

hydrostaticDRIVE

Low fuel consumption

Maximum stability

Ergonomic workstation

Ergonomic and easily adjustable operating concept



DFG/TFG 425s/430s/435s

Diesel and LPG forklift trucks with hydrostatic drive (2,500/3,000/3,500 kg)

Our diesel and gas forklift trucks with hydrostaticDRIVE have an incredible handling capacity (e.g. for loading HGVs). This is where their strengths truly come into play: Dynamic acceleration, fast reversing and precision driving. With 5 operating programs, the performance characteristics can be adapted to the requirements of numerous varied applications.

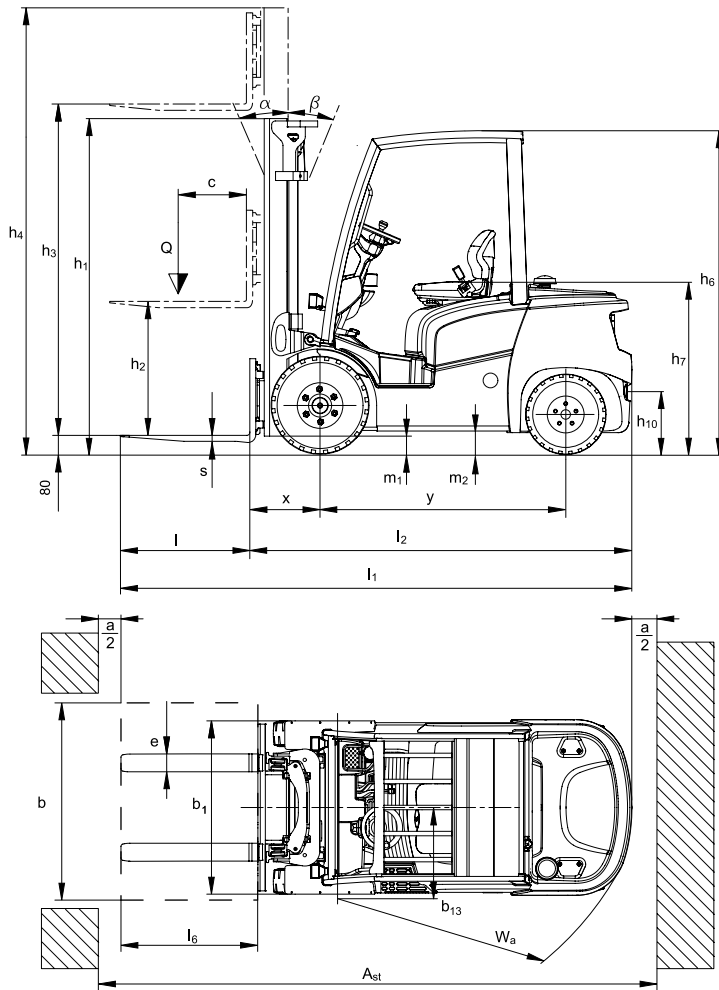
State-of-the-art engines from the automotive industry feature impressive electronic control units. They provide precise operation and optimum productivity combined with low fuel consumption. All the engines are characterised by low emissions, falling significantly below the strict EU directives. The 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 armrest, allow for adjustment to suit all operator sizes. The single-point adjustment via 2 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 and stress-free environment.

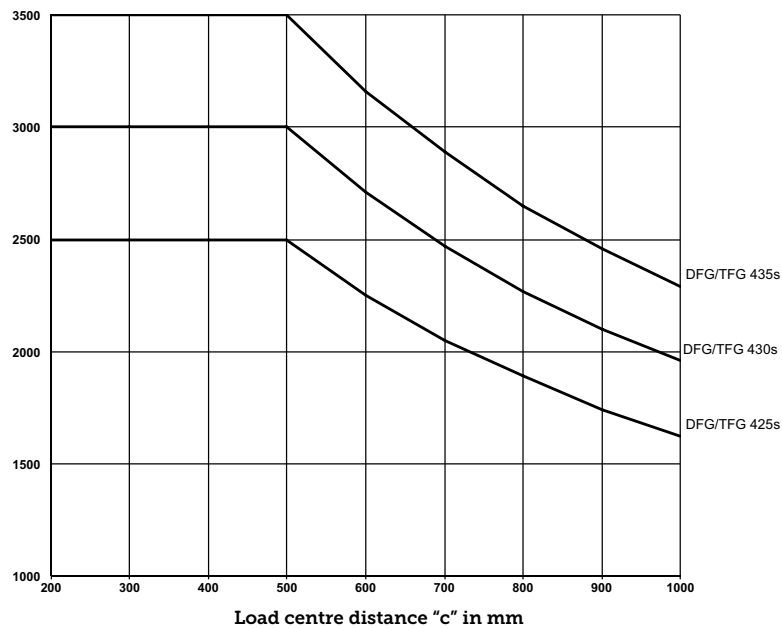
The laminated safety glass roof panel offers protection from the weather and falling items. The increased amount of light in the cabin creates a pleasant working atmosphere contributing to faster and safer stacking and retrieval. These are the best requirements for ensuring maximum productivity throughout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

