

# Expect more.



The Kalmar DCG80-100  
Empty Container Handler range.



# More for you.

Our new range of Kalmar empty container handlers offer you more than they ever have before, which means you get more for your money.

You get more choice of machines, with a range of single and double container stackers in 17,600, 19,800 or 22,000 lbs capacities. A greater choice of drive lines and performance levels that you can match to your individual needs. More comfort for your drivers, as all of our new range comes with our state of the art EGO Cabin, which can be situated in either a high or low position on the chassis.

A more robust and efficient range, with the highest lifting and lowering rates and dramatically reduced running costs per move. Plus easier access for service and maintenance and more options across the whole range to choose from than ever before.

No matter what way you look at it, the new range of Kalmar empty container handlers give you more.

more  
for you.

*The operability and control of the Kalmar empty container handler is extremely good. It's agile, suitable for any empty container yard.*

Zhang Lin, Operator at NingBo Beilun International Container Terminals Ltd.



*To us, Kalmar offers the best machines. It's the safest truck we've used. Kalmar also offers excellent service support.*

He Jianguo, Container Handler Unit leader, G-Fortune (Ningbo) Company.



90%  
of our  
customers  
would  
repurchase.

## Expect nothing less.

With nearly 10,000 empty container handlers built to our high standards over the last 30 years, it's no surprise that 1,000's of them are still in operation today. In fact over 90% of our customers say they would repurchase a Kalmar empty container handler again, primarily for their superior durability and reliability and the local Kalmar support and service network.



# You can expect more across the entire range.

## more options.

Now more safety features and options to customize your machine than ever before. From reverse warning systems to a range of different drive lines and spreaders.

## more return.

Higher productivity with lower fuel consumption means a lower cost per move. Longer servicing intervals with easier access for service and maintenance, saving you time and money. Plus, the highest re-sale values in the market.

## more robust.

Built on our proven G-Generation platform you get a stronger chassis with high and rear mounted cylinder package for improved stability and toughness. You also get upgraded drive axles with oil-cooled Wet Disc Brakes and a wider rear steer for greater stability when lifting heavy loads to heights.



Double stackers, up to 22,000 lbs, high mounted cabin.

## more choice.

You can choose from either a single or double stacker model with three different lifting capacities each. There are two different types of cabins that can be mounted in either a high or low position, four spreader options and four different lifting heights to choose from for both the single and the double stackers.

## more efficient.

Proven, powerful yet efficient drive lines in both medium and high performance versions with 3 or 4 speed manual transmissions and a choice of engines that meet both the EU Stage 3 and 4 as well as EPA Tier 3 and Tier 4-Final<sup>4</sup> Emission standards. With the added efficiency of standard load sensing hydraulics and a choice of options for greater fuel efficiency including Eco Drive Modes, Stop/Start Technology and Tire Pressure Monitoring.



Single stackers, up to 22,000 lbs, low mounted cabin.

## more comfort.

New EGO cabin with multi-functional joystick or linear lift levers, advanced ergonomics and improved visibility in all directions, including the corner castings and upwards. Plus, a new tilt cylinder design for greater driver stability and control.

# More choice.

Choose from six different machines depending on your needs.

## The Kalmar DCG 80-100 Empty Container Handler range.

You can choose three different lifting capacities, either 17,600, 19,800 or 22,000 lbs depending on your business needs.

Each of these different lifting capacities can then be coupled with either a single or double container handler. Giving you three different lifting capacities to choose from and two stacking modes.

## A choice of lifting heights.

We have four different mast heights to choose from, which give you the ability to stack up to 9 high. You can choose from 5/5 up to 8/7 mast heights for containers sized 8'6"/9'6". You can expect to go one container higher with our double stackers as you are able to carry your containers 1+1.

## A choice of spreaders.

The first thing you need to do is know what sort of containers you will be handling, then you can decide what sort of lifting head you will need on your single or double spreader.

For single stacker spreaders, you can choose from lifting heads with either standard twistlocks for ISO containers or ones that have a wide twistlock position for both ISO and wide body containers.

