

# FBR Electric Reach Forklift Series

FBR13SZ, FBR15SZ, FBR18SZ, FBR15WZ, FBR18WZ | 1,250kg - 1,800kg



# About Yale

When it comes to reach trucks, you'll find that Yale leads the way with over 80 years of experience. In fact, with top-of-the-line components, superior ergonomics and exceptional manoeuvrability, the FBR range of electric reach trucks are ideal for a range of warehousing applications.

Yale's FBR Reach Trucks have the following benefits:

- Small turn radius control
- Low vibration suspension system
- Improved right-angle stacking aisle width
- Enhanced safety features
- Ergonomic cabin and controls
- Easy to service with removable components and quick battery access
- Backed by an extensive dealer network
- Aftermarket service and support

Support for Yale's FBR Reach Trucks can be found throughout the Asia-Pacific region – provided by a big regional footprint stretching from Australia on through Singapore, Malaysia, Indonesia, Thailand, South Korea, Taiwan, Vietnam and the Philippines.



## VISOR-INTEGRATED DISPLAY

A visor has been added to the top of the display to prevent reflected glare and improve visibility.

## SURROUND COCKPIT

A round shaped operator space which wraps flexibly around the operator has been adopted while maintaining the easy-to-operate lever type layout.



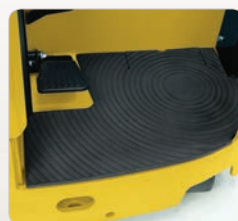
## HIGH BACK SUPPORT

A high back support helps to support the shoulders from the sides. Support during switchbacks from reverse to forward is provided and fatigue during normal operation is reduced.



## LOWERED FLOOR

Low 250mm floor height (35mm lower than previous models) helps reduce operator fatigue in work with frequent on-off application.



# FBR Electric Reach Forklift Features

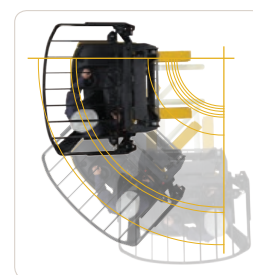
## TRAVEL & LOAD HANDLING INTERLOCK

Travel and load handling operations are locked (disabled) when the operator leaves the operator compartment.



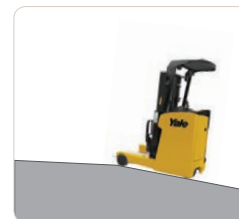
## SPEED REDUCTION ON CORNERING

Acceleration is restricted while the forklift is turning preventing hazardous situations such as rollover. As unnecessary acceleration is prevented this also contributes to energy conservation.



## ANTI-ROLLBACK & DESCENT CONTROL

The anti-rollback mechanism, prevents the forklift from rolling back when it starts from a stop on an upslope.



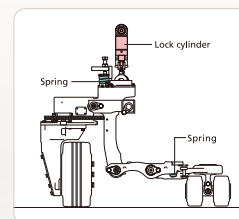
## FRONT WHEEL BRAKE ANTI-SKID CONTROL

The front wheel brakes come to assist if the drive tyres slip. This control prevents the tyres from being locked and provides maximum brake force.



## LOW VIBRATION SUSPENSION SYSTEM

The FBR models have adopted a parallel link type structure. This structure greatly minimizes uncomfortable vibrations from the floor surface. A suspension lock mechanism has been added to improve stability during turning and load handling improving comfort and safety.

