

hydrostaticDRIVE for excellent drive comfort and productivity

Low fuel consumption

Excellent stability during travel due to extremely low centre of gravity and high pivot steer axle

Compact mast for best visibility

Ergonomic and easily adjustable operators environment

Driver orientated workplace



## DFG/TFG 540s/545s/550s/S50s

**Diesel and LPG counterbalanced trucks with hydrostatic drive (4,000/4,500/4,990/5,000 kg)**

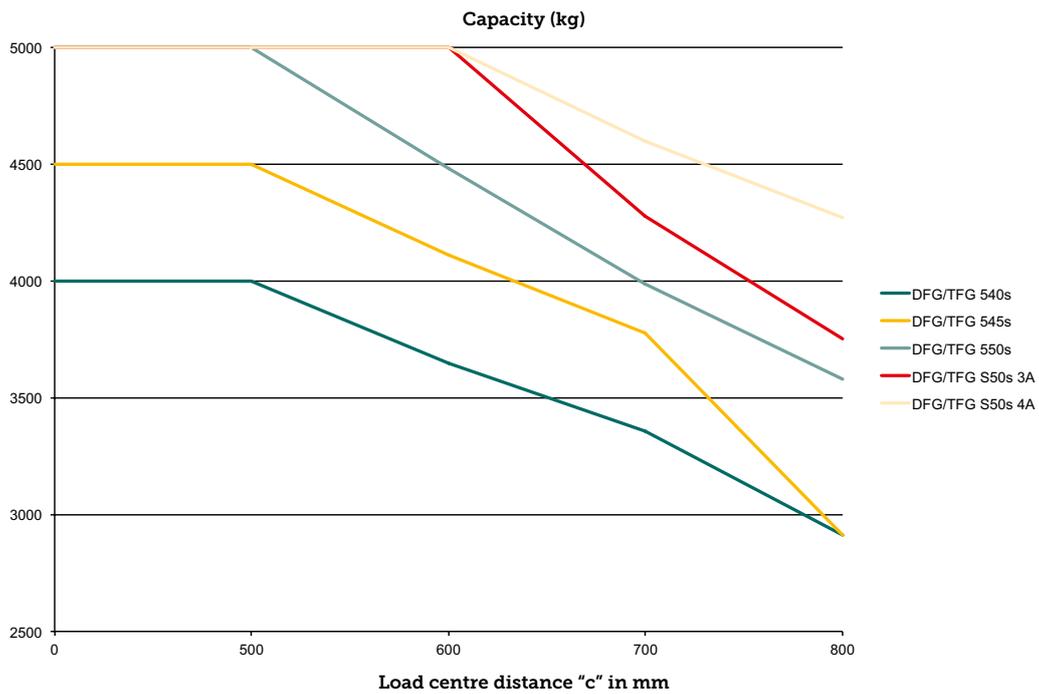
