



1.0-3.5tons

Class 1 - sit-down type

Beyond the limits!

FB-VIII SERIES

ELECTRIC COUNTERBALANCED FORKLIFT TRUCKS


Ecology
Kind to the planet



Ecology and Economy P.03

Comfortable operation P.05



Safety P.07



The latest fruit of TCM's long years of pursuit of the top quality electric vehicles on the material handling scene, TCM's FB-VIII series electric counterbalanced forklift trucks feature enhanced environmental friendliness and increased economy.

They meet the needs of the times, and provide better operator comfort and controllability. This is attained by ergonomically designed controls and seating, and many safety devices which help protect the operator from a variety of potential hazards.

The new series of electric vehicles produced by TCM, a world-leading provider of total logistics systems, has broken through various limits in electric forklift technology to reach a new dimension in electric vehicles.



○ Enhanced environmental friendliness and increased economy

Saving the planet and keeping worksites clean!

Our times demand ecology-mindedness. TCM FB-VIII battery-powered forklift trucks promise to be the ecology-minded contender on the materials handling scene, all around the world. Lower power consumption and longer spans between battery charges improve productivity as well as achieve environmental friendliness. TCM's FB-VIII series is what the planet and the logistics industry really need.



Fully-hydraulic Orbitrol power steering(standard) New!

The power steering system uses Orbitrol, a fully-hydraulic power steering system that features low maintenance costs.

The easy-to-read LCD panel includes a power consumption rate and a remaining battery time screen New!

The multi-function LCD panel shows power consumption per hour and remaining battery time. You can easily check the truck's power consumption at a glance for better energy savings.



Easy-to-scan multi-function LCD panel



The LCD panel allows the operator to check present power consumption. The indicator shows power consumption per hour. "Remaining battery time" is the length of time the truck can keep operating before it needs a recharge.

The "remaining battery time" readout is not necessarily perfectly accurate, because it is calculated using the reading of the battery charge indicator. It should be used as a rough guide.

Hour meter

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

Total operating time Data on the past three shifts Data on the present shift

Longer battery runtimes per charge (For trucks with optional EPS)

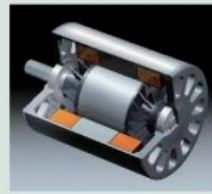
The long (8.5 hour) battery runtime on a single charge has been achieved by using a highly-efficient AC drive motor that draws less current, and various types of regenerative braking: switch-back, accelerator-off and braking regeneration.

(The values were measured on an FB15 with optional EPS working in our specified work cycle pattern at an operating rate of 55% in the P operating mode.)

The explanation above applies to trucks with an optional EPS unit. Trucks with standard Orbitrol power steering will have a 15 to 20% shorter battery run time.

Auto power-off New!

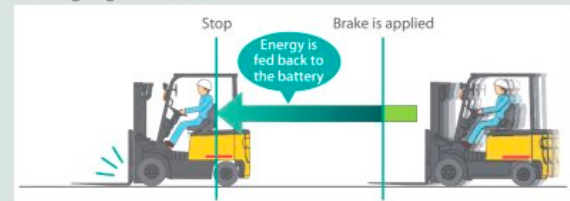
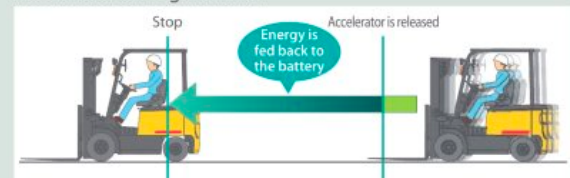
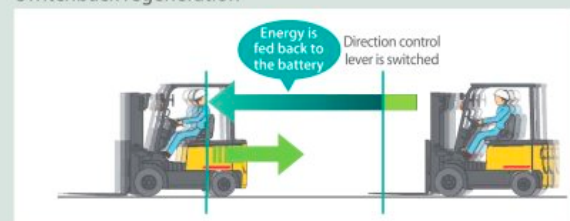
The power supply is turned off automatically if the operator's seat is left vacant or no operation is performed over a set period of time. This helps eliminate wasteful consumption of battery current as well as prevent accidents when the operator gets back on the truck.

