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TRANSACTIONS

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INDEX

TRANSACTIONS OF
TECHNICAL MEETINGS
AND CONFERENCES
1978—1979 SESSION

THE INSTITUTE OF MARINE ENGINEERS

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INTRODUCTION

This Index covers volume 91 of the Transactions, and the Proceedings of the conferences held in the 1978–79 session. Conference Proceedings are not issued with the annual volume of Transactions, but they are available for sale from the Institute. The three sections of the Index and instructions for use are described below.

SECTION 1. LIST OF PAPERS

This is a complete list of papers presented during the year at the Institute's Technical Meetings and Conferences. The Conferences do not form part of the annual volume of Transactions but they can be obtained from the Institute as separate publications. The entry for each paper consists of a full bibliographical description and a code number.

The code numbers are used in both the Author and Subject Indexes. Papers presented at the Technical Meetings have been given code numbers which indicate the volume number, the Technical Meeting designation, the part number, and the number of the paper.

V91	/TM	—1	(1)
Volume 91	Technical Meeting	Part 1	Paper 1

Papers presented at Conferences have been numbered in one consecutive sequence, from C1 for the first Conference papers presented in the 1978–79 session to C39 for the last paper of the session. Next year's code number sequence will commence with paper C40. The ranges of code numbers allocated to each Conference are given below.

Code Number Range	Conference Title		
C1-C14	Proceedings of the Conference on North Sea Corrosion— What Have We Learnt?		
C15-C21	Proceedings of the Conference on Effect on Ship Design and Oper- ation of the 1978 IMCO Tanker Safety and Pollution Prevention.		
C22–28	Proceedings of the Conference on Ship Dynamic Positioning and Mooring Systems: Electrical Aspects.		
C29-C39	Proceedings of the Conference on Operational Aspects of Propul- sion Shafting Systems.		

SECTION 2. AUTHOR INDEX

The Authors of the papers are listed alphabetically; the codes which follow the names refer to the List of Papers (Section 1).

To find paper written by a particular author:

(1) Turn to the Author Index.

(2) Note the code number adjacent to the name.

(3) Look for the code number in the List of Papers; this will provide the full bibliographical description and the location.

SECTION 3. SUBJECT INDEX

The contents of each paper have been summarized as a series of keywords. These have been arranged in chains. The terms included within the chains might describe a concept which requires greater explanation than a single keyword can offer, or alternatively they might show that several aspects of a concept are discussed in the paper. Chains are punctuated by the symbol "\$"; keywords are separated by the symbol ":".

For example, an entry for the paper "Some problem areas in ship safety" by G. Victory,

SAFETY: Standards: Newbuilding & Anchoring: Cargo Operations: Hull Integrity & Space Segregation.

V91/TM-9 (11)

This would indicate that the paper concerns safety standards in newbuildings, with particular reference to anchoring, cargo operations and hull integrity. The full bibliographic citation, for locating or ordering the paper, can be found in the List of Papers (Section 1), as described above.

To find paper on a given subject:

(1) Turn to the Subject Index

(2) Think of the terms which best describe the subject; as a general rule it is better to work from the broadest to the most specific.

(3) Note the code numbers.

(4) Look for the code numbers in the List of Papers; this will provide full bibliographical descriptions and the locations.

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TECHNICAL MEETINGS (TM)

V91/TM-1 (1) HENSHALL, S. H. ØRBECK, F.

The Doxford three cylinder engine.

Volume 91, Technical Meetings. Part 1, Paper 1. Pages 1-32. Doxford Engines Ltd.

SCHULZ, B. J.* V91/TM-2 (2) PEDERSÉN, A.** KEYWORTH, R. O.†

Trends in marine fuels and lubricants today and in the 1990's Volume 91, Technical Meetings. Part 2, Paper 2. Pages 33-51.

Mobil Sales and Supply Corporation.

Mobil Marine Sales Ltd.

Mobil Oil Co. Ltd.

HILEY, R. W. V91/TM-2 (3)

Corrosion of tin-base babbit bearings to form tin oxides. Volume 91, Technical Meetings. Part 2, Paper 3. Pages 52–66. National Gas Turbine Establishment, Fairmile, Cobham.

CUSDIN, D. R. V91/TM-3 (4) VIRR, M. J.

A marine fluidized bed waste heat boiler; design and operating experience.

Volume 91, Technical Meetings. Part 3, Paper 4. Pages 67-82. Shell International Marine Ltd.

THOMPSON, R. V. V91/TM-4 (5)

Applicant of emulsified fuels to diesel and boiler plant. Volume 91, Technical Meetings. Part 4, Paper 5. Pages 83-108. University of Newcastle upon Tyne.

BISHOP, R. E. D.* PRICE, W. G.* TAM, P. K.† V91/TM-5 (6)

On damping of torsional vibration in a propulsion system having a fluid drive.

Volume 91, Technical Meetings. Part 5, Paper 6. Pages 109-123.

*University College, London. † University of Hong Kong.

SHAW, T. R. V91/TM-5 (7) JEFFERIS, T.

Gas turbines in the Royal Navy.

Volume 91, Technical Meetings. Part 5, Paper 7. Pages 125-132.

RUTHERFORD, R. V91/TM-6 (8)

Insurance claims for salvage and damage, average adjusters, marine arbitrators and loss adjusters.

Volume 91, Technical Meetings. Part 6, Paper 8. Pages

Lloyd's Underwriters Claims and Recoveries Office.

WHIPPS, S. L. DOHMEL, K. F. V91/TM-7 (9)

Operational problems with machinery control systems in a large tanker fleet.

Volume 91, Technical Meetings. Part 7, Paper 9. Pages 141-158.

Shell International Marine.

V91/TM-8 (10) MALMSTRÖM, O.

Marine applications of micro-processors. Volume 91, Technical Meetings. Part 8, Paper 10, Pages 159-170.

ASEA Gothenburg.

VICTORY, G. V91/TM-9 (11)

Some problem areas in ship safety.

Volume 91, Technical Meetings. Part 9, Paper 11. Pages 171 - 186.

WINALL, A. O.* ESLEECK, S. H.** V91/TM-10 (12)

Nuclear maritime propulsion—where is it? Volume 91, Technical Meetings. Part 10, Paper 12. Pages 182-188.

