

COUNTER-BALANCED STACKER



Up to 4000 LBS.

SPECIFICATIONS



WS1-CB20-40

CLASS
3

ELECTRIC PALLET JACKS | STACKERS | TOW TRACTORS

ToyotaForklift.com

COUNTER-BALANCED STACKER

CAPACITY 2000 - 4000 LBS.	WHEELBASE 46.6-58.3	LOAD CENTER 24 IN.
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INDUSTRIES



General
Manufacturing



General
Warehousing



Cold Storage



Food Storage



Beverage



Retail

STANDARD FEATURES

PERFORMANCE

- 24 Volt Electrical System
- SB-175 Red Connector
- On/Off Key Switch
- UL Type-E Constructed
- Electric Raise And Lower Controls In Operator Handle
- AC Drive Motor
- Cushioned Mast Stops

BODY/EXTERIOR DESIGN

- Electric Horn
- 30 Inch Wide ITA Class II Hook Type Carriage
- 42 Inch Long Pallet Forks
- 48 Inch High Load Back Rest Extension
- Rubber Drive Tire
- Polyurethane Load Wheels 10" x 4"
- Battery Compartment: 32.13" x 13.44" x Open Height (Steel-to-Steel)
- Easy Access Service Cover
- Fixed Baselegs

OPERABILITY & ERGONOMICS

- Emergency Power Disconnect Switch
- Battery Discharge Indicator w/ Lift Interrupt and Hour Meter
- Regenerative Plugging
- Ergonomically Advanced Control Handle
- Dual Thumb Wheel Control Forward and Reverse
- Direction and Travel Speed
- Power On Self Test

OPTIONAL EQUIPMENT

LOAD HANDLING

- Fork Length, 30"
- Fork Length, 36"
- Fork Length, 48"
- Sideshift Carriage
- 36" Reduced Height Load Backrest Extension
- 44" Reduced Height Load Backrest Extension
- Power Steering
- Greasable Steer Bearing

LIGHTS, INDICATORS & SAFETY

- Screen Guard In Place Of Safety Glass Mast Guard
- Red Flashing Light
- Amber Flashing Light
- Blue Flashing Light
- Electronic Travel Alarm (Forward & Reverse)
- Electronic Travel Alarm (Forward Only)
- Electronic Travel Alarm (Reverse Only)
- Non-Rubber Static Strap

BODY

- Battery Compartment Rollers with Dual Sidegates
- Pallet Centering Guide
- Magnetic Storage Tray
- Storage Tray, Battery Compartment Mounted
- Large Magnetic Storage Tray, Battery Compartment Mounted
- Battery Gate Interlock
- Single Tier Accessory Bar
- LED Work Light
- Operator Fan
- Power Hook-Up Onboard Terminal (10 Ah)
- Non-Powered Accessory Bar
- Electronic PIN Code Pad
- Keyless On/Off Switch in lieu of Key Switch

BATTERY ACCESSORIES

- Non - Standard Battery Connector (Color Yellow)
- Non - Standard Battery Connector (Color Gray)
- Non - Standard Battery Connector (Color Blue)
- CAN-COM and ESS Tag for Toyota LiB
- Toyota LiB ESS Tag

WHEELS & TIRES

- Drive Tire Crowned Poly
- Drive Tire Non-Marking Rubber White
- Drive Tire Poly
- Drive Tire Poly Razor Sipe
- Drive Tire "Smoothy" Poly
- Drive Tire Dyalon B Poly
- Drive Tire Poly Center Groove
- Drive Tire Diamond