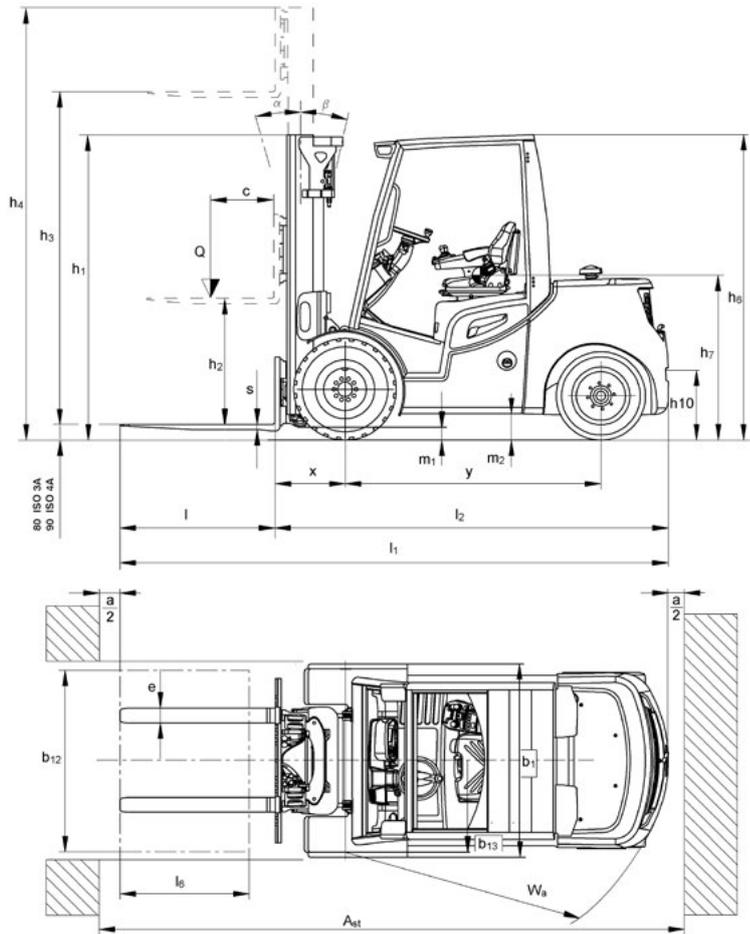
Our diesel and LPG fork lift trucks with hydrostatic drives offer outstanding throughput, particularly when reversing (e.g. during loading of HGVs). This is where their strengths truly come into play: Dynamic acceleration, fast reversing and precision driving. With five operating programs, the performance characteristics can be optimally adapted to the requirements of numerous applications.

