



Kalmar Premier Forklifts. DCG90-180

20,000 – 40,000 lbs capacity.



KALMAR

Greater total lifetime savings.

Keeping cargo moving forward is obviously of critical importance. Meanwhile, the performance of your truck-and-driver teams has the most significant impact on cargo handling operations – both day-to-day and over time. That's because truck-and-driver teams directly influence your ability to keep promises, generate future revenue as well as increase lifetime savings.

Introducing Kalmar DCG90-180.

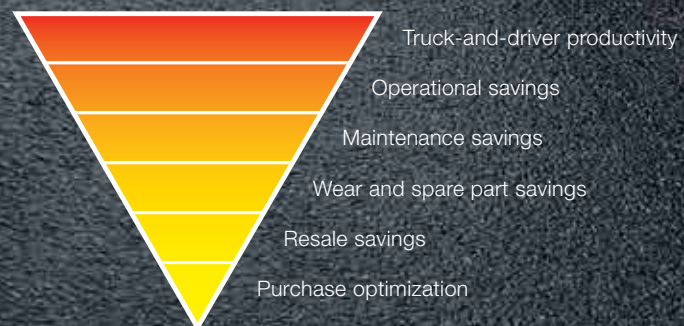
Like all Kalmar solutions, Kalmar DCG90-180 lift trucks offer greater total lifetime savings by improving the performance of your truck-and-driver teams. DCG90-180 is a range of Kalmar trucks with a lifting capacity of 20,000 - 40,000 lbs capacity. Each model in the range is designed, built and delivered to keep truck uptime and driver productivity levels high – and keep running, maintenance and lifetime costs low.

Designed to deliver greater total lifetime savings.

It's simple: great truck-and-driver teams save your company time and money every working day – and over the lifetime of your business. The DCG90-180 is designed, built and delivered to offer greater total lifetime savings – capitalizing on insights from Kalmar's proven track record of supporting more than 10,000 users of trucks with a lifting capacity of 20,000-40,000 pounds. The DCG90-180 offers superior truck uptime as well as fuel and maintenance savings. As important, it incorporates the best driving environment in any lift truck – our new EGO cabin – loaded with features that inspire driver productivity, efficiency and safety.

Total lifetime savings.

The following factors contribute to achieving total lifetime savings while owning, operating and maintaining a fork lift truck. Each DCG90-180 truck helps you meet them all.



Our most productive driving environment.

EGO cabin enables driver productivity.

The DCG90-180 offers your drivers Kalmar's most productive driving environment – our EGO cabin. EGO provides a great working environment, ergonomic excellence and productivity-enhancing features.

The EGO cabin incorporates a spacious curved front window that gives the operator excellent side-to-side and overhead visibility. Operators gain greater operating control and precision thanks to well-placed, ergonomically improved instruments, levers, pedals, panels, switches and display. A closer look shows why the DCG90-180 is such a great working environment. One test drive proves it.

Ergonomic steering wheel.

Here's an ergonomic twist: EGO's steering wheel is not only adjustable; it can also be tilted to the side. This decreases stress while driving and reversing. Thoroughly tested, it raises the ergonomics bar.

Comfort pedals. A flexible and safe pedal system gives an adjustable pedal angle. The improved ergonomics minimizes strain on the operator's foot. A floor-based solution that gives a hanging pedal feel.

Climate package. Complete and flexible climate control system that matches the high demands of the climate tested EGO cabin. Large air intake, easy filter replacement in the front, well-dimensioned and designed components provide complete driving comfort and convenience.

Ergonomic multi-seat. The adjustable and fully integrated Kalmar seat. Designed and developed for maximum sitting posture, comfort and ergonomics for long shifts and demanding operations.

Operating console. The complete unit for those who use the mini steering wheel or steering lever. Integrated switch knob. Fully adjustable and individually tested for optimal ergonomics. The steering wheel can be folded forward without limiting visibility.

The joystick with built-in gear knob is designed to improve driving efficiency. It is optimized for maximum lifting capacity and ergonomically enhanced to reduce arm fatigue.

