



SHINKO
REACH TYPE
BATTERY
FORKLIFT
TRUCKS

1.0-3.0 ton

Putting People First

EASE & COMFORT

- AC motor
- Comfortable operating space
- Newly designed hip support
- 'Soft landing'

COST-SAVING

- Energy efficient, extended operating time
- Less high-elevation load reduction
- Lower maintenance costs

A 'reach-type' forklift with the feel-good factor

Efficient performance, light and easy controls, reliable safety features, and an advanced design to meet the latest requirements—SHINKO's 'reach-type' forklift line-up looks to the future to keeps out in front.

We combine new technology with solid experience, to enable the operator to work in greater comfort and with more peace of mind. Design considerations down to the smallest details, together with a better materials handling performance (boosted a further 10%), better travel performance, and outstanding energy savings, making for very economical running.

It's a forklift to keep everyone happy. A forklift that puts people first.

SAFETY

- Improved travel & load handling stability
- Wide field of view
- Front-loading battery
- Front wheel brakes & anti-skid control (optional)



EASE & COMFORT

Working never felt so good

With its comfortable operating space, easy-to-use control panel, and excellent response, this forklift's designed first and foremost to be operator-friendly. Materials handling can be free of stress regardless of the job or workplace.

With AC control, it goes just where you want

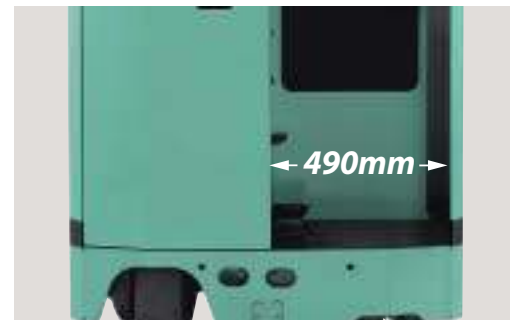
AC control means the precision control of an AC motor, giving excellent response. And with powerful acceleration and nifty switchback operation, the vehicle can be controlled to do just what the operator wants.

Top class speeds for travel and hoisting

The newly developed AC travel motor puts travel speed in the top class. Hoist speed is also among the highest in the class, and with its improved high-elevation performance, efficient materials handling is guaranteed.

Comfortable operating space

The wider, open feel of the deck allows the operator to work from a comfortable posture. Access has been widened 130 mm (33%), and is clear of any obstruction. With nothing to catch on clothing, stepping on and off couldn't be smoother.



'Soft landing' feature eliminates jolts and noise

Though the lever remains engaged, the fork slows automatically before reaching the ground, to avoid any noisy jolt. (Unladen fork)



Convenient layout of controls

The ergonomic layout of levers, steering wheel and switch controls is designed for ease of operation and greater operator comfort.



Light-to-handle small steering wheel

We chose a small-diameter steering wheel for its light handling. Electric power steering is ideal for the constant back-and-forth motion, keeping motion in close accord with steering wheel action.



Easy access low floor

By adopting a new suspension system we've lowered the floor. At 295 mm from the ground (previously 315 mm), it helps to cut fatigue from frequent stepping on and off.



Arm rest relaxes the arm

An improved arm rest in a new material provides soft, assured support for the operator's arm, cutting the strain of frequent lever operation.

Anti-vibration floor mat cuts vibration

An anti-vibration floor mat, installed as standard, significantly reduces vibration from the ground.



Inclined overhead guard

The overhead guard slopes to drain off moisture before it collects, eliminating drips. Condensation in refrigerated warehouses causes no problems, and the operator stays dry and happy.



Newly designed waistline & hip support adjusts for any posture

The adjustable hip support with its newly developed waistline supporter holds the operator firm. It slides a maximum 125 mm up and down for individual positioning, and provides a good feeling of support in any posture during hoisting or turning.



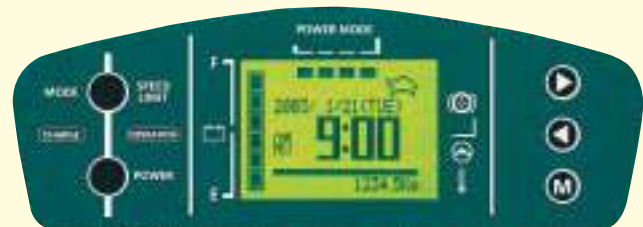
Minor details that will please any operator...

