



ELECTRIC FORKLIFT  
**SIT-ON REACH TRUCKS**  
FBRF 14/16/20



# ELECTRIC FORKLIFT SIT-ON REACH TRUCK FBRF Series

# SUPERIOR • INNOV

## Excellent Standard Features

### The Multifunctional Centralized Control System for AC Control

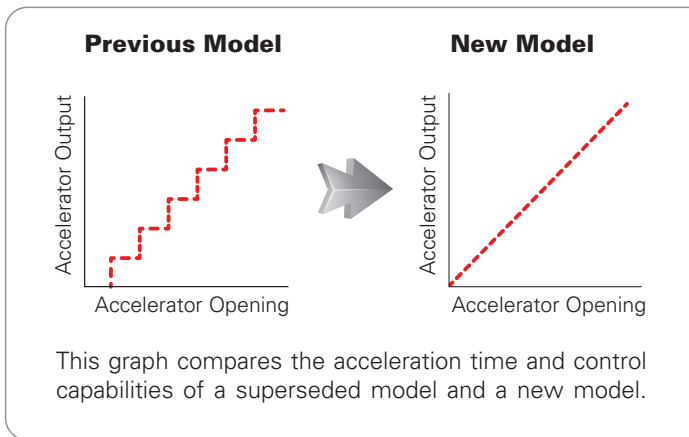
SICOS-AC represents the ongoing evolution of the groundbreaking SICOS control system. It features a new type of controller tuned for full compatibility with AC systems and exhibits more powerful and more advanced capabilities. By integrating the travel, hydraulic, and electric power steering functions, the system's advanced intelligence optimizes the operator's interaction with the forklift.



## Superior Drive Performance

### Powerful Acceleration for Increased Work Efficiency

Our unique SICOS-AC system provides optimal control of the FBRF's powerful travel and hydraulic AC motors. The result is highly efficient driving, lifting and turning.



Reach trucks must meet three basic criteria:  
**fast travel, high lift capability** and **compact design.**

The new **FBRF Series** clearly excels at all three.