Eureka Chemical Co.

** Babcock and Wilcox Ltd.

V91/TM-11 (13) HOUGHTON, D. R. GAGE, S. A.

Biology in ships.

Volume 91, Technical Meetings. Part 11, Paper 13. Pages 189-198.

H.M. Naval Base, Portsmouth.

V91/TM-12 (14) ELLS, J. W.

Pipelining in the North Sea.

Volume 91, Technical Meetings. Part 12, Paper 14. Pages 199-206

BP Trading Ltd.

V91/TM-13 (15) BLACKLOCK, W. T.

Survey and repair of marine boilers.

Volume 91, Technical Meetings. Part 13, Paper 15. Pages 207-234.

Lloyd's Register of Shipping.

CONFERENCES

CONFERENCE 1/C1-14

Proceedings of the Conference on North Sea Corrosion-What Have We Learnt? The Institute of Marine Engineers, London, 1979.

SMART, J. S.

Comments and criticisms of the NACE standard RP-01-76 for

offshore structures.

North Sea Corrosion-What Have We Learnt? Conference. Paper 1. Pages 1-9.

Amdaco International Oil Company.

McKELVIE, A. N.

Water/abrasive blasting for preparation of surfaces before painting.

North Sea Corrosion—What Have We Learnt? Conference. Paper 2. Pages 10-18.

Paint Research Association.

TIGHE, J. D.

A comparison of conventional and airless abrasive blasting techniques.

North Sea Corrosion-What Have We Learnt? Conference. Paper 3. Pages 19–23. J. D. and S. Tighe.

ODDS, D. J. H.

Big clean up in the North Sea. North Sea Corrosion-What Have We Learnt? Conference. Paper 4. Pages 24–28. F. A. Hughes & Co. Ltd.

BRITTON, C. F.

Monitoring of internal corrosion in offshore installations. North Sea Corrosion-What Have We Learnt? Conference. Paper 5. Pages 29-34.

Rohrback Instruments Ltd.

BAXTER, K. F. C6

High performance coating of the offshore industry. North Sea Corrosion-What Have We Learnt? Conference. Paper 6. Pages 35-37.

International Paints Ltd.

BAYLISS, D. and DUNKLEY, F. G.

Some aspects of offshore corrosion protection. North Sea Corrosion-What Have We Learnt? Conference. Paper 7. Pages 38–42. B. I. E. Anti-Corrosion Ltd.

C8 BAILEY, G.,* DEACON, D. H.** and KING, W. R.†
Results of offshore tests of selected coating systems.
North Sea Corrosion—What Have We Learnt? Conference. Paper 8. Pages 43-50.

Corrosion and Protection Centre Industrial Services.

B.I.E. Anti-Corrosion Ltd.
Continental Oil Company, Natural Gas Section.

EVANS, D. N.

How not to employ a painting contractor. North Sea Corrosion—What Have We Learnt? Conference. Paper 9. Pages 51-59. Modern Metal Treatment Ltd.

WINSLOW, T. D. and DUBOIS, J. F.

Epoxy powder coating.

North Sea Corrosion—What Have We Learnt? Conference. Paper 10 (1). Page 60.

Bredero Price (UK) Ltd.

C10(2) STROBEL, R. F.

Fusion bonded epoxy coatings for pipeline corrosion pro-

North Sea Corrosion-What Have We Learnt? Conference. Paper 10 (2). Pages 60-67.

3M Company.

ELIASSEN, S. and VALLAND, G.

Design rules for offshore cathodic protection systems. North Sea Corrosion-What Have We Learnt? Conference. Paper 11. Pages 68–73. Det norske Veritas.

STROMMEN, R. C12

Current and potential distribution on cathodically protected submarine pipelines.

North Sea Corrosion-What Have We Learnt? Conference. Paper 12. Pages 74-80.

The Corrosion Centre SINTEF.

C13 ARUP, H., CHRISTENSEN, C. and MØLLER, J.

Corrosion and cathodic protection in arctic water. North Sea Corrosion-What Have We Learnt? Conference. Paper 13. Pages 81-85.

Korrosionscentralen ATV, Denmark.

C14 JENSEN, F.

Testing of sacrificial anodes—necessity and experience.

North Sea Corrosion—What Have We Learnt? Conference. Paper 14. Pages 86-92. A/S Skarpenord.

CONFERENCE 2/C15-21

Proceedings of the Conference on the Effects on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention. The Institute of Marine Engineers and the Royal Institution of Naval Architects, London, 1979.

CN2/INTRO MacIVER ROBINSON, D.

Introduction to the Conference.

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Page 2. University of Glasgow.

COWLEY, J.

General review of the new regulations covering safety and pollution.

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 15. Pages 3-13.

Department of Trade.

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ATKINSON, F. H. and CRIGHTON, L. J.

Design considerations of new oil tankers.

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 16. Pages 14-37.

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Some effects of the IMCO rules for segregated ballast on

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 17. Pages 38-44.

University of Glasgow.

MARCHANT, G. A.

Views of an individual owner on the implications of the Tanker Safety and Pollution Prevention Conference.

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 18. Pages 45-50.

P & O Bulk Shipping Ltd.

BRERETON, A. F. and EVANS, W. H. C19

The effect of the new regulations on existing ships. Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 19. Pages 51-63.

Shipping Management S.A.M.

C20 WESTLAKE, M. M.

Pumping systems for product and oil tankers to reduce the risk of pollution.

Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety and Pollution Prevention Conference. Paper 20. Pages 64-73.

Frank Mohn UK Ltd.

OVENS, W.

Safety aspects of ship's steering gear. Effect on Ship Design and Operation of the 1978 IMCO Tanker Safety Conference. Paper 21. Pages 74-80. John Hastie of Greenock Ltd.

CONFERENCE 3/C22-28

Proceedings of the Conference on Ship Dynamic Positioning and Mooring Systems: Electrical Aspects. The Institute of Marine Engineers, London, 1979.

CN3/INTRO BARTON, P. H.

Opening of Conference.

Ship Dynamic Positioning Conference. Page 2. Marine Offshore Division, G.E.C.

C22 AMES, R. L.

Design considerations of electrical power systems for offshore. Ship Dynamic Positioning Conference. Paper 22. Pages 3–12. Laurence. Scott and Electromotors Ltd.

