

Manufacturer	TOYOTA	
Applicable Models	8FD35N, 8FD40N, 8FDM40N, 8FD45N and 8FD50N 8FG35N, 8FG40N, 8FGM40N, 8FG45N and 8FG50N	
Model Type	4 WHEEL INTERNAL COMBUSTION COUNTERBALANCE FORKLIFT TRUCK	
Serial Number		
Model		

Description	A four wheel sit down counterbalanced rider forklift truck.
Material Structure	A steel framed rubber tyred, internal combustion engine powered / hydraulic forklift truck which allows the driver to sit within an operator compartment and protected by a fixed overhead guard. Differences between models can be in transmissions, engine, fuel type and mast configuration.
Intended Use	The 8FDN and 8FGN four wheel internal combustion engine sit down counterbalance forklift is designed for transporting palletised goods in areas with good ventilation. It is also capable of being used in the rain. The 8FDN and 8FGN are designed for operating on a solid, level surfaces, but may be driven on gradients not exceeding the specifications in the operator manual. Never travel across, turn or raise the mast on gradients.
Note	This risk assessment does not cover forklifts fitted with attachments, other than sideshift fitted with fork tynes to handle standard Australian pallets.

Reviewed		Authorisation	
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Position Title	Engineering Coordinator	Position Title	Product Safety, Standards and Engineering Manager

Item	Potential Hazards	Control Methods
1.	Use by Unauthorised or Untrained Personnel	- Always remove the key from the switch (or press red button if keypad fitted), when leaving the forklift unattended. - Ensure only competent and authorised persons who hold a LF class High Risk Work Licence use the forklift. - Ensure the Operation Manual has been read and understood by the operator and must be stored on the forklift. - Ensure all affixed warning labels have been read and understood by the operator.
2.	Operating Environment	- Do not use the forklift on grass or soft surfaces. - Avoid depressions, grates, manholes or other items which may risk the forklift becoming unstable. - Do not extend mast or load in high winds. - Do not operate in a cool / freezer room or hazardous area unless specifically designed to do so.
3.	Personnel Injury, Colliding with Fixtures and Damage to Product	- Employers should ensure that a hazard & risk assessment is conducted for the operator's duties and that a "Safe System of Work" is in place. - Ensure operators can read and understand the rating / capacity plate/label on the forklift and the forklift is rated appropriately for the job tasks. This includes any attachments used on the forklift. - Have a speed limit policy in place for the site. Ensure all personnel are clear of forklifts when operating and where possible have clearly defined pedestrian exclusion zones where forklifts are operating. - Never allow personnel to ride-on a forklift. - Prior to moving off, check that the way is clear, check mirrors to ensure pedestrians are clear and take care when turning due to tail swing. - Never travel with loads or fork tynes in an elevated position or with the mast/load tilted forward. - Always lower load or fork tynes as close as possible to the ground when travelling. - Drive smoothly and avoid excessive braking. - Ensure the load is evenly distributed and is stable. - Do not operate or transport the forklift with the load backrest removed. Ensure the fork tyne locks are located and engaged. - Be aware of low heights created by doorways or racking, trailers and services such as pipes, beams, or low lighting. - Look where you are travelling and make use of rear view mirrors, flashing lights (if fitted) and the horn. - Keep arms and limbs inside the confines of the operator's compartment. - Have a policy in place for intersections and when entering and exiting doorways and buildings. - Fit and use end of aisle devices such as mirrors or blue light systems. - Ensure that the suspension seat is adjusted to suit the operator's height and weight. - Do not park on an incline or slope. If required, chock the wheels.