JUNGHEINRICH

DFG/TFG 425s/430s/435s



Capacity (kg)



DFG/TFG 425s/430s/435s

Standard mast designs DFG 425s/DFG 430s/DFG 435s/TFG 425s/TFG 430s/TFG 435s												
	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 α/β (°)	
		DFG 425s / TFG 425s	DFG 430s / TFG 430s	DFG 435s/ TFG 435s	DFG 425s / TFG 425s	DFG 430s / TFG 430s	DFG 435s / TFG 435s	DFG 425s / TFG 425s	DFG 430s / TFG 430s	DFG 435s / TFG 435s	DFG 425s / DFG 430s / TFG 430s	DFG 435s / TFG 435s
Duplex ZT	2900	2121	2125	2205	150	150	150	3651	3660	3689	6/6	6/6
	3100	2221	2225	2305	150	150	150	3851	3860	3889	6/8	6/8
	3300	2321	2325	2405	150	150	150	4051	4060	4089	6/8	6/8
	3500	2421	2425	2505	150	150	150	4251	4260	4289	6/8	6/8
	3700	2521	2525	2605	150	150	150	4451	4460	4489	6/8	6/8
	4000	2671	2675	2755	150	150	150	4751	4760	4789	6/8	6/8
	4300	2871	2875	2955	150	150	150	5051	5060	5089	6/8	6/8
	4500	2971	2975	3055	150	150	150	5251	5260	5289	6/8	6/8
	4700	3071	3075	3155	150	150	150	5451	5460	5489	6/6	6/6
	5000	3221	3225	3305	150	150	150	5751	5760	5789	6/6	6/6
	5500	3521	3525	3605	150	150	150	6251	6260	6289	6/6	6/6
	5800	3671	3675	3755	150	150	150	6551	6560	6589	6/6	6/6
6000	3771	3775	3855	150	150	150	6751	6760	6789	6/6	6/6	
Duplex ZZ	2900	-	-	2170	-	-	1400	-	-	3670	-	6/8
	3100	2186	2190	2270	1600	1450	1501	3686	3840	3869	6/8	6/8
	3300	2286	2290	2370	1700	1550	1601	3886	4040	4069	6/8	6/8
	3500	2386	2390	2470	1800	1650	1701	4086	4240	4269	6/8	6/8
	3700	2486	2490	2570	1900	1750	1801	4286	4440	4469	6/8	6/8
	4000	2636	2640	2720	2050	1900	1951	4586	4740	4769	6/8	6/8
Triplex DZ	4250	-	-	2120	-	-	1350	-	-	5020	-	6/6
	4400	2086	2090	2170	1500	1350	1401	4986	5140	5169	6/8	6/8
	4700	2186	2190	2270	1600	1450	1501	5286	5440	5469	6/8	6/8
	5000	2286	2290	2370	1700	1550	1601	5586	5740	5769	6/6	6/6
	5500	2486	2490	2570	1900	1750	1801	6086	6240	6269	6/6	6/6
	6000	2686	2690	2770	2100	1950	2001	6586	6740	6769	6/6	6/6
	6500	2886	2890	2970	2300	2150	2201	7086	7240	7269	6/6	6/6
	7000	3086	3090	3170	2500	2350	2401	7586	7740	7769	6/6	6/6
7500	3286	3290	3370	2700	2550	2601	8086	8240	8269	6/6	6/6	