For double stacker spreaders, you can choose from lifting heads with lift hooks and hydraulic side clamps to handle one or two standard 20-40ft containers. Or for bigger containers you can choose a lifting head with additional safety wedges that can lock in single containers and handle containers greater than 45ft in length.

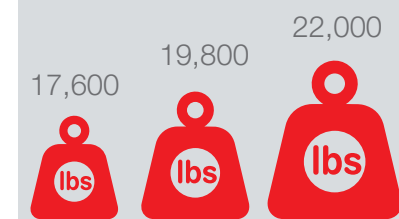
## A choice of end beam levelers.

Each of our new machines comes with spreader end beams with a 9.8" leveling stroke on both sides of the lift head to make for safer loading of containers onto tilting trailers. This is done through a Mechanical Pile Slope.

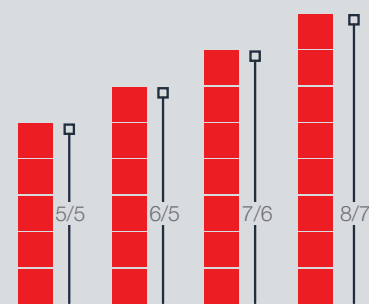
If you require additional leveling capabilities you can choose a Hydraulic Pile Slope, which will give you an additional +/- 5 degrees above the standard 9.8" leveling stroke. This system provides for a safer and smoother leveling when loading containers onto tilting trailers.



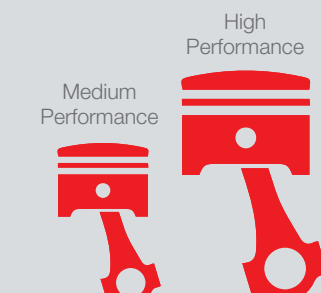
### 3 lifting capacities.



### 4 lifting heights.



### 2 performance alternatives.



## Extra comfort, extra smart.

Every member of our empty container handler range comes fitted with our new EGO cabin, the ultimate operating environment for your driver.

With a more ergonomic design, smarter functions and an intuitive workspace than ever before, you can expect to get more from your operators.

**More to see:** With A-posts being replaced with slim B-posts you can expect greater visibility in all directions: forward, backward, to the side and upwards. Our new dual wiper system cleans a bigger area of the front windscreen than before so your forward view will stay extra clean and clear.

**Extra easy to operate:** With a new joystick, electronically adjustable work console and side tilt steering wheel they are all designed to minimize driver fatigue and maximize operational efficiency.

**More comfortable:** With an adjustable drivers seat, a new fault-safe pedal system and Climate Control system with smarter controls, your operator will benefit from improved ventilation heating and cooling, plus a cabin with superior interior comfort.

**Extra smart:** Our new user interface combines sight, sound and touch to create a perfectly balanced operating environment with a new color display at its heart. Advanced diagnostics allows for greater operational control and safety.



# More efficient.

## More choice of drive lines.

You can choose from either Medium Performance (MP) or High Performance (HP) drive lines. The MP engine and transmission combination can handle most day-to-day applications. However, if you need that extra power and faster lifting speed, then the HP combination might be more suitable. Both options come with Eco Drive Modes with three different operating modes.



### Engine Power

Medium Performance:  
200 - 240 hp

High Performance:  
240 - 280 hp



### Engine Torque

Medium Performance:  
650-800 ft.lb

High Performance:  
800-1000 ft.lb



### Transmission

Medium Performance:  
3+3 gears (no lock-up)

High Performance:  
4+4 gears (with lock-up)



### Lift & lowering speeds

Medium Performance:  
108-98 ↑ / 98-118 fpm ↓

High Performance:  
128-118 ↑ / 108-118 fpm ↓

## More performance on demand.

Our entire range of empty container handlers comes with ECO-Drive modes, giving you three different power modes to choose from.

**Power Mode:** when speed is of the essence. With full engine speed you will be able to move quickly about the yard, lift and lower, without compromising on safety.

**Normal Mode:** when you need to retain some speed. With a slightly reduced engine speed you can expect 5-15% lower running and fuel costs.

**Economy Mode:** when you need the lowest running costs. With engine speed reduced even further you can expect 10-25% lower running and fuel costs.

