

Marine Engineering Handbook

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Cruise Ship Handbook - Markus Aarnio
2022-09-25

This book offers a concise, yet comprehensive introduction to the engineering and other principles behind passenger cruise ships. It covers all the important regulations concerning cruise ship design and operation, as well as safety, stability, and environmental aspects. It describes principles of cruise ship

hydrodynamics, structures, power plant and propulsion, as well as relevant machinery and control system. Further, it deals with key cruise ship hotel systems, such as air conditioning, freshwater, firefighting, garbage, wastewater and communication systems, and many more. Written in a concise, straightforward style, and including many original drawings, this book offers a unique, informative and inspiring guide,

to students and professionals in the field of naval architecture and marine engineering, cruise ship owners and managers, and curious cruise ship passengers alike.

Marine Engineers' Handbook - Frank Ward
Sterling 1920

Modern Marine Engineer's Manual - Alan
Osbourne 1965

Volume II of the manual that has been absolutely indispensable to the ship's engineer for over forty years was completely updated by a team of practicing marine engineers in 1991. Chapters on obsolete equipment were deleted; those on systems that are still current were updated; and new chapters were written to cover the innovations in materials, machines, and operating practices that evolved recently.

The Ocean Engineering Handbook - Ferial El-Hawary 2000-12-28

Compiled with the help of an internationally acclaimed panel of experts, the Ocean

Engineering Handbook is the most complete reference available for professionals. It offers you comprehensive coverage of important areas of the theory and practice of oceanic/coastal engineering and technology. This well organized text includes five major sections: M

Bridge Engineering Handbook - Wai-Fah Chen
2019-09-11

First Published in 1999: The Bridge Engineering Handbook is a unique, comprehensive, and state-of-the-art reference work and resource book covering the major areas of bridge engineering with the theme "bridge to the 21st century."

The Maritime Engineering Reference Book -
Anthony F. Molland 2008

The Maritime Engineering Reference Book is a one-stop source for engineers involved in marine engineering and naval architecture. In this essential reference, Anthony F. Molland has brought together the work of a number of the world's leading writers in the field to create an

inclusive volume for a wide audience of marine engineers, naval architects and those involved in marine operations, insurance and other related fields. Coverage ranges from the basics to more advanced topics in ship design, construction and operation. All the key areas are covered, including ship flotation and stability, ship structures, propulsion, seakeeping and maneuvering. The marine environment and maritime safety are explored as well as new technologies, such as computer aided ship design and remotely operated vehicles (ROVs). Facts, figures and data from world-leading experts makes this an invaluable ready-reference for those involved in the field of maritime engineering. Professor A.F. Molland, BSc, MSc, PhD, CEng, FRINA. is Emeritus Professor of Ship Design at the University of Southampton, UK. He has lectured ship design and operation for many years. He has carried out extensive research and published widely on ship design and various aspects of ship

hydrodynamics. * A comprehensive overview from best-selling authors including Bryan Barrass, Rawson and Tupper, and David Eyres * Covers basic and advanced material on marine engineering and Naval Architecture topics * Have key facts, figures and data to hand in one complete reference book

Subsea Engineering Handbook - Yong Bai
2012-01-13

Subsea production systems, overview of subsea engineering, subsea field development, subsea distribution system. Flow assurance and system engineering. Subsea structure and equipment.

Subsea umbilical, risers and flowlines.

Modern Marine Engineer's Manual - Everett C. Hunt 1999

This book is designed to serve as a textbook for students and a reference for today's engineering officers, port engineers, superintendent engineers, and other maritime professionals. Steam turbine propulsion systems are included, but the coverage has been reduced in

recognition of the popularity of main propulsion diesel engines, covered in volume 2, and the anticipated increasing applications of aeroderivative gas turbines. Reciprocating steam engines have been eliminated. Pumps, pumping systems, and heat exchangers are given extensive coverage. Computer applications for machinery and system management are presented, including an entire chapter on maintenance management. Relevant material on international and national laws, classification society requirements, and standards, such as ISO 9000 series and the ISM code, are included in the text. The characteristics of fuels are presented along with a discussion of fuel testing and analysis, and a section on bunkering. A chapter on safety and management discusses shipboard engineering operations, shipyard repair planning and economics, and safety management. Each chapter includes review questions and references for additional study.