- Convenient space for paperwork with A4 clipboard for documents
- Back buzzer noise level can be switched between HIGH, LOW or OFF
- Storage space under arm rest is perfect for cell phones

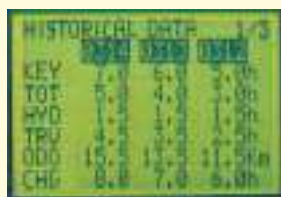


Easy-to-read multi-display screen

Multi-display screen gives data on vehicle status, including travel speed, battery discharge indication, password entry, and operation management.



Display shows data according to vehicle status: speedometer and battery discharge indicator and digital clock.



Operational data including several hour meters, travel distance, and charging time, are recorded for weekly periods.



For security, password entry feature requires a numeric code to be input before the vehicle can be switched ON. Up to 10 codes can be pre-set.

**COST-
SAVING**

Long-running and economical

Outstanding energy saving features and the benefits to maintenance of the AC motor adds up to a significant cut in overall costs.

Outstanding energy saving features

regenerative braking

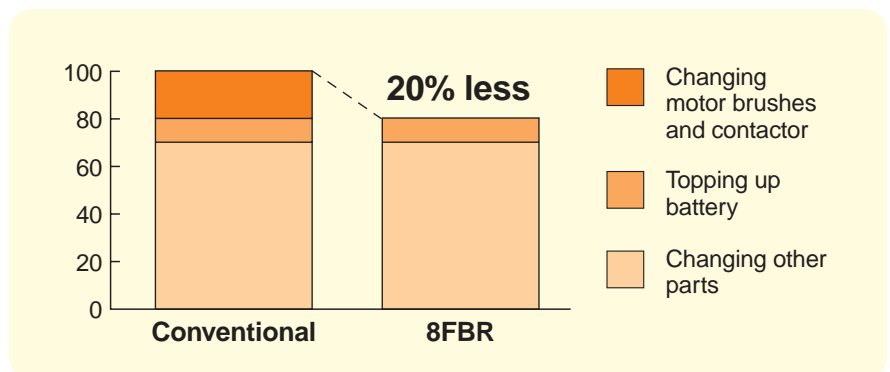
All the braking energy generated when reducing speed, by returning accelerator lever to neutral, raising brake pedal or putting accelerator lever into reverse, is returned to the battery to conserve energy. The precision control of the AC motor and regenerative braking help cut energy loss to a minimum.

No load reductions at high-lifting

By boosting vehicle stability we've eliminated the need for load reductions at high-lifting. Heavy materials can be conveyed to higher locations, for excellent cost performance.

Less maintenance

AC travel motor has no parts like brushes and connectors to be replaced. Brake pads last longer, and maintenance costs are greatly reduced. This means more economic performance, particularly with switchback operations.



SAFETY

All-round safety for versatile materials handling

Stability during travel and hoisting gives the operator peace of mind. Vehicle capacity remains the same whatever the working environment, for sophisticated materials handling work and improved efficiency.

Highly reliable controls for safer stops and starts

Front wheel brakes and traction control provide the greatest possible peace of mind for stops and starts. Slipping is reduced to a minimum, cutting wear on tires and scattering of tire material.

Front wheel brakes (optional)

If drive tires slip on wet surfaces, electro-magnetic brakes on front wheels provide safe braking with anti-skid control (full braking power without locking wheels), cutting skids and reducing braking distance significantly. The non-hydraulic, clean, braking-by-wire system (electrical brake control) means no oil drips and a clean environment.

Traction control (optional)

Traction control eliminates slipping during starts and acceleration. Drive wheels maintain good grip, and full tractive power is converted to motion. There is no need for delicate accelerator control, and full acceleration is possible on slippery surfaces.

Front-loading battery simplifies maintenance

By simultaneously turning a key and depressing the battery lock release pedal the battery can be pulled out to the front. This means topping up battery fluid, replacing parts, and other routine checks can be done on the spot. Automatic travel stop and other safety devices activate to prevent accidents during maintenance.

New suspension for better stability

A simple new suspension system uses newly designed rigid base and rubber mounts. It reduces lean during swings and stops front wheels lifting. Travel stays comfortable whatever the surface, creating little noise when moving over uneven surfaces.

