

Large capacity industrial engines with high torque and a long service life

Hydrodynamic drive unit for fast acceleration and direction changes

Comfortable operator's cab featuring exemplary ergonomics

Isolated, cushion mounted cab

Catalytic converter standard on all TFG trucks



Illustration with optional equipment

DFG/TFG 540–550

Diesel and LPG forklifts with hydrodynamic drive units (4000, 4500, 5000 kg)

Jungheinrich hydrodynamic diesel and LPG forklift trucks have an incredible handling capacity in a variety of applications. The hydrodynamic drive performs especially well in medium to long distance operations and also ensures smooth shock-free drive from rest.

Large capacity industrial engines generate high torque even at low speeds. The benefits of this include lower fuel con-

sumption and noise. These robust engines are specially designed for use in forklift trucks. That ensures high reliability and a long service life even for tough applications.

All the engines feature low emissions and comply with the future EU Directives. The LPG versions are fitted as standard with a catalytic converter. A closed-loop 3-way catalytic converter (TFG) and various par-

ticulate filter systems (DFG) are available as options.

The operator's cab has an ergonomic layout and is designed around the operator. This ensures safety, protects health and enables the operator to concentrate fully on his work whilst being in a relaxed & stress free environment. Overall this ensures maximum productivity for arduous shifts.

Technical Data in line with VDI 2198 as at: 09/2009

		Jungheinrich				Jungheinrich		Jungheinrich		
		DFG 540	TFG 540	DFG 545	TFG 545	DFG 550	TFG 550			
Identification	1.1	Manufacturer (abbreviation)	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	1.1	
	1.2	Manufacturer's type designation	DFG 540	TFG 540	DFG 545	TFG 545	DFG 550	TFG 550	1.2	
	1.3	Drive	diesel	LPG	diesel	LPG	diesel	LPG	1.3	
	1.4	Type of operation	seated		seated		seated		1.4	
	1.5	Load capacity/rated load Q (t)	4		4.5		5		1.5	
	1.6	Load centre distance c (mm)	500		500		600		1.6	
	1.8	Load distance, centre of drive axle to fork x (mm)	564 ¹⁾		564 ¹⁾		579 ²⁾		1.8	
	1.9	Wheelbase y (mm)	1985		1985		1985		1.9	
	Weights	2.1	Service weight kg	6279		6669		7434		2.1
2.2		Axle loading, laden front/rear kg	8954/1325		9869/1300		10762/1673		2.2	
2.3		Axle loading, unladen front/rear kg	2810/3469		2937/3732		2795/4639		2.3	
Wheels, Chassis	3.1	Tyres (solid rubber, SE = superelastic, pneumatic)	SE/SE		SE/SE		SE/SE		3.1	
	3.2	Tyre size, front	8.25-15		300-15		300-15		3.2	
	3.3	Tyre size, rear	28x9-15		28x9-15		28x9-15		3.3	
	3.5	Wheels, number front/rear (x = driven wheels)	2x/2		2x/2		2x/2		3.5	
	3.6	Track width, front b ₁₀ (mm)	1160		1160		1160		3.6	
	3.7	Track width, rear b ₁₁ (mm)	1150		1150		1150		3.7	
	Basic Dimensions	4.1	Mast/fork carriage tilt forward/backward α/β (°)	7/6		7/6		7/6		4.1
4.2		Lowered mast height h ₁ (mm)	2540		2540		2540		4.2	
4.3		Free lift h ₂ (mm)	150		150		150		4.3	
4.4		Lift height h ₃ (mm)	3500		3500		3500		4.4	
4.5		Extended mast height h ₄ (mm)	4215		4215		4363		4.5	
4.7		Overhead load guard (cab) height h ₆ (mm)	2375		2375		2375		4.7	
4.8		Seat height/standing height h ₇ (mm)	1255		1255		1255		4.8	
4.12		Coupling height h ₁₀ (mm)	535/700		535/700		535/700		4.12	
4.19		Overall length l ₁ (mm)	4145		4145		4260		4.19	
4.20		Length to face of forks l ₂ (mm)	2995		2995		3110		4.20	
4.21		Overall width b ₁ (mm)	1400/-		1450/-		1450/-		4.21	
4.22		Fork dimensions s/e/l (mm)	50/125/1150		50/150/1150		60/150/1150		4.22	
4.23		Fork carriage ISO 2328, class/type A, B	3A		3A		4A		4.23	
4.24		Fork carriage width b ₃ (mm)	1260		1260		1260		4.24	
4.31		Ground clearance, laden, under mast m ₁ (mm)	190		190		190		4.31	
4.32		Ground clearance, centre of wheelbase m ₂ (mm)	230		230		230		4.32	
4.33		Aisle width for pallets 1000x1200 crossways Ast (mm)	4419		4419		4569		4.33	
4.34		Aisle width for pallets 800x1200 lengthways Ast (mm)	4619		4619		4769		4.34	
4.35	Turning radius Wa (mm)	2655		2655		2790		4.35		
4.36	Smallest pivot point distance b ₁₃ (mm)	900		900		900		4.36		
Performance Data	5.1	Travel speed, laden/unladen km/h	24/24.5	24.4/25.8	23/23.5	23.8/25.8	22/22.5	22.3/25.8	5.1	
	5.2	Lift speed, laden/unladen m/s	0.49/0.53		0.49/0.53		0.48/0.53		5.2	
	5.3	Lowering speed, laden/unladen m/s	0.51/0.49		0.51/0.49		0.51/0.49		5.3	
	5.5	Drawbar pull, laden/unladen N	41200/23500	38400/19400	40970/24470	38100/20400	33500/21100	31000/16500	5.5	
	5.7	Gradient performance, laden/unladen %	25/26		24/26		23/26		5.7	
	5.9	Acceleration time, laden/unladen s	5/4.5	4.8/4.2	5/4.5		5.1/4.5	5.5/4.5	5.9	
	5.10	Service brake	mechanic/hydraulic		mechanic/hydraulic		mechanic/hydraulic		5.10	
V-Motor	7.1	Engine manufacturer/type	Perkins1104D-44	GM 4.3L V6	Perkins1104D-44	GM 4.3L V6	Perkins1104D-44	GM 4.3L V6	7.1	
	7.2	Engine power acc. to ISO 1585 kW	56	67	56	67	56	67	7.2	
	7.3	Rated speed min ⁻¹	2200		2200		2200		7.3	
	7.4	No. of cylinders/cubic capacity /cm ³	4/4400	6/4294	4/4400	6/4294	4/4400	6/4294	7.4	
	7.5	Fuel consumption acc. to VDI cycle l/h, kg/h	4.7 ³⁾	6.24 ³⁾	5.2 ³⁾	6.5 ³⁾	5.7 ³⁾	6.8 ³⁾	7.5	
Other Details	8.1	Type of drive control	hydrodynamic		hydrodynamic		hydrodynamic		8.1	
	8.2	Operating pressure for attachments bar	160		160		160		8.2	
	8.3	Oil volume for attachments l/min	30		30		30		8.3	
	8.4	Sound level at driver's ear according to EN 12 053 dB(A)	78		78		78		8.4	
	8.5	Tow coupling, type DIN	15170/type H		15170/type H		15170/type H		8.5	

