

Second Edition Introduction To Marine Engineering

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Reeds Vol 2: Applied Mechanics for Marine Engineers Paul Anthony Russell 2015-03-09 The book covers the principal topics in applied mechanics for professional trainees studying Merchant Navy Marine Engineering Certificates of Competency (CoC) as well as the core syllabi in applied mechanics for undergraduates studying for BSc, BEng and MEng degrees in marine engineering, naval architecture and other marine technology related programmes. The revised version takes into account the need of these students, recognising recent changes to the Merchant Navy syllabus and current pathways to a sea-going engineering career, including National diplomas, Higher National Diploma and degree courses. Basic principles are dealt with, beginning at a fairly elemental stage, with this new edition applying the underlying principles to a shipping environment. Each chapter has fully worked examples interwoven into the text, with test examples set at the end of each chapter. Other revisions include examples reflecting modern machines and practice, current legislation and current syllabi.

Basic Naval Architecture Philip A. Wilson 2018-02-09 This textbook provides readers with an understanding of the basics of ship stability as it has been enacted in international law. The assessment of ship stability has evolved considerably since the first SOLAS convention after the sinking of the RMS Titanic, and this book enables readers to familiarise themselves with the most up-to-date modern day methodology, as well as looking ahead to the effects on ship design over the next fifty years. The author not only explains the methodology of probabilistic ship damage as required by the International Maritime Organisation (IMO), but also details the new requirements to assess certain sizes and classes of ships to the seven second-generation ship stability requirements. Many textbooks that are currently used by undergraduates focus on the geometric-centric deterministic approach to the assessment of ship stability, whereas this book also includes material on the classes of ships that are now required to have probabilistic ship damage assessment, as has only recently been agreed by the IMO. *Basic Naval Architecture: Ship Stability* contains up-to-date information, making it ideal for university students studying ocean or marine engineering, as well as being of interest to students on naval architecture and ship science courses. Highly illustrated and including chapter studies for ease of learning, the book is an ideal one-volume textbook for students.

Biogeochemistry of Marine Dissolved Organic Matter Dennis A. Hansell 2014-10-02 Marine dissolved organic matter (DOM) is a complex mixture of molecules found throughout the world's oceans. It plays a key role in the export, distribution, and sequestration of carbon in the oceanic water column, posited to be a source of atmospheric climate regulation. *Biogeochemistry of Marine Dissolved Organic Matter*,

Second Edition, focuses on the chemical constituents of DOM and its biogeochemical, biological, and ecological significance in the global ocean, and provides a single, unique source for the references, information, and informed judgments of the community of marine biogeochemists. Presented by some of the world's leading scientists, this revised edition reports on the major advances in this area and includes new chapters covering the role of DOM in ancient ocean carbon cycles, the long term stability of marine DOM, the biophysical dynamics of DOM, fluvial DOM qualities and fate, and the Mediterranean Sea. Biogeochemistry of Marine Dissolved Organic Matter, Second Edition, is an extremely useful resource that helps people interested in the largest pool of active carbon on the planet (DOC) get a firm grounding on the general paradigms and many of the relevant references on this topic. Features up-to-date knowledge of DOM, including five new chapters The only published work to synthesize recent research on dissolved organic carbon in the Mediterranean Sea Includes chapters that address inputs from freshwater terrestrial DOM

Adhesive Bonding R D Adams 2005-03-08 This important collection reviews key research on adhesive behaviour and applications in sectors as diverse as construction and automotive engineering. The book is divided into three main parts: fundamentals, mechanical properties and applications. Part one focuses on the basic properties of adhesives, surface assessment and treatment. Part two concentrates on understanding how adhesives perform under stress and the factors affecting fatigue and failure. The final part of the book reviews industry specific applications in areas such as building and construction, transport and electrical engineering. With its distinguished editor and international team of contributors, Adhesive bonding is a standard reference for all those concerned with the industrial application of adhesives. Essential information for all those concerned with the industrial application of adhesives This important collection examines adhesives and adhesive bonding for load-bearing applications Arranged in a user-friendly format with three main sections: fundamentals, generic uses and industry specific applications

