

**Low noise levels:
only 71 dB(A) in the cab**

Comfortable workplace

Tilting cab

**Most up-to-date
6-cylinder Turbo-Diesel**

**Maintenance-free
laminated brakes**



DFG 660/670/680/690/S80

Diesel forklift truck with hydrodynamic drive (6000, 7000, 8000, 9000 kg)

Jungheinrich Diesel stackers with hydrodynamic drive (converter drive) and turbo diesel industrial engines provide high throughput efficiency and availability also in 3-shift operation.

The industrial engines, specially designed for application in fork lift trucks, provide maximum reliability and long service life even in the hardest applications. High torque at low rpm is also a contributory factor. It facilitates

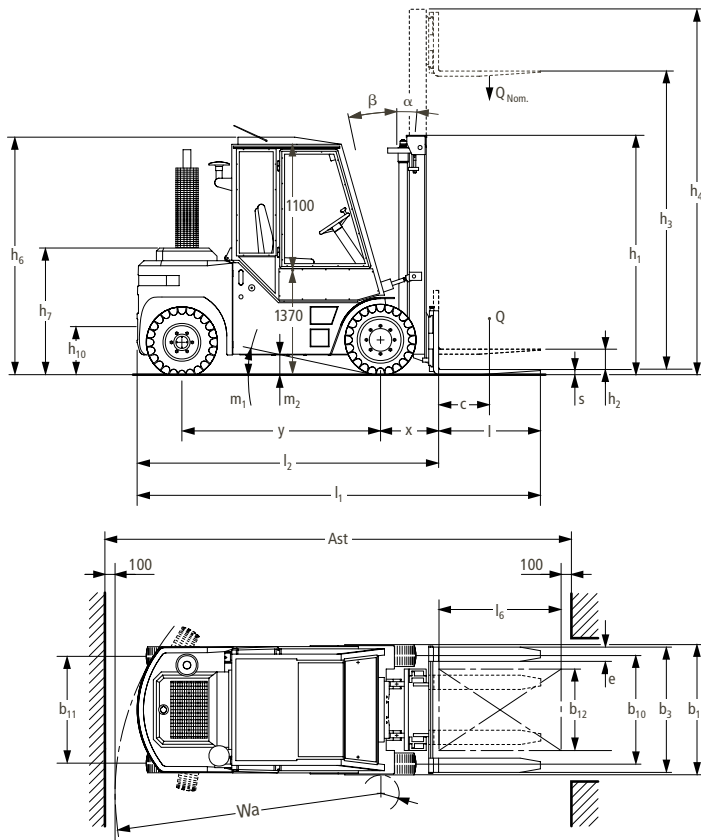
high efficiency whilst at the same time incorporating low fuel consumption and low noise development.

Another virtue of industrial engines is the low exhaust emission that already conforms to future EU regulations. A number of environment-protecting soot filter systems (optional) are also available that ensure requirement-appropriate adjustment to any application.

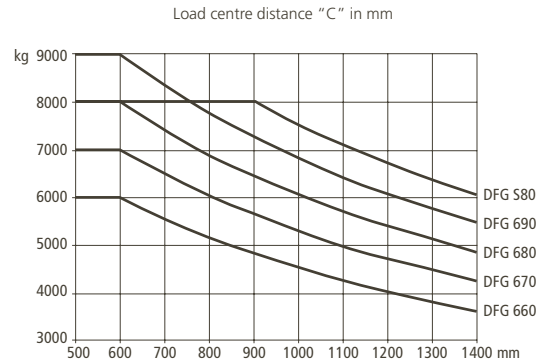
The 6 to 9 t stackers are also ready for any application with regard to travel and operating comfort. The ergonomic design of the entire workplace offers both safety and comfort and protects the operator's health. Thus the high efficiency stackers provide the best conditions for relaxed, concentrated, highly efficient operators.