Technical data in line with VDI 2198

			Jungheinrich			
			DFG 425s	DFG 430s	DFG 435s	
Identification	1.1	Manufacturer (abbreviation)		Jungheinrich		
	1.2	Model		DFG 425s	DFG 430s	DFG 435s
	1.3	Drive		Diesel		
	1.4	Manual, pedestrian, stand-on, seated, order picker operation		seat		
	1.5	Load capacity/rated load	Q t	2.5	3	3.5
	1.6	Load centre distance	c mm	500		
	1.8	Load distance	x mm	473 ¹⁾	493 ²⁾	498 ²⁾
	1.9	Wheelbase	y mm	1,750	1,820	1,880
	Weights	2.1	Net weight	kg	3,960	4,440
2.2		Axle loading, laden front/rear	kg	5,630 / 830	6,520 / 920	7,305 / 1,005
2.3		Axle loading, unladen front/rear	kg	1,740 / 2,220	1,909 / 2,530	1,975 / 2,896
Wheels / frame	3.1	Tyres		SE		
	3.2	Tyre size, front	mm	7.00-12	27x10-12	27x10-12
	3.3	Tyre size, rear	mm	6.50-10		
	3.5	Wheels, number front/rear (x = driven wheels)		2x/2		
	3.6	Tread width, front	b ₁₀ mm	1,000	1,060	1,060
	3.7	Tread width, rear	b ₁₁ mm	942		
	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β °	6/8	
4.2		Mast height (lowered)	h ₁ mm	2,321	2,325	2,405
4.3		Free lift	h ₂ mm	150		
4.4		Lift	h ₃ mm	3,300		
4.5		Extended mast height	h ₄ mm	4,051	4,060	4,089
4.7		Height of overhead guard	h ₆ mm	2,220	2,238	2,238
4.8		Seat height/standing height	h ₇ mm	1,058	1,076	1,076
4.12		Coupling height	h ₁₀ mm	377	387	387
4.19		Overall length	l ₁ mm	3,763	3,873	3,963
4.20		Length to face of forks	l ₂ mm	2,613	2,723	2,813
4.21		Overall width	b ₁ /b ₂ mm	1,184	1,320	1,320
4.22		Fork dimensions	s/e/l mm	40 / 120 / 1,150	45 / 125 / 1,150	50 / 125 / 1,150
4.23		Fork carriage ISO 2328, class/type A, B		2A	3A	3A
4.24		Fork carriage width	b ₃ mm	1,120		
4.31		Floor clearance with load under mast	m ₁ mm	112	118	147
4.32		Ground clearance, centre of wheelbase	m ₂ mm	130	148	148
4.33		Aisle width for pallets 1000 x 1200 crossways	Ast mm	3,958	4,075	4,153
4.34		Aisle width for pallets 800 x 1200 lengthways	Ast mm	4,158	4,275	4,353
4.35	Turning radius	W _a mm	2,285	2,377	2,455	
4.36	Smallest turning radius	b ₁₃ mm	640			
Performance data	5.1	Travel speed, laden/unladen	km/h	19.6 / 19.6	20.8 / 20.8	20.8 / 20.8
	5.2	Lift speed, laden/unladen	m/s	0.56 / 0.56	0.56 / 0.56	0.48 / 0.48
	5.3	Lowering speed, laden/unladen	m/s	0.56 / 0.56		
	5.5	Drawbar pull, laden/unladen	N	19,160	18,100	18,100
	5.7	Gradeability, laden/unladen	%	27	24	21
	5.9.2	Acceleration time laden/unladen to 15 m	S	4.9 / 4.4	5.4 / 4.6	5.7 / 4.7
	5.10	Service brake		hydrostatic		
5.11	Parking brake		Automatic parking brake			
Combustion engine	7.1	Motor manufacturer/type		VW 2.0 CR / CPYB (IIIB)		
	7.2	Engine output according to ISO 1585	kW	44		
	7.3	Rated speed	/min	2,700		
	7.4	No. of cylinders		4		
	7.4.1	Cubic capacity	cm ³	1,968		
	7.5.1	Fuel consumption as per EN 16796	l/h	2.9	3.1	3.3
		CO- Equivalent as per EN 16796	kg/h	9.2	9.8	10.5
Misc.	8.1	Type of drive control		hydrostatic		
	8.2	Working pressure for attachments	bar	215		
	8.3	Oil flow for attachments	l/min	32		
	8.4	Sound pressure level at operator's ear as per EN 12053	dB (A)	75		
	8.5	Trailer coupling, model/type DIN		DIN 15170 type H		

