

Hydrostatic drive for excellent drive comfort and productivity

Low fuel consumption

Generously designed operator workplace

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

Driver assistance systems (optional)



DFG/TFG 425s–435s

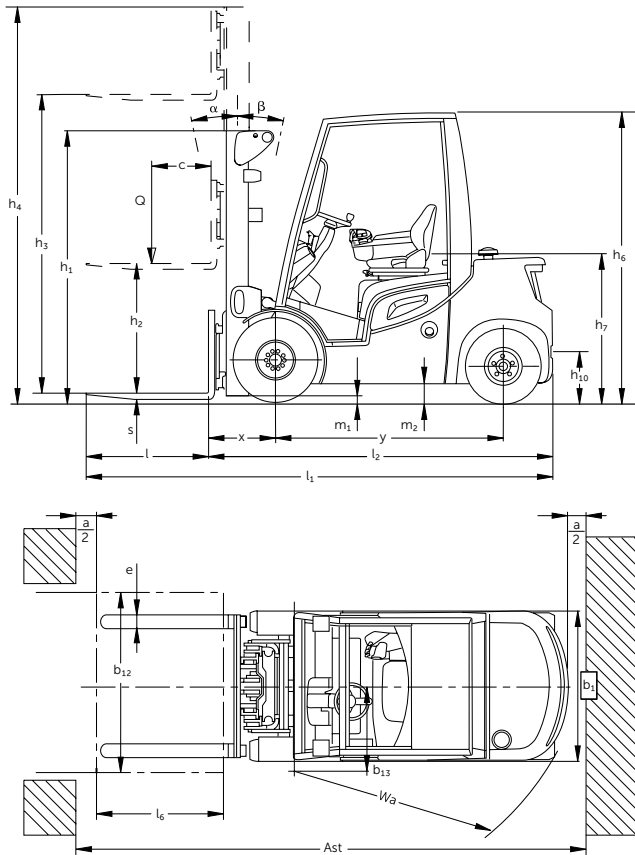
**Diesel and LPG counterbalanced trucks with hydrostatic drive
(2500, 3000, 3500 kg)**

Jungheinrich Diesel and LPG counterbalanced trucks with hydrostatic drive give high productivity, particularly in shuttle operations (e.g. trailer and loading bay operations). The power of this drive technology is demonstrated to full advantage: high acceleration, rapid direction changes and precise driving characteristics. With 5 operating programmes, the performance characteristics can be adapted to the requirements of numerous varied applications.

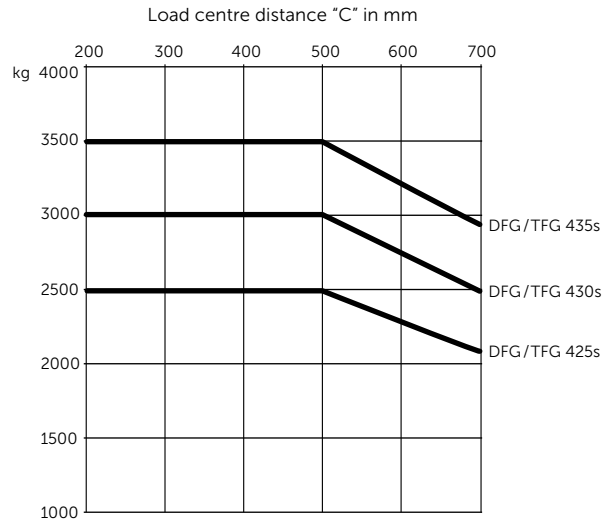
State-of-the-art engines from the automotive industry give precise operation and optimum productivity combined with low fuel consumption minimised by their electronic control systems. All engines have low exhaust emissions and comply with at least the current EU regulations. A regulated 3-way catalyser for LPG as well as soot filter systems for Diesel trucks are available as options.

The workplace is laid out with the operator in mind. It provides safety, protects the operator's health and ensures relaxed and concentrated operation – the best basis for high productivity throughout the shift. The laminated, safety glass roof panel offers protection from the weather and falling items. The increased amount of light in the cabin creates pleasant working atmosphere, contributing to faster and safety stacking and retrieval.