The Maritime Engineering Reference Book -

Anthony F. Molland 2011-10-13

The Maritime Engineering Reference Book is a one-stop source for engineers involved in marine engineering and naval architecture. In this essential reference, Anthony F. Molland has brought together the work of a number of the world's leading writers in the field to create an inclusive volume for a wide audience of marine engineers, naval architects and those involved in marine operations, insurance and other related fields. Coverage ranges from the basics to more advanced topics in ship design, construction and operation. All the key areas are covered, including ship flotation and stability, ship structures, propulsion, seakeeping and maneuvering. The marine environment and maritime safety are explored as well as new technologies, such as computer aided ship design and remotely operated vehicles (ROVs). Facts, figures and data from world-leading experts makes this an invaluable ready-reference for those involved in the field of

maritime engineering. Professor A.F. Molland, BSc, MSc, PhD, CEng, FRINA. is Emeritus Professor of Ship Design at the University of Southampton, UK. He has lectured ship design and operation for many years. He has carried out extensive research and published widely on ship design and various aspects of ship hydrodynamics. * A comprehensive overview from best-selling authors including Bryan Barrass, Rawson and Tupper, and David Eyres * Covers basic and advanced material on marine engineering and Naval Architecture topics * Have key facts, figures and data to hand in one complete reference book

Information Engineering for Ports and Marine Environments - Lin Mu 2020-04-23
Information Engineering for Port and Marine Environments provides the technology of tidal level prediction, the technology of oil spill early-warning, and the research for the theory of storm sedimentation, the construction for monitor ability, the early-warning service for

numerical simulation and operational, which involves many aspects such as theoretical research, system establishment, and application of information technology, et al. Because of the certain prospective and advancement of multiple work, it will play a positive role in promoting the related technology of the field. There are several of important offshore ports in China, such as Tianjin port, Yangshan Port, Ningbo-Zhoushan port, Huanghua port et al., most of them are located in the coast of muddy and muddy silty, and the depth of water is shallow, the sediment deposition is serious, the large ship is operated by tide. In order to sufficiently keep the rapid and stable economic growth in bay, estuary and delta, guarantee the security of port, channel, maritime, oceanic engineering and resource development of oil and gas, and better escort for the social economy activities, it is essential to provide the information service of sediment and ocean hydrometeorology with width coverage, and forecasting and warning information. It is all

the latest research results in the book, which involves many fields such as physical oceanography, meteorology, biology, chemistry, geology, environment, transportation and law and so on. The development of information assurance and prediction system for port shipping and ocean environment is a huge and arduous project. It is too hasty to finish the book, due to the limited knowledge of the author, the careless is unavoidable, cordially invites the readers to point out. Features: An entire system to forecast the port shipping and ocean environment information is proposed, including what is the port shipping and ocean environment information. The concept of port shipping and ocean environment data integration is presented, and the essential modules are built for the ocean dynamics model. The high performance port shipping and ocean environment data processing system is constructed, and the model dataset and geographic information is obtained to build the

basic database. The application of information assurance technology for port shipping and ocean environment is conducted at Tianjin port and Yangshan Port. This book is meant for senior undergraduates and postgraduate students in the fields of geoinformatics, Port engineering and Marine engineering. Engineers and technicians in the related fields can also use it for reference.

Handbook of Port and Harbor Engineering -
Gregory Tsinker 2014-11-14

This indispensable handbook provides state-of-the-art information and common sense guidelines, covering the design, construction, modernization of port and harbor related marine structures. The design procedures and guidelines address the complex problems and illustrate factors that should be considered and included in appropriate design scenarios.

Practical Handbook of Marine Science -
Michael J. Kennish 2019-07-12

The heavily-revised Practical Handbook of

Marine Science, Fourth Edition continues its tradition as a state-of-the-art reference that updates the field of marine science to meet the interdisciplinary research needs of physical oceanographers, marine biologists, marine chemists, and marine geologists. This edition adds an entirely new section devoted to Climate Change and Climate Change Effects. It also adds new sections on Estuaries, Beaches, Barrier Islands, Shellfish, Macroalgae, Food Chains, Food Webs, Trophic Dynamics, System Productivity, Physical-Chemical-Biological Alteration, and Coastal Resource Management. The Handbook assembles an extensive international collection of marine science data throughout, with approximately 1,000 tables and illustrations. It provides comprehensive coverage of anthropogenic impacts in estuarine and marine ecosystems from local, regional, and global perspectives. Maintaining its user-friendly, multi-sectional format, this comprehensive resource will also be of value to

undergraduate and graduate students, research scientists, administrators, and other professionals who deal with the management of marine resources. Now published in full color, the new edition offers extensive illustrative and tabular reference material covering all the major disciplines related to the sea.