GREEN, D. R.* and HAMBLIN, A. C. J.**

Evaluation of microwave positioning systems. Ship Dynamic Positioning Conference. Paper 23. Pages 13–23. Tellurometer (U.K.) Ltd.

** Wimpey Laboratories Hydrographic Office.

VON THIENEN, K.

Computer controlled anchor positioning system for a pipelaying barge-system design and experience during pipelaying. Ship Dynamic Positioning Conference. Paper 24. Pages 24–30. A.E.G.-Telefunken.

JENSEN, H. E. D.

Personnel training simulator for anchor positioning. Ship Dynamic Positioning Conference. Paper 25. Pages 31–36. The Ship Research Institute of Norway.

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ROBINSON, J. K. and SIMPSON, J. F.

The Scott Lithgow DP Vessels.

Ship Dynamic Positioning Conference. Paper 26. Pages 37–50. Scott Lithgow Ltd.

BOND, R. C27

Dynamic positioning control systems and operational experience.

Ship Dynamic Positioning Conference. Paper 27. Pages 51-64. G.E.C. Electrical Projects Ltd.

JORDAN, K. E.

New diving support vessel for the Royal Navy. Ship Dynamic Positioning Conference. Paper 28. Pages 65-75. Procurement Executive, M.o.D.

CONFERENCE 4/C29-30

Proceedings of the Conference on Operational Aspects of Propulsion Shafting Systems. The Institute of Marine Engineers, London, 1979.

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Introduction to and Opening of Conference.

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Definition of terms and symbols used in the field of propulsion

Operational Aspects of Propulsion Shafting Conference. Page 2.

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The why and how of shaft alignment—the shipyards' approach to design and installation.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 29. Pages 3-11.

Chantiers de France-Dunkerque.

Kokums Shipyard, Sweden.

Wärsilä Turku Shipyard, Finland.

LARSEN, O. C.

Some considerations on marine shafting design.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 30. Pages 12-23. Det norske Veritas.

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Static and dynamic alignment.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 31. Pages 24-34.

C32 McCLIMONT, W. and McKINLEY, D.

Review of shafting problems.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 32. Pages 35-46.

Lloyd's Register of Shipping.

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Constraint equations for optimum shaft alignment problems. Operational Aspects of Propulsion Shafting Systems Conference. Paper 33. Pages 47-59. Maritech Incorporated.

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Propulsion shafting measurements and gearing problems in V.L.C.C.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 34. Pages 60-67.

Verholme Engineering Company B.V.

SCHWANECKE, H. C35

Hydrodynamic stiffness and damping of thrust bearings in ships.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 36. Pages 78-91.

Netherlands Ship Model Basin.

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Calculation of stern tube bearing journal eccentricity distributions: application in States Lines Ro/Ro bearing failure

Operational Aspects of Propulsion Shafting Systems. Con-

* Dept. of Naval Architecture and Marine Engineering, University of Michigan.

** States Steamship Co., San Francisco.

VOLCY, G. C. and VILLE, R.

Actual tail shaft behaviour on oil film taking account of propeller forces and moments.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 38. Pages 106-118.

Bureau Veritas Marine Department.

C39 HILL, A. and MARTIN, F. A.

Some considerations in the design and lubrication of stern tube bearings.

Operational Aspects of Propulsion Shafting Systems Conference. Paper 39. Pages 119-137.

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COATINGS: Test Results: Corrosion \$ North Sea: Offshore Structures: Maintenance \$ Offshore Tests: Laboratory Tests.

COGOG: Gas Turbines \$ Royal Navy \$ Rolls Royce Olympus: Tyne: Operational Experiences. V91/TM-5 (6)

COMBUSTION: Turbocharging: Injector Nozzles \$ Diesel Engines: Doxford: Three Cylinder \$ Piston Design: Timing Valves: Auxiliary Fans. V91/TM-1 (1)

COMMISSIONING: Drill Ships: Shipbuilding \$ Scott Lithgow Ltd \$ Dynamic Positioning. C26

COMPUTERS \$ Pipelaying : Anchor Positioning : Automatic Winch Control \$ Viking Piper. C24

CONCENTRIC AND PARALLEL FLANGE METHOD: Sloped Bushes: Gap and Sag Method & Thermal Distortion: Hull Deformation: Engine Interaction & Propulsion Shafting: Shaft Alignment: Alignment Calculations.

CONDITION MONITORING: Cargo Handling: Positioning & Micro-processors: Function Supervision & Alarm Systems: Remote Control Systems. V91/TM-8 (10)

CONSTRAINT EQUATIONS: Transfer Matrices: Equilibrium Problems & Propulsion Shafting: Shaft Alignment.

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CONTAMINATION: Material Failure: Fouling \$ Elminus Modestus: Styela Clava: Enteromorpha \$ Biology: Microbiology. V91/TM-11 (13)

CONTROL: Automation: Instrumentation \$ Very Large Crude Carriers: Unmanned Machinery Spaces: Plant Control \$ Defect Analysis: Burner Management: Maintenance.

V91/TM-7 (9)

CORROSION: Babbit Bearings: Tin-base \$ Steam Turbines: Reduction Gearboxes: Bearings \$ Lubricating Oils: Corrosive Properties: Water Content. V91/TM-2 (3)

CORROSION: Blast-cleaning: Water/Abrasive Blasting \$ North Sea: Offshore Structures: Maintenance \$ Dry Abrasive Blast-cleaning: Wet Blast-cleaning: Painting. C2

CORROSION: Cathodic Protection: Current Distribution \$ Pipelines: Submarine Pipelines \$ I. R. Drop: Finite Element Method.

CORROSION: Cathodic Protection: Det norske Veritas Rules \$ Offshore Structures \$ Current Density: Current Distribution: Anode Lifetime.

CORROSION: Cathodic Protection: North Sea & Galvanostatic Tests: Free Running Tests & Anodes: Standard Tests.

CORROSION: Coatings: Fusion Bonded Epoxy Coatings \$ Pipelines: Protection \$ Girth Weld Coating. C10/2

CORROSION: Coatings: Painting \$ North Sea: Offshore Structures: Maintenance \$ Splash Zones: Super-structure: Riser Pipes.