# ATION

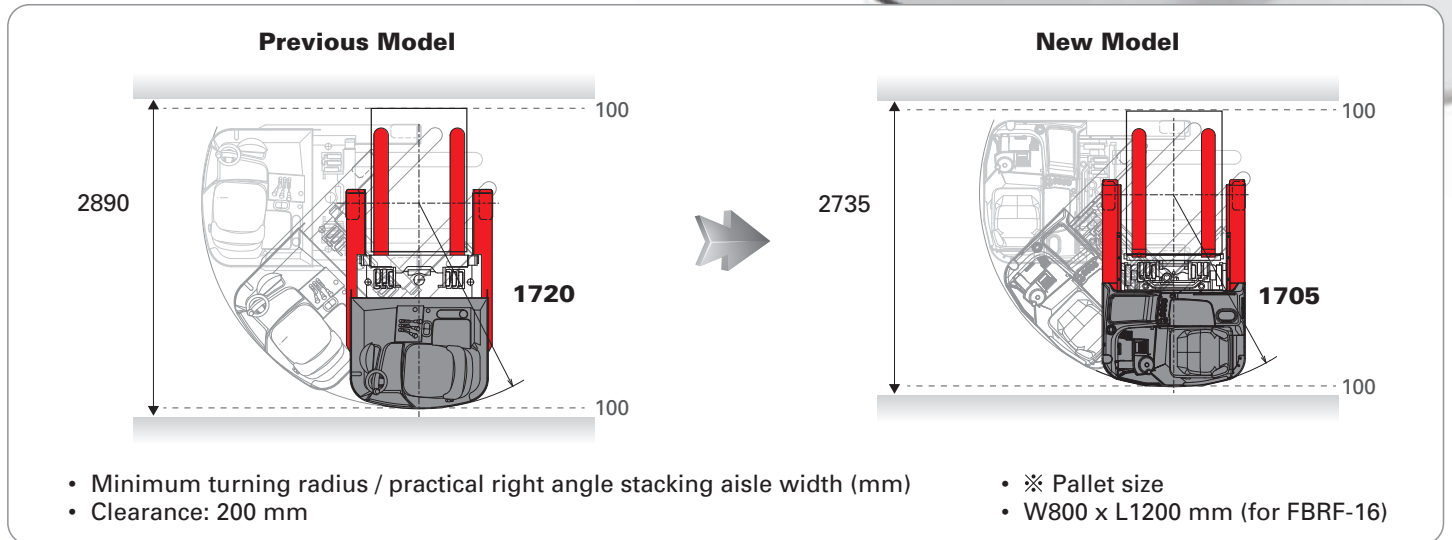


## Functional Tight Turning Ability

### Excellent Maneuverability for Narrow Spaces

By completely redesigning the frame, we have reduced the minimum turning radius and right angle stacking aisle width. As a joint result with newly adopted 360° endless steering, we now lead the industry in space efficiency.

At the same time, we have created a more spacious and comfortable operating compartment.



# Dependable Stability

## Smooth, Powerful Lifting

We have re-designed chassis and increased mast rigidity to ensure excellent stability even during high lifts. The result is stable load handling at up to seven-meter heights without capacity reduction.\*

The tiltable integral sideshifter, provided as standard equipment, improves the efficiency of high loading work.

\*when equipped with large batteries



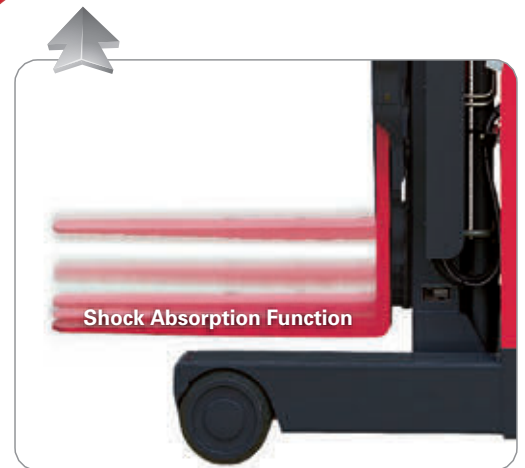
# Improved Visibility

## For Safer, Easier Operation

We have improved the operator's forward field of view by mounting the free lift cylinder diagonally and off-center. What's more, we've carefully designed the overhead guard to avoid blocking the operator's overhead view. These innovations ensure significantly increased work efficiency.



Improved Visibility



Shock Absorption Function

## Shock Absorption Mast and Soft Landing Mechanism

A shock absorption function for the mast relieves any shock occurring from friction while lifting. The speed at which the forks are lowered is reduced just before the forks reach the ground, eliminating any shock. These functions prevent the loads from damage by vibration.



# Advanced Steering and Multi-display

## Smooth, Powerful Lifting

Steer-by-wire with 360° endless steering makes switch back unnecessary. And our speed-sensitive electric power steering (EPS) is easier than ever.

What's more, machine status information is put up on the multi-display mounted on steering panel for real-time.



## The Easy-to-Read Display

- Traveling speed
- Battery discharge status
- Current time
- Operating hours



### Driving Mode Setting

To accommodate site conditions and the operator's experience level, the operator can set the maximum speed and acceleration feeling on the display.

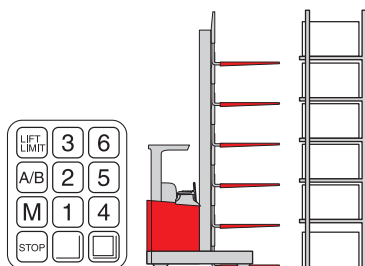


### Wheel Indicator

The wheel indicator on the display instantly shows the direction of truck movement.

### Self-diagnosis Function

SICOS-ACz diagnoses any malfunctions and displays the results with graphics.



## AOS Semi-auto Stacking System

Once you have entered the heights of your racks into the system memory, the AOS semi-auto stacking system raises the forks to that height at the touch of a button.

This feature is a great advantage for loading/unloading your most commonly used racks as well as high racks that are difficult to see.\*

\* Operator must visually confirm fork position before loading/unloading.

**Optional**

# SUPERIOR • MANA

## ***Comfortable Operation for Enhanced Ease-of-use***

### **Totally Redesigned Operating Compartment**

Our completely redesigned operating compartment features several ergonomic innovations. The tilt-mounted fingertip levers and large armrests greatly reduce arm fatigue.