Optimized visibility. Completely new open design with smart profiles and curved front and rear windows. Provides optimized views at all angles, with exceptionally good views diagonally forward and back. And a strong outdoors feeling.

Work console. A natural extension of the driver's arm. Easy to set, adjust, use and understand. Ergonomic and flexible. Here are all the necessary controls, switches, levers and indicators for effective operations. Clear, well-placed panels. Steering wheel controls for data display as well as the whole control system.

Overhead guard. The EGO cabin is also available as an overhead guard. A simpler, more robust alternative that easily fulfills requirements on visibility, safety and ergonomics. Durable and robust for all kinds of weather.



Increasing productivity of truck-and-driver teams.

Ensuring cargo is handled in perfect condition and on time. It's the base for keeping your promises and generating revenue. Meanwhile, ensuring your driver can uphold delivery precision is dependent upon truck uptime. Here are some of the ways DCG90-180 ensures high uptime levels.

Boosting uptime with smarter electronics.

The improved electronic system of the DCG90-180 is a fast, intelligent and stable system that makes the truck user-friendly and reliable. The electronics requires far fewer connection points and cables, which means fewer faults and improved operational reliability. The electronics also incorporate a modern, distributed and redundant CAN-bus (Controller Area Network) that ensures reliability. It monitors the condition and performance of the engine, gearbox, valves and more: controlling 500 measuring points, 50 times every second. This keeps the truck and its engine components operational even in the worst-case scenario. The CAN-bus constantly provides condition-monitoring data via a 3.5" color display that is placed at eye level in the cabin – so the driver can make well-informed decisions.

Two new diesel engines meet stricter emission regulations.

The Kalmar DCG90-180 offers you the choice of Tier 4 Final emissions compliant diesel engines for regulated markets. From Volvo and Cummins, both cut particulate emissions by 90% as well as reduce nitrogen oxide emissions. Both engines improve fuel efficiency whilst maintaining operational reliability, durability or performance. As important, both engines ensure maximum power and torque are available at low rpm.

Powerful hydraulics when you need it.

The variable pumps automatically sense the load in every operation and adjust the oil flow accordingly, allowing for faster lifting cycles while reducing fuel consumption. New electric and hydraulic systems mean quicker response, high lifting speed and increased control. This combination helps drivers be more productive while using less fuel.

Keeping clean and cool to reduce risks of failure.

A cooling system improves uptime and operational reliability of the DCG90-180. It helps keep the engine compartment cooler, thus promoting a longer lifetime of engine, hydraulic and electrical components. We offer an optional reversible cooling fan that helps keep the radiator clean from potentially harmful dirt, dust or particles. A perfect option for e.g for sawmills or other dusty applications.



Turn running costs into operational savings.

As you know, no two drivers are identical. This is especially true when it comes to fuel consumption, driving safety and accident avoidance. Of course, even the best driver needs a great truck to help keep these costs low. A range of new features makes it easy to drive DCG90-180 economically and safely – securing savings throughout every shift.

Reducing fuel consumption.

Compared to our previous model, the DCG90-180 uses up to 15 percent less fuel* in standard configuration. Add Kalmar's renowned product quality and reliability, increasing efficiency and uptime, and you see the true value of Kalmar.

ECO drive axle

– All the power 20% less fuel.

To reduce the fuel consumption further we can offer the DCG90-180 with an optional drive axle and converter. The drive axle and converter is optimized to match the engines performance and use the engine to its fullest. A lower rpm and an optimized gear ratio lowers the fuel consumption by up to 20% and make the machine quieter to operate without losing any performance.

ECO drive modes.

Choose between three optional drive modes, each optimized to meet your operational requirements. The forklift can be adapted to every task at hand, shifting many times during the day. The operator easily shifts between modes by using the cabin display screen.



Power.

Brings out maximum performance of your machine, allowing you to increase the number of tons moved per hour.

Normal.

Balances power and economy to optimize profitability.

Economy.

If total cost of operations outweighs the need for performance, Economy mode reduces fuel consumption by up to 15 percent.

