

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol.32 No.1



Summer 1988

BULLETIN



The Skerries Light - Born circa 1738 - deceased 1988

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LIVERPOOL NAUTICAL RESEARCH SOCIETY

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TRANSACTIONS

To mark our 50th Anniversary a set of Transactions, illustrated opposite, have been printed.
Actual page size 10 1/2ins by 7 1/4ins with cover in full colour.
Price to Members £2 each. By post please add 50p post and pkg.
Apply to Diana Hirst, 7 Kirkway, Higher Bebington, Wirral, L63 5NT or phone 051 608 2281.

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We apologise for the delay of this Summer BULLETIN caused by the work on the Transactions.

Editorial

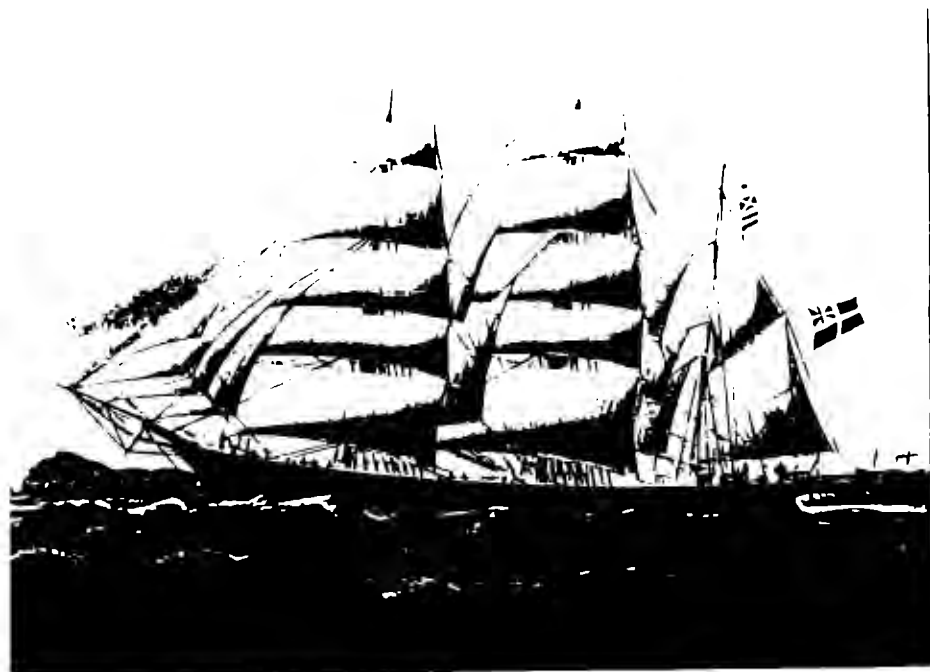
The editorial format has changed somewhat over the past few years and recently a number of members have suggested that the title BULLETIN is inappropriate.

What do you think? Have you any ideas for a suitable name?

In this Issue

In order to gain some idea of the engineering organisation required to man the largest passenger vessels viz, the 'Queens', I asked our member Ernest Cross to write details of his own career showing how engineers rose to become senior engineer officers on these vessels. He also gives some idea of the work carried out whilst serving in the various career stages.

A Merseyside MARITIME HISTORY



The barque "Araunah" (1866-1895) off Anglesey



Transactions
and
Research

1938

50th Anniversary

1988

A MERSEYSIDE MARITIME HISTORY

Editor: H. M. Hignett

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News, Notes & Queries.

The British Philatelic Society is holding a Conference in Liverpool 22nd-25th September in the University's Carnatic Hall. An off-shoot of the B.P.S. - The Cinderella Philatelic Society - hopes to display a collection of philatelic material relating to the Suez Canal. Some of this material consists of envelopes of letters posted by the crews of the vessels locked in the Great Bitter Lakes for several years in the 1960's War between Egypt and Israel. Most of this display will have come from the Alfred Holt vessels, but there are also Dutch, French, Polish stamps and envelopes etc. Check the details thro' your local stamp dealer or philatelic magazine.

The sailing vessel "James Walter", trading to and from the Humber, went down just before the 1st World War. She was probably operated by John Eastwood as owner-master.

Any information on this vessel or her master would be appreciated by Vice-Chairman Jas. Cowden.

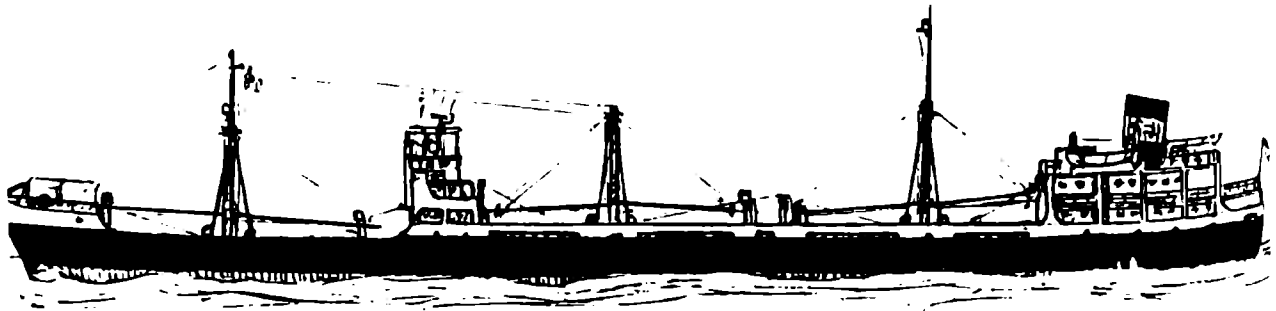
Oil Shakes on the Wirral

Last year a small seismic survey vessel spent several months on the Mersey and the Dee Estuaries and even three months in the Manchester Ship Canal between Manchester and Eastham. This was followed by a survey covering Live-pool Bay. The vessel was the DIGIRON TECHNICIAN. As part of the same survey a large oil rig was brought to the area and in May the rig SHELF DRILLER began work.

Mersey Pilotage

At the end of September a new Pilotage act comes into force. This disbands the old Pilotage legislation based on the Pilotage Act 1913. Effectively local port authorities will be in charge of their pilotage laws, much as they were in 1808 when the earliest regulation of pilotage was taken under the wing of central government. The number of pilots will be considerably reduced - it is said that the Port of Liverpool pilot strength will be reduced from 150 to a little more than 60. This is the approximate number of pilots first licenced when, in 1765, Liverpool began to regulate their pilots.

Next month we hope to include an article by Alan McClelland on raised quarterdeck ships. Alan's illustration of this type is shown here.



GLOXINIA/PHOTINIA

AMF 86

'CUNARD' PROMOTION - 'STEP BY STEP' by E. Cross

My career at sea, inclusive of a short period with the Port Line, began on May 30th, 1945, extending to the Cunard White Star Line, and ended on December 18th, 1956, a total of eleven and a half years.

In order to portray the pattern of promotion I have shown in the Tables the name of the vessel, the position held when signing on each time and the dates of signing on and off for the thirty seven sets of ships' articles for the entire period, finally adding a column of remarks appertaining to each.

It was a far cry from the relatively small number of seven Engineer Officers on the refrigerated cargo ship "Port Darwin" to the very large complement on the "Queen Elizabeth", there being a Chief Engineer, also a Staff Chief Engineer, three Senior Second Engineers, three Intermediate Second Engineers and three Junior Second Engineers, making nine for each rank down to the rank of Eighth Engineer. This made a daunting total of sixty-five or so Engineers - a formidable promotion ladder for a young Junior Eighth to climb!

As each voyage lasted for about fourteen days, the position held at signing on did not hold for very long. A new staff list would be posted on the notice-board at the beginning of each trip indicating a small rise or fall in rank, with a small increment or reduction - in pay, as the case may be. A three four-hour watch system was employed as is usual at sea, there being the 8-12, 12-4 and 4-8 watches with, theoretically, eight hours off duty between them. It was usual that if one did the 8-12 watch during one voyage, one did the 12-4 watch during the following one and 4-8 during the next.

In those earlier post-War years it was clear that there were a great number of uncertificated Engineers on the staff, from the lowest rank of Eighth up to that of Fifth. There was no evidence of any officers gaining Certificates during the War, many of them moving to or from other Shipping Lines. To counter-act this situation 'Cunard' instituted a two-year contract arrangement, thus giving security to those who wished to stay.

