

Quality for all.

Introducing the Kalmar
10 - 18 ton Essential
Forklift Range.



Kalmar Essential Range



KALMAR

Exceeding your expectations.

The new Kalmar Essential Forklift Range gives you everything you expect from Kalmar – a quality build with high availability and excellent productivity for a very competitive price.

Kalmar forklifts are built to take on your toughest loads, making them ideal for demanding applications like container, steel and wood handling. Our forklifts are available with lifting capacities from 10 -18 tons and three different masts to match your exact lifting needs. Our new range of Essential Forklifts will exceed your expectations.

Kalmar quality for all.



Expect Kalmar quality. Robust, reliable and with market leading availability, all Kalmar forklifts are designed to last, which is why they command the highest resale values in the market.



Expect greater value. Built on our proven platform, our new Essential Range delivers everything you need in a medium sized forklift, without compromise. You get a great machine, at a great price.



Expect a safer machine. The safety of your drivers and employees is critically important to us, which is why all Kalmar forklifts come with a wide range of safety features as standard.



Expect more support. Kalmar has a full range of support services including Kalmar Care, Kalmar Genuine Parts, Kalmar Insight and the Kalmar Academy, where drivers and service technicians can learn more about their new forklifts.

Mast options.

Duplex mast:

3000-7000 mm



Duplex full free mast:

3000-7000 mm



Triplex full free mast:

4500-7000 mm



Lifting capacities.

Lifting capacities in tons.



Built on a proven platform.

We know you want a reliable machine, which is why our new range of forklifts have been built on a proven and tested platform. You will benefit from:

A standard driver interface across the platform, making it easier for your operators to drive consistently and safely.

A color HMI screen and control system with improved diagnostic tools, so troubleshooting time is reduced, and high availability is maintained.

A common electrical system that helps with quick and easy troubleshooting by using common error codes.

Only built with **branded quality components** from leading manufacturers.

Proven chassis design with high stability and durability.

More than 10,000 machines already built on this platform.



Keeping your drivers comfortable and safe.

Introducing the new Essential cabin.

The Kalmar Essential cabin has everything your drivers need to operate at their best. The well-designed, spacious cabin offers great visibility both forward and backward. An adjustable seat, power-assisted steering, and easy lift operation with control levers or an optional joy stick. Keeping your drivers comfortable and in full control.

A safer operating environment.

Every Kalmar forklift comes with non-slip steps and handrails for safe three-point access to the cabin. The cabin has doors on both sides so the driver can exit from either side in case of an emergency. All servicing points are at ground level to reduce the risk of injury from falling. The entire Essential Range of machines complies with the most recent operator health and safety guidelines and can be equipped with additional optional safety features, making your operations as safe as possible.



Spacious and well designed cabin.



Safe, three point access.

Efficient and easy to maintain.

A forklift built for efficiency.

You get the choice of four different Volvo engines, including a new smaller yet highly efficient 105 kW version. The engines are compliant with either Stage 4/Tier 4 Final or Stage 3A/Tier 3 emissions standards and are combined with a highly efficient gearbox and drive axle. Our gear pumps are extremely reliable, easy to service and come in three different capacities, depending on the size of your forklift.

Three cabin choices.

Fully enclosed cabin.



Partially enclosed with no doors.



Full open cabin with no doors or windows.



Two cabin positions.

- Standard mounted cabin
- Raised (300 mm) cabin



Extra efficient:

Lift & lowering speeds

- ↑ 0,35 m/sec without load
- ↑ 0,29 m/sec with load
- ↓ 0,40 m/sec without load
- ↓ 0,40 m/sec with load

Top speed 30km/h

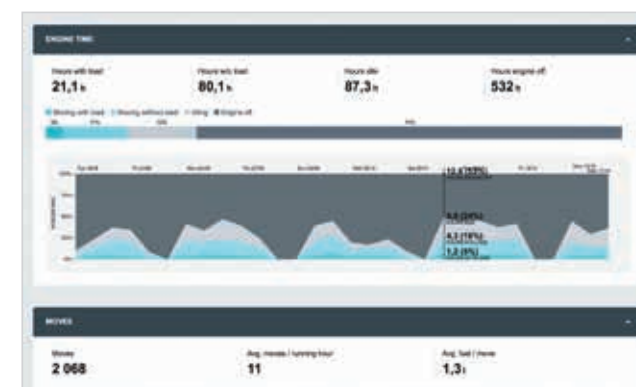
Volvo engine ratings

- 105 & 129kW Stage4/Tier 4
- 105 & 129kW Stage3A/Tier 3

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.