CORROSION : Coatings : Primers \$ North Sea : Offshore Structures : Maintenance \$ Epoxy Coatings : Chlorinated Rubber Coatings : Vinyl Coatings.

CORROSION: Coatings: Test Results \$ North Sea: Offshore Structures: Maintenance \$ Offshore Tests: Laboratory Tests.

CORROSION: Fouling \$ North Sea: Offshore Structures: Maintenance \$ Water Jets: High Pressure Water Jetting. C4

CORROSION MONITORING: Electrical Resistance: Linear Polarization Resistance \$ North Sea: Offshore Structures.

CORROSION: National Association of Corrosion Engineers: Standard RP-01-76 \$ North Sea: Offshore Structures \$ Splash Zone Corrosion Control: Coatings: Cathodic Protection.

CORROSION: Painting \$ North Sea: Offshore Structures: Maintenance.

CORROSIVE PROPERTIES: Water Content: Lubricating Oils \$ Corrosion: Babbit Bearings: Tin-base \$ Steam Turbines: Reduction Gearboxes: Bearings. V91/TM-2 (3)

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CRUDE CARRIERS: Chemical Carriers: Product Tankers \$ Segregated Ballast Tanks: Crude Oil Washing \$ Tankers: Pumping: Cargo Pumps.

CRUDE OIL WASHING: Inert Gas Systems: Segregated Ballast Tanks \$ Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978: Shipowners \$ Tankers: Very Large Crude Carriers: Product Carriers.

CRUDE OIL WASHING: Inert Gas Systems: Segregated Ballast Tanks \$ Safety: Pollution: Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978: International Conference for the Prevention of Pollution from Ships 1973: International Convention for the Safety of Life at Sea 1974.

CRUDE OIL WASHING: Pumps: Inert Gas Systems \$ Inter-Governmental Maritime Consultative Organization: International Convention for the Safety of Life at Sea 1974: International Conference for the Prevention of Pollution from Ships 1973 \$ Tankers: Very Large Crude Carriers: Design.

CRUDE OIL WASHING: Segregated Ballast Tanks: Inert Gas Systems \$ Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978 \$ Tankers: Very Large Crude Carriers: Retrofits.

CRUDE OIL WASHING: Segregated Ballast Tanks \$ Tankers: Pumping: Cargo Pumping \$ Crude Carriers: Chemical Carriers: Product Tankers.

CURRENT DENSITY: Current Distribution: Anode Lifetime \$ Corrosion: Cathodic Protection: Det norske Veritas Rules \$ Offshore Structures.

CURRENT DISTRIBUTION: Anode Lifetime: Current Density \$ Corrosion: Cathodic Protection: Det norske Veritas Rules \$ Offshore Structures.

CURRENT DISTRIBUTION: Corrosion: Cathodic Protection & Pipelines: Submarine Pipelines & I. R. Drop: Finite Element Method.

DAMAGE: Salvage \$ Average Adjusters: Arbitrators: Loss Adjusters \$ Insurance: Marine Insurance Act 1906.

V91/TM-6 (8)

DAMPING: Hydrodynamic Stiffeners \$ Propulsion Shafting: Thrust Bearings: Dynamic Bearings: Dynamic Properties \$ Vibration: Lubrication.

DAMPING: Vibration: Torsional Vibration \$ Propulsion Systems: Diesel Engines: Fluid Drives \$ Forced Frequency Calculations: Critical Speeds. V91/TM-5 (6)

DEFECT ANALYSIS: Burner Management: Maintenance \$ Instrumentation: Control: Automation \$ Very Large Crude Carriers: Unmanned Machinery Spaces: Plant Control. V91/TM-7 (9)

DEFECTS: Materials \$ Surveys: Repairs \$ Boilers. V91/TM-13 (15)

DESIGN: Tankers: Very Large Crude Carriers \$ Inert Gas Systems: Crude Oil Washing: Pumps \$ Inter-Governmental Maritime Consultative Organization: International Convention for the Safety of Life at Sea 1974: International Conference for the Prevention of Pollution from Ships 1973.

DET NORSKE VERITAS RULES : Corrosion : Cathodic Protection \$ Offshore Structures \$ Current Density : Current Distribution : Anode Lifetime.

DIESEL ENGINES: Doxford: Three Cylinder \$ Piston Design: Timing Valves: Auxiliary Fans \$ Combustion: Turbocharging: Injector Nozzles. V91/TM-1 (1)

DIESEL ENGINES: Fluid Drives: Propulsion Systems 8 Forced Frequency Calculations: Critical Speeds 8 Vibration: Torsional Vibration: Damping. V91/TM-5 (6)

DIESEL ENGINES : Gas Turbines : Boilers \$ Fuels : Emulsified Fuels : Water Content. V91/TM-4 (5)

DIESEL ENGINES: Slow Speed Diesels: Product Tankers \$ Retrofits: Waste Heat Evaporator Units \$ Fluidized Bed Combustion: Waste Heat Recovery: Boilers. V91/TM-3 (4)

DIESEL ENGINES: Thermal Unbalance: Propulsion Shafting \$ Screw Shaft Seals: Stern Tube Bearing Seals \$ Torsional Vibration.

DISTORTION: Tail Shafts: Dynamic Behaviour \$ Stern Tube Bearings \$ Oil Films.

DIVER SUPPORT VESSELS \$ Safety \$ Position Fixing : Station Keeping : Dynamic Positioning.

DOXFORD: Three Cylinder: Diesel Engines & Piston Design: Timing Valves: Auxiliary Fans & Combustion: Turbocharging: Injector Nozzles. V91/TM-1 (1)

DRAUGHT: Thrust: Thermal Distribution \$ Propulsion Shafting: Shaft Alignment: Stern Tube Bearing Loading \$ Torsional Vibration.

DRILLING RIGS: Drill Ships: Offshore Structures \$ Generators: Circuits: Bus Bars \$ Electrical Systems: Power Supply.

DRILL SHIPS: Offshore Structures: Drilling Rigs 8 Generators: Circuits: Bus Bars 8 Electrical Systems: Power Supply.

