

# THE INSTITUTE OF MARINE ENGINEERS

FOUNDED 1889

INCORPORATED BY ROYAL CHARTER 1933

PATRON: HER MAJESTY THE QUEEN

## TRANSACTIONS



Volume 81, 1969



CONTENTS

	PAGE	MONTH
"Design and Commissioning of Steam Turbine Installations" by J. F. Preston, C.Eng., M.I.Mech.E. (Associate Member) ... ..	1	January
Discussion ... ..	11	
Author's Reply ... ..	17	
Marine Engineering and Shipbuilding Abstracts ... ..	20	
"Bridge Control of Marine Steam Turbine Plant, An Analytical Approach" by Ir. A. C. H. Borsboom, Ir. A. G. Hop, K. W. Bretveld and F. W. van Deelen ... ..	33	February
Discussion ... ..	45	
"Design and Commissioning of Steam Turbine Installations" by J. F. Preston, C.Eng., M.I.Mech.E. (Associate Member):		
Further Correspondence ... ..	51	
Author's Reply ... ..	53	
Marine Engineering and Shipbuilding Abstracts ... ..	55	
"Bulk Carriage of Chemical Cargoes in Ships" by R. C. McMahan and W. G. Neal, Jr.	65	March
Discussion ... ..	74	
Author's Replies ... ..	78	
"Bridge Control of Marine Steam Turbine Plant, An Analytical Approach" by Ir. A. C. G. Borsboom, Ir. A. G. Hop, K. W. Bretveld and F. W. van Deelen—Author's Reply ... ..	80	
Marine Engineering and Shipbuilding Abstracts ... ..	83	
"Balancing of Large Turbine Rotors" by L. S. Moore ... ..	105	April
Discussion ... ..	112	
Author's Reply ... ..	114	
Marine Engineering and Shipbuilding Abstracts ... ..	116	
"Steam Turbine Machinery" by Professor I. K. E. Jung, C.Eng. (Member) ... ..	137	May
Discussion ... ..	151	
Author's Reply ... ..	159	
Marine Engineering and Shipbuilding Abstracts ... ..	162	
"Gotaverken Turbo-Charged Crosshead Diesel Engines" by L. G. Thulin and G. Dahlbring ... ..	185	June
Discussion ... ..	197	
Author's Reply ... ..	202	
Marine Engineering and Shipbuilding Abstracts ... ..	205	

	PAGE	MONTH
"Marine Applications of Stirling Cycle Refrigerators" by Ir. R. E. Meulenberg and T. W. D. Abell, C.Eng. (Member of Council) ... ..	225	July
Discussion ... ..	237	
Author's Reply ... ..	243	
Annual Dinner Report ... ..	249	
Marine Engineering and Shipbuilding Abstracts ... ..	254	
"Some Considerations by a Shipowner on the Selection of Main Propulsion Machinery for Cargo Ships" by Ir. J. Fasse, C.Eng., M.I.Mar.E. ... ..	273	August
Branch Annual Reports ... ..	282	
Branch Annual General Meetings ... ..	284	
Representative's Report ... ..	293	
Marine Engineering and Shipbuilding Abstracts ... ..	294	
"Drydocking and Repairs" by A. T. I. Andersson ... ..	305	September
"Marine Automation—Present and Future" by D. Gray, B.Sc., C.Eng., M.I.Mar.E. ...	309	
"Gotaverken Turbo-Charged Crosshead Diesel Engines" by L. G. Thulin and G. Dahlbring:		
Further Correspondence ... ..	316	
Author's Reply ... ..	319	
Marine Engineering and Shipbuilding Abstracts ... ..	322	
"The Development of Systems for Exploiting Distant-water Fisheries" by Dr. D. Bogucki and G. C. Eddie, B.Sc., C.Eng., M.I.Mar.E. ... ..	341	October
Marine Engineering and Shipbuilding Abstracts ... ..	353	
"Ancillary Shipboard Services" by Captain J. A. Smith, D.S.C., V.R.D., B.Sc., R.N.R., C.Eng., M.I.Mar.E. ... ..	373	November
"Ocean Engineering" by G. E. R. Deacon, C.B.E., D.Sc., F.R.S. ... ..	381	
Presidential Address of Frederic Bernard Bolton, M.C. ... ..	384	
Marine Engineering and Shipbuilding Abstracts ... ..	388	
"The Impact of Changes in Cargo Handling Techniques on Company Organization" by J. D. M. Hearsh ... ..	405	December
"Marine Safety" by H. N. E. Whiteside ... ..	409	
Marine Engineering and Shipbuilding Abstracts ... ..	412	
Indexes 1969 ... ..	433	
Eightieth Annual Report of the Council ... ..	A1	April
Annual Reports of the Branches ... ..	A13	
Council of Engineering Institutions ... ..	A21	
Representatives' Reports ... ..	A23	
Minutes of the Proceedings of the Eightieth Annual General Meeting of the Institute ...	A29	August

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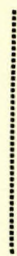
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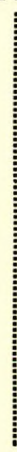
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*Editor:* J. P. R. PINKNEY

*Assistant Secretary (Administration):* M. J. PEARCE, F.C.A.

*Director and Secretary:* J. STUART ROBINSON, M.A.

*Secretary for Canadian Affairs:*

T. M. PALLAS, P.Eng., 336 Crestview Road, Ottawa, Ontario, Canada.

*Secretary, Indian Division:*

T. M. SANGHAVI, B.E., The Institute of Marine Engineers, The Indian Division, Rehman Building, 3rd Floor, 24 Veer Nariman Road, Fort, Bombay, 1, India.

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<p>Joint British Committee for Stress Analysis</p>	<p>R. H. JONES</p>
<p>Joint Committee for Ordinary National Certificates and Diplomas in Engineering</p>	<p>G. A. SKELTON, M.B.E.</p>
<p>Kingston upon Hull, College of Technology: Engineering Advisory Committee</p>	<p>R. ANDERSON J. G. ROBINSON and CAPT. W. S. C. JENKS, O.B.E., R.N.</p>
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<p>Lloyd's Register of Shipping: Technical Committee</p>	<p>D. R. M. BARWELL D. G. ALCOCK</p>
<p>North Western Regional Advisory Council for Further Education (Nautical Advisory Committee)</p>	<p>H. W. HOGBEN, M.B.E., B.Sc. CDR. K. I. SHORT, O.B.E., D.S.C., R.N.</p>
<p>Parliamentary and Scientific Committee</p>	<p>D. S. ARIS, B.Sc.</p>
<p>Permanent International Association of Navigation Congresses—British National Committee</p>	<p>R. S. ANDREW D. GRAY, B.Sc., and J. McNAUGHT T. A. RUSH G. L. R. WATKINS</p>
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<p>Portsmouth College of Technology: Advisory Committee</p>	
<p>Riversdale Technical College, Board of Governors</p>	
<p>Southampton College of Technology: Engineering Advisory Committee</p>	
<p>Swansea College of Technology: Advisory Sub-Committee for Engineering</p>	
<p>United Kingdom Automation Council</p>	
<p><b>Welding Institute</b></p>	
<p>World Power Conference, British National Committee</p>	

### JOINT PANEL ON NUCLEAR MARINE PROPULSION

*Institute of Marine Engineers:* VICE-ADMIRAL SIR FRANK MASON, K.C.B. (*Chairman of Panel*), R. COOK, M.Sc., B. HILDREW, M.Sc., H. N. E. WHITESIDE

*Royal Institution of Naval Architects:* W. J. ROBERTS, B.Eng., SIR VICTOR SHEPHEARD, K.C.B.

*Institution of Engineers and Shipbuilders in Scotland:* CAPTAIN W. R. STEWART, R.N.

*North East Coast Institution of Engineers and Shipbuilders:* W. MUCKLE, Ph.D., G. YELLOWLEY

*Secretary to the Panel:* J. STUART ROBINSON, M.A.

*Representatives of the Joint Panel on the British Nuclear Energy Society:* W. J. ROBERTS, B.Eng., H. N. E. WHITESIDE.

## ADDRESSES OF HONORARY SECRETARIES—BRANCH COMMITTEES

### Home

DEVON AND CORNWALL: W. A. CURRIE, Standard House, Station Approach, Plymouth, Devon.

KINGSTON UPON HULL AND HUMBER AREA: M. J. TAYLOR, Mobil Oil Co. Ltd., Grosvenor House, Anlaby Road, Hull.

NORTH EAST COAST: T. MATTHEWS, Shell Marine Superintendent, Shell-Mex and B.P. Ltd., Newgate House, Newgate Street, Newcastle upon Tyne 1.

NORTH MIDLANDS: G. WILKINSON, 8 Arran Drive, Scotland Lane, Horsforth, Nr. Leeds, Yorks.

NORTH WEST ENGLAND: H. D. MAKINSON, Riversdale Technical College, Riversdale Road, Aigburth, Liverpool, L19 3QR.

NORTHERN IRELAND: S. K. REID, c/o Mobil Oil Company Ltd., Friends Provident Buildings, 58 Howard Street, Belfast.

SOUTH EAST ENGLAND: F. C. BOWN, 80a Gravel Hill, Bexleyheath, Kent.

WEST MIDLANDS: A. MYATT, The Hydrovane Compressor Co. Ltd., Millsbro Road, Redditch, Worcs.

WEST OF ENGLAND: R. Ellis, 6 Napier Road, Redland, Bristol 6.

SCOTTISH: L. D. TRENCHARD, c/o Lloyd's Register of Shipping, 95 Bothwell Street, Glasgow C.2.

SOUTH WALES: W. G. FOX, 6 Bradfield Avenue, Bridgend, Glamorgan.

SOUTHERN JOINT BRANCH OF R.I.N.A. AND I.MAR.E.: T. W. PARADISE, John I. Thornycroft and Co. Ltd., Woolston Works, Woolston, Southampton.

### Overseas

AUCKLAND: C. S. HARNETT, 9 Leys Crescent, Remuera, Auckland, New Zealand.

CALIFORNIA: H. COMERFORD, 1956 Parrott Drive, San Mateo, California, U.S.A.

CAPE TOWN: *To be elected.*

CEYLON: CDR. (E) E. L. MATTHYSZ, R.Cy.N., No. 3 Jetty, Kockchikade, Colombo 13, Ceylon.

CHRISTCHURCH (SOUTH ISLAND): A. E. MILES, 181 North Road, Kaiapoi, Nr. Christchurch, New Zealand.

DUBLIN: T. A. KIERNAN, Office of Public Works, 51 St. Stephen's Green, Dublin 2.

DURBAN: R. C. BAKER, c/o P.O. Box 170, Durban, Natal, S. Africa.

EASTERN U.S.A.: V. W. BUGG, c/o Lloyd's Register of Shipping, 17 Battery Place, New York 10004, N.Y.

HONG KONG: L. G. WINTER, c/o The Shell Company of Hong Kong Ltd., Shell House, Queen's Road, Central, Hong Kong.

JOHANNESBURG: *Pending.*

QUEENSLAND: J. CHAPMAN, P.O. Box 26, South Brisbane 4101, Queensland, Australia.

SINGAPORE: K. R. VESUNA, 14a Hertford Road, Singapore, 8.

SYDNEY: K. M. MURRAY, 96 Champion Road, Gladesville, N.S.W. 2111, Australia.

VICTORIA: I. K. MOTT, B.Mech.E., 21 Cambridge Drive, Glen Waverley, Melbourne, Australia.

WELLINGTON: B. M. MORRALL, 11 Kowpai Street, Eastbourne, New Zealand.

WESTERN AUSTRALIA: C. B. JAGGER, P.O. Box 533, Fremantle, 6160, Western Australia.

EAST PAKISTAN: CDR. M. A. ANSARI, P.N., Chief Engineer, Mercantile Marine Academy, P.O. Box 157, Chittagong, E. Pakistan.

WEST PAKISTAN: CDR. T. A. THANWEY, P.N., Naval Headquarters, Karachi 4, W. Pakistan.

JOINT MALTA BRANCH I.MAR.E. AND R.I.N.A.: J. J. P. ABELA, A.M.R.I.N.A., "Tovian", Oleander Avenue, Santa Lucia, Malta, G.C.

### Canadian Division

ATLANTIC: B. D. LAWSON, 1563 Walnut Street, Halifax, N.S.

GREAT LAKES: G. W. R. CORBIN, 59 Linden Street, St. Catherines, Ontario.

NEWFOUNDLAND: K. HARRISON, 1 London Road, St. John's, Newfoundland.

OTTAWA: J. R. E. CLARK, B.A.Sc., Apt. 302, 290 Nelson Street, Ottawa 2, Ontario.

ST. LAWRENCE: L. KENNY, 491 Fontainebleu North, Ville Jacques Cartier, Quebec.

VANCOUVER: R. W. BROWN, 3175 East 51st Avenue, Vancouver 16, B.C.

VANCOUVER ISLAND: J. McPHERSON, 508 Ridgebank Crescent, Victoria, B.C.

### Indian Division

BOMBAY: T. S. RAJAN, c/o Ericson and Richards, 32 Nicol Road, Ballard Estate, Bombay-1.

CALCUTTA: J. E. D'SOUZA, c/o The Shalimar Works Ltd., 4 Garden Reach Road, Calcutta, 23.

COCHIN: K. S. MANI, Dredger Chief Engineer, 11-13 North-end Port Quarters, 1 Cross Road, Cochin 3.

MADRAS: V. K. DESAI, Engineer, B. and C. Mills, Perambur, Madras, 12.

NEW DELHI: Appointment pending.

VISAKHAPATNAM: K. K. BANERJEE, M.Eng., c/o Roy and Chatterjee Ltd., Visakhapatnam 1.

## ADDRESSES OF LOCAL VICE-PRESIDENTS

- BELFAST: D. H. ALEXANDER, O.B.E., F.C.G.I., M.Sc., Wh.Sc., 8 Ashley Park, Bangor, Co. Down, N. Ireland.
- BRISTOL: F. C. TOTTLE, M.B.E., 26 Grove Road, Coombe Dingle, Bristol.
- TEE-SIDE: C. W. HERBERT, 74 The Headlands, Marske-by-Sea, Redcar, Yorks.
- BOMBAY: B. S. SOOD, Chief Mechanical Engineer, Port Trust, Bombay, 10, India.
- CALCUTTA: B. HILL, Lloyd's Register of Shipping, 1 Fairlie Place, Calcutta, India.
- CAPE TOWN: A. L. BROWN, "Lamontsfolly", Lincoln Road, Camps Bay, Cape Town, C.P., South Africa.
- COLOMBO: C. W. V. FERDINANDS, The Orient Club, 1 Racecourse Avenue, Colombo 7, Ceylon.
- DURBAN: H. T. V. HORNER, 4 Wilval Court, 498 Frere Road, Durban, Natal, South Africa.
- HALIFAX: CDR. V. F. O'CONNOR, C.D., B.Sc., R.C.N., 2401 Newton Avenue, Halifax, N.S. Canada.
- MADRAS: K. PARTHASARATHY, 30 Nungambakkam High Road, Madras, India.
- MELBOURNE: J. B. THOMSON, c/o McIlwraith, McEacharn Ltd., G.P.O. Box 255C, Melbourne, Victoria, Australia.
- MONTREAL: D. L. FINDLAY, 18 Madsen Avenue, Beaconsfield, Quebec, Canada.
- OTTAWA: CAPT. R. W. EDWARDS, C.D., R.C.N., Box 508, Perth, Ontario, Canada.
- PERTH, W. AUSTRALIA: E. E. FREETH, B. Eng., The English Electric Company of Australia Pty. Ltd., Box W2008, G.P.O., Perth, W. Australia.
- ST. JOHN'S, NEWFOUNDLAND: R. A. HARVEY, 6 Rowan Street, St. John's, Newfoundland, Canada.
- SINGAPORE: J. M. MAIR, Superintendent Engineer, Straits Steamship Co., Ocean Building, Collyer Quay, Singapore 1.
- TORONTO: G. P. FOWLIE, 450 O'Connor Drive, Toronto 6, Ontario, Canada.
- VANCOUVER: R. G. BOOMER, 1172 Heywood Avenue, West Vancouver, B.C., Canada.
- VANCOUVER ISLAND: CDR. K. E. LEWIS, C.D., R.C.N., Production Officer, Ship Repair Activity Building 192, H.M.C. Dockyard, Esquimalt, Victoria, B.C., Canada.
- VISAKHAPATNAM: REAR-ADMIRAL C. L. BHANDARI, I.N., Naval Base, Visakhapatnam 5, A.P., India.

## ADDRESSES OF CORRESPONDING MEMBERS

- ABERDEEN: J. H. KING, Aspen Hotel, Ballater, Aberdeenshire.
- BARROW: R. A. W. MAYES, B.Sc., 14 Victoria Road, Barrow-in-Furness.
- DUNDEE: J. M. ANDERSON, "Kerryston Mount", Kellas, By Dundee, Angus.
- FALMOUTH: N. W. JEPHCOTT, M.A., "Penvrane," Carnon Downs, Truro, Cornwall.
- GREENOCK: J. A. CONN, "Cruachan", 63 Cloch Road, Gourock, Renfrewshire.
- LEITH: J. RORKE, B.Sc., Ph.D., Brown Brothers and Co. Ltd., Rosebank Iron Works, Edinburgh 7.
- MANCHESTER: J. A. CLAY, Manchester Liners Ltd., Manchester Liner House, St. Anne's Square, Manchester 2.
- SUNDERLAND: B. TAYLOR, B.Sc., c/o William Doxford and Sons (Engineers) Ltd., P.O. Box No. 25, Pallion, Sunderland.
- SWANSEA: R. A. SIMPSON, Glenraig, 13 Glynderwen Crescent, Derwen Fawr, Swansea.
- ANTWERP: W. R. MURDOCH, B.Sc., 21 Quai Quest, Bassin Kattendyk, Antwerp 1, Belgium.
- BUENOS AIRES: G. THORPE-SMITH, M.B.E., Calle Pampa 3235, P.B. Dpto. 3, Buenos Aires, Argentina, South America.
- COCHIN: P. L. D'ABREO, Kamath and D'Abreo, Ancheril Buildings, Bristow Road, Cochin 3, India.
- EAST AFRICA: A. T. CROOK, D.S.M., B.E.M., Managing Director, Southern Engineering Co. Ltd., The Tile Wharf, Mbaraki, P.O. Box 9162, Mombasa, Kenya.
- HAIFA: D. FOURIER, Lloyd's Register of Shipping, 24 Jaffa Road, P.O. Box 1962, Haifa, Israel.
- JOHANNESBURG: A. J. SCOTT, P.O. Box 31012, Braamfontein, Transvaal, S. Africa.
- QUEBEC: E. G. WHITE, Lloyd's Register of Shipping, 2 Ste Antoine Street, (P.O. Box 10, Station B.), Quebec 2, P.Q., Canada.
- ROTTERDAM: CDR. M. A. W. BOS, R.N.N., Thorbeckelaan 10, Reeuwijk, Netherlands.
- SAINT JOHN, NEW BRUNSWICK: A. BUCHAN, 67 Seely Street, Saint John, New Brunswick, Canada.
- SAN FRANCISCO: E. MARLBOROUGH, 44 Chula Vista Drive, San Rafael, California, U.S.A.
- TRINIDAD: W. W. T. BOYD, 9 Second Avenue, Cascade, Port of Spain, Trinidad, West Indies.







# Annual Report of the Council for 1968

1968 has been a year when a great deal of work has been done. Much of this has been forward planning, the results of which may not materialize until future years. Included in this category is a substantial amount of work resulting from the Institute's responsibilities as a member of the Council of Engineering Institutions, a digest of which organization's Annual Report appears on page A21. The initial planning of IMAS 69 which is referred to later has also involved Committees and the Council in a great deal of work. Meanwhile the other activities of the Institute have been carried on, the more important of which are:

## BRANCH AND OVERSEAS ACTIVITIES

### a) *Malta*

The formation of the Joint Branch in Malta with R.I.N.A.: the inaugural Dinner being held on 13th February 1968 and the first technical meeting two days later. As reported in *TRANSACTIONS*, this dinner was honoured by the attendance of His Excellency Sir Maurice Dorman, C.G.M.G., G.C.V.O., The Governor General; His Excellency Sir Geoffrey Tory, K.C.M.G., the U.K. High Commissioner in Malta and Dr. P. Borg Olivier, Minister of Education.

### b) *California*

The California Branch, formally inaugurated on 4th March, Dr. A. W. Davis being elected as its first Chairman.

### c) *Dublin*

The inauguration of the Dublin Branch, approved by Council on 16th December, 1968.

### d) *Wellington*

The inauguration of the Wellington Branch, approved by Council on 16th December, 1968.

### e) *Christchurch (South Island)*

The inauguration of the Christchurch Branch which will include the whole of the South Island of New Zealand, approved by Council on 16th December, 1968.

### f) *Nigeria*

The Nigerian Branch regrettably had to be disbanded due to its inability to organize activities at the present time.

### g) *Switzerland*

On 13th September a visit was paid to Winterthur to see recent technical developments at Sulzer Brothers Limited where a new big bore eight-cylinder RND engine was on display. In the evening an informal dinner of the members under the Chairmanship of Mr. G. Sulzer was held which was a great success. This was the first time the members in Switzerland had had an opportunity to meet at an Institute occasion.

