A Joint Industry Project has been launched to address the need for the right balance between safety and operational efficiency for container, ro-ro and heavy lift transport.

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Lashing@Sea in pursuit of safety and efficiency



new and innovative study in the Netherlands will look at the problem of hundreds of containers being lost overboard every year. A single container could be a catastrophe in the wrong place at the wrong time, endangering marine navigation, as well as the environment.



These incidents are happening at the same time the growing worldwide economy demands bigger ships, operational efficiency, limited port time and optimised lashing gear. Concerns that the cause of some of these incidents is largely unknown has led to the start of the Lashing@Sea project which aims to optimise cargo-securing performance, both from a safety and efficiency point-of-view. To achieve this objective a consortium has been formed comprising: Bluestar Ship Management, CMA-CGM, Danaos Shipping, NYK, Holwerda, Norfolk Line, Royal Wagenborg, Spliethoff/Biglift, ABS, Bureau Veritas, DNV, Germanischer Lloyd, Lloyds Register, German Lashing, SEC, MacGREGOR, Amarcon, MaxControl, BMT de Beer, the Dutch Ministry of Transport and MARIN. The project is supported and co-funded by the Dutch Maritime Innovation Board.

Data will be collected and analysed in full-scale measurement campaigns on several different vessels to verify the validity of design assumptions, rules and guidelines and the effect of weather routing and possible over-lashing. Parameters that are addressed include wave-induced ship accelerations, additional accelerations due to whipping, bow and stern slamming, container stack flexibility and cargo hatch motions. The results are compared to calculated values and loads occurring in the container stacks, twist locks and lashings. With the comparisons, the underlying mechanisms will be investigated to identify how improvements can best be achieved, both for safety and efficiency.

For flag states and class societies, one of the main questions will be to assess if the current rules, guidelines and specifications for containers still apply for the new generation of vessels. Based on the knowledge gained, class societies and lashing gear manufacturers may improve their rules and products. For operators, an important issue is the investigation concerning weather dependent lashing and routing. In the project the sensitivity of cargo securing loads to wave conditions and the accuracy of weather predictions will be investigated. Health and safety aspects for lashing crews and ship crews are an integrated part of this innovative project.