View each machine's movements as they occur.

Easy to maintain, with industry-leading service intervals.

Performing daily inspections and routine servicing is quick and convenient with all check points directly accessible at ground level. The electrical cabinet is easy to access and, when the cabin is raised, the hydraulic filters, servicing points and the entire drivetrain can be reached from one location. With industry-leading service intervals of 500 hours, your machine will spend less time being maintained and more time working.

Kalmar Training Academy.

For your team to get the most out of their new forklift, the Kalmar Training Academy offers a range of courses for both your technicians and operators. Operators will be shown how to optimise their day-to-day operational performance and what needs to be checked daily on the truck before operations begin.

Technicians will be given the knowledge needed to keep your new forklift in top condition. Courses are a mix of theory and hands-on experience and can be held at Kalmar or at your site.

Kalmar has a range of options for you to choose from:

For the cabin:

- You can choose to have your cabin mounted 300 mm higher for better visibility.
- Your cabin can be fully enclosed, partially enclosed or fully open.
- You can choose to add air-conditioning or sun screens to protect your drivers from the sun.
- You can choose additional grid protection for enhanced driver safety when handling items that may fall, like wood or other debris.
- Or upgrade to a premium GRAMMER seat with additional dampening for the ultimate in operator comfort.

For the machine:



Rear Mounted Camera. Knowing what's going on behind you is critical when other personnel are present. A rear mounted camera can provide real-time information to an in-cabin display, helping improve personnel and driver safety.



LED Blue Safety Light. To protect bystanders in noisy environments, a blue LED safety light can be fitted. The safety light projects onto the ground behind the forklift, so bystanders can see which direction the forklift is moving and do not need to rely on hearing the machine.



Reverse Beeper System. Working side by side with moving vehicles always involves some safety risks. Installing a reverse beeper system provides a clear acoustic alert when the forklift is reversing, so personnel are sure to stay out of harm's way.



Speed Limiter. Allows you to set a safe speed limit on the forklift that your operators cannot exceed.



Additional lighting. Extra lighting brings greater operational visibility and safety for personnel working at your site, particularly at night. You can choose from:

- Flashing brake lights when reversing
- Additional lights on the mast (2 pc)
- Additional lights on the cabin roof (2 pc).



Electronic Inching. When you are lifting heavy loads, you will need additional power. Electronic Inching allows you to maintain high engine revs for the hydraulic system without engaging the drive in the gearbox. This is achieved by releasing the clutch electronically prior to revving the engine.



Central Greasing: By installing a central greasing system, you can be certain that your machine components are fully lubricated when they need to be, no matter where they are or how difficult it is to access them. Keeping them fully lubricated will reduce your servicing and component replacement costs.



All the support you need.

Kalmar Care.

Making sure your business never stops.

We offer four different types of service and maintenance contracts. Each is designed to help you improve your operational efficiency, drive productivity and secure financial predictability. Each contract type includes a set of standardised service modules to meet your business needs. Here is an overview of the four different levels:

The four flexible types of service contracts.

Kalmar Support Care

We support your maintenance processes on demand.

- Availability of competent people with the right tools and parts
- Addition of skills to existing maintenance organisation

Kalmar Essential Care

We perform your agreed maintenance tasks proactively.

- Availability of competent people with the right tools and parts
- Higher degree of financial predictability
- Reduced operational risk for business
- Improved availability of machines

Kalmar Complete Care

We meet your complete maintenance requirements.

- Improved predictive maintenance
- Low operational risk for business
- Reduced equipment downtime
- Reduced total cost of operation
- Increased operational predictability

Kalmar Optimal Care

We optimise your business performance.

- Guaranteed availability
- Reduced tied-in capital
- Improved business performance
- Increased peace of mind

Kalmar Genuine Parts.