State-of-the-art engines from the automotive industry feature impressive electronic control units. They allow for precise operation and optimum productivity combined with low fuel consumption. All the engines are characterised by low emissions, falling significantly below the strict EU directives. The diesel truck is fitted with a diesel particle filter as standard. A regulated 3-way catalyser is available as an option for the LPG trucks.

The generously dimensioned workstation is optimally designed with the operator in mind. The infinitely adjustable steering column with memory function and the integral armrest allow for adjustment to suit all operator sizes. The single-point adjustment via two adjustable axis enables the primary controls to be quickly and intuitively adjusted. This ensures safety, protects health and enables the operator to concentrate fully on their work whilst being in a relaxed and stress-free environment. The laminated safety glass roof panel offers protection from the weather and falling items. The increased amount of light in the cabin creates a pleasant working atmosphere contributing to faster and safer stacking and retrieval.

Our series 5s DFG/TFG trucks with hydrostatic drive offer the best design for consistent high productivity and efficiency throughout the entire shift.

# DFG/TFG 540s/545s/550s/S50s



# DFG/TFG 540s/545s/550s/S50s

Standard mast designs DFG 540s/DFG 545s/DFG 550s/DFG S50s/TFG 540s/TFG 545s/TFG 550s/TFG S50s												
	Lift $h_3$ (mm)	Lowered mast height $h_1$ (mm)		Free lift $h_2$ (mm)			Extended mast height $h_4$ (mm)			Mast tilt forward / back $\alpha/\beta$ (°)		
		DFG 540s / DFG 545s / DFG 550s / TFG 540s / TFG 545s / TFG 550s	DFG S50s / TFG S50s	DFG 540s / DFG 545s / TFG 540s / TFG 545s	DFG 550s / TFG 550s	DFG S50s / TFG S50s	DFG 540s / DFG 545s / TFG 540s / TFG 545s	DFG 550s / TFG 550s	DFG S50s / TFG S50s	DFG 540s / DFG 545s / DFG 550s / TFG 540s / TFG 545s / TFG 550s	DFG S50s / TFG S50s	
Duplex ZT	3030	-	2440	-	-	150	-	-	4003	-	6/8	
	3100	2348	-	150	150	-	3823	3958	-	6/8	-	
	3430	-	2640	-	-	150	-	-	4403	-	6/8	
	3500	2548	-	150	150	-	4223	4358	-	6/8	-	
	4000	2795	-	150	150	-	4720	4858	-	6/8	-	
	4030	-	2940	-	-	150	-	-	5003	-	6/8	
	4230	-	3040	-	-	150	-	-	5203	-	6/8	
	4500	3040	-	150	150	-	5215	5358	-	6/8	-	
	4730	-	3290	-	-	150	-	-	5703	-	6/8	
	5000	3290	-	150	150	-	5715	5858	-	6/6	-	
	5230	-	3540	-	-	150	-	-	6203	-	6/6	
	5500	3540	-	150	150	-	6215	6358	-	6/6	-	
	5730	-	3790	-	-	150	-	-	6703	-	6/6	
	6000	3790	-	150	150	-	6715	6858	-	6/6	-	
	6230	-	4040	-	-	150	-	-	7203	-	6/6	
6500	4040	-	150	150	-	7215	7358	-	6/6	-		
Duplex ZZ	2932	-	2323	-	-	1300	-	-	3955	-	6/8	
	3142	2323	-	1565	1415	-	3900	4050	-	6/8	-	
	3332	-	2523	-	-	1500	-	-	4355	-	6/8	
	3542	2523	-	1765	1615	-	4300	4450	-	6/8	-	
	3825	-	2770	-	-	1747	-	-	4848	-	6/8	
	4035	2770	-	2012	1862	-	4793	4943	-	6/8	-	
	4185	-	2950	-	-	1927	-	-	5208	-	6/8	
	4395	2950	-	2192	2042	-	5153	5303	-	6/8	-	
	4885	-	3300	-	-	2277	-	-	5908	-	6/6	
	5095	3300	-	2542	2392	-	5853	6003	-	6/6	-	
	5314	-	3515	-	-	2492	-	-	6337	-	6/6	
	5524	3515	-	2757	2607	-	6282	6432	-	6/6	-	
	Triplex DZ	4400	2223	-	1465	1315	-	5158	5308	-	6/8	-
		4420	-	2323	-	-	1300	-	-	5443	-	6/8
		4720	-	2423	-	-	1400	-	-	5743	-	6/6
5000		2423	-	1665	1515	-	5758	5908	-	6/6	-	
5220		-	2590	-	-	1567	-	-	6243	-	6/6	
5500		2590	-	1832	1682	-	6258	6408	-	6/6	-	
5750		-	2770	-	-	1747	-	-	6773	-	6/6	
6000		2770	-	2012	1862	-	6758	6908	-	6/6	-	
6280		-	2950	-	-	1927	-	-	7303	-	6/6	
6500		2950	-	2170	2042	-	7280	7408	-	6/6	-	
6780		-	3120	-	-	2097	-	-	7803	-	6/6	
7000		3120	-	2350	2212	-	7770	7908	-	6/6	-	
7320		-	3300	-	-	2277	-	-	8343	-	6/6	
7500		3300	-	2490	2392	-	8310	8408	-	6/6	-	