**Normal Mode.**  
Save 5-15%  
in running costs.

**Economy Mode.**  
Save 10-25%  
in running costs.

more  
efficient.



# More options.



**Reverse Warning System (RWS).** Knowing what's going on behind you is critical when other personnel are present. Four rear sensors and a reversing camera relay real-time information to an in-cabin display, alerting the driver to any dangers, increasing personnel and driver safety. You can also add additional cameras on the spreaders or on the front of the machine.



**Fire Suppression System (FSS).** To protect your operator and machine from fire you can fit a FSS to your machine. The system utilizes multiple spray nozzles that release a high pressure water mist where the fire has been detected from a re-chargeable water tank. This can be activated manually or automatically through an in-cabin temperature sensor.



**Alco-Lock.** To ensure that your driver is at their best when operating your equipment you can install an Alco-Lock system. This system makes sure that the driver meets alcohol blood level standards before being able to start the machine, much like a breathalyzer.



**Cabin options.** Depending on your specific needs you can choose from a low or high mounted cabin (+24"). High cabins provide better visibility for the driver particularly when working with two containers or on high stacks.



**Reverse Alarm System.** When your staff are working side by side with moving vehicles there is always a safety risk. Installing a reverse alarm system provides a clear acoustic alert when the machine is reversing so personnel can make sure that they are out of harm's way.



**Tire Pressure Monitoring System.** Helps to reduce wear and tear on tires which results in reduced fuel consumption. Bluetooth sensors keep the driver advised of the condition of the tires continually. Active care of your tires can result in a 10-40% increase in tire life and up to a 10% decrease in fuel consumption.



**Additional lighting.** Extra lighting, particularly if you need to operate your machine at night, as you can bring greater operational visibility and safety for personnel working on the site. You can choose additional LED working lamps in specific positions:

- 2 or 4 on the front fenders
- 2, 4, 6 or 8 on the cabin roof
- 2 on the lift mast
- 2 on the spreader carriage
- 2 rear reversing lamps



more  
value.

# More value.

Being the most reliable and robust range of empty container handlers in the market can give you real advantages, like higher uptime and lower total running costs.

**Higher resale values.**

With over 10,000 machines built to the high standard you expect from us - Kalmar empty container handlers are known for their reliability and durability which is why they demand the highest resale values in the market.

**Lowering operating costs.**

You get longer servicing intervals than before so you can keep your machine hard at work for longer. Plus, with the addition of advanced diagnostic tools and monitoring systems, faults can be dealt with quickly, thereby reducing any downtime.

Higher uptime, lower costs per move and high re-sale values means you can expect one thing; the best lifetime value you can expect of any empty container handler.

**Safer to operate.**

With a clearer view forward, backward and upward, a new ergonomically designed cabin, non-slip access surfaces with supporting handrails, plus numerous safety options to choose from including our Reverse Warning System, Alco-Lock and four overload alerts you can be sure that your operator is working in a safe environment.





# More support.

## Optimize your operations with SmartFleet.

SmartFleet is a powerful equipment optimization tool that can help you get more from your fleet. Data is streamed directly from your equipment, analyzed and then displayed in an accessible and easy to use graphic interface. You will be able to assess the equipment's key performance data and make suitable changes to your operation processes to improve both efficiency and productivity.

Kalmar SmartFleet enables you to more effectively manage your container handling operations, decreases downtime and can help improve safety at your site.



more intelligent.



Our job doesn't stop once we deliver your new empty container handlers. We can also offer a range of support services that keep your new equipment running at its optimal best. With a global network of 1500+ service and support staff, in over 100 countries, we will always have someone nearby to give you the support you need.

### **Kalmar Care, making sure your business never stops.**

We can offer you four different types of service and maintenance contracts, for any brand of equipment. Each is designed to help you improve your operational efficiency, drive productivity and secure financial predictability. Each contract type includes a set of standardized service modules to choose from to meet your business's needs. You just need to choose which one is right for you and your day-to-day operations. 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 organization

#### **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 to customer
- Improved availability of machines

#### **Kalmar Complete Care**

We meet your complete maintenance requirements.

