MODEL VARIATION

1 Ton Series

2 Ton Series

3 Ton Series

MAIN SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>8FG10</th>
<th>8FD10</th>
<th>8FG15</th>
<th>8FD15</th>
<th>8FG18</th>
<th>8FD18</th>
<th>8FG20</th>
<th>8FD20</th>
<th>8FG25*</th>
<th>8FD25*</th>
<th>8FG30*</th>
<th>8FD30*</th>
<th>8FGJ35</th>
<th>8FDJ35</th>
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<tbody>
<tr>
<td>Engine Model</td>
<td>1DZ-10</td>
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<td>Load Center</td>
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<tr>
<td>Overall Width A</td>
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<tr>
<td>Turning Radius (outside) B</td>
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<td>Overhead Guard Height C</td>
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<tr>
<td>Length to Fork Face D</td>
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<td>2,290</td>
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NOTE: *Powershift models

ENGINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>4Y Gasoline</th>
<th>Diesel</th>
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</thead>
<tbody>
<tr>
<td>Platen Displacement</td>
<td>cc</td>
<td>2,237</td>
</tr>
<tr>
<td>Rated Horsepower/r.p.m.</td>
<td>kW</td>
<td>40/2,400 (43/2,600)</td>
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<tr>
<td>Rated Torque/r.p.m. N-m</td>
<td>161/1,800</td>
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</tr>
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NOTE: ( ) for 30(32)-8FG20.8FGJ35

<table>
<thead>
<tr>
<th>Model</th>
<th>TOYOTA 1DZ-8 Diesel</th>
<th>TOYOTA 2Z Diesel</th>
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</thead>
<tbody>
<tr>
<td>Platen Displacement</td>
<td>cc</td>
<td>2,486</td>
</tr>
<tr>
<td>Rated Horsepower/r.p.m.</td>
<td>kW</td>
<td>40/2,400 (44/2,600)</td>
</tr>
<tr>
<td>Rated Torque/r.p.m. N-m</td>
<td>166/1,600</td>
<td>215/1,600</td>
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</tbody>
</table>

NOTE: ( ) for 60(62)-8FD20.25.30

This brochure is printed on recycled paper with soy ink.
The Mastery of True Potential

Mastery of any undertaking can only be achieved if there is true potential and unwavering dedication to excellence. To Toyota, the 8 Series is the proud culmination of 50 years in the pursuit of mastery in the development and manufacture of forklifts.

All who experience the level of mastery in the 8 Series will be inspired to reach for higher goals.

Here, Toyota integrated outstanding comfort and excellent operability into a operator’s compartment that realizes operator friendliness. The 8 Series is also equipped with high technology that contributes to the creation of a safe workplace.

Outstanding Comfort and Visibility
The 8 Series provides the comfort and visibility for long hours of efficient operation.

Efficiency-Boosting Operability
The operator’s compartment is carefully designed to ensure maximum forklift control from minimum operator effort.

Top-Class Stability
Toyota’s System of Active Stability (SAS), Operator Presence Sensing (OPS) system and Travel and Load Handling Control provide innovative, high-tech stability to the 8 Series.

Environmental Friendliness
Low noise and exhaust emissions make the 8 Series environmentally friendly.

Built-in Reliability and Serviceability
Designed to be tough and easy to maintain.
True Potential Through Outstanding Comfort and Visibility

Comfort is a Toyota tradition. With the 8 Series, it starts from the time you enter. Grab the large assist grip, place your foot on the wide, low step and slide into the operator’s seat that provides comfort, support and retention. Once you have been seated and wrapped your hands around the small-diameter steering wheel you will intuitively feel that everything you need for operating the forklift is within natural reach. You will also instantly realize that you have a clear view of the forks and load. This comfort sets the stage for reaching the true potential of the forklift from Toyota.

Easy Entry and Exit
A large assist grip, a deep, wide step and a spacious opening team up for easy entry onto the forklift.

Features and equipment may vary depending on market.