JUNGHEINRICH

DFG 660/670/680/690/S80



Capacity



New values in table

Mast table DFG 660-580						Capacity table (kg)					
Mast type	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 (°)		c = 600 mm			
			DFG 660/670	DFG 680/690		DFG 660/670		DFG 660	DFG 670		
Two-stage mast ZT	3300	0	2560	4210	6/9	6000	7000				
	3600	0	2710	4510	6/9	6000	7000				
	4000	0	2910	4910	6/9	6000	7000				
	4500	0	3160	5410	6/9	6000	7000				
	5000	0	3410	5910	6/9	6000	7000				
	5500	0	3660	6410	6/9	5500	6500				
Two-stage mast ZZ	3300	1650	2725	4375	6/9	6000	7000				
	3600	1800	2875	4675	6/9	6000	7000				
	4000	2000	3075	5075	6/9	6000	7000				
	4500	2250	3325	5675	6/9	6000	7000				
	5000	2500	3575	6075	6/9	6000	7000				
Three-stage mast DZ	4000	1333	2418	5086	6/5	5710	6720				
	4500	1500	2585	5586	6/5	5710	6720				
	5000	1667	2752	6086	6/5	5710	6720				
	5500	1833	2918	6586	6/5	5210	6220				
	6000	2000	3085	7086	2/3	5210	6220				
	6600	2167	3252	7586	2/3	5170	6090				
			DFG 680	DFG 690-S80	DFG 680	DFG 690-S80	DFG 680	DFG 690-S80	c = 600 mm		c = 900 mm
Two-stage mast ZT	3300	0	2860	3010	4510	4660	6/9	8000	9000	8000	8000
	3600	0	3010	3160	4810	4960	6/9	8000	9000	8000	8000
	4000	0	3210	3360	5210	5360	6/9	8000	9000	8000	8000
	4500	0	3460	3610	5710	5860	6/9	8000	9000	8000	8000
	5000	0	3710	3860	6210	6360	6/9	8000	9000	8000	8000
	5500	0	3960	4110	6710	6860	6/9	7500	8250	7250	7250
Two-stage mast ZZ	3300	1650	2875	3025	4525	4675	6/9	8000	9000	8000	8000
	3600	1800	3025	3175	4825	4975	6/9	8000	9000	8000	8000
	4000	2000	3475	3375	5225	5375	6/9	8000	9000	8000	8000
	4500	2250	3325	3625	5725	5875	6/9	8000	9000	8000	8000
	5000	2500	3725	3875	6225	6375	6/9	8000	9000	8000	8000
Three-stage mast DZ	4000	1333	2568	2718	5236	5386	6/5	7720	8720	7720	7720
	4500	1500	2735	2885	5736	5886	6/5	7720	8720	7720	7720
	5000	1667	2902	3052	6236	6386	6/5	7720	8720	7720	7720
	5500	1833	3068	3218	6736	6886	6/5	7220	7970	6970	6970
	6000	2000	3235	3385	7236	7386	2/3	7220	7970	6970	6970
	6500	2167	3402	3552	7736	7886	2/3	7090	7820	6820	6820