Introduction to Marine Cargo Management Mark Rowbotham 2014-03-21 Cargo management, especially in the maritime sphere, plays a vital role in the transfer of goods between seller and buyer. However, despite over 90% of the world's international trade being conducted by sea, often very little is known about this subject by either party. This unique text provides a clear and comprehensive introduction to the principal elements involved in the management of marine cargo and the carriage of goods by sea. Not only does it analyse key theories and debates in the maritime freight sector, it is equally instructive on practice and logistics. Furthermore, the book provides a thorough guide to the roles and responsibilities of all parties involved in this dynamic industry. This second edition has been fully revised and updated to incorporate the very latest changes in cargo management legislation and procedures, including: Offshore oil & gas supply management The revised INCOTERMS 2010 Tramp shipping and spot cargo trading Project cargo management Dry and liquid bulk cargo management The IMDG Code and the marine carriage of dangerous and hazardous goods Cabotage Salvage Risk management and best practice This is an essential guide for shipping professionals, academics and students of marine logistics, and international trade.

Diesel Engines A J WHARTON 2013-10-22 This book covers diesel engine theory, technology, operation and maintenance for candidates for the Department of Transport's Certificates of Competency in Marine Engineering, Class One and Class Two. The book has been updated throughout to include new engine types and operating systems that are currently in active development or recently introduced.

Ship Automation Alexandr Yakimchuk 2012

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

An Introduction to Atmospheric Physics David G. Andrews 2010-04-29 Contributor biographical information for An introduction to atmospheric physics / David G. Andrews. Bibliographic record and links to related information available from the Library of Congress catalog Biographical text provided by the publisher (may be incomplete or contain other coding). The Library of Congress makes no claims as to the accuracy of the information provided, and will not maintain or otherwise edit/update the information supplied by the publisher. -- -- David Andrews has been a lecturer in Physics at Oxford University and a Physics tutor at Lady Margaret Hall, Oxford, for 20 years. During this time he has had extensive experience of teaching a wide range of physics courses, including atmospheric physics. This experience has included giving lectures to large student audiences and also giving tutorials to small groups. Tutorials, in particular, have given him insights into the kinds of problems that physics students encounter when learning atmospheric physics, and the kinds of topics that excite them. His broad teaching experience has also helped him introduce students to connections between topics in atmospheric physics and related topics in other areas of physics. He feels that it is particularly important to expose today's physics students to the excitements and challenges presented by the atmosphere and climate. He has also published a graduate textbook, *Middle Atmosphere Dynamics*, with J.R. Holton and C.B. Leovy (1987, Academic Press). He is a Fellow of the Royal Meteorological Society, a Member of the Institute of Physics, and a Member of the American Meteorological Society.

Reeds Vol 8 General Engineering Knowledge for Marine Engineers Paul Anthony Russell 2013-07-22 Developed to complement Reeds Vol. 12 (Motor Engineering for Marine Engineers), this textbook is key for all marine engineering officer cadets. This new edition has been extensively updated to include the latest equipment, practices and trends in marine engineering, as well as incorporating the 2010 Manila Amendments, particularly relating to Management. Accessibly written and clearly illustrated, this book is the core guide focusing on the knowledge needed for passing the engineering certificate of Competency (CoC) examinations. This key textbook takes into account the varying needs of students studying motor engineering, recognising recent changes to the Merchant Navy syllabus and current pathways to a sea-going engineering career, including National diplomas, Higher National Diploma and degree courses. An essential buy for any marine engineering student.

Marine Electrical Technology, 4/e H/C Elstan A Fernandez 2004-08-17 The Book has been thoroughly

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revised, keeping in mind the rapid technological advances in this mammoth industry and also the feedback received from various quarters. Relevant extracts from current SOLAS, IACS, Lloyd's Register, DNV and ABS Rules, have been included with permission. However, these must be used only for academic purposes. Relevant current documents onboard ships must be referred to, for the purpose of complying with Classification Societies' and other Statutory Requirements.

Best Boats to Build Or Buy Ferenc Máté 2006-07 A favorite volume from best-selling nautical author Ferenc Máté, now with an updated kit boat list.

