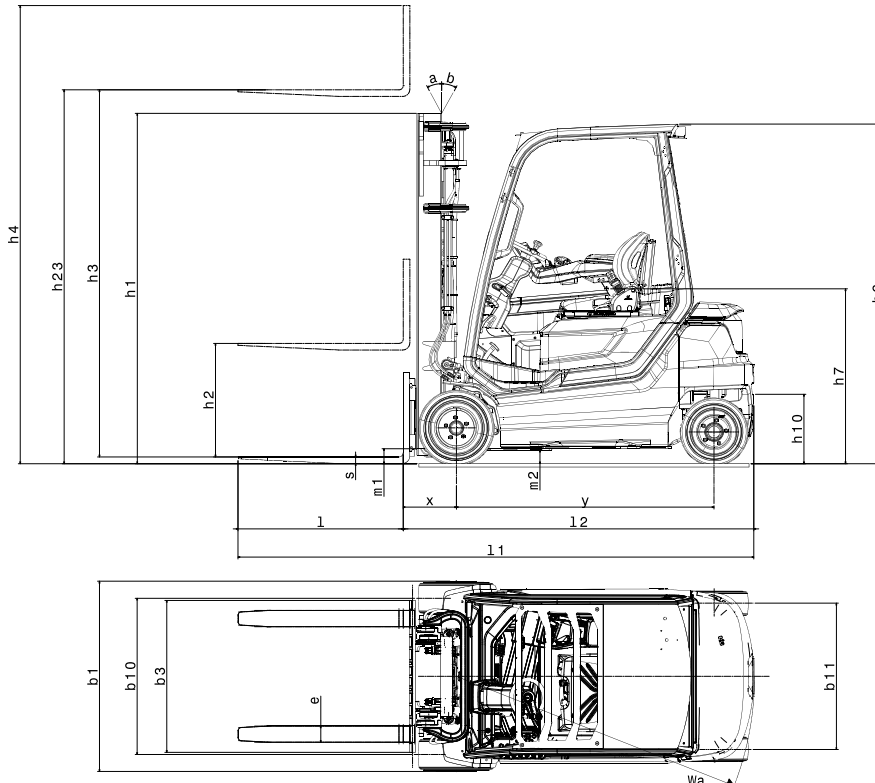
1) Without load backrest.

2) With load backrest; Height of standard load backrest is 1220 mm.

Pneumatic shaped cushion tyre			V								FV				FW				FSV					FSW								
9FBK16T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1475	1100	1600	1600	1600	1600	1520	1470	1100	850	650
9FB16T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1575	1200	1600	1600	1600	1600	1520	1470	1100	875	700
9FB18T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1730	1575	1200	1800	1800	1800	1800	1520	1470	1100	875

Data in ( ) are for when "Cabin Series" is selected (minimum front windshield).

