

Terminal Tractor series TT618i, TR618i, TRL618i



Icon of a new era

Terminal tractors are the workhorses of port operations. Robust reliability is required when moving heavy loads on and off ships and within the yard area. The world over, port conditions are harsh and time is money.

For decades, Kalmar has devoted its development efforts to enhancing the operational efficiency, service level, safety and cost-efficiency of terminal tractors. To this end, we previously launched the i-series of terminal tractors, which included such innovative features as:

CAN-BUS controls

Kalmar is the first supplier to provide terminal tractors with CAN-BUS, which integrates all functions in one system and shows all operational and service data on one display.

The latest EU-stage 3B engines

The Volvo TAD762VE and Agco Sisu 74 AWI complies with current emission regulations and lowers the Nox emission to almost zero. The Volvo and Agco Sisu engines are also available in Stage 3A versions.

Automatic gear control

Soft and smooth gear changes and continuous traction from the new, stronger transmission Dana RTE15822.

Longer service intervals

Thanks to the advanced components and technical features.

Kalmar's terminal tractor know-how stands for

- high productivity
- excellent manoeuvrability
- minimum operating costs
- easier maintenance
- better life-cycle performance
- non-stop support from Kalmar's global service network
- the technology leader's expertise and experience
- access to continuous innovations



Visible differences in efficiency, comfort and safety

Kalmar has now made the pioneering i concept better again – transforming it into icon. By including numerous improvements in lifetime durability and operator comfort, this next

generation machine opens a new era in terminal tractors. icon is good to drive and pleasant on the eye – in response to operators' wishes and daily needs.



icon – an ideal terminal tractor because

- it is CAN-BUS controlled – it is still the only tractor on the market with this advanced technology
- it has a smart seating arrangement
- the steering column can be fully adjusted in any direction
- it allows more cabin room – it is much easier and safer for the operator to move and work in
- it provides much better visibility
- its performance and manoeuvrability are excellent
- it brings numerous improvements in service and maintenance



For safer entry, the doorway is free from obstacles.



The wide-opening side door enables easy movement. The sturdy handles facilitate safe entry.



The swivelling seat makes access which is fully adjustable.

CAN-BUS rules

The CAN-BUS system is exclusive to the icon terminal tractor. Making tractor operation faster, safer and simpler, and helping in maintenance planning, CAN-BUS saves time, effort and cost.

The benefits of CAN-BUS

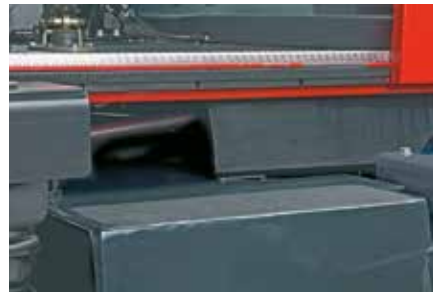
- all information and diagnostics readily available on driver's display
- troubleshooting in 1/10th of the time
- proportional lift boom control with the auto-revs-up feature
- standard blockings on engagement while tractor is moving
- autostop after adjustable idling time
- engine-protecting delay stop
- fewer wire harnesses, no circuit boards
- readiness for RMI (Remote Monitoring Interface)

Easy come, easy go

icon makes it easy for the operator to get in and out of the cabin. The route to the seat has been cleared of any obstacles. The swivelling seat makes entrance even easier: it can be locked in 0-(90)-180 degree positions. Thanks to numerous improvements and a careful repositioning of the rear pedals, there is more room to access and work in the cabin.

Moving through the doorways is also easier, as Kalmar's engineers have designed the rear and side doors to open wider and more smoothly than before. In addition, the doors include many details that make opening and shutting easier. Stepping onto the rear deck is more convenient, because the step height has been kept as low as possible.





and work flexible. The seat lock is released from the steering column,

Connection to diagnostics is within easy reach.

A clear and safe entrance from the rear deck to the cabin – with one low step.



Working comfort

The new tractor includes many innovative features that considerably add to working comfort. These improvements are based on extensive studies that Kalmar carried out in cooperation with drivers, as well as with specialists in ergonomics.

Kalmar takes pride in icon's innovative swivelling seat with its versatile adjustment features. This means better working conditions – more leg room and easier entrance, no matter what the driver's size is!

The fully adjustable steering column also allows more room for the legs, with its tilting adjustment, height control and compact control panel.

The cabin's many dimensional improvements provide more room for the head, elbows and legs – and make it a spacious workplace for the driver. Efficient automatic air conditioning (optional) and the advanced window and interior design have considerably reduced reflections and noise in the cabin.

The automatic gear system is a great functional help, and the small turning radius makes the new tractor easy to operate in cramped spaces. In addition, Kalmar provides a lot of relief for repetitive daily tasks. For example, the trailer connections are now more ergonomically positioned. Seat locking is also easier for the driver: it is electrically controlled from the steering column. The dashboard design is streamlined, as the most frequently used switches are located in the centre.

Easier service

Maintenance must not interfere with productivity. This is why icon features various improvements in daily service and adjustment procedures. And many of icon's service points are now easier to reach than before.



The external on/off switch enables quick service starts (an option).



Access to the fuel and hydraulic tanks is easy.

Service made simpler by:

- a hinged service hatch in the front – trouble-free service access, quick engine compartment checks
- a new location for the oil dipstick – oil refill and coolant level checks are easier to make
- easily removable front cover – quick & easy access to the cabin fresh-air filter, electrical terminals, heater unit and air conditioning
- the side door has strong brass hinges – less maintenance
- swivelling seat locking system placed under cabin floor – easier maintenance
- fuses and diagnostics sockets centralized on side dashboard – easy service access
- dashboard with hinges – faster access
- new robust tank design and mountings – durability, easier service
- electrical connectors and harnesses better protected – fewer breakages and interruptions
- quality materials – low component wear





Better visibility

Visibility is one of the icon tractor's great advancements in helping the driver improve his or her performance. The front windows are now bigger and include fewer and narrower window posts. The curved design of the front and corner glasses causes less reflection. As an option, we provide the roof with a wide window.

Visibility is further enhanced by the lower side dashboard height. The asymmetrical seating arrangement gives the driver a better view from the side window. Kalmar has developed all these features to contribute to the precision and safety of terminal operations.



Nice extras – in response to drivers' wishes

- 4 storage compartments: 2 bottle holders, a 12 V power output (e.g. for mobile phone charger) and a glove locker
- room for 2 radio stacks



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



Cargotec Finland Oy
Ruskontie 55 P.O. Box 387
FI-33101 Tampere Finland
tel. +358 3 265 8111
fax +358 3 265 8201
www.cargotec.com