The operator can finely adjust the both of steering panel position and seat position. We've included these advanced features as standard to ensure maximum comfort.



## ***Active Safety and Easy Maintenance***

*Multiple features for operator safety.*

*Major improvements to everyday usability.*

*And innovations that make Nichiyu trucks a reliable work partner.*

### **Travel-speed-sensitive Lift Speed Control**

This innovation automatically slows lift speed and rotation when travel exceeds a set speed. It's an advanced safety feature that helps to prevent accidents.

### **Automatic Power-off**

To prevent wasteful power consumption, the power is automatically shut off when the truck is left idle for 15 minutes.

# GEMENT

## **Neutral Safety Feature**

### **Preventing Accidents Caused by Misoperation**

The Neutral Safety Feature prevents the truck from moving suddenly if the keyswitch is turned on while the accelerator is depressed or during operation of the hydraulic lever.

For preventing accidents caused by misoperation, it issues a warning display and buzzer.

## **Operation Interlock System (OIS)**

If the operator is not seated correctly for more than two seconds, traveling and hydraulic operations are interlocked.

## **Fully Opening Drive Unit Cover**

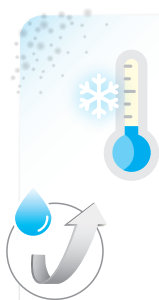
The drive unit cover under the operator's seat can be fully opened, providing more convenient access and easier maintenance.



## **Battery Forward Pull-out System**

Thanks to our convenient mast reach-out feature, the battery can be pulled out toward the front. This greatly simplifies battery refilling and monitoring of battery electrolyte levels. It also eliminates the need for a battery table.

\*To accommodate customers who frequently change batteries, the side roll-out type is also available.



## **Cold Storage Applications**

These water-resistant, moisture-resistant and rust resistant trucks are designed to operate at the low temperatures typically found in industrial freezers.