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

#### **Kalmar Optimal Care**

We optimize 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, with Kalmar Parts Care you can do just that. Kalmar Parts Care can make sure that critical spare parts are always on hand so your equipment downtime is kept at a minimum. Each Kalmar Parts Care plan is based on your individual needs, so talk to us today and see how we can lift your parts availability, while reducing your inventory costs.

## Financing options for you.

### **Lease or rent.**

You may choose to buy your new empty container handler outright or consider leasing or renting your equipment. Kalmar offers a range of leasing and renting options that can 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 needs required by your fleet. You just need to choose which leasing package and level of service and maintenance support is right for your business. Kalmar can also look at trading-in your old equipment.

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



## Kalmar Training Academy.

Our training academy offers a range of courses for both your technicians and operators.

Technicians will be given the knowledge they need to be able to maintain your new equipment in top condition. Courses are a mix of theory and hands on experience and can be held at Kalmar or at your site.

Operators will be shown how to get more from their equipment. They will learn how to improve the efficiency of their driving, what needs to be checked daily before operating, and how to get the most out of their new empty container handler.

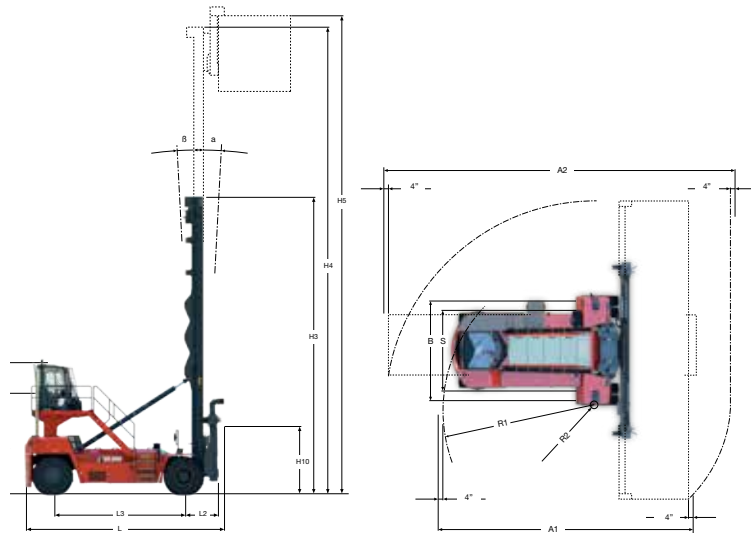
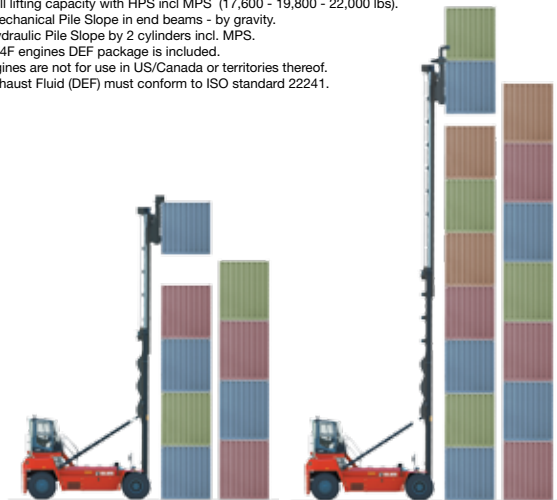