[Boat Mechanical Systems Handbook](#) - Dave Gerr
2009-01-09

The First Ever Guide for Optimizing Boat Systems This guide is invaluable for anyone designing or installing mechanical systems on a new boat, retrofitting an existing boat, or evaluating a boat's operating condition. Writing for designers, builders, owners, buyers, mechanics, surveyors, and insurers of sailboats, powerboats, and commercial vessels, Dave Gerr provides design and installation guidance for each major mechanical system plus pragmatic guidelines and real-world interpretations of American Boat & Yacht Council (ABYC) and European standards. No marine professional or

serious boater should be without Boat Mechanical Systems Handbook. "Dave Gerr has a knack for breaking down the more esoteric concepts of naval architecture into language that's easily understood by the layman, which is one of the reasons why his writing often appears in the pages of SAIL. Another reason is his deep practical knowledge of the intricacies and subtleties of boat construction and systems, and the way they relate to each other. The subhead of Boat Mechanical Systems Handbook says it all--'how to design, install and recognize proper systems in boats.' Light reading this isn't, but if you're about to refit your boat or upgrade outdated systems, perhaps with some serious voyaging in mind, this book is a worthwhile investment. This is a unisex book, for both powerboaters and sailors; there's no mention of sailing rigs, but every other conceivable system is covered more or less exhaustively." --PETER NIELSEN, SAIL, November 2009 Praise for Dave Gerr's previous books: The Elements of Boat

Strength: "Certain books, because of their thoroughness, tend to become industry standards; such is the case with The Elements of Boat Strength." --Ocean Navigator Propeller Handbook: "The best layman's guide we've ever read." --Practical Sailor "Gerr made a complicated topic understandable and put it into a handbook that is easy to use." --WoodenBoat The Nature of Boats: "Offers, in a disarmingly charming fashion, a look at all aspects of what makes a boat work. If you are not nautically obsessed prior to reading this book, you most certainly will be afterward." --Sailing **Handbook of Ocean Wave Energy** - Arthur Pecher 2016-12-07

This book is open access under a CC BY-NC 2.5 license. This book offers a concise, practice-oriented reference-guide to the field of ocean wave energy. The ten chapters highlight the key rules of thumb, address all the main technical engineering aspects and describe in detail all the key aspects to be considered in the techno-

economic assessment of wave energy converters. Written in an easy-to-understand style, the book answers questions relevant to readers of different backgrounds, from developers, private and public investors, to students and researchers. It is thereby a valuable resource for both newcomers and experienced practitioners in the wave energy sector.

Merchant Marine Officer's Handbook - Edward A. Turpin 1965

Handbook on Marine Environment Protection - Markus Salomon 2018-01-31
This handbook is the first of its kind to provide a clear, accessible, and comprehensive introduction to the most important scientific and management topics in marine environmental protection. Leading experts discuss the latest perspectives and best practices in the field with a particular focus on the functioning of marine ecosystems, natural processes, and

anthropogenic pressures. The book familiarizes readers with the intricacies and challenges of managing coasts and oceans more sustainably, and guides them through the maze of concepts and strategies, laws and policies, and the various actors that define our ability to manage marine activities. Providing valuable thematic insights into marine management to inspire thoughtful application and further study, it is essential reading for marine environmental scientists, policy-makers, lawyers, practitioners and anyone interested in the field.

