

# Kalmar DCG90-180 Lift trucks 9 – 18 tonnes



Technical information, Stage IIIB/Tier 4i

# Designed to deliver greater total lifetime savings

The DCG90-180 is a range of new Kalmar trucks with a lifting capacity of 9 – 18 tonnes. The new DCG90-180 is the result of our customer-focused product development activities as well as our deep commitment to improving the performance of lift trucks. In fact, DCG90-180 capitalizes on insights we have gained from the more than 10.000 worldwide users of Kalmar trucks with this lifting capacity.

#### Introducing Kalmar DCG90-180

The new Kalmar DCG90-180 is designed, built and delivered to offer greater total lifetime savings. This new range of Kalmar trucks offer these savings by improving the performance of your truckand-driver teams. Below is a summary of how the Kalmar DCG90-180 benefits your business.

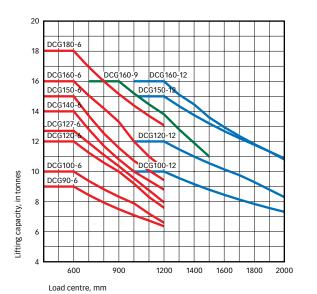
#### Give your savings a lift

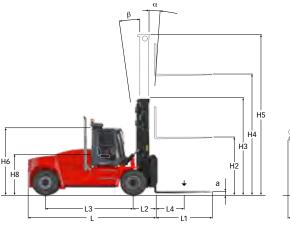
The following pages provide you more details about the Kalmar DCG90-180. Contact your local Cargotec representative for a closer look and a test drive.

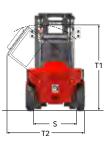
#### Model designation

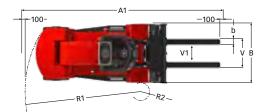
-	DCG160-12
Diesel engine	
Counterbalance truck —	
Generation	
Lifting capacity, in decitonnes	
Load centre, in decimetres	

Dimensions			DCG90-6	DCG100-6	DCG120-6	DCG127-6			
Lifting capacity	Rated (kg)		9000	10000	12000	12700			
	Load centre (mm)	L4	600	600	600	600			
Truck	Truck length (mm)	L	4470	4720	4725	4725			
	Truck width (mm)	В	2480	2480	2480	2480			
	Height, basic machine, EGO cabin (mm)	H6	2895	2895	2895	2920			
	Height, basic machine, EGO cabin, OHG (mm)	H6	2895	2895	2895	2895			
	Seat height, EGO cabin (mm)	H8	1770	1770	1770	1790			
	Distance between centre of front axle – front face of fork arm (mm)	L2	895	895	900	900			
	Wheelbase (mm)	L3	2800	3000	3000	3000			
	Track (c-c), front – rear (mm)	S	1840 – 1960	1840 – 1960	1840 – 1960	1840 – 1960			
	Turning radius, outer – inner (mm)	R1 – R2	3950 - 75	4180 - 75	4180 - 75	4180 - 75			
	Ground clearance, min. (mm)		330	330	330	330			
	Height when tilting cab, max. EGO cabin, OHG (mm)	T1	3370	3370	3370	3395			
	Width when tilting cab, max. EGO cabin, OHG (mm)	T2	3350	3350	3350	3380			
	Min. ailse width for 90° stacking with forks (mm)	A1	6240	6470	6475	6475			
Standard duplex mast	Lifting height (mm)	H4	5000	5000	5000	5000			
	Mast height, min. (mm)	H3	4015	4015	4015	4035			
	Mast height, max (mm)	H5	6515	6515	6515	6535			
	Mast tilting, forward – backward (°)	α – β	5 – 10	5 – 10	5 – 10	5 – 10			
	Ground clearance, min. (mm)		250	250	250	250			
Forks	Width (mm)	b	200	200	200	200			
	Thickness (mm)	а	65	65	70	70			
	Length of fork arm (mm)	1	1200	1200	1200	1200			
	Width across fork arms, max. – min. (mm)	V	2330 – 570	2330 - 570	2330 - 570	2330 - 570			
	Sideshift $\pm$ at width across fork arms (mm)	V1 – V	440 - 1450	440 - 1450	440 - 1450	440 - 1450			
Weight	Service weight (kg)		15200	15600	16200	16700			
	Axle load front, unloaded (kg)		7800	8100	8300	8300			
	Axle load front, at rated load (kg)		21700	23100	26500	27350			
	Axle load back, unloaded (kg)		7400	7500	7900	8400			
	Axle load back, at rated load (kg)		2500	2500	1900	2050			
Wheels / tyres	Type, front – rear			Pneumatic -	- Pneumatic				
	Dimensions, front – rear / ply (inch)		11,00×20/16PR	11,00×20/16PR	11,00×20/16PR	12,00×20/20PR			
	Number of wheels, front – rear (*driven)		4* - 2	4* - 2	4* - 2	4* - 2			
	Pressure (Mpa)		0,9	0,9	0,9	0,9			
Steering system	Type – manoeuvring			Hydraulic servo	<ul> <li>Steering wheel</li> </ul>				
Service brake system	Type – affected wheels		Oil coo	led disc brakes (Wet	disc brakes) – drive	wheels			
Parking brake system	Type – affected wheels		Dry, spring activated disc brake – drive wheels						
Hydraulic pressure	Max. (Mpa)		16,0	17,0	17,5	18,0			
Hydraulic fluid volume	()		215	220	220	220			
Fuel volume	()		152	170	170	170			
AdBlue volume*	()		15	15	15	15			
*Only Volvo TAD761VE									