DFG/TFG 425s–435s



Capacity



Mast table DFG/TFG 425s–435s														
Designation	Lift height	Free lift			Closed height		Extended height		Tilt forward/backward α/β (°)	Lift height h_3 mm	Free lift h_2 mm	Closed height h_1 mm	Extended height h_4 mm	Tilt forward/backward α/β (°)
	h_5 mm	h_2 mm			h_1 mm		h_4 mm							
	DFG/TFG 425s/430s	DFG/TFG 425s	DFG/TFG 430s	DFG/TFG 425s	DFG/TFG 430s	DFG/TFG 425s	DFG/TFG 430s	DFG/TFG 425s/430s	DFG/TFG 435s					
Two-stage mast ZT	2900	150	150	2115	2133	3510	3688	6/8	2900	150	2228	3683	6/8	6/8
	3100	150	150	2215	2233	3710	3888	6/8	3300	150	2428	4083	6/8	6/8
	3300	150	150	2315	2333	3910	4088	6/8	3800	150	2678	4583	6/8	6/8
	3500	150	150	2415	2433	4110	4288	6/8	4300	150	2978	5083	6/8	6/8
	3700	150	150	2515	2533	4310	4488	6/8	4800	150	3228	5583	6/6	6/6
	4000	150	150	2665	2683	4610	4788	6/8						
	4300	150	150	2865	2883	4910	5088	6/8						
	4500	150	150	2965	2983	5110	5288	6/8						
	4700	150	150	3065	3083	5310	5488	6/6						
	5000	150	150	3215	3233	5610	5788	6/6						
5500	150	150	3515	3533	6110	6288	6/6							
5800	150	150	3665	3683	6410	6588	6/6							
6000	150	150	3765	3783	6610	6788	6/6							
Two-stage mast ZZ	2900	1480	1380	2080	2098	3500	3618	6/8						
	3100	1580	1480	2180	2198	3700	3818	6/8						
	3300	1680	1580	2280	2298	3900	4018	6/8						
	3500	1780	1680	2380	2398	4100	4218	6/8						
	3700	1880	1780	2480	2498	4300	4418	6/8						
	4000	2030	1930	2630	2648	4600	4718	6/8						
	4300	2230	2130	2830	2848	4900	5018	6/8						
4500	2330	2230	2930	2948	5100	5218	6/8							
Three-stage mast DZ	4400	1480	1380	2080	2098	5000	5118	6/8	4500	1430	2193	5263	6/6	6/6
	4700	1580	1480	2180	2198	5300	5418	6/6	4800	1530	2293	5563	6/6	6/6
	5000	1680	1580	2280	2298	5600	5718	6/6	5300	1730	2493	6063	6/6	6/6
	5500	1880	1780	2480	2498	6100	6218	6/6	5800	1930	2693	6563	6/6	6/6
	6000	2080	1980	2680	2698	6600	6718	6/6	6300	2130	2893	7063	6/6	6/6
	6500	2280	2180	2880	2898	7100	7218	6/6						
	7000	2480	2380	3080	3098	7600	7718	6/6						