### h) *Canada and the United States of America*

Representing the Institute, Captain W. S. C. Jenks, O.B.E., R.N. (Chairman of Council) and Mr. J. Stuart Robinson, M.A., and their wives, attended the

International Diamond Jubilee Meeting in New York of the Society of Naval Architects and Marine Engineers during the period 18th–22nd June. Before this event a visit was paid to Eastern Canada, meetings being held in Montreal, Toronto and Ottawa.

### j) *Australia and New Zealand*

Captain Jenks, Mr. Robinson and Mr. M. J. Pearce, Assistant Secretary (Administration) visited Australia and New Zealand in November to discuss the Institute's development with all the Branches. On the outward and homeward journeys the opportunity was taken to visit a number of Institute centres of activity including Johannesburg, Singapore, Colombo, Bombay and Karachi.

By these means the headquarters officers keep in touch with the organizations of the Institute outside the United Kingdom and, at the same time, give the members abroad an opportunity to express their opinions as to the services provided by the Institute and to suggest ways in which these might be extended or improved.

## EDUCATION AND TRAINING

During the year the Education and Training Committee continued the routine, but nevertheless important, work of advising the Council on matters concerning the educational standards for the marine engineer and on the Institute's policy in relation to the examination and training standards of the Council of Engineering Institutions.

Early in the year negotiations for the recognition of the Extra First Class Certificate as an exempting qualification from the C.E.I. examinations were begun with the Board of Trade and C.E.I. At the end of the year the negotiations had reached a state where there was a reasonable hope that they would be successful from the Institute's point of view. The Education and Training Committee was also responsible for framing the evidence the Institute submitted to the Rochdale Committee on shipping. This was concerned with the education and training of professional marine engineers and the Chairman of Council and the Director and Secretary were called by the Rochdale Committee to give evidence on behalf of the Institute.

Informal discussions leading to possibilities of much closer co-operation between the Institute and the British Shipping Federation, particularly on matters on education and training, were held during the year.

In external activities the Institute provided one or more speakers at careers meetings and conferences in various parts of the country. In this connexion some of the branches were particularly active; the Director and Secretary visited a number of schools to give careers talks during the year and the Assistant Secretary (Technical) did the same at a number of other careers conventions in the autumn and winter months.

## REGISTRATION OF PROFESSIONAL ENGINEERS

Registration of professional engineers is one of the questions that constantly arises today. In Canada one finds the problem of would-be British immigrants being unable to

## Annual Report of the Council for 1968

practise as professional engineers by being unable to meet the requirements of the various Provinces. In Australia a similar situation obtains. In the United Kingdom one of the problems facing the Council of Engineering Institutions is to decide whether to make registration compulsory, as in so many other countries, or whether to achieve the desirable goal of recognition of members of the profession by other less direct means.

### TECHNICIANS

A Standing Conference on National Qualification and Title has been formed to discuss the role of the engineering technician and his need for a national title. The Institute is one of the organizations taking part in the discussions.

### IMAS 69

Preliminary planning has continued throughout the year. Results so far have been most encouraging in that 135 papers were offered in response to announcements from which it had been hoped that some 70 papers would be forthcoming. With considerable difficulty because of the uniformly high standard the Papers Committee selected some 80 which, in due course, will be read before the Conference. Meanwhile, programmes of technical visits and social functions have been planned and it is encouraging to note that the return of

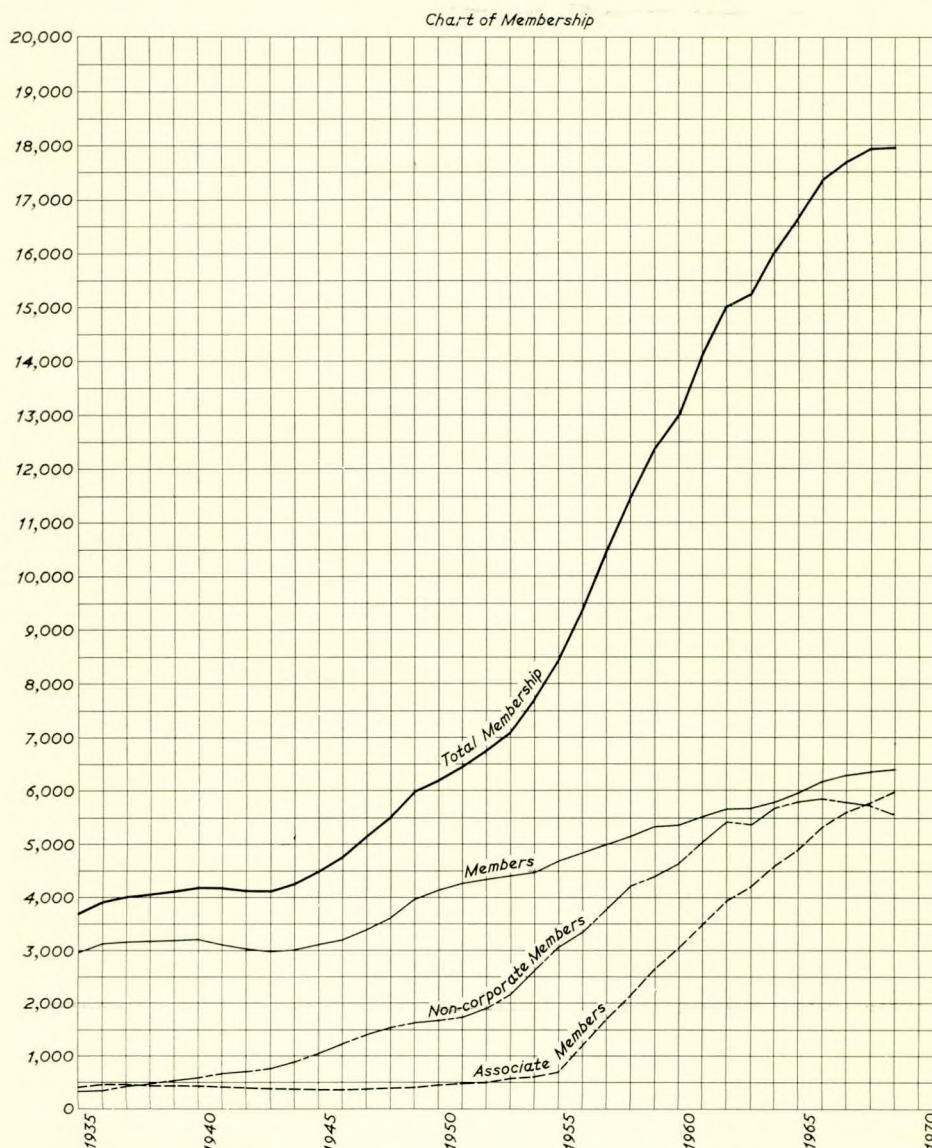
preliminary application forms has been over 500. The Council is anxious that this Conference should be well supported by members and visitors because the degree of support will contribute largely to its usefulness.

On the two days preceding IMAS a Domestic Conference of Institute Branch representatives will be held. The response to the Institute's Branch Officers to attend has been most encouraging. The opportunity was taken on recent overseas tours (recorded earlier in this report) of appraising Branches of topics to be discussed at this Conference.

It is pleasing to record that the Central Office of Information has been of great assistance with Public Relations in connexion with overseas tours and in particular in engendering interest in IMAS 69 from abroad.

### MEMBERSHIP

The changes in the membership are shown in the accompanying table and chart. The number of elections (1236) is just over 100 higher than in the preceding year; and while the number of members who have died and resigned is practically the same as last year (319 compared with 320), the number removed from the membership roll has increased by 410. Although 889 of the deletions are due to the Council's continuing policy of applying more rigidly the provisions of By-Law 38 concerning the non-payment of subscriptions,



## Annual Report of the Council for 1968

GRADE	Total 31st Dec. 1967	Transfer		Elected	Died	Resigned	Lapsed	Total 31st Dec. 1968	Increase or decrease during 1968
		To	From						
Past Presidents	15			1				16	+ 1
Honorary Members	5							5	
Members	6358	104		204	101	70	110	6385	+ 27
Associate Members	5784	152	87	289	14	25	141	5968	+ 184
Companions	22					1		21	- 1
Associates	1587	5	42	148	10	26	79	1583	- 4
Graduates	1090	65	113	127	1	9	73	1086	- 4
Students	1803	28	70	266	4	31	259	1733	- 70
Probationer Students	1249		52	201	3	24	227	1144	- 105
<b>Totals</b>	<b>17 913</b>	<b>364</b>	<b>364</b>	<b>1236</b>	<b>133</b>	<b>186</b>	<b>889</b>	<b>17 941</b>	<b>+ 28</b>

there are, however, two discouraging points in this context which should be mentioned. Firstly, the total deletions include the names of 202 probationary members who, after election, did not pay the first annual subscription despite a number of reminders. No fewer than 150 of these were Student members which underlines the second point, namely, that the number of Students and Probationer Students who have not taken up their membership or have allowed it to lapse (486) is greater than the elections to these grades (467). The Council is extremely concerned at this continuing trend despite the efforts made both in London and the Branches to maintain the interest of younger members. It raises fundamental issues which will be examined by the Council.

### STAFF

Miss Holman, who had been the Institute Librarian since 1947, retired on 31st December, 1968. Miss Holman served the Institute well and was known to many members both at home and abroad. During the last years of her service with the Institute she suffered from ill health. The Institute's good wishes are extended to her for a long and happy retirement. Her place has been taken by Mr. G. R. Head, C.Eng. (Member).

Another new appointment is Mr. S. Smith as Office Manager who is working directly under Mr. Pearce (Assistant Secretary, Administration).

Lastly, it is sad to record that Mr. H. L. Jull, Assistant Hall Porter with the Institute for a number of years, died suddenly on 25th July.

### PRINTER

After 35 years of association with H. O. Lloyd and Co. Ltd. it is regretted that the Institute has had to change its printer in a constant endeavour to keep abreast of the continuing rise in the cost of printing and publication. The Institute printer is now St. Stephen's Bristol Press Ltd.

### ACCOUNTS

#### 1) *General Revenue Account*

The surplus on the General Revenue Account has fallen from £3360 to £957. An increase of £4737 in income has been more than offset by increases in expenditure. Membership expenditure has increased by £1331, although the net cost of the Transactions including the new Specialist Section publications has been contained to an increase of £433. Establishment expenditure has increased by £1644. This includes an additional charge for the repairs equalization appropriation of £500 to cover the increasing cost of maintaining the Institute premises in a good state of repair. Administration expenditure has increased by £4165 of which £3454 was attributable to salaries and pensions, the balance being general increases in stationery, printing, postage and telephone. The accumulated surplus to carry forward on the General Revenue Account is £93 451.

#### 2) *Memorial Building Revenue Account*

The account shows a surplus of £35 048 a reduction of £2265 on last year. This is due mainly to increases of £352 in standing charges and £2266 in administration and services. The latter item includes an increase of £1000 in the repairs equalization appropriation to meet the increasing cost of maintenance and repairs. A total of £40 000 has been appropriated to reserve funds leaving a balance of £19 277 to be carried forward to the accumulated funds. The expenditure on the revenue reserves and the respective balances at the 31st December are set out in Note 3.

#### 3) *Balance Sheet*

The accumulated funds and revenue reserves have fallen by £4140 and now stand at £208 291. The Institute's investment advisers, Robert Fleming and Co. Ltd. have kept the Institute investments under continual review. Changes have been made during the year, further sums have been invested and the portfolio now has the maximum proportion in equities. The book value of the investments has increased by £12 395 and the market value exceeded the book value by £32 351. The Auditors have advised that certain of the Institute's investments in American Companies having a total book value of £11 194 may have been purchased technically in breach of the rules of the Institute. Counsel's opinion is being obtained and should the view of the Auditors be upheld immediate steps will be made to rectify the situation.

### COMPUTERIZATION OF RECORDS

During the year Council authorized the appointment of a Computer Bureau to maintain the accounting and office records and a contract has been signed by Pyramid Computer Services Ltd. The transfer of the records to the computer file will be carried out in two phases. A start was made on transferring the membership records including the subscription accounting procedures during the latter part of the year. This will be completed in the early months of 1969. Later in 1969 the remainder of the accounting records will be transferred to a programme designed to meet the Institute's own requirements.

### PREMISES

The facilities required to accommodate the anticipated attendance at IMAS enabled the Council to look at the accommodation in general. This had not been reviewed as a whole since the building was completed in 1957. As a result expenditure has been authorized to cover the following projects:

- 1) the provision of an additional Committee Room in the store adjacent to the Lecture Hall;
- 2) an extension of the ladies' cloakroom;
- 3) alterations to improve the passage into and out of the members' cloakroom.

# Annual Report of the Council for 1968

## SUMMARY OF THE YEAR'S ACTIVITIES

### COUNCIL

At their meeting on 13th May the Council elected Captain W. S. C. Jenks, O.B.E., R.N., as Chairman of Council and Mr. B. Hildrew, M.Sc., as Vice-Chairman for the 1968/69 session.

Following the appointment of Mr. J. McAfee as a Vice-President, Mr. D. J. Lochhead was co-opted to fill the casual vacancy for a Member of Council.

The Council has been pleased to welcome Mr. G. W. Stead, D.S.C., B.Com., B.A., LL.D., Vice-President for Canada, at Council meetings during the year. The stay in this country of Mr. A. L. Brown, Local Vice-President for Cape Town, also provided the Council with the opportunity of extending an invitation to another overseas representative to attend meetings.

### VICE-PRESIDENT

The Council unanimously approved the recommendation of the Branches in Australia that Captain R. G. Parker, O.B.E., R.A.N., be nominated for the office of Vice-President for Australia. Captain Parker serves in a co-opted capacity until the 1969 Annual General Meeting.

### HONORARY VICE-PRESIDENTS

The Council has appointed Mr. R. Beattie and Mr. D. Skae as Honorary Vice-Presidents.

### LOCAL VICE-PRESIDENTS

The Council has appointed the following during the year: *Melbourne*—Mr. J. B. Thomson *vice* Mr. A. J. Edwards (retired).

*Ottawa*—Captain R. W. Edwards, C.D., R.C.N. *vice* Commodore A. G. Bridgman, C.D., B.Sc., R.C.N. (retired).

*Toronto*—Mr. G. P. Fowlie *vice* Mr. A. C. Waldie (retired).

*Vancouver Island*—Commander K. E. Lewis, C.D., R.C.N. *vice* Superintendent J. E. Reader, R.C.M.P. (retired).

*Visakhapatnam*—Rear-Admiral C. L. Bhandari.

### CORRESPONDING MEMBER

During the year the Council has appointed Dr. J. Rorke as Corresponding Member for Leith *vice* Mr. H. Robb, who resigned on account of ill-health. Mr. Robb unfortunately died in December.

### MEETINGS HELD IN LONDON

In addition to the Annual General Meeting and the Presidential Address, eleven ordinary meetings for the presentation and discussion of technical papers were held at the Institute during 1968. Also held at the Institute in March was a one-day symposium organized by the Materials Section.

Though not held in London, there was a combined meeting of the Miscellaneous Craft and Ocean Engineering Section, the Kingston upon Hull and Humber Branch and the Grimsby Institution of Engineers and Shipbuilders. This successful event took place in Cleethorpes in March.

There were also six student meetings at the Institute during the year. The papers read at ordinary meetings have been or are to be published in *TRANSACTIONS* and specialist section papers are published in individual journals.

### PROJECTION EQUIPMENT

During the year the Council approved the purchase and installation of modern film projection equipment. The two 16 mm projectors chosen were of an up-to-date type. At the end of the year work on this was in hand and also on the installation of a drop screen.

### FINANCIAL GRANTS TO STUDENTS

During the year 12 students undergoing marine engineering degree courses at the Universities of Surrey and Newcastle received grants of £100 each. The new Surrey University buildings are now being established at Guildford.

### INSTITUTE PUBLICATIONS

The papers published in the Institute *TRANSACTIONS* and the overseas supplements have maintained their customary high standard. An index to papers published appeared in the December issue of *TRANSACTIONS*.

A notable change has been the emergence of *Marine Engineers Journal* which took the place of the old supplement to the *TRANSACTIONS* late in 1967. Comments received indicate that the new journal is appreciated by members.

### INSTITUTE AWARDS

The *Denny Gold Medal* for 1968 has been awarded to L. Sinclair, C.Eng. (Member) and A. Emerson, M.Sc., C.Eng. for their paper "The Design and Development of Propellers for High Powered Merchant Vessels", read before the Institute on 9th January 1968.

The *Institute Silver Medal* for 1968 has been awarded to Ir. A. C. H. Borsboom, Ir. A. G. Hop, K. W. Bretveld and F. W. van Deelen, for their paper "Bridge Control of Marine Steam Turbine Plant, an Analytical Approach" read before the Institute on 26th November 1968.

The *Yorkshire Award* for 1968/1969 has been awarded jointly to G. McNee, B.Sc., C.Eng. (Member) and J. McNaught, C.Eng. (Member), for their paper "Operating Experience with Large Modern Turbocharged Heavy Oil Engines" read before the Institute on 28th February 1967.

*Extra First Class Engineer's Certificate Examination—Institute Award.* The Institute Silver Medal for the candidate obtaining the highest marks in the Board of Trade's examinations in 1968 has been awarded, on the recommendation of the Chief Examiners of Engineers, to R. C. Oliver, C.Eng. (Associate Member).

The *W. W. Marriner Memorial Prize*, value £5 for the best Engineering Knowledge script written by a candidate in the Board of Trade's examinations for the Second Class Engineer's Certificate of Competency, has been awarded, on the recommendation of the Chief Examiner of Engineers, to D. Wilkinson.

*Extra First Class Certificate Course—Institute Award.* The Institute Award for 1968, value £25, for the best essay on the technical advantages to be gained by taking the course has been awarded to P. J. Martin, C.Eng. (Associate Member).

The names of the winners of the *Frank Roberts Award*, *Ordinary National Diploma Course Institute Awards*, and of the Prizes for the *Study of Heat Engines* will be published in the May 1969 issue of *Marine Engineers Journal*.

### INSTITUTE REPRESENTATION ON OUTSIDE ORGANIZATIONS

Captain W. S. C. Jenks, O.B.E., R.N., was re-elected to serve on the Lloyd's Register of Shipping Technical Committee; Mr. D. Gray, B.Sc., and Mr. J. McNaught have succeeded Mr. H. E. Upton, O.B.E., and Mr. J. S. Robinson, M.A., on the United Kingdom Automation Council, and other members have continued to serve the Institute as representatives on a considerable number of outside organizations.

One major change was authorized towards the end of the year and this was a decision by the Council that the

## Annual Report of the Council for 1968

Institute should not continue to be represented on the technical committees of the British Standards Institution. This decision was reached after considerable discussion by the Technical Committee and was prompted by:

- 1) the difficulty in nominating Institute representatives who could with complete impartiality present the views of the Institute as distinct from the views of the particular sections of industry in which they were employed;
- 2) the fact that in most instances Institute representatives were already representing their own organizations.

B.S.I. has accepted the suggestion that the Institute should, as the occasion arose, make recommendations concerning subject matter for new British standards and similar matters. A nominal list of representatives appears in TRANSACTIONS twice yearly, usually January and July. Annual reports from representatives on such committees are appended.

The Council takes this opportunity to thank all representatives on external organizations and committees for their work during the past year, also all those who have contributed reviews of the additions to the library.

### HONOURS

The Council congratulates the following members upon whom Her Majesty Queen Elizabeth II has conferred honours during the year:

- H.R.H. The Prince Philip, K.G. (Honorary Member)—O.M.  
F. E. Harmer, C.M.G. (Companion)—Knight Bachelor.  
I. M. Stewart, B.Sc. (Member)—Knight Bachelor.  
Rear-Admiral R. G. Raper, R.N. (Member)—C.B.  
Rear-Admiral W. T. C. Ridley, O.B.E. (Member)—C.B.  
Rear-Admiral D. B. H. Wildish (Member)—C.B.  
H. C. A. Brain (Member)—C.B.E.  
A. Hudson (Member)—O.B.E.

T. S. Miles (Member)—O.B.E.

Eng. Lt. Cdr. V. Gunson, R.N. (Associate Member)—M.B.E.

K. C. Magee (Member)—M.B.E.

### DEATHS

Amongst the losses by death recorded during the year the following will be remembered particularly for their services to the Institute:

- E. W. Cranston, Wh.Sc. (former Member of Council)  
Cdr. F. Roberts, O.B.E., D.S.C., R.N. (former Member of Institute Committees)

### ANNUAL COMMEMORATION SERVICE

The Annual Service held at the Church of St. Olave, Hart Street, London E.C.3., on Monday, 11th November, was conducted by the Reverend J. E. M. Payne, C.Eng. (Member) who also gave an address.

### REMEMBRANCE DAY

The Honorary Treasurer, Mr. R. Cook, M.Sc., accompanied by Mrs. Cook, represented the Institute at the Service in Westminster Abbey and Mr. W. J. Ferguson, M.Eng., laid a wreath at the Mercantile Marine War Memorial, Tower Hill, London E.C.3. on Sunday, 10th November.