Analysis and Design of Plated Structures N.E. Shanmugam 2021-09-29 Analysis and Design of Plated Structures: Stability, Second Edition covers the latest developments in new plate solutions and structural models for plate analysis. Completely revised and updated by its distinguished editors and international team of contributors, this edition also contains new chapters on GBT-based stability analysis and the finite strip and direct strength method (DSM). Other sections comprehensively cover bracing systems, storage tanks under wind loading, the analysis and design of light gauge steel members, applications of high strength steel members, cold-formed steel pallet racks, and the design of curved steel bridges. This is a comprehensive reference for graduate students, researchers and practicing engineers in the fields of civil, structural, aerospace, mechanical, automotive and marine engineering. Features new chapters on the stability behavior of composite plates such as laminated composite, functionally graded, and steel concrete composite plate structures Includes newly developed numerical simulation methods and new plate models Provides generalized beam theory for analyzing thin-walled structures

Maritime Security Michael McNicholas 2016-03-19 *Maritime Security, 2e*, provides practical, experience-based, and proven knowledge - and a "how-to-guide" - on maritime security. McNicholas explains in clear language how commercial seaports and vessels function; what threats currently exist; what security policies, procedures, systems, and measures must be implemented to mitigate these threats; and how to conduct ship and port security assessments and plans. Whether the problem is weapons of mass destruction or cargo theft, *Maritime Security* provides invaluable guidance for the professionals who protect our shipping and ports. New chapters focus on whole government maritime security, UN legal conventions and frameworks, transnational crime, and migration. Updates throughout will provide the latest information in increasingly important field. Provides an excellent introduction to issues facing this critical transportation channel Three all-new chapters, and updated throughout to reflect changes in maritime security Increased coverage of migration issues and transnational crime New contributors bring legal security and cybersecurity issues to the fore

Marine Propellers and Propulsion John Carlton 2012 The early development of the screw propeller. Propeller geometry. The propeller environment. The ship wake field, propeller performance characteristics.

Introduction to Marine Biogeochemistry Susan Libes 2011-08-29 Introduction to Marine Biogeochemistry focuses on the ocean's role in the biogeochemical cycling of selected elements and the impact of humans on the cycling of these elements. Among the topics covered are the chemical composition of seawater from the perspectives of elemental speciation and the impacts of solutes on water's physical behavior; biogeochemical phenomena which control accumulation and preservation of marine sediments; marine chemistry of radioactive and stable isotopes; and seawater pollution. The book contains many examples as well as steady-state models to aid readers in understanding this growing and complex science.. The focus of Introduction to Marine Biogeochemistry is the concept of

the ocean as a system, linking land and atmospheric processes The text integrates the most current research, allowing students to learn concepts in context Includes detailed coverage of computational aspects

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.

Reeds Vol 8 General Engineering Knowledge for Marine Engineers Paul Anthony Russell 2018-09-06 Developed to complement Reeds Vol 12 (Motor Engineering for Marine Engineers), this textbook is key for all marine engineering officer cadets. Accessibly written and clearly illustrated, General Engineering Knowledge for Marine Engineers takes into account the varying needs of students studying 'general' marine engineering, recognising recent changes to the Merchant Navy syllabus and current pathways to a sea-going engineering career. It includes the latest equipment, practices and trends in marine engineering, as well as incorporating the 2010 Manila Amendments, particularly relating to management. It is an essential buy for any marine engineering student. This new edition reflects all developments within the discipline and includes updates and additions on, amongst other things: · Corrosion, water treatments and tests · Refrigeration and air conditioning · Fuels, such as LNG and LPG · Insulation · Low sulphur fuels · Fire and safety Plus updates to many of the technical engineering drawings.