Clear front view through wide mast

Mast design, the shape of the backrest and routing of hoses have been modified to give a greater mast width of 515 mm. The whole fork can be seen from tip to base, to give outstanding visibility for both travel and hoisting.

Outstanding ease of maintenance

The front cover can be easily detached without the need for tools. Maintenance has been greatly simplified, boosting reliability.



Deep-freeze and cold store specifications for fisheries use

These forklifts for freezer/cold store use are ideal for conveyance of processed fish products, frozen foods, etc. With front wheel brakes and anti-skid control, as well as traction control installed as standard, operations proceed safely and without a hitch on slippery surfaces



For fisheries use:

Fisheries-use specifications are perfect for handling marine products and moist foodstuffs in low temperature environments reaching -10°C , such as fish, fruit and vegetable markets. The vehicle is treated throughout to resist water, damp and rust in very damp, wet or saline environments. A highly reliable forklift protected against water drips and rust.



For freezer room and cold store use:

A comprehensive low-temperature design combined with anti-condensation, anti-damp features, this model maintains high materials handling and travel performance, and saves energy under very cold



For fishery freezer/cold store use:

Fisheries use specifications are combined with a low-temperature-resistant structure that can resist severe cold of -35°C to -45°C . Its thorough water- and low-

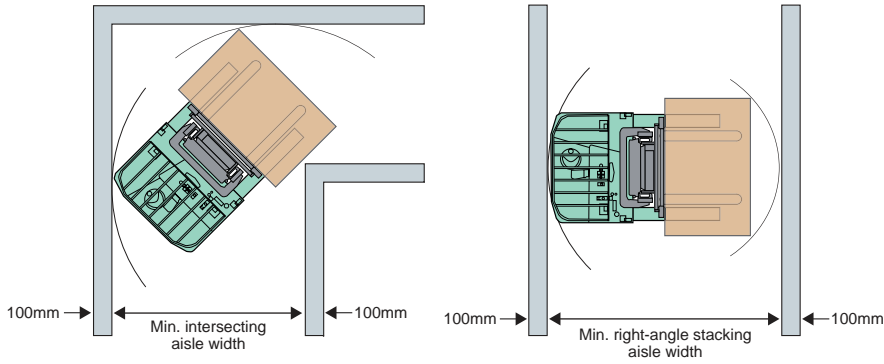


Ultra low temperature specifications:

Our toughest freezer-use forklift with the strictest specifications required for freezers and cold stores, it works effortlessly at ultra