Technical Data in line with VDI 2198 as at: 03/2007

Identification	1.1	Manufacturer (abbreviation)	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	Jungheinrich	1.1
	1.2	Manufacturer's type designation	DFG 660	DFG 670	DFG 680	DFG 690	DFG 580	1.2
	1.3	Drive (electric, diesel, petrol, LPG, mains current, manual)	diesel	diesel	diesel	diesel	diesel	1.3
	1.4	Type of operation (hand, pedestrian, standing, seated, order picker)	seated	seated	seated	seated	seated	1.4
	1.5	Load capacity/rated load Q (t)	6	7	8	9	8	1.5
	1.6	Load centre distance c (mm)	600	600	600	600	900	1.6
	1.8	Load distance, centre of drive axle to fork x (mm)	626	649	649	654	664	1.8
	1.9	Wheelbase y (mm)	2225	2475	2675	2675	2675	1.9
	Weights	2.1	Service weight kg	10060	10590	11000	12200	13600
2.2		Axle loading, laden front/rear kg	13850/2210	15575/2015	17187/1813	19025/2175	18900/2625	2.2
2.3		Axle loading, unladen front/rear kg	4540/5520	5110/5480	5520/5480	5610/6620	6300/7300	2.3
Wheels, Chassis	3.1	Tyres (solid rubber, superelastic, pneumatic, polyurethane)	SE (L)	SE (L)	SE (L)	SE (L)	SE (L)	3.1
	3.2	Tyre size, front	355/65-15	355/65-15	8.25-15	8.25-15	300-15	3.2
	3.3	Tyre size, rear	8.25-15	8.25-15	8.25-15	8.25-15	300-15	3.3
	3.5	Wheels, number front/rear (x = driven wheels)	2 (x)/2	2 (x)/2	4 (x)/2	4 (x)/2	4 (x)/2	3.5
	3.6	Track width, front b ₁₀ (mm)	1285	1465	1510	1510	1510	3.6
	3.7	Track width, rear b ₁₁ (mm)	1296	1296	1296	1296	1460	3.7
	Basic Dimensions	4.1	Mast/fork carriage tilt forward/backward α/β (°)	6/9	6/9	6/9	6/9	6/9
4.2		Lowered mast height h ₁ (mm)	2560	2560	2860	3010	3010	4.2
4.4		Lift height h ₃ (mm)	3300	3300	3300	3300	3300	4.4
4.5		Extended mast height h ₄ (mm)	4210	4360	4360	4360	4360	4.5
4.7		Overhead load guard (cab) height h ₆ (mm)	2510	2510	2510	2510	2510	4.7
4.8		Seat height/standing height h ₇ (mm)	1440	1440	1440	1440	1440	4.8
4.12		Coupling height h ₁₀ (mm)	500/750	500/750	500/750	500/750	500/750	4.12
4.19		Overall length l ₁ (mm)	4676	4884	5034	5134	5634	4.19
4.20		Length to face of forks l ₂ (mm)	3476	3684	3834	3934	3834	4.20
4.21		Overall width b ₁ /b ₂ (mm)	1640	1820	2020	2020	2150	4.21
4.22		Fork dimensions s/e/l (mm)	50x150x1200	60x150x1200	60x150x1200	65x150x1200	70x150x1800	4.22
4.23		Fork carriage ISO 2328, class/type A, B	4A	4A	4A	4A	4A	4.23
4.24		Fork carriage width b ₃ (mm)	1500	1800	2000	2000	2100	4.24
4.31		Ground clearance, laden, under mast m ₁ (mm)	250	250	250	250	250	4.31
4.32		Ground clearance, centre of wheelbase m ₂ (mm)	250	250	250	250	250	4.32
4.33		Aisle width for pallets 1000x1200 crossways Ast (mm)	5006	5449	5599	5699	5599	4.33
4.34		Aisle width for pallets 800x1200 lengthways Ast (mm)	5206	5649	5799	5904	5799	4.34
4.35		Turning radius Wa (mm)	3180	3600	3750	3850	3750	4.35
4.36	Smallest pivot point distance b ₁₃ (mm)	1120	1500	1680	1680	1680	4.36	
Performance Data	5.1	Travel speed, laden/unladen km/h	23/25	23/25	23/25	23/25	23/25	5.1
	5.2	Lift speed, laden/unladen m/s	0.50/0.48	0.40/0.48	0.40/0.48	0.40/0.48	0.40/0.48	5.2
	5.3	Lowering speed, laden/unladen m/s	0.60/0.32	0.60/0.32	0.60/0.32	0.60/0.32	0.60/0.32	5.3
	5.5	Drawbar pull, laden/unladen N	45700/31500	44500/32700	44300/32700	43900/33000	43900/33000	5.5
	5.7	Gradient performance, laden/unladen %	28/30	26/30	24/28	22/26	22/26	5.7
	5.9	Acceleration time, laden/unladen s	5/6	5/6	6.8/5.8	6.8/5.8	6.8/5.8	5.9
	5.10	Service brake	hydraulic	hydraulic	hydraulic	hydraulic	hydraulic	5.10
V-Motor	7.1	Engine manufacturer/type	Detroit/ D 706 IE2	Detroit/ D 706 IE2	Detroit/ D 706 IE2	Detroit/ D 706 IE2	Detroit/ D 706 IE2	7.1
	7.2	Engine power acc. to ISO 1585 kW	82	82	82	82	82	7.2
	7.3	Rated speed 1/min	2450	2450	2450	2450	2450	7.3
	7.4	No. of cylinders/cubic capacity anz/cm ³	6/4164	6/4164	6/4164	6/4164	6/4164	7.4
	7.5	Fuel consumption acc. to VDI cycle l/h, kg/h	5.9	5.9	5.6	5.6	5.6	7.5
Others	8.1	Type of drive control	hydrodynamic	hydrodynamic	hydrodynamic	hydrodynamic	hydrodynamic	8.1
	8.2	Operating pressure for attachments bar	150	150	150	150	150	8.2
	8.3	Oil volume for attachments l/min	80	80	80	80	80	8.3
	8.4	Sound level at driver's ear according to EN 12053 dB(A)	71	71	71	71	71	8.4