* Compared to Kalmar DCE90-180 with Tier 3 engine.

Features and Options.

Kalmar attachments.

Choose between a wide range of forks and attachments for different applications. We offer complete solutions whereby we assemble the attachment in the factory and integrate it with the truck's other functions.

Heavy duty lift equipment.

Our long experience of extreme applications all over the world has gained us knowledge to optimize our lifting equipment. Kalmar's lifting equipment is by far the most heavy duty lifting equipment available on the market.

Engine options.

Kalmar offers the DCG90-180 with a number of different engine options for regulated and non-regulated markets. Engines from both Volvo and Cummins are available in different ratings.

Load sensing hydraulics.

The variable pumps automatically sense the load in every operation and adjust the oil flow accordingly, allowing for faster lifting cycles up to 40 percent while reducing fuel consumption. This will improve your productivity a lot depending on number of lift cycles.

Temperature control fan.

A new cooling system improves uptime and operational reliability of the DCG90-180. It helps keep the engine compartment cooler, thus promoting a longer lifetime of engine, hydraulic and electrical components. We offer an optional reversible cooling fan that helps keep the radiator clean from potentially harmful dirt, dust or particles. A perfect option for sawmills or other dusty applications.

ECO drive axle option.

A lower rpm and an optimized gear ratio lowers the fuel consumption by up to 20% and makes the machine quieter to operate without losing any performance.

Turnable driver seat 180° option.

The rotatable seat is a perfect option when driving involves a lot of reversing – a time saving feature, activated by pushing a button, which also protects the driver's neck and shoulders.

Mini-wheel steering / Lever steering options.

Ergonomic steering, precise maneuvering. Saves the driver's shoulders during long shifts.



Improving safety and operating costs.

Like all Kalmar equipment, Kalmar DCG90-180 trucks and EGO cabins are designed to contribute to safe driving, low accident rates as well as low operator misuse, abuse or accidents. In short, the cabin and truck are designed to help drivers stay alert, keep in-tune with the truck as well as the surroundings.

Improved truck safety features.

The DCG90-180 helps reduce the risk of accidents. It not only meets all current and emerging demands for operator health and safety, but it can also be equipped with a number of safety options making the operations as safe as possible.



Speed limitations.

Kalmar can configure your forklift depending on your needs. Limitations can be set both in relation to lifting height and travel speed or in combination. In order to increase the safety in your operations.



Alcolock.

More and more companies are installing Alcolock on their machine. This option is an efficient way of prohibiting persons intoxicated by alcohol to operate the forklift.



Fire suppression system.

In the unlikely event of a fire in the engine compartment the suppression system will automatically be activated to suppress the fire. A useful option in a sawmill, for example.



Blue safety light option.
The blue safety light alerts people that the truck is approaching, reducing the risk of accidents.



Reducing noise and increasing driving comfort and precision improves safety. This may help reduce the risk of costly accidents occurring.





Improve your fleet performance and your business.

Maintenance savings.

Optimise your fleet with Kalmar Insight.

Kalmar Insight is a performance management tool for cargo and material handling, which gives you a valuable and easy to use overview of your daily operations based on equipment status and performance. Making it quicker for you to take action on relevant information that will help you improve your operations, your equipment's performance and your business.

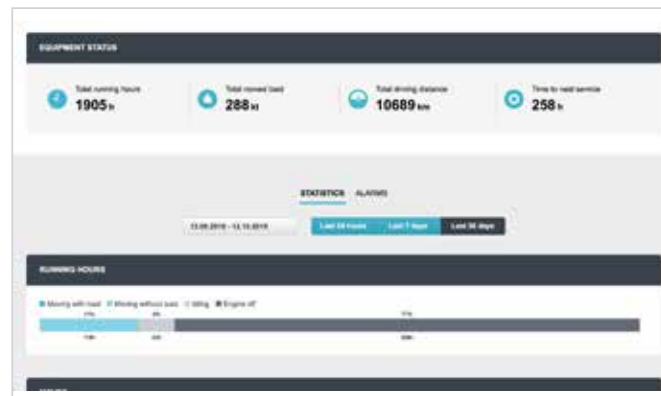
Kalmar Insight comes fitted in all new Kalmar machines and can be retrofitted to existing Kalmar machines or those built by other manufacturers.