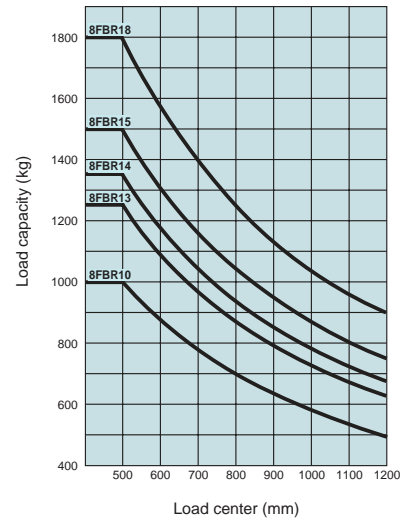


Intersecting (IA) and Right-angle Stacking (SA) Aisle Widths

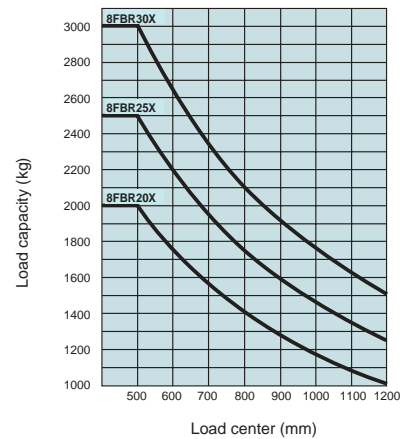


Load Capacity Charts

1.0-1.8ton



2.0-3.0ton

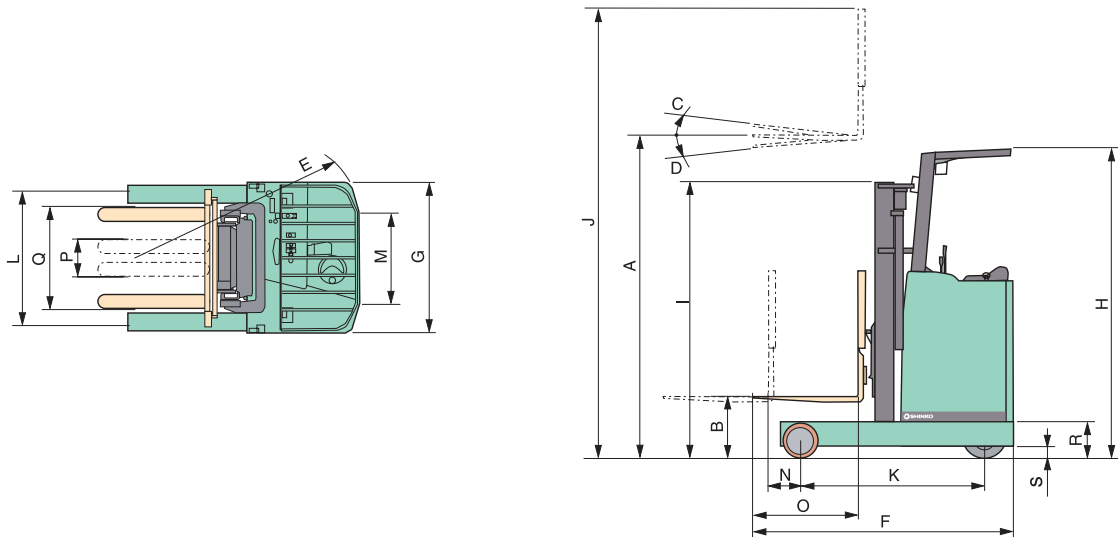


Model	Mast	Battery	L=800 W=1100		L=1000 W=1000		L=1000 W=1100		L=1000 W=1200		L=1100 W=1100	
			IA	SA	IA	SA	IA	SA	IA	SA	IA	SA
8FBR10X	Standard	Standard	1550	2200	1550	2310	1570	2340	1620	2370	1580	2420
	Standard	Option	1550	2270	1560	2390	1580	2420	1630	2450	1590	2500
	2-stage full-free	Standard/option	1560	2260	1560	2380	1580	2410	1630	2440	1590	2490
	3-stage full-free	Standard/option	1550	2260	1560	2390	1580	2410	1630	2450	1590	2500
8FBR10LX	Standard	Standard	1610	2200	1610	2310	1620	2340	1670	2370	1630	2420
	Standard	Option	1610	2270	1620	2390	1630	2420	1680	2450	1640	2500
8FBR10LWX	2-stage full-free	Standard/option	1610	2260	1620	2380	1630	2410	1680	2440	1640	2490
	3-stage full-free	Standard/option	1650	2260	1650	2390	1670	2410	1680	2450	1680	2500
8FBR13X	Standard	Standard	1610	2200	1610	2310	1620	2340	1670	2370	1630	2420
	Standard	Option	1610	2270	1620	2390	1630	2420	1680	2450	1640	2500
	2-stage full-free	Standard/option	1610	2260	1620	2380	1630	2410	1680	2440	1640	2490
8FBR13LX	3-stage full-free	Standard/option	1610	2260	1620	2390	1630	2410	1680	2450	1640	2500
	Standard	Standard	1610	2200	1610	2310	1620	2340	1670	2370	1630	2420
	Standard	Option	1610	2270	1620	2390	1630	2420	1680	2450	1640	2500
8FBR13LWX	2-stage full-free	Standard/option	1610	2260	1620	2380	1630	2410	1680	2440	1640	2490
	3-stage full-free	Standard/option	1650	2260	1650	2390	1670	2410	1680	2450	1680	2500
8FBR14X	Standard	Standard	1610	2200	1610	2310	1620	2340	1670	2370	1630	2420
	Standard	Option	1610	2270	1620	2390	1630	2420	1680	2450	1640	2500
	2-stage full-free	Standard/option	1610	2260	1620	2380	1630	2410	1680	2440	1640	2490
8FBR14LX	Standard	Standard	1650	2230	1650	2330	1660	2360	1710	2400	1670	2430
	Standard	option	1650	2260	1650	2360	1660	2400	1710	2430	1670	2470
	2-stage full-free	Standard/option	1650	2260	1650	2370	1660	2400	1710	2430	1670	2480