Marine Engineers' Handbook - Frank Ward Sterling 1920

Introduction to Marine Engineering - D A Taylor 2014-05-20
Introduction to Marine Engineering explains the operation of all the ship's machinery, with emphasis on correct, safe operating procedures and practices at all times. Organized into 17 chapters, this book begins with an overall look at

the ship. Subsequent chapters describe the various ship machineries, including diesel engines, steam turbines, boilers, feed systems, pumps, auxiliaries, deck machinery, hull equipment, shafting, propellers, steering gear, and electrical equipment. Other aspects of marine engineering, particularly, fuel oils, lubricating oils, refrigeration, air conditioning, ventilation, firefighting and safety, watchkeeping, and equipment operation, are also described. This book will be useful to anyone with an interest in ships' machinery or a professional involvement in the shipping business.

Marine Technology and Operations - O.

Gudmestad 2015-03-19

A marine engineer will need to have a broad background of knowledge within several aspects of marine design and operations. These aspects relate to the design of facilities for offshore applications and evaluation of operational conditions for marine installation and

modification/maintenance works. Such needs arise in the marine industries, in the offshore oil and gas industry as well as in the offshore renewable industry. Developed from knowledge gained throughout the author's engineering career, this book covers several of the themes where engineers need knowledge and also serves as a teaser for those who will go into more depth on the different thematic aspects discussed. Details of qualitative risk analysis, which is considered an excellent tool to identify risks in marine operations, are also included. The book is the author's attempt to develop a text for those in marine engineering science who like a practical and solid mathematical approach to marine engineering. It is the intention that the book can serve as an introductory textbook for master degree courses in marine sciences and be of inspiration for teachers who will extend the course into specialisation courses on stability of vessels, higher order wave analysis, nonlinear motions of vessels, arctic offshore

engineering, etc. The book could also serve as a handbook for PhD students and researchers who need a handy introduction to solving marine technology related problems.

Occupational Outlook Handbook - United States. Bureau of Labor Statistics 1976

Handbook for Marine Radio Communication

5E - Graham Lees 2013-07-04

This new edition explains the GMDSS rules, regulations and procedures. The book contains the regulations drawn from the International Telecommunication Union (ITU) and it is a useful teaching aid for GMDSS topics thoroughly updated to explain: significant changes in operating procedures to GMDSS, improvements to communication equipment and the new opportunities they provide, including: Automatic Identification Systems (AIS), Inmarsat Fleet services amendments to GMDSS radio maintenance certificate. Also expanded to include sections on use of radio for: piracy and

armed robbery attacks at sea, medical advice and assistance, Mede Vac; and contains updated and extended contact details of important organisations relevant to GMDSS.

US Marine Corps Handbook 1941-45 -

George Forty 2006-09-21

Employing a range of archive black and white photographs, this book examines the US Marine Corps' organisation and command structure, strategy, tactics and amphibious assault doctrine. Providing biographies of its most influential figures, it also surveys insignia, uniforms and equipment to provide a portrait of the US Marine Corps at war.

Marine Engineering - Roy L. Harrington 1992

"This edition of Marine Engineering presents more than twenty years of evolutionary changes in the maritime industry. The book provides a complete review of marine engineering, encompassing both naval and merchant practices and incorporating the broad range of technological developments that evolved during

the last decades. Also included is material presenting the principles associated with pollution control, design for production, integrated logistic support and noise control, as well as expanded coverage of propulsion shafting and piping. Long-time SNAME member Roy L. Harrington, now retired from Newport News Shipbuilding, edited this landmark volume."--Publisher's website.

Handbook of Offshore Engineering (2-volume Set) - Subrata Chakrabarti 2005-08-19

* Each chapter is written by one or more invited world-renowned experts * Information provided in handy reference tables and design charts * Numerous examples demonstrate how the theory outlined in the book is applied in the design of structures Tremendous strides have been made in the last decades in the advancement of offshore exploration and production of minerals. This book fills the need for a practical reference work for the state-of-the-art in offshore engineering. All the basic

background material and its application in offshore engineering is covered. Particular emphasis is placed in the application of the theory to practical problems. It includes the practical aspects of the offshore structures with handy design guides, simple description of the various components of the offshore engineering and their functions. The primary purpose of the book is to provide the important practical aspects of offshore engineering without going into the nitty-gritty of the actual detailed design.