The thing to do, of course, was obvious - to obtain both Second and First Class Steam Certificates of Competency as soon as possible and take two great steps, with results as shown in the Tables. Firstly, a step to Fourth Engineer status, with the Second Class Certificate, on returning to the "Queen Elizabeth". Quite apart from the financial gain incurred, I was made aware of my new grade, when placed in a favourable position for the Royal visit to the ship by Their Majesties Queen Elizabeth, King George VI and Princess Margaret. The Queen stopped in front of me and asked several questions about the welfare of the Engineers. An unforgettable honour and a happy sequel to promotion.

There was a tendency later for promotion to be halted. This was due to the return of Engineer Officers, from wartime services, who wished to retain their higher ranks.

TABLE 1

SHIP	POSITION HELD	PERIODS OF SERVICE	REMARKS
PORT DARWIN	7TH ENGINEER	30. 5.45	2 VOYAGES FROM AVONMOUTH TO MONTREAL VIA NEWPORT NEWS(FOR COAL)AND NEW YORK RETURN- ING WITH CARGOES OF FROZEN BEEF (UNDER UNITED NATIONS RELIEF SCHEME) SALARY £18 10/- PER MONTH PLUS £10 PER MONTH WAR BONUS, TOTALLING £28.10/- PER MONTH.
		TO	
		30. 7.45	
		AND	
QUEEN ELIZA BETH	JUNIOR 8TH ENGINEER	17 8.45	ON GOVERNMENT SERVICE-TRANSFER OF TROOPS. 19.1.46-MR.CHURCHILL SAILED ON HER TO NEW YORK.MADE SPEECH TO 12,000 RETURNING G.I.'s BOTTLE OF GUINNESS ISSUED TO ALL SHIP'S OFFICERS!EARLY1946-BROUGHT MANY OF THE DELEGATES TO THE 1ST ASSEMBLY OF UNITED NATIONS BACK FROM NEW YORK.1.3.46-FIRE IN HOSPITAL(AT SOUTHAMPTON).DECK PLANK ING HACKED AWAY WITH AXE FOR FIREMEN TO PLAY HOSES ON DECK. SALARY £21.5/- PLUS £10 WAR BONUS. TOTAL- LING £31.5/- SHOWS PAY INCREASE COMPARED WITH CARGO SHIPPING LINE.
		TO	
		26. 3.46	
QUEEN MARY	JUNIOR 8TH ENGINEER	27 3 46	ON GOVERNMENT SERVICE-WAR BRIDES TRANS- FERRED TO HALIFAX AND NEW YORK-MANY SEA- SICK! MY 'ACCOUNT OF WAGES' SHEET FOR THIS PERIOD SHOWS A BONUS OF 5/- BEING AWARDED FOR 'V' DAY! SEEMS A LITTLE LATE!
		TO	
		22. 8 46	
QUEEN MARY	3RD SENIOR 8TH ENGINEER	11. 9.46	SEPT.'46-EISENHOWER SAILED ON HER FROM NEW YORK, WHEN A VERY HIGH SPEED WAS SUS- TAINED FOR SEVERAL DAYS.I BELIEVE THAT "QUEEN MARY"REACHED 32 22 KNOTS TO IM- PRESS 'IKE'!SO FAST THAT DIFFICULTY WAS EXPERIENCED IN TRANSFERRING WELL OVER 1000 TONS OF OIL FUEL PER DAY TO SETTling TANKS. AS A TROOP TRANSPORT FROM MARCH,1940 SEPT. 1946. THE SHIP STEAMED 569,943 MILES AND CARRIED 765,429 PASSENGERS.FINAL TROOP- ING VOYAGE CONSIDERED TO BE 24 9.46 BEFORE GOING TO JOHN BROWN'S FOR CONVERSION BUT IN FACT, THIS CONVERSION WAS DELAYED TILL AFTER 4.11.46. SIR PERCY BATES(CHAIRMAN) DIED 15.10.46.
		TO	
		4.11.46	
QUEEN ELIZA- BETH	2ND SENIOR 6TH ENGINEER	5 11.46	DECIDED JUMP IN PROMOTION AND FINANCIAL PROSPECTS! SHIP NOW IN COMMERCIAL SERVICE. WAR BONUS STILL BEING PAID. A JUNIOR ENGINEER FROM WIRRAL LOST A FINGER, WHILST OPERATING ONE OF THE MAIN ENGINE TURNING GEARS.
		TO	
		11. 2.47	
QUEEN ELIZA BETH	1ST INTER- MEDIATE 6TH ENGINEER	12. 2.47	25.2.47-STEVEDORES STRIKE(OVER HANDLING BAGGAGE)AT SOUTHAMPTON MEANT MANY PASSEN- GERS HAD TO LEAVE THEIR BAGGAGE IN CUSTOMS AMONGST THOSE CARRYING THEIR OWN LUGGAGE WERE IVOR NOVELLO AND PHYLLIS CALVERT! THE BOAT TRAIN LEFT THREE HOURS LATE.
		TO	
		26. 2 47	
QUEEN ELIZA- BETH	2ND JUNIOR 5TH ENGINEER	13. 3.47	14.4.47-GROUNDED ASHORE ON BRAMBLES BANK SOUTHAMPTON.16.4.47-REFLOATED WITH THE AID OF 11 TUGS!SHIP NOT DAMAGED. SIGNED OFF TO STUDY FOR 2ND CLASS STEAM CERTIFICATE.
		TO	
		17. 6 47	

TABLE 2

SHIP	POSITION HELD	PERIODS OF SERVICE	REMARKS
QUEEN ELIZA- BETH	2ND JUNIOR	1. 1.48	PROMOTION TO 4TH ENGINEER RANK ON GAINING CERTIFICATE. FINANCIAL GAIN OF £6 PER MONTH' WAR BONUS DISCONTINUED.
	4TH	TO	
	ENGINEER	2. 3.48	
QUEEN ELIZA- BETH	2ND INTER-	18. 3.48	MAY, 1948-FOG-BOUND FOR 12 HOURS, AS AP- PROACHING NEW YORK. MANY PASSENGERS HAD TO SPEND AN EXTRA NIGHT ON BOARD.
	MEDIATE	TO	
	4TH ENGINEER	4. 6.48	
QUEEN ELIZA- BETH	3RD SENIOR	23. 6.48	28.7.48 IN SOUTHAMPTON SHIP HONoured BY A ROYAL VISIT-H.M.QUEEN ELIZABETH, KING GEORGE VI AND PRINCESS MARGARET. ANOTHER BOTTLE OF GUINNESS ISSUED TO ALL SHIP'S OFFICERS!
	4TH	TO	
	ENGINEER	14. 9.48	
QUEEN ELIZA- BETH	2ND INTER-	29. 9.48	ROUGHLY ABOUT THIS TIME, SIR WILLIAM DENNY GAVE A LECTURE IN THE ENGINEERS' WARDROOM ON THE SUBJECT OF SHIP STABILISERS, WITH A VIEW TO FUTURE FITTING ON THE QUEENS. SEVERAL ELDER ENGINEERS WERE NOT IMPRESSED!
	MEDIATE	TO	
	4TH ENGINEER	15.11.48	
QUEEN MARY	1ST JUNIOR	25.11.48	1.12.48- THE TWO 'QUEENS' AND THE "AQUITANIA" ALL LEFT SOUTHAMPTON TOGETHER, CONTRIBUTING FACTORS BEING THE NEW YORK DOCK STRIKE AND THICK FOG.
	4TH	TO	
	ENGINEER	15.12.48	
QUEEN MARY	3RD INTER-	30.12.48	1.1.49-ON LEAVING CHERBOURG HARBOUR WITH FRENCH PILOT ABOARD, STARBOARD ANCHOR FOULED 'PLUTO' PIPE LINES. SHIP LATER GROUNDED BY THE STERN. THE PIPES WERE CUT AWAY AND THE SHIP RETURNED TO SOUTHAMPTON FOR DRY DOCKING. TEMPORARY REPAIRS CARRIED OUT TO MINOR DAMAGE.
	MEDIATE	TO	
	4TH ENGINEER	23. 3.49	
QUEEN MARY	1ST JUNIOR	11. 4.49	THE ABOVE WAS CAPT. GRATTIDGE'S FIRST COM- MAND OF THE "QUEEN MARY"-COMPLIMENTED BY 'CUNARD' OFFICIALS FOR HIS SEAMANSHIP.
	4TH	TO	
	ENGINEER	28. 6.49	
QUEEN MARY	2ND INTER	16 7.49	SEPT. 1949-THE POUND DEVALUED FROM FOUR DOLLARS TO TWO DOLLARS AND EIGHTY CENTS
	MEDIATE	TO	
	4TH ENGINEER	5.10.49	
QUEEN MARY	3RD SENIOR	20.10.49	31.12.49 (MIDNIGHT)-CUNARD WHITE STAR BE CAME CUNARD STEAMSHIP COMPANY.
	4TH	TO	
	ENGINEER	21. 2.50	
QUEEN MARY	3RD INTER-	13. 3.50	ATTACKED BY THUGS IN 50TH STREET. NEW YORK, WHEN RETURNING TO SHIP. HEAD BANDAGED IN SHIP'S HOSPITAL. WORKED THE 12-4 A.M. WATCH, TAKING ON OIL FUEL. A SHIP'S INTER- PRETER WAS ATTACKED THE SAME NIGHT.
	MEDIATE	TO	
	4TH ENGINEER	30. 5.50	
QUEEN MARY	3RD INTER-	14. 6.50	
	MEDIATE	TO	
	4TH ENGINEER	21. 8.50	

