



**CENTRALIZED MAINTENANCE POINTS FOR EASY INSPECTION AND MAINTENANCE**

Inspection and maintenance is made easy thanks to a fully extendable engine hood, removable side covers and centralized maintenance points. In addition, the time intervals between oil changes and lubrication requirements have been increased, resulting in lower maintenance costs.



*Ready to Perform  
To Your Applications*



[www.mitforklift.com.sg](http://www.mitforklift.com.sg)

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FMIT0145

(02/18)



Note: Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications or operating environment. Trucks may be shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your Mitsubishi forklift truck dealers. Mitsubishi Forklift Trucks follows a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.



**GRENDIA**



**Internal Combustion Pneumatic Tyre 1.5-3.5 ton**

PRESENTED BY :

# Mitsubishi

# GRENDIA

Series Forklift Trucks

**SETTING NEW STANDARDS**



**FGE15N**

Electronically controlled gasoline engine  
Capacity rating 1500kg @ 500mm load center

**A next generation, higher performance machine**

Thanks to the application of new technologies the Mitsubishi Grendia is not only easier to operate but friendly to the environment as well.

The new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions, which either complies with or exceeds the latest international environmental standards. In addition to its newly designed engine, Mitsubishi Forklift Trucks has increased rider comfort and enhanced safety. For instance, all Grendia forklift trucks incorporate an Integrated Presence System (IPS), which enhances safety and helps reduce accidents. LCD graphic displays and digital monitoring systems also make the Grendia safer more efficient.

It's the forklift of tomorrow that's available today.



**FD25N**

Diesel engine  
Capacity rating 2500kg @ 500mm load center

**MEETS THE ENVIRONMENTAL REQUIREMENTS OF TODAY AND TOMORROW**

# GRENDIA'S ECO-POWER



Electronically controlled gasoline engine K25E



Three-way catalytic muffler

**NEW 2007 EMISSION STANDARDS COMPLIANT\*:  
NEW ELECTRONICALLY CONTROLLED GASOLINE ENGINE**

Mitsubishi Grendia's advanced gasoline engine, which helped pioneer the standard use of electronically controlled fuel injection and three-way catalytic converters in forklift trucks, has evolved even further. The new Grendia has achieved remarkable environmental controls and complies with all 2007 Emission Standards while still maintaining high performance and reliability levels.

\* 2007 Emissions Standard for Specific Special Vehicles (including off-road vehicles)  
Compliant with Emissions Standard for Specific Special Vehicles  
Ministry of the Environment  
Ministry of Economy, Trade and Industry  
Ministry of Land, Infrastructure and Transport



## TWO-LEVEL HIGH/LOW SPEED LIMITER

The Grendia's automatic speed limiter can be set to two levels – outdoors (HIGH) and indoors (LOW). Drivers can alternate between the two speed limits at the flick of a switch, helping them to choose the most appropriate fuel efficiency for the location.

\* Standard for Electronically Controlled Gasoline Engine Trucks



## POWER/SOFT MODE SWITCH

Depending on the task, two power levels can be selected: POWER mode, which maximizes power output and SOFT mode for fuel efficiency and low noise levels. Selecting SOFT mode cuts CO<sub>2</sub> emissions by approximately 13% compared to the POWER mode.

\* Standard for Electronically Controlled Gasoline Engine Trucks

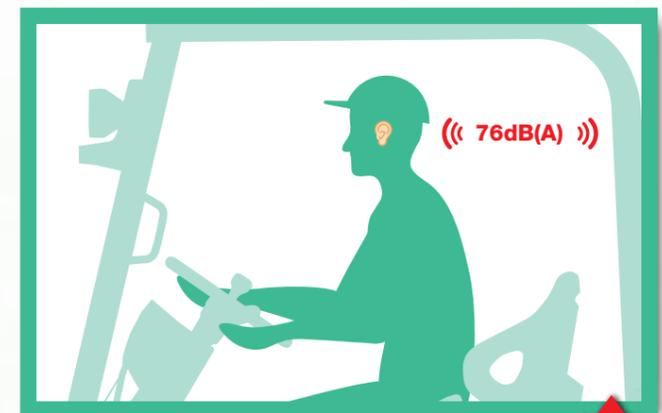
## 2007 EMISSION STANDARDS COMPLIANT\*: HIGH RELIABILITY DIESEL ENGINE

The well-known performance levels of the highly acclaimed Mitsubishi Diesel Engine have been maintained but now come with eco-friendly refinements. The upgraded engines have now achieved low emission levels in compliance with the 2007 Emission Standards without compromising horsepower or reliability.