COMFORT AND SUPPORT
ORS* Seat
The ORS seat can be adjusted 150 mm forward and backward to provide comfort and support to almost all sizes of operators.
ORS: Operator Restraint System

WIDE FLOOR SPACE
The spacious floor area enables a more relaxed operating position that contributes to comfort.

OUTSTANDING VISIBILITY
The overhead guard, mast and instrument panel have been designed to provide excellent visibility of the fork tips at the most frequently used lift heights.
True Potential Through Outstanding Operability

Toyota used the latest technology to reexamine forklift operation in its search for enhanced operability. Motion-capture technology monitored every aspect of operator movement looking for ways to make operation more efficient. Based on these findings, well-thought-out design changes were combined to make the 8 Series ready to transform every action of the operator into smooth and efficient operation.

Operator-Friendly Steering Wheel

The small-diameter steering wheel teams up with the full hydraulic power steering system to provide excellent maneuverability. The steering column offers step-less adjustment to accommodate a wide range of operator preferences.

Foot-Activated Parking Brake (Powershift models)

The operator simply depresses the parking brake pedal to set it without changing operating position. A conveniently located handle is used to release it.

Rear-Pillar Assist Grip / Swivel Seat

The seat swivels to the right to facilitate operation in reverse. The seat also swivels to the left to make it easier to enter and exit the forklift. An optionally available rear-pillar assist grip with a horn button enhances comfort by offering easy horn operation while traveling in reverse.

Multi-function Display

The Multifunctional Display offers useful information for operations. The following are some of the display screens.

- Standard display
- Low speed level setting
- Over speed alarm setting
- Low speed setting indicator
- Over speed alarm

Combination Meter

Necessary instrumentation, such as the fuel meter, water temperature indicator and hour meters are shown in an easy-to-monitor digital format.

- Engine water temperature indicator
- Fuel meter
- Hour meter
- Brake warning light (OK Monitor)
- Engine coolant level warning light (OK Monitor)
- Clogged air cleaner warning light (OK Monitor)
- Diagnostic light
- Charge warning light
- Engine oil pressure warning light
- Sedimeter warning light (Diesel models)
- OPS light

Mini Lever

These small, easy-to-operate levers provide total load handling operation and travel direction selection. A fatigue-reducing armrest is provided.

Joystick

Lift and tilt operations can be operated with a single lever. Lift and tilt operations can be performed simultaneously.

Fork Vibration Damper

Shock and vibration to the load during load handling and travel are suppressed by an accumulator in the hydraulic circuit for the lift cylinder.
**True Potential Through Outstanding Stability**

At Toyota, safety is top priority in the quest for attaining true potential. Here, the state-of-the-art technology found in the System of Active Stability (SAS), which earned high praise on the 7 Series, helps to reduce the potential for accidents. Other innovative functions, such as the Operator Presence Sensing System (OPS) and optional Travel and Load Handling Control are ready to assist in protecting the operator and the load. Toyota’s continuous efforts toward safety provide you with a solid foundation for outstanding stability.

**G Force**

An onboard computer monitors the movement of the forklift and locks the swing of the rear axle when necessary to enhance stability, such as during turns or when lifting loads to high lift heights.

Note: The Active Control Rear Stabilizer is not installed if the forklift is originally equipped with optional dual front tires.

**Active Mast Function Controller**

- **Active Mast Front Tilt Angle Control**: Forward mast tilt is automatically restricted when heavy loads are being handled at high lift heights.
- **Active Mast Rear Tilt Speed Control**: Rear tilt speed is controlled in relation to lift height. Mast tilt is slowed for better control at high lift heights and allowed to operate at regular speed when loads are closer to the ground.

**Operator Presence Sensing System**

This function ensures that the position of the steering wheel unvaryingly corresponds with the position of the rear steer wheels.

