



Container lashing

A-class lashing bar

The new A-class lashing bar can maximise your container vessel's potential

Customer-oriented solutions

In the highly competitive container shipping market, unused loading potential on a ship is a no-win situation. This is just as true for existing vessels as it is for newbuilding projects.

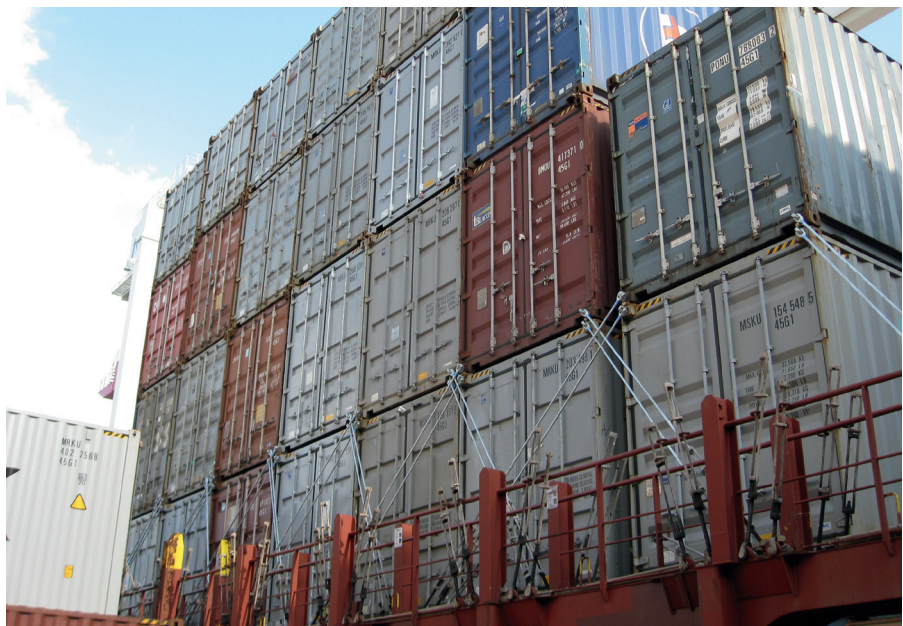
The innovative new A-class lashing bar is our response to the challenge of unused space. It can convert your vessel's existing internal lashing system to an external lashing system, releasing the ship's full loading potential. In most cases vessels equipped with lashing bridges will be able to carry an additional container in each stack.

Previously, conversion to an external lashing system was impossible on many vessels due to the narrow 25mm transverse gap between the containers.

Our lashing research and development team has designed a new rod head that allows these ships to enjoy all the advantages of the external double cross lashing system, with little or no modification work necessary to the eye plate arrangement on their lashing bridges.

External lashing improves a ship's efficiency

Unlike internal lashing, the external lashing system acts at the lifting side



The A-class lashing bar design makes it possible to use an external lashing system on a lashing bridge where it had previously only been possible to use an internal lashing system.

of the container stack instead of the compression side. External lashing reduces both lifting and compression forces in the stack.

Compared with an internal lashing system, the external lashing system enables your container vessel to sail with a better weight distribution and an overall increase in the numbers of containers that can be safely loaded.

Until now, the prerequisites for an external lashing arrangement using existing lashing bar design have been:

- a specific lashing bridge height
- a specific longitudinal distance between container and lashing bridge
- at least 38mm wide transversal gap between containers

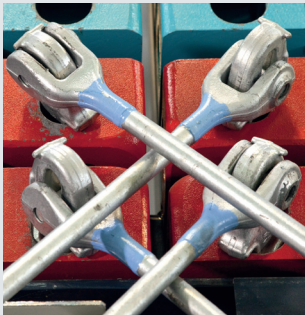
If any one of these criteria was not fulfilled, internal lashing was the only system available. With the A-class lashing bar the criteria are more flexible, allowing conversions from internal to external lashing systems even on vessels that were formerly considered unsuitable for conversion.

The A-class lashing bar

- Can improve a ship's loading capacity
- Can improve stack weight distribution
- Makes higher container stacks possible
- Is suitable for various lashing bridge heights
- Can be retrofitted to existing vessels
- Can also be used for internal lashing
- Is fully forged and hot-dip galvanised
- Has a safe working load (SWL) of 25 tonnes



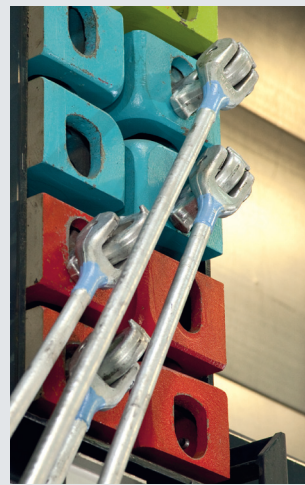
Flexibility for different loadings



External lashing, containers at the same height



Containers at different heights



Good clearance between lashing bars including the outermost container stack.



Carefully calculated conversions

Please contact us to find out how an external lashing system can increase your ship's loading capacity. We will provide you with a detailed evaluation of unused loading potential, based on your vessel's cargo profile.

We evaluate the cargo profile and the vessel's characteristics with our own specialist software and test various stack distributions for both height and weight. All calculations are carried out according to Class rules and as specified by the shipowner.

We investigate whether the existing lashing bridge, hatch cover and fixed fitting arrangements will permit an adjustment-free conversion. If not, we will use our expertise to outline any necessary changes. We also use the vessel's existing turnbuckles in the calculations to ensure the efficient use of as much existing equipment as possible.

Once the lashing system design is finalised, a mock-up test is performed with all stakeholders present to verify that our solution meets your requirements.



Lloyd's Register Quality Assurance certifies that the Quality Management System for MacGregor is ISO 9001:2008 compliant.

MacGregor is the world's leading brand of engineering solutions and services for handling marine cargoes and offshore loads. MacGregor products serve the maritime transportation, offshore and naval logistics markets, in ports and terminals as well as on board ships. Our cargo flow solutions integrate cargo access, stowage, care and handling functions to suit a particular ship's cargo profile. This benefits its productivity, environmental impact and profitable service lifetime.

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