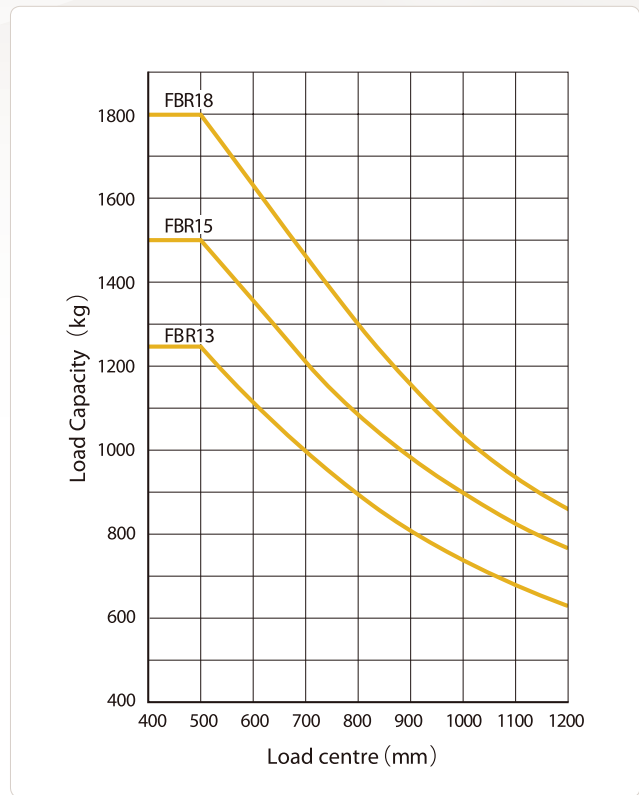
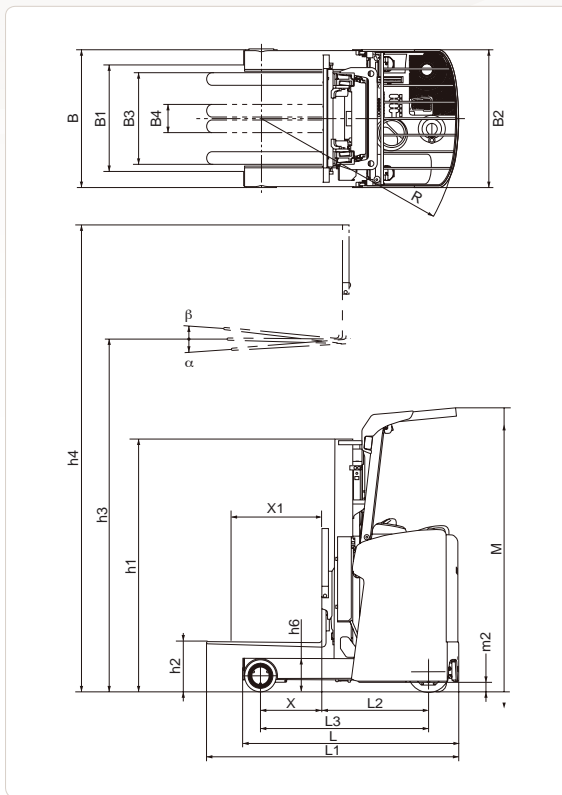