### SOCIAL EVENTS

The following social functions have been held:

- Annual Dinner at Grosvenor House, Park Lane, London W.1. on 8th March.  
Cocktail Party following the Presidential Address at the Memorial Building on 23rd April.  
Annual Conversazioni at Grosvenor House, Park Lane, London W.1. on 6th and 20th December.

W. S. C. JENKS (*Chairman of Council*)

J. STUART ROBINSON (*Director and Secretary*)

# THE INSTITUTE OF MARINE ENGINEERS

## BALANCE SHEET

31st DECEMBER 1968

31.12.67	£	£	£	£
413,342	Capital Account (Note 1)	...	...	428,342
285,000	Loan Capital (Note 2)	...	...	270,000
<b>Capital Reserve</b>				
10,000	The Memorial Building Redemption Fund			11,000
<b>Accumulated Funds</b>				
93,343	General Revenue Account	...	...	93,451
24,229	The Memorial Building Revenue Account			19,277
117,572				112,728
94,859	Revenue Reserves (Note 3)	...	...	95,563
920,773				917,633
4,324	Social Events Account	...	...	4,331
<b>Awards and Prize Funds (Note 4)</b>				
6,267	Capital	...	...	6,502
1,042	Income	...	...	1,149
7,309				7,651
£932,406				£929,615

31.12.67	£	£	£
<b>Fixed Assets</b>			
691,085	The Memorial Building	...	691,085
14,945	Furniture and Fittings	...	19,646
706,030			727,754
<b>Investments</b>			
160,649	Quoted Securities (Note 5)	...	173,044
<b>Sinking Fund Insurance Policies (Note 6)</b>			
—			
<b>Current Assets (Note 7)</b>			
89,922			64,188
35,828	<i>Less: Current Liabilities (Note 8)</i>	...	27,353
54,094			36,835
920,773			917,633
<b>Social Events Account</b>			
4,324	Cash at Bank and Other Assets	...	4,331
7,309	Awards and Prize Funds (Note 9)	...	7,651
£932,406			£929,615

Annual Report of the Council for 1968

### REPORT OF THE AUDITORS TO THE MEMBERS OF THE INSTITUTE OF MARINE ENGINEERS

We have audited the above Balance Sheet and annexed Accounts and have obtained all the information we have required. We have verified the Investments, Bank Balances, Insurance Policies, Title Deeds and Stocks by means of certificates.

In our opinion the Balance Sheet and Accounts have been properly drawn up so as to exhibit respectively, together with the explanatory notes, a true and fair view of the state of the Institute's affairs as at 31st December, 1968, and of the income and expenditure for the year ended on that date.

2 ARUNDEL STREET,  
STRAND,  
LONDON, W.C.2.  
17th March, 1969.

ALLFIELDS,  
Chartered Accountants.







NOTES ON ACCOUNTS

31st DECEMBER 1968

<b>1. Capital Account</b>		£
Balance at 31st December, 1967	...	413,342
Appropriation from Memorial Building Revenue Account	...	15,000
		<u>£428,342</u>

<b>2. Loan Capital</b>		£
The Church Commissioners		
Mortgage at 5½% per annum	...	225,000
Mortgage at 6% per annum	...	45,000
		<u>£270,000</u>

Secured on the Memorial Building and repayable by annual instalments of £15,000.

**3. Revenue Reserves**

	<i>Balance</i> 31.12.67	<i>Appropriations</i> <i>Revenue Accounts</i>		<i>Expenditure</i> <i>during year</i>	<i>Balance</i> 31.12.68
	£	£	£	£	£
		<i>General</i>	<i>Memorial Building</i>		
Staff Fund	4,349	—	—	100	4,249
Institute Premises Repairs Equalisation Account	2,447	2,500	—	3,989	958
Building Premises Repairs Equalisation Account	3,351	—	5,000	7,464	887
Building Contingency Fund	5,000	—	5,000	—	10,000
Conference Fund	11,880	—	8,000	6,062	13,818
Year Book Expenses	1,363	500	—	—	1,863
Development Fund	20,202	—	8,000	10,547	17,655
Education Fund	46,267	—	3,000	3,134	46,133
	<u>£94,859</u>	<u>£3,000</u>	<u>£29,000</u>	<u>£31,296</u>	<u>£95,563</u>

Note: The General Purposes Fund is to be henceforth known as the "Conference Fund".

19,743

4. Awards and Prize Funds

	Capital Account	Income Account for 1968			Balance 31.12.68
		Balance 31.12.67	Income	Expenditure	
<b>General</b>	£	£	£	£	£
Akroyd Stuart Award ... ..	700	336	33	50	319
W. W. Marriner Prize ... ..	230	42	14	5	51
Denny Gold Medal (Denny, Stephen and Lord Inverforth Awards) ...	735	115	41	9	147
Extra First Class Certificate Award (Jacobs, Murdoch, Robertson and Girdwood Awards)	436	13	24	25	12
Frank Roberts Award ... ..	221	23	13	7	29
Diesel Engine Prizes ... ..	1,180	—	—	—	—
(These prizes are being built up from an anonymous covenanted donation and accrued interest)					
<b>Administered as Trustees</b>					
William Theodore Barker Award ... ..	3,000	513	178	100	591
	<b>£6,502</b>	<b>£1,042</b>	<b>£303</b>	<b>£196</b>	<b>£1,149</b>

5. Investments

**Government Securities:**

	£	£	£
£10,640 3% Savings Bonds 1960/70 ... ..			10,494
£24,500 6½% Exchequer Loan 1972 ... ..			24,763
£44,900 6½% Funding Loan 1985/87 ... ..			43,305
£3,250 5½% Treasury Stock 2008/12 ... ..			2,889
			<b>81,451</b>

**Equities:**

**United Kingdom**

2,250 Alliance Trust Co. Ltd. 5/- Ordinary Stock Units ... ..	2,553	
2,500 Smith St. Aubyn & Co. Ltd. 5/- Ordinary Shares ... ..	3,954	
2,880 Bass Charrington Ltd. 5/- Ordinary Shares ... ..	1,708	
4,500 Beecham Group Ltd. 5/- Ordinary Shares ... ..	3,267	
5,000 Blackwood Hodge Ltd. 5/- Ordinary Shares ... ..	6,892	
1,900 Robert Bradford (Holdings) Ltd. 5/- Ordinary Shares ... ..	3,060	
1,500 Burmah Oil Co. Ltd. £1 Ordinary Shares ... ..	8,130	
2,100 Commercial Union Co. Ltd. 5/- Ordinary Shares ... ..	2,935	
£1,400 7¾% Unsecured Loan Stock 1988/93 ... ..	636	
1,575 Imperial Chemical Industries Ltd. £1 Ordinary Stock Units ... ..	2,976	
1,700 Legal and General Assurance Society Ltd. 1/- Ordinary Shares ... ..	2,445	
1,200 Joseph Lucas (Industries) Ltd. £1 Ordinary Shares ... ..	3,345	
2,300 Peninsular & Oriental Steam Navigation Co. Ltd. Deferred Ordinary £1 Stock Units ... ..	3,852	
6,000 Ready Mixed Concrete (U.K.) Ltd. 5/- Ordinary Shares ... ..	5,788	
1,500 Reckitt & Colman Holdings Ltd. 10/- Ordinary Shares ... ..	3,210	
2,900 Shell Trading and Transport Co. Ltd. 5/- Ordinary Shares ... ..	7,664	
		62,415

**United States of America**

120 Englehard Minerals and Chemicals Corporation \$1 Common Stock ... ..	3,069	
112 Girard Trust Bank (Philadelphia) \$10 Common Stock ... ..	2,537	
150 Hart Schaffner & Marx \$2½ Common Stock ... ..	2,343	
59 International Telephone and Telegraph N.P.V. Corporation Common Stock	1,169	
40 \$4½ Cum. Conv. Series I Prfd. Stock	1,444	
140 Lawter Chemicals Co. \$1 Common Stock ... ..	4,117	
140 Nalco Chemical Co. Common Stock ... ..	4,959	
200 Will Ross Incorporated \$1 Common Stock ... ..	4,540	
		24,178

**Cash Held for Investment** ... ..

86,593  
5,000  
**£173,044**

(Market Value at 31st December, 1968 — £205,395)

**6. Sinking Fund Insurance Policies**

Single Premiums to:

*Assurance Company*

*Date of Maturity*

*Payment Secured*

Royal Exchange	1st November, 2011	...	...	...	£	10,000
Royal Exchange	10th June, 2012	...	...	...	£	10,000
Canada Life	10th June, 2012	...	...	...	£	1,000
Atlas	10th June, 2012	...	...	...	£	1,000
Sun Life	10th June, 2012	...	...	...	£	1,000

**£23,000**

(The present surrender value of the above policies is £5,397)

**7. Current Assets**

Stocks on Hand at Cost, less provisions for possible depreciation	...	...	£	19,033
Sundry Debtors and Prepayments, less provision for doubtful debts	...	...	£	13,835
Income Tax: Recoverable	...	...	4,422	
<i>Less: Payable</i>	...	...	3,109	
Tenants for Rent and Service Charges	...	...	1,313	
Cash and Bank Balances	...	...	14,430	
			15,577	

**£64,188**

**8. Current Liabilities**

Sundry Creditors and Accrued Charges	...	...	£	20,006
Mortgage Interest Accrued — Gross	...	...	£	5,760
Unexpired Subscriptions (Note 10)	...	...	£	1,587

**£27,353**

**9. Awards and Prize Funds**

**Investments**

Akroyd Stuart Award	£915	3½% Conversion Loan at Cost	...	...	£	698
W. W. Marriner Prize	£261	5½% Treasury Stock 2008/12 at Cost	...	...	£	230
Denny Gold Medal Award	£100	3½% War Loan at Par	...	...	£	100
	£687	5½% Treasury Stock 2008/12 at Cost	...	...	£	635
Extra First Class Certificate Award	£200	2½% Consolidated Stock as valued in 1919	...	...	£	119
	£343	5½% Treasury Stock 2008/12 at Cost	...	...	£	317
Frank Roberts Award	£239	5½% Treasury Stock 2008/12 at Cost	...	...	£	221
Diesel Engine Prizes	£1,440	5½% Treasury Stock 2008/12 at Cost	...	...	£	1,177
William Theodore Barker Award	£3,247	5½% Treasury Stock 2008/12 at Cost	...	...	£	3,000

**6,497**

(Market Value at 31st December, 1968 — £4,934)

**Cash at Bank** ... .. **1,154**

**£7,651**

10. Subscriptions

1967		Received	Unexpired	Net
£		£	£	£
35,928	Members ... ..	36,477	564	35,913
31,546	Associate Members ... ..	33,325	545	32,780
8,727	Associates ... ..	8,888	165	8,723
4,257	Graduates ... ..	4,341	194	4,147
2,316	Students ... ..	2,638	90	2,548
481	Probationer Students ... ..	451	29	422
166	Companions ... ..	134	—	134
<u>£83,421</u>		<u>£86,254</u>	<u>£1,587</u>	<u>£84,667</u>

11. Transactions and Publications

1967				
£	£		£	£
		<b>Transactions</b>		
31,780		Composition, Printing, Paper, etc. ... ..	29,708	
9,961		Reporting, Abstracting and Salaries ... ..	11,467	
9,314		Wrapping and Postage ... ..	8,795	
	51,055			49,970
28,322		<i>Less:</i> Advertising Revenue ... ..	28,577	
5,260		Sales ... ..	4,980	
76		Surplus on Bound Volumes ... ..	139	
	<u>33,658</u>			<u>33,696</u>
	17,397			16,274
		(The above incorporates both the Canadian and Indian Division Supplements and Student Transactions.)		
		<b>Specialist Sections</b>		
		Cost of Proceedings ... ..		1,234
		<b>Publications</b>		
	(1,300)	Gross Surplus on Distribution ... ..		(978)
	<u>£16,097</u>			<u>£16,530</u>

12. Bases of Valuation

A) Investments are valued at middle market price. Dollar Securities are valued at the spot \$U.S. rate plus premium, adjusted for the 25% loss of premium suffered on future sales in compliance with the Treasury Exchange Control Regulations.

B) Overseas Cash and Bank Balances are converted at the following standard rates of exchange:

Country	Rate of Exchange per £1 Sterling
United States of America	\$2.40
Canada	\$2.60
India	R18
Pakistan	R11.43
Australia	\$2.15
New Zealand	\$2.15

C) To facilitate the preparation of the Accounts, overseas Bank Accounts are generally closed off at 30th November each year.

## Annual Reports of the Branches

### HOME

#### DEVON AND CORNWALL

Membership of the Branch now stands at a total of 351 members of all grades, an increase of 49 over the previous year.

During 1968, seven technical meetings were held, five at Plymouth and two at Falmouth. The average attendances were: at Plymouth 89.6, at Falmouth 39.5.

The Cheese and Wine Party held at Plymouth Guildhall on 29th March was attended by 86 members and their guests. Tickets at 10/- are good value. A profit of nearly £9 was made.

The Fifth Annual Dinner and Dance was held at the Royal Naval Engineering College on 12th October. The principal guests were the Chairman of Council, Captain W. S. C. Jenks, O.B.E., R.N., and Mrs. Jenks, Sir Douglas and Lady Marshall, Air Vice-Marshal and Mrs. Clementi, Captain and Mrs. Malin, Commander and Mrs. Baldwin. Only 123 tickets were sold and the loss on the evening was £41. If present high standard is to be maintained there will need to be a substantial increase in the number attending and/or a price increase.

In June the Honorary Secretary, Lt. Cdr. M. E. Goble, R.N., arranged a meeting with representatives of 11 out of 14 of the constituent members of the Council of Engineering Institutions. It was agreed at this meeting that Mr. D. R. S. Rabley, B.Sc., take the chair, after which the meeting proceeded to form a sub-centre committee for Devon. Events have not turned out as well as was hoped. A South West Area meeting at Bristol would not form a sub-committee and the whole project is in danger of collapse as funds can only be distributed through an Area Sub-committee. One meeting has been arranged under the auspices of the Plymouth Panel of the Institution of Mechanical Engineers.

Captain J. G. Little, O.B.E., R.N., has given up the office of Local Vice-President for the Branch and the appointment will now lapse. The Branch has been fortunate to enjoy the benefit of his wisdom and advice for many years, and members will be pleased to know that he has agreed to continue to serve on the Committee.

A hastily arranged visit to Philip and Sons at Dartmouth on 22nd January 1969, to see the new hydrofoil craft was attended by 10 members.

D. R. S. Rabley (*Chairman*)  
M. E. Goble (*Honorary Secretary*)

#### KINGSTON UPON HULL AND HUMBER AREA

1968 has been a satisfactory year for the Branch, all activities have progressed.

The membership is approximately the same as last year at 417.

Six senior and two junior lecture meetings were held. The average attendance was 42, composed of 23 members and 19 visitors.

The Committee held nine meetings with an average attendance of 10.

Two social functions were held, the Annual Dinner and Dance at the Royal Station Hotel when 210 guests were

present and the Annual Dinner at the Guildhall when 226 guests were present.

During the Summer a visit was made to the Hull Brewery, 13 members taking part.

Mr. R. L. Rawlings and Mr. G. A. Skelton continued to serve on the Engineering Advisory Committee at the colleges in both Grimsby and Hull.

The Branch Committee approached Institute Headquarters with a request that the number of votes cast for each candidate during the election of Members of Council be published. They were informed that these figures were confidential, however, but learned that a total of 1064 votes were cast, this represents under ten per cent of the membership.

The Committee has nominated Mr. A. W. Kemp to represent the Branch at the Domestic Conference to be held prior to IMAS '69.

No application was received by the Branch for the Winston Churchill Award. Mr. J. R. Davy was nominated for the Lloyd's Register of Shipping Award, while Institute Prizes for work on the Ordinary National Diploma Courses at the College of Technology went to Mr. J. P. Gray (first year), Mr. M. MacKinnon (second year) and Mr. M. Green (heat engines). The F. M. C. Heath Memorial Award went to Mr. R. A. Burton.

The Branch donated £50 from its Social Funds to the Guild House Benevolent Fund Committee.

At the request of the Guild Committee two cases have been visited during the past year. Both persons have subsequently received financial benefit from the Benevolent Fund.

The following Members of Committee retired; Messrs. E. Barnett, R. L. Rawlings, A. C. Coward, M.B.E. and J. W. Harbottle. The following members will continue to serve on the Committee: Messrs. P. Curtis, P. N. V. Evers, J. Campbell, A. T. Hogan, F. N. Sutcliffe, H. F. Hesketh, S. Crosby, A. W. Kemp and A. E. Walker. Those nominated for vacancies on the Committee were: Messrs. S. Mathews, A. T. Mitchell, G. D. Moore, G. A. Skelton M.B.E., M. J. Taylor, D. A. Taylor and K. Varlow.

Mr. E. Barnett represented the Branch, on the C.E.I. Yorkshire Regional Committee. Four Committee meetings have been held this year and the Branch has been represented at each one.

The Branch was also represented by two student members when the Duke of Edinburgh addressed a meeting of young engineers in London, organized by C.E.I.

Leeds Education Authority held a two-day Careers Exhibition when marine engineering interests were maintained by the Branch representative. At present simple display systems are being investigated, which would be an aid to anyone attending such functions.

R. L. Rawlings (*Chairman*)  
H. M. Pearson (*Honorary Secretary*)

#### NORTH MIDLANDS

Current membership of the Branch totals 359 members of all grades.

## Annual Report of the Council for 1968

The programme for 1968 included five meetings at which technical papers were read, the average attendance being 45. Members were able to spend a week-end in Amsterdam in April, whilst in November there was a visit to Boots Ltd. in Nottingham and a social evening at the Omega Restaurant, Sheffield.

At the Branch meeting in December, Mr. F. H. Soppitt was presented with a silver salver to mark his leaving the Branch of which he was Honorary Secretary for many years and the best wishes of the members were expressed by the Chairman at the presentation.

The party of members and friends taking part in the week-end trip to Amsterdam enjoyed good weather and during the outward trip members were able to visit the engine room of *Tor Hollandia* which was one of the highlights of the trip. This year the trip is being held on behalf of the Yorkshire Committee of C.E.I.; the Honorary Secretary expressed his thanks to the Branch for organizing this event.

Boots Ltd. provided the members with an excellent visit to one of the largest pharmaceutical factories in the world and the techniques witnessed showed the extent to which automation has been utilized to increase productivity.

Branch members supported the Yorkshire Committee of C.E.I. at the Dinner Dance in October and the November Meeting which was held in the Queen's Hotel, Leeds.

In concluding the report tribute is paid to Mr. F. H. Soppitt and Mr. J. Batey, the retiring Committee members and also the Chairman and the remaining members who helped to make this a very successful year.

G. Prentice (*Chairman*)

G. Wilkinson (*Honorary Secretary*)

### NORTH WEST ENGLAND

The total Branch membership of all grades, as this year ends, is 1925, an increase of 27.

At the Annual General Meeting on 5th February 1968, Mr. R. C. Stewart was elected Chairman for the year, and Mr. R. Anderson, Vice-Chairman; Mr. H. J. Whitgreave was elected to continue in office as Honorary Treasurer, and Mr. H. D. Makinson as Honorary Secretary.

Due to unforeseen circumstances, Mr. R. C. Stewart was subsequently compelled to relinquish the Chairmanship, which was then assumed by Mr. R. Anderson, and Mr. R. M. Dunshea was elected Vice-Chairman.

In general, the senior meetings, both in Liverpool and Manchester were very well attended.

Six senior meetings were held in the Conference Room of the Mersey Docks and Harbour Board Buildings during the year.

In addition to these and in conjunction with L.A.D.S.I.R. L.A.C., a paper was presented in the Hornby Library, William Brown Street, on Wednesday, 10th January 1968.

In conjunction with the Institution of Mechanical Engineers, members attended the Thomas Lowe Gray Lecture at the Department of Mechanical Engineering, Liverpool University, on 31st January 1968.

The Branch was also given full details of the Liverpool Engineering Society Lecture programme and invited to attend its meetings on board the Clubship *Landfall*. Details of the Branch's lecture meetings were published in the Journal of the Liverpool Engineering Society.

Three meetings were held at the Engineers Club, 81 King Street, Manchester.

On 28th March 1968, in the Lecture Theatre of Vickers Ltd., Barrow-in-Furness, a combined lecture meeting was held in conjunction with the Barrow and District Society of Engineers.

Three junior lectures were presented during the year, in addition to which four technical film meetings followed by discussions were held at the Mersey Docks and Harbour Board Building.

A visit by Mr. J. Stuart Robinson, M.A., Director and

Secretary of the Institute, was made on 20th May 1968, to Riversdale Technical College and on 21st May to Birkenhead Technical College, during which he gave talks to students on the value of Institution membership, pointing out that it was necessary to have some sort of link with the profession after they left College.

A visit to London was undertaken by seven student members of the Branch. Messrs. I. E. Wilson, A. A. Hull, R. A. Yarnell, M. C. Downer, J. E. Tenney, J. S. Dobson and R. K. Milne on the occasion of an address by the Duke of Edinburgh at the Institution of Electrical Engineers.

A visit for the Junior Section was made to John Summers, Hawarden Bridge Steelworks, Shotton, on 18th April, 1968.

