Hydrostatic drive 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

Driver assistance systems (optional)

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 drive offer outstanding throughput, particularly when reversing (e.g. during loading of HGVs). This is where their strengths truly come into play: Rapid acceleration, fast reversing and precise travel. With five operating programs, the performance characteristics can be optimally adapted to the requirements of numerous applications.

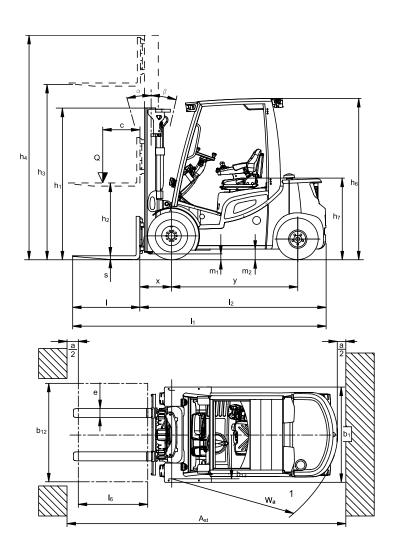
State-of-the-art engines from the automotive industry feature impressive electronic control units. They allow for precise operation and optimum productivity combined with low fuel consumption. All the engines are characterised by low emissions, falling significantly below the strict EU directives. The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

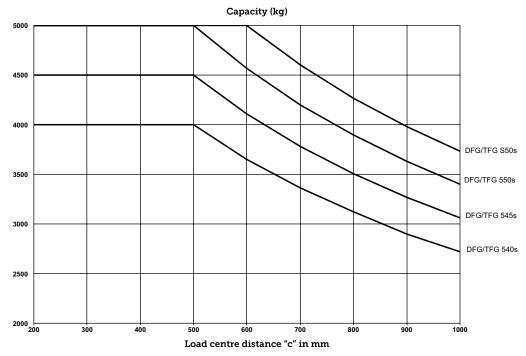
The generously dimensioned workstation is optimally designed with the operator in mind. The infinitely adjustable steering column with memory function and the integral armrest allows full adjustment to suit all operator sizes. The single-point adjustment via two adjustable axes enables the primary controls 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  $\boldsymbol{\theta}$  stress-free environment.

The laminated safety glass roof panel offers protection from the weather and falling items. The increased amount of light in the cab creates a pleasant working atmosphere contributing to faster and safer stacking and retrieval. These are the best requirements for ensuring maximum productivity throughout the shift.