DCG90-6 to DCG180-6 models: Full lifting capacity up to 5000 mm lift height with duplex/duplex freelift/triplex masts and integrated sideshift/fork positioning carriage.

DCG140-6	DCG150-6	DCG100-12	DCG120-12	DCG150-12	DCG160-6	DCG160-9	DCG160-12	DCG180-6	DCG70-32 E3	DCG70-35 E4
14000	15000	10000	12000	15000	16000	16000	16000	18000	7000	7000
600	600	1200	1200	12000	600	900	1200	600	1220	1220
4985	5055	5065	5315	5325	5305	5315	5575	5065	5595	5845
2480	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
2920	2920	2920	2920	2920	2920	2920	2920	2920	2920	2920
2895	2895	2895	2895	2895	2895	2895	2895	2895	2895	2895
1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770
910	980	990	_	1000	980	990	1000	990	1265	1265
3250	3250	3250	3500	3500	3500	3500	3750	3250	3250	3500
1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	1855 – 1960	2210 - 1960
4360 - 125	4360 - 125	4360 - 125	4785 - 420	4785 - 420	4785 - 420	4785 - 420	5175 - 600	4570 - 270	4360 - 125	4785 - 420
350	350	350	350	350	350	350	350	350	350	350
3395	3395	3395	3395	3395	3395	3395	3395	3395	3395	3395
3380	3380	3380	3380	3380	3380	3380	3380	3380	3380	3380
6665	6735	7945	8370	8380	7160	8160	8770	6745	8900/13800	9200/13900
5000	5000	5000	5000	5000	5000	5000	5000	5000	7000	10000
4035	4195	4195	4195	4195	4195	4195	4195	4195	5195	7075
6535	6695	6695	6695	6695	6695	6695	6695	6695	8695	12075
5 - 10	5 – 10	5 – 10	5 – 10	5 - 10	5 – 10	5 – 10	5 – 10	5 – 10	3 – 5	3 – 5
250	250	250	250	250	250	250	250	250	250	250
200	200	220	220	250	200	220			6064	6064
80	80	90	90	100	80	90	100	90	2120	2120
1200	1200	2400	2400	2400	1200	1800	2400	1200	-	-
2330 – 570	2360 - 600	2360 - 640	2360 - 640	2360 – 700	2360 - 600	2360 - 640	2360 - 700	2360 - 640	-	_
440 - 1450	440 - 1480	430 - 1500	430 - 1500	430 - 1530	440 - 1480	430 - 1500	415 - 1530	430 - 1500	140	140
16900	19800	18600	19700	22300	19200	21200	22400	21600	22900	23900
8400	10300	10000	10100	10200	10200	10200	10500	10300	14700	15600
28900	32650	26700	29600	34600	34800	34800	35800	37100	27100	27600
8500	9500	8600	9600	12000	11000	11000	11900	11300	8200	8300
2000	2150	1900	2100	2600	2400	2400	2600	2500	2800	3300
				Pi	neumatic – Pneuma	tic				
12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR	12,00×20/20PR HD	12,00×20/20PR	12,00×20/20PR
4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2
0,9	0,9	0,9	0,9	0,9	0,9	1,0	1,0	1,0	0,9	0,9
				Hydra	ulic servo – Steering					·
				Oil cooled disc br	akes (Wet disc brak	es) – drive wheels				
				Dry, spring ac	ctivated disc brake -	- drive wheels				
19,0	16,5	12,5	15,0	17,0	17,0	17,5	18,0	19,0	19,5	20,0
220	220	220	220	220	220	220	220	220	220	220
170	170	170	170	170	170	170	170	170	170	170
15	15	15	15	15	15	15	15	15	15	15

