



DOCK AND HARBOUR ENGINEERING



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ABOUT THE BOOK

This book is an outcome of extensive experience in design office and of construction. Both the authors have been actively associated with academics as well.

The book deals with all the normal port aspects in a holistic way. Topics, such as “Ship Features”, “Traffic Forecasting and Hinterland”, “Cargo Handling Equipment”, “Construction Materials” etc. are essential back-ground knowledge for any dock and harbour engineer. These too have been covered.

For easy reading, the book is divided into self-contained chapters dealing with each topic. It contains useful tables of data and is profusely illustrated with diagrams and photographs to assist the reader. Fundamental concepts are lucidly presented and derived and empirical formulae given with clarity of underlying assumptions.

Two case histories have been dealt in this Revised Edition. One is design of a waterfront structure, a Berth or a Wharf. It gives the exact procedure that was followed while designing a waterfront structure viz. a berth, in a professional practice. The aim in presenting this “case” is to acquaint the readers to almost all the aspects of a berth, with emphasis on the design. Almost all the design calculations along with the stress/force diagrams are included. The second “case” is of another waterfront structure, a Sea Water Intake Station. The salient information for determining the guiding dimensional parameters of such a sea water intake station is given. These are meant for the students with inquisitive minds and the practicing engineers seeking guidance when faced with not so usual problems.

Other cogent information has been included in the form of Appendices. Some of these are: “Ships for LPG – LNG and Other Bulk Liquids”, “Properties of Liquids and Liquefied Gases”, “Details of Selected Ships”, “Coastal Regulation Zone” and “Port Charges”. These should be useful to the students as well as to the practicing engineers.

The book comprehensively covers the subject for degree courses in engineering of all the Indian Universities, Diploma Examinations conducted by various Boards of Technical Education, Certificate Courses as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S. and other similar competitive and professional examinations. Written in a simple language, with illustrative references, it will be useful to students to grasp the subject and practising engineers in designing.

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