**CS class:** -20°C continuous exposure\*\*

-35°C intermittent exposure\*\*\*

**FCS class:** -35°C continuous exposure\*\*

-55°C intermittent exposure\*\*\*

\*\*60-minute maximum operation time

\*\*\*30-minute maximum operation time

**STANDARD SPECIFICATIONS**

		Item	Summary	Unit	NICHYU			
Type	1	Model			<b>FBRF14</b>	<b>FBRF16</b>	<b>FBRF20</b>	
	Dimensions	2	Rated capacity	with Integral sideshifter	Q kg	1400	1600	2000
3		Load center		C mm	600	600	600	
4		Motor type			AC	AC	AC	
5		Operator type	Stand-on / Seated		Seated	Seated	Seated	
6		Lift height		H <sub>3</sub> +s mm	6000	6000	6000	
7		Free lift		H <sub>2</sub> +s mm	1765	1765	1775	
8		Tilt angle <Fork>	Downward / Upward		deg. 2 / 5	2 / 5	2 / 5	
9			Finger bar		Hook type	Hook type	Hook type	
10		Fork	Dimensions (L / W / T) l/b/s	mm	1070 / 100 / 35	1070 / 122 / 40	1070 / 122 / 40	
11			Spread (Max / Min) B <sub>5</sub>	mm	715 / 200	737 / 292	737 / 292	
12			OA. length L <sub>1</sub>	mm	2280	2280	2360	
13		Length	Frame L <sub>7</sub>	mm	1730	1830	1890	
14			to Fork face L <sub>2</sub>	mm	1210	1210	1290	
Performance		15	Reach stroke		L <sub>4</sub> mm	555	655	625
	16		OA. width B	mm	1270	1270	1334	
	17	Width	Between legs B <sub>4</sub>	mm	932	932	915	
	18		Frame B <sub>2</sub>	mm	1270	1270	1270	
	19		Leg H <sub>8</sub>	mm	275	275	291	
	20	Height	Mast lowered H <sub>1</sub>	mm	2665	2665	2675	
	21		Mast extended H <sub>4</sub>	mm	6900	6900	6900	
	22		Overhead guard H <sub>6</sub>	mm	2160	2160	2190	
	23	Overhang	Reach out X	mm	180	180	180	
	24	Min. turning radius*1)		Wa mm	1610	1705	1755	
Mass	25	Min. 90° turning aisle*1)	W800 x L1200 Pallet	mm	1825	1870	1920	
			W1200 x L1200 Pallet	mm	1825	1870	1920	
	26	Min. 90° stacking aisle*1)	W800 x L1200 Pallet Ast	mm	2520	2535	2610	
			W1200 x L1200 Pallet Ast	mm	2630	2645	2720	
	27	Travel speed	Laden / Unladen	km/h	12 / 12	12 / 12	12 / 12	
	28	Lifting speed	Laden / Unladen	mm/s	370 / 560	370 / 560	300 / 460	
29	Lowering speed	Laden / Unladen	mm/s	500 / 400	500 / 400	500 / 400		
30	Reach speed	Laden / Unladen	mm/s	150 / 200	150 / 200	150 / 200		
31	Gradeability		%	10 / 15	10 / 15	10 / 15		
32	Service weight	w/o Battery	kg	2365	2415	2730		
Chassis	33	Axle loading	Reach-in	Laden (Load / Drive)	kg	2785 / 1730	2910 / 1855	3590 / 2080
			Unladen (Load / Drive)	kg	1150 / 1965	1170 / 1995	1380 / 2290	
	34	Incl. Battery (6.3)	Reach-out	Laden (Load / Drive)	kg	3835 / 680	4180 / 585	4955 / 715
				Unladen (Load / Drive)	kg	1630 / 1485	1720 / 1445	1915 / 1755
35	Tyres : Number	Load / Drive / Caster		2 / 1 / -	2 / 1 / -	2 / 1 / -		
Motors	36	Tyres	Load	mm	ø254x114 (Urethane)	ø254x114 (Urethane)	ø267x135 (Urethane)	
			Drive	mm	ø330x145 (Urethane)	ø330x145 (Urethane)	ø380x165 (Urethane)	
			Caster	mm	-	-	-	
	37	Wheelbase		y mm	1350	1450	1500	
	38	Tread	Load	mm	1156	1156	1199	
			Drive	mm	-	-	-	
	39	Ground clearance	Middle of wheelbase F	mm	70	70	80	
40	Service brake	Mech./Hydr./Electr./Pneum.		Electr.	Electr.	Electr.		
41	Parking brake	Foot / Hand / Deadman		Deadman	Deadman	Deadman		
42		Type		DIN C*2)	DIN C*2)	DIN C*2)		
Motors	43	Battery	Volts / Ampere hrs (5HR)	V/Ah	48 / 360-420	48 / 360-420	48 / 480-560	
			Mass (with case)	kg	750	750	940	
	44	Drive motor	60min. rating	kw	6.0	6.0	7.0	
	45		control		Inverter	Inverter	Inverter	
	46	Hydraulic motor	5min. rating	kw	12.0	12.0	12.0	
	47		control		Inverter	Inverter	Inverter	
	48	Power steering motor	60min. rating	kw	0.55	0.55	0.55	
49		control		Chopper	Chopper	Chopper		
50	Charger	Type (Built-in / Stationary)		Stationary	Stationary	Stationary		
51	Operating pressure	for Attachments	MPa	15.7	17.2	17.2		