**Travel and Load Handling Control**

1. **Lift-Height and Load-Sensing Vehicle Speed Control (Powershift models)**
   - This feature limits the maximum speed if the operator attempts to travel while carrying loads at high lift heights, thereby reducing the likelihood of instability due to sudden deceleration.
   - **1. Lift-Height and Load-Sensing Vehicle Speed Control (Powershift models)**
     - This feature limits the maximum speed if the operator attempts to travel while carrying loads at high lift heights, thereby reducing the likelihood of instability due to sudden deceleration.
   - **2. Lift-Height and Load-Sensing Sudden Start Off Prevention Feature (Powershift models)**
     - This feature suppresses sudden acceleration of the vehicle to reduce the risk of load spills in the event that the operator suddenly depresses the accelerator or operates the direction selection switch while carrying loads at high lift heights. This helps operators maintain certain speed limits in the work area while freeing them from the need to control acceleration, and also reduces the need for forklift managers to monitor the speed of the forklifts.

   **3. Low-Speed Setting**
   - This feature limits maximum speed to a preset level when the switch on the Multifunction Display is pressed. This can be useful at locations such as customer workshops that have different speed rules for outdoor and indoor operations.

4. **Maximum Speed Limitation**
   - This feature enables to limit maximum speed to a preset level. This helps operators maintain certain speed limits in the work area while helping them from the need to control acceleration, and also reduces the need for forklift managers to monitor the speed of the forklifts.

5. **Automatic Idle-Up Device**
   - The idle speed of the engine is automatically increased during lifting operations so that loads will be slowly lifted up without depressing the accelerator. It provides easy and proper load handling operation.

The following aspects of the Travel and Load Handling Control should be noted. When descending grades, the set speed may not be reached due to the relationship with engine output. Also, when descending grades, gravity may cause the preset speed to be exceeded. Additionally, maximum speed and sudden acceleration are suppressed in relation to the lift height and load weight, but this does not eliminate the possibility of tip-over. In other words, innovative Toyota functions such as those above are meant to help in the operation of forklift, but the operator is ultimately responsible its safety and control.
True Potential Through Outstanding Environmental Friendliness

The 8 Series is easy to get along with. It is specially designed to provide the operator and all those working nearby with a pleasant work environment. Low noise operation, low exhaust emissions and low vibration all mean that the 8 Series will hardly be noticed as it diligently enhances productivity at the workplace. And the 8 Series demonstrates that Toyota is continuing to make progress in eliminating harmful chemicals from the components of its forklifts, making them even more environmentally friendly.

**Low-Noise Design**
Meet your silent partner. Thick-sealing under the floorboards and the use of sound-absorbing and sound-proofing materials all work together to give the 8 Series low-noise operation.

**Low-Vibration Design**
Carefully designed engine and drive train mounts dramatically reduce the amount of vibration felt at the floorboard and steering wheel.

**3-Way Catalytic Converter System**
Electronic control is used on the 4Y engine to regulate the fuel injection and ignition systems. This is combined with the 3-Way Catalytic Converter System to filter out carbon monoxide (CO), hydrocarbon (HC) and nitrogen oxide (NOx) gases.

**Diesel Particulate Filter DPF-II**
It uses an enhanced filtering system to provide excellent black smoke particle elimination. The DPF-II provides the additional benefits of easier starting and longer filter life.

**Environmentally Friendly Design**
The 8 Series is free of asbestos, mercury and cadmium. The amount of lead and hexavalent chromium has also been dramatically reduced in order to minimize the affect on the environment.
True Potential Through Outstanding Reliability & Serviceability

Reliability is what Toyota forklifts have proven themselves to provide under harsh conditions the world over. This is because Toyota is always committed to boosting reliability. The use of resin parts has been reduced as much as possible along with other steps to enhance durability. The result is a forklift that will offer an extended life.

Serviceability can help boost the reliability of a forklift and extend its service life. The 8 Series has been designed so that anyone can easily inspect it. If service is needed, easy access can help to reduce downtime.

Cooling System
Ample cooling raises reliability by preventing overheating. The size of the opening in the counterweight has been increased to optimize airflow through the engine compartment and power unit.