8FBR14LWX	3-stage full-free	Standard/option	1690	2290	1690	2390	1700	2420	1720	2460	1710	2500
	Standard	Standard/option	1650	2260	1650	2360	1660	2400	1710	2430	1670	2470
8FBR15X	Full-tree	Standard/option	1650	2260	1650	2370	1660	2400	1710	2430	1670	2480
	3-stage full-free	Standard/option	1680	2290	1680	2390	1690	2420	1740	2460	1700	2500
8FBR15LX	Standard	Standard/option	1730	2360	1730	2430	1740	2470	1790	2510	1750	2540
	2-stage full-free	Standard/option	1740	2400	1730	2490	1750	2520	1800	2560	1750	2600
8FBR15LWX	3-stage full-free	Standard/option	1770	2400	1770	2490	1780	2530	1800	2560	1790	2600
8FBR18X	Standard	Standard/option	1730	2360	1730	2430	1740	2470	1790	2510	1750	2540
	2-stage full-free	Standard/option	1740	2400	1730	2490	1750	2520	1800	2560	1750	2600
8FBR18LX	Standard	Standard/option	1740	2390	1740	2460	1750	2500	1800	2540	1760	2570
	2-stage full-free	Standard/option	1750	2430	1740	2520	1760	2550	1810	2590	1770	2630
8FBR18LWX	3-stage full-free	Standard/option	1770	2400	1770	2490	1780	2530	1800	2560	1790	2600
8FBR20X 8FBR20LX	Standard	Standard	1800	2410	1790	2500	1800	2530	1830	2570	1810	2600
	Standard	Option (440Ah)	1800	2450	1800	2550	1810	2580	1830	2620	1820	2660
	Standard	Option (476Ah)	1800	2480	1800	2580	1810	2610	1840	2650	1820	2690
	3-stage full-free	Standard	1800	2440	1800	2530	1810	2570	1830	2600	1810	2640
	3-stage full-free	Option (440Ah)	1800	2480	1800	2590	1810	2620	1840	2650	1820	2700
8FBR25X 8FBR25LX	3-stage full-free	Option (476Ah)	1800	2500	1800	2610	1810	2640	1840	2670	1820	2720
	Standard	Standard	1880	2520	1870	2560	1890	2600	1910	2640	1890	2660
	Standard	Option (440Ah)	1880	2550	1880	2610	1890	2650	1910	2690	1890	2720
	Standard	Option (476Ah)	1880	2570	1880	2640	1890	2680	1920	2720	1900	2750
	3-stage full-free	Standard/option	1880	2550	1880	2610	1890	2650	1910	2690	1890	2720
8FBR30X	3-stage full-free	Option (476Ah)	1880	2570	1880	2640	1890	2680	1920	2720	1900	2750
	Standard	Standard/option	1930	2620	1930	2660	1940	2700	1960	2750	1940	2760
	3-stage full-free	Standard/option	1930	2650	1930	2720	1940	2760	1970	2800	1940	2820

