

TCM

A new dimension
in forklift truck performance



**Diesel &
Gasoline Forklift Truck Series**
3.5-5.0 tons

Creating a new dimension in forklift truck performance with a full complement of standard features

The FD/G Series, with capacities from 3.5 to 5.0 tons, has introduced a variety of new features in response to users' needs, including an automatic 2-speed transmission and a class-leading lift speed for excellent **maneuverability**, a low-vibration 6-cylinder engine, easy-to-use switches and levers, and a safety-first operator's seat for enhanced **operator comfort** and **safety**, and an aluminum radiator and a torque converter with cooling fins for high **durability**. They combine to contribute to increased productivity and efficiency.

FD·G Series

FD·G35 / FD·G40 / FD·G45 / FD·G50

Four innovative performances



EXCELLENT MANEUVERABILITY



ENHANCED OPERATOR COMFORT



1 Fast lift speed

Class-leading lift speed

The FD35 and FD40 Series offer a lift speed of 540 mm/s under load, the fastest lift speed in its class. When unloaded, the forks lower at a speed of 550 mm/s, substantially improving load handling efficiency.



2 Powerful, smooth acceleration and starting

2-speed automatic transmission is standard on all models of trucks with an automatic transmission

The 2-speed automatic transmission automatically selects the appropriate forward gear based on accelerator pedal effort. You do not have to change gears manually, which makes starting and acceleration smoother and improves work efficiency. The new FD/G Series deliver excellent maneuverability for load handling at a variety of work sites, including ports and container terminals.

●Maximum FD40 traction when loaded:

Existing model: 29.4 kN
New model: 33.3 kN

3 Optimal gearshift pattern is selectable

Trucks with an automatic transmission come with a three-mode selection switch

You can select the automatic transmission gearshift pattern according to your working conditions with the flick of the switch.



- D** ▶ Normal mode
- 1** ▶ Gradient mode
- Dopt** ▶ High-speed mode

1 Clean, powerful engine

Low-vibration, low-cost, 6-cylinder S6S engine

The eco-friendly diesel engine has performance to meet the emission levels required in the U.S. EPA Tier 2, EU Stage II and Japan Stage II regulations. Its new pre-chamber combustion system offers cleaner exhaust emissions while giving the truck extra power and speed.

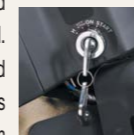


Rated output:
64.7 kW(88 PS) at 2300 r.p.m.
Maximum torque:
284 N·m(29 kgf·m) at 1600 r.p.m.

2 Smooth starting

Auto-glow system (Diesel engine trucks)

When the starter switch is turned ON, the glow indicator turns on and the engine is automatically preheated. When the engine has been preheated sufficiently, the glow indicator goes out on the instrument panel to inform the operator that the engine can be started.



3 Fingertip control reduces operator fatigue

Electric shift lever (trucks with an automatic transmission)

The electric shift control lever provides easy selection of forward or reverse with a single touch of the lever.



4 Light switch is integral with the turn signal lever

The light switch is combined in the turn signal lever

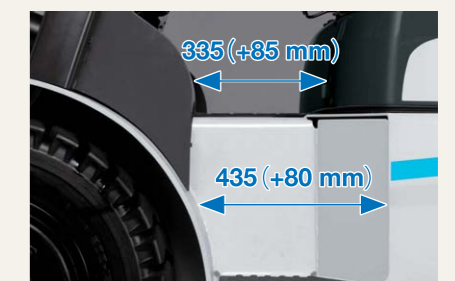
The light switch is built into the turn signal lever, for greater convenience. Also, the turn signal lever automatically returns to neutral when the steering wheel is returned to the straight-ahead position.



5 Expanded leg space

Tilt cylinders are equipped with covers

The entrance to the operator's seat and the safety step have been widened and enlarged for easier entry and exit. The tilt cylinders are covered so that the foot well is neat and trim.





GREATER SAFETY



HIGH DURABILITY

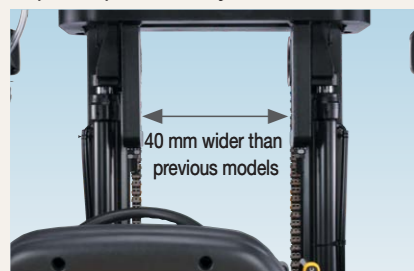


1 Excellent visibility

Forward visibility has been improved 10%

(3.5 - 4 ton trucks with a standard mast when compared with our previous models)

The wide mast, with wider lift chain spacing, makes the view forward less cluttered, to enhance safety and improve productivity.