DRILL SHIPS: Shipbuilding: Commissioning \$ Scott Lithgow Ltd \$ Dynamic Positioning. C26

DRY ABRASIVE BLAST-CLEANING: Wet Blast-cleaning: Painting \$ Corrosion: Blast-cleaning: Water/Abrasive Blasting \$ North Sea: Offshore Structures: Maintenance. C2

DYNAMIC ALIGNMENT: Strain Gauge Methods: Static Alignment \$ Propulsion Shafting: Shaft Flexibility: Stern Tube Bearings \$ Hull/Machinery Interaction: Hull Deformation.

DYNAMIC BEHAVIOUR: Distortion: Tail Shafts \$ Stern Tube Bearings \$ Oil Films.

DYNAMIC POSITIONING \$ Drill Ships : Shipbuilding : Commissioning \$ Scott Lithgow Ltd. C26

DYNAMIC POSITIONING: Electrical Systems: Mooring \$ North Sea: Weather \$ Special Ships: Offshore Structures: Semi-submersibles.

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DYNAMIC POSITIONING: Position Fixing: Station Keeping & Diver Support Vessels & Safety. C27

DYNAMIC POSITIONING: Position Fixing: Station Keeping \$ Royal Navy: Support Vessels \$ Electrical Systems: Safety.

DYNAMIC PROPERTIES: Propulsion Shafting: Thrust Bearings \$ Vibration: Lubrication \$ Hydrodynamic Stiffeners: Damping.

ECCENTRICITY DISTRIBUTIONS \(\) Propulsion Shafting: Propeller Force Increments: Propeller Induced Vibration \(\) Stern Tube Bearings: Bearing Failure Analysis.

ECONOMICS § Nuclear Propulsion § Insurance : Port Entry. V91/TM-10 (12)

ELECTRICAL RESISTANCE: Linear Polarization Resistance: Corrosion Monitoring \$ North Sea: Offshore Structures.

ELECTRICAL SYSTEMS : Mooring : Dynamic Positioning : North Sea : Weather \$ Special Ships : Offshore Structures : Semi-submersibles.

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ELECTRICAL SYSTEMS: Power Supply \$ Offshore Structures: Drilling Rigs: Drill Ships \$ Generators: Circuits: Bus Bars.

ELECTRICAL SYSTEMS: Safety \$ Position Fixing: Station Keeping: Dynamic Positioning \$ Royal Navy: Support Vessels.

ELECTRIC HYDRAULIC STEERING GEAR: Hastie Hele-Shaw Pumps: Steering Gear \$ International Convention for the Safety of Life at Sea 1960: International Conference on Tanker Safety and Pollution Prevention 1978: Amoco Cadiz \$ Inter-Governmental Maritime Consultative Organization: Resolution A325 (X): Recommendations for Machinery and Electrical Installations in Passenger and Cargo Ships.

ELENI V: Christos Bitas: Amoco Cadiz \$ Safety: Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978 \$ Tankers: Very Large Crude Carriers.

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ELMINUS MODESTUS: Styela Clava: Enteromorpha \$ Biology: Microbiology \$ Fouling: Contamination: Material Failure. V91/TM-11 (13)

EMULSIFIED FUELS: Water Content: Fuels § Diesel Engines: Gas Turbines: Boilers. V91/TM-4 (5)

ENGINE INTERACTION: Thermal Distortion: Hull Deformation & Propulsion Shafting: Shaft Alignment: Alignment Calculations & Gap and Sag Method: Concentric and Parallel Flange Method: Sloped Bushes.

ENTEROMORPHA: Elminus Modestus: Styela Clava 8 Biology: Microbiology 8 Fouling: Contamination: Material Failure. V91/TM-11 (13)

EPOXY COATINGS: Chlorinated Rubber Coatings: Vinyl Coatings & Corrosion: Coatings: Primers & North Sea: Offshore Structures: Maintenance.

EPOXY POWDER COATINGS: Coatings. C10/1

EQUILIBRIUM PROBLEMS: Constraint Equations: Transfer Matrices & Propulsion Shafting: Shaft Alignment.

- FINITE ELEMENT METHOD: I. R. Drop & Corrosion: Cathodic Protection: Current Distribution & Pipelines: Submarine Pipelines.
- FLUID DRIVES: Propulsion Systems: Diesel Engines \$
 Forced Frequency Calculations: Critical Speeds \$ Vibration
 Torsional Vibration: Damping. V91/TM-5 (6)
- FORCED FREQUENCY CALCULATIONS: Critical Speeds \$ Vibration: Torsional Vibration: Damping \$ Propulsion Systems: Diesel Engines: Fluid Drives.

 V91/TM-5 (6)
- FOULING: Contamination: Material Failure \$ Elminus Modestus: Styela Clava: Enteromorpha \$ Biology: Microbiology. V91/TM-11 (13)
- FOULING: Corrosion 8 North Sea: Offshore Structures: Maintenance 8 Water Jets: High Pressure Water Jetting. C4
- FREE RUNNING TESTS: Galvanostatic Tests \$ Anodes: Standard Tests \$ North Sea: Corrosion: Cathodic Protection.

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- FUEL COMPATIBILITY: Onboard Blending: Fuel Purification & Crosshead Lubricants: Medium Speed Lubricants: Turbine Oils & Fuels: Lubricants: Trends.

 V91/TM-2 (2)
- FUEL PURIFICATION: Fuel Compatibility: Onboard Blending \$ Crosshead Lubricants: Medium Speed Lubricants: Turbine Oils \$ Fuels: Lubricants: Trends. V91/TM-2 (2)
- FUELS: Emulsified Fuels: Water Content 8 Diesel Engines: Gas Turbines: Boilers. V91/TM-4 (5)
- FUELS: Lubricants: Trends \$ Fuel Purification: Fuel Compatibility: Onboard Blending \$ Crosshead Lubricants: Medium Speed Lubricants: Turbine Oils. V91/TM-2 (2)
- FUNCTION SUPERVISION: Micro-processors \$ Alarm Systems: Remote Control Systems \$ Condition Monitoring: Cargo Handling: Positioning. V91/TM-8 (10)
- FUSION BONDED EPOXY COATINGS: Corrosion: Coatings & Pipelines: Protection & Girth Weld Coating. C10/2
- GALVANOSTATIC TESTS: Free Running Tests \$ Anodes: Standard Tests \$ North Sea: Corrosion: Cathodic Protection.
- GAP AND SAG METHOD: Concentric and Parallel Flange Method: Sloped Bushes & Thermal Distortion: Hull Deformation: Engine Interaction & Propulsion Shafting: Shaft Alignment: Alignment Calculations.
- GAS TURBINES: Boilers: Diesel Engines & Fuels: Emulsified Fuels: Water Content. V91/TM-4 (5)