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

Operator compartment

Comfort and efficiency-promoted through excellent ergonomics:

- Simple and safe mounting and dismounting through low entry height.
- Operator workplace module completely sealed off from engine. Damped against sound and vibration through hydraulic buffers.
- Steplessly adjustable, mechanically cushioned comfort seat (air cushioning optional).
- Steplessly adjustable steering column.
- Hydraulic levers fixed to the operator seat that follow every seat adjustment automatically.
- Travel direction switch on steering column (fixed on acceleration pedal or to hydraulic lever on control valve is available as an option).
- Large, comfortable foot room with pedals arranged as in a motor car.
- Excellent visibility through mast due to cylinders arranged behind mast profiles.
- Clear instrument panel with analogue display and extensive warning and control lights.
- Comfortable working environment in any weather through comfort cabs (optional) in various designs.

Engines

Propulsive power is provided by turbo-diesel industrial engines that were specially designed for fork lift trucks:

- DFG 660-690 and S80: 4.2l/6 cylinder turbo-diesel engine (Detroit Diesel D 706IE2) with direct injection and 82 kW power output at 2450 rpm. Maximum torque (440 Nm) at 1400 rpm.
- Efficient engines with low rpm level and high torque.



Excellent visibility through the mast

- Clean exhaust emissions clearly below valid emission limit values according to ISO 8178.
- 400 operating hours service intervals.
- Different types of soot filter systems (optional).
- 120 l fuel tank integrated in chassis.

Drive

The hydrodynamic drive with automatic 2-speed power shift gear ensures economic, requirement-oriented power transmission. Other advantages:

- Sensitive and jerk-free power transmission.
- Automatic gear shift and electronically controlled shift lock at a travel speed of more than 4 km/h.
- Combined crawl speed/brake pedal for sensitive travelling at full lift performance.

Electrics

12 Volt battery with 135 Ah/115 A alternator.

Steering

Maximum steering comfort and high safety through:

- Hydrostatic steering for effortless, precise steering.
- Steering axle with integrated steering cylinder.

Brake

Two independent brake systems act upon the front wheels:

- Foot brake: servo-hydraulic, maintenance-free laminated brake in oil bath with brake power booster.
- Parking brake: electro-hydraulic disc brake activated via manual switch and fitted with operation warning light.

Hydraulics

The high efficiency filter system ensures clean hydraulic oil and contributes towards long service life of all components.

- Suction filter and extra fine filter in return pipe.
- 120 l hydraulic tank integrated in chassis.
- Ventilation of hydraulic tank via filter.
- Pressure relief valves protect against excess pressure and overloading (load sensing technology).

Mast

All mast components are designed for optimised visibility conditions, maximum stability and long service life.

- Slender mast profiles and lift cylinders positioned at the rear for wide visual range window.
- Clear view fork carriage for optimised visibility.
- Fork carriage according to FEM/ISO-2328-4A.

Options

Various options and attachments are available for adjustments to different application requirements or customer requests.

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