

# **EXCEEDING**

your expectations.

The 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 tonnes 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



**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 Training, where drivers and

### Mast options.







**Duplex** full free mast: 3000-7000 mm



Triplex full free mast: 4500-7000 mm























### The 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.

### Three cabin choices

Fully enclosed cabin.



Partially enclosed with no doors



Full open cabin with no doors



### Two cabin positions.

- Standard mounted cabin
- Raised (300 mm) cabin.





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

### 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.



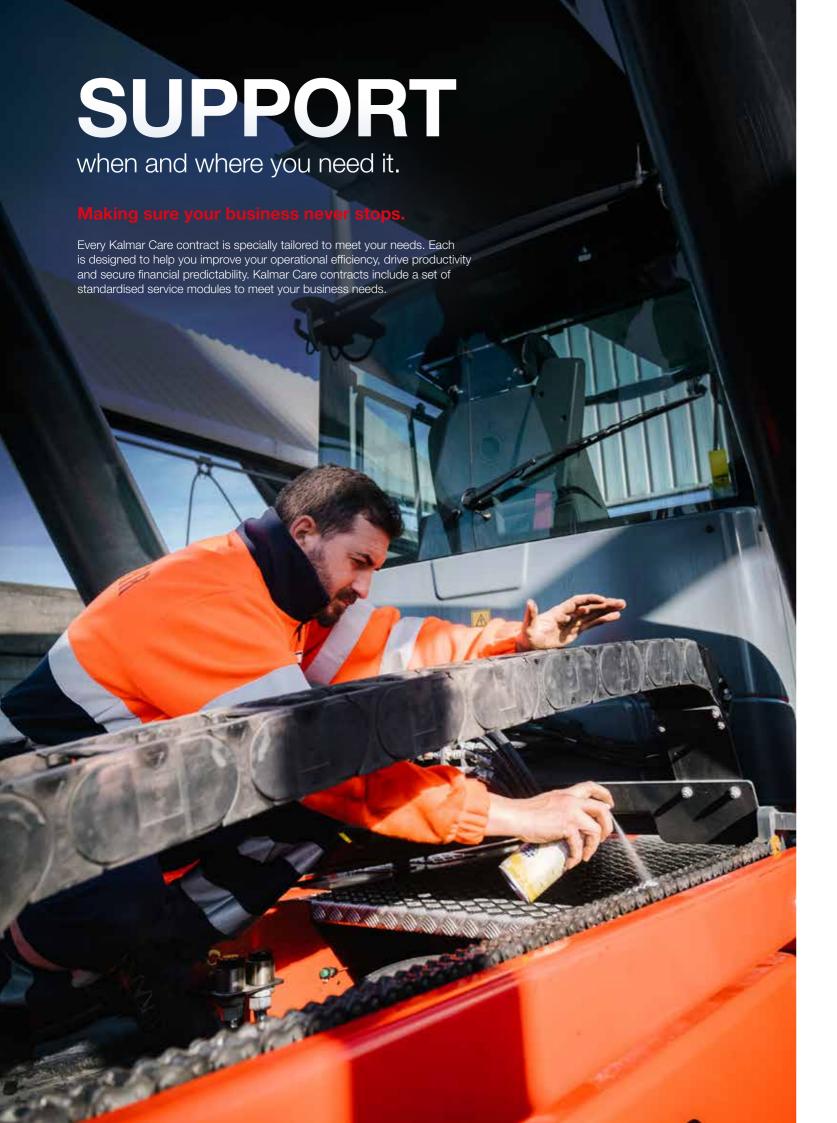
Central Greasing: By installing a central greasing system, you can be certain that your machine components are fully lubricated when they need to be, no matter where they are or how difficult it is to access them. Keeping them fully lubricated will reduce your servicing and component replacement costs.

### 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.







## Optimise your operations with 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.





## Financing options for you.

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.



### Kalmar Training.

For your team to get the most out of their new forklift, the Kalmar Training Centre 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 forklift 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.