# Specifications FBR Series

CHARACTERISTICS			YALE	YALE	YALE	YALE	YA		
	1	Manufacturer		FBR13SZ	FBR15SZ	FBR18SZ	FBR15WZ	FBI	
2	Model								
3	Load Capacity		kg	1250	1500	1800	1500	1800	
4	Load Centre		mm	500	500	500	500	500	
5	Motor Type	DC/AC, Open/Enclosed		IPM/Enclosed, AC/Open	IPM/Enclosed, AC/Open	IPM/Enclosed, AC/Open	IPM/Enclosed, AC/Open	IPM	
6	Operation	Stand/Seat		Stand	Stand	Stand	Stand	Sta	
DIMENSIONS	7	Lift Height	h3	mm	3000	3000	3000	4000	4000
	8	Free Lift	h2	mm	113	113	113	995	995
	9	Tilting Fork Carriage (Forward/Backward Tilt)	$\beta/\alpha$	deg	5/3	5/3	5/3	5/3	5/3
	10	Fork Carriage			Pin Type	Pin Type	Pin Type	Pin Type	Pin
	11	Fork (Length/Width/Thickness)	L/W/T	mm	850/100/35	920/100/35	920/100/35	920/100/35	920
	12	Fork Carriage Width (Max./Min.)	B3/B4	mm	725/290	725/290	725/290	825/290	825
	13	Overall Length	L1	mm	1920	2080	2080	2145	2145
		Length over Load Arms	L	mm	1630	1720	1895	1895	1895
	14	Length to Face of Forks	L2	mm	1070	1160	1160	1225	1225
	15	Reach Stroke	X1	mm	595	595	770	705	705
	16	Overall Width	B	mm	1090	1090	1090	1190	1190
	17	Width in Outrigger	B1	mm	820	820	820	920	920
	18	Frame Width	B2	mm	1090	1090	1090	1190	1190
	19	Height Outrigger	h6	mm	260	260	260	260	260
	20	Height of Mast - Lowered	h1	mm	1995	1995	1995	1895	1895
	21	Height of Mast - Extended	h4	mm	3935	3935	3935	4925	4925
	22	Overhead Guard Height	h5	mm	2240	2240	2240	2240	2240
	23	Load Distance	X	mm	420	420	595	530	530
24	Turning Radius	R	mm	1495	1580	1755	1755	1755	
25	Aisle Width	L 1100 x W 1100 pallet	mm	1850	1900	2010	2040	2040	
26	Aisle Width with Pallet	As (L 1100 x W 1100 pallet)	mm	2520	2600	2600	2670	2670	
PERFORMANCE	27	Travel Speed	Laden/Unladen	km/h	9.5/11.0	9.0/10.5	9.0/10.5	9.0/10.5	9.0
	28	Lifting Speed	Laden/Unladen	mm/s	340/560	310/560	280/560	280/470	250
	29	Lowering Speed	Laden/Unladen	mm/s	500/560	540/560	560/560	540/560	560
	30	Reach Speed	With/Without Load	mm/s	245/245	245/245	245/245	245/245	245
	31	Gradeability - 3 min rating or 1.5km/h	Laden/Unladen	%	14/22	13/22	12/21	13/22	12/21
WEIGHT	32	Weight	Standard Battery	kg	2095	2230	2315	2335	2435
	33	Axle Loads - Reach In	Laden (Front/Rear)	kg	2010/1330	2330/1400	2375/1740	2225/1615	2500/1400
		Unladen (Front/Rear)	kg	680/1415	735/1490	680/1635	750/1590	770/1490	
	34	Axle Loads - Reach Out	Laden (Front/Rear)	kg	2860/480	3240/485	3570/545	3240/600	3650/480
35	Axle Loads - Reach	Unladen (Front/Rear)	kg	935/1160	980/1245	960/1355	1065/1275	1080/1245	
WHEELS AND TYRES	34	Tyres	Front/Drive/Caster		2/1/2	2/1/2	2/1/2	2/1/2	2/1/2
	35	Tyre/Sizes	Front		$\phi$ 255 x 114 Rubber	$\phi$ 254 x 102 Urethane	$\phi$ 254 x 102 Urethane	$\phi$ 254 x 102 Urethane	$\phi$ 254 x 102 Urethane
			Drive		$\phi$ 330 x 145 Rubber	$\phi$ 330 x 145 Rubber	$\phi$ 330 x 145 Rubber	$\phi$ 330 x 145 Rubber	$\phi$ 330 x 145 Rubber
			Caster		$\phi$ 150 x 80 Rubber	$\phi$ 150 x 80 Rubber	$\phi$ 150 x 80 Rubber	$\phi$ 150 x 80 Rubber	$\phi$ 150 x 80 Rubber
	36	Wheelbase	L3	mm	1250	1340	1515	1515	1515
	37	Tread	Front	mm	980	990	990	1090	1090
Rear			mm	640	640	640	640	640	
38	Ground Clearance	At Lowest Point (m2)	mm	70	70	70	70	70	
		Mechanical/Hydraulic/Electric/Pneumatic		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	
		Foot/Hand/Deadman Brake		Deadman	Deadman	Deadman	Deadman	De	
MOTOR	39	Battery	Volt/Amp.h. (cap. at 5h rating)	V/Ah	48/201	48/280	48/280	48/280	48/280
			Weight	kg	355	465	465	465	465
	40	Drive Motor	Rated output (60 min rating)	kW	4.5	4.5	4.5	4.5	4.5
			Control Method		FET inverter	FET inverter	FET inverter	FET inverter	FET inverter
	41	Hoist Motor	Rated output (5 min rating)	kW	9.6	9.6	9.6	9.6	9.6
			Control Method		FET inverter	FET inverter	FET inverter	FET inverter	FET inverter
42	Steering Motor	Rated output (60 min rating)	kW	0.3	0.3	0.3	0.3	0.3	
		Control Method		FET Chopper	FET Chopper	FET Chopper	FET Chopper	FET Chopper	
OTHER	43	Working Pressure	For Attachments	Mpa	17.2-17.7	17.2-17.7	17.2-17.7	17.2-17.7	

# Specifications FBR Series

YALE
FBR18WZ
1800
500
Open IPM/Enclosed, AC/Open
Stand
4000
995
5/3
Pin Type
920/100/35
825/290
2145
1895
1225
705
1190
920
1190
260
1895
4925
2240
530
1755
2060
2670
9.0/10.5
250/450
560/560
245/245
12/21
2435
2545/1690
770/1665
3695/535
1085/1350
2/1/2
ane $\varnothing$ 254 x 102 Urethane
or $\varnothing$ 330 x 145 Rubber
$\varnothing$ 150 x 80 Rubber
1515
1090
640
70
Mechanical
Deadman
48/280
465
4.5
FET inverter
9.6
FET inverter
0.3
FET Chopper
17.2-17.7