Radiator Cover
No tools are needed to remove the radiator cover. The fasteners can easily be turned by hand to enable quick inspections or servicing.

Engine Hood
The wide-opening engine hood provides easy access for inspections or servicing.

Hood Latch
The easy-to-operate latch provides quick access to the engine compartment.

Scheduled-Maintenance Hour Warning Indicator
When the set time for maintenance is reached, this feature provides visible and audible notification.

Tilt Cylinder Boots
Each boot covers the exposed portion of the rod for the tilt cylinder, protecting it and the oil seals.

Water-Resistant Connectors
Connectors for most electrical components are highly water-resistant, increasing the reliability of the electrical system.

Long Life Tire
Wear resistant tires help reduce running costs and provide extended life.

Brake Fluid
Simply lift up the cover on the panel to check the brake fluid.

Floorboard
A two-piece design makes the floorboard easier to lift and handle. Remove these two pieces for wide open access to the engine and power train.
From the Chief Engineer

“What are customers really looking for in a forklift?”

In the development of the 8 Series, we took on the challenge of developing a forklift based on 50 cumulative years of technology with enthusiastic passion as our motivation. We returned to the starting point and took a careful look at the forklift itself from every aspect. The 8 Series stands ready to bring out the true potential in all owners and operators.

During the development of the 8 Series, we combined our ongoing quality improvement activities with more than 4,500 customer surveys and this helped us to fully recognize what the current forklift customer needs were and what those needs would be in the future.

The results lead us to conclude that the best method for satisfying customer needs was to: “Investigate the essence of what makes a good forklift by basing our design on the 7 Series and by further harnessing Toyota’s strengths into that design.”

In continuing our evolution from the 7 Series, we aimed for advances in the areas of safety, ergonomics, cost of ownership and environmental considerations.

In the field of safety we have added a traveling control option in addition to the existing System of Active Stability (SAS) and Operator Presence Sensing (OPS) features. We have been able to make this functionality by harmonising the SAS technology with the optional electronic fuel injection (EFI) system that has been employed in the present design.

This field of ergonomics is inseparably linked to the concept of work efficiency. The ability of the operator to work in comfort is an extremely important factor in dealing with the high speeds of the present-day logistics business. By paying close attention to all sizes, shapes and layouts of the operator compartment, we have been able to make significant improvements in visibility and operator operating space.

Through a concerted approach to reducing noise and vibration, we have created a forklift that has significantly reduced noise and vibration levels, as well as minimizing operator fatigue.

Cost of ownership is closely connected with the issue of reliability. As forklifts are a capital good, breakdowns that can stop customer productivity are a worst case scenario. By focusing on the areas of enhancing reliability, reducing downtime through making maintenance easier to perform, and extending maintenance periods, we have developed a forklift series that is able to make the greatest contribution to customer profitability.

Environmental factors are central to our thinking. Customers have also expressed a concern for the environment, a concern that we share. We have addressed this by using a multi-pronged approach. In the manufacturing process, we reduced and eliminated the use of materials that are environmentally sensitive. We have also developed a forklift with top-class emissions performance. This will reduce the output of undesirable substances over the lifetime of the truck, while simultaneously creating a cleaner work environment.

While this new design represents an evolution from the 7 Series, the development team began by re-evaluating the designs from scratch. They covered the smallest details – including each screw used in the forklift’s construction – to ensure the development of best-of-breed forklift units that truly satisfy customer needs.

I believe we have created a series of forklifts that further enhance the reputation that Toyota has established over the years.

Hisao Nagata
Chief Engineer of the 8 Series,
Toyota Material Handling Company

The development and design of the 8 Series was done at the Toyota Takahama Plant in Aichi, Japan. During the development stage, state-of-the-art technology was used to get a better understanding of operator movement during forklift operation. This data was carefully analyzed and used to enhance the design of the 8 Series. Then the 8 Series was exposed to test conditions far harsher than it will ever experience on the job. The result is a remarkable forklift series that will be providing productivity for years and years to come.