Nitrogen in the Marine Environment Edward J. Carpenter 2016-10-27 Nitrogen in the Marine Environment provides information pertinent to the many aspects of the nitrogen cycle. This book presents the advances in ocean productivity research, with emphasis on the role of microbes in nitrogen transformations with excursions to higher trophic levels. Organized into 24 chapters, this book begins with an overview of the abundance and distribution of the various forms of nitrogen in a number of estuaries. This text then provides a comparison of the nitrogen cycling of various ecosystems within the marine environment. Other chapters consider chemical distributions and methodology as an aid to those entering the field. This book discusses as well the enzymology of the initial steps of inorganic nitrogen assimilation. The final chapter deals with the philosophy and application of modeling as an investigative method in basic research on nitrogen dynamics in coastal and open-ocean marine environments. This book is a valuable resource for plant biochemists, microbiologists, aquatic ecologists, and bacteriologists.

Marine Electrical Equipment and Practice H D MCGEORGE 2014-06-28 Caters for marine engineer candidates for Department of Transport Certification as Marine Engineer Class One and Class Two. It covers the various items of ships' electrical equipment and explains operating principles. David McGeorge is a former lecturer in Marine Engineering at the College of Maritime Studies, Warsash, Southampton. He is the author of General Engineering Knowledge.

Practical Ship Hydrodynamics Volker Bertram 2011-08-25 Practical Ship Hydrodynamics provides a comprehensive overview of hydrodynamic experimental and numerical methods for ship resistance and propulsion, maneuvering, seakeeping and vibration. Beginning with an overview of problems and approaches, including the basics of modeling and full scale testing, expert author Volker Bertram introduces the marine applications of computational fluid dynamics and boundary element methods. Expanded and updated, this new edition includes: Otherwise disparate information on the factors

affecting ship hydrodynamics, combined to provide one practical, go-to resource. Full coverage of new developments in computational methods and model testing techniques relating to marine design and development. New chapters on hydrodynamic aspects of ship vibrations and hydrodynamic options for fuel efficiency, and increased coverage of simple design estimates of hydrodynamic quantities such as resistance and wake fraction. With a strong focus on essential background for real-life modeling, this book is an ideal reference for practicing naval architects and graduate students.

Engineering Drawing for Marine Engineers H. G. Beck 2002-11 Assisting students studying for Engineering Drawing examination set by the DoT for a Second Class Certificate of Competency, this book should also benefit those studying for Engineering Knowledge papers in Part B of the exam.

Marine Rudders and Control Surfaces Anthony F. Molland 2011-02-24 Marine Rudders and Control Surfaces guides naval architects from the first principles of the physics of control surface operation, to the use of experimental and empirical data and applied computational fluid dynamic modelling of rudders and control surfaces. The empirical and theoretical methods applied to control surface design are described in depth and their use explained through application to particular cases. The design procedures are complemented with a number of worked practical examples of rudder and control surface design. • The only text dedicated to marine control surface design • Provides experimental, theoretical and applied design information valuable for practising engineers, designers and students • Accompanied by an online extensive experimental database together with software for theoretical predictions and design development

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 Optics N.G. Jerlov 1976-01-01 Marine Optics

Design of Marine Facilities John Gaythwaite 2016

Reeds Vol 4: Naval Architecture for Marine Engineers Richard Pemberton 2018-10-18 This textbook covers the theoretical, fundamental aspects of naval architecture for students preparing for the Class 2 and Class 1 Marine Engineer Officer exams. It introduces the basic foundation themes within naval architecture, (hydrostatics, stability, resistance and powering), using worked examples to show how solutions should be presented for an exam. The topics are ordered in a manner of a typical taught module, to aid the use of the book by lecturers as a compliment to a course. Importantly, this updated edition contains updated text and figures in line with modern practice, including an update of many of the figures to three-dimensional diagrams, and a new section on computer software for naval architecture. The book also includes sample examination questions with worked examples answers to aid students in their learning.