# Technical data in line with VDI 2198

				Jungheinrich					
Identification	1.1	Manufacturer (abbreviation)							
	1.2	Model		DFG 540s	DFG 545s	DFG 550s	DFG 550s		
1.3	Drive		Diesel						
	1.4		Manual, pedestrian, stand-on, seated, order picker operation						
1.5	Load capacity/rated load		Q	t	4	4.5	4.99	5	
	1.6		c	mm	500	500	500	600	
	1.8		x	mm	564	564	564	579	
	1.9		y	mm	1,970	1,970	1,970	2,000	
			seat						
Weights	2.1	Service weight		kg	6,150	6,450	6,700	7,300	
	2.2	Axle load with load front/rear		kg	8,900 / 1,250	9,600 / 1,350	10,300 / 1,400	10,750 / 1,550	
	2.3	Axle load without load front/rear		kg	2,850 / 3,300	2,800 / 3,650	2,750 / 3,950	2,950 / 4,350	
Wheels / frame	3.1	Tyres		SE					
	3.2	Tyre size, front		mm	8.25-15	300-15	300-15	300-15	
	3.3	Tyre size, rear		mm	28x9-15				
	3.5	Wheels, number front/rear (x = driven wheels)		2x/2					
	3.6	Tread width, front		b <sub>10</sub>	mm	1,195	1,160	1,160	1,160
	3.7	Tread width, rear		b <sub>11</sub>	mm	1,150			
	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward		$\alpha/\beta$	°			
4.2		Mast height (lowered)		h <sub>1</sub>	mm	2,548	2,548	2,548	2,640
4.3		Free lift		h <sub>2</sub>	mm	150			
4.4		Lift		h <sub>3</sub>	mm	3,500	3,500	3,500	3,430
4.5		Extended mast height		h <sub>4</sub>	mm	4,223	4,223	4,358	4,403
4.7		Height of overhead guard		h <sub>6</sub>	mm	2,405			
4.8		Seat height/stand height		h <sub>7</sub>	mm	1,230			
4.12		Coupling height		h <sub>10</sub>	mm	510			
4.19		Overall length		l <sub>1</sub>	mm	4,145	4,220	4,240	4,310
4.20		Length to face of forks		l <sub>2</sub>	mm	2,995	3,070	3,090	3,160
4.21		Overall width		b <sub>1</sub> /b <sub>2</sub>	mm	1,450			
4.22		Fork dimensions		s/e/l	mm	50 / 125 / 1,150	50 / 150 / 1,150	50 / 150 / 1,150	60 / 150 / 1,150
4.23		Fork carriage ISO 2328, class/type A, B		3A					
4.24		Fork carriage width		b <sub>3</sub>	mm	1,260			
4.31		Floor clearance with load under mast		m <sub>1</sub>	mm	190			
4.32		Ground clearance, centre of wheelbase		m <sub>2</sub>	mm	200			
4.33		Aisle width for pallets 1000 x 1200 sideways		Ast	mm	4,405	4,465	4,475	4,530
4.34	Aisle width for pallets 800 x 1200 lengthways		Ast	mm	4,605	4,665	4,675	4,730	
4.35	Turning radius		W <sub>a</sub>	mm	2,640	2,700	2,710	2,750	
4.36	Smallest pivot point distance		b <sub>13</sub>	mm	730				
Performance data	5.1	Travel speed, laden/unladen		km/h	21 / 21				
		Travel speed Remote, laden/unladen		km/h					
	5.2	Lift speed, laden/unladen		m/s	0.53 / 0.56	0.51 / 0.55	0.49 / 0.53	0.49 / 0.53	
	5.3	Lowering speed, laden/unladen		m/s	0.57 / 0.54				
	5.5	Drawbar pull w. / w.o. load		N	23,000	22,000	22,000	22,000	
	5.7	Gradeability laden/unladen		%	25 / 27	23 / 26	22 / 26	21 / 25	
	5.9.2	Acceleration laden/unladen to 15 m		S	5.7 / 5	6 / 5.2	6 / 5.2	6.2 / 5.5	
	5.10	Service brake		hydrostatic					
5.11	Parking brake		Automatic parking brake						
Combustion engine	7.1	Engine manufacturer / type		VW / CPYA					
	7.2	Engine output according to ISO 1585		kW	55				
	7.3	Rated revolutions per minute		/min	2,700				
	7.4	No. of cylinders		4					
	7.4.1	Cubic capacity		cm <sup>3</sup>	1,968				
	7.5.1	Fuel consumption acc. to VDI cycle		l/h	4.3	4.5	4.7	4.9	
Misc.	8.1	Type of drive control		hydrostatic					
	8.2	Working pressure for attachments		bar	170				
	8.3	Oil flow for attachments		l/min	50				
	8.4	Sound pressure level at operator's ear as per EN 12053		dB (A)	77				