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





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

	Lift Lowered mast height		Free	Free lift		nast height	Mast tilt for	ward / back	
	h <sub>3</sub> bowered mast new			r	1 <sub>2</sub>		$1_4$		/β
	(mm)	(mm)		(m	im)	(mm)		(°)	
	(23234)	DFG 540s /	DFG 550s /	DFG 540s /	DFG 550s /	DFG 540s /	DFG 550s /	DFG 540s /	DFG 550s /
		TFG 540s /	TFG 550s /	TFG 540s /	TFG 550s /	TFG 540s /	TFG 550s /	TFG 540s /	TFG 550s /
		DFG 545s /	DFG S50s /	DFG 545s /	DFG S50s /	DFG 545s /	DFG S50s /	DFG 545s /	DFG S50s /
		TFG 545s	TFG S50s	TFG 545s	TFG S50s	TFG 545s	TFG S50s	TFG 545s	TFG S50s
Duplex ZT	2020	1800	1800	150	150	2735	2883	6/8	6/8
	2750	2165	2165	150	150	3465	3613	6/8	6/8
	3000	2290	2290	150	150	3715	3863	6/8	6/8
	3500	2540	2540	150	150	4215	4363	6/8	6/8
	4000	2790	2790	150	150	4715	4863	6/8	6/8
	4500	3040	3040	150	150	5215	5363	6/8	6/8
	5000	3290	3290	150	150	5715	5863	6/6	6/6
	5500	3540	3540	150	150	6215	6363	6/6	6/6
	6000	3790	3790	150	150	6715	6863	6/6	6/6
	6500	4040	4040	150	150	7215	7363	6/6	6/6
Duplex ZZ	2725	-	2140	-	1225	-	3640	-	6/8
	2775	2140	-	1375	-	3540	-	6/8	-
	2975	-	2265	-	1350	-	3890	-	6/8
	3025	2265	-	1500	-	3790	-	6/8	-
	3475	-	2515	-	1600	-	4390	-	6/8
	3525	2515	-	1750	-	4290	-	6/8	-
	3975	-	2765	-	1850	-	4890	-	6/8
	4025	2765	-	2000	-	4790	-	6/8	-
	4475	-	3015	-	2100	-	5390	-	6/8
	4525	3015	-	2250	-	5290	-	6/8	-
	4975	-	3265	-	2350	-	5890	-	6/6
	5025	3265	-	2500	-	5790	-	6/6	-
	5475	-	3515	-	2600	-	6390	-	6/6
	5525	3515	-	2750	-	6290	-	6/6	-
Triplex DZ	4050	-	2140	-	1225	-	4965	-	6/8
	4150	2140	-	1375	-	4915	-	6/8	-
	4425	-	2265	-	1350	-	5340	-	6/8
	4525	2265	-	1500	-	5290	-	6/8	-
	4855	2375	-	1610	-	5620	-	6/6	-
	5175	-	2515	-	1600	-	6090	-	6/6
	5275	2515	-	1750	-	6040	-	6/6	-
	5550	-	2640	-	1725	-	6465	-	6/6
	5650	2640	-	1875	-	6415	-	6/6	-
	5925	-	2765	-	1850	-	6840	-	6/6
	6025	2765	-	2000	-	6790	-	6/6	-
	6200	-	2855	-	1940	-	7110	-	6/6
	6400	2890	-	2125	-	7165	-	6/6	-
	6675	-	3015	-	2100	-	7590	-	6/6
	6775	3015	-	2250	-	7540	-	6/6	-
	7030	3100	-	2335	-	7795	-	6/6	-
İ	7180	3150	_	2385	_	7945	_	6/6	_

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## Technical data in line with VDI 2198

	1.1	Manufacturer (short form)			Jungheinrich					
_	1.2	Model			DFG 540s	DFG 545s	DFG 550s	DFG S50s		
<u>.</u> 0	1.3	Drive				Die	esel	'		
Identification	1.4	Manual, pedestrian, stand-on, seated, order picker operation			seat					
ij	1.5	Load capacity/rated load	Q	t	4	4.5	4.99	5		
eu	1.6	Load centre distance	С	mm	500	500	500	600		
2	1.8	Load distance	х	mm	5641)	5641)	5641)	5791)		
	1.9	Wheelbase	у	mm	1970	1970	1970	2000		
ţ	2.1	Service weight		kg	6310	6550	7200	7400		
Weights	2.2	Axle load, w. load, front / rear		kg	9050 / 1260	9660 / 1390	10940 / 1260	10900 / 1500		