- 1) 573 mm for DZ mast; with integrated sideshift: x = 596 mm (605 mm for DZ mast); with SS attachment: x = 636 mm (645 mm for DZ mast)
 2) 588 mm for DZ mast; with integrated sideshift: x = 616 mm (625 mm for DZ mast); with SS attachment: x = 659 mm (668 mm for DZ mast)
 3) 60 VDI working cycles/h

Make use of the advantages

Ergonomic operator's cab

The comfortable operator's cab helps maximise the operator's work capacity and offers outstanding ergonomics:

- Large visible step provides easy safe entrance and exit from the cab.
- Cushion cab mountings noticeably reduce vibrations and oscillations.
- Deluxe seat can be adjusted in three ways. Air suspension is available as an option.
- Infinitely adjustable steering column.
- Large, comfortable footwell with automotive style pedal layout.
- Hydraulic levers and directional control are ergonomically positioned to the right of the operator.
- Excellent forward visibility through panoramic mast and carriage.
- Clear visible analogue instrument panel has extensive warning and control lights.
- The optional deluxe cab provides a warm comfortable operating environment in all weathers.

Engines

Large capacity industrial engines, specially designed for the requirements of forklift trucks provide power in every situation:

- 4.4 litre diesel engine (Perkins), developing 56 kW of power with a maximum torque of 260 Nm at 1650 rpm. Clean emissions and quiet combustion by means of indirect injection.
- 4.3 litre V6 LPG engine (GM), developing 67 kW of power with a maximum torque of 260 Nm at 2200 rpm.
- Long service life due to robust construction and low engine speed.

- 500 hour servicing interval.
- Standard catalytic converter (TFG) for low emissions (NOx, CO, HC), closed-loop 3-way catalyst is optional.
- Low particulate emissions (DFG), with various optional particulate filter systems.
- 70 litre diesel tank integrated in the chassis.

Highly capable hydrodynamic transmission

The hydrodynamic drive unit has an automatic power shift transmission enabling:

- Optimised power transfer, with maximum efficiency for medium to high speed applications.
- Hydrodynamic torque converter with 2 speeds forwards/reverse.
- A combined inching/brake pedal allows precision driving in conjunction with full hydraulic performance. While a conventional brake pedal allows accurate positioning on ramps and gradients.

Electrical system

12 Volt battery with 95 Ah (TFG/DFG) and 66A AC alternator. LPG engine with maintenance-free, non-contact electronic ignition.

Tyres

Super elastic tyres as standard. Non-marking SE tyres or pneumatic tyres available as options.

Steering

Hydrostatic steering provides low effort shock free steering, for maximum opera-

tor comfort and safety. The steer axle with integrated steering cylinder is fixed to the chassis through rubber bearings.

Brake

The forklift has two brake systems, a foot operated hydraulic drum service brake with asbestos-free linings and a hand operated "over-centre" parking brake.

Hydraulic system

The high performance filter system ensures clean oil and therefore the long service life of all the components:

- Suction filter and filter in the return line.
- 70 litre hydraulic tank integrated in the chassis.
- The hydraulic tank is vented through a filter.
- Pressure limiting valves prevent excessive pressure and overloads.

Mast

All components of the mast are designed for excellent visibility, high stability and a long service life:

- Slim line mast sections with lift cylinders hidden behind, give an excellent field of view for safe operation.
- Visibility through the carriage is excellent.
- Carriages comply with FEM/ISO-2328-3A (540, 545) or 4A (550).

Options

Various special options and mounted equipment are available for adapting to a range of application requirements or customer wishes.

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