Heavy-Duty Forklift Trucks

10-16ton

FD100 FD115 FD120
FD135 FD150s FD160s

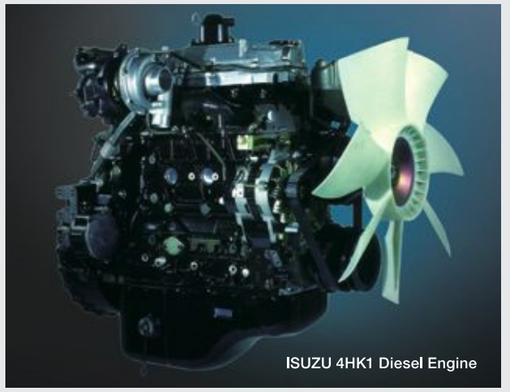
New engines are more powerful and durable than ever!

The TCM FD100 to FD160 forklift trucks have been substantially upgraded to be more powerful, yet eco-friendly workhorses with a variety of state-of-the-art features. They include a new type of diesel engine which meets the world's latest emission control regulations and a traveling and load handling interlock system which helps ensure safe operation of the truck.

The Premium ENGINE

The new type of diesel engine used in this series complies with the world's latest emission control regulations!

These environmentally friendly diesel engines emit substantially less nitrogen oxides (NOx) and particulate matter (PM).


ISUZU 4HK1 Diesel Engine

- The powerful diesel engines with a turbocharger and an intercooler provide a high rated output and an increased maximum torque to ensure greater productivity.
- The rated speed is as low as 2,000 rpm, making these engines more durable than ever.

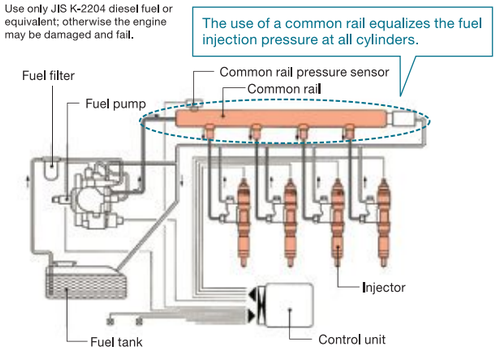
ISUZU 4HK1 Diesel Engine

Rated output:	125 kW at 2,000 rpm (Gross)
Max. torque:	662 N-m at 1,500 rpm (Gross)

Common rail fuel injection system

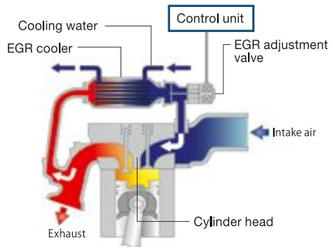
The common rail fuel injection system is a totally new type of fuel injection system which has been developed in response to successively more stringent emission control regulations that have recently been introduced. It uses a single fuel pump to put the fuel under extremely high pressure. Then, the fuel is distributed through the common rail to the injector of each cylinder under high and consistent pressure. The injector for each cylinder delivers precisely the optimal amount of fuel at the perfect time, thanks to an electronically controlled governor, to suit the engine's immediate operating conditions. Optimized fuel combustion substantially reduces the amount of pollutants, including PM and black smoke, in the exhaust gas. It also helps improve fuel economy and reduces engine vibration.

Note:
Use only JIS K-2204 diesel fuel or equivalent; otherwise the engine may be damaged and fail.