Specifications

Model	1.0 ton			1.25 ton			1.35 ton		
	8FBR10X	8FBR10LX	8FBR10LWX	8FBR13X	8FBR13LX	8FBR13LWX	8FBR14X	8FBR14LX	
Performance									
Maximum load capacity	kg	1,000	1,000	1,000	1,250	1,250	1,250	1,350	1,350
With load center at	mm	500	500	500	500	500	500	500	500
Maximum lifting height	A mm	3,030	4,030	4,020	3,030	4,030	4,020	3,030	4,030
Free lift	B mm	105	105	945	105	105	945	105	105
Reach stroke	mm	410	550	450	550	550	450	550	640
Tilting angle (Up/Down)	C/D digree	5°/3°	5°/3°	5°/3°	5°/3°	5°/3°	5°/3°	5°/3°	5°/3°
Travel speed	Unladen	km/h	11	11	11	11	11	11	11
	Laden	km/h	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Lifting speed	Unladen	mm/s	560	560	490	560	560	490	560
	Laden	mm/s	360	360	320	340	340	320	320
Minimum turning radius	E mm	1,355	1,495	1,495	1,495	1,495	1,495	1,495	1,580
Gradeability (Laden: 5m)	%	10	10	10	10	10	10	10	10
Dimensions									
Overall length	F mm	1,870	1,870	1,965	1,950	1,950	2,045	1,950	1,950
Overall width	G mm	1,090	1,090	1,190	1,090	1,090	1,190	1,090	1,090
Overall height	Head guard	H mm	2,240	2,240	2,240	2,240	2,240	2,240	2,240
	Max lowered height	I mm	1,995	2,495	1,845	1,995	2,495	1,845	1,995
	Max. mast w/ backrest	J mm	3,930	4,930	4,930	3,930	4,930	4,930	4,930
Wheelbase	K mm	1,110	1,250	1,250	1,250	1,250	1,250	1,250	1,340
Tread	Front	L mm	988	988	1,088	988	988	1,088	988
	Rear	M mm	635	635	635	635	635	635	635
		N mm	190	190	185	190	190	188	190
Front overhang	N mm	190	190	185	190	190	188	190	
Fork length	O mm	770	770	770	850	850	850	850	850
Fork spread width	P-Q mm	225-730	225-730	225-830	225-730	225-730	225-830	225-730	225-730
Step height	R mm	295	295	295	295	295	295	295	295
Minimum ground clearance	S mm	80	80	80	80	80	80	80	80
Weight	kg	2,045	2,190	2,250	2,200	2,280	2,345	2,200	2,290
Tire									
Front wheel		Rubber; 254 x 102			Urethane; 254 x 102				
Drive wheel					Rubber; 330 x 145				
Caster wheel					Rubber; 2 x 178 x 73				
Electrical Components									
Control systems	Drive		FET inverter						
	Hoist		IGBT chopper						
	Steering		FET chopper						
Drive motor	Type		AC induction						
	Rated output	kW	4.5						
Hoist motor	Type		DC series-wound						
	Rated output	kW	8						
Steering motor	Type		DC permanent magnet						
	Rated output	kW	0.3						
Battery									
Type		clad							
Voltage	V	48							
Capacity	Ah/5hr	201							

Dimension chart



	1.5 ton				1.8 ton			2.0 ton		2.5 ton		3.0 ton
	8FBR14LWX	8FBR15X	8FBR15LX	8FBR15LWX	8FBR18X	8FBR18LX	8FBR18LWX	8FBR20X	8FBR20LX	8FBR25X	8FBR25LX	8FBR30X
1,350	1,500	1,500	1,500	1,800	1,800	1,800	2,000	2,000	2,500	2,500	3,000	
500	500	500	500	500	500	500	500	500	500	500	500	
4,020	3,030	4,030	4,020	3,030	4,030	4,020	3,000	4,000	3,000	4,000	3,000	
945	105	105	945	105	105	945	150	150	150	150	155	
550	590	740	640	740	740	640	700	700	865	865	865	
5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	5' / 3"	
11	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	11.5	11	
9.5	9	9	9	9	9	9	10	10	9.5	9.5	9	
470	560	560	470	560	560	470	500	500	500	500	420	
300	310	310	290	280	280	270	300	300	280	280	220	
1,580	1,580	1,755	1,755	1,755	1,785	1,755	1,780	1,780	1,955	1,955	2,055	
10	10	10	10	10	10	10	10	10	10	10	10	
2,035	2,070	2,105	2,185	2,105	2,165	2,185	2,190	2,190	2,195	2,195	2,300	
1,190	1,090	1,090	1,190	1,090	1,090	1,190	1,165	1,165	1,220	1,220	1,220	
2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,300	2,300	2,300	2,300	2,300	
1,845	1,995	2,495	1,845	1,995	2,495	1,845	1,995	2,620	1,995	2,620	2,020	
4,930	3,930	4,930	4,930	3,930	4,930	4,930	3,940	4,940	3,940	4,940	3,945	
1,340	1,340	1,515	1,515	1,515	1,515	1,515	1,525	1,525	1,700	1,700	1,800	
1,088	988	988	1,088	988	988	1,088	1,044	1,044	1,086	1,086	1,086	
635	635	635	635	635	635	635	715	715	715	715	715	
188	190	199	183	199	199	183	205	205	200	200	210	
850	920	920	920	920	920	920	920	920	920	920	920	
225-830	225-730	225-730	225-830	225-730	225-730	225-830	255-780	255-780	255-780	255-780	255-780	
295	295	295	295	295	295	295	350	350	350	350	350	
80	80	80	80	80	80	80	85	85	85	85	85	
2,350	2,330	2,345	2,400	2,350	2,475	2,485	2,925	3,125	3,090	3,290	3,325	
Urethane; 254 x 102 Rubber; 330 x 145 Rubber; 2 x 178 x 73							Urethane; 267 x 114		Urethane; 267 x 135 Urethane; 394 x 152 Rubber; 204 x 74			Urethane; 204 x 74
FET inverter												
IGBT chopper												
FET chopper												
AC induction												
4.5									5.2			
DC series-wound									11			
8												
DC permanent magnet												
0.3												
clad												
48												
280									312			370