## TRAIGO



# Electric powered forklift 2.0 t

Truck specifications					9FBK20T	9FB20T	60-9FB20T
Identification	1.1	Manufacturer			Toyota	Toyota	Toyota
	1.2	Model			9FBK20T	9FB20T	60-9FB20T
	1.3	Drive			Electric	Electric	Electric
	1.4	Operator type			Rider seated	Rider seated	Rider seated
	1.5	Load capacity/rated load	Q	kg	2000	2000	2000
	1.6	Load centre	c	mm	500	500	500
	1.8	Load distance, centre of drive axle to fork	x	mm	317	317	317
	1.9	Wheelbase	Y	mm	1453	1561	1453
	Weight	2.1	Service weight			3311	3254
§		Axle load, with load, front/rear			4679/632	4660/594	4471/636
2.3		Axle load, without load, front/rear			1554/1757	1613/1641	1346/1761
Tyres	3.1	Tyre - pneumatic (P), pneumatic shaped cushion (SE), solid rubber (R)			SE	SE	SE
	3.2	Tyre size, front			200/50-10	200/50-10	200/50-10
	3.3	Tyre size, rear			16x6-8	16x6-8	16x6-8
	3.5	Wheels, number front/rear (x = driven wheels)			2x/2	2x/2	2x/2
	3.6	Track width, front	b <sub>10</sub>	mm	905	946	946
	3.7	Track width, rear	b <sub>11</sub>	mm	880	880	880
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	a/b	deg	5/7	5/7
4.2		Height, mast lowered	h <sub>1</sub>	mm	2120	2120	2120
4.3		Free lift	h <sub>2</sub>	mm	115	115	115
4.4		Lift	h <sub>3</sub>	mm	3300	3300	3300
		Lift height	h <sub>23</sub>	mm	3335	3335	3335
4.5		Height, mast extended	h <sub>4</sub>	mm	3870	3870	3870
4.7		Height of overhead guard (cab)	h <sub>6</sub>	mm	2055	2055	2055
4.8		Seat height/stand height	h <sub>7</sub>	mm	1065	1065	1065
4.12		Coupling height	h <sub>10</sub>	mm	447	447	447
4.19		Overall length	l <sub>1</sub>	mm	3044	3122	3044
4.20		Length to face of forks	l <sub>2</sub>	mm	2044	2122	2044
4.21		Overall width	b <sub>1</sub>	mm	1152	1152	1152
4.22		Fork dimensions	s/e/l	mm	35/120/1000	35/120/1000	35/120/1000
4.23		Fork carriage DIN 15173, class/type A, B			IIA	IIA	IIA
4.24		Fork-carriage width	b <sub>3</sub>	mm	920	920	920
4.31		Ground clearance, with load, below mast	m <sub>1</sub>	mm	90	90	90
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub>	mm	81	81	93
4.33	Aisle width for pallets 1000x1200 crossways	A <sub>st</sub>	mm	3357	3438	3357	
4.34	Aisle width for pallets 800x1200 lengthways	A <sub>st</sub>	mm	3490	3568	3490	
4.35	Turning radius	W <sub>a</sub>	mm	1737	1811	1737	
4.36	Internal turning radius	b <sub>13</sub>	mm	68	49	68	
Performance data	5.1	Travel speed, with/without load   Li-ion Lite		km/h	19/19   16/16	19/19   16/16	19/19   16/16
	5.2	Lift speed, with/without load Standard   Performance		m/s	0,38/0,54   0,44/0,64	0,38/0,54   0,44/0,64	0,38/0,54   0,44/0,64
	5.3	Lowering speed, with/without load		m/s	0,52/0,5	0,52/0,5	0,52/0,5
	5.5	Drawbar pull, with/without load		N	6884	6884	7549
	5.6	Max. drawbar pull, with/without load		N	12094	12094	13261
	5.7	Gradeability, with/without load		%	14,3/24,7	14,5/25,2	16,6/29,4
	5.8	Max. gradeability, with/without load		%	20,4/35,4	20,6/36	23,6/34,1
	5.9	Acceleration time, with/without load		s	4,7/4,3	4,7/4,3	4,7/4,3
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic
	Electric motor	6.1	Drive motor rating S2 60 min		kW	6,6 x 2	6,6 x 2
6.2		Lift motor rating S3 15% Standard   Performance		kW	11   12,5	11   12,5	11   12,5
6.3		Battery acc. to DIN 43 531/35/36 A, B, C, no			43 531A	43 531A	no
6.4		Battery voltage, nominal capacity K <sub>s</sub>		V/Ah	48/525-575-625	48/630-690-750	48/300-420
6.5		Battery weight		kg	856	1013	240
6.6		Energy consumption acc. to EN16796 Standard		kWh/h	4,8	4,7	4,4
6.6		Energy consumption acc. to EN16796 Performance		kWh/h	4,7	4,6	4,3
Other	8.1	Type of drive control			Inverter MOSFET	Inverter MOSFET	Inverter MOSFET
	8.2	Operating pressure for attachments		bar	183	183	183
	8.3	Oil volume for attachments		l/min	42	42	42
	8.4	Sound level at the driver's ear according to EN12053		dB(A)	68,5	68,5	68,5

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

Truck performance and dimensions are nominal and subject to tolerances.

Products and specifications are subject to change without notice.

# Mast dimensions and rated capacities

Model			V								FV				FW				FSV					FSW								
9FBK20T/ 9FB20T /60-9FB20T	Lift height	$h_{23}$	3035	3335	3535	3735	4035	4535	5035	3035	3335	3535	3735	3035	3335	3535	3735	4335	4535	4735	5035	5535	6035	4335	4535	4735	5035	5535	6035	6535	7035	7535
	Lift	$h_3$	3000	3300	3500	3700	4000	4500	5000	3000	3300	3500	3700	3000	3300	3500	3700	4300	4500	4700	5000	5500	6000	4300	4500	4700	5000	5500	6000	6500	7000	7500
	Height, mast lowered	$h_1$	1970	2120	2220	2380	2570	2820	3070	1970	2120	2220	2380	2000	2150	2250	2350	1970	2040	2120	2220	2380	2570	1980	2050	2150	2250	2350	2600	2800	3000	3200
	Height, mast extended <sup>1)</sup>	$h_4$	3570	3870	4070	4270	4570	5070	5570	3580	3880	4080	4280	3555	3855	4055	4255	4845	5045	5245	5545	6045	6545	4845	5045	5245	5545	6045	6545	7045	7545	8045
	Height, mast extended <sup>2)</sup>	$h_4$	4220	4520	4720	4920	5220	5270	6220	4220	4520	4720	4920	4220	4520	4720	4920	5520	5720	5920	6220	6720	7220	5520	5720	5920	6220	6720	7220	7720	8220	8720
	Free lift, without load backrest	$h_2$	80	80	80	80	80	80	80	1430	1580	1680	1840	1440	1590	1690	1790	1460	1530	1610	1710	1870	2060	1430	1500	1600	1700	1900	2050	2250	2450	2650
Free lift, with load backrest	$h_2$	80	80	80	80	80	80	80	750	900	1000	1160	780	930	1030	1130	750	820	900	1000	1160	1350	760	830	930	1030	1230	1380	1580	1780	1980	