Access on mobile, tablet or traditional screen.



View each machine's movements as they occur.



Plan your maintenance and spare parts needs.

Extra time and effort to perform routine and daily maintenance is costly. Not only in terms of hourly labor costs. But also in terms of maintenance quality. Skipping difficult-to-perform tasks jeopardizes the truck's reliability, thus leading to costly unplanned stops or downtime. Performing daily inspections and routine servicing is fast, simple and convenient with the DCG90-180.

Saving time and effort.

Accessibility has been dramatically improved for the DCG90-180. Here are just three examples. Smart placement of the electric cabinet offers fast and easy access. All hydraulic oil filters can be reached from above at one location. There's a special drain for differential oil, for example, which makes it possible to fill oil while standing up. As with previous generations of Kalmar trucks, all check points for daily inspection are directly accessible at ground level on the side of the truck.

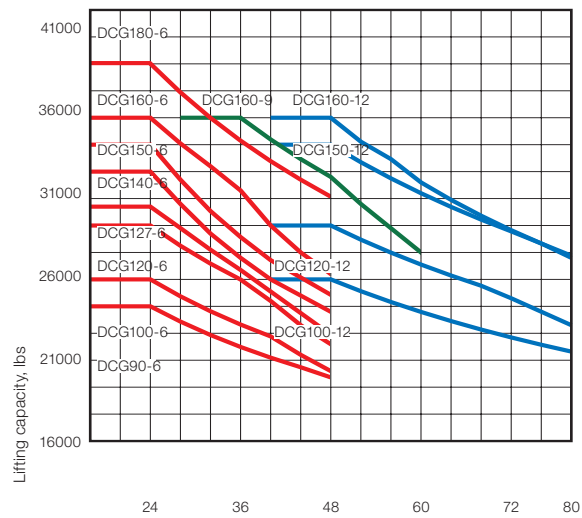
500 hours of driving.

Service intervals for the 20,000 - 40,000 lbs range are after 500 hours of operations. This long service interval meets top industry performance parameters. As important, Kalmar's global presence means we can provide the right level of local support to your maintenance teams.



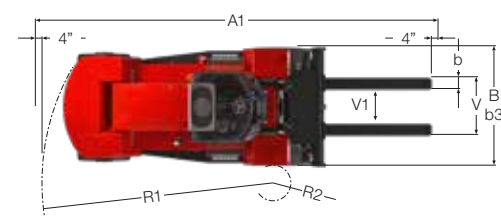
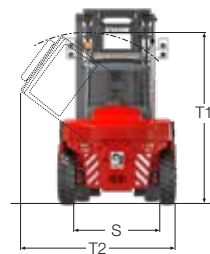
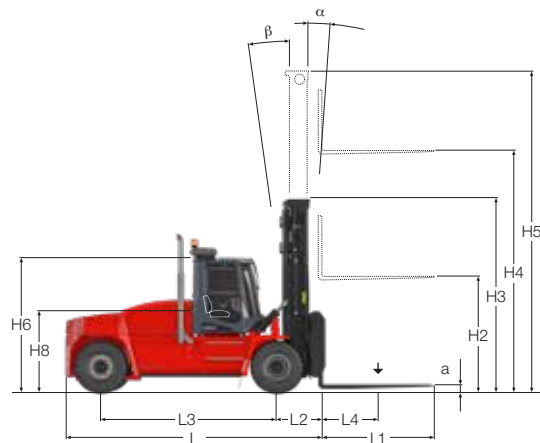
Service is fast, simple and convenient thanks to improved accessibility and smart features, like the hydraulic filters (left) and a plug for filling differential oil while standing (above).

Technical information.