SPECIAL MODELS

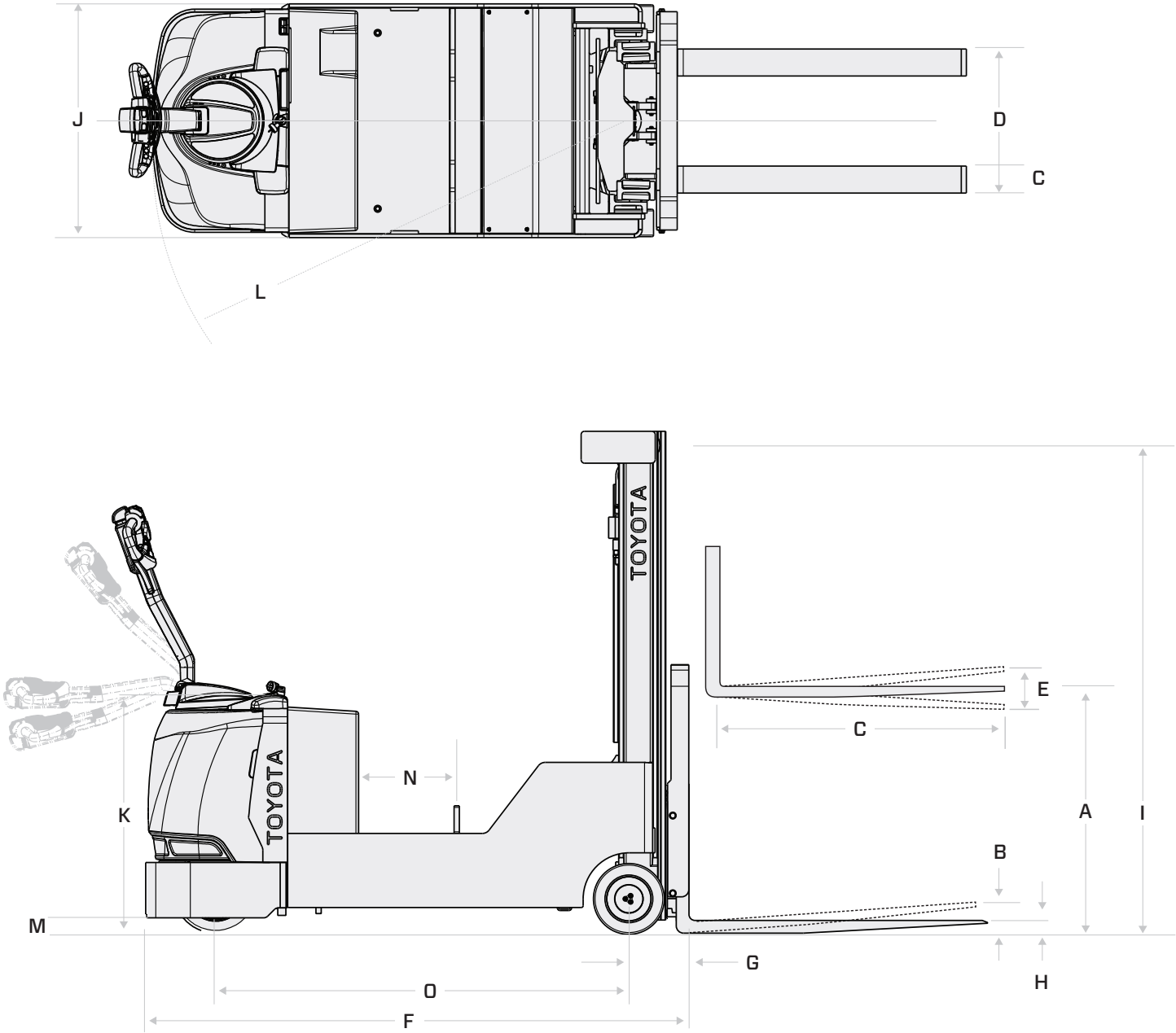
- UL Type "E"
- UL Type "EE"
- Bilingual Decals
- Export Preparation Package
- Corrosion Conditioning
- Cold Storage Conditioning (Includes Corrosion Protection Conditioning)
- Aux. Hydraulic Function Valve & Hosing W/ Carriage Mounted Termination