Item	Potential Hazards	Control Methods
4.	Stability/Tip Over (Sideways and Forward)	- Always wear the seat belt. - Read the operator's manual and ensure it is understood and obey warning labels attached to the forklift. - Do not exceed capacity rating on load rating label (including load centre distance) and only handle stable loads. - Never travel with loads or fork tynes in an elevated position or with mast tilted forward. If travel is required when fork tynes and or load is in an elevated position, do so at a very slow speed and keep braking to a minimum. - Avoid travel on inclined surfaces and never turn on a gradient. If travel on a gradient is required, always travel with fork tynes and load pointing uphill. - Avoid heavy braking or the load may slide off the forks. - If moving high loads ensure load is supported by the load backrest and drive in reverse if view is restricted. - Always travel on smooth surfaces. - Operators are to follow the employers' Safe System of Work. - Stay within the confines of the operator compartment and lean away from impact zone if a tip-over occurs. Under no circumstances is the operator to jump from a forklift that is tipping over
5.	Mechanical or Control Failure	- Conduct pre-operational checks as outlined in the operation manual out at the beginning of each shift. - Follow hourly/time-time based service intervals. Rectify any reported issues or faults. - Do not modify the forklift without the approval of Toyota Material Handling Australia Pty Ltd (TMHA)
6.	Flammable Fuels Usage	- Always refuel or replace cylinders in an approved area. Outside of buildings is preferred, but if fuelling inside ensure that area is well ventilated. - Do not allow any sources of ignition into close proximity of fuels. - Do not smoke or use naked flames when refuelling. - Store fuels according to AS1940 and display appropriate warning signs.
7.	Slips, Trips and Falls when Entering or Leaving Operator Compartment	- Always enter and exit the operator's compartment from the left-hand side of the forklift. - Ensure that footwear and entry foot areas are clean and free of oil, grease, dirt or debris. - Never attempt to leave a forklift until it has stopped and the handbrake has been applied. - Use 3 points of contact when entering and exiting the forklift. - Ensure the engine cover is closed and locked in place.

Item	Potential Hazards	Control Methods
8.	Exertion strain from LPG cylinder change (if fitted)	- Provide written policy, procedures and training to operators, which address correct lifting, practices when LPG cylinders need to be changed. - Always use the swing down bracket when changing the LPG cylinder. Caution required when using the LPG cylinder swing down bracket. Refer to the operator's manual for instructions on use.
9.	Scalding or Burns	- Wait until engine and other components have cooled before attempting maintenance procedures. - Never place hands or arms through the opening in the counterweight. - Always check the water level when the radiator is cold.
10.	Hand, Foot or Arm Injury	- Never place hands or arms through mast section or outside the confines of the overhead guard. - Always switch off the engine before opening the engine cover. - Refer to the decals beside seat for adjustment of the arm rest before opening the engine cover. - Ensure hands and arms are kept clear of all moving parts.
11.	Asphyxiation from Exhaust Fumes	- Always operate a forklift in a well ventilated area. If the operator feels drowsy or nauseous they should stop the forklift and go to an area with fresh air and report the incident to management. - If operating in a confined area (e.g. shipping container), ensure that the forklift is fitted with a closed loop engine management system and catalytic muffler. Methods to ensure emissions are at a safe level should be implemented. It is not recommended that forklifts with a diesel engine are used in a confined area.
12.	Personal Injury when Changing Tyres Fitted with a Divided (Split) Rim or Locking Ring for Bead	- Refer to the operator's manual for details on jacking and jacking point locations. - Take care when jacking up the forklift and always support the forklift prior to removing the wheel assembly. - Take care when removing wheels from a forklift as they are large and heavy. - Always deflate pneumatic tyres prior to removing the rim nuts from the forklift. - Always ensure tyre is deflated prior to removing the locking ring or splitting the rim. - When inflating pneumatic tyres fitted with a locking ring for the bead, place in a special cage to prevent injury. Note: chock the wheel diagonal from the wheel to be changed.
13.	Personal Injury when Adjusting the Fork Tynes	- Beware of pinch points when manually adjusting fork tyne spacing of the carriage. - Ensure the locking pin is released prior to moving the fork tynes and that it is correctly located in a slot after adjustment to prevent movement of the fork tyne.

Item	Potential Hazards	Control Methods
14.	Fall from Height	When lubricating lift chains on mast, do not climb on the forklift or put your hand on the mast or chain. Use a method that will prevent a fall.
15.	Using a Forklift for Towing or Pushing	- Never use another forklift to tow a disabled forklift or for towing another vehicle including a trailer unless approved and the forklift is rated for towing. Refer to "Operator's Manual" for guidance when towing is possible. - Never use the load carriage, fork tynes or mast to be used as an anchorage point for towing. This also applies to using the same for pushing (The design of the mast and fork carriage is such that it is designed to lift).
16.	Maintenance/Work platforms	Never use a maintenance/work platform unless specific approval has been given by Toyota Material Handling Australia and an additional rating plate is affix to the truck.
17.	Braking	- The stopping distance will vary depending on the surface and tyre condition. Smooth concrete floors with a sealant will require a longer stopping distance to that of a brushed concrete surface. In addition if the surface is wet or icy it will require addition stopping distance. - These forklifts are tested to ensure the stopping distances on a smooth concrete surface are as follows when manufactured. - At 20 km/h travel speed (if maximum speed is less than 20 km/h, at the maximum speed of the forklift truck), unladen the forklift shall stop within 5 m. - At 10 km/h travel speed (if maximum speed less than 10 km/h, at the maximum speed of the forklift truck), laden forklifts shall stop within 2.5m. - Under heavy braking there is a risk that a pallet or load may slide of the forks. If operation requires that one pallet is stacked on top of the other then extreme care is required and load must be stable and secure.