- Provides all the important practical aspects of ocean engineering without going into the 'nitty-gritty' of actual design details
- Simple to use - with handy design guides, references tables and charts
- Numerous examples demonstrate how theory is applied in the design of structures

International Marine Engineering - 1916

Handbook of Coastal Engineering - John B. Herbich 2000-04-06
Wide-ranging, state-of-the-art guide to coastal

engineering. The first comprehensive guide to the preservation and maintenance of coastal areas in a decade, Handbook of Coastal Engineering features state-of-the-art practice and research methods. Editor John B. Herbich, one of the world's leading experts in coastal engineering and research, has brought together 23 specialists to discuss: *Coastal wave equations. The design of dikes, revetments, seawalls, breakwaters and related structures for coastline protection, highlighting Dutch, British, and U.S. practices *Sediment transport and beach profile change, and Japanese and U.S. erosion protection methods *Maintenance of navigational channels and harbor basins *Dredging and dredged material disposal, with computer models *Removal of contaminated material by dredging *More A valuable Appendix provides authorization, funding, and implementation information for U.S. Army projects; regulatory program applicant information; a computer program; and useful

reference tables.

The Marine Engineering Series - The Society of Naval Architects and Marine Engineers
2020-05-31

Marine Mammal Observer and Passive Acoustic Monitoring Handbook - Victoria Todd 2015-03-18

Marine Mammal Observer and Passive Acoustic Monitoring Handbook is the ultimate instruction manual for mitigation measures to minimise man-made acoustical and physical disturbances to marine mammals from industrial and defence activities.

Handbook of Marine Microalgae - Se-Kwon Kim 2015-05-27

Handbook of Microalgae: Biotechnology Advances offers complete coverage of marine microalgae, including biology, production techniques, biotechnological applications, economic perspectives of applications, and environmental effects of marine microalgae

blooms. With contributions from world experts, Handbook of Microalgae: Biotechnology Advances focuses on microalgae from an organism perspective to offer a complete picture from evolution to biofuel. Focuses on a comprehensive approach from an organism point of view Contains full coverage of all aspects of microalgae from biology through biotechnological and biomedical applications Includes biological properties of commercial algal species Provides microalgae screening and identification methods, culturing methods and new aspects of processing

Port Designer's Handbook - Carl A. Thoresen 2003

Over the past twenty years there has been considerable improvement and new information in the design of port and berth structures. This handbook reflects the latest progress and developments in navigation safety, port planning and site selection, layout of container, oil and gas terminals, cargo handling, berth design and

construction, fender and mooring principles. It presents guidelines and recommendations for the main items and assumptions in the layout, design and construction of modern port structures, and the forces and loadings acting on them. The book provides an evaluation of different designs and construction methods for port and berth structures, and recommendations given by the different international harbour standards and recommendations. Practising harbour and port engineers and students will find the handbook an invaluable source of information.

La Que's Handbook on Marine Corrosion - D. A. Shifler 2021-07-09

An update to the "bible" for marine corrosion, this thoroughly revised second edition of La Que's Handbook on Marine Corrosion presents a single-source reference book on the unique nature of seawater as a corrosive environment. The handbook explains practical corrosion control solutions via design, proper materials

selection, and implementation of good corrosion control engineering practices in an easy-to-read and understandable format for a wide range of technical disciplines.

Marine Engineers' Handbook - John Madison Labberton 1945

Springer Handbook of Ocean Engineering - Manhar R. Dhanak 2016-07-23

This handbook is the definitive reference for the interdisciplinary field that is ocean engineering. It integrates the coverage of fundamental and applied material and encompasses a diverse spectrum of systems, concepts and operations in the maritime environment, as well as providing a comprehensive update on contemporary, leading-edge ocean technologies. Coverage includes an overview on the fundamentals of ocean science, ocean signals and instrumentation, coastal structures, developments in ocean energy technologies and ocean vehicles and automation. It aims at

practitioners in a range of offshore industries and naval establishments as well as academic researchers and graduate students in ocean, coastal, offshore and marine engineering and naval architecture. The Springer Handbook of Ocean Engineering is organized in five parts: Part A: Fundamentals, Part B: Autonomous Ocean Vehicles, Subsystems and Control, Part C: Coastal Design, Part D: Offshore Technologies, Part E: Energy Conversion

Dredging - Richard Nicholas Bray 2005

Handbook of Marine Craft Hydrodynamics and Motion Control - Thor I. Fossen
2021-04-16