\* 2007 Emissions Standard for Specific Special Vehicles (including off-road vehicles)  
Compliant with Emissions Standard for Specific Special Vehicles  
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Swirl-chamber diesel engine S4S



## LOW-NOISE DESIGN FOR MAXIMUM COMFORT WITH MINIMAL OPERATOR FATIGUE

With features such as low-noise engine, enhanced soundproofing of the engine compartment and floor level noise dampening, Mitsubishi Forklift Trucks has achieved a quiet working environment both for the operator and the surrounding working environment.

\* ISO-equivalent noise level (When diesel engine is in SOFT mode at high idle speed)

## STEERING SYNCHRONIZER

With full hydrostatic steering, steering is easy but hard to keep the truck straight without continuously adjusting the steering wheel. Such operation is difficult when truck has to work in confined space like containers. With steering synchronizer, the system actively checks and eliminates the misalignments to keep the truck straight without constantly adjusting the steering wheel.

### With Steering Synchroniser



### Without Steering Synchroniser

\* Difficulty in maintaining a straight line while driving



# "SAFETY FIRST"

## INTEGRATED PRESENCE SYSTEM – "IPS"

Grendia is fitted with Mitsubishi's IPS, an integrated active safety system designed to improve vehicle safety by actively detecting problems before they become accidents. It not only ensures safety during vehicle operation but also prevents errors when the operator is not seated, protecting both the operator and the workplace from potential accidents.

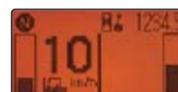


### NEW INTEGRATED DIGITAL MONITORS

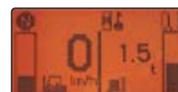
In the cab, digital displays are used to provide easier monitoring of systems and controls. The digital panel illuminates when the ignition is switched on allowing speed, load weight and system monitors to be checked at a glance.



VEHICLE SPEED DISPLAY



LOAD WEIGHT DISPLAY



optional

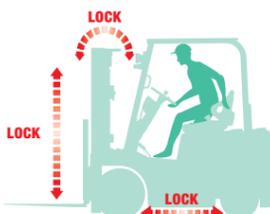
### MAST AND TRAVEL INTERLOCK

Mitsubishi Grendia forklift trucks are equipped with mast and travel interlock protection device that is linked to the operator's seat. If the operator is not seated, the mast and (for torque-converter models) the movement of the vehicle itself, is automatically locked in order to prevent injury or damage to property.

\* Note that brakes are not applied in travel interlocking, so trucks can still move on slopes due to gravity.

### LIFT LOCK

The fork on the Mitsubishi Grendia is automatically locked when the ignition is switched off, so it remains in position even if the lift lever is accidentally bumped or moved.



# "SAFETY FIRST"

– YET ANOTHER GRENDIA HALLMARK

## INNOVATIVE AND RELIABLE SAFETY FEATURES HELP PROTECT OPERATORS AND WORKPLACE

### NEUTRAL SAFETY

A Neutral Safety device, which prevents the engine from starting unless the forward/backward lever is positioned at neutral, is now built in on all vehicles, including all torque-converter-fitted vehicles and all direct drive vehicles.



### WIDE FORWARD VISIBILITY CLEAR REAR VISIBILITY

Unlike some forklift trucks, Mitsubishi Grendias have wide unobstructed visibility that extends from the tip of the fork to the top of the mast. Greater rear visibility is made possible by the Grendia's compact tail design.

### HIGH-MOUNTED REAR COMBINATION LAMP

All Mitsubishi Grendias are installed with rear combination lamps above the head guard that clearly signals braking or stopping to vehicles or persons behind the forklift truck.