This year the following students were nominated for the Lloyds Register of Shipping Award: A. D. Chaplin and W. Seddon (Bolton Technical College), B. R. Hill and I. D. Barnett (Riversdale Technical College), R. Charlton and G. A. Henderson (Birkenhead Technical College).

Two students were nominated from the Branch for the *Sir Winston Churchill* cruise for 1968, J. E. Tenney (Riversdale Technical College) and I. P. White (Birkenhead Technical College).

Mr. I. P. White was selected, becoming the first successful nominee from the Branch since the inception of the scheme. He was chosen to fill the berth on Cruise No. 42 which sailed from Leith on the 25th August 1968, for a three week period and a very favourable report was later received from the Sail Training Association. An essay by this student of his cruise in *Malcolm Miller* was published in the January issue of the Transactions.

The Branch participated in "Engineering Fortnight", through the medium of C.E.I., at the Liverpool University Students Union from 25th March to 5th April. The object was to attract more intelligent young people to become involved in engineering, and apply new knowledge to practical ends. There was an exhibition of stands and audio-visual aids. The basis of the exhibition had been provided by the government. A number of members of the Committee participated in giving their time to man the exhibition stands.

A visit to Stone Manganese Marine Limited, Birkenhead took place on 23rd April. The group had a most interesting tour followed by an excellent buffet and film show. The Birkenhead factory at which all the propeller manufacture is concentrated had extensions which enable marine propellers 35 feet in diameter and weighing 90 tons to be produced.

A visit to Mirrlees National Limited, Stockport was made on Friday, 18th October. This again was an extremely interesting visit, but the attendance on the visit was very disappointing, only four persons attending out of a possible twenty.

The Annual Dinner Dance was held in the Banqueting Suite of the Adelphi Hotel on Friday, 1st November. The Branch was pleased to welcome the Director General of the Mersey Docks and Harbour Board, Sir Clifford Dove, C.B.E., E.R.D., accompanied by Lady Dove. Representing the Institute was the Assistant Secretary (Technical) Mr. A. E. Franklin, together with Mrs. Franklin. Also among the principal guests were Capt. J. A. Smith, Liverpool Marine Engineers' and Naval Architects' Guild, and Mrs. Smith, Mr. C. V. Vinten Fenton, principal, Birkenhead Technical College, and Mrs. Vinten Fenton, Mr. A. L. Martin, Acting Principal, Riversdale Technical College, and Mrs. Martin, Mr. E. F. Steen, Chairman, Institution of Mechanical Engineers, Merseyside and North Wales Branch, and Mrs. Steen, Professor Owen, Chairman, C.E.I. Merseyside and North Wales Committee, and Mrs. Owen, Mr. K. Brown, Journal of Commerce, and Mrs. Brown, Dr. Kennett, President, Liverpool Engineering Society, and Mrs. Kennett, Mr. P. G. Clarke and Mrs. Clarke, The Rev. R. A. Evans, The Chaplain Superintendent, Mersey Mission to Seamen, and Mrs. Evans.

The function was well attended, a total of 407 persons being present.

During the year four meetings were held by the Merseyside and North Wales Local Committee of C.E.I. together

## Annual Report of the Council for 1968

with a further meeting to discuss the formulation of an Education and Training Sub-committee. The two members of the Branch Committee, elected to serve on the C.E.I. Committee, were Mr. R. Anderson, Chairman and Mr. H. D. Makinson, Honorary Secretary of the Branch. Mr. G. Kenworthy-Neale was nominated as branch representative on the Education and Training Sub-committee, having previously been elected Educational Officer of the Branch. Mr. H. D. Makinson was nominated stand-in representative on the Education and Training Sub-committee.

Cdr. K. I. Short, O.B.E., D.S.C., R.N., has been elected Vice-Chairman of Mersey and North Wales Area Committee of C.E.I. The new Chairman of the local C.E.I. Committee is Mr. J. H. Winskill (Institution of Production Engineers).

The N.W. Area of this Institute covers two branches of C.E.I. namely, Mersey and North Wales Committee and the North West Area Committee (Manchester). It has been agreed to participate in a lecture programme through the medium of the existing Manchester section. The Branch is also committed to participating in an annual lecture, to be known as the "C.E.I. Lecture", in Manchester. Responsibility for this lecture to be rotated between the various members.

There has been a slow but steady movement towards co-operating and co-ordinating some of the activities of the constituent institutions of the local C.E.I.

In conclusion thanks are extended to Mr. R. Anderson for his energetic and diligent efforts as Chairman, during the year, in forwarding the interests of the Branch on all occasions, to further strengthen it in the future. He has attended every meeting this year, committee or senior or junior lecture.

The opportunity is also taken to thank Mr. H. J. Whitgreave for once again carrying out the duties of Honorary Treasurer in his usual excellent manner, also the Committee for its support throughout the year.

R. Anderson (*Chairman*)

H. D. Makinson (*Honorary Secretary*)

### NORTHERN IRELAND

The year 1968 was the first full year of operation as a Branch.

The total Branch Membership now stands at 225 members of all grades.

Numerous Committee meetings were held to discuss the business of the Branch and, in addition, the Chairman and Honorary Secretary attended a number of local C.E.I. Committee Meetings as official representatives of the Institute.

Three technical meetings were held at the Belfast College of Technology, Millfield Building, between March and December.

The annual Golf Tournament was held on 17th September at Clondeboye Golf Course, Co. Down. The Firth Brown Cup was won by Mr. R. Harrison of the Marine Engineering Survey Department, Customs House, Belfast. The visitors' prize was won by Mr. H. McClune of Henry R. Ayton Ltd. and the visitors' booby prize by Mr. H. J. Lamont.

Mr. David B. Glover, a second-year Marine Engineering student, was nominated to participate in the Lloyds Register of Shipping Award.

D. H. Alexander (*Chairman*)

S. K. Reid (*Honorary Secretary*)

### SCOTTISH BRANCH

The total membership of the Scottish Branch has continued to increase and now stands at 1651. Eight senior meetings were held in Glasgow at which the average attendance was 74. A student meeting was held on 29th October 1968, and the attendance was 241.

A joint meeting was held with the Aberdeen Mechanical Society at Aberdeen on 23rd February 1968, and this was very well attended. A joint meeting held with the Scottish Branch of the Institute of Mechanical Engineers at Edinburgh on 6th November, 1968, was also well attended.

The Fourteenth Annual Dinner was held on Friday, 16th February 1968, at the Central Hotel, Glasgow and the Twelfth Annual Dinner and Dance on Saturday, 23rd November, 1968, at the Grosvenor Restaurant, Glasgow. Both functions were very successful.

The Committee wish to express their thanks to the Chairman, Mr. A. Campbell, to the speakers and to those who have contributed to the work of the Branch during the year.

A. Campbell (*Chairman*)

L. D. Trenchard (*Honorary Secretary*)

### SOUTH WALES

The total Branch membership of all grades as the year ends, is 392, i.e. an increase of 31 over the previous year.

The Branch continued to be represented by Mr. T. W. Major and Mr. O. T. Griffith on the Local Committee of C.E.I., who reported to the Executive Committee matters which were discussed at the C.E.I. meetings.

Due to personal reasons, Mr. Griffiths resigned from the Executive Committee as well as from the C.E.I. local Committee. The Honorary Treasurer, Mr. J. W. McMaster, kindly volunteered to fill the vacancy.

In May Mr. Major relinquishes his seat on the local C.E.I. Committee. At last year's Annual General Meeting he suggested that the incoming Branch Chairman in 1969 should take his place. This suggestion has not yet been approved by the Committee.

The Branch wish to express their appreciation of the time and energy Mr. Major and Mr. Griffith devoted to their duties while serving on the C.E.I. Committee.

The second Annual Buffet Dance was held at the Stoneleigh Club, Porthcawl on Friday, 29th March, 1968.

The evening was a most pleasant social occasion and there was little doubt that the bus transport from Cardiff and Swansea was much appreciated. Arrangements at the Stoneleigh Club were excellent.

The Annual Golf Meeting was held at the Glamorgan-shire Golf Club, on Friday, 17th May 1968, when 42 members and guests enjoyed the competition and hospitality. The event was blessed with good weather. The David Skae Cup was won by Mr. N. J. Morgan, and the Visitors Tankard by Mr. E. Warrington.

The Annual Dinner was held at the Park Hotel, Cardiff on Friday, 1st November 1968, when 166 members and guests were present. The excellent dinner was followed by the usual toasts and speeches.

At the last Annual General Meeting Mr. N. J. Morgan was elected to follow Mr. G. K. Beard as the Branch Treasurer. Mr. N. J. Morgan was subsequently compelled to move to London and Mr. McMaster was re-elected to succeed him.

Mr. Fox was re-elected to continue in office as Secretary. The Branch would like to take this opportunity to thank him for his good work. Thanks were extended to Mr. David Skae, the Branch Vice-President, for his work and excellent organization of the Committee Meetings, and for his assistance in dealings with Headquarters.

On behalf of the Branch, the Chairman expressed his approval and satisfaction for the increment in the activities of the Institute in London.

An appeal was launched to raise funds and subscriptions for the Institute's Guild of Benevolence.

Six senior lectures, and two junior lectures meetings were held. The average attendance was: senior-62, and junior-75. The opportunity was also taken to thank the student and senior members from Swansea for their wonderful support.

F. R. Hartley (*Chairman*)

W. G. Fox (*Honorary Secretary*)

### SOUTHERN JOINT BRANCH R.I.N.A. AND I.M.A.R.E.

The Council is pleased to report another successful year both in the technical and social spheres. Attendance at meet-

## Annual Report of the Council for 1968

ings continues to average at about 100. Good attendances and lengthy discussion of papers indicate that the Branch is fulfilling its primary function of improving the professional knowledge of its members.

Six technical papers were read during the year.

The principal guest at the Annual Dinner was Mr. S. J. Palmer, O.B.E., R.C.N.C., and the Branch was glad to have as its guests representatives of the parent societies and local colleges of technology. With the growing participation of the Branch in the Southern Committee of the Council of Engineering Institutions members were particularly glad to welcome Mr. Berridge, Chairman of the Committee. There was a capacity attendance at the dinner and the Council regret that late applications had to be refused.

The Branch is now represented on the Southern Committee of the Council of Engineering Institutions. Apart from an extremely successful Chartered Engineers Lecture given in Portsmouth by Sir Barnes Wallis very good work is being done in supporting careers conventions in many cities and towns in the South.

Mr. W. F. Ward, who recently retired as General Manager of Harland and Wolff, Southampton has done the Branch the honour of accepting the office of President. Mr. Ward has supported the Branch for a number of years and for the past two years has been an Honorary Vice-President.

### WEST MIDLANDS

At the end of 1968 the Branch had a total membership of 387.

Five technical lectures were held during the year, with an average attendance of 26. This shows a considerable drop over the previous year and it is felt that there should be an improvement in the number of members attending.

The Chairman attended three Council meetings during the year.

A Works Visit was made to W. H. Allen, Pershore, where the visitors were shown the various manufacturing techniques relative to epicyclic gearing.

The Branch was represented on C.E.I. Midlands Committee and participated, together with Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute, in a Buffet Supper at the Chamber of Commerce, Birmingham. The principal guests were Sir Leonard Drucquer, C.Eng., F.I.E.E., and Brigadier J. R. G. Finch, O.B.E., B.A., C.Eng., Chairman and Secretary of C.E.I. respectively, who addressed the members on the subject of "The Future Role of the Engineer".

The first Midlands Committee Joint Lecture entitled, "The R.A.F. Aerospace Briefing Team" was held at the University of Aston, Birmingham.

In January, the Assistant Secretary, Mr. A. E. Franklin, attended the Birmingham Education Committee Careers Week and presented a paper to the students on "Marine Engineering as a Career".

The Annual Dinner was held at the George Hotel, Solihull, on 14th November and was attended by 133 members and guests.

Regarding awards, disappointment was expressed at

the Branch's inability to nominate students for either the Lloyds Register of Shipping or the Sir Winston Churchill Awards.

Mr. Cotterill will continue to serve as the representative of the Guild of Benevolence and the Branch takes this opportunity to express its appreciation for the hard work he has done.

W. H. Lindsey (*Chairman*)

J. H. Gilbertson (*Honorary Secretary*)

### WEST OF ENGLAND

The membership of the Branch has increased slightly during the last 12 months and the total now stands at 380.

A number of lectures were held during the year but attendances dropped by 24 per cent compared with the previous year. The joint meetings with the Royal Institution of Naval Architects and the Institution of Electrical Engineers were very successful.

The local activities of the C.E.I. continued actively during the year and the Branch was represented at the biennial meetings by the Chairman and Honorary Secretaries of the constituent C.E.I. members. At the last of these meetings the proposal to form a local C.E.I. Branch was narrowly defeated but the annual C.E.I. lecture was once more very successful under the present voluntary arrangements.

The Annual Dinner and Dance was a very successful event when the Branch Chairman, Captain A. A. C. Gentry, R.N., and Mrs. Gentry had the pleasure of welcoming a company of 120 members and guests. The principal guests were the Chairman of Council, Captain W. S. C. Jenks, O.B.E., R.N., and Mrs. Jenks. Unfortunately the Lord Mayor of Bristol could not attend but the Branch had the pleasure of the company of Mr. A. H. Hodding, Vice-President of the Bristol Steamship Owners' Association, together with Mrs. Hodding, and also representatives of the Institution of Chemical Engineers and the Southern Joint Branch of the Royal Institution of Naval Architects and the Institute of Marine Engineers.

The skittles evening once more proved a great success and was much enjoyed by all present. The evening was marked by the presentation of a plaque of the Institute Coat of Arms to Mr. M. Goodacre who retired after five years' service as Honorary Secretary.

The annual engineering visit took place on Thursday, 16th May when a party of 47 members and guests visited the works of W. H. Allen and Co. Ltd., Pershore, and the works of Heenan and Froude Ltd., Worcester. Whilst the members looked round the works, the ladies were taken on a tour of the Royal Worcester Porcelain factory and to the Malvern Hills.

Looking back over the year, it seemed that the interest of the members in the Branch's activities had been more than maintained and the Committee expressed their thanks to Captain Gentry, and to all who had also contributed to the work of the Branch during the year.

A. A. C. Gentry (*Chairman*)

R. Ellis (*Honorary Secretary*)



# Annual Report of the Council for 1968

## OVERSEAS DIVISIONS

### Canadian

#### GREAT LAKES

The membership of the Branch has increased considerably over the previous year.

Five technical meetings were held during which a full list of papers was presented.

The Chairman expressed his appreciation of the efforts of the Committee, with a special mention for the Honorary Secretary, Mr. G. W. R. Corbin, for his extremely efficient and always tactful conduct of the affairs of the Branch.

During the year Mr. A. C. Waldie asked to be relieved of his duties as Local Vice-President and Mr. G. P. Fowlie was appointed in his place.

The Chairman expressed the regret of all members of the Branch for the death of Mr. F. Robb, a member of long standing who had served several times on the Branch Committee.

The Annual Dinner was held at the Holiday Inn, Oakville. About 60 members, their ladies and friends attended and the evening was thoroughly enjoyed by all present.

In June the Branch had the pleasure of a visit from the Chairman of Council and the Director and Secretary of the Institute, Captain W. Jenks, O.B.E., R.N., and Mr. J. Stuart Robinson, M.A., together with Mrs. Jenks and Mrs. Robinson. The visitors were taken on a tour to the Control Centre of the Welland Canal and on an excursion of Niagara Falls. The following morning the party returned to Malton for the continuation of their trip to Ottawa.

The Honorary Secretary received a letter from the guests after their departure, expressing their delight at having been relieved of sitting in a big city hotel and for the most pleasant and interesting entertainment.

Thanks were extended to Mr. D. G. Champion for securing the facilities of the Engineers Club for the Branch's business and social meetings.

D. G. Champion (*Chairman*)  
G. W. R. Corbin (*Honorary Secretary*)

#### NEWFOUNDLAND

The total membership of the Branch now stands at 39.

Three committee meetings were held during the year.

In May a visit was made to the College of Fisheries, Navigation, Marine Engineering and Electronics. The members enjoyed an excellent buffet supper with the President, Dr. Barrat, the Board of Governors and Instructors, after which they were conducted on a tour of the College.

#### MADRAS

A Committee Meeting was held on 2nd February 1968 to discuss "Revision of Merchant Shipping Act 1958".

Five technical visits were arranged during the year all were interesting and informative and well attended.

A Committee Meeting was held on Monday 12th August to discuss an Institute letter regarding IMAS 1969 and the Annual Dinner for the Branch members and their families.

The Annual Social Evening and Dinner was held on 31st August at the residence of Mr. I. M. Rao. The Committee

takes this opportunity to thank Mr. Rao for the facilities offered. At this function Mr. K. Parthasarathy was elected as the Branch Representative to attend the IMAS 1969 Conference.

A dinner was held at the Shriners Club to celebrate Ladies' Night. A most enjoyable evening was spent by all present.

L. A. Johnson (*Chairman*)  
A. J. Whitway (*Honorary Secretary*)

#### VANCOUVER ISLAND

During the past year membership has dropped from 106 to 94, due to service postings and members moving or being transferred from this area.

During Canada's Centennial year, 1967, the Branch instituted a membership drive resulting in an increase from 91 members to 101 members.

The first International Marine and Shipping Conference, which will take place in London between 10th-20th June 1969, will be preceded by a "Domestic" Institute Conference from 7th June to the morning of 10th June.

Activities for the year, in addition to the Annual General Meeting, included the Annual Dinner which was held at the Canadian Forces Base Mess and a social evening at the Dockyard Officers' Club. There were also two technical meetings at which papers were presented.

Seven Committee meetings were held during the year. The Honorary Secretary submitted his resignation from his office and asked that a replacement be elected at the Annual General Meeting.

E. W. Phillips (*Chairman*)  
J. McPherson (*Honorary Secretary*)

#### VANCOUVER

During 1968 the following events took place. On Wednesday, 17th April 1968, a film was shown, on the building of the s.s. *Tokyo Maru*.

On 3rd October 1968, a paper was presented by Mr. P. Dale (Member) entitled "The Marine Engineer, Past and Present" and on 28th November 1968 a talk and film were arranged, on the subject of "Dawn of an Industry", and concerned the application of Hovercraft in Canada.

The Annual Dinner Dance was held on 18th October 1968 at The Commodore Cabaret, Vancouver. This event was an outstanding social success there being over 500 members and guests present.

D. I. McGuinness (*Chairman*)  
R. W. Brown (*Honorary Secretary*)

### Indian

takes this opportunity to thank Mr. Rao for the facilities offered. At this function Mr. K. Parthasarathy was elected as the Branch Representative to attend the IMAS 1969 Conference.

A general meeting was held on 29th November, when Mr. Kasthuri Rangan delivered an interesting speech on "Marine Engineer in Industrial Environment".

A. T. Joseph (*Chairman*)  
V. K. Desai (*Honorary Secretary*)

## Annual Report of the Council for 1968

### OVERSEAS BRANCHES

#### AUCKLAND

The membership of the Branch has increased from 133 to 137.

During the year three lectures were held.

The Sixth Annual Dinner of the Branch was held on Saturday, 14th September 1968 at Romfords, Tamaki Yacht Club, Bastion Point, Auckland. One hundred and four members and guests attended the function.

In November, the Chairman of Council, Captain W. S. C. Jenks, O.B.E., R.N., Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute, and Mr. M. J. Pearce, F.C.A., Assistant Secretary (Administration) visited the Branch; members were pleased at this opportunity of personal contact with the Head Office. A reception and dinner to mark the occasion was held on Monday, 18th November. Such visits by executives from London assist members to feel part of an organization, rather than a small group some 12 000 miles away round the globe. During this period of change and development, it is encouraging to find the Institute planning well into the future.

The Branch welcomes the news that two more Branches are to be formed in New Zealand and looks forward to this development.

H. Whittaker (*Chairman*)

C. S. Harnett (*Honorary Secretary*)

#### CAPE TOWN

The programme for the year was restricted by transfers and retirements, however, three technical meetings were held. Two of these were joint meetings with the South African Institute of Civil Engineers, whilst at the third, arranged for Branch members, a technical film was shown in addition to the presentation of a paper.

A visit to R.N.A.S. *Otway* at Simonstown Dockyard, in August, was authorized and organized by the Royal Australian Navy and the South African Navy. The Branch records its sincere thanks to both Services and to the officers concerned.

A meeting held in Johannesburg on 29th October, under the Chairmanship of Mr. A. J. Scott, Corresponding Member, Johannesburg, was attended by Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute who was on route to Australia. Commodore (E) D. W. Robertson, S.M., B.Sc., S.A.N., represented the Durban Branch, and Mr. D. McG. Clark, the Cape Town Branch; twelve members of the Institute resident in the Transvaal, were also present.

The meeting was arranged at the request of Mr. Robinson who, because of his commitments, could not spare the time to go round all the South African Branches. Discussion centred mainly on the Professional Engineers Bill which will provide for the establishment of a South African Council for the registration of engineers.