# Technical data in line with VDI 2198

			Jungheinrich					
			TFG 540s	TFG 545s	TFG 550s	TFG 550s		
Identification	1.1	Manufacturer (abbreviation)	Jungheinrich					
	1.2	Model	TFG 540s	TFG 545s	TFG 550s	TFG 550s		
	1.3	Drive	LPG					
	1.4	Manual, pedestrian, stand-on, seated, order picker operation	seat					
	1.5	Load capacity/rated load	Q t	4	4.5	4.99	5	
	1.6	Load centre distance	c mm	500	500	500	600	
	1.8	Load distance	x mm	564	564	564	579	
	1.9	Wheelbase	y mm	1,970	1,970	1,970	2,000	
	Weights	2.1	Service weight	kg	6,200	6,500	6,750	7,350
2.2		Axle load with load front/rear	kg	8,925 / 1,275	9,625 / 1,375	10,325 / 1,425	10,775 / 1,575	
2.3		Axle load without load front/rear	kg	2,875 / 3,325	2,850 / 3,650	2,775 / 3,975	2,975 / 4,375	
Wheels / frame	3.1	Tyres	SE					
	3.2	Tyre size, front	mm	8.25-15	300-15	300-15	300-15	
	3.3	Tyre size, rear	mm	28x9-15				
	3.5	Wheels, number front/rear (x = driven wheels)		2x/2				
	3.6	Tread width, front	b <sub>10</sub> mm	1,195	1,160	1,160	1,160	
	3.7	Tread width, rear	b <sub>11</sub> mm	1,150				
	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta$ °	6/8			
4.2		Mast height (lowered)	h <sub>1</sub> mm	2,548	2,548	2,548	2,640	
4.3		Free lift	h <sub>2</sub> mm	150				
4.4		Lift	h <sub>3</sub> mm	3,500	3,500	3,500	3,430	
4.5		Extended mast height	h <sub>4</sub> mm	4,223	4,223	4,358	4,403	
4.7		Height of overhead guard	h <sub>6</sub> mm	2,405				
4.8		Seat height/stand height	h <sub>7</sub> mm	1,230				
4.12		Coupling height	h <sub>10</sub> mm	510				
4.19		Overall length	l <sub>1</sub> mm	4,145	4,220	4,240	4,310	
4.20		Length to face of forks	l <sub>2</sub> mm	2,995	3,070	3,090	3,160	
4.21		Overall width	b <sub>1</sub> /b <sub>2</sub> mm	1,450				
4.22		Fork dimensions	s/e/l mm	50 / 125 / 1,150	50 / 150 / 1,150	50 / 150 / 1,150	60 / 150 / 1,150	
4.23		Fork carriage ISO 2328, class/type A, B		3A	3A	3A	4A	
4.24		Fork carriage width	b <sub>3</sub> mm	1,260				
4.31		Floor clearance with load under mast	m <sub>1</sub> mm	190				
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub> mm	200				
Performance data		5.1	Travel speed, laden/unladen	km/h	21 / 21			
			Travel speed Remote, laden/unladen	km/h				
	5.2	Lift speed, laden/unladen	m/s	0.53 / 0.56	0.51 / 0.55	0.49 / 0.53	0.49 / 0.53	
	5.3	Lowering speed, laden/unladen	m/s	0.57 / 0.54				
	5.5	Drawbar pull w. / w.o. load	N	23,000	22,000	22,000	22,000	
	5.7	Gradeability laden/unladen	%	25 / 27	23 / 26	22 / 26	21 / 25	
	5.9.2	Acceleration laden/unladen to 15 m	S	5.7 / 5	6 / 5.2	6 / 5.2	6.2 / 5.5	
	5.10	Service brake		hydrostatic				
5.11	Parking brake		Automatic parking brake					
Combustion engine	7.1	Engine manufacturer / type		VW / CKPA	VW / CKPA	VW / CKPA	VW / CKPA 3.6	
	7.2	Engine output according to ISO 1585	kW	59				
	7.3	Rated revolutions per minute	/min	2,700				
	7.4	No. of cylinders		6				
	7.4.1	Cubic capacity	cm <sup>3</sup>	3,597				
	7.5	Fuel consumption acc. to VDI cycle	kg/h	4.2	4.4	4.6	4.7	
Misc.	8.1	Type of drive control		hydrostatic				
	8.2	Working pressure for attachments	bar	170				
	8.3	Oil flow for attachments	l/min	50				
	8.4	Sound pressure level at operator's ear as per EN 12053	dB (A)	78				

# DFG/TFG 540s/545s/550s/S50s



## Operator-oriented workstation

The ergonomics of the generously configured operator's workstation guarantee relaxed, fatigue-free work:

- Comfortable and safe access and exit thanks to a large entry step easily visible from above.
- Height and rake adjustable, slim steering column with memory function for ample knee and legroom: The steering column can be tilted forward simply by pulling on the steering wheel lever.
- Excellent all-round visibility thanks to special roof and panel design as well as unobstructed roof window made from laminated safety glass.
- Clear view of the load thanks to optimised chain and hose configuration.