TABLE 3

SHIP	POSITION HELD	PERIODS OF SERVICE	REMARKS
QUEEN MARY	2ND JUNIOR 4TH ENGINEER	5. 9 50 TO 4. 12. 50	SIGNED OFF TO STUDY FOR 1ST CLASS STEAM CERTIFICATE
SAMARIA	INTER- MEDIATE 3RD ENGINEER	12. 6. 51 TO 31. 8. 51	AFTER GAINING 1ST CLASS STEAM CERTIFICATE PROMOTED TO 20,000 TON 'INTERMEDIATE' CLASS SHIP 'SAMARIA'
SAMARIA	SENIOR 3RD ENGINEER	2. 10. 51 TO 20. 12. 51	
SAMARIA	INTER- MEDIATE 3RD ENGINEER	21. 12. 51 TO 12. 3. 52	
SAMARIA	SENIOR 3RD ENGINEER	10. 4. 52 TO 27. 6. 52	IN JULY, 1952, AFTER 14 YEARS, THE 'QUEEN MARY' LOST THE BLUE RIBBON TO THE "UNITED STATES". THE LATTER MADE EAST AND WESTBOUND PASSAGES AT 35.59 AND 34.51 KNOTS.
SAMARIA	SENIOR 3RD ENGINEER	29. 7. 52 TO 4. 1. 53	12. 10. 52-GROUNDED IN ST. LAWRENCE BRIEFLY, BUT HEAVILY AT SPEED. WITH PILOT, ON WAY UP TO QUEBEC. RESERVE WATER & OIL FUEL TANKS HOLED. LANDED PASSENGERS AT QUEBEC. SHIP FLOATING ON 'TANK TOPS' IN ENGINE AND BOILER ROOMS. MANY HULL PLATES RENEWED AT LOCAL DAVIE SHIPYARD, LAUZON. 21. 12. 52.-LEFT QUEBEC AMIDST ICE FLOES.
SAMARIA	SENIOR 3RD ENGINEER	26. 2. 53 TO 16. 6. 53	"SAMARIA" REPRESENTED 'CUNARD' AT THE CORO- NATION NAVAL REVIEW (15.6.53) AT SPITHEAD IN 'J' LINE OF 10 VESSELS BETWEEN "VELLETA" AND "KENYA".
SAMARIA	SENIOR 3RD ENGINEER	14. 7. 53 TO 16. 1. 54	
SAMARIA	SENIOR 3RD ENGINEER	17. 2. 54 TO 9. 6. 54	
SAMARIA	SENIOR 3RD ENGINEER	7. 7. 54 TO 30. 7. 54	
SAMARIA	SENIOR 3RD ENGINEER	31. 7. 54 TO 3. 1. 55	
SAMARIA	SENIOR 3RD ENGINEER	9. 2. 55 TO 29. 6. 55	
SAMARIA	JUNIOR 2ND ENGINEER	28. 7. 55 TO 18. 8. 55	IN COMPLETE CHARGE OF WATCH.
SAMARIA	JUNIOR 2ND ENGINEER	19. 8. 55 TO 24. 1. 56	SHIP BERTHED AT SOUTHAMPTON FROM DECEMBER 3RD.
SAMARIA	INTER- MEDIATE 2ND ENGINEER	25. 1. 56 TO 27. 1. 56	"SAMARIA" TO THE BREAKERS-THOMAS W. WARD LTD., AT INVERKEITHING.

TABLE 4

SHIP	POSITION HELD	PERIODS OF SERVICE	REMARKS
FRANCONIA	INTER- MEDIATE 2ND ENGINEER	1. 2.56 TO 7. 7.56	TRANSFERRED TO "FRANCONIA". GENERAL VIBRATION IN ENGINE ROOM PUT DOWN TO NEAR MISSES OFF THE COAST OF BRITTANY 16.6.40.
FRANCONIA	INTER- MEDIATE 2ND ENGINEER	8. 7.56 TO 9. 8.56	CONSTANT VIBRATION RESULTED IN RAPID WEAR OF TURBINE THRUST PADS. A NUMBER OF STOPS ON OUTWARD VOYAGE TO EXAMINE THEM & FIT NEW SPARES. 27.7.56-WHILST THE "FRANCONIA" WAS MANOEUVRING IN DENSE FOG, TO PICK UP PILOT, HEARD ON RADIO THAT, NEAR NANTUCKET, THE "STOCKHOLM" RAMMED THE "ANDREA DORIA" THE LATTER SINKING.
FRANCONIA	JUNIOR 2ND ENGINEER	6. 9.56 TO 1.11.56	THORNEYCROFTS SURVEYED SHAFT ALIGNMENTS OF ENGINES. THEY BROKE DOWN ON SUBSEQUENT VOYAGE ABOUT 200 MILES OFF LANDS END. SHIP RETURNED TO SOUTHAMPTON AT REDUCED SPEED FOR ANOTHER CHECK. VIBRATION NEVER COMPLETELY ELIMINATED.
FRANCONIA	INTER MEDIATE 2ND ENGINEER	13.12.56 TO 18.12.56	TO INVERKEITHING TO BE SCRAPPED BY THOMAS W. WARD LTD. EXTENDED TIME OF ARTICLES DUE TO BAD WEATHER AND REDUCED POWER ON THE STARBOARD ENGINE.

Then followed a two-year period on the "Queen Mary" as Fourth Engineer, after which I signed off to study for my First Class Certificate. After gaining this - my second step - I was promoted to Third Engineer on the "Samaria" - a twenty-thousand ton vessel. This type of ship carried a Chief Engineer, a Senior Second, an Intermediate Second and a Junior Second Engineer, that is, three Engineers for each rank down to the rank of Fourth Engineer. In addition there was a Deck Engineer, designated Senior Fifth, making a total of about eleven Engineers. After a somewhat lengthy period as Senior Third on this vessel I was promoted to Junior Second Engineer in complete charge of the watch, with a junior Engineer in the Engine Room and another in the Boiler Room. This happy state of affairs lasted for about six months, culminating in signing Articles for two days only, whilst taking the "Samaria" from Southampton to the breakers at Inverkeithing.

Promotion now lay in being transferred to a similar vessel the "Franconia", serving about ten and a half months, mainly as Intermediate Second Engineer. This vessel was, in her turn, taken to the Inverkeithing breakers approximately one year after the "Samaria". On this occasion, due to bad weather and reduced power, we took five days.

To be continued

LIVERPOOL NAUTICAL RESEARCH SOCIETY
MINUTES OF THE 50th ANNUAL GENERAL MEETING HELD AT
6.45 p.m. THURSDAY 19th MAY 1988

PRESENT:

MR. J.S.DAVIDSON
MR. J.E.COWDEN
MR. K.W.WITTER
MRS D.M.HIRST
MR. H.M.HIGNETT
DR. A.H.ROWSON
MR. K. STUTTARD
MR. J.O.DUFFY
MR. J.E.LINGWOOD
and 11 MEMBERS

1. Apologies received from Mr.A.H.McClelland .
2. The MINUTES of the 49th Annual General Meeting having been published in the Bulletin Vol 31 No.2. June 1987 were taken as read and agreed.

