Lashing container and RoRo cargo at sea

MARIN initiates Joint Industry Project to prevent the loss of containers and Roll-on/Roll-off Cargo

Background

Transport capacity and service speed of ships have increased exponentially over the last decades. The consequence of this trend is increased loading on the cargo. Under pressure of market economy, the state of the art in technical know-how has been overtaken by day to day practice. Containers, cars, trucks and other cargo are being transported in heavy seas and high winds without the knowledge of the actual lashing loads.

Xin Qing Dao

Every year tens of thousands of containers, cars and trucks are lost or damaged at sea. Besides the economical damage, lost containers often remain afloat for weeks, making it dangerous objects to collide on.
Addressing the problem is a difficult matter since safety aspects and economic efficiency as well as the different parties involved have conflicting interests.

Project objectives

The project is aiming to prevent lashings systems from failing. A second aim is to increase lashing efficiency where possible.
Preventing the loss of cargo and the improvement of the lashing procedure will increase the overall efficiency and decrease the risk of environmental damage.

Benefits

The expected benefits from this project are:

- Reduced number of cargo damaged or lost to sea;
- Increase of shipping efficiency due to optimised lashing procedures;
- Reduced ship damages and delay costs due to cargo falling on deck or hold space;
- Reduction of claims for insurance companies and litigation cost;
- Prevention of project delay for cargo owners;
- Increased safety for sea and shore environment;
- Less negative PR when customers are faced with damages;

Proposed approach

Successful completion of the project requires input and commitment from all parties involved in lashing business. Therefore a consortium of ship operators, lashing gear manufacturers, class institutes, P&I clubs, governments and research institutes is formed to coordinate and perform the work.

The project will be subdivided into the following tasks:

1. Review of current lashing procedures, rules and gear;
2. In service data collection campaign of ship accelerations, environment conditions and lashing loads on deep sea container vessel, short sea container vessel, RoRo ferry and Heavy Transport ship.
3. Data analysis and evaluation and comparison with (1)
4. Identify critical parameters in lashing engineering;
5. Evaluation of new lashing engineering procedures.

The obtained knowledge can be implemented in present day lashing design procedures and inspection regulations.

Shifting cargo starting a fire

The results will allow validations and improvements to lashing load codes and forecasts as performed by bridge control systems. The final approach will be discussed with all partners involved.

Invitation to the project

The project will be conducted as a Joint Industry Project under the name “Lashing@Sea”. Until June 2006 participation to the project is open. For further information please contact:

Jos Koning
Trials & Monitoring
+31 317 493 275
J.Koning@marin.nl

22-3-2006