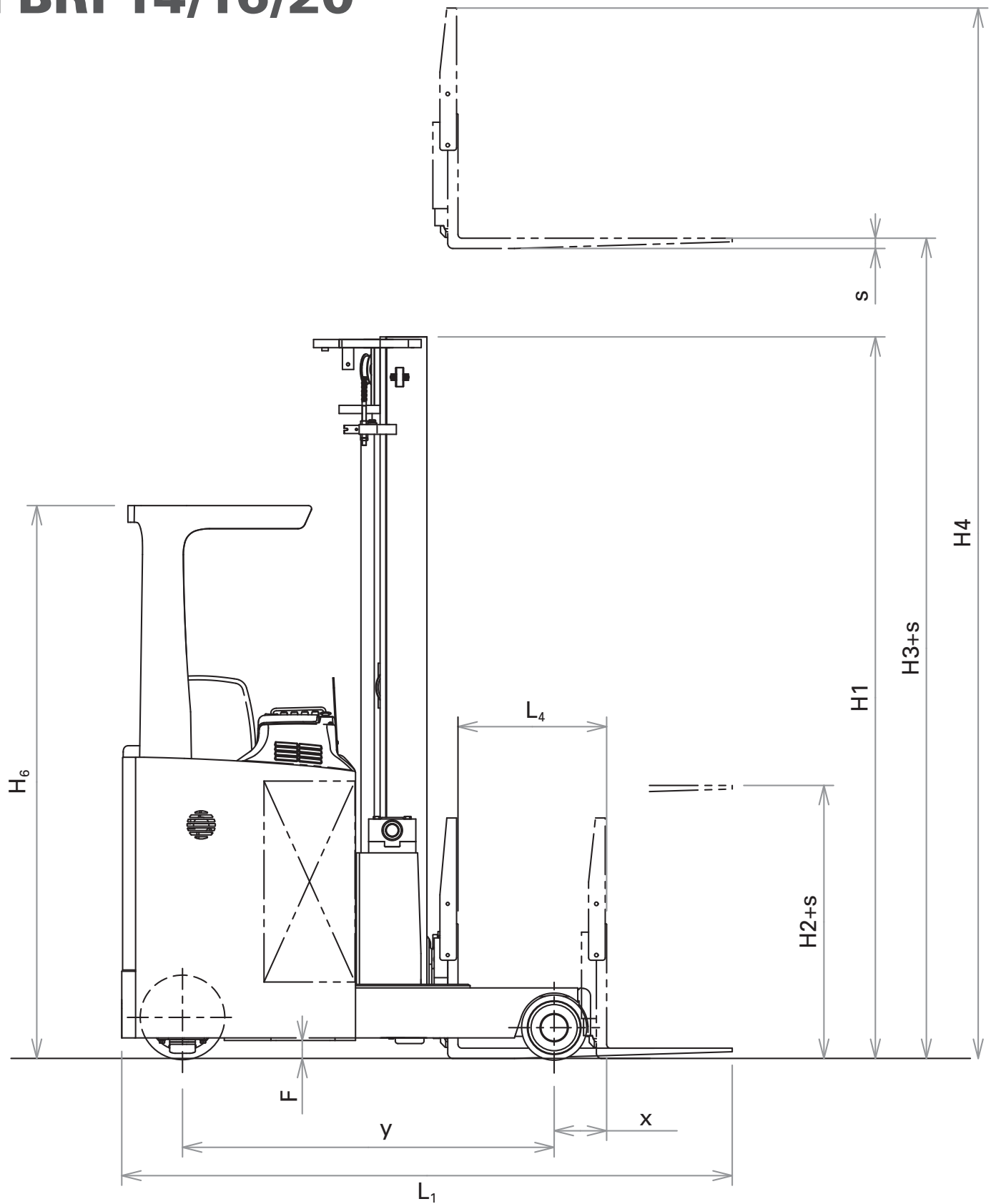
\*1) No clearance included. \*2) BS type battery is also available.



# SIT-ON REACH TRUCK

**75 SERIES**

**FBRF14/16/20**





## About us

Nichiyu is a pioneering developer of electric forklifts in Japan. Since introducing the country's first electric forklift in 1937, Nichiyu has continued to introduce a variety of innovative electric forklift solutions. We take pride in our ability to provide customer-focused products and exceptional service.

## Committed to comprehensive service

We maintain highly trained service staff in every country in which we sell our products. Should you require regular periodic maintenance or emergency repair, simply contact us for fast and efficient on-site service. We take pride in our commitment to first-rate support and unmatched customer service.


All specifications have been determined according to manufacturer's terms and conditions. Specifications are subject to change without notice in the interests of product improvement.





**INTEGRATED WAREHOUSE  
RACKING + FORKLIFT SOLUTIONS**

Transforming the way smart companies add efficiency to their warehousing and logistics operations.

 **134 234**

 [sales@issequipment.com.au](mailto:sales@issequipment.com.au)

 [issequipment.com.au](http://issequipment.com.au)

 17 Marconi Drive,  
South Dandenong VIC. 3175