When the right part matters.

When something needs to be replaced, you need a spare part that meets your exact needs – urgently. Kalmar offers a rapid delivery service for over 50,000 premium-quality genuine parts to anywhere in the world, with installation support if needed.

You may also want to consider outsourcing all or part of your spare parts management and inventory control. Kalmar Parts Care makes sure that critical spare parts are always on hand so your equipment downtime is kept to a minimum. Each Kalmar Parts Care plan is based on your operational needs, so talk to us today and see how we can improve your parts availability while reducing your inventory costs.

Financing options for you.

Lease or rent.

You may choose to buy your new forklift outright or consider leasing or renting your equipment. Kalmar offers a range of options that give you the financial predictability you need and the option to upgrade your equipment after a fixed period. With our leasing packages, you can focus on your core operations, while we perform all your service and maintenance tasks. Kalmar can also work with you when trading in your old equipment.

No matter what your service and support needs are, make sure you speak to your local Kalmar team first.



Technical information.

			DCG 100-6T	DCG 120-6T	DCG 127-6T	DCG 140-6T	DCG 150-6T	DCG 100-12T	DCG 120-12T	DCG 150-12T	DCG 160-6T	DCG 160-9T	DCG 160-12T	DCG 180-6T	DCG 70-35 E3	DCG 70-35 E4		
MAIN DATA	Model designation		DCG 100-6T	DCG 120-6T	DCG 127-6T	DCG 140-6T	DCG 150-6T	DCG 100-12T	DCG 120-12T	DCG 150-12T	DCG 160-6T	DCG 160-9T	DCG 160-12T	DCG 180-6T	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		kg	10000	12000	12700	14000	15000	10000	12000	15000	16000	16000	16000	18000	7000	7000	
	Load center distance		mm L4	600	600	600	600	600	1200	1200	1200	600	900	1200	600	1220	1220	
	Load distance, center of drive axle to fork		mm L2	895	900	900	910	980	990	990	1000	980	990	1000	990	1330	1330	
Wheelbase		mm L3	3000	3000	3000	3250	3250	3250	3500	3750	3500	3500	3750	3500	3500	3500		
WEIGHTS	Service weight		kg	16200	16700	17200	17500	19800	19100	20300	22100	19600	21600	23100	20800	24000	28000	
	Axle loading, unloaded front		kg	8700	8800	8800	9000	10300	10500	10700	10900	10400	10600	11200	10400	14800	18100	
	Axle loading, loaded front		kg	23700	26700	27850	29500	23600	27200	30200	34700	33600	35200	36600	36600	26900	30200	
	Axle loading, unloaded rear		kg	7500	7900	8400	8500	9500	8600	9600	11200	9200	11000	11900	10400	9200	9700	
	Axle loading, loaded rear		kg	2500	1900	2050	2000	2200	1900	2100	2400	2000	2400	2500	2200	4100	4600	
WHEELS	Type, front / rear																	
	Tyre size, front		inch	12,00x20/20PR			12,00x20/20PR HD						12,00x20/20PR					
	Tyre size, rear		inch	12,00x20/20PR			12,00x20/20PR HD						12,00x20/20PR					
	Number of wheels, front / rear (x = driven wheels)			4x / 2			4x / 2						4x / 2					
	Track width, front / rear		mm S	1840 / 1960	1840 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	2210 / 1960
Tyre pressure		MPa	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1	1	1	0.9	0.9		
DIMENSIONS	Mast tilt, ∂ = forward / β = backward		° ∂ / β	5 / 10			5 / 10						3 / 5					
	Height of mast lowered		mm H3	4015	4015	4035	4035	4195	4195	4195	4195	4195	4195	4195	4195	4195	5195	7075
	Lift height		mm H4	5000			5000						7000					
	Height of mast extended		mm H5	6515	6515	6535	6535	6535	6535	6535	6535	6535	6535	6535	6535	6535	8695	12075
	Truck height – Essential cabin roof		mm H6	2960	2960	2985	2985	2985	2985	2985	2985	2985	2985	2985	2985	2985	2920	2920
	Seat height		mm H8	1745	1745	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770
	Height when tilting Essential cab		mm T1	3195	3195	3220	3220	3220	3220	3220	3220	3220	3220	3220	3220	3220	3395	3395
	Width when tilting Essential cab		mm T2	3470	3470	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3380	3380
	Truck length (to face of forks)		mm L	4720	4725	4725	4985	5055	5065	5315	5325	5305	5315	5575	5065	5595	5845	
	Truck width		mm B	2480	2480	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2900
	Fork dimensions, width		mm b	200	200	200	200	200	220	220	250	200	220	250	220	220	220	
	Fork dimensions, thickness		mm a	65	70	70	80	80	90	90	100	80	90	100	90	90	90	
	Fork dimensions, length of fork arm		mm l	1200	1200	1200	1200	1200	2400	2400	2400	1200	1800	2400	1200	1200	1200	
	Fork carriage width		mm b3	2450	2450	2450	2450	2500	2500	2500	2500	2500	2500	2500	2500	2500	2450	2450
	Width over fork arms, minimum / maximum		mm V	2330 / 570	2330 / 570	2330 / 570	2330 / 570	2360 / 600	2360 / 640	2360 / 640	2360 / 700	2360 / 600	2360 / 640	2360 / 700	2360 / 640	2360 / 640	2360 / 640	
	Sideshift \pm @ width over forks		mm V1 / V	440 / 1450	440 / 1450	440 / 1450	440 / 1450	440 / 1480	430 / 1500	430 / 1500	415 / 1530	440 / 1480	430 / 1500	415 / 1530	430 / 1500	140	140	
	Ground clearance, laden, below mast		mm	250			250						250					
	Ground clearance, machine		mm	330	330	350	350	350	350	350	350	350	350	350	350	350	350	350
	Min. aisle width for 90° stacking with forks		mm A1	6470	6475	6475	6665	6735	7945	8370	8770	7160	7770	8770	7160	8900 / 13800	9200 / 13900	
	Turning radius		mm R1	4180	4180	4180	4360	4360	4360	4785	5175	4785	4785	5175	4785	4785	4360	4785
Internal turning radius		mm R2	75	75	75	125	125	125	420	600	420	420	600	420	420	420		
OTHERS	Operating pressure for hydraulics		MPa	17,0	17,5	18,0	19,0	16,5	12,5	15,0	17,0	17,0	17,5	18,0	19,0	19,5	20,0	
	Hydraulic oil tank, capacity		l	220			220						220					
	Fuel tank, capacity		l	170			170						170					
	AdBlue tank, capacity		l	15			15						15					