Š	2.3	Axle load, w.o. load, front / rear		kg	2920 / 3390	2730 / 3820	3240 / 3960	3000 / 4400		
. <u>s</u>	3.1	Tyres			SE					
Wheels / chassis	3.2	Tyre size, at front		mm	8.25-15 300-15 300-15 300-15					
	3.3	Tyre size, at rear		mm	28x9-15					
	3.5	Wheels, number front/rear (x = driven wheels)			2x/2					
	3.6	Track width, front	b <sub>10</sub>	mm	1195	1160	1160	1160		
₹	3.7	Track width, rear	b <sub>11</sub>	mm			50			
_	4.1	Tilt of mast/fork carriage forward/backward	α/β	•			/8			
	4.2	Mast height (lowered)	h <sub>1</sub>	mm			40			
	4.3	Free lift	h <sub>2</sub>	mm			50			
	4.4	Lift	h <sub>3</sub>	mm	3500					
	4.5	Extended mast height	h <sub>4</sub>	mm	4215	4215	4365	4365		
	4.7	Height of overhead guard	h <sub>6</sub>	mm	7213			4505		
	4.8	Seat height/stand height	h <sub>7</sub>	mm	2405 1230					
	4.12	Coupling height	h <sub>10</sub>	mm			10			
ö	4.19	Overall length		mm	4145	4220	4240	4310		
ısi	4.20		l <sub>1</sub>		2995	3070	3090	3160		
шe		Length incl. back of forks	l <sub>2</sub>	mm	2993			3100		
Basic dimensions	4.21	Total width Fork dimensions	b <sub>1</sub> /b <sub>2</sub>		50 / 125 /	50 / 150 /	50 / 150 /	60 / 150 /		
3as	1 07				1150	1150	1150	1150		
_	4.23	Fork carriage ISO 2328, class/type A, B			3A	3A	3A	4A		
	4.24	Fork carriage width	b <sub>3</sub>	mm			60			
	4.31	Floor clearance with load under mast	m <sub>1</sub>	mm	175					
	4.32	Floor clearance centre wheelbase	m <sub>2</sub>	mm	4405	I	00	1570		
	4.33	Aisle width for pallets $1000 \times 1200$ sideways	Ast	mm	4405	4465	4475	4530		
	4.34	Aisle width for pallets 800 × 1200 lengthways	Ast	mm	4605	4665	4675	4730		
	4.35	Turning radius	W <sub>a</sub>	mm	2640	2700	2710	2750		
	4.36	Smallest pivot point distance	b <sub>13</sub>	mm			30			
æ	5.1	Travel speed, w. / w.o. load		km/h			/ 21	ı		
data	5.2	Lift speed, w. / w.o. load		m/s	0.53 / 0.56   0.51 / 0.55   0.49 / 0.53   0.49 / 0.					
	5.3	Lower speed, w. / w.o. load		m/s	0.57 / 0.54					
aŭ	5.5	Drawbar pull w. / w.o. load		N	23000	22000	22000	22000		
Performance	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		
Ъ	5.10	Service brake			hydrostatic					
	5.11	Parking brake			Automatic parking brake					
_	7.1	Engine manufacturer / type			VW / CPYA					
<u> </u>	7.2	Engine output according to ISO 1585	kW		55					
_	7.3	Rated revolutions per minute		/min	2700					
	7.4	No. of cylinders			4					
	7.4.1	Cubic capacity		cm³		19	68			
	7.5	Fuel consumption acc. to VDI cycle		l/h	4.4	4.8	5	5.2		
	8.1	Type of drive control			hydrostatic					
Misc.	8.2	Working pressure for attachments		bar		170				
Σ	8.3	Oil flow for attachments		l/min	50					
	8.4	Sound pressure level at operator's ear according to EN 12053		dB (A)		7	7			