2 Safe starting

Neutral safety mechanism

The neutral safety mechanism prevents the engine from being started unless the directional control lever is in the neutral position. This prevents the truck from moving abruptly when the starter switch is turned on. The neutral safety mechanism is standard on both automatic and manual transmission trucks.

3 Outstanding visibility from the rear

High-mount stop lamps

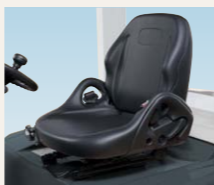
The stop lamps are installed at the rear on the top of the overhead guard to provide improved visibility to nearby workers or other vehicles behind the truck, thus offering added safety in the workplace.



4 Improved comfort and lessened fatigue

Safety seat with side supports

The safety seat, with suspension and reclining functions, features high sides and back to hold and balance the operator's body securely when working on steep grades or side slopes and it also serves also as a grip when mounting and dismounting. The seat belt has an emergency locking retractor (ELR) function for enhanced safety. The seat also has a convenient document pocket on the rear of the seat back.



5 Safe inspection and servicing

Engine hood with an automatically-locked stay damper

The engine hood has an automatically-locked, gas-spring stay damper to allow the operator open and close the hood easily. This fail-safe stopper prevents the hood from closing unexpectedly, ensuring safe inspection of components under the hood.



1 High rigidity and durability at all times

Rigid differential and axles

Rigid differential and axles ensure excellent operating performance under severe working conditions. Their strength and durability are well suited to heavy-duty work in a variety of tough working conditions, including ports.



2 Durable hydraulics

Oil-filled lift cylinders

The lift cylinder piston rods are filled with hydraulic oil to improve the durability of the lift cylinders.

3 Improved durability from multi-disc clutch packs

Torque converter with cooling fins (trucks with an automatic transmission)

The torque converter oil is cooled more efficiently by the cooling fins, to improve the durability of the clutch packs.

4 Longer clutch disc service life

Oil-filled clutch is standard (trucks with a manual transmission)

The clutch disc is cooled by oil from a pump, to reduce clutch disc wear.

5 High cooling performance for better durability

Aluminum radiator

The one-piece molded aluminum radiator offers substantially improved cooling efficiency and higher joint reliability, contributing to better performance and improved durability of the engine.



