

CONTENTS

- Paper 1** Maritime engineering and the microprocessor
B. Hildrew
- Paper 2** Review of dynamic positioning and diving in the North Sea
J. J. S. Daniel
- Paper 3** The safety auditing of DP vessels
S. W. Barber
- Paper 4** Operational experience with dynamically positioned diving support vessels
R. I. Harper
- Paper 5** Dynamic positioning vessels and diving safety
W. Thorniley
Discussions on Papers 2 - 5 (A. N. S. Burnett, Captain C. A. Jenman, R. J. Page, D. W. Robinson, C. J. Parker, I. Turner, J. Simpson) and authors' replies.
- Paper 6** Design considerations for electric propulsion of specialist offshore vessels
S. K. Taylor and J. S. Williams
Discussion (N. V. Almy, K. Brownlie, J. H. Davidson) and authors' reply.
- Paper 7** Economic design of cooling water, fuel and electrical power generation systems for motorships
G. Grossmann
Discussion (J. K. Robinson, J. R. Williams, J. C. Hatchman) and author's reply.
- Paper 8** Risks of crankcase explosions in oil engines and dual-fuel engines
G. P. Smedley
Discussion (A. B. Keighley, P. R. Belcher, T. A. Bradshaw, B. J. Smith, J. Crawford, G. S. Smith, P. A. Frank, P. Sheath, R. T. Moran, R. G. A. Thompson, C. F. Daugas, B. Bech).
- Paper 9** Some marine machinery failures and their causes
R. F. Munro and P. E. Haynes
Discussion (P. J. Hambling, J. L. Buxton, T. W. Bunyan, J. Crawford, G. Victory, J. K. Robinson, J. L. Snowdon, R. Apraiz, T. L. Palmer) and authors' reply.
- Paper 10** The application of emulsified fuels in diesel engine designs: Experimental results and theoretical predictions
R. V. Thompson and P. S. Katsoulakos
Discussion (F. Ørbeck, R. Ives, R. P. Holbrook, D. B. Stables, N.G. Luard, D. Honour, D. McSorland) and authors' reply.
- Paper 11** Soft starting of induction motors for marine and offshore applications
A. H. Kulasinghe and R. Simpson
Discussion (J. K. Robinson, M. R. Greenhalgh, A. N. Claridge, W. Rutherford, H. O. Stevens) and authors' reply.
- Paper 12** Underwater hull surface painting strategy — A shipowner's conclusions
M. Perry
Discussion (W. H. Hansen, D. B. Foy, R. M. Morgan, D. Byrne, M. G. Osborne) and author's reply.
- Paper 13** The use of heavy fuels in diesel engines of marine auxiliary sizes
W. Lowe
- Paper 14** Aspects of the single fuel ship
P. C. Nissen
- Paper 15** Service experience with Sulzer A-type engines on heavy fuel oils
B. Eckert
Discussion on Papers 13 -15 (F. C. Bown, S. G. Dexter, R. M. Hobson) and authors' replies.

- Paper 16** **Electromagnetic compatibility in ships**
F. J. Derham and G. A. Jackson
Discussion (J. K. Robinson, R. Doherty, G. E. Woodliff, D. St J. Seigne) and authors' reply.
- Paper 17** **An introduction to the use of model simulation in system design**
A. M. Dorrian
- Paper 18** **Optimum control of marine propulsion units**
J. B. D. Rush and D. R. Broome
- Paper 19** **A machinery space simulator based on a microprocessor**
R. Beams, J. Francis and S. Stallwood
Discussion on Papers 17 - 19 (T. C. Morrison, D. S. Knight, J. L. Grostick, A. G. Wood, C. T. Marwood, J. K. Robinson, A. Hill) and authors' replies.
- Paper 20** **Multicore undersea pipeline technology**
R. J. Brown and A. C. Palmer
Discussion (Dr J. Cowley, C. F. Smith, M. Robertson) and authors' reply.
- Paper 21** **Nautical medicine and health care on board ships**
W. H. G. Goethe
Discussion (Surgeon Captain E. P. Beck, R. G. Boddie, J. W. Bowden, Professor R. I. McCullum, Dr J. Cowley, Dr D. Dean, R. M. Duggan, J. Kinahan, J. McNaught, Dr J. E. Morris, Dr B. Nolan, Dr P. Shipley, Surgeon Commander T. A. Turnball, Surgeon Vice-Admiral Sir James Watt) and author's reply.
- Paper 22** **Practical experiences of ALCAP: a separation system for heavy fuel oil**
S. Eriksson
Discussion (D. Honour, R. Scotwick, Commander E. Tyrell, Dr J. Cowley, D. A. Sivell) and author's reply.
- Paper 23** **Compact coal-fired power plant for marine application**
J. E. E. Sharpe
Discussion (Commander K. I. Short, P. Holbrook, A. F. Hodgkin, Professor R. O. Goss, Dr M. Garratt, A. M. Dyson, D. M. Willis, Dr A. Moulton) and author's reply.
- Paper 24** **New materials for the marine and offshore industry**
J. F. G. Condé
Discussion (V. A. Callcut, T. J. Glover, B. Todd, H. Capper, J. L. Clarke) and autho's reply.
- Paper 25** **Design of marine diesel engine crankshafts: comparison of measured and calculated stresses using the proposed CIMAC rules**
G. Donath and H. Seidemann
Discussion (B. Law, G. C. Volcy, R.B. Siggers, A. H. Syed, R. H. Crowther, I. J. Bickley, G.S. Mole, C. Gray, S. Archer, C. Archer) and authors' reply.

Index to Transactions