# New EGO cabin: our most productive driving environment. Ever.

Improving a driver's working environment – the cabin – stimulates productivity, efficiency and safety. That's why the new DCG90-180 incorporates our most productive driving environment: the new EGO cabin. It's loaded with outstanding ergonomics and smart features that help drivers optimally perform their work. As important, the truck has new electric and hydraulic systems as well as modern lifting equipment to help drivers boost productivity and operational savings.

#### EGO cabin enables driver productivity

The new EGO cabin is a spacious workplace. Its curved glass window gives the operator excellent side-to-side and overhead visibility. Below is a closer look at some of the interior of DCG90-180.





**Ergonomic steering wheel** It's adjustable and can also be tilted to the side. This decreases stress on the operator during driving and reversing.



Comfort pedals

A new flexible and safe pedal system with an adjustable pedal angle. Improves ergonomics and minimizes strain on the driver's foot. A floor-based solution gives a hanging pedal feel.



Windshield wipers

Provides over 90% coverage of the curved front window. Roof wipers are also integrated. It all means superior visibility and safety.



Ergonomic multi-seat

Rotatable and fully integrated. Built for maximum sitting posture, comfort and ergonomics during long shifts and demanding operations.



**Climate package** Complete and flexible climate control system that matches the high demands of the climate tested EGO cabin. Large air intakes. Easy filter replacement in the front. Complete driving comfort from well-dimensioned and -designed components.



Work console

Easy to set, adjust, use and understand. All necessary controls, switches, levers and indicators easily accessible for effective operations. Clear and well-placed panels and steering wheel controls for data display.



**Operating console** 

The complete unit for operators who use the mini-wheel or steering lever. Integrated gear knobs. Fully adjustable and individually tested for optimal ergonomics. The ergonomic steering wheel is folded forward without limiting vision.



**Optimized visibility** Completely new open design. Designed with smart profiles and curved front and rear windows. An optimized view at all angles, with an exceptionally good view diagonally forwards and backwards. Strong outdoors feeling.

# 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.

Cargotec offer you a complete range of standard and custom lifting equipment - carriage, fork shaft, forks, levelling, etc and options to suit your specific lifting and cargo handling requirements.

#### Duplex standard, clear view

Lift height		height H5 max	Free lift H2		height H5 max	Free lift x H2					
H4	D	CG90-14	D*	DCG100-180**							
3000	3015	4515	-	3195	4695	-					
3250	3140	4765	-	3320	4945	-					
3500	3265	5015	-	3445	5195	-					
3750	3390	5265	-	3570	5445	-					
4000	3515	5515	-	3695	5695	-					
4500	3765	6015	-	3945	6195	-					
5000	4015	6515	-	4195	6695	-					
5500	4265	7015	-	4445	7195	-					
6000	4515	7515	-	4695	7695	-					
6500	4765	8015	-	4945	8195	-					
7000	5015	8515	-	5195	8695	-					

#### Duplex full free lift, clear view

Lift height		height H5 max	Free lift H2		height H5 max	Free lift H2
H4	D	CG90-14	0*	DC	0**	
3000	3015	4515	1500	3195	4695	1500
3250	3140	4765	1625	3320	4945	1625
3500	3265	5015	1750	3445	5195	1750
3750	3390	5265	1875	3570	5445	1875
4000	3515	5515	2000	3695	5695	2000
4500	3765	6015	2250	3945	6195	2250
5000	4015	6515	2500	4195	6695	2500
5500	4265	7015	2750	4445	7195	2750
6000	4515	7515	3000	4695	7695	3000
6500	4765	8015	3250	4945	8195	3250
7000	5015	8515	3500	5195	8695	3500

#### Triplex full free lift, clear view

Lift height	Mast I H3 min		Free lift H2		height H5 max	Free lift H2				
H4	D	CG90-14	0*	DCG100-180**						
4500	2950	5950	1500	3130	6190	1500				
5000	3117	6450	1667	3297	6690	1667				
5500	3283	6950	1833	3463	7190	1833				
6000	3450	7450	2000	3630	7690	2000				
6500	3617	7950	2167	3797	8190	2167				
7000	3783	8450	2333	3963	8690	2333				

