



# Equipment upgrades



# Equipment upgrades overview

## SERVICES SALES ITEM

	GENERAL	RST (Reachstackers)				ECH (Empty Container Handlers)				FLT (Forklifts)					TT (Terminal Tractors)				SC (Straddle Carriers)					CRANES			OTHER BRANDS					
		DRG	DRU	DRF	DRT	DCG	DCU	DCF	DCT	DCG	DCF	DCE	ECG	ECF	612/618	626/632	Ottawa T2	Kalmar T2	ESC	ESH	CSC	HSC	SHH	SHC	ASC	RMG	RTG E-One	All	3 <sup>rd</sup> party RTG	Terberg Y1222	All	
1	Air Conditioning Kits	Productivity	S																S	S	S	S	S									
2	Active Stability Control System*	Safety																			✓											
3	Air Dryer	Productivity														✓																
4	Automatic System Shut Down**	Eco-efficiency	✓	✓	✓	✓		✓	✓	✓	✓								✓	✓	✓	✓	✓									
5	Blue Safety Light*	Safety																														
6	Central Lubrication*	Productivity	✓	✓	✓	✓																										
7	Container Counter**	Productivity	✓	✓	✓	✓																										
8	Driver Identification with PIN Code**	Safety	✓	✓	✓	✓		✓	✓	✓	✓																					
9	Dual Fuel Tank	Productivity														✓																
10	Eco Drive Mode**	Eco-efficiency												✓																		
11	Hoist Accumulators	Productivity						✓			✓			✓																		
12	Hook System*	Productivity	✓	✓	✓	✓																										
13	Hydraulic Sliding Cabin	Productivity	✓	✓	✓	✓																										
14	Pause Heater*	Productivity	✓		✓			✓		✓				✓	✓																	
15	Proactive Stability System**	Safety																	✓													
16	Rectifier Upgrade Package*	Productivity																	✓	✓												
17	Reverse Alarm*	Safety	S	S				✓	✓	✓	✓			✓																		
18	Reverse Camera with Monitor in Cabin	Safety	✓	✓				✓	✓					✓																		
19	Seatbelt Interlock**	Safety	✓	✓										✓																		
20	Soft-landing System*	Safety	✓		✓	✓																										
21	Speed Limitation Outside Transport Mode**	Safety	✓	✓																												
22	Speed Limiter**	Safety	✓	✓	✓	✓		✓	✓										✓		✓	✓	✓									
23	Weight Scale**	Productivity	S	S										✓																		

\* Includes parts and software  
 \*\* Includes software only

- ✓ Product available: exact equipment availability shown in SSI master document
- Product possibly available: contact Services technical support for more information.
- S Standard option in the equipment (note, not all standard options are marked)

For more information about Kalmar Equipment Upgrades please contact your local Kalmar representative or see [kalmarglobal.com/contacts](http://kalmarglobal.com/contacts)

		FEATURES
1	<b>Air Conditioning Kits</b>	<ul style="list-style-type: none"> <li>• Retro fit air conditioner kit designed especially for Kalmar equipment</li> <li>• Can be installed by your local Kalmar Service team or by your local dealer.</li> </ul>
2	<b>Active Stability Control</b>	<ul style="list-style-type: none"> <li>• A complete package that can be integrated into your straddle carriers PLC</li> <li>• Warns operators that safety stability margins have been exceeded through standard alarms and warnings</li> <li>• If stability limits are exceeded hoisting speed is restricted to 8 m/min and shifting to higher gears is prevented</li> <li>• Once machine is back within normal stability parameters all restrictions are lifted.</li> </ul>
3	<b>Air Dryer</b>	<ul style="list-style-type: none"> <li>• Removes any water that may build up in the air brake system</li> <li>• Expels oil and any solids from the system by using a special drying agent</li> <li>• Keeps brake operating optimally</li> <li>• Can be installed by the Kalmar Ottawa Service team or your local dealer.</li> </ul>
4	<b>Automatic System Shut Down</b>	<ul style="list-style-type: none"> <li>• Automatically shuts down your engine if it has been left idling for too long.</li> </ul>
5	<b>Blue Safety Light</b>	<ul style="list-style-type: none"> <li>• Projects a bright blue light onto the ground behind a reversing forklift</li> <li>• Upgrade kit provides required hardware and operational software.</li> </ul>
6	<b>Central Lubrication</b>	<ul style="list-style-type: none"> <li>• Systems automatically provides grease to required greasing points during operation</li> <li>• Complete kit can be provided ready for retro-fitting</li> <li>• Easy to access grease reservoir mounted externally.</li> </ul>
7	<b>Container Counter</b>	<ul style="list-style-type: none"> <li>• Automatically counts all container lifts performed by the machine</li> <li>• Displays container count on the cabin monitor.</li> </ul>
8	<b>Driver Identification with PIN Code</b>	<ul style="list-style-type: none"> <li>• Easy to install software upgrade</li> <li>• Machine will not operate until four-digit pin code is entered into cabin touch screen</li> <li>• Individual four-digit pin code can be issued to each operator.</li> </ul>
9	<b>Dual Fuel Tank</b>	<ul style="list-style-type: none"> <li>• Double current fuel capacity</li> <li>• Automatically feeds main tank.</li> </ul>
10	<b>Eco Drive Mode</b>	<ul style="list-style-type: none"> <li>• Software package that can be installed and tested by Kalmar Service team</li> <li>• Provides three different levels of operational modes: Power, Normal and Economy.</li> </ul>
11	<b>Hoist Accumulators</b>	<ul style="list-style-type: none"> <li>• Can reduce the impact of operating on uneven surfaces by dampening hydraulic systems and mechanical parts</li> <li>• Helps to reduce hydraulic pressure peaks.</li> </ul>