TRUCK SPECIFICATIONS

GENERAL DATA				MODEL NUMBERS			
				WS1-CB20	WS1-CB30	WS1-CB40	
Load Capacity		lb (kg)		2000 (907)	3000 (1361)	4000 (1814)	
Load Center		in (mm)		24 (600)	24 (600)	24 (600)	
Power Type				Battery	Battery	Battery	
Operator Position				Walkie	Walkie	Walkie	
Tire Type	Drive / Caster / Load			Rubber/Polyurethane/Polyurethane	Rubber/Polyurethane/Polyurethane	Rubber/Polyurethane/Polyurethane	
Wheels (x = driven)	Drive / Caster / Load			1x/2/2	1x/2/2	1x/2/2	
EXTERIOR DIMENSIONS				WS1-CB20	WS1-CB30	WS1-CB40	
A	Maximum Fork Height (MFH)		in (mm)	150 (3810)	189 (4800)	189 (4800)	
B	Free Lift		in (mm)	6 (153)	6 (153)	6 (153)	
C	Fork Size (T x W x L)		in (mm)	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)	
D	Fork Adjustment (Minimum/Maximum)		in (mm)	10 (254) / 31 (787)	10 (254) / 31 (787)	10 (254) / 31 (787)	
E	Tilt Range (Mast Tilt)(Forward/Backward)		deg	3/8	3/8	3/8	
F	Head Length (Length to Fork Face)		in (mm)	64.9 (1648)	70.3 (1786)	76.6 (1946)	
G	Load Distance (Centerline of front axle to front face of forks)		in (mm)	8.3 (211)	8.3 (211)	8.5 (216)	
H	Fork Lowered Height		in (mm)	2 (51)	2 (51)	2 (51)	
I	Mast Lowered Height		in (mm)	95 (2413)	87 (2210)	87 (2210)	
J	Power Unit Width		in (mm)	32.5 (826)	32.5 (826)	32.5 (826)	
K	Power Unit Height		in (mm)	34 (864)	34 (864)	34 (864)	
L	Turning Radius		in (mm)	56.4 (1433)	61.9 (1572)	68.1 (1730)	
M	Underclearance Center of Wheelbase		in (mm)	3.6 (91)	3.6 (91)	3.6 (91)	
N	Battery Compartment (L x W x open height)		in (mm)	33.0 x 13.44 (838 x 341)	33.0 x 13.44 (838 x 341)	33.0 x 13.44 (838 x 341)	
O	Wheelbase		in (mm)	46.6 (1184)	52.0 (1321)	58.3 (1481)	
Mast Extended Height			in (mm)	198 (5030)	237 (6020)	237 (6020)	
Fork Carriage Width (ITA Hook-Type)			in (mm)	30 (762)	30 (762)	30 (762)	
Basic Right Angle Stacking Aisle Width				See Chart	See Chart	See Chart	
PERFORMANCE DATA				WS1-CB20	WS1-CB30	WS1-CB40	
Speeds	Maximum Travel	Full Load	mph (km/h)	3.5 (5.6)	3.5 (5.6)	3.5 (5.6)	
		No Load	mph (km/h)	3.5 (5.6)	3.5 (5.6)	3.5 (5.6)	
	Lifting	Full Load	fpm (mm/sec)	37 (188)	32 (163)	27 (137)	
		No Load	fpm (mm/sec)	49 (249)	49 (249)	49 (249)	
	Lowering	Full Load	fpm (mm/sec)	60 (305)	60 (305)	60 (305)	
		No Load	fpm (mm/sec)	44 (224)	42 (213)	42 (213)	
Gradeability¹	Loaded / Unloaded		%	4 / 10	4 / 10	4 / 10	
TRUCK WEIGHTS				WS1-CB20	WS1-CB30	WS1-CB40	
Total Weight Without Battery		lb (kg)		3593 (1630)	4900 (2223)	5515 (2502)	
TIRES				WS1-CB20	WS1-CB30	WS1-CB40	
Tire Size (dia. x width)		Drive	in (mm)	12 x 4.5 (305 x 114)	12 x 4.5 (305 x 114)	12 x 4.5 (305 x 114)	
		Caster	in (mm)	4 x 2.5 (102 x 64)	4 x 2.5 (102 x 64)	4 x 2.5 (102 x 64)	
		Load	in (mm)	10 x 4 (254 x 102)	10 x 4 (254 x 102)	10 x 4 (254 x 102)	
Grade Clearance		%		10	10	10	
Brake				Regenerative	Regenerative	Regenerative	
POWER SYSTEM				WS1-CB20	WS1-CB30	WS1-CB40	
Battery (6-hour rating)	Voltage / Capacity (maximum)		V/AH	24 (654)	24 (654)	24 (654)	
	Weight (minimum)		hplb (kg)	300 (136)	950 (431)	950 (431)	