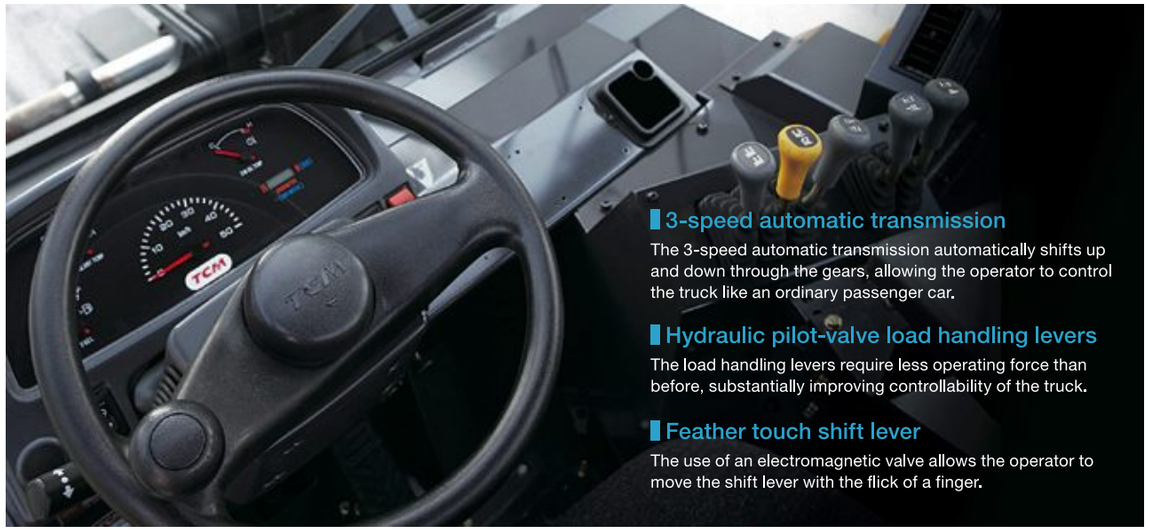


Cooled exhaust gas recirculation (EGR) system

Cooled exhaust gas recirculation (EGR) is a technique for reducing nitrogen oxide (NOx) emissions by mixing a portion of an engine's exhaust gas with the intake air to reduce the concentration of oxygen in the combustion chamber. This helps reduce the temperature during combustion, which lowers the formation of NOx. In addition, the EGR cooler reduces the exhaust temperature, while the fuel to air ratio control system uses a feedback loop to control the fuel/air mixture supplied to the engine, reducing the formation of NOx even more and improving fuel economy.



The EGR system cools part of the exhaust and mixes it with the intake air to achieve more efficient fuel combustion when the engine is running at low speeds.



3-speed automatic transmission

The 3-speed automatic transmission automatically shifts up and down through the gears, allowing the operator to control the truck like an ordinary passenger car.

Hydraulic pilot-valve load handling levers

The load handling levers require less operating force than before, substantially improving controllability of the truck.

Feather touch shift lever

The use of an electromagnetic valve allows the operator to move the shift lever with the flick of a finger.

Five load handling levers

Trucks with a sideshift attachment combined with a hydraulic fork positioner have five load handling levers. The elimination of the selector switch offers improved operability.

Deluxe, multi-function operator's seat (option)

An adjustable suspension seat is a favorite option. It features:

- Adjustable Suspension
- Fore-and-aft position adjustment
- Reclining backrest
- Adjustable height
- Seat swivel
- Adjustable-height armrests

Power and economy modes are selectable

You can select between the power drive mode (1st → 2nd → 3rd) and the economy drive mode (2nd → 3rd) easily with the flip of a switch.

Gearshift hold switch

The most appropriate gearshift pattern for the job can be selected from three modes by turning the dial switch: held in 1st gear, held in 2nd gear, and automatic.

The light switch is combined in the turn signal lever and the turn signal lever automatically returns to neutral

You can operate the turn signal lever and light switch like those in an ordinary passenger car.

Fully hydraulic power brake system with a master cylinder

The new brake system offers better braking response and stable braking force.

Electric parking brake system

The parking brake can be turned on and off just by pressing a switch. Furthermore, the parking brake is applied automatically when the engine is shut off, to prevent the truck from accidentally being left unattended without the parking brake set.

Load handling and traveling interlock system is standard

The load handling and traveling interlock system is a safety device for lift trucks (Complying with ISO/DIS3691 Industrial Vehicle Safety Standards). It helps prevent an accident from happening if the operator of the truck is not in the proper driving position or if a control is moved unintentionally when the operator is not in the operator's seat.

★The interlock system only shifts the transmission into neutral; it does not engage the brakes. When leaving the truck, always apply the parking brake.

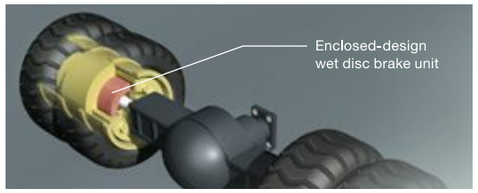
A buzzer sounds if the operator leaves his seat while the starter switch is on. After about 3 seconds, the transmission will be locked in neutral, the load handling system will be disabled, and the warning light will come on.

Pillar-less operator cabin (option)

The front pillars of the operator cabin have been eliminated for a great improvement in forward visibility, bringing higher safety, better load handling efficiency and a wider view for the driver.

View angle: 115 °

Enclosed-design wet disc brakes (option)



Enclosed-design wet disc brakes (with a forced cooling system) offer stable braking performance while eliminating the possibility of lining wear, thus substantially reducing maintenance costs.

LED instrument panel

The instrument panel uses LEDs for its lighting to provide excellent viewability and give a longer service life than bulbs. An odometer is displayed while the starter switch is turned ON and the engine is OFF. (Meters automatically switch from the odometer mode to the hour meter mode when the engine starts running.)

★The photo above shows the instrument panel with the starter switch ON and the engine OFF.

Large-capacity fuel tank

The large, 250-liter fuel tank allows longer working hours, which considerably improves operating efficiency.

Liquid-filled rubber mounts

The operator's cabin is connected to the chassis by liquid-filled rubber mounts (Viscous Mounts) to absorb vibration.

All aluminum radiator

The all aluminum-made radiator is resistant to corrosion and is environmentally friendly.

Reliable wet disc parking brake

The wet disc brake unit requires no adjustment of the brake pads, making the parking brake maintenance free and thus reducing annual maintenance costs substantially.

The photo shows an FD160s with optional equipment.

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- These products and specifications are subject to change without notice.
- Photos and illustrations may or may not include optional equipment and accessories.
- Features and specifications may vary depending on markets.
- Performance data and dimensions are nominal and subject to tolerances.

ISO 9001 Certification (TCM Shiga plant)

ISO 14001 Certification (TCM Shiga plant)

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