- GAS TURBINES: COGOG & Royal Navy & Rolls Royce Olympus: Tyne: Operational Experiences. V91/TM-5 (7)
- GEARING: Tooth Stress: Axial Vibration \$ Propulsion Shafting: Shaft Alignment: Shaft Jacking \$ Very Large Crude Carriers: Steam Turbines.
- GENERATORS: Circuits: Bus Bars \$ Electrical Systems: Power Supply \$ Offshore Structures: Drilling Rigs: Drill Ships.
- GIRTH WELD COATING \$ Corrosion : Coatings : Fusion Bonded Epoxy Coatings \$ Pipelines : Protection. C10/2
- HASTIE HELE-SHAW PUMPS: Steering Gear: Electric Hydraulic Steering Gear \$ International Convention for the Safety of Life at Sea 1960: International Conference on Tanker Safety and Pollution Prevention 1978: Amoco Cadiz \$ Inter-Governmental Maritime Consultative Organization: Resolution A325 (X): Recommendations for Machinery and Electrical Installation in Passenger and Cargo Ships. C21
- HIGH PRESSURE WATER JETTING: Water Jets \$
 Corrosion: Fouling \$ North Sea: Offshore Structures:
 Maintenance.
- HULL DEFORMATION: Engine Interaction: Thermal Distortion \$ Propulsion Shafting: Shaft Alignment: Alignment Calculations \$ Gap and Sag Method: Concentric and Parallel Flange Method: Sloped Bushes.
- HULL DEFORMATION: Hull/Machinery Interaction 8
 Static Alignment: Dynamic Alignment: Strain Gauge
 Methods 8 Propulsion Shafting: Shaft Flexibility: Stern
 Tube Bearings. C31
- HULL INTEGRITY: Anchoring: Cargo Operations 8 Space Segregation 8 Safety: Standards: Newbuilding. V91/TM-9 (11)
- HULL/MACHINERY INTERACTION: Hull Deformation \$ Static Alignment: Dynamic Alignment: Strain Gauge Methods \$ Propulsion Shafting: Shaft Flexibility: Stern Tube Bearings.
- HYDRODYNAMICS: Non-uniform Wake Fields \$ Propellers: Wageningen B-screw Series: Vibration.
- HYDRODYNAMIC STIFFENERS: Damping \(\) Propulsion Shafting: Thrust Bearings: Dynamic Properties \(\) Vibration: Lubrication.
- INERT GAS SYSTEMS: Crude Oil Washing: Pumps \$ Inter-Governmental Maritime Consultative Organization: International Convention for the Safety of Life at Sea 1974: International Conference for the Prevention of Pollution from Ships 1973 \$ Tankers: Very Large Crude Carriers: Design.
- INERT GAS SYSTEMS: Crude Oil Washing: Segregated Ballast Tanks \$ Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978 \$ Tankers: Very Large Crude Carriers: Retrofits.

INERT GAS SYSTEMS: Segregated Ballast Tanks: Crude Oil Washing \$ Inter-Governmental Maritime Consultative Organization: International Conference on Tanker Safety and Pollution Prevention 1978: Shipowners \$ Tankers: Very Large Crude Carriers: Product Carriers.

INERT GAS SYSTEMS: Segregated Ballast Tanks: Crude Oil Washing \$ Safety: Pollution: Inter-Governmental Maritime Consultative Organization \$ International Conference on Tanker Safety and Pollution Prevention 1978: International Conference for the Prevention of Pollution from Ships 1973: International Convention for the Safety of Life at Sea 1974.

INJECTOR NOZZLES: Combustion: Turbocharging \$ Diesel Engines: Doxford: Three Cylinder \$ Piston Design: Timing Valves: Auxiliary Fans. V91/TM-1 (1)

INSTRUMENTATION: Control: Automation \$ Very Large Crude Carriers: Unmanned Machinery Spaces: Plant Control \$ Defect Analysis: Burner Management: Maintenance. V91/TM-7 (9)

INSURANCE: Marine Insurance Act 1906 § Salvage: Damage § Average Adjusters: Arbitrators: Loss Adjusters. V91/TM-6 (8)

INSURANCE: Port Entry \$ Economics \$ Nuclear Propulsion. V91/TM-10 (12)

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: International Conference for the Prevention of Pollution from Ships 1973 & Segregated Ballast Tanks: Stress Levels: Wind Loading & Tankers: Very Large Crude Carriers.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: International Conference on Tanker Safety and Pollution Prevention 1978: Safety \$ Tankers: Very Large Crude Carriers \$ Amoco Cadiz: Eleni V: Christos Bitas.

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INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: International Conference on Tanker Safety and Pollution Prevention 1978: Shipowners \$ Tankers: Very Large Crude Carriers: Product Carriers \$ Segregated Ballast Tanks: Crude Oil Washing: Inert Gas Systems.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: International Conference on Tanker Safety and Pollution Prevention 1978 \$ Tankers: Very Large Crude Carriers: Retrofits \$ Segregated Ballast Tanks: Inert Gas Systems: Crude Oil Washing.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: International Convention for the Safety of Life at Sea 1974: International Conference for the Prevention of Pollution from Ships 1973 \$ Tankers: Very Large Crude Carriers: Design \$ Inert Gas Systems: Crude Oil Washing: Pumps.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: Pollution \$ International Conference on Tanker Safety and Pollution Prevention 1978: International Conference for the Prevention of Pollution from Ships 1973: International Convention for the Safety of Life at Sea 1974 \$ Inert Gas Systems: Segregated Ballast Tanks: Crude Oil Washing.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION: Resolution A325 (X): Recommendations for Machinery and Electrical Installations in Passenger and Cargo Ships \$ Steering Gear: Electric Hydraulic Steering Gear: Hastie Hele-Shaw Pumps \$ International Convention for the Safety of Life at Sea 1960: International Conference on Tanker Safety and Pollution Prevention 1978: Amoco Cadiz.

