

THE INSTITUTE OF MARINE ENGINEERS

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TRANSACTIONS

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INDEX

TRANSACTIONS OF
TECHNICAL MEETINGS
AND CONFERENCES
1980-1981 SESSION

THE INSTITUTE OF MARINE ENGINEERS

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INTRODUCTION

This Index covers volume 93 of the Transactions, and the Proceedings of the conferences held in the 1980-81 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. An asterisk after the code numbers indicates a President's Address.

V93	/TM	—1	(1)
Volume 93	Technical Meeting	Part 1	Paper 1

Papers presented at Conferences have been numbered in one consecutive sequence, from C69 for the first Conference paper presented in the 1980-81 session to C82 for the last paper of the session. Next year's code number sequence will commence with paper C83. The ranges of code numbers allocated to each Conference are given below.

Code Number Range	Conference Title
C69-C77	Proceedings of the Conference on Organic Fluids for Waste Heat Recovery in Ships and Industry
C78-C82	Proceedings of the Symposium on Future Alternatives for Marine Propulsion

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 'Construction and sea trials of HMS *Brecon*: the glass-reinforced plastic mine counter-measures vessel', by G. R. Gibson, reads:

CONSTRUCTION : Glass-reinforced Plastics \$ Mine Counter-measures Vessels : Hunt Class : HMS *Brecon* \$ Sea Trials **TM7**

This would indicate that the paper concerns the *Hunt* Class glass-reinforced plastic mine counter-measures vessel HMS *Brecon*, with particular reference to the construction and sea trials of the vessel. 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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The Institute—Past, Present and Future.
Vol. 93 (TM), Paper 1.
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Epicyclic gearboxes for high-speed craft.
Vol. 93 (TM), Paper 2.
R. J. Hicks (Transmissions) Ltd.
- V93/TM-3** **BARKER, W. D. J.**
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Crude oil washing: implementation and operating procedures.
Vol. 93 (TM), Paper 3.
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- V93/TM-4** **HÄFNER, R.**
Electronically controlled injection in diesel engines.
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MAN, Augsburg.
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Notes on ship thrusters.
Vol. 93 (TM), Paper 6.
*KaMeWa AB.
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Medium-speed diesel engines: total energy calculations and life cycle costing.
Vol. 93 (TM), Paper 8.
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- V93/TM-9** **THOMAS, R. F.**
Development of marine fuel standards.
Vol. 93 (TM), Paper 9.
British Standards Marine Fuel Standards Sub-committee.
- V93/TM-10** **COOPER, M. D.***
 HOLNESS, M. H.**
 McNEILL, D.***
A review of marine gearbox explosions.
Vol. 93 (TM), Paper 10.
*Ministry of Defence (PE).
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- V93/TM-11** **NICHOLSON, D. K.**
The *Kootenay* gearbox explosion.
Vol. 93 (TM), Paper 11.
Department of National Defence, Canada.
- V93/TM-12** **ROOMES, T. C.***
 FUJII, T.**
Steam/diesel conversion of ore/oil carrier.
Vol. 93 (TM), Paper 12.
*Vlasov Group.
**Mitsubishi Heavy Industries.

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Proceedings of the Conference on Organic Fluids for Waste Heat Recovery in Ships and Industry. The Institute of Marine Engineers, London, 1981.
- C69** **MORTON, A. J.**
Thermodynamics of waste heat recovery in motor ships.
Conference on Organic Fluids for Waste Heat Recovery in Ships and Industry.
Paper C69, pp. 1-7
University of Manchester.
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The choice of working fluids for power recovery from waste heat streams.
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Paper C70, pp. 8-18.
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An improved dual-pressure bottoming cycle for waste heat recovery.
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- C76** **OWEN, J. R.**
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Paper C76, pp. 51-60.
Shell International Marine Ltd.

C77 **BRONICKI, L. Y.**
Energy recovery from waste heat by organic Rankine cycle turbo-generators.
Conference on Organic Fluids for Waste Heat Recovery in Ships and Industry.
Paper C77, pp. 61-65.
Ormat Turbines Ltd.

Conference 10/C78-C82

Proceedings of the Symposium on Future Alternatives for Marine Propulsion. The Institute of Marine Engineers, London, 1981.

C78 **GORBET, F. W.**
The future pattern of world fuel supplies.
Symposium on Future Alternatives for Marine Propulsion.
Paper C78, pp. 1-5.
International Energy Agency.

C79 **LAKE, V. M.**
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Paper C79, pp. 7-11.
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C80 **VINCENT, M. R.**
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C82 **THOMAS, K. G.***
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- SEA TRIALS** \$ Construction : Glass-reinforced Plastics \$ Mine Counter-measures Vessels : *Hunt* Class : HMS *Brecon* **TM7**
- SELECTION** : Organic Fluids \$ Waste Heat Recovery : Organic Rankine Cycles \$ Thermal Stability : Flammability : Toxicity **C76**
- SELECTION** : Working Fluids \$ Waste Heat Recovery : Organic Fluids : Water \$ Fluid Properties : Fluid Stability : Temperature Classification **C70**
- SEMT PIELSTICK PC4** : Diesel Engines \$ Energy Costs : Life Cycle Costs : Total Energy Calculations \$ Fuel Saving : Optimum Speeds : Part Load Running **TM8**
- STEAM CYCLES** : Immiscible Liquid Cycles \$ Waste Heat Recovery : Dual Pressure Bottoming Cycles \$ Gas Turbines : Combined Cycles **C72**
- STEAM CYCLES** : Organic Cycles \$ Thermodynamics : Heat Exchangers \$ Diesel Engines : Waste Heat Recovery **C69**
- STEAM TURBINES** : Gas Turbine Combined Cycles : Diesel Engines \$ Fuels : Future Trends \$ Propulsion Systems : Future Trends **C82**
- STEAM-DIESEL CONVERSIONS** : Re-engining \$ Propulsion Systems : Economics \$ Ore-Oil Carriers : *Alva Sea* **TM12**
- STERN BEARINGS** : Propeller Bosses \$ Machinery : Failures \$ Diesel Engines : Gears **TM5**