+25 mm on H3 and H5 on the DCG140 DCG90-140-6

\*\* DCG150-180-6, DCG160-9, DCG100-160-12



Duplex standard, free visibility

Duplex full free lift, free visibility

Triplex full free lift, free visibility

C



Fixed for manually moveable forks



Fork positioning and sideshift



Centre levelling



Sideshift



Forks for manual



Roller fittings for hydraulic adjustment



Fork shaft system with separate carriers for each fork



Hydraulic levelling





## Drive train

#### **Engine range**

You can equip the drive train of the new Kalmar DCG90-180 with one of two different diesel engines: from Volvo or Cummins. Both are powerful, durable, reduce fuel consumption and compliant with EU Stage IIIB / EPA Tier 4i emissions.

Equipped with your choice of EU Stage IIIB / EPA Tier 4i compliant diesel engine from Volvo or Cummins, your DCG90-180 engine offers many improvements. Both cut particulate emissions by 90% and reduce nitrogen oxide emissions by half. As important, both ensure maximum power and torque are available at low rpm as well as improve fuel efficiency without compromising operational reliability, durability or performance. The trucks are fitted with an efficient and easy-to-service split cooling system.

#### Transmission

The electronically controlled gearbox allows comfortable, efficient and safe driving at all speeds and operating lifting equipment with high precision. We offer a wide range of gearboxes to match your needs and preferences.

#### Volvo V-ACT and SCR technologies

The new generation of Volvo diesel engines feature Volvo Advanced Combustion Technology, V-ACT. This employs an advanced new fuel injection system, a new and more effective air management system and enhanced engine management. It incorporates selective catalytic reduction (SCR) technology.

SCR engines are optimized for efficient combustion, which provides the fuel efficiency and low particulate emission benefits. To combat the resultant NOx emissions, AdBlue is injected into the exhaust gas. Exhaust gas and AdBlue then enter a catalytic converter, which turns the NOx into harmless nitrogen gas and water vapour. The cleaning process of the catalyst is done automatically by the system during normal driving. The AdBlue tank has a volume of 15 L and is equipped with a level sensor which notifies the driver when its time to fill up the tank. The filling of AdBlue is usually done together with the filling of diesel. The AdBlue tank is heated by engine coolant and the AdBlue hoses are heated by electricity to prevent freezing in cold climates. (Freezing point of AdBlue -11C). There is no increase in service intervals, no impact on uptime. SCR has been used across the Volvo Group since 2006.

## Cummins new diesel engines for EU Stage IIIB / EPA Tier 4i

The new Cummins diesel engine platform combines cooled exhaust gas recirculation with an improved High Pressure Common Rail (HPCR) fuel system and particle filter. This enables cleaner and more efficient combustion that results in an up to five percent better fuel efficiency without compromising performance.

#### **Powerful braking**

The service brake system is of the wet disc brake type, featuring one set of fixed and one set of rotating oil-cooled discs that are linked with hydraulic pressure from the brake pedal upon activation. This provides extremely effective and smooth braking over an extended period of time without risk of overheating or fading.

#### Drive and steering axle

The steering system utilizes a well-proven, robust design with a double acting cylinder and a pendulum suspension. This provides high strength and durability. The robust design of the drive axle handles extreme stresses from quick manoeuvring and/or normal operations in tough working environments with heavy loads, high intensity operations and even towing tasks. The drive axle has a two-stage reduction to ensure minimum strain on the transmission system – differential and hub reduction.

\*In this picture Volvo TAD761VE with SCR system and ZF transmission.

## Keeping clean and cool to reduce risks of failure

The truck's improved cooling system keeps the engine room cooler, which prolongs the lifetime of engine, hydraulic and electrical components. In addition, you keep the radiator clean from potentially harmful dirt, dust or particles by adding an optional reversible cooling fan.