INTERNATIONAL CONFERENCE FOR THE PRE-VENTION OF POLLUTION FROM SHIPS 1973: Inter-Governmental Maritime Consultative Organization: International Convention for the Safety of Life at Sea 1974 \$ Tankers: Very Large Crude Carriers: Design \$ Inert Gas Systems: Crude Oil Washing: Pumps.

INTERNATIONAL CONFERENCE FOR THE PRE-VENTION OF POLLUTION FROM SHIPS 1973: Inter-Governmental Maritime Consultative Organization \$ Segregated Ballast Tanks: Stress Levels: Wind Loading \$ Tankers : Very Large Crude Carriers.

INTERNATIONAL CONFERENCE FOR THE PRE-VENTION OF POLLUTION FROM SHIPS 1973: International Convention for the Safety of Life at Sea 1974: International Conference on Tanker Safety and Pollution Prevention 1978 \$ Inert Gas Systems: Segregated Ballast Tanks: Crude Oil Washing \$ Safety: Pollution: Inter-Governmental Maritime Consultative Organization. C15

INTERNATIONAL CONFERENCE ON TANKER SAFETY AND POLLUTION PREVENTION 1978: Amoco Cadiz: International Convention for the Safety of Life at Sea 1960 8 Inter-Governmental Maritime Consultative Organization: Resolution A325 (X): Recommendations for Machinery and Electrical Installations in Passenger and Cargo Ships 8 Steering Gear: Electric Hydraulic Steering Gear: Hastie Hele-Shaw Pumps.

INTERNATIONAL CONFERENCE ON TANKER SAFETY AND POLLUTION PREVENTION 1978: Inter-Governmental Maritime Consultative Organization \$ Tankers: Very Large Crude Carriers: Retrofits \$ Segregated Ballast Tanks: Inert Gas Systems: Crude Oil Washing.

INTERNATIONAL CONFERENCE ON TANKER SAFETY AND POLLUTION PREVENTION 1978: International Conference for the Prevention of Pollution from Ships 1973: International Convention for the Safety of Life at Sea 1974 8 Inert Gas Systems: Segregated Ballast Tanks: Crude Oil Washing \$ Safety: Pollution: Inter-Governmental Maritime Consultative Organization.

INTERNATIONAL CONFERENCE ON TANKER SAFETY AND POLLUTION PREVENTION 1978: Safety: Inter-Governmental Maritime Consultative Organization \$ Tankers: Very Large Crude Carriers \$ Amoco Cadiz: Eleni V: Christos Bitas.

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INTERNATIONAL CONFERENCE ON TANKER SAFETY AND POLLUTION PREVENTION 1978: Shipowners: Inter-Governmental Maritime Consultative Organization 8 Tankers: Very Large Crude Carriers: Product Carriers 8 Segregated Ballast Tanks: Crude Oil Washing: Inert Gas Systems.

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA 1974: International Conference for Prevention of Pollution from Ships 1973: Inter-Governmental Maritime Consultative Organization & Tankers: Very Large Crude Carriers: Design & Inert Gas Systems: Crude Oil Washing: Pumps.

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA 1960: International Conference on Tanker Safety and Pollution Prevention 1978: Amoco Cadiz 8 Inter-Governmental Maritime Consultative Organization: Resolution A325 (X): Recommendations for Machinery and Electrical Installations in Passenger and Cargo Ships 8 Steering Gear: Electric Hydraulic Steering Gear: Hastie Hele-Shaw Pumps.

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA 1974: International Conference on Tanker Safety and Pollution Prevention 1978: International Conference for the Prevention of Pollution from Ships 1973 8 Inert Gas Systems: Segregated Ballast Tanks: Crude Oil Washing \$ Safety: Pollution: Inter-Governmental Maritime Consultative Organization.

I. R. DROP: Finite Element Method \$ Corrosion: Cathodic Protection: Current Distribution \$ Pipelines: Submarine Pipelines.

LABORATORY TESTS: Offshore Tests 8 Corrosion: Coatings: Test Results 8 North Sea: Offshore Structures: Maintenance.

LAY BARGES: Anchor Handling: Pipelaying & Pipelines & Offshore: North Sea. V91/TM-12 (14)

LINEAR POLARIZATION RESISTANCE: Corrosion Monitoring: Electrical Resistance & North Sea: Offshore Structures.

LOSS ADJUSTERS: Average Adjusters: Arbitrators \$ Insurance: Marine Insurance Act 1906 \$ Salvage: Damage. V91/TM-6 (8)

LUBRICATION: Vibration \$ Hydrodynamic Stiffeners: Damping \$ Propulsion Shafting: Thrust Bearings: Dynamic Properties.

LUBRICANTS: Trends: Fuels & Fuel Purification: Fuel Compatibility: Onboard Blending & Crosshead Lubricant: Medium Speed Lubricants: Turbine Oils. V91/TM-2 (2)

LUBRICATING OILS: Corrosive properties: Water content \$ Corrosion: Babbit bearings: Tin-base \$ Steam turbines: Reduction Gearboxes: Bearings. V91/TM-2 (3)

MAINTENANCE: Defect Analysis: Burner Management 8
Instrumentation: Control: Automation 8 Very Large Crude
Carriers: Unmanned Machinery Spaces: Plant Control.

V91/TM-7 (9)

MAINTENANCE: North Sea: Offshore Structures & Corrosion: Painting.

MAINTENANCE: North Sea: Offshore Structures \$ Dry Abrasive Blast-cleaning: Wet Blast-cleaning: Painting \$ Corrosion: Blast-cleaning: Water Abrasive Blasting.

MAINTENANCE: North Sea: Offshore Structures \$
Epoxy Coatings: Chlorinated Rubber Coatings: Vinyl
Coatings \$ Corrosion: Coatings: Primers.

MAINTENANCE: North Sea: Offshore Structures 8
Offshore Tests: Laboratory Tests 8 Corrosion: Coatings:
Test Results. C8

MAINTENANCE: North Sea: Offshore Structures 8
Splash Zones: Super-structure: Riser Pipes 8 Corrosion:
Coatings: Painting.