The ramifications of this Bill and its impact on members of the Institute of Marine Engineers in South Africa, were discussed in breadth and depth. As a consequence, a Steering Committee consisting of the three Area Representatives was elected—subject to formal approval by the Durban and Cape Town Committees—to co-ordinate views of the local members, and represent their opinions as required to the appropriate officers sponsoring the Bill and administering the proposed Council.

The Annual Dinner was held in the Hotel President on 22nd November, a total of 117 members and guests being present. Mr. C. S. Russell was in the chair, and the main speakers were His Worship the Mayor of Cape Town, Mr. Marsh, Managing Director, Safmarine; Mr. Malan, the previous Managing Director Safmarine. This was a most enjoyable function in delightful surroundings.

C. S. Russell (*Chairman*)

D. McG. Clark (*Honorary Secretary*)

#### DURBAN

The Durban Branch continues to enjoy an active programme and the membership now stands at 52.

There were four technical meetings, and the usual pattern of quarterly luncheons was also successfully followed. Other highlights of the year were a well-attended film evening and a particularly enjoyable Annual Dinner.

The Professional Engineers Bill has now become law but it is anticipated that it will be some six months before it becomes operative. The Institute has, through the combined efforts of the Director and Secretary, Mr. McGregor Clark Honorary Secretary, Capetown Branch, Mr. A. J. Scott (Corresponding Member Johannesburg) and Commodore (E) D. W. Robertson S.M., Chairman of the Branch, made representations to the Professional Engineers Council and a steering committee has been formed to pursue this matter.

A Branch representative at IMAS 69 will soon be selected from a short list of five members.

D. W. Robertson (*Chairman*)

R. C. Baker (*Honorary Secretary*)

#### PAKISTAN

The major activity of the Pakistan Group during 1968 was that of arranging a programme of technical meetings and film shows, visits to industries, social events and lectures on current engineering subjects.

Assistance was provided to many young marine engineers in solving their professional difficulties and in the preparation to sit M.o.T. Examinations, now being conducted at Karachi by the Director General of Ports and Shipping, Government of Pakistan.

The membership of the Pakistan Group has shown a considerable increase during the year with a total of 261 as against 175 in 1967, however, several members have fallen into arrears with their annual subscription.

The Institute of Marine Engineers has granted an award of one prize to the value of £6 6s, to the student of the Marine Academy, Chittagong, who secures highest marks in Engineering Knowledge in the final examination. This year the prize was awarded to Cadet Captain Ali Ashraf.

The Institute has invited a member from the Pakistan Group to participate at the Domestic Conference from 7th to 10th June 1969, prior to the International Marine and Shipping Conference 1969. Commander T. A. Thanwey, P.N., C.Eng., M.I.Mar.E., Honorary Secretary and Treasurer has been nominated to represent the Group.

Social events in particular were attractive and on all occasions a large number of members, shipowners, shipbuilders and repairers participated. There is no doubt that the social activities are a stimulating complement to the technical proceedings.

Four Committee meetings and five technical meetings were held during 1968. Technical film shows were arranged a number of times for the benefit of student members.

The Annual Dinner was held at Hotel Karachi Intercontinental, 125 members and guests attending. The Group was pleased to have among its principal guests Vice-Admiral S. M. Ahsan, H.Q.A., S.Pk., D.S.C., P.N., Major-General Riaz Hussain, Air Vice-Marshal M. Akhtar, Brigadier S. A. Kirmani, Commodore S. B. Salimi, P.N., Commodore Mahmudul-Hasan, P.N., Commodore U. A. Saied, P.N., Shipowners and their marine superintendent, and the Secretaries of the Institute of Engineers (Pakistan) and Institute of Mechanical Engineers, etc.

Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute visited Karachi on 27th November 1968. A General Meeting was arranged at the Hotel Intercontinental, Karachi, followed by a reception to enable members to meet him.

T. A. Thanwey (*Honorary Secretary*)

## Annual Report of the Council for 1968

### QUEENSLAND

This report covers a period of 18 months e.g., from the inauguration of the Branch on 28th June 1967. The committee has remained in office for this extended period so that the annual general meeting and balance of accounts would comply with the Rules for Operation of Branches.

Membership has increased rapidly, mainly in the Brisbane area, where the meetings are held. Except for Townsville with about 11 members, outport members are scattered in ones and twos over the State.

Membership of the Branch has increased from 75 to 99 during the period. Average attendance at meetings in relation to the total membership in the Brisbane area has been about 40 per cent. Whether this is the first flush of enthusiasm on the formation of a branch remains to be seen but the committee has been gratified by the response and hopes that this enthusiasm will be carried into 1969.

Five technical meetings were held between June 1967 and November 1968.

Two dinners have been held and members were asked to air their views on the future activities of the branch. Numerically, the dinners were successful, but lacking in the standard of discussion. At future dinners it is proposed to invite a distinguished guest to give an address.

Ladies Night was a highlight of the year. It was a near perfect evening, that flowed smoothly from start to finish. Possibly the fact that the ladies found the evening so enjoyable, was in some way responsible for the continuance of the high attendance at meetings.

On 11th November 1968, the Chairman of Council, Captain W. S. C. Jenks, O.B.E., R.N., Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute, and Mr. J. Pearce, F.C.A., Assistant Secretary (Administration) visited the Branch. The meeting was held to discuss the present and future development of the Institute.

This visit was the major event of the year, occurring soon after the formation of the branch; general discussions with them solved problems which would, in normal circumstances have required pages of correspondence. This, together with the disclosure of the hopes and plans for Institute activities in Australia, proved that Headquarters, London are alive and active in regard to the standards status of marine engineers. Members who were unable to meet Captain Jenks, Mr. Robinson and Mr. Pearce can rest assured that the affairs of the Institute are in the hands of capable men.

The Branch would also like to place on record its appreciation of Mr. B. Hildrew, M.Sc., Chief Engineer Surveyor, Lloyd's Register of Shipping, Vice-Chairman of Council, who, whilst on a tight scheduled visit to Australia found sufficient time to present a lecture.

Votes of thanks were accorded to Mr. A. J. Watkins, Vice-Chairman of the Branch, initially for obtaining use of the Ward Room at H.M.A.S. *Moreton* and for other items large and small; to Mr. A. L. Redford, M.B.E., probably the man most responsible for the formation of the Branch, who by providing secretarial assistance, producing stencils and printing notices made the Honorary Secretary's job much easier and saved a great deal of expense and to Mr. H. Heath, Executive Officer, H.M.A.S. *Moreton* and Ampol Petroleum for use of the Ward Room and Conference Room respectively, free of charge, for the various meetings held.

A programme of meetings and social events for 1969 has been arranged and the Committee looks forward to the continued support of all members.

L. B. McDonald (*Chairman*)  
J. Chapman (*Honorary Secretary*)

### VICTORIA

Total membership of the Branch is now 240, representing a healthy growth which can reasonably be expected to continue.

Three general meetings were held during the year, at which technical papers of good standard and varied interest

were presented. A good attendance was obtained at each and lively discussion followed the papers.

A joint venture was embarked upon by this Branch and the London based members of C.E.I. in securing an office within the National Science Centre which was opened by H.R.H. The Prince Philip, The Duke of Edinburgh, on 30th May. This facility now provides a permanent address, a telephone answering service and some secretarial assistance as well as excellent facilities for meetings and lectures.

Relationships with C.E.I. was further favoured by the first joint meeting to be held in Australia, at the National Science Centre on 11th September. A paper was presented by two members of the Branch to an audience of 123 people.

Education and training of marine engineers became a topical subject during the year and the Branch was invited to join a newly formed National Committee for Nautical Education, so that a co-ordinated approach to the training of engineer and deck officers could be agreed. A similar type of study, initiated by the Victorian Education Department, aimed at fixing a course of study for higher technicians (Mechanical) is also in hand and the Branch was represented in this also. Finally, during the year a committee was set up by the Commonwealth Government to inquire into awards to be granted by Colleges of Advanced Education when they become more widely established. With a brief to consider the nomenclature of these awards, the uniformity of this nomenclature on a national scale, the criteria to be used in assessing courses and the possible establishment of an advisory body, it was thought desirable that the Branch Education Sub-committee should prepare a submission to safeguard the interests of the marine engineering profession in Australia. This was done and the submission has now been finalized in conjunction with the other Australian branches and is being considered by the Committee of Inquiry.

During November, the Branch was privileged to receive a visit by Captain W. S. C. Jenks, O.B.E., R.N., Chairman of Council, Mr. J. Stuart Robinson, M.A., Director and Secretary of the Institute, and Mr. M. J. Pearce, F.C.A., Assistant Secretary (Administration), who addressed an extraordinary general meeting on 8th November. In revealing proposals for the formation of an Australian (or possibly Australasian) Division, changes in relationship between London and the various overseas divisions, progress on the IMAS 69 Conference and the attendant Domestic Conference and then entering into a general discussion, a tremendous impact was made. It is certain that 1969 will prove to be an even more memorable year for the Institute in Australia.

The Social Sub-committee, with reduced numbers, operated on a modest scale during the year, but made up in quality for what was lacking in numbers of events. An enjoyable barbeque was held but a dinner dance had to be cancelled to accommodate the London visit. The principal guest at the Annual Dinner, held on 11th October, was Mr. P. D. Scott Maxwell, managing director of Vickers (Australia), who spoke on Nuclear Power and Merchant Ships. A record attendance was registered and it is clear that larger accommodation must be sought next year.

Production of *Newsletter* by the Publications Sub-committee continued on schedule with four issues being produced in excellent style. As a medium for maintaining contact with seagoing and country members, it performs its role nobly and amply justifies the effort put into its production. The Branch has been asked to add the Canberra National Library to its circulation list.

Early in December a technical visit was arranged, through Captain Jenks, to m.v. *Port Caroline* on her maiden voyage. A good attendance was recorded on this occasion to see an outstanding example of a very large and modern refrigerated cargo ship.

J. B. Thomson (*Chairman*)  
D. W. K. Vagg (*Honorary Secretary*)

## Annual Report of the Council for 1968

### WESTERN AUSTRALIA

It is pleasing to report that membership has increased to a total of 103.

Five general meetings were held during the year. At these meetings presentation of papers maintained the high standard of previous years.

An innovation this year was the change of venue to the University of Western Australia for the Annual Students' Night and an award to Mr. K. Ralphs, chosen as the most outstanding marine engineering student for 1968.

Two discussion meetings were held during the year.

At the August meeting Mr. A. McKimmie was unanimously chosen as the delegate of the Western Australia Branch to IMAS 69, to be sponsored by the Institute.

The interest of the Committee Members was shown by the lively and sometimes lengthy discussions which ensued at the five committee meetings held during the year.

The Branch affiliated with Australian and New Zealand Association for the Advancement of Science, thus making all members eligible to attend A.N.Z.A.A.S. functions.

Social events opened with the film evening for wives and friends followed by the Annual Dinner Dance at which the Chairman welcomed 115 members and guests, the place of honour being taken by the Vice-Chairman of Council, Mr. B. Hildrew, M.Sc.

An event which will be the forerunner of changes in the

Australian area was the visit by the Chairman of Council, Captain W. S. C. Jenks, O.B.E., R.N., the Director and Secretary of the Institute, Mr. J. Stuart Robinson, M.A., and Mr. M. J. Pearce, F.C.A., Assistant Secretary (Administration).

Members were able to meet the distinguished party informally during a pleasant cruise in *Challenger*. A more formal social occasion was the civic reception given by the Mayor of Fremantle, Sir Frederick Sampson, in honour of the guests from London.

An extraordinary general meeting was convened on 4th November to allow these executive members to outline the progress and planned future development of the Institute. Their tour culminated in a combined meeting of Australian Branch representatives, attended by Mr. E. E. Freeth of this Branch, from which a recommendation will be passed to Council for the formation of an Australian Division.

During this year, questions ranging from the future development of the Institute to the education and status of the marine engineer have been brought forward for discussion. The Committee appreciate the way in which members have contributed to these discussions, thus showing a lively interest in the affairs of the Branch.

E. E. Freeth (*Chairman*)

C. B. Jagger (*Honorary Secretary*)

## COUNCIL OF ENGINEERING INSTITUTIONS

### MEMBERSHIP

The total corporate and non-corporate membership of the constituent Institutions of the Council for 1968 was:

Corporate	159 723
Non-corporate	115 877
	<hr/>
	275 600
	<hr/>

### STAFF

Sir Leonard Drucquer continued in office as Chairman and during the year several new members of staff joined C.E.I. Headquarters, including Mr. P. O. Wymer, B.Sc., C.Eng., as Public Relations and Information Adviser. Brigadier J. R. G. Finch, O.B.E., B.A., C.Eng., resigned his post as Secretary in September 1968, and Mr. M. W. Leonard, B.Sc. (Eng.), C.Eng., F.I.C.E., M.I.Mech.E., was appointed in his place.

### HONOURS AND AWARDS

The following honours were received by members of the Council during the year:

#### *Knights Bachelor*

Sir Leonard Drucquer, Chairman of Council  
Sir Frederick Warner, Chairman,  
Membership Committee

#### *Order of the British Empire*

Dr. J. B. Brennan, Secretary,  
Institution of Chemical Engineers  
Mr. A. L. Stuchbery, Chairman,  
Overseas Relations Committee  
Mr. W. F. S. Woodford, Secretary,  
Institution of Production Engineers

### CERTIFICATES OF REGISTRATION

During the year, Certificates of Registration as Chartered Engineers have been made available on request and on payment of a fee of £3. Over 6000 certificates have been issued to date.

### EXAMINATIONS

During the year, it was decided to reduce both:

- the number of centres in which Part 1 and Part 2 could be sat;
- the frequency of the examination to once instead of twice each year.

Fees would be raised as from 1969.

#### *Candidates*

Part 1, October, 1967	4
Part 1, April, 1968	88
Part 2, April, 1968	204

Of the 196 who sat "The Engineer in Society" 109 obtained a pass.

In the field of examinations, the point of maximum expenditure and minimum income had been reached, and it can be hoped that next year's results will show considerable improvement.

### TRAINING

Close co-operation has been maintained with the Engineering Industry Training Board, and a guide "The Training of Professional Engineers" has been published. Resulting from a joint conference held in November 1967, the Schools Science and Technology Committee was formed.

To stimulate the interest of school children in the profession, a booklet "What do you know about Professional Engineering?" has been distributed to all secondary schools in the United Kingdom.

During the year, the Council participated in 18 careers conventions. Plans have been made for a portable C.E.I. stand for use at conventions and exhibitions where a C.E.I. display is required.

On 21st March 1968, H.R.H. the Duke of Edinburgh addressed a meeting of 600 young engineers—an occasion which was an outstanding success.

The 14th Graham Clark Lecture was delivered by Lord Jackson of Burnley on "The Problems of Engineering and Scientific Manpower and their Implications for National Policy".

The Council maintains very close contact with the Ministry of Technology, the Department of Education and Science, the Board of Trade, the Royal Society, the Confederation of British Industry, the Institute of Physics and the Physical Society, the Royal Institute of Chemistry, the Institute of Biology, the Institute of Metallurgists, and many other government departments and societies.

Under the chairmanship of Mr. H. G. Conway, Institution of Mechanical Engineers, a working party submitted the recommendation to the Government that a National Design Council, including a strong engineering design activity, be set up.

### B.S.I.

A sub-committee serviced by the Institution of Civil Engineers has been formed to co-ordinate the views of member institutions on matters relating to the British Standards Institution.

### 1851 FELLOWSHIPS

The Council has accepted the invitation to operate a scheme of 1851 Senior Industrial Fellowships "to increase the means of industrial education and to extend the influences of science and art upon productive activity". It is intended to finance the scheme over a period of seven years by a sum of £75 000.

### MACROBERT AWARD

Through the generosity of the MacRobert Trustees, an annual award of a gold medal and a prize of £25 000 is to be made to any individual or independent team, or to a team working for a firm, organization or laboratory where an outstanding contribution has been made by way of innovation in the fields of engineering or the other physical technologies or in the application of the physical sciences, which has enhanced, or will enhance, the national prestige and prosperity of the United Kingdom.

## *Annual Report of the Council for 1968*

C.E.I. has undertaken to administer the award, which will be made for the first time in 1969.

### R. W. PAUL FUND

The Council is one of the Joint Trustees of the R. W. Paul Fund, the annual income from which is used to support an award for the design, construction or maintenance of novel, unusual or much improved types of instruments or apparatus. The fund is administered by the Royal Society.

### MANPOWER SURVEY

A second survey of professional engineering manpower, covering some 25 000 corporate and graduate members of Institutions, has been carried out.

### LIBRARIES

The Council was invited during the year to submit evidence to the National Libraries Committee, set up by Mr. Patrick Gordon Walker, and the processing of this evidence is being undertaken by the Institution of Structural Engineers.

### OVERSEAS RELATIONS

A Bill amending the Charter of the Institute of Civil Engineers of Ireland was passed and provides that chartered members of that Institution shall be known as Chartered Engineers. The title Chartered Engineer gained by qualification in the United Kingdom has been recognized.

### W.F.E.O.

Dr. G. F. Gainsborough has been appointed Secretary

General of the new World Federation of Engineers and Organizations, which had its inaugural meeting in Paris in March 1968, and on which C.E.I. represents the United Kingdom.

### F.E.A.N.I.

The General Assembly of F.E.A.N.I. was held in London in July when Sir Frederick Warner became the first British engineer to be elected President.

A joint E.U.S.E.C./F.E.A.N.I. Committee is considering the future relationship of these two bodies. Continued efforts are being made to solve the problems of the position of professional engineers chartered in the United Kingdom, in Canada, South Africa, Eire and other overseas countries.

### LOCAL COMMITTEES

Audiences have exceeded 1000 at some joint lectures organized by local committees. The provision of representations at careers conventions organized locally has been one of the major activities of many committees.

### ACCOUNTS

The balance of the accumulated fund was £7469, compared with the target figure of £10 000, which the Board had approved, should be held as an allocated reserve. It was agreed that in future the examination would be financed from a loan fund, not from the reserve fund derived from initial Institution subscriptions, for its setting up, and that the examination should be self-supporting.

## Representatives' Reports

*City and Guilds of London Institute: Advisory Committee on Shipbuilding, Ship Joinery, Yacht and Boat Building.*

Representative: P. J. Howard, B.Sc.

Courses are being revised in order to provide complementary further education to the training requirements of the various training boards. The aim is to provide a common further education course for the early stages of training in several occupations.

In the later stages of training for different occupations, a special course is required for each but, by rationalizing common elements, it should be possible to provide some common subject syllabuses.

The Part II course in Engineering and Shipbuilding Crafts Studies has been finalized and will be introduced in the 1969/70 session, the first examinations being held in 1971.

*City of Plymouth College of Technology: Advisory Committee for Civil and Mechanical Engineering.*

Representative: Cdr. W. Farrell, M.B.E.

The Session 1967/68 has proved most successful, with a complement of 134 marine engineer cadets attending two year courses for the Ordinary National Diploma in Engineering, or being prepared to sit the Board of Trade Part A Examinations.

Thirty cadets sat the Final O.N.D. examination, 26 obtaining the Diploma and collectively achieving 10 subject distinctions and 115 subject credits.

Twenty-three cadets sat the B.o.T. Part A examination and a total of 59 subject passes was obtained.

The institute's O.N.D. awards for 1967/68 were obtained by:

1st year Cadet A. A. Adams (Shell Tankers U.K. Ltd.);

2nd year Cadet N. Marsden (Cayser Irvine Ltd.).

The Institute's Heat Engines Award for 1967/68 was obtained by Cadet N. E. Carpenter (Furness Ship Management).

Cadets have attended many of the lectures organized by the Devon and Cornwall Branch Committee and a small number was invited to the Annual Dinner and Dance at R.N.E.C. Manadon.

In the forthcoming 1969/70 Session the new residential Nautical College facilities will become available for all cadets.

The College is approaching Polytechnic status and the marine engineering courses for the cadets will in future be administered by the College of Further Education.

The Polytechnic work of the Civil and Mechanical Engineering Department will be concerned with post-graduate research degrees, H.N.D. and H.N.C. and advanced technician courses.

*Committee on Regulations for the Electrical and Electronic Equipment of Ships.*

Representative: R. E. R. Crick.

The Committee was convened on two occasions during 1968.

The main business has been the consideration to the revision of the 1961 regulations. The Committee is still actively engaged on this.

*East Ham Technical College: Engineering Advisory Committee.*

Representative: R. M. Duggan, M.A.

In accordance with a decision made in 1967 only two meetings of the Committee were convened in 1968. These were held on 31st May and 8th November.

During the summer months a number of alterations and

additions was carried out in the Mechanical and Production Engineering Department. The object of this re-organization was to modernize the laboratories and workshops in line with current educational and industrial practice.

In November the new facilities were demonstrated and are considered to be very impressive. These consist of visual aid and photographic preparation rooms, a design office with model room, a work study laboratory and considerably improved facilities and equipment for advanced welding, machining, metrology and inspection.

In both the Mechanical and Electrical Engineering departments there was again a drop in enrolments, amounting this year to about 7½ per cent. Some of this reduction is accountable to the transfer of students to West Ham College of Further Education. In addition a number of evening courses have been eliminated.

The high standard of examination results has been maintained. For example, the College obtained 50 per cent of distinctions throughout the country in the City and Guilds advanced telephony examination.