SUPERCRITICAL FLUIDS : Organic Fluids \$ Automated Tests : Buoyancy Tests \$ Thermal Stability : Thermal Decomposition : Heat Transfer Coefficients **C71**

SUPERCRITICAL ORGANIC FLUIDS : Organic Fluids \$ Turbine Design : Feed Pump Design \$ Waste Heat Recovery : Combined Cycles **C74**

TANK WASHING : Crude Oil Washing : Load On Top \$ Pollution Prevention : IMCO : ICTSPP 1978 \$ VLCC **TM3**

TEMPERATURE CLASSIFICATION : Fluid Properties : Fluid Stability \$ Working Fluids : Selection \$ Waste Heat Recovery : Organic Fluids : Water **C70**

THE INSTITUTE OF MARINE ENGINEERS : History \$ Overseas Branches : Guild of Benevolence \$ Publications : Information Services **TM1**

THERMAL DECOMPOSITION : Heat Transfer Coefficients : Thermal Stability \$ Organic Fluids : Supercritical Fluids \$ Automated Tests : Buoyancy Tests **C71**

THERMAL STABILITY : Flammability : Toxicity \$ Organic Fluids : Selection \$ Waste Heat Recovery : Organic Rankine Cycles **C76**

THERMAL STABILITY : Thermal Decomposition : Heat Transfer Coefficients \$ Organic Fluids : Supercritical Fluids \$ Automated Tests : Buoyancy Tests **C71**

THERMODYNAMICS : Heat Exchangers \$ Diesel Engines : Waste Heat Recovery \$ Steam Cycles : Organic Cycles **C69**

THRUSTERS : Lateral Thrusters : Rotatable Thrusters \$ Model Tests \$ Hydrodynamics : Bendemann Merit Coefficients **TM6**

TIGER SYSTEMS : Waste Heat Recovery \$ Electricity Generation \$ Organic Fluid Boilers : Vapour Turbines : Induction Generators **C75**

TOTAL ENERGY CALCULATIONS : Energy Costs : Life Cycle Costs \$ Fuel Saving : Optimum Speeds : Part Load Running \$ Diesel Engines : SEMT Pielstick PC4 **TM8**

TOXICITY : Thermal Stability : Flammability \$ Organic Fluids : Selection \$ Waste Heat Recovery : Organic Rankine Cycles **C76**

TRACER GAS TESTS : Model Tests : Full-scale Tests \$ British Standards : BS799 Part 4 \$ Boilers : Purging Failures **TM13**

TURBINE DESIGN : Feed Pump Design \$ Waste Heat Recovery : Combined Cycles \$ Organic Fluids : Supercritical Organic Fluids **C74**

TURBOGENERATORS : Ormat Energy Converters \$ Waste Heat Recovery \$ Organic Rankine Cycles **C77**

VLCC \$ Load On Top : Tank Washing : Crude Oil Washing \$ Pollution Prevention : IMCO : ICTSPP 1978 **TM3**

VAPOUR TURBINES : Induction Generators : Organic Fluid Boilers \$ Waste Heat Recovery : TIGER Systems \$ Electricity Generation **C75**

VARIABLE-RATIO GEARS : Fixed-ratio Gears \$ Gears : Epicyclic \$ High-speed Craft : Hovercraft **TM2**

WASTE HEAT RECOVERY \$ Organic Rankine Cycles \$ Ormat Energy Converters : Turbogenerators **C77**

WASTE HEAT RECOVERY : Combined Cycles \$ Organic Fluids : Supercritical Organic Fluids \$ Turbine Design : Feed Pump Design **C74**

WASTE HEAT RECOVERY : Diesel Engines \$ Steam Cycles : Organic Cycles \$ Thermodynamics : Heat Exchangers **C69**

WASTE HEAT RECOVERY : Dual Pressure Bottoming Cycles \$ Gas Turbines : Combined Cycles \$ Steam Cycles : Immiscible Liquid Cycles **C72**

WASTE HEAT RECOVERY : Heat Exchanger Design \$ Organic Fluid Power Plants : Gaseous Heat Sources \$ Boilers : Regenerators : Desuperheater Condensers **C73**

WASTE HEAT RECOVERY : Organic Fluids : Water \$ Fluid Properties : Fluid Stability : Temperature Classification \$ Working Fluids : Selection **C70**

WASTE HEAT RECOVERY : Organic Rankine Cycles \$ Thermal Stability : Flammability : Toxicity \$ Organic Fluids : Selection **C76**

WASTE HEAT RECOVERY : TIGER Systems \$ Electricity Generation \$ Organic Fluid Boilers : Vapour Turbines : Induction Generators **C75**

WATER : Waste Heat Recovery : Organic Fluids \$ Fluid Properties : Fluid Stability : Temperature Classification \$ Working Fluids : Selection **C70**

WORKING FLUIDS : Selection \$ Waste Heat Recovery : Organic Fluids : Water \$ Fluid Properties : Fluid Stability : Temperature Classification **C70**