# Drive train and performance

Drive trains		Volvo TAD761VE with ZF 3WG171	Cummins QSB6,7 with ZF 3WG171
Engine	Manufacturer – type designation	Volvo - TAD761VE (Turbo-Intercooler)	Cummins QSB6,7 (Turbo-Intercooler)
	Fuel – type of engine	Diesel – 4-stroke	Diesel – 4-stroke
	Rating ISO 3046 – at revs (kW/hp – rpm)	160/218 – 2200	164/233 - 2200
	Peak torque ISO 3046 – at revs (Nm – rpm)	1180 - 1200	945 - 1500
	Number of cylinders – displacement (cm <sup>3</sup> )	6 – 7150	6 - 6702
	Fuel consumption, normal driving (I/h)	8-10	8-10
	AdBlue consumption, normal driving (I/h)	0,3-0,5	-
Gearbox	Manufacturer – type designation	ZF – 3WG171	ZF – 3WG171
	Clutch, type	Torque converter	Torque converter
	Gearbox, type	Hydrodynamic Powershift	Hydrodynamic Powershift
	Numbers of gears, forward – reverse	3 - 3	3 - 3
Alternator	Type – power (W)	AC – 3360	AC – 1960
Starting battery	Voltage – capacity (V – Ah)	2×12 – 150	2×12 - 150
Driving axle	Manufacturer – type	Kessler D81 – Differential and hub reduction	Kessler D81 – Differential and hub reduction

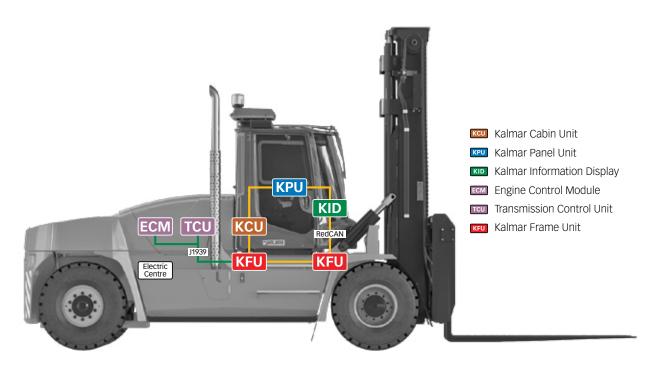
Performance – Volv	o TAD761VE	DCG 90-6	DCG 100-6	DCG 120-6	DCG 127-6	DCG 140-6	DCG 150-6	DCG 100-12	DCG 120-12	DCG 150-12	DCG 160-6	DCG 160-9	DCG 160-12	DCG 180-6	DCG 70-32 E3	DCG 70-35 E4
Lifting speed	Unloaded (m/s)	-	0,50	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,60
	At rated load (m/s)	-	0,45	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,45	0,55
Lowering speed	Unloaded (m/s)	-	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,50
	At rated load (m/s)	-	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,50
Travelling speed, F/R	Unloaded (m/s)	-	29	29	29	29	29	29	29	29	29	29	29	29	29	29
	At rated load (m/s)	-	28	27	28	28	28	28	28	27	27	27	27	27	28	28
Gradeability, max.	Unloaded (%)	-	>120	>120	>120	>120	93	105	93	75	98	82	74	79	72	67
	At rated load (%)	-	64	55	50	47	40	52	45	37	40	37	36	35	49	47
Gradeability, at 2 km/h	Unloaded (%)	-	>120	112	98	96	72	80	73	60	76	65	60	63	58	55
	At rated load (%)	-	52	46	42	39	34	43	38	31	34	31	30	29	41	39
Drawbar pull	Max. (kN)	-	141	141	136	136	136	136	136	136	136	136	136	136	136	136
Noise level, inside	LpAZ*, EGO cabin (dB(A))	-	71	71	71	71	71	71	71	71	71	71	71	71	71	71
	LpAZ*, EGO cabin OHG (dB(A))	-	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Noise level, outside	LwAZ** (dB(A))	-	107	107	107	107	107	107	107	107	107	107	107	107	107	107

Performance – Cun	imins QSB6,7	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 70-32 E3	DCG 70-35 E4
Lifting speed	Unloaded (m/s)	0,50	0,50	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,60
	At rated load (m/s)	0,45	0,45	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,45	0,55
Lowering speed	Unloaded (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,50
	At rated load (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,50	0,50
Travelling speed, F/R	Unloaded (m/s)	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
	At rated load (m/s)	28	28	27	28	28	28	28	28	27	27	27	27	27	28	28
Gradeability, max.	Unloaded (%)	>120	>120	>120	>120	>120	105	>120	106	84	112	92	83	89	80	75
	At rated load (%)	-	71	62	56	52	45	58	50	41	44	41	40	38	54	52
Gradeability, at 2 km/h	Unloaded (%)	>120	>120	>120	111	108	80	89	81	67	85	72	66	70	64	60
	At rated load (%)	-	58	51	46	43	38	48	42	35	37	35	34	33	45	43
Drawbar pull	Max. (kN)	146	146	146	141	141	141	141	141	141	141	141	141	141	141	141
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 cabin OHG (dB(A))	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Noise level, outside	LwAZ** (dB(A))	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
	* LpAZ according to EN12053	** LwAZ according to 2000/14/EC														

# Advanced electronics and proven power train

More intelligence means more uptime. The new DCG90-180 incorporates an improved electronics system with reduced fault sources. Its modern distributed and redundant CAN-bus technology continuously controls the truck's condition while providing the driver with real-time data.