Handbook of MARINE CRAFT HYDRODYNAMICS AND MOTION CONTROL
The latest tools for analysis and design of advanced GNC systems Handbook of Marine Craft Hydrodynamics and Motion Control is an extensive study of the latest research in hydrodynamics, guidance, navigation, and

control systems for marine craft. The text establishes how the implementation of mathematical models and modern control theory can be used for simulation and verification of control systems, decision-support systems, and situational awareness systems. Coverage includes hydrodynamic models for marine craft, models for wind, waves and ocean currents, dynamics and stability of marine craft, advanced guidance principles, sensor fusion, and inertial navigation. This important book includes the latest tools for analysis and design of advanced GNC systems and presents new material on unmanned underwater vehicles, surface craft, and autonomous vehicles. References and examples are included to enable engineers to analyze existing projects before making their own designs, as well as MATLAB scripts for hands-on software development and testing. Highlights of this Second Edition include: Topical case studies and worked examples demonstrating how you can apply modeling and

control design techniques to your own designs A Github repository with MATLAB scripts (MSS toolbox) compatible with the latest software releases from Mathworks New content on mathematical modeling, including models for ships and underwater vehicles, hydrostatics, and control forces and moments New methods for guidance and navigation, including line-of-sight (LOS) guidance laws for path following, sensory systems, model-based navigation systems, and inertial navigation systems This fully revised Second Edition includes innovative research in hydrodynamics and GNC systems for marine craft, from ships to autonomous vehicles operating on the surface and under water. Handbook of Marine Craft Hydrodynamics and Motion Control is a must-have for students and engineers working with unmanned systems, field robots, autonomous vehicles, and ships. MSS toolbox: <https://github.com/cybergalactic/mss> Lecture notes: <https://www.fossen.biz/wiley> Author's home page: <https://www.fossen.biz>

Marine Auxiliary Machinery - H. D. McGeorge
2013-10-22

Marine Auxiliary Machinery, Seventh Edition is a 16-chapter text that covers the significant advances in marine auxiliary machinery relevant to the certification of competency examinations. The introductory chapters deal with the basic components of marine machineries, such as propulsion system, heat exchanger, valves, and pipelines. The succeeding chapters describe the pumps and pumping system, specifically the tanker and gas carrier cargo pumps.

Considerable chapters are devoted to the operation of machinery's major components, including the propeller shaft, steering gear, auxiliary power, bow thrusters, and stabilizers. Other chapters consider the refrigeration, heating, ventilation, and air conditioning systems. The final chapters tackle the safety system of marine auxiliary machinery, particularly the fire protection, safety, instrumentation, and control systems. This book

will prove useful to marine and mechanical engineers.

Merchant Marine Officers' Handbook - Edward A. Turpin 1989

This handbook, first issued in 1942, is designed to be used as a textbook or a study guide for the "hawsepiper." The twenty-five chapters contain information on electronics, celestial navigation, rules of the road, engineering, etc., --that will be helpful to the third mate, experienced mariner, or student preparing for a licensing examination.

Springer Handbook of Mechanical

Engineering - Grote Jark-Heinrich 2009-01-13

This resource covers all areas of interest for the practicing engineer as well as for the student at various levels and educational institutions. It features the work of authors from all over the world who have contributed their expertise and support the globally working engineer in finding a solution for today's mechanical engineering problems. Each subject is discussed in detail and supported by numerous figures and tables.

Mechanical Engineer's Data Handbook - J.

Carvill 2014-05-15

Mechanical Engineer's Data Handbook provides a comprehensive yet concise set of information relevant in the practice of mechanical engineering. The book is comprised of eight chapters that cover the main disciplines of mechanical engineering. The text first details the strengths of materials, and then proceeds to discussing applied mechanics. Next, the book talks about thermodynamics and fluid mechanics. The fifth chapter presents manufacturing technology, which includes cutting tools, metal forming processes, and

soldering and brazing. The next two chapters deal with engineering materials and measurements, respectively. The last chapter of the text presents general data, such as units, symbols, and fasteners. The book will be most useful to students and practitioners of mechanical engineering.

Marine Propellers and Propulsion - John

Carlton 2012-10-30

The early development of the screw propeller. Propeller geometry. The propeller environment. The ship wake field, propeller performance characteristics.