Technical data in line with VDI 2198

as at: 06/2012

Identification	1.1	Manufacturer (abbreviation)	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	
	1.2	Manufacturer's type designation	DFG 425s	DFG 430s	DFG 435s	TFG 425s	TFG 430s	TFG 435s	
	1.3	Drive	Diesel	Diesel	Diesel	LPG	LPG	LPG	
	1.4	Operator type	seat	seat	seat	seat	seat	seat	
	1.5	Load capacity/rated load	Q (t)	2.5	3.0	3.5	2.5	3.0	3.5
	1.6	Load centre distance	c (mm)	500	500	500	500	500	500
	1.8	Load distance (Centre of load axle to fork face) x (mm)		473 ¹⁾	478 ¹⁾	483 ¹⁾	473 ¹⁾	478 ¹⁾	483 ¹⁾
	1.9	Wheelbase	y (mm)	1750	1820	1880	1750	1820	1880
	Weights	2.1	Service weight	kg	4080	4376	4821	4080	4376
2.2		Axle loading, laden front/rear	kg	5833/747	6578/868	7339/982	5833/747	6578/868	7339/982
2.3		Axle loading, unladen front/rear	kg	1943/2137	1958/2488	2009/2812	1943/2137	1958/2488	2009/2812
Wheels, Chassis	3.1	Tyres		SE	SE	SE	SE	SE	SE
	3.2	Tyre size, front	mm	7.00-12	27x10-12	27x10-12	7.00-12	27x10-12	27x10-12
	3.3	Tyre size, rear	mm	6.50-10	6.50-10	6.50-10	6.50-10	6.50-10	6.50-10
	3.5	Wheels, number front rear (x = driven wheels)		2x/2	2x/2	2x/2	2x/2	2x/2	2x/2
	3.6	Track width, front	b ₁₀ (mm)	1000	1060	1060	1000	1060	1060
	3.7	Track width, rear	b ₁₁ (mm)	942	942	942	942	942	942
	4.1	Tilt of mast/fork carriage forward/backward	α/β (°)	6/8	6/8	6/8	6/8	6/8	6/8
	4.2	Closed mast height	h ₁ (mm)	2315	2333	2428	2315	2333	2428
	4.3	Free lift	h ₂ (mm)	150	150	150	150	150	150
Basic Dimensions	4.4	Lift (standard mast)	h ₃ (mm)	3300	3300	3300	3300	3300	3300
	4.5	Height, mast extended	h ₄ (mm)	3910	4088	4083	3910	4080	4083
	4.7	Height of overhead guard (cabin)	h ₆ (mm)	2220	2238	2238	2220	2238	2238
	4.8	Seat height/stand height	h ₇ (mm)	1058	1076	1076	1058	1076	1076
	4.12	Coupling height	h ₁₀ (mm)	377	387	387	377	387	387
	4.19	Overall length	l ₁ (mm)	3763	3858	3948	3763	3858	3948
	4.20	Length to face of forks	l ₂ (mm)	2613	2708	2798	2613	2708	2798
	4.21	Overall width	b ₁ /b ₂ (mm)	1184/-	1320/-	1320/-	1184/-	1320/-	1320/-
	4.22	Fork dimensions	s/e/l (mm)	40/120/1150	45/125/1150	50/125/1150	40/120/1150	45/125/1150	50/125/1150
	4.23	Fork carriage ISO 2328, class/type A, B		2A	3A	3A	2A	3A	3A
	4.24	Fork-carriage width	b ₃ (mm)	1120	1120	1120	1120	1120	1120
	4.31	Ground clearance, laden, below mast	m ₁ (mm)	125	143	143	125	143	143
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	130	148	148	130	148	148
	4.33	Aisle width for pallets 1000x1200 crossways Ast (mm)		3958	4060	4138	3958	4060	4138
	4.34	Aisle width for pallets 800x1200 lengthways Ast (mm)		4158	4260	4338	4158	4260	4338
	4.35	Turning radius	Wa (mm)	2285	2377	2455	2285	2377	2455
4.36	Internal turning radius	b ₁₃ (mm)	617	641	657	617	641	657	
Performance Data	5.1	Travel speed, laden/unladen	km/h	19.6/19.6	20.8/20.8	20.8/20.8	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	0.56/0.56	0.56/0.56	0.48/0.48
	5.3	Lowering speed, laden/unladen	m/s	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56	0.56/0.56
	5.5	Drawbar pull, laden/unladen	N	19160	18100	18100	19160	18100	18100
	5.7	Gradeability, laden/unladen	%	27	24	21	27	24	21
	5.9	Acceleration time, laden/unladen (over 15 metres)	s	4.9/4.4	5.4/4.6	5.7/4.7	5.7/5.0	5.9/5.1	6.1/5.2
5.10	Service brake		hydrostatic	hydrostatic	hydrostatic	hydrostatic	hydrostatic	hydrostatic	
Combustion Engine	7.1	Engine manufacturer/type		VW/CBHA	VW/CBHA	VW/CBHA	VW/BEF	VW/BEF	VW/BEF
	7.2	Engine power acc. to ISO 1585	kW	43	43	43	38	38	38
	7.3	Rated speed	min ⁻¹	2500	2500	2500	2700	2700	2700
	7.4	No. of cylinders/displacement	anz/cm ³	4/1968	4/1968	4/1968	4/1980	4/1980	4/1980
	7.5	Fuel consumption acc. to VDI cycle	l/h	3.2	3.5	3.7			
		Fuel consumption acc. to VDI cycle	kg/h				2.8	3.0	3.2
Others	8.1	Type of drive control		hydrostatic	hydrostatic	hydrostatic	hydrostatic	hydrostatic	hydrostatic
	8.2	Operating pressure for attachments	bar	160	160	190	160	160	190
	8.3	Oil volume for attachments	l/min	30	30	30	30	30	30
	8.4	Sound level at the driver's ear according to EN 12 053	dB(A)	75 ²⁾	75 ²⁾	75 ²⁾	77 ²⁾	77 ²⁾	77 ²⁾
	8.5	Towing coupling, type DIN		DIN 15170 type H	DIN 15170 type H	DIN 15170 type H	DIN 15170 type H	DIN 15170 type H	DIN 15170 type H