BENEFITS	CUSTOMER NEED
<ul style="list-style-type: none"> <li>• Everything you need in one model specific kit</li> <li>• Creates a more comfortable and safer operating environment for your drivers.</li> </ul>	<b>Productivity</b>
<ul style="list-style-type: none"> <li>• Makes equipment much safer to operate</li> <li>• Helps maintain correct stability levels without compromising performance especially when turning</li> <li>• Keeps the driver operating within safe bounds reducing the risk of accidents and stress.</li> </ul>	<b>Safety</b>
<ul style="list-style-type: none"> <li>• Improves safety by helping to keep the air brake system working optimally</li> <li>• Installation quality is guaranteed by Kalmar Ottawa.</li> </ul>	<b>Productivity</b>
<ul style="list-style-type: none"> <li>• Can reduce fuel consumption and emissions by reducing idle time</li> <li>• Helps extend the life of your engine, brakes and gearbox.</li> </ul>	<b>Eco-efficiency</b>
<ul style="list-style-type: none"> <li>• Helps bystanders know that a forklift is reversing</li> <li>• Improves operational safety especially when operating your forklift within confined spaces indoors.</li> </ul>	<b>Safety</b>
<ul style="list-style-type: none"> <li>• Guarantees that all greasing points are well lubricated automatically during operations</li> <li>• Reduces manual maintenance time and costs as helps to reduce wear and tear</li> <li>• Can help improve the lifetime value of your machine.</li> </ul>	<b>Productivity</b>
<ul style="list-style-type: none"> <li>• Removes the need to manually record container lifts</li> <li>• Can differentiate between top, over-height and bottom lifts</li> <li>• Saves time and helps improve operational productivity.</li> </ul>	<b>Productivity</b>
<ul style="list-style-type: none"> <li>• Stops the unauthorised operation of protected equipment</li> <li>• Can be set to activate engine or limit operational speed to 5km/h, making it possible to move the machine in case of an emergency.</li> </ul>	<b>Safety</b>
<ul style="list-style-type: none"> <li>• Reduces time spent refuelling by 50%</li> <li>• Minimises risk of contamination that can cause accidents</li> <li>• Fitted with steps and platform for easy access to the cabin.</li> </ul>	<b>Productivity</b>
<ul style="list-style-type: none"> <li>• Can cut fuel consumption by up to 25%</li> <li>• Eco Driver mode can be set at the appropriate level to meet specific operation requirements</li> <li>• Easy to change between the three modes</li> <li>• Can reduce wear and tear on tyres and machine.</li> </ul>	<b>Eco-efficiency</b>
<ul style="list-style-type: none"> <li>• Makes operating equipment more comfortable for the driver</li> <li>• Improves dampening performance when lifting or lowering loads.</li> </ul>	<b>Productivity</b>