Matters Arising

There were no matters arising.

3. Chairman's Report

The Chairman reported an improvement in the Society's affairs with an increase of six in the membership, making a total of 78 individual and 12 corporate members. We had an outstanding series of Meetings and thanks were due to Mr. Stuttard for his excellent choice of Speakers. Several Sub-Committee meetings have been held in connection with helping Mr Hignett to produce "TRANSACTIONS". It is a tremendous job he has undertaken and like most publishing projects is taking a bit longer than anticipated. A report will be made to the Council before the June meeting of the Society. On behalf of the meeting the Chairman thanked Mr Harry Hignett for the many hours spent on this and similar editorial matters. To mark the 50th Anniversary of the Society an entry had been effected in the Newsletter of the Maritime Economic History Group for March 1988.

4. Treasurer's Report

The Honorary Treasurer's report was circulated, showing a balance of £1270. The cost of printing the Bulletin was lower this year and the Christmas Social was a financial success. We had also sold some old copies of "TRANSACTIONS" to the value of £26. The proposal that the report and accounts be accepted was proposed by Mr. J. Cowden and seconded by Mr. J. Duffy.

Miss Lomas raised the matter of the Speakers' expenses . After a full discussion it was agreed that the Society was doubly indebted to all the Speakers, for their generosity not only in sparing us their time, but in keeping expenses to a minimum. Mr. Stuttard (Programme Secretary) confirmed that all Speakers received a letter of thanks, in addition to the formal vote of thanks at the meeting.

5. Election of Officers

Mr. J. Lingwood proposed that the present incumbents carry on for the next year. This proposal was seconded by Mr. A. Pugh and agreed unanimously.

6. Any Other Business

(i) Archives

Dr. A. Rowson reported an entirely new situation with regard to archives. The MMM now has extensive archives and our archives will be gradually incorporated, sharing the same computerised retrieval system. We have to decide on an acquisition policy, bearing in mind limited storage space. Dr. Alan Scarfe outlined the MMM policy regarding the acceptance of new material and a full discussion ensued. It was agreed, that in the interests of an integrated storage and retrieval system, further LNRS acquisitions would be jointly appraised by Dr. Scarfe and Dr. Alan Rowson (LNRS archivist) consulting with other LNRS members with special interests if thought appropriate.

(ii) Programme

Mr. Stuttard proffered a list of interesting Speakers for the coming year which met with approval from members.

(iii) It was decided to dispense with a June meeting next year. There would be seven lectures to April 1989, (not counting the Christmas Social) finishing with the A.G.M. in May The Christmas Social would be held on December 15th. Meetings would continue to be the 3rd Thursday of the month.

The motion that the time of the meeting should be changed to 7.p.m. was put to members. FOR: 10 votes - AGAINST: 5 votes. The motion succeeded and meetings will now start at 7 o'clock prompt. January and February meetings will continue to be held at 12.30 p.m. at the Maritime Museum. All other meetings (September to May inclusive) are to continue at Liverpool Museum William Brown Street.

(iv) Thanks

On his own behalf, and of members, the Chairman expressed deep appreciation of all the hard work undertaken by the Hon. Treasurer, Hon. Secretary, and the other Executive Officers.

The Meeting closed at 7.45 p.m.

S.S. "THETIS", A DARING EXPERIMENT

by CHARLES DAWSON

There is a tendency to give recognition for the discovery of many of the great advances of industrial society to sole inventors. This is of course a convenient way of paying due homage to those who brought about the crucial breakthroughs, but it can lead us to ignore much of the interesting detail about the intricate, intertwining history of invention. The value of intermediate contributions is thereby minimised, but worse still, the knowledge of the daring experiments to push development forward is often banished to almost complete obscurity.

In this respect, the example of S.S. "Thetis", built in 1856/7 by Scotts of Greenock, is worth an honorable mention in the history of the steamship. She is dear to my heart, because my great-grandfather was closely connected with her during her experimental life. He was Captain William Kennedy, of Greenock birth-place too of James Watt (do I hear someone whisper: and Captain Kidd?) and a cradle of steamships and shipbuilding.

Clyde and Mersey were early on joined by regular steamers. Scotts were builders of the first regular "steampacket boat" as it was announced in Liverpool after the start in 1819 of the weekly service of P.S. "Robert Bruce" plying between Greenock, Douglas and Liverpool: "Fridays from Liverpool and Tuesdays from Greenock".

Scotts, probably the oldest surviving shipbuilder in the World, have ever since their founding, in 1711, been one of the most enterprising of the Clyde firms. They were early exponents of full-scale testing and "THETIS" is a fine example of this activity. John Scott, then leader of the family concern, was so convinced of the economy of steam at high pressure in the compound system that he had decided to build her at his own expense, just in order to put his convictions to the test.

Regarding high pressures, Trevithick was one of the early enthusiasts for "high steam" as they said in his day, and he came into conflict with James Watt over this very matter. Watt's engines worked at no more than 10 lbs./sq.in and this level was hardly increased during the next fifty years, aided and abetted by conservative experts and stifling government decrees. Admittedly, this had been with the utmost consideration for public safety after a number of disturbing explosions, largely due to the use of cast iron in early boilers. In marine applications, neither were matters helped by the use of sea-water with its clogging effects in boilers.

Although the compound marine engine had appeared in smallish vessels, for example by Roentgen in Holland, credit for a really viable version suitable for long voyages rightly goes to the Glasgow engineers Randolph & Elder, whose first success came when in 1854 they fitted their original patented type to the transatlantic S.S. "BRANDON" of the short-lived London & Limerick Steamship Co., followed in 1856 by the embodiment of their improved patent in the two ships, P.S. "INCA" and P.S. "VALPARAISO" for the Pacific Steam Navigation Co.

Steam pressures, with cast iron boilers now being ousted by wrought iron, had by this time risen to some 20 lbs. Simultaneously, coal consumption correspondingly decreased. In Watt's time, this had been over 10 lbs./1HP/hour, and by R. & E.'s time, 4½ to 4 had become the norm. "BRANDON" used some 3½ and "INCA" and "VALPARAISO" as little as 2½.

The race was now on to design a marine steam power-plant efficient enough to take a ship half-way round the world. This was John Scott's basic aim, and his daring innovative spirit led him to adopt the un-

precedented high working pressure of 115 lbs. Fortunately, he had the co-operation of two engineers of like mind, Rowan & Horton of the Atlas Works, Glasgow, who had designed a complete system, i.e. three-cylinder compound engine, water-tube boilers and surface condenser. The latter was used probably for the first time in conjunction with a compound engine, since it was absolutely essential at this high pressure to have fresh-water feed to the boiler.

"THETIS", with Steam Certificate No.40, was launched on the 19th January, 1857, but a further two years was required before test-bed and dock trials finally vindicated the designers' belief. On the 25th November, 1858, an experimental river trial gave the phenomenal figure for coal consumption of 1.018 lbs., which they were careful and diligent enough to have confirmed by no less a neutral technical expert than the great professor MacQuorn Rankine.

Captain Kennedy took "THETIS" on her commercial trials on the 12th May, 1859, "across to the Carelochhead to adjust compasses" as the "GREENOCK ADVERTISER" reported two days later, continuing: "her consumption of fuel was about one third of the quantity used by vessels with ordinary engines". She was then ready to start her regular cargo service between Glasgow and Liverpool, with Captain Kennedy in command. Even on the sea voyages she averaged about 1.086 lbs.