## 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.

## **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
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
Power source			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
Load centre distance	mm	L4	600	600	600	600	600	1200	1200	1200	600	900	1200	600
Load distance, centre of drive axle to fork	mm	L2	895	900	900	910	980	990	990	1000	980	990	1000	990
Wheelbase	mm	L3	3000	3000	3000	3250	3250	3250	3500	3750	3500	3500	3750	3500
Service weight	kg		16200	16700	17200	17500	19800	19100	20300	22100	19600	21600	23100	20800
Axle loading, unloaded front	kg		8700	8800	8800	9000	10300	10500	10700	10900	10400	10600	11200	10400
Axle loading, loaded front	kg		23700	26700	27850	29500	23600	27200	30200	34700	33600	35200	36600	36600
Axle loading, unloaded rear	kg		7500	7900	8400	8500	9500	8600	9600	11200	9200	11000	11900	10400
Axle loading, loaded rear	kg		2500	1900	2050	2000	2200	1900	2100	2400	2000	2400	2500	2200
Type, front / rear	inch		Pneumatic/ 11.00x2						Pneuma 12,00×20/20PR	atic/Pneumatic				12,00×20/20PR
Tyre size, front	inch		11.00x2						12,00×20/20PR					12,00×20/20PF
Tyre size, rear	ITICTI													12,00x20/20PF
Number of wheels, front / rear (x = driven wheels)		0	4x .		1055 / 1000	1055 / 1000	1055 / 1000	1055 / 1000		4x / 2	1055 / 1000	1055 / 1000	1055 / 1000	1055 / 1000
Track width, front / rear	mm	S	1840 /		1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960
Tyre pressure	MPa		0.	9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1	1	1
Mast tilt, $\partial$ = forward / $\beta$ = backward	0	ð/B	5/10	5 / 10	5 / 10	5/10	5/10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5/10
Height of mast lowered	mm	H3	4015	4015	4035	4035	4195	4195	4195	4195	4195	4195	4195	4195
Lift height	mm	H4	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Height of mast extended	mm	H5	6515	6515	6535	6535	6695	6695	6695	6695	6695	6695	6695	6695
Truck height – Essential cabin roof	mm	H6	2960	2960	2985	2985	2985	2985	2985	2985	2985	2985	2985	2985
Seat height	mm	H8	1745	1745	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
Width when tilting Essential cab	mm	T2	3470	3470	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
Truck length (to face of forks)	mm	L	4720	4725	4725	4985	5055	5065	5315	5575	5305	5315	5575	5315
Truck width	mm	В	2480	2480	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
Fork dimensions, width	mm	b	200	200	200	200	200	220	220	250	200	220	250	220
Fork dimensions, thickness	mm	а	65	70	70	80	80	90	90	100	80	90	100	90
Fork dimensions, length of fork arm	mm	1	1200	1200	1200	1200	1200	2400	2400	2400	1200	1800	2400	1200
Fork carriage width	mm	b3	2450	2450	2450	2450	2500	2500	2500	2500	2500	2500	2500	2500
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
Sideshift ± @ 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
Ground clearance, laden, below mast	mm		250	250	250	250	250	250	250	250	250	250	250	250
Ground clearance, machine	mm		330	330	350	350	350	350	350	350	350	350	350	350
Min. aisle width for 90° stacking with forks	mm	A1	6470	6470	6475	6665	6735	7945	8370	8770	7160	7770	8770	7160
Turning radius	mm	R1	4180	4180	4180	4360	4360	4360	4785	5175	4785	4785	5175	4785
Internal turning radius	mm	R2	75	75	75	125	125	125	420	600	420	420	600	420
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
Hydraulic oil tank, capacity	IVIFA		220	220	220	220	220	220	220	220	220	220	220	220
·	1													
Fuel tank, capacity			170	170	170	170	170	170	170	170	170	170	170	170
AdBlue tank, capacity	I		15	15	15	15	15	15	15	15	15	15	15	15