		FEATURES
12	Hook System	<ul style="list-style-type: none"> <li>• Can be fitted in place of spreader system once appropriate modifications have been made</li> <li>• Can be used to lift a variety of different loads.</li> </ul>
13	Hydraulic Sliding Cabin	<ul style="list-style-type: none"> <li>• Enables the position of the cabin to be moved easily</li> <li>• Cabin movement is controlled by an in-cabin switch.</li> </ul>
14	Pause Heater	<ul style="list-style-type: none"> <li>• Machine cabin can be kept warm during short breaks by using heat from the engines cooling system</li> <li>• Automatically maintains cabin temperature within 6°C of set temperature.</li> </ul>
15	Proactive Stability System	<ul style="list-style-type: none"> <li>• Automatically monitors the stability of the straddle carrier</li> <li>• Automatically alerts the operator when safe operational stability parameters have been exceeded</li> <li>• If stability levels become critical the speed and torque will be automatically reduced and light braking applied</li> <li>• Spreader sideshift is automatically centred if operation safety margins are exceeded and hoist speed is reduced.</li> </ul>
16	Rectifier Upgrade System	<ul style="list-style-type: none"> <li>• Complete upgrade pack provided to replace your current rectifier</li> <li>• New PLC programme also included</li> <li>• Higher current capacity with improved temperature margin.</li> </ul>
17	Reverse Alarm	<ul style="list-style-type: none"> <li>• Rear mounted alarm that emits a warning alarm when the equipment is reversing.</li> </ul>
18	Reverse Camera with Monitor in Cabin	<ul style="list-style-type: none"> <li>• Reversing camera mounted on back of machine</li> <li>• In cabin view provided through fitted monitor.</li> </ul>
19	Seatbelt Interlock	<ul style="list-style-type: none"> <li>• Seatbelt interlock system stops equipment from being operated unless the driver's seat belt is fastened.</li> </ul>
20	Soft-landing System	<ul style="list-style-type: none"> <li>• Package includes sensors and software upgrade</li> <li>• Automatically lowers the speed of spreader when connecting to a container.</li> </ul>
21	Speed Limitation Outside Transport Mode	<ul style="list-style-type: none"> <li>• Easily installed software upgrade</li> <li>• Limits operational speed when load is positioned outside a safe operating zone.</li> </ul>
22	Speed Limiter	<ul style="list-style-type: none"> <li>• Software package that limits the driving speed of the equipment</li> <li>• Software is installed and tested by a trained Kalmar Service engineer.</li> </ul>
23	Weight Scale	<ul style="list-style-type: none"> <li>• Automatically weighs your load using the hydraulics in the lift cylinder</li> <li>• Will weigh loads with an accuracy within 5%</li> <li>• Load weight is clearly displayed on the machine display.</li> </ul>

BENEFITS	CUSTOMER NEED
<ul style="list-style-type: none"> <li>• Enables existing equipment usage to be extended to different types of loads.</li> </ul>	Productivity
<ul style="list-style-type: none"> <li>• Improves operational visibility for the driver</li> <li>• Makes operations safer as cabin position can be adjusted quickly and easily from the cabin.</li> </ul>	Productivity
<ul style="list-style-type: none"> <li>• Maintains a comfortable operating environment for driver</li> <li>• Economical solution as uses heat directly from the machine's engine.</li> </ul>	Productivity
<ul style="list-style-type: none"> <li>• Equipment maintains high operational safety standards</li> <li>• Improved stability when operating</li> <li>• Reduced risk of incidents.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Simpler system with less possible fault points</li> <li>• Robust design specially for mobile use</li> <li>• Improved lifetime over earlier rectifiers.</li> </ul>	Productivity
<ul style="list-style-type: none"> <li>• Improves overall safety as the alarm provides clear warning</li> <li>• Reduces the risk of damage and personal injury.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Reduces the risk of any accidents when reversing</li> <li>• Helps keep driver aware of what is going on behind them by improving overall visibility</li> <li>• Acts as a second set of eyes.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Stops equipment being operated if the driver's seat belt is not fastened</li> <li>• Helps to reinforce a safety culture when operating equipment.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Reduces maintenance costs</li> <li>• Reduces the chance of damage to containers or the spreader</li> <li>• Makes each lift safer by reducing the risk of the spreader hitting the container at speed.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Reduces risk of accidents and improves operational safety</li> <li>• Improves handling safety when load is positioned outside of the safe operational zone.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Ensures that equipment is always operated at safe speeds</li> <li>• Decreases fuel consumption</li> <li>• Improves potential lifetime of the equipment by reducing wear and tear.</li> </ul>	Safety
<ul style="list-style-type: none"> <li>• Driver can get the load weight directly without using additional weighing scales saving time and double handling</li> <li>• Loads can be handled safely when the weight is known, especially when loading onto a Truck for transport.</li> </ul>	Productivity

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