The constitution of the Committee has been considered and approval of the Technical College Governors has been sought to widen and increase the representation of non-chartered professional bodies and employer's representatives.

The problems of participation by the Borough representatives and their responsibilities in the Committee were debated, but no easy solution has been evolved.

As a result of a discussion with the departmental heads, efforts are being made to arrange a visit to a modern ship so that some of the College staff can keep abreast of the rapid developments in marine engineering.

*Engineering Institutions Examinations Standing Committee for Part I.*

Representative: C. H. Taylor-Cook, B.Sc.

There is very little to report for 1968 as the work of the Committee is coming to an end. Examinations were held in April and October and the work necessary in arranging for these and in assessing the results has been carried out as usual. No more examinations are to be held as the scheme has been superseded by the C.E.I. scheme.

*International Institute of Refrigeration: Standing Committee.*

Representative: K. Hales, M.A.

The U.K. Standing Committee met twice in 1968. Meetings, publications and committees of the International Institute were discussed. A subject for particular discussion was the way in which the Institute was fulfilling its role as technical adviser on refrigerated transport to Economic Commission of Europe.

*Joint British Committee for Stress Analysis.*

Representative: B. Hildrew, M.Sc.

In February, a one day meeting was arranged in London, in association with the Institute of Physics, covering the subject "Stresses Around Crack Tips." This was well attended and very successful.

A conference on "Recent Developments in Stress Analysis" was held in March at the Royal Aeronautical Society. The quality of the thirty papers and associated discussion was extremely high.

In September, the Committee was also associated with the

## Annual Report of the Council for 1968

Institute of Physics at a well attended one day meeting at Cranfield which covered the subject of "Composite Materials".

The work on the Fourth International Conference on Stress Analysis to be held in Cambridge in April, 1970, is making good progress. Offers of papers already considerably exceed the time available for presentation and it is certain that a very high quality conference will result.

The third volume of the quarterly Journal of Strain Analysis was published. This Journal has a high technical content and has subscribers in over thirty countries.

*Liverpool Regional College of Technology: Mechanical, Marine and Production Engineering Advisory Committee.*

Representative: K. J. O'Neil.

During the year Mr. S. A. J. Parsons, the Principal, reported that the Academic and Faculty Boards were meeting regularly. The Appointments Committees, which consisted of members of the staff and Governing Body, were working very well. The Academic Board had recommended that the Minutes of the Advisory Committees should be submitted first to the Faculty Board, which in turn reported to the Academic Board. In addition the Minutes of the Advisory Committees will continue to be submitted to the Governing Body as before.

The College now has eight degree courses and the past few months has largely been one of consolidation. Work on Phase III of the College will shortly begin, but the accommodation in that building will not affect the Mechanical Engineering Department to any great extent. The principal could not report on any progress in the formation of the Polytechnic.

Dr. Brothers, as Head of the Department, said that as far as enrolments were concerned in the College, there had been a big increase in full time courses and short post advanced courses. The scheme for the ordinary degree in mechanical engineering has been approved subject to certain minor modifications. The scheme for the B.Sc. Ordinary Degree in marine engineering is being re-submitted after modification to meet C.N.A.A. criticism of the original scheme.

The College is maintaining its close observations on the Report of the Exemption Sub-Committee of C.E.I. examining the Board of Trade's Extra First Class Certificate with respect to exemption qualifications for C.E.I. examinations.

The capital estimates for 1969/70 included a proposal for a Naval Architecture Towing Tank at an estimated cost of £45000. The Principal informed the Committee that the Navigation Advisory Committee had considered a Tank of this type a few years ago and after careful examination of the proposal, had been unable to approve it. In view of the relatively large cost involved, it was agreed that an *ad hoc* Committee be formed to discuss the proposal in fuller detail. The Committee's report showed that there were considerable differences in the prices quoted for the supply of the towing tank. The Committee agreed that the flume type of tank with static models was to be preferred. After a very lengthy discussion it was agreed that a full report be prepared on the usage, specification and cost including the siting of the tank and that the item be withdrawn from the Capital Estimates in 1969/70 for consideration at a future date.

The Principal, Mr. S. A. J. Parsons, retired from the service of the Local Education Authority on the 31st December, 1968; this followed a period of 10½ years service. On behalf of the members of the Advisory Committee, the Chairman wished Mr. Parsons a long and happy retirement and, on a personal basis, thanked him for the great support he had been throughout his period of membership of the Committee. Mr. Parsons replied that it had been a great pleasure to him to find so many people who were prepared to give up their time to help the College and he thanked the members for their co-operation.

*Lloyd's Register of Shipping: Technical Committee.*

Representatives: J. G. Robinson and Capt. W. S. C. Jenks, O.B.E., R.N.

1) Two new sections have been added to the Society's Rules. Chapter L dealing with Control Engineering and Chapter R (E) —Section 2, outlining the methods of calculating torsional vibration characteristics of oil engine machinery. Both these new

sections have been published as Rule Notices and appear in the 1969 edition of the Rules recently published.

2) A complete revision has been made of the Requirements relating to the scantlings of propellers for ships intended for navigation in ice.

3) Alternative survey procedures are being applied consisting of inspection of manufacturing processes and methods used by manufacturers to establish quality control, including specific tests as considered necessary for line-produced and mass-produced machinery items.

4) At the suggestion of European Oil Engine Manufacturers (C.I.M.A.C.) the Rules for spare gear of oil engines have been, so far as practicable, unified with those of other societies. The revised list has been published in the 1969 edition of the Rules.

5) The first drafts of five sections of the "Provisional Requirements for the Classification of Offshore Platforms" (including machinery items) were circulated to the Panel of the Technical Committee, and interested parties, for comment.

6) Guidance Notes and Requirements for the Classification of Air Cushion Vehicles were published during the year.

7) The Rules for crankshafts for oil engines including "in-line" engines and "vee engines", have been recast to allow a more accurate assessment of the effect of design features especially in relation to fatigue stress considerations.

The stress considered is the maximum stress in the crank web fillet based on the combination of the mean and fluctuating bending moment and torque from the transmission forces together with the appropriate stress concentration factors determined from the geometrical configuration of the crankshaft.

*North Western Regional Advisory Council for Further Education (Nautical Advisory Committee).*

Representative: Lt. Cdr. G. Kenworthy-Neale.

A meeting of the sub-committee of the Council was held in Manchester on 6th December 1968.

The agenda did not include any engineering business but the Institute's representative has received an assurance from the Chairman that any outstanding engineering training matters (of which there are many) will be included in the agenda for the next meeting.

*Parliamentary and Scientific Committee.*

Representative: R. Cook, M.Sc.

There have been nine meetings of the General Committee during the year at which discussions have been held on the following subjects:

Abstractor, Storage and Retrieval of Technical Information;  
U.K. Nuclear Power Programme;  
Development of Inventions;  
Thames Barrage and Prevention of Flooding of the Thames;  
Man and Automation;  
Mathematical Model of the Fuel Economy;  
Scientific Aspects of the Fulton Committee Report on the Civil Service;  
Recent Developments in Obtaining Protein from Various Sources;  
International Scientific Exchanges.

A number of visits have been paid to scientific and industrial establishments.

*Riversdale Technical College, Board of Governors.*

Representative: Cdr. K. I. Short, O.B.E., D.S.C., R.N.

It is with regret that the Institute's representative has to record the untimely death, at the end of April, of Mr. A. R. Kinsman, B.Sc., C.Eng, Principal of Riversdale Technical College. He has been greatly missed having been Principal for 16 years, since the College was built in 1952. His deputy, Mr. A. L. Martin, C.Eng., ably took over as Acting Principal until the appointment of his successor, Mr. J. Lever B.Sc., Head of Department of Engineering, Stafford College.

The work on the new hostel has continued steadily during 1968 and is near to completion. When finished, it will give a good standard of accommodation to 150 students.

During the year activities in the Phase III workshop have had



## Annual Report of the Council for 1968

a greater educational value, as students are now able to concentrate on the stripping and assembling of selected equipment, whereas previously they had to spend time cleaning old second-hand machines before working on them.

The College is now running a correspondence course for Phase II apprentices and has started a course for the Electrical Technicians' Certificates, T3 and T4. On a different level, part-time courses have been introduced for tug engineers.

### *Southampton College of Technology: Engineering Advisory Committee.*

Representative: D. S. Aris.

A meeting of the above Committee took place on Thursday, 13th June, at which a report was submitted by the Head of the Marine Engineering Department.

The most important point to be noted is that the Department of Education and Science has approved the H.N.D. Course in Mechanical Engineering (Marine) subject. The College has approached various shipowners to submit applications for students for this course. The D.E.S. subjected approval of this course to it being made available only to employees of shipping companies, i.e. potential marine engineers.

So far as cadet training is concerned, the College anticipates reaching an enrolment of some 300 for the first time in the 68/69 Session, with a rough division of 100 per each of the three phases. Build-up to this level of enrolment has taken some four years.

It is noted that C.E.I. have now put forward a nomination for the Advisory Committee.

The Marine Engineering Department set up a course of specialized training in electronics for Merchant Navy electrical officers and this course has now been transferred to the Department of Electrical Engineering and Applied Physics.

### *Sunderland Technical College: Advisory Committee for Electrical Engineering, Mechanical and Marine Engineering and Naval Architectural Departments.*

Representative: W. R. Jones.

No meeting of this Committee was held during the year, as from 1st January 1969 this College amalgamated with the Sunderland College of Art to form the Sunderland Polytechnic. The new Polytechnic is the third of the 28 new polytechnics to be given final approval by the Ministry and commenced with about 1500 full time students. It is expected to grow rapidly to about 3000 students in the next few years.

During the present session 55 marine engineering students are reading for the B.Sc. degree of Newcastle University and 57 students are taking the College Diploma in Naval Architecture.

### *Swansea College of Technology: Advisory Sub-Committee for Engineering.*

Representative: R. S. Andrew.

Meeting held in the College on Thursday, 10th October, 1968 at 2.30 p.m.

The Minutes of the last meeting, held on 12th October, 1967 were confirmed.

The Assistant Director reported that the Establishment Committee had not approved the post of a Lodgings/Welfare Officer, but that the matter had been referred back to that Committee by the Council for further consideration. The Principal stated that he intended to include this matter again in the forthcoming estimates, if necessary. The provision of a hostel had also had to be deferred for the time being, due to the very high cost of building.

The Principal stated that the College Advisory Committees usually meet once a Session but that additional meetings could be arranged, if necessary, to discuss any special matters; the College would welcome any suggestions regarding the work of the Advisory Sub-Committee.

The Principal presented his report, copies of which had already been sent to the members, on the marine engineering courses for the 1967-68 Session. The report detailed the enrolments and examination results of the marine courses and the shipping companies supporting these courses.

It was pointed out in discussion, that marine engineering apprentices were recruited from all over the country and one member stated that one of the shipping companies concentrated its apprentices, as far as possible, in one college. Another company preferred to send its apprentices to colleges away from their homes, as part of their training in learning to live with people. In this connexion, hostels, or good living accommodation, were essential. The Merchant Navy was a disciplined service and early training towards this end was essential and discipline was more easily maintained where students were housed in hostels.

The report was accepted.

The Principal outlined the proposed courses for marine engineering apprentices for the 1969/70 Session and stated that this Session, 1968/69, would be the last year for the Ordinary National Certificate group. In future, there will be two streams consisting of the O.N.D. and Part A, both of two years full-time duration.

It was stated that discussions were proceeding regarding a City and Guilds Technician type course, which would eventually replace the Part A course. Details of such a course were still being worked out and it was envisaged that City and Guilds Course No. 293 for mechanical engineering technicians, might be adapted to suit marine requirements. The Haslegrave Committee's report was expected to be published at the end of the year and its findings would almost certainly play a part in setting the pattern of future courses for technicians in this, as in other fields of study.

The Vice-Principal pointed out that the College had run, for several Sessions, short courses on electronics for instrumentation for engineers from BP (Tankers) Ltd., undergoing training at BP Refinery, Llandarcy, and further courses were being organized for the present Session. In view of the developments taking place in instrumentation and automation in tankers, the future of these courses was under discussion.

### *World Power Conference: British National Committee.*

Representative: G. L. R. Watkins.

At the Annual General Meeting of the British National Committee of the World Power Conference, which was held on 23rd May 1968, Lord Hinton presided. Points were noted from the report of the Review Committee which, among other items, recommended that the title of the Conference should be changed to "World Energy Conference" and that it should meet every three years. Also recommended was the setting up of a Programme Committee to give continuity to the technical content of the activities of the Conference while an Administrative Committee would devise means of finding money to meet the cost of extra activities.

On the question of membership it was announced that Taiwan had been admitted to the Conference and that the application from the Republic of Korea was being considered.

Presented at the meeting was the Annual Report 1967 of the World Power Conference. This noted that, after the meeting of the International Executive Council held in Accra, on 14th August 1967, there was a technical discussion on the theme of "Electric Power Development in Ghana" coupled with a series of technical visits. Also at this meeting, attended by twenty-four countries, Mr. Walker L. Cisler was elected Chairman designate as successor to Lord Hinton of Bankside, and it was agreed to hold the next meeting in 1969 at the invitation of the Turkish National Committee. Also agreed, as a result of the recommendation of the Review Committee, was that Conferences should be held at three yearly intervals and that the Bucharest meeting of the World Power Conference should be in 1971 under the title "The Complex and Integrated Use of Energy". The report also recorded that the Ninth Congress of the International Commission on Large Dams was held in Istanbul from 4th to 8th September 1967 and was attended by 1500 participants. Also announced was the formal separation between the International Commission on Large Dams and the World Power Conference.

At the meeting Lord Hinton stated that his Chairmanship of the International Executive Council came to an end in Moscow, also his term of office as chairman of the British National Committee. Sir Henry Jones was elected to the latter office with Lord Nelson of Stafford as Vice-Chairman.

## Annual Report of the Council for 1968

It was reported that, at the date of the meeting, those intending to attend the Seventh Plenary meeting, to be held in Moscow, 20th to 24th August 1968, the main theme of which being "World Energy Resources and their Utilization for the Benefit of Mankind", numbered 84 participants plus 36 accompanying persons. British papers to be presented at the meeting totalled 23 and covered all six main divisions of the technical programme, which is divided into eleven sections. The respective divisions have as subjects: World Energy Resources and their Utilization; Energy Balance; Electric Power Generation; The Transport of Energy; The Utilization of Energy; and Secondary Energy Resources". Mr. K. R. Vernon was invited to act as Chairman of the technical session entitled "Power Systems and their interconnexion—the Role of High-Tension Transmission Lines". During the meeting three Round Table Conferences had been arranged to discuss the following problems of the power industry namely: water conditions of power units with supercritical steam conditions and of atomic power stations with boiling water reactors; the role of dc transmission in power systems and their interconnexion; and problems of power supply in developing countries. Speakers recommended for the Round Table Conferences were respectively Mr. Llewellyn Rees, Mr. F. J. Lane and Mr. A. E. Power. Membership, subscriptions and the financial situation were discussed together with certain proposals aimed at achieving additional financial support through an approach to individual companies.

Mr. Guthrie Brown reported upon the activities of the British Section of the International Commission of Large Dams (I.C.O.L.D.), the membership of which now numbers 280 with 25 corporate subscribers. The report recorded that the Ninth International Congress was held in Istanbul from 4th to 8th September 1967 and was attended by nearly 1000 delegates and 450 accompanying persons. It was also announced that the Tenth International Congress will be held in Montreal, Canada, during 1970.

### BRITISH STANDARDS INSTITUTION COMMITTEES

#### *FSB/1 Definitions and Tests for Fire Resistance.*

Representative: A. S. Minton.

The long standing work of members of this Committee is now showing most satisfactory results and tests under B.S. 476, have been revised, or are well on the way to revision, and new tests have been published.

The new Standard Tests under B.S. 476 are Part 5 Ignitability Test for Materials, Part 6 Fire Propagation Test for Materials (Box Test).

The following revised tests are also available in draft form:  
Surface Spread of Flame Test;  
Non-Combustibility Test;  
Fire Resistance Test.

#### *ISE/6 Steel Castings.*

Representative: B. Todd, M.Eng.

The Technical Committee ISE/6 did not meet during the year, but the final specification B.S. 3100—"Steel Castings for General Engineering Purposes" was issued.

#### *ISE/64 Boiler and Superheater Tubes.*

Representative: J. Liddell, B.Sc.

Final work on the revision of B.S. 3059:1958 was completed by correspondence and B.S. 3059:1968 Steel Boiler and Super Tubes was published. Metric units have been adopted throughout the standard.

#### *MEE/17 Gears.*

Representative: D. A. Stanger.

Part 2 of B.S. 436 which will incorporate gear loading formulae is still under revision and consideration is being given to ISO proposals and other methods of calculation.

A preliminary draft has been prepared for a metric version of B.S. 436 part 1, spur and helical gears, both inch and metric versions being based on ISO agreement.

#### *MEE/21 Air Receivers.*

##### *MEE/21/1 Solid Drawn Air Receivers.*

##### *MEE/21/2 Riveted Air Receivers.*

##### *MEE/21/3 Welded Steel Air Receivers.*

Representative: C. Dearden.

In the past year the committee has been primarily concerned with the revision of the proposed draft for fusion welded air receivers which it is anticipated will combine parts 1 and 2 of B.S. 487. In this connexion consideration has been given to European and ISO standards with a view to incorporating such features as would be of mutual benefit to all.

#### *MEE/34/1 Cylindrical Boilers.*

Representative: J. Liddell, B.Sc.

Several meetings of the Committee were held to continue the revision of B.S. 2790:1956—"Cylindrical Land Steam Boilers of Welded Construction (other than Water Tube Boilers)". In the course of the year two further drafts of the standard were considered, the final draft approved for publication and it is anticipated that the new standard will be published early in 1969. The new standard will be referred to as B.S. 2790:1969—"Shell Boilers of Welded Construction (other than Water Tube Boilers) Part 1—Class 1 Welding Construction." It contains requirements for Class 1 boilers only and conforms with the ISO Boiler Code. Metric units will be used throughout the standard.

The Committee has prepared a draft of B.S. 2790 Part 2 dealing with Class 2 and Class 3 boilers which will be circulated to industry for comment in the near future.

#### *MEE/34/2/1 Water Tube Boilers (Drafting).*

Representatives: L. J. Culver, B.Sc., J. P. Groome, N. Macleod, and J. N. Mackenzie.

There has been no change in the programme for this standard. The final draft has been published and should be in print this year.

#### *MEE/34/8 Pipes and Piping.*

##### *MEE/34/15 Corrugated Furnace for Cylindrical Boilers.*

Representative: J. Liddell B.Sc.

#### *MEE/34/8.*

Several meetings of this Committee were held following the recent publication of B.S. 806:1967—"Ferrous Pipes and Piping Installations for and in connexion with Land Boilers". The first action was the reconstitution of this Committee and the election of a new Chairman. The future work of the Committee relating to B.S. 806 was considered and it was agreed to review design stresses, flexibility analysis, design conditions including fluctuations in temperature, hydraulic tests, drains and blow-down pipes, etc. It was also agreed that a "cover to cover" review of the standard be undertaken. Amendment Slip No. 1 to B.S. 806:1967 was published in November 1968.

#### *MEE/34/15.*

Two meetings of the Committee were held to continue the revision of B.S. 1971:1953—"Corrugated Furnaces for Cylindrical Boilers". The revision was undertaken to bring the standard up to date with current practice and to bring it into line with the draft ISO recommendation "Rules for the Construction of Stationary Boilers".

As a result of technical comments received from industry on a proposed draft of the standard, a final draft was prepared and has been approved by the Mechanical Engineering Industry Standards Committee for publication. The revised standard will be referred to as B.S. 1971:1969—"Corrugated Furnaces for Shell Boilers" and it will be published early in 1969. Metric units will be adopted throughout the standard.

#### *MEE/39/3 Positive Displacement Compressors.*

Representative: L. Sterling.

No real progress has been made on the test code. The main problem of test tolerances (including the limits of accuracy in measurement) is still the most difficult point and is being

## *Annual Report of the Council for 1968*

sidestepped a little in agreeing to have the tolerances specified in a list of contract items.

It has been agreed that an appendix of questions to assist the users on establishing test requirements will be added to the standard. Qualifying remarks will be put with the questions where necessary to assist the user.

It would appear that the anticipation of quickening of pace, in the last annual report, was rather optimistic.

### *MEE/88/2. Graphic Symbols for Fire Protection.*

Representative: A. S. Minton.

Also available in draft form is the Glossary of Terms and Definitions Associated with Fire, Section 1; Section 2 will be available shortly.

The specifications concerned have considerable interest as regards ships, especially bearing in mind the recent attitude of United States Coast Guard in respect of the fire safety of certain British liners.

### *MEE/119 Plain Bearings.*

Representative: R. S. Punt, B.Sc.

Work on a complete revision of B.S. 1131—"Plain Bearings" was started in February 1968. Six meetings have been held

during the year and good progress has been made. The new standard is to be in metric units.

The work on the revised B.S. 1131 is being progressed in parallel with the work for the International Standard on plain bearings, at present being carried out by Technical Committee ISO/TC 123 of the International Standards Organization.