**A new type of AC motor New!**

AC motors are used for both the drive and the lift systems, to attain better controllability and low maintenance.

Regeneration means energy savings

Efficient recovery of braking energy is attained by three types of regeneration - braking, accelerator-off, and switchback. The substantially reduced switchback time and distance will reduce operator fatigue.

Braking regeneration**Accelerator-off regeneration****Switchback regeneration****Three power output modes available**

You can select any of three power output modes, "S", "P" and "E", to match your specific driving or load handling job requirements. This feature helps improve economy and productivity.

	Travel speed (unloaded)	Battery time on a single battery charge:
Economy-mode	14.0 km/h	9.0 hours
Power-mode	15.0 km/h	8.5 hours
Super-mode	16.0 km/h	8.0 hours

(The values were measured on an FB15 with optional EPS working in our specified work cycle pattern at an operating rate of 55% in the P operating mode.)



Better operator comfort and controllability

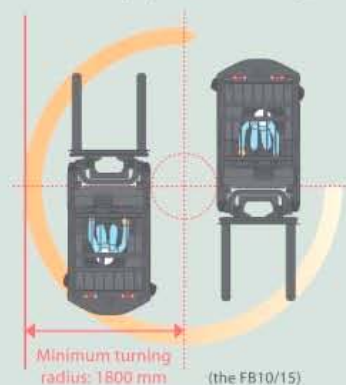
Ergonomics for people working on-site

With an ergonomically designed operator's compartment and a compact body, FB-VIII series electric counterbalanced forklift trucks offer better operator comfort and enhanced controllability.

Assuming materials handling operation in warehouses where operators need to get on and off the truck frequently, a variety of thoughtful ideas, including a low floor and step heights, and wide steps, have been incorporated to reduce operator motion and fatigue. TCM's long years of experience and expertise went into helping the FB-VIII series meet worksite needs.

The most compact truck body in its class

The compact truck body, with a minimum turning radius as short as 1800 mm, delivers substantially improved work efficiency in the narrow aisles of a warehouse.



Tilting steering column

The steering wheel angle can be adjusted to the operator's preference, which means more efficient steering with less fatigue.



The safety seat

The safety seat with side supports protects the operator better. The seat also has an angle-adjustable reclining back to suit the operator's physique, thus helping reduce operator fatigue.



An integrated turn signal and lighting switch lever

The turn signal lever and lighting switch are integrated into one unit. It returns automatically to neutral when the steering wheel goes back to the straight-ahead position. Rear combination lights are located on the overhead guard for better visibility from behind in the workplace.



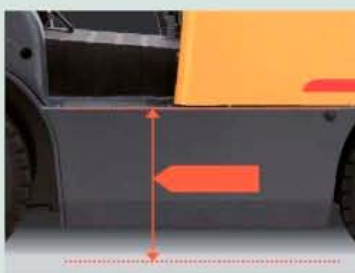


Low operating noise during load handling

Having an AC motor for the load handling system substantially reduces the noise level at the operator's ear (by 6 dB from the conventional model) when lifting the forks, thus lending to substantially improved operator comfort (refers to the FB15).

Easy on-and-off

The lowest floor height and step heights in its class and the wide steps make it easy to get on and off, and so reduce operator motion and fatigue as well as improve safety.



(The FB10/15)

Bigger floor space

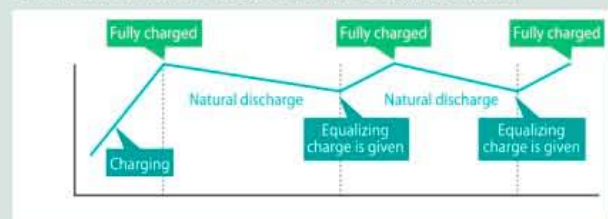
The generous floor space makes getting in and out anxiety-free as well as providing more knee room to reduce operator fatigue.



Super equalizing charge

If the battery charger is set to the "super equalizing charge" mode, an equalizing charge will be applied to the battery every 24 hours, at the end of a regular cycle charge.