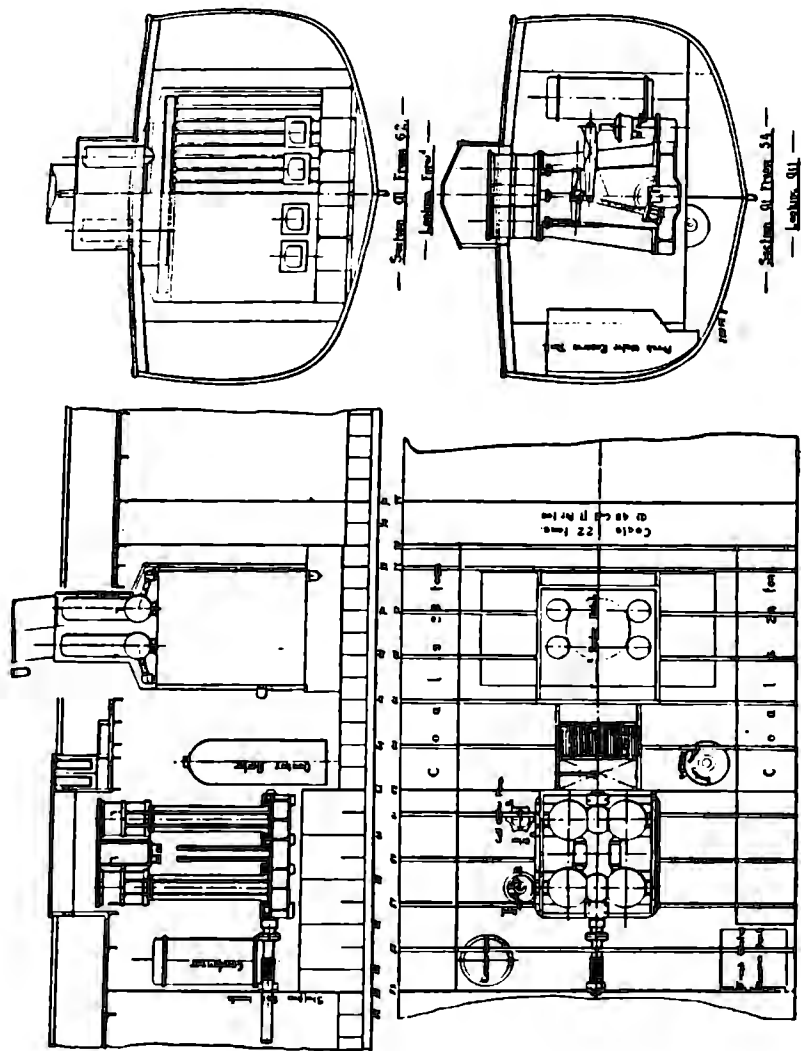
That her designers were also well aware of the great value of public relations is shown by their arranging the exhibition of a model of her power-plant at the rooms of the Mercantile Marine Association. Glowing items also appeared concurrently in the LIVERPOOL MERCURY and GORE'S GENERAL ADVERTISER, describing the steamer and her revolutionary engines, together with expressions of the great hopes for them.

The history of technology abounds with examples of pioneering efforts that suffer because the ideas behind them are too far ahead of the materials and techniques available to carry them out. "THETIS" was to reveal the particular problems then requiring solution. These were the need for even stronger metals and more reliable methods of fabricating them and also a much deeper knowledge about lubrication and corrosion.

However, she had undoubtedly played a large part in pointing the way forward for Scotts, for already by 1865 they were able to make a valuable new contribution to what is now considered to be one of the great breakthroughs for long-distance steam navigation: they built the pioneering S.S. "AGAMEMNON", together with the engines which Alfred Holt had a hand in designing.

There was a final irony in the fact that "AGAMEMNON's" boilers were a by-product of Holt's previous experience with railway locomotives. Although these then worked on land at 120 lbs., Board of Trade regulations restricted this figure for marine use to 69.

There were few other shipowners willing to run the risk of using steam at high pressure until about 1880. By this time, such improvements were being made, not only in the manufacture and fabrication of new steels as to permit their use in the construction of suitable boilers and furnaces, but also the next great step was already in the offing i.e. the triple-expansion engine. In this system, a full quarter of a century after "THETIS", the pressure she worked at, and the fuel consumption she reached, were once again attained, this time for universal application.



HIGH-PRESSURE MACHINERY IN THE "THETIS."

Maritime Museum For East Anglia, Great Yarmouth.

The Maritime Museum for East Anglia at Great Yarmouth is the major Maritime Museum in the region. It was founded in 1967 and since 1974 it has been one of the Great Yarmouth Museums which form a department of the Norfolk Museums Service.

The Museum occupies the former Shipwrecked Sailors Home, located centrally on the Marine Parade in Great Yarmouth. The Home was built in 1860 as a meeting place for the local beachmen and fishermen and as a refuge for shipwrecked mariners, a role it continued to fulfil until closing in 1964.

Although originally East Anglian in aspiration the Museum now concentrates on the maritime heritage of Norfolk and particularly, of course, on Great Yarmouth and district. There are three floors of exhibits at the museum illustrating the main themes of local maritime history, especially merchant shipping, the herring and other fisheries, with their ancillary industries, shipbuilding, lifesaving, and Norfolk's inland waterways, the Broads. Other subjects such as navigation, lightships, sailors crafts, Nelson and the navy are also displayed.

The material collections of the museum concentrate on the subjects above but also include a certain amount of more general material. The important Yarmouth herring fishery is particularly well represented with models, paintings, tools and fishing gear. Among the models is a fine contemporary one of a fishing lugger of about 1860. She is shown hauling her nets with all the crew at work and with detail right down to the dogfish swimming away with a herring taken from the net. There are a number of other collections of particular note. A collection of curios from the little museum which was a part of the original sailors Home includes important ethnographical material and, probably uniquely, an Apache scalp with an accompanying letter describing how it was taken! Wooden shipbuilding is represented by a comprehensive collection of tools and half-models. In the lifesaving section there is a collection of original material relating to Captain Manby, one time Barrack Master at Yarmouth and inventor of the line-throwing mortar. Naive ship portraits form another important collection which includes Mediterranean portraits of mid 19th century Yarmouth merchant vessels and local portraits of the Yarmouth and Lowestoft fishing vessels of the later 19th century. The museum also has a number of original vessels some of which are on display including the unique Broadland racing lateener 'Maria' which was built in 1827.

Supporting the material collections is an archive and reference library including books, journals, personal papers and other original records, shipbuilding plans, marine charts, photographs and tape recordings.

An educational service is provided by the Yarmouth Museums Teacher who is able to offer lessons to schools and other groups at the museum where there is a schoolroom with video and other equipment. The schoolroom is also the venue for monthly meetings of the Friends of the Museum between October and May. The Friends provide financial and practical support for the museum and organise occasional special events.

The Maritime Museum is open all year; daily, except Saturday, from May to September and weekdays only during the rest of the year.