The secretariat for Section 3—"Dimensions and Tolerances" of the International Standard has been allocated to the U.K., and the work is being handled by members of British Standards Committee MEE/119. Selected members of MEE/119 represent the U.K. on working groups of ISO/TC 123. Limited progress has been made with the International Standard, which is a new one and not a revision of a previous one.

### *SHE/3 Salt Water Piping Installations in Ships.*

Representative: J. Morrison, B.Sc.

This committee met monthly during 1968 and after drawing up an outline draft standard in the first quarter of that year, proceeded to work to this, producing and expanding each section in turn. A comprehensive draft standard is now being written, which, after initial vetting by the committee early in 1969, will be circulated within the industry and allied organizations for comment.



# Minutes of Proceedings of the Eightieth Annual General Meeting

29th April 1969

The Eightieth Annual General Meeting of the Institute was held at the Memorial Building, 76 Mark Lane, London, E.C.3, on Tuesday, 29th April 1969, at 5.30 p.m.

The President, Mr. F. B. Bolton, M.C., took the chair. The Minutes of the previous Annual General Meeting, having been published in the July 1968 issue of the *TRANSACTIONS*, were taken as read and signed as a correct record.

## *Introductory remarks by the Chairman*

The CHAIRMAN expressed his pleasure at seeing so many members present and gave the customary reminder that only corporate members and those who had paid their subscriptions for the current year were entitled to vote on any resolution.

## *Presentation of Annual Report by the Director and Secretary*

MR. J. STUART ROBINSON, M.A., Director and Secretary, presented the Annual Report for 1968.

## *Presentation of Annual Financial Statement by the Honorary Treasurer*

The HONORARY TREASURER (Mr. R. Cook, M.Sc.) referring to the General Revenue Account, said that total income from all sources during the year had increased by £4737. This, however, had been more than offset by increases in expenditure, so that the surplus for the year had fallen to £957, as compared with a surplus of £3360 last year. Administrative expenditure had increased by £4165, mainly due to increases in salaries and pensions. Establishment expenditure had increased by £1644, which included an additional charge of £500 to cover the increasing cost of maintaining the Institute premises in a good state of repair. The accumulated surplus to carry forward on General Revenue Account was £93 451.

Turning to the Memorial Building Account, Mr. Cook said that there was a surplus this year of £35 048, which compared with a surplus of £37 313 last year. This reduction of just over £2000 was due mainly to an increase of £2266 in administrative services and included an increase of £1000 in the repairs equalization appropriation to meet the increasing cost of maintenance and repairs. It would also be seen that £40 000 had been appropriated to reserve funds, leaving a balance of £19 277 to be carried forward. Details of the appropriations to the various reserve funds would be found in the note on page A9.

In the Balance Sheet it would be seen that accumulated funds and reserves had fallen by £4140 and now totalled £208 291. The book value of investments had increased over the year by £12 395 and the market value by £32 351; in fact, on 31st December last the Institute investments market value was £205 395.

In the report reference was made to the purchase of certain American securities which was suspected to be technically in breach of the rules of the Institute. This technicality hinged on the legal definition of a recognized stock exchange. Since the report was prepared counsel had advised that the rules were indeed infringed by the purchase of these securities and so the three securities in question, totalling £11 000, had been sold.

## *Adoption of Annual Report and Accounts*

MR. P. J. HOWARD, B.Sc. (Member), in moving the adoption of the Annual Report and Accounts, said that as one connected with the marine engineering education field he would first like to refer to that part of the Report concerned with the Education and Training Committee activities. Reference had been made, rather in passing, by the Secretary to the fact that there were hopes of the Extra First Class Certificate being accepted for exemption from Parts 1 and 2 of the C.E.I. examination, and he had added, somewhat as a "throw-away" line, that in fact it had now been accepted. This was, thought Mr. Howard, a most important item which had been treated perhaps rather modestly. He hoped that the Council would give consideration to the making of more grants to students on this course in the future.

With regard to the membership figures, it was disturbing that there was a fall-off in the number of student and probationer student members. It was probably a matter of publicity to get these people, particularly the cadets, to appreciate what the Institute could do for them and what they could do for the Institute. As the C.E.I. now accepted the Extra First Class Certificate, perhaps the cadets would show more interest in the Institute as student members.

The new academic requirements for a person hoping to be a student member were such that it had been estimated that about 60 per cent of the present entry into the alternative training scheme would be excluded from student membership. Council might like to look at this as it was rather a disturbing feature.

The Report made reference to representation on outside bodies. The amount of work done by members on the various committees outside the Institute was perhaps not fully understood by the vast majority of the membership, and he felt that tribute should be paid to those who served the Institute in a very unsung way.

It was with great pleasure that he moved the adoption of the Report and Accounts.

MR. R. M. DUGGAN, M.A. (Associate Member), seconding, said that the opening paragraph of the Report could be described as a gross understatement. The conception of IMAS '69 was a very bold one and not without its initial critics. It was now on the point of materializing. From page A2

## *Minutes of Proceedings of the Annual General Meeting*

it was apparent that no less than 135 papers had been offered, as the Secretary had pointed out. These were from all parts of the world, and there was no doubt that the bold decision of the Council had been well rewarded. The Institute had made a new impact of a world-wide character and the Council was to be congratulated. It was now up to all of them to ensure that the hoped-for support materialized in June.

To procure a dozen papers in a year was quite an undertaking, yet the Institute staff had had to deal with seven times that quantity. The organization required for such a conference was immense.

Apart from this, the general increase in costs was only too well-known to all present. The fact that the cost of TRANSACTIONS and publications was actually lower in 1968 than in 1967 reflected great credit on the hard work and careful planning of the Institute staff, and he was happy to take this opportunity of expressing the membership's appreciation of all the work done by the staff behind the scenes.

The registration of engineers had been briefly mentioned in the Report. The general public were very confused as to what was meant by "engineer" and it was essential that the Institute's representatives at any discussion should press for a single register of technologists and technicians.

The trends in membership curves were always interesting to consider. The flattening off of the curves need not cause undue worry provided the quality was maintained or improved. He fully endorsed the Council's policy of applying more rigidly the provisions of the By-Laws, but the most disquieting feature, as the Secretary and Mr. Howard had pointed out, was the lapse of 486 student and probationer students. These were some of the engineers who would be needed by the Institute in the 'eighties. All too often in the past the report from the Branches was glossed over and nobody tonight had so far mentioned it. It would be noted from the Report that they too were concerned at the lapse of student membership, but it was gratifying to read that almost without exception Branch memberships had increased. Another interesting point was the relatively high average attendance at meetings. He had often heard comments on the lively and enjoyable atmosphere when papers were read at Branch meetings. Perhaps there were some lessons to be learned here in regard to meetings in London. Several of the Branch reports had referred to the Sail Training Association Scheme. There was no doubt that it was a coveted award and the intention of the Council to sponsor a second place was to be commended.

The representatives' reports covered a wide range of subjects. Some of the committees were very time-consuming for the results achieved. He hoped that the Council would take a closer look at all these committees—and not just the B.S.I.—and be far more selective as to those which were supported.

He had great pleasure in seconding the motion.

MR. E. R. HALL, B.Sc. (Associate Member), said that he would like first of all to subscribe to all the nice things said by Mr. Howard and Mr. Duggan. He would also have some nice things to say, as well as some which might be a little unpalatable.

The real reason for his coming to the rostrum was that he believed this might be the last opportunity any member had of discussing the general management of the Institute, by which he meant the Annual Reports and Financial Statements, for the new By-Law 79 which was proposed would prohibit members from doing this unless they did it by way of "special business". If he had misunderstood the proposed By-Law no doubt it would be explained.

The Report spoke of Branches here, there and everywhere. A good gardener would let some branches grow; he would prune some, and even do a bit of root pruning. Really the life of an organization was in the roots. The roots were in some respects a matter of tradition—an aspect on which he might have something more to say later.

There were reports from Branches and reports from members who attended meetings of outside bodies. There was also a report on C.E.I. but he was unable to find anywhere a mention of who were the Institute's representatives on C.E.I. If the representatives deserved praise their names should be known; likewise, if they were blameworthy, members should know who to blame.

The name was given, for instance, of the representative at East Ham Tech. This probably did not cost more than a few shillings in prizes in the year, but the C.E.I. cost over £5000 and, he suspected, more than 2½d. in services inside this Institute. There might be something to put forward at a later date in this respect.

In past years it had been customary to refer to the excellence of the TRANSACTIONS. No mention had been made of this tonight. Members would, he thought, all agree that the TRANSACTIONS were pretty good. A letter in the April issue had rather appealed to him, regretting that the imprint "Incorporated by Royal Charter" no longer appeared under the name of the Institute in the TRANSACTIONS. He too regretted this, particularly when there was talk of advancing the status of marine engineers. It seemed to be a retrograde step to drop this reference to the Royal Charter. Perhaps there were good reasons for it which he did not appreciate, one of the prime objects of this Institute in the original Charter (and in some of the supplementary Charters) was to maintain and improve the status of marine engineers. In the last supplementary Charter the "maintain and improve" had been dropped out and the word "uphold" substituted, so members were now charged to uphold the status of marine engineers. Did this mean that they were complacent and thought that the status of engineers had gone far enough and that there was nothing to do but uphold it? There was a difference between "uphold" and "maintain and improve". If there were alterations contemplated to the Royal Charter at some time in the future this might well deserve attention, for the object of the Council and members alike should be to improve the status of engineers.

This was an important meeting, with a lot on the plate, and he felt that in many respects it would have been better to split it into two, dealing with the revision of By-Laws at an Extraordinary Meeting. It was sufficiently important to warrant that course. He had no complaint about the notice of the meeting or the circulation of the papers. The minimum period of notice required by the By-Laws had been observed. It might, however, have been helpful and polite, with so much important business coming up at this meeting, to give a little more than the minimum notice.

Members had no doubt all received something bearing a 4d. stamp, and he could only imagine what the postage bill to the Institute had been in this respect. It was about "IMAS 69" and bore the Institute coat of arms defaced by "bubble" statements which he felt was most undignified. It did not enhance the status of the Institute and he hoped it would not be repeated.

The Annual Report mentioned staff, and the retirement of Miss Holman. He hoped that, regardless of what she was entitled to by way of pension, the Council would from time to time look at her pension and see what it meant in terms of real money. He hoped, too, that they would look at the pensions of people who retired many years ago on a very low pension. He realized that these things were done quietly and not broadcast, but it would be nice to know that they were looking after previous servants of the Institute.

Years ago at Annual General Meetings members were handed prints of the Secretary's Report and of the Financial Statement. This was discontinued, he believed, because of economy, but if there was money to spend on world tours and things like that surely the cost of a few reprints of Transactions, for circulation to members attending the meeting, would be justified.

Mr. Hall concluded with a plea that members should be allowed to smoke in the lecture hall if they so wished.

## Minutes of Proceedings of the Annual General Meeting

The CHAIRMAN said that Mr. Hall's points had been noted and Council would consider them and see what could be done.

There being no further comments or questions, the motion for the adoption of the Annual Report and Accounts was put and *carried*.

### Report of Scrutineers

The CHAIRMAN then read out the Report of the Scrutineers and announced that the President for the next session would be Mr. R. Munton, B.Sc., and that the following had been elected:

Vice-Presidents:

#### United Kingdom:

\*Professor G. H. Chambers, D.S.C., M.Sc.

\*R. Cook, M.Sc.

Captain W. S. C. Jenks, O.B.E., R.N.

#### Australia:

\*Captain R. G. Parker, O.B.E., R.N.

#### Pakistan:

\*Commodore S. Z. Hasnain, P.N.

Office Bearer—Honorary Treasurer:

\*R. Cook, M.Sc. (Vice-President)

Members of Council:

A. D. Bridgwater

J. A. Clay

F. S. Gander

J. McNaught

G. J. Tuke, B.Sc.

Associate Member of Council:

R. M. Duggan, M.A.

\*Re-elected

The DIRECTOR AND SECRETARY said that it had been announced in the March issue of the TRANSACTIONS that Mr. Munton, because of his unfortunate illness, had been obliged to withdraw from the Council's nomination of him as President, then Council had asked Mr. Bolton if he would be prepared to continue in office for one further year. Members had been asked to substitute in their ballot papers the name of Mr. Bolton for that of Mr. Munton.

MR. E. R. HALL, B.Sc. (Associate Member) said that the Scrutineers were faced with ballot papers which were issued before this happening occurred and in which the name of R. Munton was left standing. They could therefore do no other than report the facts as they found them. This they had done and there was no blame on the Scrutineers.

The CHAIRMAN said that the Scrutineers in their report had declared elected someone who was not prepared to allow his name to go forward, for the reason which had been explained to the meeting. A few moments would be required in order to sort out the situation.

MR. HALL said that the nomination of President was, he understood, a matter for the Council. Mr. Munton's inability to stand had been acknowledged by the Council and Mr. Bolton's willingness to carry on for another year had been noted by the Council and graciously accepted. He felt that, so far as this meeting was concerned, it would not be unconstitutional for them to accept that the President had been elected for a second term. He was personally prepared to vote on this and endorse it.

The CHAIRMAN OF COUNCIL (Captain W. S. C. Jenks, O.B.E., R.N.) said that Council had nominated Mr. Bolton for a second term and the only problem was to make quite certain that they were constitutionally in order.

He asked Mr. Hall whether any of the ballot papers had been changed from Munton to Bolton.

MR. HALL replied that not one had been changed.

The CHAIRMAN OF COUNCIL (after a few moments' consultation) announced that according to his advisers the correct procedure was that Mr. Munton's election to the Presidency must be declared null and void, on account of his inability to stand, and that Mr. Bolton should be elected under the procedure for a casual vacancy.

MR. HALL said that clearly it was a matter for the Council.

The CHAIRMAN OF COUNCIL said that undoubtedly it was a Council matter and nothing more could be done as far as this Meeting was concerned.

The CHAIRMAN, regretting the confusion, thanked the Meeting for helping to resolve the difficulty. He also thanked the Meeting very much indeed for having supported his Presidency for the ensuing year.

### Vote of thanks to Scrutineers and re-appointment for 1969/70

MR. R. COOK, M.Sc. (Honorary Treasurer) said that it was usual on these occasions to propose a vote of thanks to the Scrutineers but he thought it would be a pity if it came to be looked upon as a formality. The services of the Scrutineers were given freely and there was a conspicuous lack of limelight attaching to the job. It gave him great pleasure to propose a vote of thanks to the Scrutineers—Mr. G. H. Garner, Mr. E. R. Hall, Mr. A. L. Covell and Mr. H. Armstrong—and, as they were all eligible and willing to serve for a further year, he also proposed that they be re-elected *en bloc*.

The vote of thanks was *carried by acclamation* and the Scrutineers were re-appointed for 1969/70.

### Special Business

The CHAIRMAN said that there was one item of special business. This was the consideration of the resolution (to which Mr. Hall had already referred) circulated with the notice calling the meeting. The resolution was lengthy and unless members felt it necessary he would not propose that it be read.

It having been agreed to take the resolution as read, the Chairman invited the Chairman of Council to propose its adoption.

The CHAIRMAN OF COUNCIL said that in 1962 a very momentous decision was taken—that this Institute should join the Engineering Institutions Joint Council, as it was then called, later known as the Council of Engineering Institutions. The invitation to this Institute to join with the other professional institutions in this endeavour was, he believed, the result of the fact that the Institute's Associate Membership Examination, instituted in 1956, was considered to be the full equivalent of the corresponding examinations for all other professional institutions. The decision was momentous for the future of this Institute and for the future of marine engineering as a whole.

Engineering problems in the marine field—this could not be said too often—were fully as great as those in any other branch or field of engineering. They would only be dealt with satisfactorily if in this field there were men who could combine both academic qualifications of a high order and practical experience of the problems of engineering in a marine environment. When he said "engineering" he did not merely mean mechanical engineering, for marine engineering covered a number of different engineering disciplines. It was the combination of these two things, qualification and experience, which was so vitally important and it was these things which designated a marine engineer in the highest category.

This country in the past had had an unchallengeable

## *Minutes of Proceedings of the Annual General Meeting*

position in the field of shipping and shipbuilding, and marine engineering, but nowadays it was facing very severe competition. It was quite certain that the country would only remain competitive if these industries were supported by a marine technology which was second to none in the world. It could be said with equal certainty that British marine technology would only achieve these standards if the standards set by this Institute were in no way inferior to those of other engineering institutions in this country, and if the leaders of the industries concerned both understood and placed sufficient emphasis on the importance of attracting, training and retaining sufficient men of the highest calibre with the right balance of engineering qualifications and experience in the marine field.

These were the considerations which led this Institute in 1962 to join the C.E.I. and no other decision was possible. It had enabled, and continued to enable, this Institute to play a full part in the formulation of the wider aspects of engineering policy in this country and also ensured that due weight was given in these wider aspects to the particular problems of engineering in the marine field.

At the same time it imposed on this Institute, in common with the other professional institutions, the obligation to revise the constitution and bring it into line with the requirements of C.E.I. This had posed a very considerable problem, which had been widely and actively canvassed in every branch of the Institute on a variety of occasions throughout the last few years, not only in this country but all over the world. Previous Chairmen of Council, the Director and Secretary, Presidents of the Institute and he, himself, had discussed these matters at great length with all the Branches both at home and abroad. It had also been the subject of a great deal of work by the staff of the Institute and many years of consideration by the By-Laws Committee of the Council, and, finally, by the Council itself. It was a matter which had not been considered lightly. The utmost endeavour had been made to reconcile the differing requirements of the C.E.I., on the one hand, and the need for setting the Institute's qualifications at a high level, with all the traditions of the Institute, on the other hand, and the emphasis on the seagoing engineer's qualifications.

When the notice of this meeting was sent out with the new By-Laws enclosed, a letter was also sent out which it was hoped would emphasize the main point of difference in principle between the old By-Laws and the new and would lead to clarification of what was being done and how it was done. He would not therefore go into this in detail, but there were one or two points which should be emphasized.

The first thing they had tried hard to do was to maintain the principle of vertical integration. In industry and in all fields of endeavour the work was done by a team of people who had differing standards of qualification. No one grade in that team was more important than another and if any were taken out, the work would not be successful. It was the combined effort that was important. At the one end of the scale there must be the highest qualifications. A little lower down in the scale of academic qualifications, but not in the scale of importance, were those who had the most accurate and valuable first-hand practical knowledge of what happened. Engineering was essentially a practical thing and the idea that an academic qualification could replace practical experience in an engineer was nonsense. In an Institute of this nature it was of the greatest mutual benefit that members of different grades of academic qualification should work together in full and equal receipt of the privileges and facilities of the Institute to produce the best learned society activities that were possible. Indeed, the learned society activities of this Institute owed apology to no other similar bodies in their value and cogency.

Quite apart from the learned society activity it had been the concern of the Council that the maximum possible emphasis should be placed on the part that the Member (new style), the senior grade which had not achieved Chartered

Engineer status, should play in the government of the Institute, and the new composition of the Council included significant representation from the Member (new style) and also allowed for Branch chairmen as voting members of the Council. Previously they had been co-opted, but had not had a chance of voting. Now they had a vote and a Branch chairman need not necessarily be a Chartered Engineer. Taking this into account, the share in the government of this Institute given to the Member (new style) could be seen to be a full one.

His next point had already been made by Mr. Howard. This was that the C.E.I. had now accepted the Extra First Class Certificate as providing exemption from the requirements of their examination. This was subject to the conclusion of satisfactory arrangements for external assessment, which would no doubt take place. He was sure that members would be very gratified to know that this qualification, which had earned such wide respect in the marine field, would in future provide qualifications for Chartered Engineer status.

The new constitution, if approved by this meeting, would be subject to approval by the Privy Council. This was a requirement attaching to the privilege of incorporation by Royal Charter. If the resolution were passed and if approval could be obtained in time, it would be proposed to bring the new By-Laws into force on 1st December 1969. It would be noted, however, that in the examination requirements in the By-Laws, 4(i), the standard of "the approved examination" fell to be decided by Council. Under their obligations as members of C.E.I. this standard must conform to C.E.I. requirements at the latest by 31st December 1973. Council had considered this matter very carefully and felt an obligation to adopt this new standard before that date and that, indeed, the repute of marine engineering in the general engineering field would suffer badly if this were not done. At the same time, it was recognized that due notice must be given to the membership of the new requirements coming into force.

There were two modifications to the printed By-Laws. In Clause 29 on page 5 the word "has" should be inserted between "he" and "retired" in the penultimate line. In Clause 39 on page 7, in the fourth line, the By-Law referred to should be 44 and not 34. Clause 34 was the one which referred to ejecting people who had misbehaved and he would not have liked to think that it was the opinion that the Vice-Presidents should normally retire under that clause.

He had the pleasure in formally moving the adoption of the special resolution.

The VICE-CHAIRMAN OF COUNCIL (Mr. B. Hildrew, M.Sc.), in seconding, said that it was essential that in the modern technological world the marine engineer should be recognized by both his academic qualification and his practical experience, and it was only by equating these with the other professional engineers' standards in the country that they could, in the true meaning of the term, be accepted as engineers by the public.