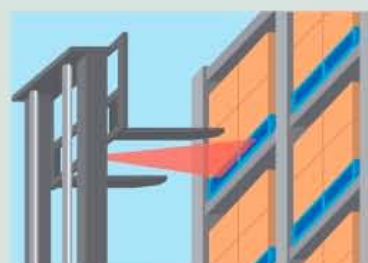
This means that the battery will be fully charged and you can use it immediately, even after the truck has been out of service for a long period of time.



Fork positioning laser unit (optional) **New!**

The fork-positioning laser unit helps the operator check the fork height and makes it safe and easy to insert the forks into the openings of a pallet.

It also helps reduce damage to loads and pallets if the operator fails to determine the fork height correctly. This function is especially useful for stacking or unstacking loads in high locations, and for handling loads in a dark area.



The laser beam is only lit when the forks are level.



Safety

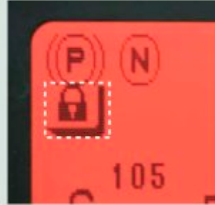
Operator safety is foremost with the FB-VIII series trucks

In pursuit of the ultimate in operator safety, FB-VIII series trucks come equipped with many safety devices to protect from a variety of hazards which might occur in materials handling operation. Consideration to the safety of operators, an invaluable asset to each company, is foremost at all times with TCM forklift trucks.



Travel and load handling interlock(optional)

The travel and load handling interlock system makes it impossible to operate the lift truck unless the operator is well seated in the operator's seat. This system helps prevent an accident from happening if the operator of the truck is not in the correct driving position or a control is moved unintentionally when he is not in the operator's seat.



Interlock warning light

Interlock is activated when the operator stands up from the seat

When the interlock system is actuated, the regular brake is not applied to the truck. Apply the parking brake when leaving the truck.

Password entry **New!**

The truck won't start unless the correct password is entered into the password entry system. This prevents any unauthorized person from operating the truck.

Consult with our service personnel to learn how to enable the password entry system and set passwords.
(Password protection can be disabled.)



Load meter (optional) **New!**

The load meter shows the approximate weight of the load being carried on the forks, to help prevent an accident due to overloading.

The reading should be used as a guide.



Speed limiter

The maximum travel speed can be limited according to the working conditions. It can be set freely to a specified speed limit.



Speed limiter in operation



Speed limiter switch

Consult with our service personnel to learn how to set speed limits.

Steering-angle sensitive travel speed limiter **New!**

The truck speed is automatically reduced if the angle of the steering wheels exceeds a certain value, making it possible for the truck to turn at a safe speed.

Remember that this feature is not intended to be a device that prevents tip-overs.

Speed-sensitive power steering

The speed-sensitive power steering system provides varying amounts of assistance depending on the driving conditions (more power assist at slow speeds and less power assist at high speeds) to give an excellent steering "feel" while improving the stability of the truck at high speeds.

Wide-view mast

The wide-view mast gives you an excellent view of the fork tips in any position. In addition, the lower dashboard provides the operator with excellent visibility, resulting in safe and quick operation.



Anti-rollback

The anti-rollback feature prevents the truck from rolling backwards abruptly on a grade if you remove your foot from the brake pedal. This ensures a safe, smooth restart.



○ Easy Maintenance



The fully openable battery compartment with a damper provides for easy and quick maintenance access to the battery unit.



Drive and hydraulic motor controllers have been located together for quick access and easy servicing. They have also been made more resistant to dust and water.

○ A wide product lineup

The FB-VIII series comes in a wide range of models, from compact classes with the superb features that the preceding series have to 3.5-ton models, reliable workhorses for handling heavy loads.

	Model	Max. capacity	Overall height
1-ton class	FB10-8	1,000 kg	2,080 mm
	FB15-8	1,500 kg	2,080 mm
	FB18-8	1,750 kg	2,080 mm
2-ton class	FB20-8	2,000 kg	2,125 mm
	FB25-8	2,500 kg	2,125 mm
	FB25-8LB	2,500 kg	2,250 mm
	FB25-8V	2,500 kg	2,100 mm
3-ton class	FB30-8	3,000 kg	2,190 mm
	FB30-8V	3,000 kg	2,100 mm
	FB35-8S	3,500 kg	2,190 mm

High-capacity model: Battery capacity 935 AH/5h

VAN model: Suitable for loading and unloading vans

VAN model: Suitable for loading and unloading vans





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