Load center, inches

DCG90-6 to DCG180-6 models:
Full lifting capacity up to 197" lift height with duplex/duplex freelifift/triplex masts and integrated sideshift/fork positioning carriage.



		DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG 70-35 E3	DCG 70-35 E4	
MAIN DATA	Model designation	DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG 70-35 E3	DCG 70-35 E4	
	Power source	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	
	Rated capacity / rated load	20,000	22,000	26,000	28,000	31,000	33,000	22,000	26,000	33,000	36,000	36,000	36,000	40,000	15,400	15,400	
	Load center distance	24	24	24	24	24	24	48	48	48	24	36	48	24	48	48	
WEIGHTS	Load distance, center of drive axle to fork	38.2	38.2	38.2	38.2	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	52.4	52.4	
	Wheelbase	110	118	118	118	128	128	128	138	138	138	138	148	128	138	138	
	Service weight	37,900	39,000	39,900	41,200	42,800	44,100	42,800	45,200	50,900	44,800	48,900	52,000	48,700	54,000	61,300	
	Axle loading, unloaded front	22,000	22,500	22,500	22,500	23,100	23,100	23,600	24,000	24,000	23,600	23,800	24,700	23,400	32,600	39,900	
WHEELS	Axle loading, loaded front	53,100	56,100	62,200	65,300	69,400	72,500	60,600	66,600	78,000	76,100	79,400	82,000	83,100	60,200	66,600	
	Axle loading, unloaded rear	15,900	16,500	17,400	18,700	19,600	20,900	19,200	21,200	26,900	21,200	25,100	27,300	25,400	21,400	21,400	
	Axle loading, loaded rear	4,600	4,900	3,700	4,000	4,200	4,600	4,200	4,600	6,000	4,600	5,500	6,000	5,500	9,300	10,100	
	Type, front / rear	Pneumatic / Pneumatic															
DIMENSIONS	Tire size, front	12.00x20/20PR												12.00x20/20PR HD	12.00x20/20PR		
	Tire size, rear	12.00x20/20PR												12.00x20/20PR HD	12.00x20/20PR		
	Number of wheels, front / rear (x = driven wheels)	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2	
	Track width, front / rear	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	73 / 77	87 / 77
OTHERS	Tire pressure	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
	Mast tilt, α = forward / β = backward	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	14 / 10	3 / 5	3 / 5
	Height of mast lowered	165	165	165	165	165	165	165	165	165	165	165	165	165	165	205	279
	Lift height	197	197	197	197	197	197	197	197	197	197	197	197	197	197	276	394
	Height of mast extended	264	264	264	264	264	264	264	264	264	264	264	264	264	342	475	
	Truck height - EGO / OHG cabin roof	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	
	Seat height	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
	Height when tilting EGO cab / OHG	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	
	Width when tilting EGO cab / OHG	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	
	Truck length (to face of forks)	181	189	189	189	200	200	200	210	210	210	210	219	200	220	230	
	Truck width	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	114
	Fork dimensions, width	7.9	7.9	7.9	7.9	7.9	7.9	9.8	9.8	9.8	7.9	9.8	9.8	9.8	-	-	
	Fork dimensions, thickness	2.8	2.8	2.8	2.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	-	-	
	Fork dimensions, length of fork arm	48	48	48	48	48	48	96	96	96	48	72	96	48	-	-	
	Fork carriage width	98	98	98	98	98	98	98	98	98	98	98	98	98	96	96	
	Width over fork arms, maximum / minimum*	93 / 24	93 / 24	93 / 24	93 / 24	93 / 24	93 / 24	93 / 28	93 / 28	93 / 28	93 / 24	93 / 28	93 / 28	93 / 28	-	-	
Sideshift \pm @ width over forks*	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	19 / 55	6	6		
Ground clearance, laden, below mast	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
Ground clearance, machine	13	13	13	14	14	14	14	14	14	14	14	14	14	14	14		
Min. aisle width for 90° stacking with forks	259	258	258	258	267	267	315	331	331	283	323	347	267	350 / 543	362 / 547		
Turning radius	157	165	165	165	172	172	172	188	188	188	188	188	204	180	172	188	
Inside turning radius	3	3	3	3	5	5	5	17	17	17	17	17	24	11	17		
Operating pressure for hydraulics	1,520	1,670	1,960	2,030	2,180	2,250	1,810	2,180	2,470	2,470	2,540	2,610	2,760	2,830	2,900		
Hydraulic oil tank, capacity	57	58	58	58	58	58	58	58	58	58	58	58	58	58	58		
Fuel tank, capacity	40	45	45	45	45	45	45	45	45	45	45	45	45	45	45		
Diesel Exhaust Fluid (DEF) tank, capacity	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		