\* Positions will differ for forklifts requiring vehicle inspection in Japan.



### COMPACT TURNING

Tight turns are easy with the Grendia thanks to a fully hydraulic power steering fitted with steering synchronizer/mechanism for 100% stationary steering. Its manoeuvrability allows for easy U-turns and navigation in small workspaces.

# EXCELLENT PERFORMANCE

## POWERFUL LIFTING CAPACITY

Mitsubishi Grendias are constructed with a low center of gravity frame that optimised vehicle balance and stability during lifting. That means a greater load capacity with much greater stability. The high-torque, high-power engine maintains a stable lift speed regardless of the load, helping operators to increase productivity.



### EXCELLENT LIFTING ABILITY

Lift speed: **640mm/s** (when loaded)  
**660mm/s** (when not loaded) • FGE25ZN

No capacity deration up to a height of 4 meters (2-stage mast)

### SOFT LANDINGS

Another exclusive feature found on the Mitsubishi Grendias is soft landing system that activates when the fork nears the ground, automatically protecting loads from hard drops or shocks.

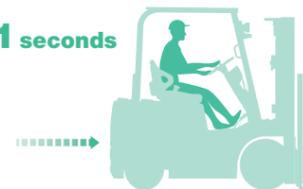
\* only for two-stage masts

## SMOOTH RUNNING

The high power engine and the high performance transmission are perfectly matched to produce an extremely smooth start/acceleration as well as excellent traction even on uphill slopes. Excellent braking and stopping control is provided by a robust and reliable due-servo system.

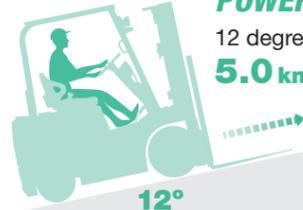
### SMOOTH ACCELERATION

10m acceleration **3.1 seconds**  
(unloaded) • FD25N



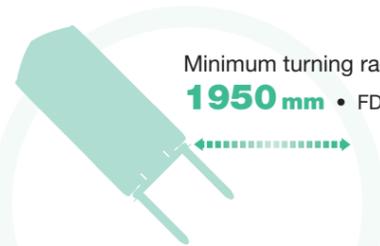
### POWERFUL UPHILL ABILITY

12 degree uphill velocity  
**5.0 km/h** (unloaded) • FD25N



### EXCELLENT STEERING ABILITY

Minimum turning radius  
**1950 mm** • FD15N



### GRENDIAS ARE EASY TO MANEUVER EVEN IN CRAMPED WAREHOUSES AND DELIVERY BAYS

Right angle stacking aisle width  
**3650 mm** • FD15N



## EASY OPERATION. DRIVER COMFORT.



**Suspension seat** with hip support mechanism. Ability to adjust position and extent of reclining according to body shape for maximum comfort. Seat belt fitted with warning light. Soft-grip handle makes getting in and out easier.



**Inching pedal** allows delicate movements.



**Electric shift lever** can be moved back and forth at the touch of a finger. (for torque-converter models only).



**Switches** for optional functions positioned on the right side of the dashboard.



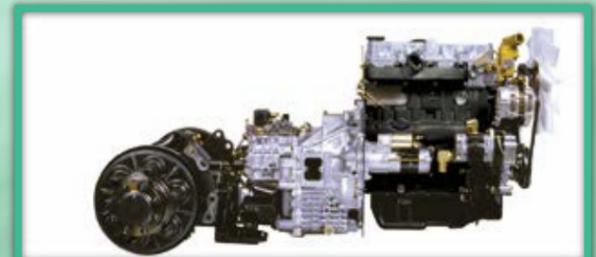
**Acrylic roof** for comfortable operation in outdoor conditions. Easily installed and uninstalled.



**Combination switch** integrating indicators and headlight switches.



**Tiltable steering column**



**Power-train full floating structure** for excellent vibration reduction. The entire power-train is supported by vibration absorbent rubber mounts.



**Fully hydraulic power steering**  
The full hydraulic steering allows for effortless steering even if truck is in a stationary position.