1988-89 PROGRAMME

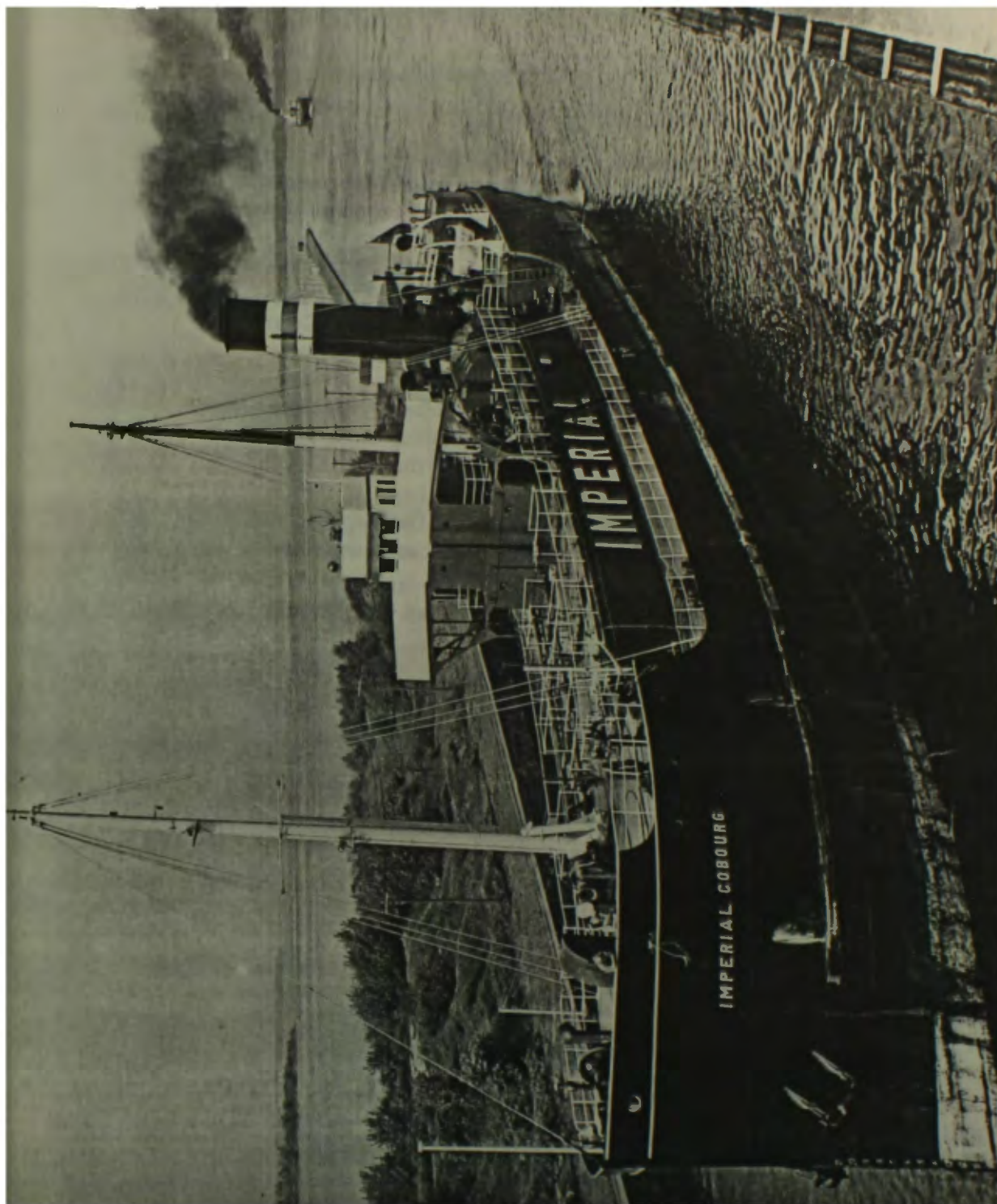
Sept 15th	Liverpool's Mid-19th Century Coasting Trade	Val Burton
Oct ²⁷ 20 th	Voyage on the 'Barber Hector'	Jas. E. Cowden
Nov 17th	Freak Ships	Dr. Barras
Dec 15th	Christmas Social	Rev. Bob Evans
Jan 19th	Emigration and Liverpool	Kate Lomas
Feb 16th	'Gold and Gumboots - A New Light on Australian Emigration'	Gordon Read
Mar ¹⁶ 24 th	Pilotage	John Tebay
Apr 20th	'Jhelum'	M. R. Stammers
May 18th	Annual General Meeting	

All meetings at 7pm at William Brown Street except January and February meetings which will be at 12 noon at Maritime Museum.

All correspondence to the Society should be addressed to

The Hon. Secretary
Liverpool Nautical Research Society
Maritime Records Centre
Merseyside Maritime Museum
Pier Head
Liverpool L3 1DW

Material for publication in the Bulletin should be addressed to the Editor at the above address.



"Imperial Cobourg" bt Greenock 1913 as
"Imperoyal" for Gt. Lakes Service.
249ft by 43ft 1ins: 2253 grt.
All service in Gt. Lakes. Re-named
"Imperial Cobourg" 1947. Scrapped at
Fort William, Ont. 1964 as "Starbelle".

THE SHIPPING WORLD.

DECEMBER 1, 1888.

NEW DOCK SCHEME FOR LIVERPOOL. — When the Ship Canal began to occupy the attention of Manchester people, various proposals were made for an improved communication between Liverpool and the sea. Those proposals chiefly referred to a new entrance to the Mersey, starting from the mouth of the Dee between Hilbre Point and West Kirby, and ending in the Great Float at Birkenhead. The promoters of the scheme considered that if it had been carried out ships of all sizes could have reached the Mersey at any state of the tide, and thus obviated the necessity of borrowing large sums of money for the purpose of deepening the water over the bar of that river, which has so long been a serious obstacle to shipping of deep draught. The expense of lowering this obstruction has been variously estimated by engineers, but not one of them is prepared to state definitely what the cost of the undertaking will amount to. If the large docks already existing on the Birkenhead side of the river had been properly utilised, it would have been unnecessary to construct new ones at the north end of Liverpool for the accommodation of great steamers, and the capital thus saved would probably have sufficed for work in connection with a new sea approach or for improving the present one.

JANUARY 1, 1889.

THE NEW SOUTH DOCKS IN LIVERPOOL. — These splendid docks, which are now nearly completed, are being rapidly utilised by various steamship companies, as the great depth of water over the sills will enable the largest vessels to enter both the Harrington and Toxteth docks under tidal conditions of the most favourable nature. The advantage of this is being frequently illustrated, and only recently the magnificent Guion steamer *Alaska* has made use of one of them. This is the first Atlantic liner that has entered the dock. Others are expected to follow, and an improvement in the trade of the south end of the city will by this and other means no doubt be realised. Another important advantage possessed by the new docks is the increased facility for unloading and storing goods. This is accomplished by means of an admirable system of hydraulic cranes, which sweep the sheds, or warehouses, from end to end, and deliver the contents of shipholds either on the ground floor or on an upper floor as desired. There is also more space allowed between the two-story sheds and the edge of the dock than is usual in Liverpool, which permits greater ease in working the ship, and provides increased safety for those who walk along the edge of the water.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol.32 No.2



Autumn 1988

BULLETIN



Cunard Tender "Skirmisher" alongside Landing Stage c 1910

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Maritime Records Centre, Merseyside Maritime Museum, Pier Head, Liverpool, L3 1DV

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Editorial and Society Notes

In this issue a number of tables relating to seamen's wages on sailing vessels between 1863 and 1900 will be found on page 36. Professor Fisher, who compiled these tables, is now studying possible reasons for the variations in the figures.

The next issue should be ready for dispatch early December. Whilst there is material to hand, the editor always has room for articles on all aspects of maritime history - ancient and modern.

The first meeting of the year was a well attended one. Val Burton's talk was well received by members both for its content and its presentation. A precis will appear in a future issue.

Christmas Social

This has always been a very enjoyable, informal affair and last year the ladies excelled themselves with 'goodies' to eat. Ralph Varns, our member in Melbourne, Victoria, has let us know that he will attend. He is giving a lead to all. Would members note that it would be of assistance if they would give Diane Hirst a call on 608 2281 to let her know that they will be attending. We look forward to seeing you on the night.

RAISED QUARTER DECK DEEP SEA TRAMP SHIPS

by ALAN McCLELLAND

At the end of the Second World War those British tramp shipowners who felt they could afford to order new tonnage took little interest in single deck vessels. Shelter deck ships with engines amidships offered greater versatility and therefore greater earning potential. Their 'tween deck arrangements made them attractive to liner companies seeking additional tonnage for break-bulk cargoes. They could also be employed in most bulk trades, even though some materials such as coal and ores presented difficulties of stowage, trimming and discharge - particularly when grabs had to be used during the latter operation. (Parts of the lower holds were difficult of access and grabs not infrequently damaged shaft tunnels.)

As industrial development throughout the world quickened and cargo handling charges rose, there were increasing demands for raw materials to be shipped in bulk in vessels which could be turned round with minimum delay. In Britain the most significant analysis of this development was the Iron and Steel Corporation's report, "The Handling of Imported Ore" (1952), which led to arrangements with shipowners, including tramp operators, to create a fleet of specialist engines aft ore carriers on long term charters.

Another industry which directed much attention to bulk handling techniques was sugar refining. In 1949 Hogarth's conventional three island tramp "Baron Haig" brought home an experimental cargo of raw, unbagged sugar from the Dominican Republic. By 1950 bulk shipments of raw sugar were becoming increasingly frequent and Messrs. Tate and Lyle set about the creation of a fleet of self-trimming, single deck vessels for carrying the material. Their attention was taken by large versions of the raised quarter deck East Coast colliers with engines aft, and in particular by a group of eight ships built by Wm. Gray and Co. Ltd. of W&A Hartlepool during the War. Known as the "Empire Malta" Class, these steamers had two hatches in the well deck and two on the quarterdeck. In "Empire Ships of World War II" (1965) Mitchell and Sawyer describe them as being designed "for heavy lifts, as cased oil carriers, as colliers or general purpose cargo vessels". On dimensions of 328' o.a. x 46'5" beam and a deadweight tonnage of 4,300 tons, they were powered with triple expansion engines. Their raised quarterdeck arrangements gave increased cargo capacity in the aftermost holds, with consequent benefits for trim and sea keeping qualities when heavily laden because there was less likelihood of them being "down by the head".