## MAST SPECIFICATIONS

	MODEL	MODEL			
		FBR13-18SZ		FBR15-18WZ	
MAXIMUM LIFTING HEIGHT (NOMINAL)	2500mm	2-stage LFL	2-stage FFL	-	-
	2700mm	2-stage LFL	2-stage FFL	-	-
	3000mm	Standard 2-stage LFL	2-stage FFL	-	-
	3300mm	2-stage LFL	2-stage FFL	-	-
	3500mm	2-stage LFL	2-stage FFL	-	-
	3700mm	2-stage LFL	2-stage FFL	3-stage FFL	-
	4000mm	2-stage LFL	2-stage FFL	3-stage FFL	Standard 3-stage FFL
	4300mm	-	-	3-stage FFL	3-stage FFL
	4500mm	2-stage LFL	-	3-stage FFL	3-stage FFL
	4800mm	-	-	3-stage FFL	3-stage FFL
	5000mm	2-stage LFL	-	3-stage FFL	3-stage FFL
	5500mm	-	-	3-stage FFL	3-stage FFL
	6000mm	-	-	3-stage FFL	3-stage FFL

## BATTERY SPECIFICATIONS

BATTERY CAPACITY	1.25 TON		1.5 TON		1.8 TON	
	FBR13SZ	FBR15SZ	FBR15WZ	FBR18SZ	FBR18WZ	
	FRONT	FRONT	FRONT	FRONT	FRONT	FRONT
201Ah/5h (48V)	•	-	-	-	-	-
260Ah/5h (48V)	△	△	-	-	-	-
280Ah/5h (48V)	△	•	•	•	•	•
340Ah/5h (48V)	△	△	△	△	△	△
370Ah/5h (48V)	△	△	△	△	△	△

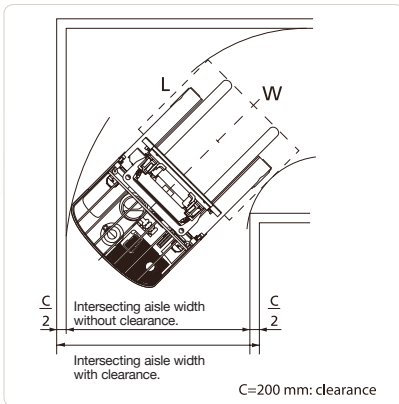
- Standard
- △ Optional

# Specifications FBR Series

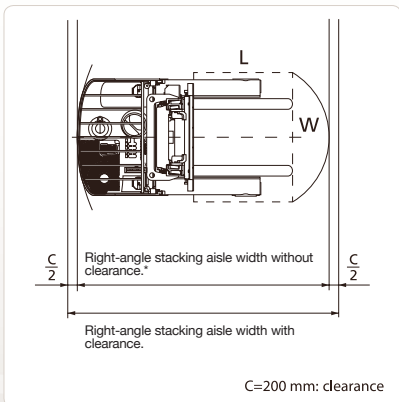
Aisle Width (unit: mm) Pallet length: L/Pallet width: W

MODEL	MAST	BATTERY (AH)	MINIMUM RIGHT ANGLE AISLE WIDTH (MM)*					RIGHT ANGLE STACKING AISLE WIDTH (MM)*					
			L	1000	1000	1100	1200	1200	1000	1000	1100	1200	1200
			W	1000	1200	1100	1000	1200	1000	1200	1100	1000	1200
FBR13SZ 1.25 ton	2-stage LFL	201	1630	1690	1650	1650	1700	2010	2260	2320	2400	2430	
		260	1630	1690	1650	1650	1700	2020	2270	2330	2410	2450	
		280-370	1640	1690	1650	1650	1700	2290	2330	2400	2480	2520	
	2-stage FFL	201, 260	1640	1690	1650	1650	1700	2250	2290	2360	2440	2470	
		280-370	1640	1690	1660	1660	1710	2320	2360	2430	2510	2540	
	3-stage FFL	201, 260	1640	1690	1650	1650	1700	2250	2290	2360	2440	2470	
280-370		1640	1690	1660	1660	1710	2320	2360	2430	2510	2540		
FBR15SZ 1.5 ton	2-stage LFL	260	1690	1740	1700	1700	1750	2230	2280	2340	2420	2460	
		280-370	1690	1740	1700	1700	1750	2290	2330	2400	2480	2520	
	2-stage FFL	260	1690	1740	1700	1700	1750	2250	2300	2360	2440	2470	
		280-370	1690	1740	1710	1700	1760	2320	2360	2430	2510	2540	
	3-stage FFL	260	1690	1740	1700	1700	1750	2250	2300	2360	2440	2470	
		280-370	1690	1740	1710	1700	1760	2320	2360	2430	2510	2540	
FBR18SZ 1.8 ton	2-stage LFL	280-370	1790	1840	1810	1800	1850	2290	2340	2400	2490	2520	
	2-stage FFL	280-370	1790	1850	1810	1810	1860	2360	2390	2470	2550	2580	
	3-stage FFL	280-370	1790	1850	1810	1810	1860	2360	2390	2470	2550	2580	
FBR15WZ 1.5 ton	3-stage FFL	280-370	1850	1870	1860	1860	1880	2360	2390	2470	2550	2580	
FBR18WZ 1.8 ton	3-stage FFL	280-370	1850	1870	1860	1860	1880	2360	2390	2470	2550	2580	

Minimum right angle aisle width



Right angle stacking aisle width



\* Figure does not include the recommended 200mm clearance.

