# A METHOD OF ESTIMATING FRICTIONAL RESISTANCE OF SHIP BOTTOM COATING FILM, AND A METHOD OF EVALUATING COATING FILM PERFORMANCE USING SAID METHOD AND A DEVICE FOR EVALUATING COATING FILM

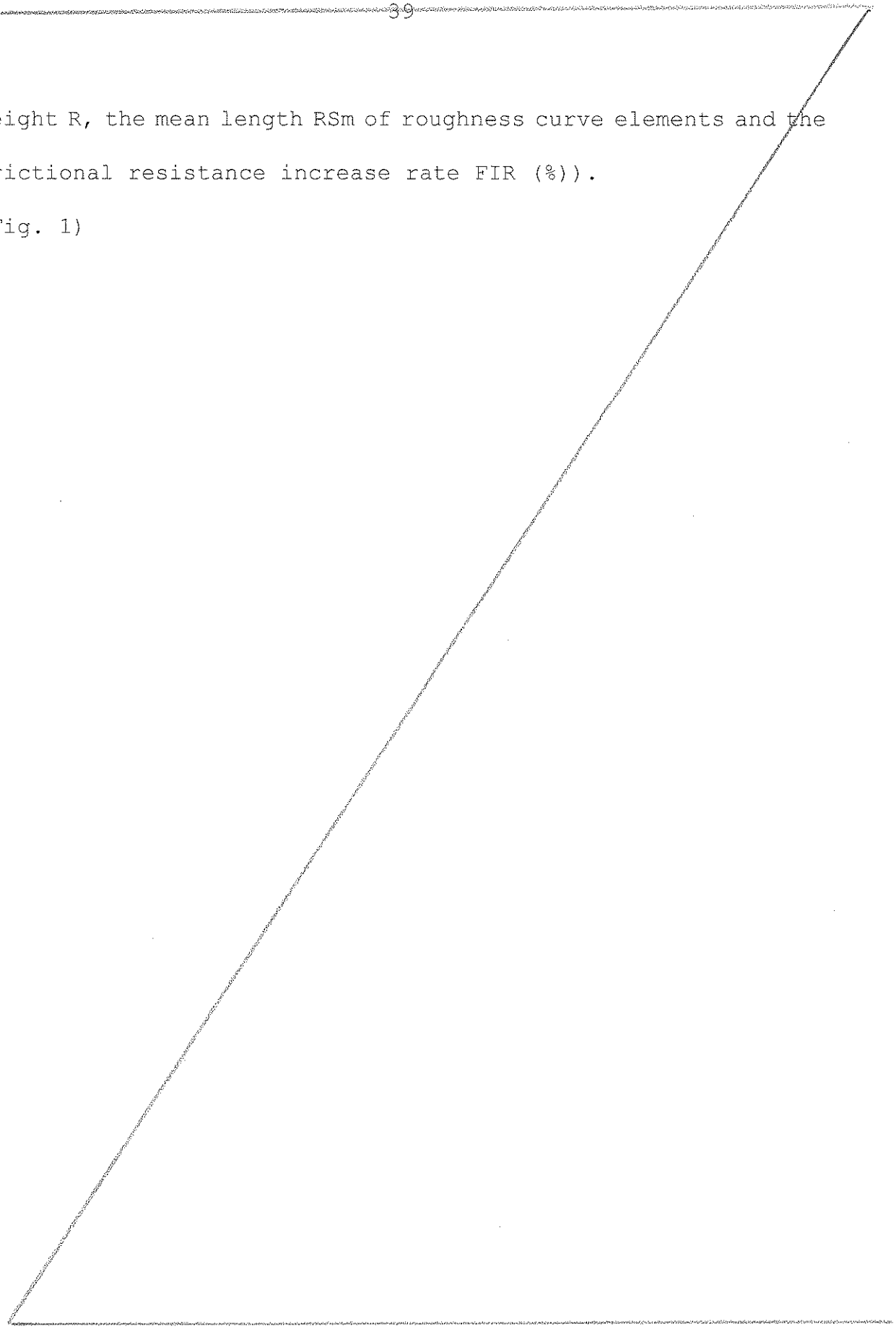
## ABSTRACT

[Subject] Provided is a method of estimating a frictional resistance increase rate of a ship bottom coating film simply and quickly without individual differences.

[Means for solving] The method of estimating a frictional resistace of a ship bottom coating film which method comprises measuring any one of Rz(Maximum height roughness), Rc(mean height of roughness curve elements), Ra(arithmetic mean roughness), Rq (root mean square roughness) and RZJIS (ten-point mean roughness) as a roughness height R at a mean length RSm of roughness curve elements in the range of 2,000 to 10,000 $\mu$m according to JIS B 0601:2001(ISO4287:1997) on a coating film obtainable applying a ship bottom coating paint on a substrate and calculating a frictional resistance increase rate FIR (%) from a mirror plane by the following formula (1); $FIR(\%) = C \times R^2/RSm$ (1) (the coefficient C is a constant depending on the kind of the roughness height R and the method of frictional resistance test, and on plural ship bottom coating films each having a different roughness, the roughness measurement and the frictional resistance test in a definite evaluation length are carried out, and is determined from the formula (1) of the relationship of the measured roughness

height R, the mean length RSm of roughness curve elements and the frictional resistance increase rate FIR (%)).

(Fig. 1)



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