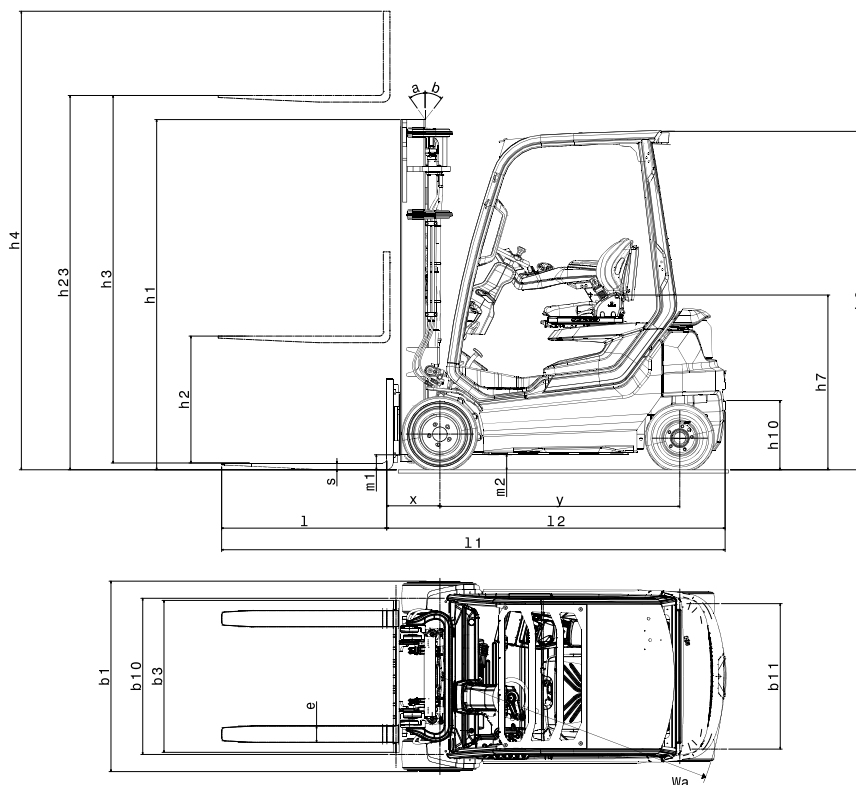
1) Without load backrest.

2) With load backrest; Height of standard load backrest is 1220 mm.

Pneumatic shaped cushion tyre			V								FV				FW				FSV					FSW								
9FBK20T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	2000	2000	2000	2000	2000	2000	1900	2000	2000	2000	2000	2000	2000	2000	2000	1950	1950	1900	1800	1650	1450	1950	1950	1900	1900	1900	1800	1430	1100	900
9FB20T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	2000	2000	2000	2000	2000	2000	1900	2000	2000	2000	2000	2000	2000	2000	2000	1950	1950	1900	1800	1650	1525	1950	1950	1900	1900	1900	1800	1450	1200	975
60-9FB20T	Tilt range, forward	deg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Tilt range, backward	deg	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)	7(5)
	Load capacity at 500 mm LC	kg	2000	2000	2000	2000	2000	2000	1900	2000	2000	2000	2000	2000	2000	2000	2000	1950	1950	1900	1800	1425	1400	1950	1950	1900	1900	1800	1800	1250	925	675

Data in ( ) are for when "Cabin Series" is selected (minimum front windshield).

## TRAIGO*.i*



## Standard equipment:

- Toyota SAS (System of Active Stability)
- SyncoDrive from Toyota
- Wet disc brakes
- Automatic parking brake
- Hydraulic new design steering
- Operator presence sensing system (OPS)
- Toyota ORS seat (Operator Restraint System)
- Seat mounted minilevers
- Wide visible mast (V3300 mm)
- Long forks (length:1000 mm)
- Long forkbar (length: 920 mm)
- 3 way valves (A400)
- Narrow brake pedal
- Pneumatic shaped cushion tyres
- Digital Multifunction display with wheel indicator
- Adjustable tilt steering column
- Full floating driver's compartment
- Shockless landing lift
- Seatbelt lock recognition linked with OPS
- Orange seatbelt
- Battery door opening sensor (not available for 60-models)
- Remaining operating time indicator on main display



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**TOYOTA**

MATERIAL HANDLING