# Technical information.

1 Truck Model			DCG 80-45 ES				DCG 80-45 ED				DCG 90-45 ES				DCG 90-45 ED				DCG 100-45 ES				DCG 100-45 ED				
MANDATES	2	Stacking model and height	ES5/5	ES6/5	ES7/6	ES8/7	ED5/5	ED6/5	ED7/6	ED8/7	ES5/5	ES6/5	ES7/6	ES8/7	ED5/5	ED6/5	ED7/6	ED8/7	ES5/5	ES6/5	ES7/6	ES8/7	ED5/5	ED6/5	ED7/6	ED8/7	
	3	Type of handling	Single Stackers				Double Stackers				Single Stackers				Double Stackers				Single Stackers				Double Stackers				
	4	Lifting capacity, with MPS or with HPS [1*]	17,600	17,600	17,600	17,600	17,600	17,600	17,600	17,600	19,800	19,800	19,800	19,800	19,800	19,800	19,800	19,800	19,800	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000
	5	Stacking height, no. of containers (8'6"/9'6")	5 / 5	6 / 5	7 / 6	8 / 7	5+1 / 5+1	6+1 / 5+1	7+1 / 6+1	8+1 / 7+1	5 / 5	6 / 5	7 / 6	8 / 7	5+1 / 5+1	6+1 / 5+1	7+1 / 6+1	8+1 / 7+1	5 / 5	6 / 5	7 / 6	8 / 7	5+1 / 5+1	6+1 / 5+1	7+1 / 6+1	8+1 / 7+1	
	6	Spreader locking type, standard / optional	STD: Twistlocks / OPT: Twistlocks + WTP [3*]				STD: Hooks + Clamps / OPT: STD + Safety Wedge				STD: Twistlocks / OPT: Twistlocks + WTP [3*]				STD: Hooks + Clamps / OPT: STD + Safety Wedge				STD: Twistlocks / OPT: Twistlocks + WTP [3*]				STD: Hooks + Clamps / OPT: STD + Safety Wedge				
	7	Spreader type, extension stops, sensors	Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				Sidelift, 20ft + 40ft stops, alignment & interrupt sensors				
	8	Wheelbase	L3	(in)																							
	9	Load center, front of tires, with MPS or HPS [2*]	L4	(in)																							
	10	Lost load center, to front face of tires	X	(in)																							
	WEIGHTS	11	Service weight, with MPS or HPS [2*]	(lbs)																							
12		Axle load, front unloaded - rated load MPS	(lbs)																								
13		Axle load, front unloaded - rated load HPS [2*]	(lbs)																								
14		Axle load, rear unloaded - rated load MPS	(lbs)																								
15		Axle load, rear unloaded - rated load HPS [2*]	(lbs)																								
WHEELS	16	Tires, type, design, thread depth	Pneumatic / Diagonal / E4																								
	17	Tires, dimension (front + rear)	(in)																								
	18	Rims, dimension (front + rear)	(in)																								
	19	No. of wheels, front - rear (driven), pressure	(MPa)																								
	20	Track width (front - rear)	(in)																								
	21	Truck width drive axle, standard / optional	(in)																								
	22	Drive axle (ND = Normal Duty / HD = Heavy Duty)	(in)																								
DIMENSIONS	23	Lift mast, type, stage, cylinders and chains	Duplex / 2-stage / 2 cylinders / 2 lift chains				Duplex / 2-stage / 2 cylinders / 2 lift chains				Duplex / 2-stage / 2 cylinders / 2 lift chains				Duplex / 2-stage / 2 cylinders / 2 lift chains				Duplex / 2-stage / 2 cylinders / 2 lift chains				Duplex / 2-stage / 2 cylinders / 2 lift chains				
	24	Mast tilt, forward - backward, standard / optional	alfa-beta (deg)																								
	25	Lift mast height, min - max	(in)																								
	26	Lift height, min - max in twistlocks / lift hooks	(in)																								
	27	Height cabin roof, standard / optional	(in)																								
	28	Seat index point (height)	(in)																								
	29	Truck length with spreader, MPS / HPS	(in)																								
	30	Spreader width, twistlocks / hooks, min - max	(in)																								
	31	Spreader sideshift, stroke both directions (total)	(in)																								
	32	Spreader leveling, MPS / HPS, standard / optional	(in/deg)																								
	33	Ground clearance, steer axle - middle - front	(in)																								
34	Aisle width, with 20ft - 40ft container	(in)																									
35	Turning radius, inner / outer 20ft / outer 40ft	(in)																									
DRIVE LINE	36	Engine type, design	Diesel / 4-stroke / turbo / intercooler																								
	37	Drive line - performance levels	MP Medium Performance				HP High Performance				MP Medium Performance				HP High Performance				MP Medium Performance				HP High Performance				
	38	Engine, power - torque (ISO 3046), max	(hp / lb ft)																								
	39	Fuel consumption, average diesel / DEF [3*] [5*]	(gall/h-%)																								
	40	Travel speed, fwd / rev (unloaded - at rated load)	(mph)																								
	41	Gradeability, max / 1.2 mph (unloaded - at rated load)	(%)																								
	42	Lifting speed, unloaded - at 70% of rated load	(fpm)																								
	43	Lowering speed, unloaded - at rated load	(fpm)																								
44	Transmission, gears forward / reverse	3 + 3      4 + 4 with Lock-Up																									
45	Transmission type, function, safety	Automatic powershift / reverse protection																									
46	Drive axle type, service brakes (drive wheels)	Differential / hub reduction / oil-cooled wet disc brakes																									
47	Drive axle, parking brake, brake release	Single big dry disc / hydraulic release																									
48	Steer axle type, design, function	Heavy-duty / single cylinder / power steering																									
OTHERS	49	Hydraulic system, type	Load-sensing (power-on-demand) / working & brake oil tank																								
	50	Tank volumes, diesel - DEF [5*] - oil	(gall)																								
	51	Noise, inside LpAZ / outside LwAZ (EDM's)	(dB(A))																								
	52	Over Load System with warning OLS1 + OLS2	Optional																								

