DYNAMICS OF MARINE VEHICLES

RAMESWAR BHATTACHARYYA

Director of Naval Architecture U.S. Naval Academy Annapolis, Maryland

A WILEY-INTERSCIENCE PUBLICATION

JOHN WILEY & SONS, New York · Chichester · Brisbane ·

Technische Hochschule Darmstadt Fachbereich Mechanik **Bibliothek**

CONTENTS

1.	Introduction	, 1	15. Model Tests, Full-Scale Trials, and Scale Effects	308
2.	Simple Harmonic Motion	4	6	-
3.	Sinusoidal Water Waves	13	16. Seakeeping Considerations in Design	331
٠.	2 -		17. Seakeeping of Advanced Marine Vehicles	396
4.	Uncoupled Heaving, Pitching, and Rolling Motions	35	1 8	
			Appendix A. Seakeeping Tables for	
5.	Irregular Seaway	101	Extended Series 60 Ships in Head Seas	427
6.	Motion in an Irregular Seaway	121	Appendix B. Symbols	476
7.	Dynamic Effects	137		.=0
o	Motion in Three-Dimensional		Glossary of Seakeeping Terms	478
8.		171	·	
	Irregular Seaway	1/1	Conversion Table	482
9.	Coupled Heaving and Pitching Motions	183	Conversion Table	702
10.	Nonlinear Rolling Motion (Uncoupled)	208	Abbreviations for References	484
11.	Powering in a Seaway	220		
12.	Loads Due to Motion	240	References	485
	Loads Due to Motion	240		
13.	Wave Loads	249	Index	491
14	Motion Stabilization	278		