#### **Electronics system**

Kalmar's electronic system is a fast, intelligent and stable system that makes the truck more reliable and user-friendly. The improved electronics utilize far fewer connection points and cabling, which means fewer potential fault points and improved operational reliability. A modern, distributed and redundant CANbus (Controller Area Network) monitors and controls the condition and performance of the engine, gearbox, valves and some 500 measuring points in the engine – 50 times every sEGOnd. The CAN-bus also keeps driver well informed of the truck's status by sending real-time condition monitoring data to a 3.5" colour display that is placed at eye level in the cabin.

# Saving maintenance time & effort

Fast, simple and more convenient daily inspections and regular servicing was prioritized and achieved in developing the new DCG90-180. An array of new built-in features saves maintenance time, effort and costs.



## Daily inspections and regular servicing

Performing daily inspections and regular servicing takes just a few minutes. Here are some of the many built-in maintenance improvements in the DCG90-180:

- Easy to get to location of the electric cabinet
- All hydraulic oil filters can be reached from above at one location
- A special drain for shaft oil makes it possible to fill oil while standing

All daily inspection checkpoints are directly accessible at ground level from the side of the truck.

#### Wear and spare part savings

The DCG90-180's usage of well-proven assemblies, systems, units and components also means low part failure rates, thereby promoting savings in wear and spare parts. Furthermore, Cargotec manages an advanced and extensive distribution network. This offers you simple sourcing and rapid availability of highquality, original parts. Our local, dedicated customer service teams provide Just-In-Time deliveries, quick response as well as the right level of support to your business. Cargotec stays close to you – wherever you are – to help keep your cargo on the move.



Electric cabinet is easily accessible.

#### 500 hours of driving

Well-proven assemblies, systems, units and components have been extensively used in the DCG90-180. This ensures long service intervals of 500 hours. This matches the top performance levels in the industry.



Improved placement of hydraulic filters.



Shaft oil filling plug.

# The Kalmar difference

## Superior truck-and-driver productivity

- New EGO cabin is our most productive working environment – ever. It's loaded with improved ergonomic features to inspire driver productivity, efficiency and safety.
- New electric and hydraulic systems as well as modern lifting equipment help drivers boost productivity levels whilst reducing fuel consumption
- The improved electronic system is a fast, intelligent and stable system that ensures truck uptime and operational reliability. There are far fewer connection points and cables, thus significantly reducing potential fault sources.
- A distributed and redundant CAN-bus system continuously monitors the truck's condition. It sends real-time condition monitoring data to the driver via a 3.5" colour display in the cabin.



EGO cabin.



Cummins QSB6,7 engine.



Fuel efficiency.

## Operational and maintenance savings

- Your choice of EU Stage IIIB / EPA Tier 4i compliant diesel engines from Volvo or Cummins. Both engines feature new advances that improve fuel efficiency.
- New load sensing pumps boost lifting productivity and lower fuel consumption.
- Dozens of new features save maintenance time, effort and costs.
- Long service intervals of 500 hours.

## Parts, resale value and customization: more ways to save

- Well-proven assemblies, systems, units and components
- Cargotec's distribution network and local support teams ensure fast, professional service
- High quality of the Kalmar brand secures high resale value
- Customize your truck to ideally suit your needs: Cargotec offers full support.



Global presence, local service.

## Global presence and local service bring our products and solutions closer to our customer.



**Cargotec** improves the efficiency of cargo flows on land and at sea – wherever cargo is on the move. Cargotec's daughter brands Hiab, Kalmar and MacGregor are recognised leaders in cargo and load handling solutions around the world. Cargotec's global network is positioned close to customers and offers extensive services that ensure the continuous, reliable and sustainable performance of equipment. Cargotec's class B shares are quoted on the NASDAQ OMX Helsinki. www.cargotec.com



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