### **DRIVETRAIN**

### Cummins B4,5 ZF 3WG161 (123 kW)

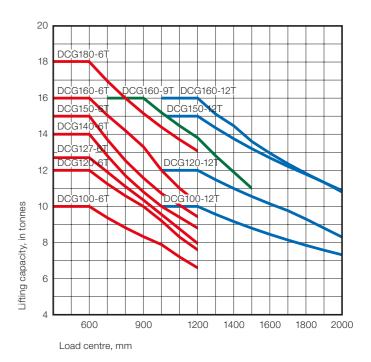
Manufacturer's type designation		Cummins B4.5 (Turbo-Intercooler)
Fuel, type of engine		Diesel, 4-stroke
Rating ISO 3046 / at revs	kW / rpm	123 / 2200
Peak torque ISO 3046 / at revs	Nm / rpm	763 / 1200
Number of cylinders / displacement	cm <sup>3</sup>	4 / 4506
Fuel consumption, normal driving	l/h	7-9
AdBlue consumption, normal driving	% of diesel	4-6
Emission standard		EU Stage V / USA EPA Tier 4 final

Manufacturer's type designation		ZF 3WG161
Clutch, type		Torque converter
Gearbox, type		Hydrodynamic Powershift
Numbers of gears, forward / reverse		3/3
Alternator, type / power	W	AC / 1960
Starting battery, voltage / capacity	V / Ah	2x12 / 145
Driving axle, manufacturer / type		Kessler D61/D81 / Differential and hub reduction

#### Cummins QSB4,5 ZF 3WG161 (119 kW)

Cummins QSB4,5 (Turbo-Intercooler)
Diesel, 4-stroke
119 / 2200
624 / 1500
4 / 4457
7-9
N/A
EU Stage IIIA
ZF 3WG161
Torque converter
Hydrodynamic Powershift
3/3
AC / 1960
2x12 / 145
Kessler D61/D81 / Differential and hub reduction

## **LIFTING CAPACITIES**



### **PERFORMANCE**

			DCG100-6T	DCG120-6T	DCG127-6T
	Lifting speed	Unloaded (m/s)	0.45	0.35	0.35
		At 80 % of rated load (m/s)	0.40	0.30	0.30
B4,5	Lowering speed	Unloaded (m/s)	0.40	0.40	0.40
		At rated load (m/s)	0.40	0.40	0.40
CUMMINS	Travelling speed,	Unloaded (km/h)	29	29	30
¥		At rated load (km/h)	28	28	28
	Gradeability, max.	Unloaded (%)	94	89	79
PERFORMANCE,		At rated load (%)	46	42	38
A A	Gradeability, at 2 km/h	Unloaded (%)	66	64	58
O.B.		At rated load (%)	36	33	30
똢	Drawbar pull	Max. (kN)	109	109	105
8	Noise level, inside	LpAZ*, Essential cabin (dB(A))	76	76	76
		LpAZ*, Essential cabin OHG (dB(A))	-	-	-
	Noise level, outside	LWA** (dB(A))	107	107	107

		DCG100-6T	DCG120-6T	DCG127-6T
Lifting speed	Unloaded (m/s)	0.45	0.35	0.35
	At 80 % of rated load (m/s)	0.40	0.30	0.30
Lowering speed	Unloaded (m/s)	0.40	0.40	0.40
	At rated load (m/s)	0.40	0.40	0.40
Travelling speed,	Unloaded (km/h)	29	29	30
	At rated load (km/h)	27	27	27
Gradeability, max.	Unloaded (%)	77	74	67
	At rated load (%)	41	36	33
Gradeability, at 2 km/h	Unloaded (%)	61	58	53
	At rated load (%)	34	30	28
Drawbar pull	Max. (kN)	98	98	94
Noise level, inside	LpAZ*, Essential cabin (dB(A))	76	76	76
	LpAZ*, Essential cabin OHG (dB(A))	-	-	-
Noise level, outside	LWA** (dB(A))	108	108	108

