





# **Electric Reach Forklift Trucks**

1.0 - 3.0 ton

Class 2 - Stand-up Type



# State of the Art

# "Second To None"

TCM Electric Reach Forklift Trucks

— The Benchmark in class 2 Stand-up Type.

As the pioneering manufacturer of the first Japanese forklifts since 1949,

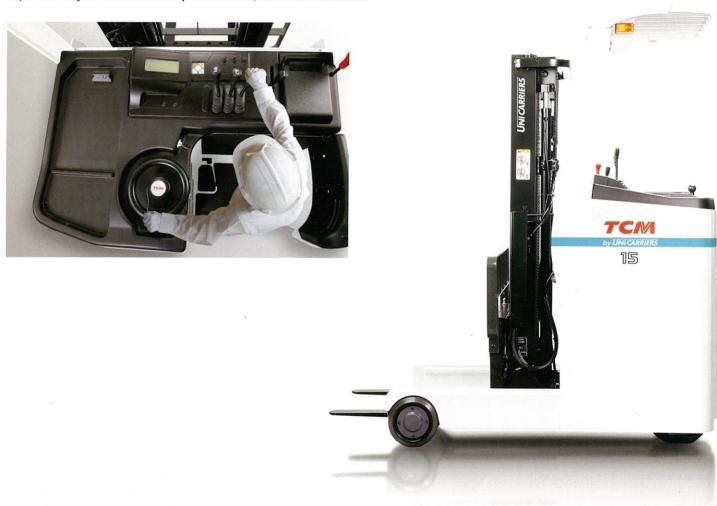
We have launched TCM Electric Reach Forklift Trucks

- FRB-VIII Series - in the global markets, fully utilizing many years accumulated experiences and technical expertise to meet the needs of today's material handling, particularly in warehouse operations.

These new trucks, equipped with unsurpassed AC drive motors are remarkably rugged and dependable in your daily operations,

TCM FRB-VIII Series are indeed able to achieve superb productivity as well as high returns on your investments.

In pursuit of your ultimate best performance, count on TCM FRB!



- O 1 Superb Efficiency and Productivity
- 02 Excellent Maneuverability
- 3 Stable Driving and Operator Friendly Handling







### AC drive power with higher productivity

The FRB-VIII Series achieve 9.0 hours of operation period per one time power charge through minimizing battery power consumption.

The regenerative braking system at acceleration-off and switch-back performs to add valuable extra run time.

Conventional 8.5hrs. FRB-VIII 9.0hrs.

(based on the TCM testing standard at 55% working efficiency ratio)

#### **Auto Power-off System**

This system automatically conducts to shut off the main power to save the Battery power when the truck is not operated more than 15 minutes even if the main key switch is "ON". The hour recording meter of operation also halts to automatically record the actual operation time for management supervision on the truck operation.

#### Battery over-discharge prevention system

When the battery power is 80% discharged, the LCD panel indicator blinks to alert and remind the operator either to recharge it or to replace it by the new battery. Furthermore, at this moment the system automatically start to reduce both travel and lifting speeds to protect the battery life from sudden total power discharge.

#### Easy-to-read wider LCD display



Main screen

Power & screen mode selection



Power consumption screen

STARTO	TOTAL	4/08	4/09	4/10	NOW
KEY SW	40.2	7.5	6.9	7.3	3.8 h
ÖR I VĒ	18.9	4.0	3.6	3.7	2.1 h
PUMP	17.1	3.1	2.9	3.4	1.7 h
TRAVEL	70.4	0.1	10.1	13.6	8.0 km
WORK	36.0	7.1	6.5	7.1	3.8 h
RATE	89.5	94.6	94.2	97.2	99.9 %

Working hourmeter screen





# Improved load handling control system

The FRB-VIII Series are ensuring class-top handling performance

#### ■Lifting speed(FRB15-8)

without load
540 mm per second

with load 330mm per second

#### Easy access to operator compartment







Operator comfort has been enhanced by the new ergonomics design, such as lower step floor with soft cushion mat.

# LCD panel and dashboard design

The LCD panel has inclined by 15 degrees toward the operator to improve readability and also safety operation. The steering wheel has inclined by 5 degrees toward the operator to improve turning with less fatigue.



Meter Panel 15°



Steering Wheel Degree

# Laser beam positioning unit OPTION

The red color laser beam clearly indicates the position of fork pockets of the pallet, allowing even untrained operators easily conduct pallet handling operations.



# Auto-torque-up Traction control system

When climbing slopes or getting out of the concaves at the workplaces, the controller automatically increases the traction force of the drive wheel for much smoother operations.





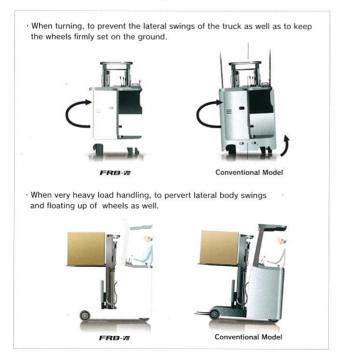
# Password entry system



For security to prevent misuses of trucks by unauthorized operators, FRB-VIII is equipped with this new system, whereby operators have to input their individual code numbers to release the lock before start up the truck.

### Auto-lock suspension control system

This controller constantly monitors traveling and load handling condition, and the rear wheel suspension is automatically locked by this system.



## Load handling and Traveling Interlock system

This system automatically and constantly monitors operator's position in the comportment and releases the lock to perform load handling only when the operator stands on the proper position. In the mean while, only seconds after the operator leaves the compartment warning light and alarm sound start to alert, and the truck remains standstill.









# Steering control system (Traveling speed and steer-angle)

This system automatically regulates the traveling speed of the truck when the steer wheel turning-angle exceeds over 30 degree at either right or left turns.

This enables more comfortable and safer steering handling. Furthermore the speeds-sensitive steer force system automatically regulates as follows:



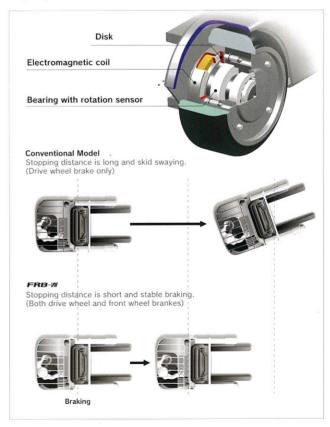
# Anti-slipping control by AC systems

AC drive motor and the controller achieves to prevent sudden slippage quickly when start-up or speed-up acceleration, which enables comfortable driving as well as saferoperation on the slippery surfaces.



### Front wheel brakes OPTION

The FRB-VIII Series are equipped with electromagnetic – controlled front wheel brakes to ensure efficient braking performance when carrying very heavy loads as well as at slippery surfaces.





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