Performance.

		DCG100-6T	DCG120-6T	DCG127-6T	DCG140-6T	DCG150-6T	DCG100-12T	DCG120-12T	DCG150-12T	DCG160-6T	DCG160-9T	DCG160-12T	DCG180-6T	
PERFORMANCE, VOLVO TAD551/571 VE	Lifting speed	Unloaded (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
		At 80 % of rated load (m/s)	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	Lowering speed	Unloaded (m/s)		0.40						0.40				
		At rated load (m/s)		0.40						0.40				
	Travelling speed,	Unloaded (km/h)		29						29				
		At rated load (km/h)	27	27	27	27	27	27	27	26	26	26	26	26
	Gradeability, max.	Unloaded (%)	103	96	90	88	65	72	66	56	68	58	54	59
		At rated load (%)	48	42	38	36	32	40	35	30	31	29	28	27
	Gradeability, at 2 km/h	Unloaded (%)	83	77	69	68	53	58	54	47	56	49	46	49
		At rated load (%)	41	37	34	32	28	35	31	27	28	26	25	25
	Drawbar pull	Max. (kN)	108	108	104	104	104	104	104	104	104	104	104	104
	Noise level, inside	LpAZ*, Essential cabin (dB(A))		76						76				
		LpAZ*, Essential cabin OHG (dB(A))								-	-	-	-	-
	Noise level, outside	LWA** (dB(A))		108						108				