MAINTENANCE: North Sea: Offshore Structures \$ Water Jets: High Pressure Water Jetting \$ Corrosion: Fouling. C4

MARINE INSURANCE ACT 1906: Insurance § Salvage: Damage § Average Adjusters: Arbitrators: Loss Adjusters. V91/TM-6 (8)

MATERIAL FAILURE: Fouling: Contamination & Elminus Modestus: Styela Clava: Enteromorpha & Biology: Microbiology. V91/TM-11 (13)

MATERIALS: Defects & Surveys: Repairs & Boilers. V91/TM-13 (15)

MEDIUM SPEED LUBRICANTS: Turbine Oils: Crosshead Lubricants & Fuels: Lubricants: Trends & Fuel Purification: Fuel Compatibility: Onboard Blending.

V91/TM-2 (2)

MICROBIOLOGY: Biology & Fouling: Contamination: Material Failure & Elminus Modestus: Styela Clava: Enteromorpha. V91/TM-11 (13)

MICRO-PROCESSORS: Function Suspension \$ Alarm Systems: Remote Control Systems \$ Condition Monitoring: Cargo Handling: Positioning. V91/TM-8 (10)

MICROWAVE SYSTEMS: Radio Positioning Systems: Short Range Systems \$ Navigation: Position Fixing \$ Satellite Navigation.

MOORING: Dynamic Positioning: Electrical Systems \$
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Semi-submersibles. CN3/INTRO

NATIONAL ASSOCIATION OF CORROSION ENGIN-EERS: Standard RP-01-76: Corrosion & North Sea: Offshore Structures & Splash Zone Corrosion Control: Coatings: Cathodic Protection.

NAVIGATION: Position Fixing § Satellite Navigation § Radar Positioning Systems: Short Range Systems: Microwave Systems.

NEWBUILDING: Safety: Standards & Anchoring: Cargo Operations: Hull Integrity & Space Segregation.

V91/TM-9 (11)

NON-UNIFORM WAKE FIELDS: Hydrodynamics \$ Propellers: Wageningen B-screw Series: Vibration. C36

NORTH SEA: Corrosion: Cathodic Protection & Galvanostatic Tests: Free Running Tests & Anodes: Standard Tests.

NORTH SEA: Offshore \$ Pipelaying: Lay Barges: Anchor Handling \$ Pipelines. V91/TM-12 (14)

NORTH SEA: Offshore Structures \$ Automation: Autoblast \$ Blast-cleaning: Air/Abrasive Blasting: Airless/Abrasive Blasting.

- NORTH SEA: Offshore Structures \$ Corrosion Monitoring: Electrical Resistance: Linear Polarization Resistance. C5
- NORTH SEA: Offshore Structures: Maintenance & Corrosion: Paintings.
- NORTH SEA: Offshore Structures: Maintenance \$ Dry Abrasive Blast-cleaning: Wet Blast-cleaning: Painting \$ Corrosion: Blast-cleaning: Water/Abrasive Blasting. C2
- NORTH SEA: Offshore Structures: Maintenance \$ Epoxy Coatings: Chlorinated Rubber Coatings: Vinyl Coatings \$ Corrosion: Coatings: Primers.
- NORTH SEA: Offshore Structures: Maintenance & Offshore Tests: Laboratory Tests & Corrosion: Coatings: Test Results.
- NORTH SEA: Offshore Structures: Maintenance \$ Splash Zones: Super-structure: Riser Pipes \$ Corrosion: Coatings: Painting.
- NORTH SEA: Offshore Structures: Maintenance \$ Water Jets: High Pressure Water Jetting \$ Corrosion: Fouling. C4
- NORTH SEA: Offshore Structures \$ Splash Zone Corrosion Control: Coatings: Cathodic Protection \$ Corrosion: National Association of Corrosion Engineers: Standard RP-01-76.
- NORTH SEA: Weather \$ Special Ships: Offshore Structures: Semi-submersibles \$ Mooring: Dynamic Positioning: Electrical Systems. CN3/INTRO
- NUCLEAR PROPULSION § Insurance : Port Entry § Economics. V91/TM-10 (12)
- OFFSHORE: North Sea \$ Pipelaying: Lay Barges: Anchor Handling \$ Pipelines. V91/TM-12 (14)
- OFFSHORE STRUCTURES \$ Current Density : Current Distribution : Anode Lifetime \$ Corrosion \$ Cathodic Protection : Det norske Veritas Rules.
- OFFSHORE STRUCTURES: Drilling Rigs: Drill Ships 8 Generators: Circuits: Bus Bars \$ Electrical Systems: Power Supply.
- OFFSHORE STRUCTURES: Maintenance: North Sea 8 Corrosion: Painting.
- OFFSHORE STRUCTURES: Maintenance: North Sea 8
 Dry Abrasive Blast-cleaning: Wet Blast-cleaning: Painting
 8 Corrosion: Blast-cleaning: Water/Abrasive Blasting. C2
- OFFSHORE STRUCTURES: Maintenance: North Sea 8
 Epoxy Coatings: Chlorinated Rubber Coatings: Vinyl
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- OFFSHORE STRUCTURES: Maintenance: North Sea \$
 Offshore Tests: Laboratory Tests \$ Corrosion: Coatings:
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- OFFSHORE STRUCTURES: Maintenance: North Sea 8 Splash Zones: Super-structure: Riser Pipes 8 Corrosion: Coatings: Painting.

- OFFSHORE STRUCTURES: Maintenance: North Sea 8 Water Jets: High Pressure Water Jetting 8 Corrosion: Fouling.
- OFFSHORE STRUCTURES: North Sea \$ Automation: Autoblast \$ Blast-cleaning: Air/Abrasive Blasting: Airless Abrasive Blasting.
- OFFSHORE STRUCTURES: North Sea \$ Corrosion Monitoring: Electrical Resistance: Linear Polarization Resistance.
- OFFSHORE STRUCTURE: North Sea \$ Splash Zone Corrosion Control: Coatings: Cathodic Protection \$ Corrosion: National Association of Corrosion Engineers: Standard RP-01-76.
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STERN TUBE BEARINGS: Propulsion Shafting: Shaft Flexibility \$ Hull/Machinery Interaction: Hull Deformation \$ Static Alignment: Dynamic Alignment: Strain Gauge Methods.

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VERY LARGE CRUDE CARRIERS: Retrofits: Tankers \$
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Washing \$ Inter-Governmental Maritime Consultative
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