	8FG 35N	8FG 40N	8FGM 40N	8FG 45N	8FG 50N
Power Source	1FS Petrol/LPG	1FS Petrol/LPG	1FS Petrol/LPG	1FS Petrol/LPG	1FS Petrol/LPG
Power/Torque	65kW/276Nm	65kW/276Nm	65kW/276Nm	65kW/276Nm	65kW/276Nm
Maximum Travel Speed	24km/h	24km/h	24km/h	24km/h	24km/h
Max Gradeability: loaded/unloaded	43%/24%	42%/21%	38%/22%	38%/22%	31%/22%
Truck Weight*	5700kg	6070kg	6400kg	6610kg	7140kg
*Truck and battery weights may vary dependant on the options fitted. Confirm capacities on the truck and battery name plates.					
	8FD 35N	8FD 40N	8FDM 40N	8FD 45N	8FD 50N
Power Source	1DZ-II Diesel	1DZ-II Diesel	1DZ-II Diesel	1DZ-II Diesel	1DZ-II Diesel
Power/Torque	56kW/269Nm	56kW/269Nm	56kW/269Nm	56kW/269Nm	56kW/269Nm
Maximum Travel Speed	23km/h	23 km/h	23.5km/h	23.5km/h	23.5km/h
Max Gradeability: loaded/unloaded	42%/24%	38%/21%	35%/22%	35%/22%	30%/22%
Truck Weight *	5800kg	6170kg	6500kg	6710kg	7240kg
*Truck and battery weights may vary dependant on the options fitted. Confirm capacities on the truck and battery name plates.					

Safety Features	• SAS (System of Active Stability) safety functions include: ○ Active mast function controller to detect the weight and height of the load and automatically controls mast forward tilt angle. ○ Active mast rear tilt angle control button to stop the mast in the vertical position. ○ Active mast forward/rear tilt speed control. When the mast is elevated the tilt speed is slowed down. ○ Steering knob synchroniser which maintains a synchronous angle of the steering wheel to the rear steer tyres. ○ Swing lock cylinder automatically locks the rear axle when the truck starts to turn. (On forklifts fitted with dual wheels, the swing lock cylinder is not fitted as the dual wheels provide additional lateral stability, instead turn speed control is fitted so truck speed and acceleration are reduced automatically when the truck starts to turn). • Operator Presence System (OPS). Seat is fitted with a switch which prevents travel and hydraulic functions should the operator leave the seat while the forklift is in operation. • Operators seat fitted with a sequential seat switch and belt system. • A digital multifunction display panel allows the operator at all times to understand the forklifts essential information. • Mast function controller. This system prevents the forks from being lowered when the engine is stopped. • Built in safety down valve is an integral part of the hydraulic system, which would reduce the rate of load decent should a failure (burst) occur in the hydraulic hoses or couplings. • Adjustable steering column. • The forklift is fitted with an overhead guard and load backrest. • Audible alarm fitted (horn). • Key switch for restricting use to authorised operators. An optional key pad is available.
References	• AS2359-1:2019 Powered Industrial Trucks. Part 1 General Requirements. • AS2359.2:2013 Powered Industrial Trucks Part 2 Operation. • AS2359.6-2013 Powered Industrial Trucks Part 6 Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks (ISO 3691-1:2011, MOD). • AS2359.9-2006 Powered industrial trucks Part 9 High-lift rider trucks—Overhead guards—Specification and testing. • AS1940-2004 The Storage and Handling of Flammable and Combustible Liquids. • AS4973-2001 Industrial trucks - Inspection and repair of fork arms in service on fork-lift trucks. • AS4983-2010 Gas fuel systems for forklifts and industrial engines. • AS ISO 6292:2015 Powered industrial trucks and tractors -- Brake performance and component strength. • AS ISO 22915.1:2015: Industrial trucks - Verification of stability – General. • AS ISO 22915.2:2015: Industrial trucks - Verification of stability - Counterbalanced trucks with mast. Note: applicable standards may vary depending on the build date of the truck and the continual update of standards