Tate and Lyle purchased the "Empire Caicos" in 1950 and renamed her "Sugar Transporter"; the next year they acquired the "Thackeray" ex "Empire Aldgate" and renamed her "Sugar Refiner". With large hatches and holds clear of obstructions these acquisitions were well-suited to their new role, involving as it did discharge by grabs. (Some readers may remember that in August, 1952, the "Sugar Transporter" brought the first cargo of bulk sugar to be unloaded at the specially equipped berth on the north side of Huskisson Branch Dock No.3). Experience with the two ships encouraged Tate and Lyle to commission new specialist tonnage with specially modified hull arrangements.

Other independent shipowners looked with interest at the possible advantages of employing large raised quarter deckers in the sugar and other bulk trades. For example the Hudson Steam Ship Co. had their East Coast collier "Hudson Sound" converted to oil firing for deep sea employment, and between 1952 and 1961 one shipbuilder produced eight even larger versions of the type. Starting in 1952 with the M.V. "Hudson Deep" of 7,800 (approx.) tons deadweight for Hudsons, John Readhead and Sons Ltd., of South Shields, went on to complete the S.S. "Rookwood"

of much the same capacity for Wm. France Fenwick and Co.Ltd., in the same year. In 1953 the same builders launched the M.V. "Camellia", for the Stag Line of Messrs. Joseph Robinson and Sons Ltd., and the S.S. "Rushwood" for France Fenwicks, both ships being of much the same capacity as their predecessors. 1955 saw the appearance of the S.S. "Cydonia" of some 8,180 tons deadweight for the Stag Line. Two years later the Hudson Steam Ship Co. took delivery of the M.V. "Hudson Point" of 10,560 tons deadweight. In 1958 the M.V. "Gloxinia" of 10,350 tons deadweight was completed for the Stag Line, to be followed in 1961 by a sister ship, the M.V. "Photinia".

The first four ships had similar dimensions with lengths overall of some 434', beams 55'7" and drafts of 23'5/6". The fifth, the S.S. "Cydonia", was of the same length but had an increased beam of 57' and a draft of 24'. Each ship had two hatches in the well deck and three on the quarterdeck. With engines aft together with most of the accommodation, the bridge structure was situated at the break of the quarter deck. The "Hudson Deep" and "Camellia" were fitted with N.E.M.-Doxford diesel engines, whilst the "Rookwood", "Rushwood" and "Cydonia" were equipped with oil-fired triple expansion engines and Bauer-Wach exhaust turbines. Service speeds were of the order of 12 knots. Presumably lower capital costs and a shortage of suitably qualified engineer officers weighed with those who ordered steamers. Intriguingly in the case of the Stag Line, the steamer came after the first motor ship, to be followed by two larger motor ships.

Of the last three largest raised quarter deck bulk carriers produced by Readheads, the "Hudson Point" was similar in appearance to the earlier vessels. With a length O.A. of 475', a beam of 61' and a loaded draft of 26', she had a service speed of 13 knots produced by a N.E.M.-Doxford engine. The "Gloxinia" and "Photinia" were given an extra hatch on the raised quarter deck making a total of four. They each had a length of 480' O.A., a beam of 60' and a loaded draft of 26'. They too had N.E.M.-Doxford diesels giving service speeds of 13 knots.

Constructed with deep hatch coamings, self-trimming holds with hopper sides and MacGregor folding steel hatch covers, the raised quarter deck bulk carriers could be employed in a variety of trades including those in coal, grain, sugar, phosphates and timber. Each cargo hatch was served by two derricks, each of 5 tons capacity. The first two ships, "Hudson Deep" and "Rookwood" were built with a very definite view to employment in the carriage of raw sugar. The Hudson Steamship Co. appears to have made specific arrangements with Tate and Lyles, and at the time of the completion of the second ship, the "Hudson Point", it was stated that she would be employed for about nine months of the year hauling sugar from the West Indies to the United Kingdom. In contrast France Fenwick's "Rookwood" was in fact employed for the first four years of her existence bringing iron ore to Britain from Mediterranean, West African and Norwegian ports. Subsequently she was transferred to her owners' Canadian operations. When the "Rushwood" was delivered she proceeded to the St. Lawrence where she was employed during the open water season carrying coal. In the winter months she ran in the bulk sugar trade from the West Indies. Granted Hudsons' interest in the British coastwise coal trade it is perhaps not surprising that the "Hudson Deep" was used to demonstrate the suitability of large colliers for the route between the N.E.Coast and the power stations on the lower reaches of the Thames.

The Robinson ships constituted the largest group of deep-sea raised quarter deckers and the diversity of their employment is of consider-

able interest. In a letter to the writer Mr. Nicholas J. Robinson explained that the "Camellia" and "Cydonia" were built to serve the smaller ports of the United Kingdom, including the then specialist iron ore facilities at Workington, Barrow and Port Talbot. When B.I.S. Co.'s arrangements to employ purpose-built ore carriers came into effect, the Stag Line ships found profitable employment in the North Atlantic grain trades. Even when the deep sea trade of smaller United Kingdom ports virtually disappeared, the "Camellia" and "Cydonia" proved very suitable for trading up into the Great Lakes via Seaway.

When Robinsons contemplated new tonnage in the mid fifties they decided to build the largest ships that could load practically full cargoes on a Great Lakes draft. They also had in mind that the original war-built "Liberty-size" ships would soon be coming to the end of their useful lives in ever-increasing numbers, and it seemed likely there would be a continuing demand for vessels of about 10,000 tons deadweight (particularly in the grain trades). The outcome was the ordering of the "Gloxinia" and "Photinia" which proved most useful additions to the fleet. The latter ship demonstrated the versatility of the raised quarter deck design when she was successfully adapted to lay power cables across the Cook Strait between the North and South Islands of New Zealand and later between Trinidad and Tobago in the West Indies in 1964-65.

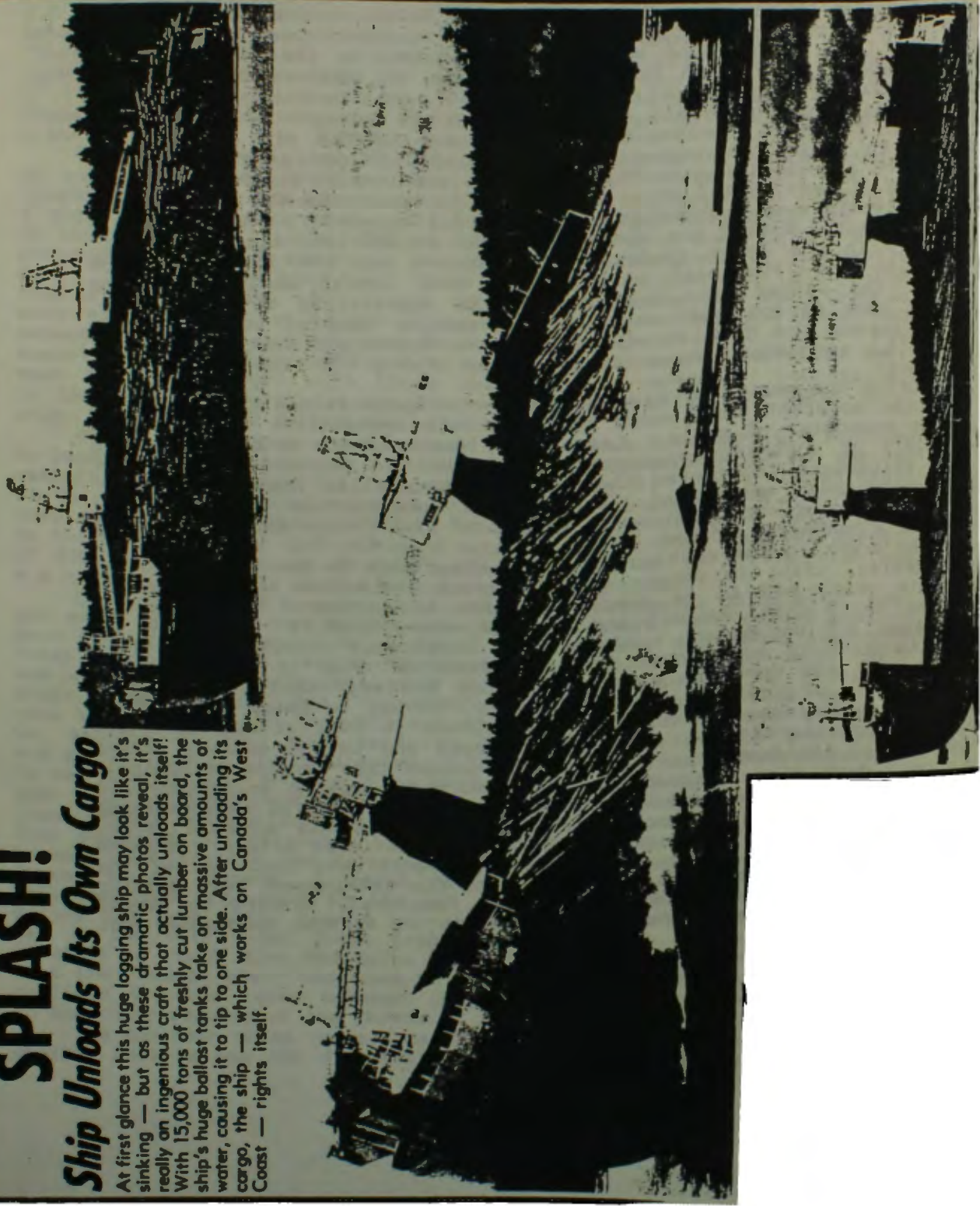
During the period of development of the large raised quarter decker it became apparent that world trade in bulk commodities demanded even greater economies of scale. Larger and larger single deck vessels with a variety of internal arrangements were built. Increasing numbers of tramp shipowners interested themselves in specialist tonnage for long-term contractual employment by industrial undertakings, e.g. B.I.S. Co., and in bulk carriers of sizes in excess of 15,000 tons deadweight suitable for a number of trades.