¹⁾ + 12 mm with integrated sideshift

²⁾ + 15 mm with integrated sideshift

Technical data in line with VDI 2198

			Jungheinrich			
			TFG 425s	TFG 430s	TFG 435s	
Identification	1.1	Manufacturer (abbreviation)		Jungheinrich		
	1.2	Model		TFG 425s	TFG 430s	TFG 435s
	1.3	Drive		LPG		
	1.4	Manual, pedestrian, stand-on, seated, order picker operation		seat		
	1.5	Load capacity/rated load	Q t	2.5	3	3.5
	1.6	Load centre distance	c mm	500		
	1.8	Load distance	x mm	473 ¹⁾	493 ²⁾	498 ²⁾
	1.9	Wheelbase	y mm	1,750	1,820	1,880
	Weights	2.1	Net weight	kg	3,960	4,440
2.2		Axle loading, laden front/rear	kg	5,630 / 830	6,520 / 920	7,305 / 1,005
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	3.2	Tyre size, front	mm	7.00-12	27x10-12	27x10-12
	3.3	Tyre size, rear	mm	6.50-10		
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	3.6	Tread width, front	b ₁₀ mm	1,000	1,060	1,060
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	Basic dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β °	6/8	
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4.23		Fork carriage ISO 2328, class/type A, B		2A	3A	3A
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Performance data	5.1	Travel speed, laden/unladen	km/h	19.6 / 19.6	20.8 / 20.8	20.8 / 20.8
	5.2	Lift speed, laden/unladen	m/s	0.56 / 0.56	0.56 / 0.56	0.48 / 0.48
	5.3	Lowering speed, laden/unladen	m/s	0.56 / 0.56		
	5.5	Drawbar pull, laden/unladen	N	19,160	18,100	18,100
	5.7	Gradeability, laden/unladen	%	27	24	21
	5.9.2	Acceleration time laden/unladen to 15 m	S	5.7 / 5	5.9 / 5.1	6.1 / 5.2
	5.10	Service brake		hydrostatic		
5.11	Parking brake		Automatic parking brake			
Combustion engine	7.1	Motor manufacturer/type		VW / BEF		
	7.2	Engine output according to ISO 1585	kW	38		
	7.3	Rated speed	/min	2,700		
	7.4	No. of cylinders		4		
	7.4.1	Cubic capacity	cm ³	1,980		
	7.5	Fuel consumption as per EN 16796	kg/h	2.5	2.6	2.8
		CO- Equivalent as per EN 16796	kg/h	8.5	8.8	9.5
Misc.	8.1	Type of drive control		hydrostatic		
	8.2	Working pressure for attachments	bar	215		
	8.3	Oil flow for attachments	l/min	32		
	8.4	Sound pressure level at operator's ear as per EN 12053	dB (A)	75		
	8.5	Trailer coupling, model/type DIN		DIN 15170 type H		

¹⁾ + 12 mm with integrated sideshift

²⁾ + 15 mm with integrated sideshift

DFG/TFG 425s/430s/435s



Ergonomic workstation

The ergonomics of the 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.
- Outstanding all-round visibility.
- Clear view of the load thanks to optimised chain and hose layout.
- Compact nested profile package with excellent visibility.

- Integration of all main controls into the armrest which moves with the movement of the operator.
- Operator-oriented storage concept for intuitive operation.
- High-resolution, contrast-rich full-colour TFT display with self-explanatory user interface.
- USB power supply port for e.g. MP3 players.
- Limited vibration as the cab is not directly connected to the frame (floating cab).

Ergonomic and easily adjustable operating concept.

- Selection from 5 freely adjustable travel programs.
- Stepless single-point adjustment of the armrest in 2 axial directions.
- Large armrest with adjustable tilt with a spacious storage compartment.
- 3 different controls can be chosen.
- 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



Outstanding all-round visibility

Performance and drive characteristics

hydrostaticDRIVE offers the best energy efficiency coupled with maximum throughput performance – particularly when reversing:

- Stepless power transmission and high starting torques.
- Electronic control for precise adjustment of drive and hydraulic functions.
- 5 electronically selectable operating / travel programs.
- Performance parameters for every application.
- Automatic motor speed increase during lifting and lowering.
- Very precise control of travel speed.
- Low maintenance costs due to direct drive without wearing parts, such as clutch, differential and gears.
- Hydrostatic steering ensures effortless and precise steering.

Safety and assistance systems

Comprehensive safety equipment for high drive dynamics and performance. Trucks with hydrostaticDRIVE offer 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.
- Damping on mast and tilt cylinders for increased handling safety.

Additional safety for the operator, truck and load due to a range of optional operator assistance systems:

- accessCONTROL: The access control system allows operation of the fork lift only if the 'seat occupied' and belt lock detection systems have been activated in a defined sequence.
- driveCONTROL: Speed control, which automatically reduces the speed both when cornering and from a defined lift height.
- liftCONTROL (includes driveCONTROL): Automatic mast tilt speed reduction occurs from a defined lift height, tilt angle shown on separate display.

Hydraulics

A variable displacement pump for the operating hydraulics guarantees optimised efficiency and the supply of oil as required.

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 for completely wear-free 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.

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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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