* Fork positioning and side shift values when equipped with standard roller fork mountings.

Drivetrain and performance.

		Volvo TAD572VE ZF 3WG171 (214 hp)	
ENGINE	Manufacturer's type designation	Volvo TAD572VE (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	hp / rpm	214 / 2,300
	Peak torque ISO 3046 / at revs	lbf-ft / rpm	671 / 1,200
	Number of cylinders / displacement	in ³	4 / 311
	Fuel consumption, normal driving	gal/hr	1.8-2.4
	DEF* consumption, normal driving	% of diesel	3-5
Emission standard		Tier 4 final	
GEARBOX & MISC	Manufacturer's type designation	ZF 3WG171	
	Clutch, type	Torque converter	
	Gearbox, type	Hydrodynamic Powershift	
	Numbers of gears, forward / reverse	3 / 3	
	Alternator, type / power	Amp	AC / 110
	Starting battery, voltage / capacity	V / Ah	2x12 / 150
	Driving axle, manufacturer / type	Kessler D81 / Differential and hub reduction	

		DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG70-35 E3	DCG70-35 E4
Lifting speed	Unloaded (ft/s)	-	-	-	-	-	-	1.3	1.3	1.3	1.3	1.3	1.3	-	1.6	2.0
	At 80% of rated load (ft/s)	-	-	-	-	-	-	1.1	1.1	1.1	1.1	1.1	1.1	-	1.5	1.8
Lowering speed	Unloaded (ft/s)	-	-	-	-	-	-	1.0	1.0	1.0	1.0	1.0	1.0	-	1.3	1.3
	At rated load (ft/s)	-	-	-	-	-	-	1.3	1.3	1.3	1.3	1.3	1.3	-	1.6	1.6
Traveling speed, F/R	Unloaded (mph)	-	-	-	-	-	-	19	19	19	19	19	19	-	19	19
	At rated load (mph)	-	-	-	-	-	-	18	18	18	18	18	18	-	18	18
Gradeability, max.	Unloaded (%)	-	-	-	-	-	-	97	78	98	83	75	-	71	59	
	At rated load (%)	-	-	-	-	-	-	49	40	42	39	38	-	50	45	
Gradeability, at 1.2 mph	Unloaded (%)	-	-	-	-	-	-	79	66	80	70	64	-	60	51	
	At rated load (%)	-	-	-	-	-	-	43	35	37	35	33	-	44	39	
Drawbar pull	Max. (lbf)	-	-	-	-	-	-	31,500	31,500	31,500	31,500	31,500	-	31,500	31,500	
Noise level, inside	LpAZ**, EGO cabin (dB(A))	-	-	-	-	-	-	71	71	71	71	71	-	71	71	
	LpAZ**, EGO OHG (dB(A))	-	-	-	-	-	-	83	83	83	83	83	-	83	83	
Noise level, outside	LWA*** (dB(A))	-	-	-	-	-	-	107	107	107	107	107	-	107	107	

		DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG70-35 E3	DCG70-35 E4
Lifting speed	Unloaded (ft/s)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	2.0
	At 80% of rated load (ft/s)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.5	1.8
Lowering speed	Unloaded (ft/s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3
	At rated load (ft/s)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	1.6
Traveling speed, F/R	Unloaded (mph)	18	18	18	18	18	18	18	18	18	18	18	18	18	19	19
	At rated load (mph)	17	17	17	17	17	17	17	17	17	17	17	17	17	18	18
Gradeability, max.	Unloaded (%)	106	100	96	90	84	80	84	77	64	78	68	62	68	59	50
	At rated load (%)	54	50	46	43	40	38	47	42	34	36	34	33	32	43	38
Gradeability, at 1.2 mph	Unloaded (%)	78	74	72	68	65	62	65	60	51	61	54	50	54	48	41
	At rated load (%)	44	41	37	35	33	31	38	34	29	30	28	27	27	35	32
Drawbar pull	Max. (lbf)	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700	27,700
Noise level, inside	LpAZ**, EGO cabin (dB(A))	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
	LpAZ**, EGO OHG (dB(A))	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Noise level, outside	LWA*** (dB(A))	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108

* Diesel Exhaust Fluid ** LpAZ according to EN12053 *** LWA according to 2000/14/EC

		Cummins B6.7 ZF 3WG171 (225 hp)		Cummins B6.7 ZF 3WG161 (173 hp)	
ENGINE	Manufacturer's type designation	Cummins B6.7 (Turbo-Intercooler)		Cummins B6.7 (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke		Diesel, 4-stroke	
	Rating ISO 3046 / at revs	hp / rpm	225 / 2,200	173 / 2,200	
	Peak torque ISO 3046 / at revs	lbf-ft / rpm	700 / 1,500	590 / 1,400	
	Number of cylinders / displacement	in ³	6 / 409	6 / 409	
	Fuel consumption, normal driving	gal/hr	1.8-2.4	1.8-2.4	
	DEF* consumption, normal driving	% of diesel	3-5	3-5	
Emission standard		Tier 4 final		Tier 4 final	
GEARBOX & MISC	Manufacturer's type designation	ZF 3WG171		ZF 3WG161	
	Clutch, type	Torque converter		Torque converter	
	Gearbox, type	Hydrodynamic Powershift		Hydrodynamic Powershift	
	Numbers of gears, forward / reverse	3 / 3		3 / 3	
	Alternator, type / power	Amp	AC / 70	AC / 70	
	Starting battery, voltage / capacity	V / Ah	2x12 / 150	2x12 / 150	
	Driving axle, manufacturer / type	Kessler D81 / Differential and hub reduction		Kessler D81 / Differential and hub reduction	

		DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG70-35 E3	DCG70-35 E4
Lifting speed	Unloaded (ft/s)	-	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	2.0
	At 80% of rated load (ft/s)	-	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.5	1.8
Lowering speed	Unloaded (ft/s)	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3
	At rated load (ft/s)	-	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	1.6
Traveling speed, F/R	Unloaded (mph)	-	18	18	19	19	19	19	19	19	19	19	19	19	19	19
	At rated load (mph)	-	17	17	17	17	17	17	17	17	17	17	17	17	18	18
Gradeability, max.	Unloaded (%)	-	103	99	93	87	82	87	79	66	80	70	64	70	60	51
	At rated load (%)	-	51	47	44	41	39	41	42	35	37	35	33	33	44	39
Gradeability, at 1.2 mph	Unloaded (%)	-	77	74	70	67	64	67	62	52	62	55	51	56	49	42
	At rated load (%)	-	42	38	36	34	32	39	35	29	30	29	28	27	36	32
Drawbar pull	Max. (lbf)	-	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100	28,100
Noise level, inside	LpAZ**, EGO cabin (dB(A))	-	71	71	71	71	71	71	71	71	71	71	71	71	71	71
	LpAZ**, EGO OHG (dB(A))	-	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Noise level, outside	LWA*** (dB(A))	-	108	108	108	108	108	108	108	108	108	108	108	108	108	108

		DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG70-35 E3	DCG70-35 E4
Lifting speed	Unloaded (ft/s)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	2.0
	At 80% of rated load (ft/s)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.5	1.8
Lowering speed	Unloaded (ft/s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3
	At rated load (ft/s)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	1.6
Traveling speed, F/R	Unloaded (mph)	18	18	18	18	18	18	18	18	18	18	18	18	18	19	19
	At rated load (mph)	17	17	17	17	17	17	17	17	17	17	17	17	17	18	18
Gradeability, max.	Unloaded (%)	78	74	72	68	65	62	65	60	51	61	54	50	54	48	41
	At rated load (%)	44	43	37	35	33	31	38	34	28	30	28	27	27	35	31
Gradeability, at 1.2 mph	Unloaded (%)	63	60	58	56	53	51	53	50	43	50	45	42	45	40	35
	At rated load (%)	37	36	32	30	28	27	32	29	24	25	24	23	23	30	27
Drawbar pull	Max. (lbf)	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400
Noise level, inside	LpAZ**, EGO cabin (dB(A))	73	73	73	73	73	73	73	73	73	73	73	73	73	71	71
	LpAZ**, EGO OHG (dB(A))	85	85	85	85	85	85	85	85	85	85	85	85	85	83	83
Noise level, outside	LWA*** (dB(A))	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108

* Diesel Exhaust Fluid ** LpAZ according to EN12053 *** LWA according to 2000/14/EC

Lifting equipment.

Here is how the DCG90-180 helps drivers optimize lifting efficiency and save fuel – at the same time. To begin with, its new electric and hydraulic systems mean quicker response, high lifting speed and increased control. Meanwhile, new load sensing hydraulic pumps improve fuel efficiency. Operating together, this combination improves productivity and saves fuel – every lift.

As lifting equipment plays a vital role in the performance of any forklift, it is important yours match your individual requirements and applications. For instance, careful consideration should be made to factors such as lift height, clearance, free lift, carriage flexibility, etc. in order to optimize operations.

Kalmar offers you a complete range of standard and custom lifting equipment – carriage, quick change, forks, leveling, etc – and options to suit your specific lifting and cargo handling requirements.



DUPLEX STANDARD, CLEAR VIEW

Lift height H4	Mast height		Free lift H2
	H3 min	H5 max	
		DCG90-180	
118	126	185	-
128	131	195	-
138	136	205	-
148	141	214	-
157	145	224	-
167	150	234	-
177	155	244	-
187	160	254	-
197	165	264	-
217	175	283	-
236	185	303	-
256	195	323	-
276	205	342	-

DUPLEX FULL FREE LIFT, CLEAR VIEW

Lift height H4	Mast height		Free lift H2
	H3 min	H5 max	
		DCG90-180	
118	126	185	59
128	131	195	64
138	136	205	69
148	141	214	74
157	145	224	79
167	150	234	84
177	155	244	89
187	160	254	94
197	165	264	98
217	175	283	108
236	185	303	118
256	195	323	128
276	205	342	138

TRIPLEX FFL, CV

Lift height H4	Mast height		Free lift H2
	H3 min	H5 max	
		DCG90-180	
177	123	244	59
197	130	263	66
217	136	283	72
236	143	303	79
256	149	322	85
276	156	342	92



Duplex standard, free visibility



Duplex full free lift, free visibility



Triplex full free lift, free visibility



Fixed for manually moveable forks



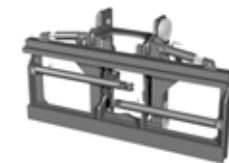
Fork positioning and sideshift



Forks for manual adjustment



Roller fittings for hydraulic adjustment



Center leveling



Sideshift



Quick change system with separate carriers for each fork



Hydraulic leveling



Kalmar offers the widest range of cargo handling solutions and services to ports, terminals, distribution centres and to heavy industry. Kalmar is the industry forerunner in terminal automation and in energy efficient container handling, with one in four container movements around the globe being handled by a Kalmar solution. Through its extensive product portfolio, global service network and ability to enable a seamless integration of different terminal processes, Kalmar improves the efficiency of every move. www.kalmarglobal.com

Kalmar is part of Cargotec. Cargotec's (Nasdaq Helsinki: CGCBV) sales in 2018 totalled approximately EUR 3.3 billion and it employs over 11,000 people. www.cargotec.com

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