1 Trucks are designed for level floor operation. Represents ability to transverse short ramps when required.

EXTERIOR DIMENSIONS



MAST SPECIFICATIONS

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT		FREE-LIFT ³ WITH STANDARD 48 in. Load Backrest	TILT RANGE	MAST TILT	TRUCK WEIGHT WITHOUT BATTERY ⁴
		LOWERED ¹	EXTENDED ²				
			WITH STANDARD 48 in.				
	in (mm)	in (mm)	in (mm)	in (mm)	deg	deg	lb (kg)
WS1-CB20							
Wide Visible (V)	100 (2540)	71 (1804)	148 (3760)	6 (153)	3	8	3,483 (1580)
	124 (3149)	83 (2109)	172 (4369)	6 (153)	3	8	3,593 (1630)
	150 (3810)	95 (2413)	198 (5030)	6 (153)	3	8	3,704 (1680)

in (mm)	LOAD CAPACITY AT 24 IN (600 MM) LC [LB (KG)]		
	VMAST ⁽⁵⁾⁽⁶⁾		
	71/100 (1803/2540)	83/124 (2108/3150)	95/150 (2413/3810)
Capacity	2000 (907)	2000 (907)	2000 (907)

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT		FREE-LIFT ³ WITH STANDARD LOAD BACKREST	TILT RANGE	MAST TILT	TRUCK WEIGHT WITHOUT BATTERY ⁴
		LOWERED ¹	EXTENDED ²				
			With Stan- dard 48 in. Load Backrest				
	in (mm)	in (mm)	in (mm)	in (mm)	deg	deg	lb (kg)
WS1-CB30							
Wide Visible (V)	100 (2540)	71 (1804)	148 (3760)	6 (153)	3	8	4,790 (2173)
	124 (3149)	83 (2109)	172 (4369)	6 (153)	3	8	4,900 (2273)
	150 (3810)	95 (2413)	198 (5030)	6 (153)	3	8	5,011 (2273)
Full Free-Lift 3-Stage (FSV)	150 (3810)	71 (1804)	198 (5030)	23 (584)	3	8	5,213 (2365)
	180 (4572)	83 (2109)	228 (5792)	35 (889)	3	8	5,381 (2441)
	189 (4800)	87 (2210)	237 (6020)	39 (991)	3	8	5,437 (2466)

in (mm)	LOAD CAPACITY AT 24 IN (600 MM) LC [LB (KG)]					
	VMAST ⁽⁵⁾⁽⁶⁾			FSV MAST ⁽⁵⁾⁽⁶⁾		
	71/100 (1803/2540)	83/124 (2108/3150)	95/150 (2413/3810)	71/150 (1803/3810)	83/180 (2108/4572)	87/189 (2210/4801)
Capacity	3000 (1361)	3000 (1361)	3000 (1361)	3000 (1361)	3000 (1361)	3000 (1361)

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT		FREE-LIFT ³ WITH STANDARD LOAD BACKREST	TILT RANGE	MAST TILT	TRUCK WEIGHT WITHOUT BATTERY ⁴
		LOWERED ¹	EXTENDED ²				
			WITH STANDARD LOAD BACKREST				
	in (mm)	in (mm)	in (mm)	in (mm)	deg	deg	
WS1-CB40							
Wide Visible (V)	100 (2540)	71 (1804)	148 (3760)	6 (153)	3	8	5,405 (2451)
	124 (3149)	83 (2109)	172 (4369)	6 (153)	3	8	5,515 (2502)
	150 (3810)	95 (2413)	198 (5030)	6 (153)	3	8	5,626 (2552)
Full Free-Lift 3-Stage (FSV)	150 (3810)	71 (1804)	198 (5030)	23 (584)	3	8	5,828 (2643)
	180 (4572)	83 (2109)	228 (5792)	35 (889)	3	8	5,996 (2720)
	189 (4800)	87 (2210)	237 (6020)	39 (991)	3	8	6,052 (2745)