FD•G Series

FD•G35 / FD•G40 / FD•G45 / FD•G50

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TCM

**RELIABLE.
POWERFUL.
ENVIRONMENT-FRIENDLY.**



3.5-5t
3500-5000kg

**DIESEL POWERED
PNEUMATIC TIRE TRUCKS**

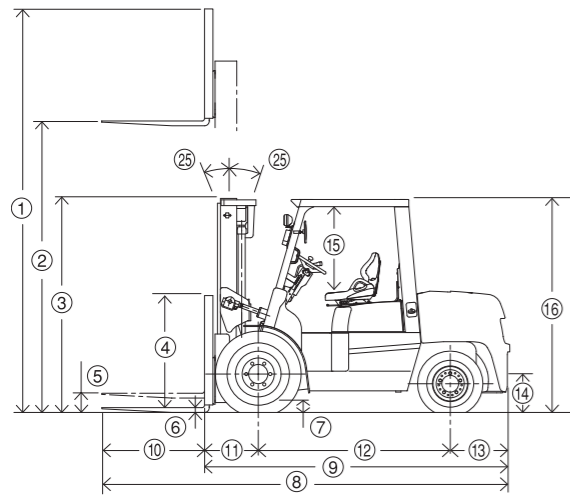
FD35T9·C9 | 3500kg
600mm

FD40T9·C9 | 4000kg
600mm

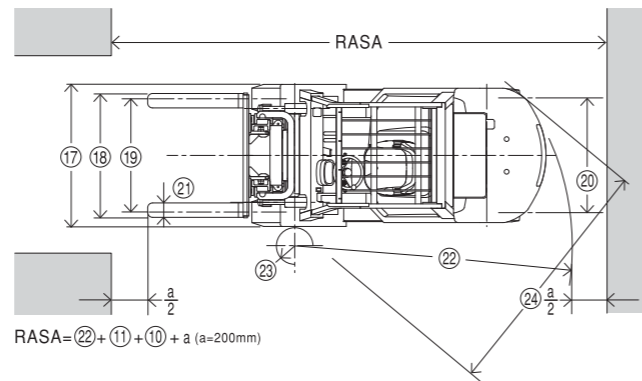
FD45T9·C9 | 4500kg
600mm

FD50T9 | 5000kg
600mm

STANDARD DIMENSIONS



GROUND CLEARANCE	FD35T9 · C9	FD40T9 · C9	FD45T9 · C9	FD50T9
	mm	mm	mm	mm
Mast	155	155	140	140
Frame	185	185	185	185
Front axle	185	185	185	185
Rear axle	195	195	195	195
Counter weight	205	205	205	205



STANDARD DIMENSIONS

Model	FD35T9 · C9	FD40T9 · C9	FD45T9 · C9	FD50T9
	mm	mm	mm	mm
① Overall height, fork raised (with backrest)	4265	4265	4265	4420
② Maximum fork height	3000	3000	3000	3000
③ Mast height, fork lowered	2230	2230	2235	2360
④ Backrest height	1220	1220	1215	1370
⑤ Free lift	150	150	155	160
⑥ Fork thickness	50	50	55	60
⑦ Minimum ground clearance	155	155	140	140
⑧ Overall length (with forks)	4150	4180	4260	4610
⑨ Length to fork face	3080	3110	3190	3390
⑩ Fork length	1070	1070	1070	1220
⑪ Load distance	560	560	590	590
⑫ Wheelbase	2000	2000	2000	2200
⑬ Rear overhang	520	550	600	600
⑭ Drawbar Pin Center Height	320	320	320	320
⑮ Overhead guard clearance (from face of seat)	1020	1020	1020	1020
⑯ Overall height (overhead guard)	2250	2250	2250	2250
⑰ Overall width	1480	1480	1480	1480
⑱ Fork spread (outside)	300~1290	300~1290	300~1290	300~1290
⑲ Tread (front)	1180	1180	1180	1180
⑳ Tread (rear)	1195	1195	1195	1195
㉑ Fork width	150	150	150	150
㉒ Outside turning radius	2790	2820	2860	3040
㉓ Inside turning radius	200	200	200	200
㉔ Minimum intersecting aisle	2650	2650	2700	2850
㉕ Tilt angles (forward-backward)	6°-12°	6°-12°	6°-12°	6°-12°

DIMENSIONS WITH FRONT DUAL DRIVE WHEELS (option)

Model	FD35T9 · C9	FD40T9 · C9	FD45T9 · C9	FD50T9
Tire size (front dual)	7.50-16-8PR	7.50-16-8PR	7.50-16-8PR	7.50-16-8PR
Service weight	+20kg	+20kg	+20kg	+20kg
	mm	mm	mm	mm
⑰ Overall width	1830	1830	1830	1830
⑲ Tread (front)	1340	1340	1340	1340
㉒ Outside turning radius	2890	2950	2950	3125
㉓ Inside turning radius	200	200	200	200
㉔ Minimum intersecting aisle	2600	2600	2600	2750
Tire size (front dual)	8.25-15-14PR	8.25-15-14PR		
Service weight	+80kg	+80kg		
	mm	mm		
③ Mast height, fork lowered	2245	2245		
⑰ Overall width	1950	1950		
⑲ Tread (front)	1435	1435		
㉒ Outside turning radius	2920	2950		
㉓ Inside turning radius	200	200		
㉔ Minimum intersecting aisle	2600	2650		

STANDARD EQUIPMENT AND ACCESSORIES

[Equipment]