The Council, of which he was a member, had discussed these matters very widely with the membership throughout the country and around the world, wherever this had been possible. Certainly they had tried to keep the membership fully informed of the events that had taken place since the concept of C.E.I. was first evolved in 1963.

It was sometimes commented on that the Institute was in need of new ideas and forward thinking, and since joining the Council he had observed a considerable development in this way.

One example was the development of sections. There was a great need for a refinement of the various technological subjects involved in marine engineering, for a very wide field was covered. It was the capacity to grow with these new developments which would help them to maintain their position as a learned Institute.



## Minutes of Proceedings of the Annual General Meeting

On another front, the idea that it might be feasible to have a Branch for seagoing members only was being examined. This would be rather difficult to evolve, but might ensure that members at sea could be associated with a specific Branch.

Turning once again to the thorny problem of status, there would obviously always be a gradation within any industry and this was recognized as one of the big problems to which all Institutes and Institutions had to face up.

Mr. Hall had asked who represented the Institute on C.E.I. The representatives were the Chairman of Council, the Vice-Chairman of Council and the Secretary. This was probably also the only Council which had the system (though others were perhaps beginning to follow it) of meeting and discussing in a group what the Institute's policy should be at any particular meeting of C.E.I. that was pending. The representatives went to meetings with a clear eye on the target, trying to uphold the marine engineers' position relative to that of other bodies. After every meeting of C.E.I. the representatives reported back to the Council. If members wanted a learned society, it was essential to be a member of C.E.I. If members only wanted a club it was a different matter. Whilst the atmosphere in the Institute was that of a meeting of equals, the interchange of technical opinion meant little except in the context of being a learned society.

MR. R. CROSBY (Member) said that at the time of the formation of the Council of Engineering Institutions he had been busy getting ahead in his profession, getting his Chief's ticket and so on. Having attained this and come ashore, he had had the opportunity to find out that this was a first class Institute, with a magazine written by marine engineers for marine engineers. The social activities were second to none.

Recently at a local Branch meeting in Cardiff he had been round a table with four Extra Chiefs and one Bachelor of Science, and the secretary had told them they were not members of a learned institution. This was rubbish, of course. They were marine engineers and very proud of it. The C.E.I. had now accepted the Extra Chief's ticket, which was second to none.

He was surprised at the suggestion concerning the formation of a seagoing members' Branch. Surely they were part and parcel of the Institute and present here tonight.

The CHAIRMAN, referring to the "Seagoing Branch", said that the Vice-Chairman of Council had merely pointed out that this was one of the suggestions being considered and no firm proposal had been made about it.

MR. E. R. HALL, B.Sc. (Associate Member) began by saying that he was an Associate Member for more years than he cared to remember, Membership No. 5682, and subscriptions fully paid.

The Vice-Chairman of Council had spoken of the Institute as a learned society. Mr. Crosby had also mentioned the term. Mr. Hall recalled that four or five years ago various speakers had said that if this Institute did not go in with C.E.I. it would become nothing more than a learned society. This "learned society" business was most confusing. The objective now was to become a professional institution rather than a learned society and to get into some sort of select trade union like the doctors and dentists had. They all knew about the Chartered Engineer qualification and the earlier meetings on that. One of them was not reported in the TRANSACTIONS. This change of By-Laws was really the first official action endorsing the Council's action in taking them into C.E.I., notwithstanding that some thousands of pounds had been paid for this privilege.

The By-Laws had had a gestation period of about six years. Perhaps they had been too long in the womb and, had he been in the educational field he would probably have written at the bottom, "Good try, eight out of 10, re-write."

There was a completely new format of By-Laws about the investment of funds and the Council were seeking to put an increased proportion of the Institute's investments into equities. They had gone for 2:1 or 66:33. In this he believed they had been too timid. With the aid of an investment consultant 75:25 would have been a more reasonable arrangement. Who in his right senses nowadays put his money into trustee stocks?

The CHAIRMAN explained that this was a Privy Council limitation; they would not allow any more.

MR. HALL then referred to page 1, where "corporate member" was defined. The Royal Charter referred to corporate and non-corporate members. Where in the proposed By-Laws was "non-corporate" member defined? Perhaps it ought to be. Equally, there was no definition of "ordinary business" or "special business", yet Clause 79 referred to something being done only as "special business". Who was to know what special business was unless it was defined?

Clause 20 referred to certificates, which were to "remain the property of the Institute" and be returned to the Institute if a person lapsed from membership "otherwise than by death". What was the reason for this? He hoped it was not intended to be retroactive, otherwise he would be looking round for a piece of paper issued to him about 38 years ago and would be very much tempted to say that it was not going to be returned, whatever might be said in the By-Laws. This did not seem to make sense as a By-Law.

By-Law 50 dealt with nominations for Council. For many years the ballot paper had not included the names of the proposer and seconder. How many realized the reason for this? On one occasion the ballot paper had contained a number of names proposed by the Council and it was thought that this perhaps gave them an edge, as being "official party candidates". This was brought into question and it was suggested that the election was invalid because these people were improperly nominated. The result was that the Council, whether in wisdom or pique, put out an amendment to the By-Laws, saying, in effect, "If you will not have the Council nominating people on the ballot paper you will not have any names at all." As a result, there was this most undemocratic system—which, as far as he knew, existed nowhere else in any election—of people being put up for election without any indication as to who had proposed or seconded them. From time to time people had asked him to stand for Council and he had said that he would not stand until the proposers' and seconds' names were back on the ballot paper. The names of the proposer and seconder were now to be back on the ballot paper—if the person were not nominated by the Council. Why should the Council nominate candidates? Each and every member, having paid his subscription, had the right to nominate candidates. Did the Council need to go into a huddle and nominate their own "party" candidates? He believed that this was wrong.

With regard to chairmen of Branches, had anyone stopped to think that the members of Branches enrolled as Branch members would (as he read it) have one vote to put people on this Council in the general ballot and yet another vote locally? Was it right that some members should have two votes and others one? This did not seem to be logical. He was inclined to doubt the wisdom of any change making out-of-town vice-Presidents and Branch secretaries, chairmen etc., Members of Council *ex officio*.

Somewhere there was a By-Law to the effect that members could demand a poll, which should be taken in the manner in which the chairman might direct. He could remember when a poll was taken on the question of an increase in subscriptions having been requested by a sufficient number of members. A postal referendum was held and the Council received overwhelming support from it, so it seemed that, despite what happened to General de Gaulle, it paid to go to the people with a referendum.

## Minutes of Proceedings of the Annual General Meeting

With regard to the examination of books, the old By-Laws provided that the books should be open to the examination of members. The new By-Laws said that they should not be open to the examination of members. Why was this? Was anyone trying to hide anything? Surely not. Perhaps, through the Chair, the Secretary would state how many times members had asked to look at the books in the last five years. Apparently the Secretary was not aware of any such instance. The answer was none. It was not really a good thing for the Council, as responsible people, to prohibit the "shareholders" from looking at the books if they wished to do so and went about it properly. There was a great responsibility here and it was only proper to enable members to have the right to satisfy themselves if they so desired. Perhaps the Council would think again on this one.

With regard to By-Law 79 (to which he had briefly alluded earlier), stating that "No question or motion relating to the general management of the Institute may be asked or moved at a meeting other than an Annual or Extraordinary General Meeting and then only as special business", he was tempted to think that it meant that he could not come up to the rostrum and discuss the Secretary's Report or the Financial Statement unless he had given due notice beforehand of his intention to do so and perhaps of what he intended to say. This was unduly restrictive and quite unnecessary.

By-Law 34 dealt with expulsion. They knew that Chartered Engineers were to be the engineers of the future and that, in some countries, engineers not on the national register were not allowed to practise as professional engineers. In some countries nobody who was not a professional engineer could even work as a boiler inspector. There were a number of members who were eligible, if these By-Laws went through, to be Fellows of the Institute and go on the professional register. If they were thrown out for any reason at all, the great proportion of them would never be able to meet the academic requirements to regain their former position; in other words, their livelihood could be taken away as a result of expulsion from this Institute. The existing By-Laws had provision for expulsion for various reasons and, so far as he could see, the grounds were still the same. This expulsion had to be a Council decision, but the member had the right of appeal to his fellow members in a meeting such as this; he did not have to appeal back to the same court which had condemned him. According to the new By-Law 34, the Council could decide to expel someone and that person could only appeal back to the Council. This did not seem to be at all like elementary British justice. If these By-Laws could not be withdrawn for reconsideration and further homework he felt bound to vote against them.

The CHAIRMAN thanked Mr. Hall for the interesting and valuable points he had made.

MR. G. MCNEE, B.Sc. (Member) said that he agreed with most of what Mr. Hall had said.

On page 1 of the proposed By-Laws there was a description of "Corporate Member", which meant "any person on the Roll as a Fellow", "Corporate membership" being construed accordingly. It also said that "Voting member" means any person on the Roll as a Fellow or Member and 'Voting membership' shall be construed accordingly". Looking through the By-Laws, it would be found that in many places the word "member" was used when it meant a person who belonged to this Institute. By-Law 21 on page 4 stated that "The rights and privileges of every member shall be personal to himself". On page 2, in By-Law 5, *Members*, there was reference to "Candidates for election or transfer into the grade of Member". There could obviously be difficulties here, and there were one or two other places where the same thing applied.

With regard to the Accounts, By-Law 67 stated that the books of account "shall not be open to any members of the Institute not being members of Council". This could be

taken as meaning people in the grade of member, when he was perfectly sure that Council meant it as anybody in the Institute. These points required some further examination.

Referring again to By-Law 67, dealing with the books of account, he felt that it was entirely wrong that as members of the Institute they should be debarred from looking at the accounts if they so wished. Each member, contributing his little bit, was a part of the Institute, and should have the right to look at the accounts.

On page 5, *Subscriptions*, he objected most strongly to the Council just putting down £13 for the grade of Fellow. If there were any question of increasing subscriptions it should be sent out as a referendum to all persons belonging to the Institute, otherwise they could just as easily put it up again. It should not just be left to the Council.

With regard to By-Laws 78 and 79, on the matter of special business, he felt that the wording should be altered. They could be interpreted as meaning that a member could come to this meeting and only ask a question or raise a motion relating to the general management of the Institute as "special business" and not in relation to the submission of the accounts. This was a possible interpretation of the proposed By-Laws as at present worded. They should be clarified so that any question of general management could be dealt with at any time during the Annual General Meeting, either in connexion with the proposal for the acceptance of the accounts or under the "special business" heading.

Obviously the Council were still living in the past, for By-Law 88 stated that "Any notice, if served by post, shall be deemed to have been served on the day following that on which the letter containing the same was put into the post!" This might seem a trivial point but a member could be expelled and he might not know about it for two or three days afterwards. A 5d. stamp did not guarantee delivery the next day.

The Council had been discussing the new By-Laws for a considerable period and he fully appreciated the hard work involved, and the difficulties, but it was entirely wrong that they should come along on the 31st March and put down these new By-Laws, which would affect everybody, for discussion at an Annual General Meeting taking place a little less than a month later, when a tremendous number of the membership would never even have seen the By-Laws. There were many seagoing men who would not have seen them yet. Any question of alteration of the By-Laws should be the subject of a referendum. A lot of people probably would not answer it but at least they would be given the opportunity to state their opinion. At present a large proportion of the seagoing members would see it as a *fait accompli* and would not have had a chance to look at it.

The CHAIRMAN OF COUNCIL said that he could not pretend to have noted down all the points. Mr. Hall had asked about nomination for Council. If individual Council members had not made nominations, a number of vacancies on Council would never have been filled. The nominations received from the membership were so few that there was not an adequate number of candidates put forward to fill the vacancies. This at least was a reason for allowing Council, in the new By-Laws, to also make nominations. After all, there was a clear indication of where the nominations came from, and if members objected to the names they presumably would not vote for them. He could not accept the view that because Council nominated they had an in-built advantage.

The object of having the chairmen of Branches on the Council was that the grass roots of the Institute were largely in the Branches and there were many issues debated there which should be properly represented in Council. The reason for wishing to give chairmen the power to vote in Council was to increase the involvement of Branches in the actual government of the Institute. He did not accept the point about the two votes. The chairmen of the Branches were elected by the Branch committees and they represented the

## Minutes of Proceedings of the Annual General Meeting

Branch. The actual election of members of Council, apart from the chairmen of the Branches who were *ex officio*, was a totally different thing, and all members of the Institute voted for that purpose.

Mr. McNee had referred to the confusion between "Member" and "member". Wherever the term "Member" had been used, meaning a "Member" (new style) or the Institute, it had been shown with a capital "M". Wherever the term had been used generally, referring to all grades, it had been used with a small "m". He could not honestly believe that this was going to lead to any general confusion throughout the membership of the Institute. The term "member" was an honourable one and the small "m" was merely a sensible way of designating people in the By-Laws.

Underlying both Mr. Hall's and Mr. McNee's remarks was the implication that the Council was a body not to be trusted. The Council was a democratically elected body to whom the membership had entrusted the government of this Institute. No organization could be run unless there was a practical means of running its day-to-day affairs and, indeed, its more important affairs. There was a staff who served the Council and a Council, elected by the members of the Institute, who had the duty to run the Institute in accordance with its objectives as set down in the Charter and in accordance with the By-Laws. If the Council were not to be trusted then this Institute could not be run. It was quite impracticable for the whole membership to run the Institute by Annual General Meeting or by Extraordinary General Meeting.

Various criticisms had been made about details of these By-Laws and suggestions had been made that they ought to be re-written. It had taken years to write these By-Laws, and all the kinds of points raised so far had been raised on all sorts of other matters in the compilation of the By-Laws. There would never be a set of By-Laws which, when put before an Annual General Meeting or a Special General Meeting, would not be criticized by someone or other. This was just a fact of life and it must be accepted that, on a variety of matters, people's opinions differed, on points of detail and of substance. If they took another ten years it would still not be possible to produce a set of By-Laws regarded as perfect by everyone. If the Institute were to progress the members must be prepared for executive action.

Mr. Hall had complained that the By-Laws had been too long in gestation. Other people had complained that they were produced too quickly.

The principles had been canvassed for a long time. The details were not vital, but there were one or two points about the books which perhaps the Secretary would answer.

The DIRECTOR AND SECRETARY said that nothing insidious was intended in regard to the By-Law dealing with the books. Admittedly the wording in the current By-Law was less restrictive than in the proposed new one. Examination of the account books, in the terms of By-Law 66, would not be informative.

In the existing constitution there was a provision for the Council to have the responsibility of raising the subscriptions within certain limits which had been laid down by the members in General Meeting and approved by the Privy Council. There could be no intention of taking responsibilities from the members. The By-Law had been in operation for a good many years and was proposed to be changed in degree, but not in principle.

The CHAIRMAN supported Captain Jenks' point that at a meeting of this size it would be impossible to go through and try to re-draft a set of By-Laws, and it was quite impossible to produce, at a meeting like this, any set of By-Laws with which everyone entirely agreed.

COMMANDER E. TYRRELL, R.N. (Member) said that the statutory requirements for the Board of Trade Certificates of

Competency were such that the Board was required to ensure that the officers concerned were competent from the point of view of ensuring the safety of ships at sea. Such academic requirements as there were for these Certificates of Competency were merely incidental to this requirement of ensuring safety. He therefore suggested that, in order to increase the status of marine engineers, Council should be instructed to negotiate with the Board of Trade and a recognized educational institution, such as a university, with the aim of agreement that an Extra First Class Certificate of Competency should confer on the holder of such a Certificate, a degree in Marine Engineering at a recognized university. Similarly, a First Class Certificate should confer on the holder a Higher National Diploma in Marine Engineering and so on, down the scale.

The CHAIRMAN suggested that it was not necessary to have a resolution on it; the Council could take note of the suggestion and consider how best to implement it.

The CHAIRMAN OF COUNCIL said that the academic requirements did not impinge on the passing of the By-Laws as such. These were guidelines to the Council.

MR. S. G. CHRISTENSEN (Member) said that some of the comments on the By-Laws reminded him of the activities of the so-called guardians of civil liberties, who sometimes sought to interfere with police action to the point at which the police would be powerless to act. He hoped that this thinking was not at the back of some of the speakers' minds.

The accounts had been mentioned and the fact that they should be available for inspection. When the accounts were published they bore the auditors' certificate. Could not the auditors be trusted to go through the books of the Institute? Was it necessary for members to have the privilege of going through them? He did not think it was.

Nothing was perfect in all its parts, but he felt that so much in the proposed By-Laws was entirely sound that they should be accepted as they stood. The Council were a body of people, not one person, and should be able to act freely and exercise their power as a democratic body. He had served as an associate member of Council and had seen how divergent were the views argued in Council. As an ordinary member of the Institute he was quite happy to leave the By-Laws as they were and to let the Council deal with any amendments.

The CHAIRMAN felt that the subject had been given a pretty good airing.

MR. F. C. BOWN (Member), on a point of order, said that he had understood Mr. Hall to propose an amendment to Captain Jenks' motion.

MR. HALL said that he had not proposed any amendment. He had simply stated that he was going to vote against the By-Laws.

The CHAIRMAN said that this was what he had understood.

If there were no further speakers it was now his intention to put the resolution to the vote.

There had been a number of comments in writing received, most of them in favour of the proposed By-Laws. In addition there had been correspondence with the Canadian Division raising various interesting points which had been dealt with in writing, but they did not bear upon the terms of the resolution before the meeting.

The resolution was then put to the Meeting and *carried* (with five dissentients).

*Other business*

There was no other business.

## *Minutes of Proceedings of the Annual General Meeting*

### *Vote of thanks to the President*

The CHAIRMAN OF COUNCIL, in proposing a vote of thanks to the President, said that Mr. Bolton was a ship-owner in his own right and had played a notable part and was playing a notable part in the general affairs of the shipping industry in this country. He had been President of the Chamber of Shipping, he was the Chairman of its Technical Policy Research Council, and the members of the Institute were privileged that he had accepted the invitation to be its President. Mr. Bolton had not taken on the Presidency as just another chore; he had taken an intense interest in the affairs of the Institute, attending more Council meetings than he had ever known any President to attend. Those who had the privilege of working closely with him had found him not only exceptionally interested in the Institute's affairs but exceptionally helpful. His work had been of great value to this Institute during his year of office. It had been the greatest possible pleasure to work with him; indeed, he said this on behalf of all members of Council and the staff. When they were faced with the crisis resulting from Mr. Munton's illness it was the unanimous wish of the Council that Mr. Bolton be asked to accept another term of office and they were very grateful indeed that he had agreed to carry on.

The VICE-CHAIRMAN OF COUNCIL, seconding, said that he had never known a President who had taken such an intense interest in the Institute's affairs, or been so aware of the problems and keen to assist in trying to solve them. As Captain Jenks had said, they were all very glad that Mr. Bolton had accepted an additional year of office, despite his numerous activities. The fact that he was prepared to devote so much of his time to the Institute's affairs was very greatly appreciated.

It gave him great pleasure, therefore, to second the vote of thanks.

### *Reply by the President*

The PRESIDENT said that last year he realized it was a very great honour to be asked to be President. This year he really appreciated how great the honour was. He had very much enjoyed the past year, getting to know the inner workings of the Institute. It had made him realize what a marine engineer was and what he did. He looked forward to the coming year and especially to IMAS '69. It would, he felt sure, be a very stimulating year for the Institute.

He had come to realize how much the Institute owed to the Council, and to the Branch officers and Branch committees, who really represented the grass roots, as had been said earlier. He had also realized how extremely fortunate the

Institute had been in this last year to have Captain Jenks as Chairman of Council. Everyone admired his energy and firmness combined with skill and the way he handled meetings. He was sure that the Institute was extremely grateful to Captain Jenks for what he had done during his year of office as Chairman of Council.

Finally, he appreciated how much the Institute owed to the incredibly hard work done by the staff, headed by an indefatigable Director and Secretary.

He asked the Meeting to record a very hearty vote of thanks to the Officers, to the Council, to the Chairman of Council and to the staff of the Institute.

The vote of thanks was *carried by acclamation*.

### *Reply by the Chairman of Council*

The CHAIRMAN OF COUNCIL said that he was most grateful for the very kind words said about him. He wished to pay his own tribute to the Director and Secretary, the Assistant Secretaries (Mr. Franklin and Mr. Pearce), Mrs. Baker and everyone on the staff. He had a knowledge of all sorts of organizations in which he had served and had never met a staff quite as efficient as that in this Institute.

The members of Council appreciated the remarks about them. Their work had been done in the knowledge that they had a President who understood it.

### *Reply by the Director and Secretary*

The DIRECTOR AND SECRETARY said that the whole staff, who were looked after very well, considered it an honour to serve the members. It had been his pleasure for 21 years to see what went on and occasionally there had been times when one doubted whether the chosen direction was the right one, but after discussions with members up and down the country, young and old, one invariably came away encouraged. He hoped that the Institute would long find encouragement in all its works.

### *Presentation of Medals and Awards for 1968 by the President*

The DIRECTOR AND SECRETARY announced the award winners and presentations were made.

### *Closing remarks by the Chairman*

The CHAIRMAN hoped that at the end of what had been a long meeting members would feel that a very important subject had been dealt with as it should have been.

He thanked members for their attendance and declared the Annual General Meeting closed.

*(The Meeting closed at 7.35 p.m.)*