Marine Structural Design Yong Bai 2015-09-18 Marine Structural Design, Second Edition, is a wide-ranging, practical guide to marine structural analysis and design, describing in detail the application of modern structural engineering principles to marine and offshore structures. Organized in five parts, the book covers basic structural design principles, strength, fatigue and fracture, and reliability and risk assessment, providing all the knowledge needed for limit-state design and re-assessment of existing structures. Updates to this edition include new chapters on structural health monitoring and risk-based decision-making, arctic marine structural development, and the addition of new LNG ship topics, including composite materials and structures, uncertainty analysis, and green ship concepts. Provides the structural design principles, background theory, and know-how needed for marine and offshore structural design by analysis Covers strength, fatigue and fracture, reliability, and risk assessment together in one resource, emphasizing practical considerations and applications Updates to this edition include new chapters on structural health monitoring and risk-based decision making, and new content on arctic marine structural design

Control of Marine Vehicles Karl Dietrich von Ellenrieder 2021-06-21 This textbook offers a comprehensive introduction to the control of marine vehicles, from fundamental to advanced concepts, including robust control techniques for handling model uncertainty, environmental disturbances, and actuator limitations. Starting with an introductory chapter that extensively reviews automatic control and dynamic modeling techniques for ocean vehicles, the first part of the book presents in-depth information on the analysis and control of linear time invariant systems. The concepts discussed are developed progressively, providing a basis for understanding more complex techniques and stimulating readers' intuition. In addition, selected examples illustrating the main concepts, the corresponding MATLAB® code, and problems are included in each chapter. In turn, the second part of the book offers comprehensive coverage on the stability and control of nonlinear systems. Following the same intuitive approach, it guides readers from the fundamentals to more advanced techniques, which culminate in integrator backstepping, adaptive and sliding mode control. Leveraging the author's considerable teaching and research experience, the book offers a good balance of theory and stimulating questions. Not only does it provide a valuable resource for undergraduate and graduate students; it will also benefit practitioners who want to review the foundational concepts underpinning some of the latest advanced marine vehicle control techniques, for use in their own applications.

Ship Hydrostatics and Stability Adrian Biran 2013-10-17 Ship Hydrostatics and Stability is a complete guide to understanding ship hydrostatics in ship design and ship performance, taking you from first principles through basic and applied theory to contemporary mathematical techniques for hydrostatic modeling and analysis. Real life examples of the practical application of hydrostatics are used to explain the theory and calculations using MATLAB and Excel. The new edition of this established resource takes in recent developments in naval architecture, such as parametric roll, the effects of non-linear motions on stability and the influence of ship lines, along with new international stability regulations. Extensive reference to computational techniques is made throughout and downloadable MATLAB files accompany the book to support your own hydrostatic and stability calculations. The book also includes definitions and indexes in French, German, Italian and Spanish to make the material as accessible as possible for international readers. Equips naval architects with the theory and context to understand and manage ship stability from the first stages of design through to construction and use. Covers the prerequisite foundational theory, including ship dimensions and geometry, numerical integration and the calculation of heeling and righting moments. Outlines a clear approach to stability modeling and analysis using computational methods, and covers the international standards and regulations that must be kept in mind throughout design work. Includes definitions and indexes in French, German, Italian and Spanish to make the material as accessible as possible for international readers.

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.

Shipboard Electrical Power Systems Mukund R. Patel 2011-12-15 Shipboard Electrical Power Systems addresses new developments in this growing field. Focused on the trend toward electrification to power commercial shipping, naval, and passenger vessels, this book helps new or experienced engineers master cutting-edge methods for power system design, control, protection, and economic use of power. Provides Basic Transferable Skills for Managing Electrical Power on Ships or on Land This groundbreaking book is the first volume of its kind to illustrate optimization of all aspects of shipboard electrical power systems. Applying author Mukund Patel's rare combination of industrial and educational work experiences and insight, it offers solutions to meet the increasing demand for large, fast, efficient, and reconfigurable ships to compete in international markets. For 30 years, Professor Patel was an engineer for companies including General Electric, Lockheed Martin, and Westinghouse Electric, and in the past 15 years he has been an engineering professor at the U.S. Merchant Marine Academy. That varied experience helped him zero in on the specialized multidimensional knowledge an engineer requires—and that is what sets his book apart. Compiles Critical, Hard-to-Find Information on Power System Design, Analysis, and Operation The global shortage of power engineers is not deterring countries from heavily investing in construction of new power plants and grids. Consequent growth in university electrical power programs is satisfying the demand for engineers, but novice graduates require accelerated understanding and practical experience before entering the thriving maritime segment. Ideal for readers with limited electrical experience, wide-ranging coverage includes power system basics, power generation, electrical machines, power distribution, batteries, and marine industry standards. This book is an invaluable tool for engineers working on ships, as well as in ports, industrial power plants, refineries, and other similar environments.