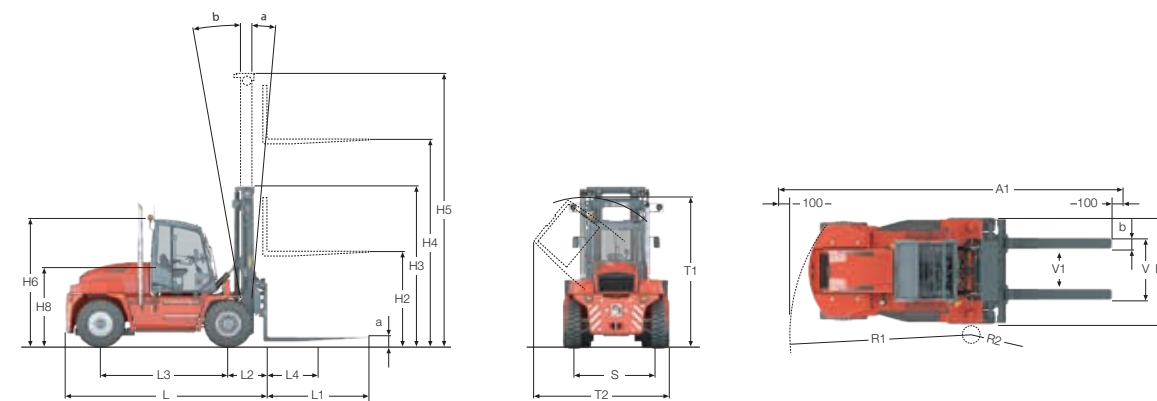
		DCG100-6T	DCG120-6T	DCG127-6T	DCG140-6T	DCG150-6T	DCG100-12T	DCG120-12T	DCG150-12T	DCG160-6T	DCG160-9T	DCG160-12T	DCG180-6T	
PERFORMANCE, VOLVO TAD550/570 VE	Lifting speed	Unloaded (m/s)	0.45	0.35	0.35	0.35	0.35	0.35	0.35	-	-	-	-	
		At 80 % of rated load (m/s)	0.40	0.30	0.30	0.30	0.30	0.30	0.30	0.30	-	-	-	-
	Lowering speed	Unloaded (m/s)	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	-	-	-	-
		At rated load (m/s)	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	-	-	-	-
	Travelling speed,	Unloaded (km/h)	28	28	28	28	28	28	28	28	-	-	-	-
		At rated load (km/h)	27	27	27	27	27	27	27	27	-	-	-	-
	Gradeability, max.	Unloaded (%)	79	73	69	67	50	55	50	50	-	-	-	-
		At rated load (%)	41	36	33	31	27	34	30	30	-	-	-	-
	Gradeability, at 2 km/h	Unloaded (%)	63	59	53	52	41	44	41	41	-	-	-	-
		At rated load (%)	34	30	28	27	23	29	25	25	-	-	-	-
	Drawbar pull	Max. (kN)	94	94	90	90	90	90	90	90	-	-	-	-
	Noise level, inside	LpAZ*, Essential cabin (dB(A))	76	76	76	76	76	76	76	76	-	-	-	-
		LpAZ*, Essential cabin OHG (dB(A))	-	-	-	-	-	-	-	-	-	-	-	-
	Noise level, outside	LWA** (dB(A))	107	107	107	107	107	107	107	107	-	-	-	-

Drivetrain.