in (mm)	LOAD CAPACITY AT 24 IN (600 MM) LC [LB (KG)] ⁽⁶⁾⁽⁷⁾					
	VMAST			FSV MAST		
	71/100 (1803/2540)	83/124 (2108/3150)	95/150 (2413/3810)	71/150 (1803/3810)	83/180 (2108/4572)	87/189 (2210/4801)
Capacity	4000 (1814)	4000 (1814)	4000 (1814)	4000 (1814)	4000 (1814)	4000 (1814)

1 Tolerance = +/-0.5 in. (+/-13mm).
2 Tolerance = +2.5/-0.5 in. (+64/-13 mm).
3 Tolerance = +/-1 in. (+/-25.4 mm).
4 Add 100 lb. (45.4 kg) with sideshift option.
5 With sideshift option: Deduct 250 lbs. (113 kg) from capacity.
6 UL EE rating reduces capacity. TSDR required.
7 With sideshift option: For 87/189 FSV trucks deduct 480 lb. (218 kg). All other trucks deduct 250 lbs. (113 kg) from capacity.

RIGHT-ANGLE STACKING AISLE REQUIREMENTS

LOAD WIDTH	WS1-CB20					WS1-CB30					WS1-CB40				
	LOAD LENGTH														
	30 (762)	36 (914)	40 (1016)	42 (1067)	48 (1219)	30 (762)	36 (914)	40 (1016)	42 (1067)	48 (1219)	30 (762)	36 (914)	40 (1016)	42 (1067)	48 (1219)
in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
30 (762)	92 (2337)	98 (2489)	103 (2616)	105 (2667)	111 (2819)	97 (2464)	104 (2642)	108 (2743)	110 (2794)	116 (2946)	104 (2642)	110 (2794)	114 (2896)	116 (2946)	123 (3124)
36 (914)	91 (2311)	98 (2489)	102 (2591)	104 (2642)	111 (2819)	97 (2464)	103 (2616)	108 (2743)	110 (2794)	116 (2946)	103 (2616)	110 (2794)	114 (2896)	116 (2946)	122 (3099)
40 (1016)	91 (2311)	98 (2489)	102 (2591)	104 (2642)	110 (2794)	97 (2464)	103 (2616)	107 (2718)	109 (2769)	116 (2946)	103 (2616)	109 (2769)	114 (2896)	116 (2946)	122 (3099)
42 (1067)	91 (2311)	98 (2489)	102 (2591)	104 (2642)	110 (2794)	96 (2438)	103 (2616)	107 (2718)	109 (2769)	116 (2946)	103 (2616)	109 (2769)	114 (2896)	116 (2946)	122 (3099)
48 (1219)	90 (2286)	97 (2464)	101 (2565)	104 (2642)	110 (2794)	96 (2438)	102 (2591)	107 (2718)	109 (2769)	115 (2921)	102 (2591)	109 (2769)	113 (2870)	115 (2921)	122 (3099)

1 Aisle width requirements are based on 6" (152 mm) clearance between each side of the load.

2 Add a minimum of 6" to 10" (152 to 254 mm) for maneuverability.

3 Add 2.5" (64 mm) when equipped with a side shifter.





**"THE NAME ON MY SHIRT
SAYS TOYOTA,
BUT I WORK
FOR YOU."**

Alan - 360 Technician, Atlas Toyota Material Handling, Chicago, IL



HELP IS ALWAYS HERE WITH TOYOTA 360 SUPPORT.

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ToyotaForklift.com/360-Support



YOUR BUSINESS IS RIDING ON IT

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COUNTBALANCESTACKERS

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