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## Technical data in line with VDI 2198

	1.1	Manufacturer (short form)		Jungheinrich						
ءِ	1.2	Model			TFG 540s	TFG 545s	TFG 550s	TFG S50s		
	1.3	Drive					PG	1		
gat	1.4	Manual, pedestrian, stand-on, seated, order picker operation			seat					
tifi	1.5	Load capacity/rated load	Q	t	4	4.5	4.99	5		
eu	1.6	Load centre distance	С	mm	500	500	500	600		
<u> </u>	1.8	Load distance	X	mm	5641)	5641)	5641)	579 <sup>1)</sup>		
	1.9	Wheelbase	y	mm	1970	1970	1970	2000		
S.	2.1	Service weight	,	kg	6360	6600	7250	7450		
hassis Weigh	2.2	Axle load, w. load, front / rear		kg	9070 / 1290	9680 / 1420	10960 / 1290	10920 / 1530		
	2.3	Axle load, w.o. load, front / rear		kg	2950 / 3410	2760 / 3840	3270 / 3980	3030 / 4420		
	3.1	Tyres		···9	2330 / 3 110			30307 1120		
	3.2	Tyre size, at front		mm	SE 8.25-15 300-15 300-15 300-15					
	3.3	Tyre size, at rear		mm						
S	3.5	Wheels, number front/rear (x = driven wheels)		111111	28x9-15 2x/2					
eel:	3.6	1	h	mm						
چّ	1	Track width, front	b <sub>10</sub>	mm	1195	1160	1160	1160		
>	3.7	Track width, rear	b <sub>11</sub>	mm •			50			
	4.1	Tilt of mast/fork carriage forward/backward	α/β				/8			
	4.2	Mast height (lowered)	h <sub>1</sub>	mm	2540					
	4.3	Free lift	h <sub>2</sub>	mm	150					
	4.4	Lift	h <sub>3</sub>	mm	1015	1	00	1765		
	4.5	Extended mast height	h <sub>4</sub>	mm	4215	4215	4365	4365		
	4.7	Height of overhead guard	h <sub>6</sub>	mm			05			
	4.8	Seat height/stand height	h <sub>7</sub>	mm			30			
IJ	4.12	Coupling height	h <sub>10</sub>	mm			10	1		
S.	4.19	Overall length	l <sub>1</sub>	mm	4145	4220	4240	4310		
eu	4.20	Length incl. back of forks	l <sub>2</sub>	mm	2995	3070	3090	3160		
Ξ̈́Ξ	4.21	Total width	b <sub>1</sub> /b <sub>2</sub>	mm	1450					
Basic dimensions	4.22	Fork dimensions	s/e/l	mm	50 / 125 / 1150	50 / 150 / 1150	50 / 150 / 1150	60 / 150 / 1150		
Ф	4.23	Fork carriage ISO 2328, class/type A, B			3A	3A	3A	4A		
	4.24	Fork carriage width	b <sub>3</sub>	mm	1260					
	4.31	Floor clearance with load under mast	m <sub>1</sub>	mm	175					
	4.32	Floor clearance centre wheelbase	m <sub>2</sub>	mm	200					
	4.33	Aisle width for pallets $1000 \times 1200$ sideways	Ast	mm	4405	4465	4475	4530		
	4.34	Aisle width for pallets $800 \times 1200$ lengthways	Ast	mm	4605	4665	4675	4730		
	4.35	Turning radius	Wa	mm	2640	2700	2710	2750		
	4.36	Smallest pivot point distance	b <sub>13</sub>	mm	730					
	5.1	Travel speed, w. / w.o. load		km/h	21 / 21					
data	5.2	Lift speed, w. / w.o. load		m/s	0.53 / 0.56	0.51 / 0.55	0.49 / 0.53	0.49 / 0.53		
	5.3	Lower speed, w. / w.o. load		m/s		0.57	/ 0.54	1		
Performance	5.5	Drawbar pull w. / w.o. load		N	23000	22000	22000	22000		
па	5.7	Gradeability laden/unladen		%	25 / 27	23 / 26	22 / 26	21 / 25		
٥	5.9.2	Acceleration laden/unladen to 15 m		S	5.7 / 5	6 / 5.2	6 / 5.2	6.2 / 5.5		
ē	5.10	Service brake					static			
а.	5.11	Parking brake			Automatic parking brake					
_	7.1	Engine manufacturer / type			VW / CKPA	VW / CKPA	VW / CKPA	VW / CKPA 3.6		
5 "	7.2	Engine output according to ISO 1585		kW		ا ج	9	3.3		
	7.3	Rated revolutions per minute		/min	2700					
	7.4	No. of cylinders		,	6					
	7.4.1	Cubic capacity		cm <sup>3</sup>			97			
	7.5.1	Fuel consumption acc. to VDI cycle		kg/h	4.3	4.5	4.7	4.8		
	8.1			Ng/11	т.5			4.0		
SC.		Type of drive control		har	hydrostatic					
	8.2	Working pressure for attachments		bar	170 50					
lisc	8.3	Oil flow for attachments		l/min		_	0			

### 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 maximum 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 profile package wiht 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 power supply port for e.g. MP3 players.
- Limited vibrations experienced by the operator as the cab is not directly connected to the frame (floating cab)

### Ergonomic and easily adjustable operator's environment

- A choice of five parametrised travel programs
- Stepless single-point adjustment of the armrest in two axis directions.
- Large armrest with adjustable tilt, available in different upholstery fabrics and with a spacious storage compartment.
- A choice of three different controls.
- 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 the best 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.
- The 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

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 engine switched off
- Excellent stability due to extremely low inherent centre of gravity and high pivot steer axle in the newest generation
- 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): Automatically reduces the tilt speed of the mast from a defined lift height. Tilt angle shown on separate display.

#### Hvdraulics

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 protect against excess pressure and overloading.

#### Brakes

The hydrostatic drive allows completely wearfree braking:

- Frequent brake pedal operation is no longer necessary.
- Parking brake: Sprung-loaded laminated oil immersed parking brake as 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 falling far within the strict statutory limit values.
- Powerful yet low-consumption engines.

### Jungheinrich UK Ltd.

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