# Standard Features & Optional Extras

STANDARD	OPTIONAL
<b>WORKABILITY</b>	<b>WORKABILITY</b>
<b>Hoist Related:</b> <ul style="list-style-type: none"> <li>• Hoist AC motor</li> <li>• Soft landing</li> <li>• High-visibility</li> </ul>	<b>Hoist Related:</b> <ul style="list-style-type: none"> <li>• Integral side-shift carriage</li> <li>• Load weight indicator</li> </ul>
<b>Steering Related:</b> <ul style="list-style-type: none"> <li>• Suspension lock control</li> <li>• AWC (small radius turning control)</li> <li>• Small diameter steering wheel</li> </ul>	<b>Steering Related:</b> <ul style="list-style-type: none"> <li>• Large diameter steering wheel</li> </ul>
<b>Travel Related:</b> <ul style="list-style-type: none"> <li>• Travel IPM motor</li> <li>• Neutral brakes switchback regeneration</li> <li>• Travel speed/power adjustment/speed limiter</li> </ul>	<b>Travel Related:</b> <ul style="list-style-type: none"> <li>• Lowered overhead guard 2055mm</li> <li>• Non-marking tyres</li> <li>• Urethane tyres</li> </ul>
<b>Lamp Related:</b> <ul style="list-style-type: none"> <li>• Headlights</li> <li>• Turning indicators</li> </ul>	<b>Lamp Related:</b> <ul style="list-style-type: none"> <li>• LED headlights</li> <li>• LED auto lights (light sensitive type)</li> <li>• Safety laser</li> <li>• Carriage light</li> <li>• LED turning light</li> <li>• LED work light</li> <li>• LED room light</li> </ul>
<b>Display 2:</b> <ul style="list-style-type: none"> <li>• LCD display</li> </ul>	<b>Display 2*:</b> <ul style="list-style-type: none"> <li>• Full function display (Full-dot LCD)</li> </ul>
<b>ERGONOMICS</b>	<b>ERGONOMICS</b>
<ul style="list-style-type: none"> <li>• Low vibration suspension system</li> <li>• Shock-less steering</li> <li>• Low floor</li> <li>• Manifest clip</li> </ul>	<ul style="list-style-type: none"> <li>• Back support</li> <li>• High back support</li> <li>• Acrylic top cover</li> </ul>
<b>BATTERY</b>	<b>BATTERY</b>
<ul style="list-style-type: none"> <li>• BDI with lift interrupt function</li> <li>• Auto power off</li> </ul>	<ul style="list-style-type: none"> <li>• Spare battery</li> <li>• Battery carrier</li> </ul>
<b>MISCELLANEOUS</b>	<b>MISCELLANEOUS</b>
<ul style="list-style-type: none"> <li>• Turning speed control</li> <li>• Travel and load handling interlock</li> <li>• Neutral start</li> <li>• Slope speed limiter</li> <li>• Anti-rollback</li> <li>• Volume adjustable type reversing buzzer</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-skid traction control with front wheel brakes</li> <li>• Front protector</li> <li>• Elbow guard</li> <li>• Rear rubber bumper</li> <li>• Rear bumper (floor elongation shape)</li> <li>• Forward/back movement chimer</li> <li>• Forward/back melodic chimer</li> <li>• Rearview mirror</li> <li>• Room mirror</li> <li>• Password entry</li> <li>• Fire extinguisher</li> </ul>
	<b>ENVIRONMENTAL SPECS</b>
	<ul style="list-style-type: none"> <li>• Fishery spec. (-10°C or more)</li> <li>• Cold storage spec. (-35°C or more/-45°C or more)</li> <li>• Fishery cold storage spec. (-35°C or more/-45°C or more)</li> <li>• Anti-rust spec.</li> <li>• Anti-dust spec.</li> </ul>


\* Performs shock-less start to finish loading/unloading, auto-stop at maximum height and horizontal auto-stop.

# Yale® Dealers

Contact your nearest Yale® Dealership by visiting [www.yale.com](http://www.yale.com)




Contact your local Yale® Dealer

 Safety. This truck conforms to the current EU requirements. Specification is subject to change without notice.



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