- Compact nested mast profile with outstanding visibility.
- Particularly comfortable operation due to the integration of all controls into the armrest which moves with the operator.
- Operator-oriented storage concept for intuitive operation.
- High-resolution, contrast-rich colour TFT display with self-explanatory symbols.
- USB port power supply for charging various devices e.g. MP3 players (optional).
- Limited vibrations experienced by the operator as the cabin is not directly connected to the frame (floating cab).

## Ergonomic and easily adjustable operator's environment

- A choice of five changeable travel programs.
- Stepless single-point adjustment of the armrest in two axial directions.
- Large armrest with adjustable tilt, available in different upholstery fabrics and with a spacious storage compartment.
- A choice of three different controls: SOLO-PILOT, MULTI-PILOT, DUO-PILOT.
- Single or double pedal operation.
- Adjustable lever and axis assignment of the controls.

# Benefit from the advantages



Maximum throughput



Workstation is comfortable and helps to maximise productivity



VW engines with low energy consumption



Outstanding all-round visibility

## Performance and drive characteristics

A hydrostatic drive gives you outstanding energy efficiency coupled with maximum throughput – particularly when reversing:

- Stepless power transmission and high starting torques.
- Electronic control for precise adjustment of drive and hydraulic functions.
- Five electronically selectable operating/travel programs ensure optimum performance parameters for every application.
- Automatic increase in rpm during lifting and lowering.
- Very precise control of travel speed – the truck is very responsive.
- Low maintenance costs due to direct drive without wearing parts, such as clutch, differential and gears.
- Hydrostatic steering ensures steering is effortless and very precise.

## Safety and assistance systems

Outstanding travel dynamics and performance levels require a high level of safety. Our hydrostatic drive trucks already offer you a comprehensive safety package as standard:

- Deactivation of the hydraulic functions if seat is unoccupied.

- No uncontrolled roll-back on ramps or inclines due to the automatic parking brake, even with the motor switched off.
- Excellent stability due to extremely low inherent centre of gravity and high pivot steer axle.
- Damping on mast and tilt cylinders for increased handling safety.

A range of additional operator assistance options provides even more safety for the operator, truck and load:

- Access Control: The access control system allows operation of the fork lift only if the 'seat occupied' and belt lock detection systems have been activated in turn.
- Drive Control: The speed control which automatically reduces the speed of travel when cornering and from a defined lift height.
- Lift Control (includes Drive Control): the tilt speed of the mast is automatically reduced from a defined lift height and the tilt angle is shown on a separate display.

## Hydraulics

A variable displacement pump for the operating hydraulics optimises efficiency with the appropriate supply of oil. The high-performance filter system ensures

cleaner oil and a long service life for all components:

- Full-flow hydraulic oil filtration with combined suction and return filtering for maximum oil purity.
- Hydraulic tank integrated in frame.
- Ventilation of hydraulic tank via filter.
- Pressure relief valves protects against excess pressure and overloading.

## Brakes

The hydrostatic drive allows completely wear free braking:

- Frequent brake pedal operation is no longer necessary.
- Parking brake: spring-loaded laminated oil immersed parking brake is a maintenance-free, enclosed system.

## Intelligent controls and electronics

- Software and hardware for controls developed and produced in-house.
- Sensitive adjustment of hydraulic functions via electromagnetic valves.
- Splash-proof electronic drive and hydraulic controls in CAN bus design.

## Engines

- State-of-the-art engines with performance figures within the strict statutory emission limit values.
- Powerful yet low-consumption engines.

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The German production facilities in Norderstedt, Moosburg and Landsberg are certified. **ISO 9001**  
**ISO 14001**

Jungheinrich fork lift trucks meet European safety requirements.



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Machines. Ideas. Solutions.