- Asbestos-free brake shoe material
- Centrifugal air cleaner
- Coolant recovery system
- Cylinder type bonnet latch with locking function
- Deluxe suspension seat with seat-belt
- Drawbar device
- Engine after glow system
- Engine auto glow system
- Fuel water sedimenter
- Full hydraulic power steering
- Heavy duty overhead guard
- Hi-visibility, wide view mast (VM300)
- Hydraulic oil dipstick
- ITA Class III & IV carriage
- J-lug long life tires
- Lift circuit cut-off valve
- Load backrest
- Overhead air intake system
- Power-assisted brake
- Power-assisted oil clutch (manual shift T/M)
- Retaining rollers
- Return hydraulic filter
- Suction hydraulic strainer
- Tilt lock valve
- Transmission oil dipstick (power shift T/M)
- Transmission oil filter (power shift T/M)
- 1070mm forks (1220mm for 5 ton)
- 2-spool control valve with pressure relief

[Controls]

- Electric shift control lever (power shift T/M)
- Lift and tilt levers
- Multi-function switch lever (lighting and turn-signal) with self-cancelling mechanism
- Parking brake lever with inter-lock
- Tilt adjustable steering post

[Accessories]

- Access-assisted hand grip
- Back-up alarm buzzer
- Back-up lights
- Deluxe non-slip floor mat
- Documents clip
- Documents holder
- Electric horn
- Front combination lights (turn signal, clearance)
- Glove compartment / Pen holder
- Head lights traffic purposes
- High-mounted rear combination lights (tail, brake, back-up, turn signal and reflector)
- Operator tool kit
- Overhead guard canvas
- Side view mirrors
- Tilt cylinder covers

[Instruments and Switch]

- Charge indicator
- Engine oil pressure warning indicator
- Fuel gauge
- Fuel sedimenter indicator
- Glow indicator
- Hourmeter
- Ignition key engine stop
- Neutral safety switch
- Water temperature gauge

OPTIONAL LOADING ATTACHMENT

- Alternative fork lengths
- Bale clamp
- Carton clamp (on request)
- Crane arm (on request)
- Drum clamp (on request)
- Fork clamp (on request)
- Fork extension sleeves
- Fork positioner (hydraulic type)
- Fork positioner (manual type)
- High, wide type load backrest
- Hinged forks, bucket
- Load push-pull (on request)
- Load stabilizer (on request)
- Ram
- Rotating bale clamp
- Rotating forks (hook-on, integral type)
- Rotating paper roll clamp (hook-on, integral type)
- Side shift
- Sleeve-in hook (on request)
- Wide type fork carriage
- Wide view full free 2-stage (VFM) mast
- Wide view full free 3-stage (VFHM) mast

OPTIONAL EQUIPMENT AND ACCESSORIES

[Equipment]

- Air-conditioner (steel cabin) (SCBAC)
- Auxiliary hydraulic valve modules
- Central greasing system (CL)
- Color tire (white, green) (TUW · G)
- Dual element aircleaner (ADE)
- Engine air precleaner (CAKB)
- Exhaust purify catalytic muffler (EPM)
- Front dual drive wheels (DD/SDD)
- Heater (HR)
- Heater & defroster (steel cabin) (DEF)
- High profile overhead guard (2400mm) (HGH)
- Hydraulic oil cooler (CRH)
- Low profile overhead guard (2130mm) (HGL)
- Overhead exhaust system (TUE)
- Plate fin radiator (RAD PF)
- Radiator dust screen (fine, medium mesh) (DSR)
- Semi-integral type power steering
- Smoke reduction/spark arrester muffler (CBM)
- Solid tires (Unique cushion tires) (SE)
- Steel cabin (SCB001)
- Windshield with wiper (AW071)

[Accessories]

- Custom paint-work
- Fire extinguisher (FE)
- Rear working light (RWL)
- Rotating warning light (Beacon) (RLY/RLR)
- Steering cylinder boot (PSB)
(This applies to the semi-integral type power steering only.)
- Tilt cylinder covers (TLB)

[Instruments and Switch]

- Air cleaner clogging warning indicator
- Ammeter (AM)
- O.K. monitor (OKM)
(battery electrolyte level, coolant level, parking brake, air-cleaner)
- Speedometer (SM)
- Torque converter oil pressure gauge (TPM)
- Torque converter oil temperature gauge (TTM)
(power shift T/M)

Others on request

NOTES : ●Meets following major standards and code:

- ISO22915-2 Counter Balanced Lift Trucks, Stability & Safety Test (Int'l)
- JIS D6001 Industrial Lift Trucks (Japan)
- ISO D6011 Stability & Safety Test (Japan)
- Overhead guard meets ISO 6055, JIS D6021

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