- 1) + 25 mm for DZ-Mast
2) Measurement tolerance 2 dB(A)

This specification sheet according to VDI regulation 2198 only provides technical values for the standard truck. Non-standard tyres, different masts, additional equipment etc. could produce other values. Right reserved for technical changes and improvements.

Make use of the advantages

Ergonomic operator workplace

Comfortable cab helping to maximise productivity with class leading ergonomics:

- Easy and safe access due to a large step easily visible from above.
- Floating Cab: Vibration reduction due to 4-way suspension of the seat module.
- Height and rake adjustable, slim steering column with memory function.
- Easy entry to the cab: the steering column tilts forward by means of a simple pull on the memory function lever.
- Excellent all-round visibility thanks to special roof and panel design as well as unobstructed roof window made from laminated safety glass.
- SOLO-PILOT, Comfort Display and operating console are integrated into the right hand armrest and are particularly easy to operate and read. The armrest is both vertically and horizontally adjustable.
- Comfortable working environment in any weather due to comfort cabs in various designs (optional).



Comfort and productivity promoting workplace

Assistance systems

The new Hydrostatic already offers an extensive safety package as standard:

- Deactivation of 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.

A range of optional driver assistance systems provide even more safety for the operator, the forklift and the load:

- Access Control: The access control system allows operation of the forklift only if "seat occupied" and "safety belt locked" recognition are activated in a defined sequence.
- Drive Control: Automatic travel speed reduction when cornering (similar to Jungheinrich Curve Control). Additional travel speed reduction occurs with lift heights in excess of approx. 1500 mm.
- Lift Control (includes "Drive Control"): Automatic mast tilt speed reduction occurs with lift heights in excess of approx. 1500 mm. Tilt angle is displayed via an individual display unit.

Handling efficiency and drive characteristics

Key advantages of hydrostatic drive:

- Electronic control for precise adjustment of drive and hydraulic functions.
- Optimum handling performance particularly in shuttle operations.
- Stepless power transmission and high starting torques.
- 5 electronically selectable operating programmes ensure optimum performance parameters for every application.
- Automatic engine speed increase during lifting and lowering.
- Very precise control of travel speed.
- Optional double pedal operation.
- Low maintenance costs due to direct drive without wearing parts, such as clutch, differential and gears.

Intelligent electronics

- Splash-proof electronic controllers (IP 64) connected to the CAN-Bus system for drive and hydraulic functions.

- Electronically controlled motors.
- TFG with maintenance-free electronic ignition system.
- Sensitive adjustment of hydraulic functions via electromagnetic

Tyres

Superelastic tyres as standard; choices of non-marking SE and pneumatic tyres also available.

Brakes

The hydrostatic drive allows 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.
- Safety on ramps: The parking brake is activated automatically when the truck stands still or the engine is switched off.

Hydraulics

The high performance filter system ensures clean hydraulic oil and a long service life of all components.

- Combined suction and return flow filter system for optimum cold running.
- Hydraulic tank integrated in chassis.
- Ventilation of hydraulic tank via the filter.
- Pressure relief valves protect against excess pressure and overloading.

Mast

All mast components are designed for optimum visibility, maximum stability and long service life:

- Slender mast profiles with lift cylinders behind for maximum visibility.
- Damping on mast and tilt cylinders for increased handling safety.

Additional equipment

Various options and attachments are available to suit different applications.

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