



IMCO

INTERNATIONAL CONFERENCE ON
MARINE POLLUTION, 1973
Agenda item 7

CONSIDERATION OF A DRAFT INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973

Comments relating to Regulation 13 of Annex I of the Convention (SEGREGATED BALLAST)

Submitted by the Government of the Kingdom of the Netherlands

In the scope of research carried out in the Netherlands on sea keeping behaviour of ships, in this year a report was issued concerning the effect of the forward draught variation on performance of full ships in ballasted condition. It was thought that the conclusions made in this Study [1] could contribute in the establishment of criteria concerning the segregated ballast concept. Among other things one conclusion even appeared to be detrimental to the proposed prescription for the draught forward.

As the mentioned report was restricted to one single ship model, of which the ratios of main dimensions, however, did fit quite well in the range of single screw ships of conventional design, it was decided to use and adapt the dimensionless data from [1] for a Study [2]. The phenomenon of bow emergence was coupled to the proposed line for segregated ballast for a range from 100,000 - 450,000 tdwt tankers. in order to judge the trajectory of the so-called '45 - 30 percent line' and to evaluate the prescription of the draught forward, as proposed in the draft of Rule 13. The observations made in this report [2] did confirm the idea from the side of the working group in the Netherlands that it should be possible to formulate requirements concerning the minimum segregated ballast capacity, based on an equal chance of bow

emergence for different ship sizes in a well defined sea state. Thanks to the co-operation of some shipping companies, the significance of the proposed relation could be tested in a proper way for single screw vessels of conventional design with $\frac{L}{B}$ -ratios greater than 6.

The Studies [1] and [2], together with the conclusions drawn from these Studies, are available at the IMCO-documents desk at the Conference.