DCG140-6T	DCG150-6T	DCG100-12T	DCG120-12T	DCG150-12T	DCG160-6T	DCG160-9T	DCG160-12T	DCG180-6T
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
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	0.40	0.40	0.40	0.40	0.40
30	30	30	30	30	30	30	30	30
28	27	28	28	27	27	27	27	27
77	64	67	62	55	65	57	52	60
36	32	39	35	30	31	29	28	28
56	48	50	47	42	49	43	40	45
28	25	31	27	24	25	23	22	22
105	105	105	105	105	105	105	105	105
76	76	76	76	76	76	76	76	76
-	-	-	-	-	-	-	-	-
107	107	107	107	107	107	107	107	107

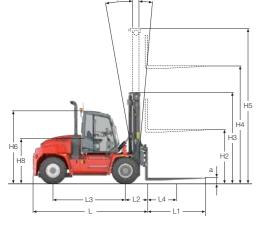
DCG140-6T	DCG150-6T	DCG100-12T	DCG120-12T	DCG150-12T	DCG160-6T	DCG160-9T	DCG160-12T	DCG180-6T
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
30	30	30	30	30	30	30	30	30
27	26	27	27	26	26	26	26	26
65	55	57	53	46	56	49	45	51
31	28	34	31	26	27	26	25	25
52	45	47	43	39	45	40	37	42
26	24	29	26	22	23	22	21	21
94	94	94	94	94	94	94	94	94
76	76	76	76	76	76	76	76	76
-	-	-	-	-	-	-	-	-
108	108	108	108	108	108	108	108	108

<sup>Noise level according to EN12053
Noise level according to 2000/14/EC</sup> 

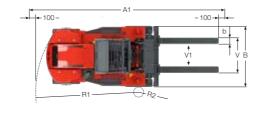
### **LIFTING DATA**

	Lift height	Mast height		Free lift	Mast h	eight	Free lift
	H4	H3 min	H5 max	H2	H3 min	H5 max	H2
			DCG100-140T	*		DCG100-1801	***
	3000	3015	4515	-	3195	4695	-
×	3250	3140	4765	-	3320	4945	_
~ 	3500	3265	5015	-	3445	5195	-
LEA	3750	3390	5265	-	3570	5445	-
DUPLEX STANDARD, CLEAR VIEW	4000	3515	5515	-	3695	5695	-
ARI	4500	3765	6015	-	3945	6195	-
AND	5000	4015	6515	-	4195	6695	-
(ST	5500	4265	7015	-	4445	7195	-
) E	6000	4515	7515	-	4695	7695	-
DO	6500	4765	8015	_	4945	8195	_
	7000	5015	8515	-	5195	8695	-
	3000	3015	4515	1500	3195	4695	1500
/IEW	3250	3140	4765	1625	3320	4945	1625
AB	3500	3265	5015	1750	3445	5195	1750
DUPLEX FULL FREE LIFT, CLEAR VIEW	3750	3390	5265	1875	3570	5445	1875
Ę	4000	3515	5515	2000	3695	5695	2000
	4500	3765	6015	2250	3945	6195	2250
Æ	5000	4015	6515	2500	4195	6695	2500
FUL	5500	4265	7015	2750	4445	7195	2750
EX	6000	4515	7515	3000	4695	7695	3000
JU.	6500	4765	8015	3250	4945	8195	3250
	7000	5015	8515	3500	5195	8695	3500
>	4500	2970	5970	1500	3130	6190	1500
S	5000	3137	6470	1667	3297	6690	1667
표	5500	3303	6970	1833	3463	7190	1833
LEX	6000	3470	7470	2000	3630	7690	2000
TRIPLEX FFL, CW	6500	3637	7970	2167	3797	8190	2167
-	7000	3803	8470	2333	3963	8690	2333

<sup>\*</sup> DCG100-140-6T \*\* DCG150- 180-6T, DCG160-9T, DCG100- 160-12T







+25 mm on H3 and H5 on the DCG140-6 due to 12,00 in wheels

### **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
   Tiltable 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
   Tiltable 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.

- DCG100-6T & DCG120-6T: 11.00x20/16PR
   DCG127-6T to DCG160-12T: 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.





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