		Volvo TAD570 VE ZF 3WG161 (105 kW)	Volvo TAD571 VE ZF 3WG161 (129 kW)	Volvo TAD550 VE ZF 3WG131 (105 kW)	Volvo TAD551 VE ZF 3WG161 (129 kW)	
ENGINE	Manufacturer's type designation	Volvo TAD570VE (Turbo-Intercooler)	Volvo TAD571VE (Turbo-Intercooler)	Volvo TAD550VE (Turbo-Intercooler)	Volvo TAD551VE (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke	Diesel, 4-stroke	Diesel, 4-stroke	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	kW / rpm	105 / 2300	129 / 2300	105 / 2200	129 / 2200
	Peak torque ISO 3046 / at revs	Nm / rpm	710 / 1000-1400	810 / 1100-1500	710 / 1400	810 / 1400
	Number of cylinders / displacement	cm ³	4 / 5130	4 / 5130	4 / 5130	4 / 5130
	Fuel consumption, normal driving	l/h	6-8	7-9	6-8	7-9
	AdBlue consumption, normal driving	% of diesel	4-6	4-6	N/A	N/A
	Emission standard		Stage IV / Tier 4 Final	Stage IV / Tier 4 Final	Stage 3A	Stage 3A
	GEARBOX & MISC.	Manufacturer's type designation	ZF 3WG161	ZF 3WG161	ZF 3WG131	ZF 3WG161
Clutch, type		Torque converter	Torque converter	Torque converter	Torque converter	
Gearbox, type		Hydrodynamic Powershift	Hydrodynamic Powershift	Hydrodynamic Powershift	Hydrodynamic Powershift	
Numbers of gears, forward / reverse			3 / 3	3 / 3	3 / 3	
Alternator, type / power		W	AC / 3080	AC / 3080	AC / 3080	AC / 3080
Starting battery, voltage / capacity		V / Ah	2x12 / 150	2x12 / 150	2x12 / 150	2x12 / 150
Driving axle, manufacturer / type			Kessler D61/D81 / Differential and hub reduction	Kessler D61/D81 / Differential and hub reduction	Kessler D61/D81 / Differential and hub reduction	Kessler D61/D81 / Differential and hub reduction

Lifting data.

	Lift height			Mast height		Free lift	
	H4	H3 min	H5 max	H2	H3 min	H5 max	H2
DUPLEX STANDARD, CLEAR VIEW	DCG90-140			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	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 FFL, CW	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



Standard.

Cabin

- Std seat with 2-p belt mechanical suspension.
- Adjustable height length and tilt backrest.
- Armrest adjustable for height and reach, on right side
- Steering wheel with spinner
- Tilttable steering wheel column
- Levers installed in steering column (shifting, direction indicators)
- Brake pedal
- Electronic accelerator pedal

For closed cabin

- Window panes on roof, rear, and front (tinted and tempered)
- Simple heater unit with directed vents
- Wiper and washer system for front pane

Drive train

- Steering axle: Kalmar
- Drive axle: Kessler D61/81
- Automatic gear shift with declutch, possible to change to manual gearshift.

Hydraulics

- Electrical servo.
- 2 functions lift, tilt.
- Level sight glass on hydraulic oil tank.
- Tilt angles standard 5/10.

Body

- Tilttable cab
- Steps with anti-slip protection
- Lifting eyes in mast

Electrical system

- Electrical system 24 V
- Rear lights and brake lights, LED
- Working light front fenders 2 pcs, LED
- Working light mast 2 pcs, LED
- Indicator lamps incl. hazard lights, LED
- Mechanical main power switch.

Wheels

- DCG90-160T: 12,00x20/20PR
- DCG180T: 12,00x20/20PR HD

Colour

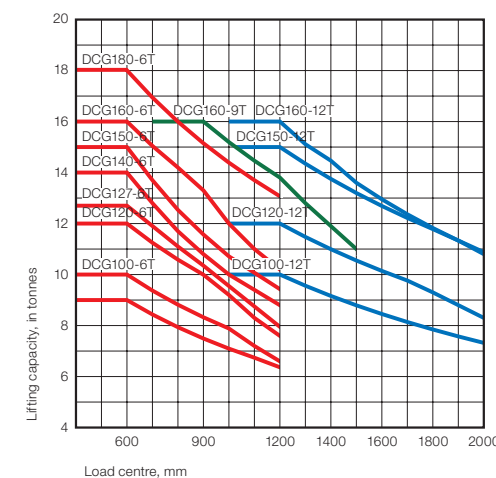
- Cab: frame RAL 7011/70", covers "RAL 7021/10"
- Chassis: Kalmar Red 2012 (Base ref.RAL 3000/75)
- Lifting equipment: Kalmar Black (Base ref.RAL 7021/30)

Documentation and decals

- Operators manual (electronic)
- Maintenance manual (electronic)
- Parts catalogue (electronic)

Fleet management

- Equipped with telemetric hardware for Kalmar Insight





KALMAR

Making your every move count

www.kalmarglobal.com

Published by Kalmar, part of Cargotec. Copyright Cargotec. All rights reserved.