Life Support Systems Design Marshall L. Nuckols 1996 Whether in freezing arctic tundra or blazing deserts, human beings have been figuring out how to adapt to hostile environments for centuries. New challenges emerge, however, as we venture to places where we are truly unable to exist without technology. When it comes to surviving underwater, a thorough knowledge of human physiology must be combined with a firm grasp of engineering principles, and Life Support Systems Design provides the student with an extensive grounding in both. A reference text for any beginning life support systems engineer, it also serves as a refresher course for more experienced divers. The text particularly emphasizes the effects of hyperbaric exposures on the diver's ability to function, but it also explores underwater physics, including the transport of light, heat, and gases, in detail. It reviews the practical technological aspects of life support system engineering, such as gas storage and delivery systems, and environmental control design. Finally, once the textbook has been absorbed, the authors encourage the student to design a life support system for a specified application. Armed with the knowledge gained from Life Support Systems Design, it seems like a project any student would ace.

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.

Climate Change Trevor M. Letcher 2009-05-08 The climate of the Earth is always changing. As the debate over the implications of changes in the Earth's climate has grown, the term climate change has come to refer primarily to changes we've seen over recent years and those which are predicted to be coming, mainly as a result of human behavior. This book serves as a broad, accessible guide to the science behind this often political and heated debate by providing scientific detail and evidence in language that is clear to both the non-specialist and the serious student. * provides all the scientific evidence for and possible causes of climate change in one book * written by expert scientists working in the field * logical, non-emotional conclusions * a source book for the latest findings on climate change

Introduction to Marine Micropaleontology B.U. Haq 1998-03-12 This beautifully illustrated text book, with state-of-the-art illustrations, is useful not only for an introduction to the subject, but also for the application of marine microfossils in paleoceanographic, paleoenvironmental and biostratigraphic analyses. The recent revival of interest in marine micropaleontology worldwide in the wake of the development of sequence stratigraphic models has led to the decision to reissue the volume in its original, but paperback, form. The ideas expressed in various chapters of this second edition remain as valid today as they were when the book was first issued. The text, however, includes an updated Phanerozoic geologic time which has been considerably modified since the 1980s.

General Engineering Knowledge H D McGeorge 2012-09-10 This book covers the general engineering knowledge required by candidates for the Department of Transport's Certificates of Competency in Marine Engineering, Class One and Class Two. The text is updated throughout in this third edition, and new chapters have been added on production of fresh water and on noise and vibration. Reference is also provided to up-to-date papers and official publications on specialized topics. These updates ensure that this little volume will continue to be a useful pre-examination and revision text. - Marine Engineers Review, January 1992

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.

Planning and Design of Ports and Marine Terminals Hans Agerschou 2004 Written by a collection of eminent figures in the field, this new edition continues to look at the rational planning for port facilities

requirements (berths, storage and cargo handling equipment), organisations, management and operations with relation to planning and design of ports and marine terminals.

Naval Architecture for Marine Engineers W. Muckle 2013-10-22 Naval Architecture for Marine Engineers focuses on resistance, propulsion, and vibration aspects of ships. The book first discusses the functions, layouts, and types of ships and terms used. The text looks at classification societies and governmental authorities influential on the design, construction, and safety of ships. Lloyd's Register of Shipping; governmental authorities; and Inter-governmental Maritime Consultative Organization (IMCO) are noted. The book also highlights ship calculations, including trapezoidal rule, Simpson's rule, and other rules for calculation. The text discusses as well the buoyancy, stability, and trim. Conditions for equilibrium of body floating in still water; calculation of underwater volume; stability at large angle of inclination; and flooding and damaged stability are considered. The selection also underscores structural strength of ships. Static forces on a ship in still water; dynamic longitudinal strength problem; resistance of ship to buckling; and materials used in ships are noted. The text also looks at resistance, powering, vibration, and propulsion of ships. The book is a vital source of data for readers interested in naval architecture.