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Autore	Derrett, D. R.
Titolo	Ship stability for masters and mates [e-book] / by D. R. Derrett
Pubbl/distr/stampa	Oxford : Butterworth-Heinemann, c2006
ISBN	9780750667845 0750667842
Edizione	[6th consolidated ed., revised by C.B. Barrass]
Descrizione fisica	xiv, 534 p. : ill. ; 24 cm
Altri autori (Persone)	Barrass, Bryan
Disciplina	623.8171
Soggetti	Stability of ships Naval architecture Ships - Hydrodynamics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Forces and moments -- Centroids and the centre of gravity -- Density and specific gravity -- Laws of flotation -- Group weights, water draft, air draft and density -- Transverse statical stability -- Effect of free surface of liquids on stability -- TPC and displacement curves -- Form coefficients -- Simpson's rules for areas and centroids -- Second moments of area - moments of inertia -- Calculating KB, BM and metacentric diagrams -- Final KG plus twenty reasons for a rise in G -- Angle of list -- Moments of statical stability -- Trim or longitudinal stability -- Stability and hydrostatic curves -- Increase in draft due to list -- Water pressure -- Combined list and trim -- Calculating the effect of free surface liquids (FSE) -- Bilging and permeability -- Dynamical stability -- Effect of beam and freeboard on stability -- Effects of side winds on stability -- Icing allowances plus effects on trim and stability -- Type A, Type B, and Type (B-60) vessels plus FL and PL curves (as governed by DfT regulations) -- Load lines and freeboard marks -- Timber ship freeboard marks -- IMO grain rules for the safe carriage of grain in bulk -- Angle of loll -- True mean draft -- The inclining experiment plus fluctuations in a ship's lightweight -- The calibration book plus soundings and ullages -- Dry docking and grounding -- Liquid pressure and thrust plus centres of pressure --

Ship squat in open water and in confined channels -- Interaction, including two cases studies -- Heel due to turning -- Rolling, pitching and heavy motions -- Synchronous rolling and parametric rolling of ships -- List due to bilging side compartments -- Effect of change of density on draft and trim -- List with zero metacentric height -- The deadweight scale -- The trim and stability book -- Simplified stability information -- The stability pro-forma -- Nomenclature of ship terms -- Photographs of merchant ships -- Ships of this millennium -- Bending of beams -- Bending of ships -- Strength curves for ships -- Bending and shear stresses -- Draft surveys -- Quality control plus the work of ship purveyors -- Extracts from the 1998 Merchant Shipping (Load Line) Regulations Reference Number MSN 1752 (M) -- Keeping up to date -- Summary of stability formulae -- SQA / MCA 2004 syllabuses for masters and mates -- Specimen exam questions with marking scheme -- 100 revision one-liners -- How to pass exams in maritime studies.

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### Sommario/riassunto

Understanding ship stability is critical for all maritime students or professionals who are studying for a deck or engineering certificate of competency, or seeking promotion to a higher rank within any branch of the merchant marine or Navy. The sixth edition of the now classic 'Ship Stability' provides a comprehensive introduction to all aspects of ship stability and ship strength, squat, interaction and trim, materials stresses and forces. \* The market leading ship stability text, widely used at sea and on shore \* New content includes coverage of now-mandatory double-skin tankers and fast ferries \* Meets STCW (Standards of Training, Certification & Watchkeeping) requirements and includes self-examination material: essential reading for professionals and students alike

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