Masts

Max. lifting height	8FBR18X	8FBR10X-15X	8FBR 10LX-15LX	8FBR 10LWX-18LWX	8FBR 20X-30X	8FBR 20LX, 25LX
2500mm						
2700mm						
3000mm						
3300mm						
3500mm						
3700mm						
4000mm						
4300mm						
4500mm						
4700mm						
5000mm						
5300mm						
5700mm						
6000mm						

Standard mast
High mast
Low mast

3-stage standard mast
3-stage mast (not available for 8FBR14X and 8FBR18X)
2-stage full-free mast

Options

- Traction control
- Front wheel brakes
- Long fork
- Extension fork
- High backrest
- Wide carriage
- Urethane tires
- Colored tires
- Head guard cover
- Mast head guard
- Front guard
- Side mirror
- Rear view mirror
- Operator's light
- Earth belt
- Working lights
- Rotating lights
- Forward/reverse chime
- Forward/reverse melody alarm
- Freezer/cold store specs
- Fisheries use specs
- Battery irrigation device
- Spare battery
- Battery stand
- Large steering wheel

Main Accessories

: Standard Standard for freezer/cold store specs only : Optional

	8FBR10X (LX / LWX)	8FBR13X (LX / LWX)	8FBR14X (LX / LWX)	8FBR15X (LX / LWX)	8FBR18X (LX / LWX)	8FBR20X (LX)	8FBR25X (LX)	8FBR30X
Controls								
Auto-power-OFF								
Regenerative braking								
Neutral regeneration (*1)								
Anti-rollback (*2)								
Neutral start (*3)								
Acceleration adjustment (*4)								
Traction power adjustment (*4)								
Hoist speed limit (*4)								
Tilt speed limit (*4)								
Travel speed limit (*5)								
Anti-skid/Traction control	/	/	/	/	/	/	/	/
BDI interrupt (*6)								
Multi-display								
Battery discharge indicator								
Digital clock								
Multi hour meters								
Speedometer								
Safety monitor								
Operation management								
Password entry (*7)								
Lights								
Headlights								
Turning indicators								
Back buzzer (*8)								
Rear view mirror								
Small-diameter steering wheel								
Document clip								
Battery Ah/5HR (48V)								
201								
280								
312								
340								
370								
440								
476								

- *1 Releasing accelerator during travel activates regenerative braking to slow vehicle speed.
- *2 Prevents roll-back when starting on grades.
- *3 Keeps vehicle safely stationary if ignition key is switched on with travel or hoist levers engaged, or brake released.
- *4 Acceleration, and power, hoist and tilt speeds can be adjusted to match job requirements.
- *5 Max. speed can be set to conform with workplace speed limit.
- *6 Stops hoisting when battery charge is low, to prevent damage to battery.
- *7 10 different codes can be pre-set.
- *8 With volume selector.



SHINKO FORKLIFT CO., LTD.

2-18, Heiwajima 3-chome, Ota-ku, Tokyo, 143-0006 JAPAN
 Phone: (03) 6404-2815 Fax: (03) 6404-2819



For safe and reliable operation, it is essential to read the user's manual carefully before using this equipment.

SHINKO FORKLIFT continually upgrades and improves its products. Actual features and specifications may therefore differ slightly from those described in this catalog.



SUMITOMO NACCO MATERIALS HANDLING CO.,LTD., manufacturer of forklift trucks and materials handling equipments, uses a quality management system certified compliant with ISO9001.



SUMITOMO NACCO MATERIALS HANDLING CO.,LTD., manufacturer of forklift trucks and materials handling equipments, uses an environmental management system certified compliant with ISO14001.



SUMITOMO NACCO MATERIALS HANDLING

SUMITOMO NACCO MATERIALS HANDLING CO., LTD.
 2-75, Daitoh-cho, Obu-shi, Aichi-ken, 474-8555 JAPAN
 Phone: (0562) 48-5251 Fax: (0562) 48-5396

CODE

E51-014