Notes:  
 [1\*]MPS = Full lifting capacity with MPS (17,600 - 19,800 - 22,000 lbs).  
 HPS = Full lifting capacity with HPS incl MPS (17,600 - 19,800 - 22,000 lbs).  
 [2\*]MPS = Mechanical Pile Slope in end beams - by gravity.  
 HPS = Hydraulic Pile Slope by 2 cylinders incl. MPS.  
 [3\*]On EPA T4F engines DEF package is included.  
 [4\*]Tier 3 engines are not for use in US/Canada or territories thereof.  
 [5\*]Diesel Exhaust Fluid (DEF) must conform to ISO standard 22241.



## Drive lines

Truck Models	Medium Performance (MP)		High Performance (HP)	
	EU3A / EPA Tier 3	EU3A / EPA Tier 3	EU3A / EPA Tier 3	EU4 / EPA Tier 4F
Engine emission approvals				
Engine brand / series	Cummins QSB	Volvo Penta / D-8	Volvo Penta / D-8	
Engine model	QSB-6.7-C220	TAD-850-VE	TAD-851-VE	TAD-871-VE
Engine after treatment type	No SCR / no DEF [5*]	No SCR / no DEF [5*]	No SCR / DEF [5*]	SCR / DEF [5*]
Engine design / cylinders	6-inline / common rail	6-inline / common rail	6-inline / common rail	
Engine displacement	(cu.in (dm <sup>3</sup> ))	408 (6,700)	470 (7,700)	470 (7,700)
Power @ RPM (ISO 3046)	(hp / kW)	220 (164)	218 (160)	252 (185)
Torque @ RPM (ISO 3046)	(lb-ft / Nm)	700 @ 1,500	781 @ 1,000-1,500	855 @ 1,100-1,600
Max engine speed	(rpm)	2,100	2,100	1,800
Fuel consumption - average diesel	(gall/h (L/h))	1.3 - 4.0 (5 - 15)	1.3 - 4.0 (5 - 15)	1.3 - 4.0 (5 - 15)
Fuel consumption - average DEF [5*]	(%)	-	-	1 - 5
Transmission model (gears FWD + RVS)	Dana TE-14300 (3+3)		Dana TE-14400-LU (4+4 / Lock-Up)	
Transmission gear shift type	Automatic powershift		Automatic powershift	
Transmission clutch type	Torque converter		Torque converter with Lock-Up	
Drive axle brand / series	Kessler / D81 - D91 (WDB)		Kessler / D81 - D91 (WDB)	
Service brake / cooling	Wet Disc Brakes with oil cooling		Wet Disc Brakes with oil cooling	
Steer axle brand / series	Kalmar / single cylinder / extra wide		Kalmar / single cylinder / extra wide	



**KALMAR**

Making your every move count

[www.kalmarglobal.com](http://www.kalmarglobal.com)