The break in the continuity of the upper deck in the raised quarter deck design, with its potentially dangerous diminution in longitudinal strength which had to be compensated for by increased thickness of plating, extra steel members and brackets, meant that it was not an economical and convenient hull form for large bulk carriers. In spite of a tendency in some conditions to "scoop up" seas in the well, its sea keeping and cargo carrying attributes had been amply demonstrated in a variety of arduous trades. However, it may be noted that in his paper "Seaworthiness of Collier Types" (read in 1931 at the Institute of Naval Architects), L. C. Burrill placed the raised quarter decker with engines aft fourth behind the three island type (engine amidships), the well deck type (raised quarter deck with engines amidships) and the Arch type (engines amidships) in his study of general seaworthiness and seakindliness. Presumably subsequent improvements in hull forms, particularly of bows and sterns had a most beneficial effect. Granted the origins of the design it is finally significant that two of the three ship-owning companies concerned with its development were specialist collier owners (Hudsons and France Fenwicks), seeking to diversify their interests in face of a decline in British coastwise coal trades.

SPLASH!

Ship Unloads Its Own Cargo

At first glance this huge logging ship may look like it's sinking — but as these dramatic photos reveal, it's really an ingenious craft that actually unloads itself! With 15,000 tons of freshly cut lumber on board, the ship's huge ballast tanks take on massive amounts of water, causing it to tip to one side. After unloading its cargo, the ship — which works on Canada's West Coast — rights itself.



Mersey Pilots and their Grievances - In December, 1884 and January, 1885, letters from pilots appeared in the columns of the *Liverpool Journal of Commerce*, the object of which was to draw attention to their grievances. Their statements were impeached by the Pilotage Committee, but the pilots were not convinced that the proper proportion of net earnings was paid to the annuity fund, or that the salaries of masters in charge of pilot boats should be paid by them. The pilots declare that they are worse off under the new arrangement than they were before the boats were purchased by the Trust. They said that in 1884 they were deprived of the privilege of taking apprentices, and were paid £500 per annum on each boat less than was just. Above all they insisted that if the Mersey Docks and Harbour Board continued their ownership in the boats, they should pay the master's wages. This wages question culminated in legal proceedings, and the pleadings disclosed many historical facts in connection with pilotage at the Port of Liverpool.

Prior to 1858 the masters of the pilot boats were chosen by the pilots themselves, and the masters were all pilots. Mr. Justice Wills, in the course of his judgement, mentioned that the masters or owners were entitled to take ten apprentices on board each boat, and these apprentices formed the crew. In 1858 the Mersey Docks and Harbour Board was constituted, and the Act of Parliament substituted the Board for the Commissioners for the purpose of regulating the pilotage arrangements. The former Acts were repealed, but were in substance re-enacted, and the by-laws made by the Dock Board were very much the same as those which prevailed during the existence of the Commissioners. The arrangements were not productive of anything like friction until 1881, when the Dock Board were themselves desirous of becoming the owners of the pilot boats, and they obtained an Act of Parliament for the purpose.

The Act, said Mr Justice Wills, provided for the purchase of boats by agreement where possible, and by compulsion if necessary, and the Board also had power, at their discretion, to diminish or increase the number of boats. Further, the Board were entitled to engage or dismiss officers, seamen, workmen, servants, and others, as they thought proper, and under those powers the Board made the by-law which the plaintiffs complained of in the present action.

In the Act of 1881 nothing could be clearer than that the Dock Board worked as well as owned the pilot boats, and the masters held their appointments direct from the Board. The abolition of the old system of apprenticeship had not been affected by any new legislation, but, under a section of the Act of 1858, and, seeing what the section was, the abolition appeared, in the opinion of the learned judge, certainly singular. After making some observations on the qualifications of masters of pilot boats, and the ominous word "may" appoint, instead of "shall," in section 125 of the Act of 1881, Mr Justice Wills gave his decision in favour of the pilots, by which he considered they would be gainers to the extent of £1,160 per annum, instead of losers of £1,000. This decision has been appealed against.

Under any circumstances, the exact amount may require adjustment, but the Mersey Docks and Harbour Board will have to account to the pilots for past payments to masters, estimated at about £7,000, and they will be relieved in the future from contributing to the wages. The Mersey Docks and Harbour

Board were allowed fourteen days to give notice of appeal, and, it is said, they intend to contest the decision of Mr. Justice Wills. Another bone of contention is left for wrangling, and this refers to the apprentices, or what are now termed "boat hands." The pilots assert that the deductions by shares for these are excessive and unfair. Under rule 4 of the by-laws of June, 1820, the pilots were entitled to take five apprentices, but this permission seems to have been amended, and only four were allowed. When, however, the Board took over the boats, they cancelled the indentures of all the apprentices, and substituted what are now called "boat hands," the number of which to be attached to each pilot boat shall be five, in addition to one or more candidates as the Board may consider necessary. When the Committee of the House of Commons is in session to receive evidence on matters relative to pilots and pilotage generally, the Dock Board and the pilots will have the opportunity of stating what has been the effect of altering the regulations in more than one sense, and as to the efficiency of the service.

SHIPS TO BREAKERS.

LEILA 1 ex FRANCIS B ex BLISWORTH (1957)
EUROPE ex OWERRI ex STENTOR ex MEMNON (1959)
APHRODITE ex LEINSTER (1948)

NAME CHANGES

FENG MOON ex THEANTO A.S. ex BENVORLICH ex SHEAF ROYAL (1972)
ELENI II ex SPECIALIST (1975)
AIGINIS ex THAMESFIELD (1977)
TRIDENT DELTA ex HICKMERS SHANGHAI ex IBN YOUNUS (1977)
NEDLLOYD NEERLANDIA ex NEDLLOYD HOLLANDIA (1977)
GRACECHURCH GEM ex PACHECO (1986)
REGAL CRUSADER ex FORUM CRAFTSMAN ex CRAFTSMAN (1972)

Since acquisition by C.Y.Tung, the names of Manchester Liners and Dart Container Line cease to exist, and the consortium to which they belong is known as OOCL. MANCHESTER CHALLENGE becomes OOCL CHALLENGE, whilst DART ATLANTICA is OOCL ATLANTICA, DART AMERICA is OOCL AMERICA and DART EUROPA is OOCL EUROPA.

On Sunday 3rd July, BALMORAL came to Liverpool from Menai Bridge and Llandudno, to embark passengers for a visit to the Ellesmere Port Boat Museum. It would be good to know that local authorities encourage passenger sailings in and around our port, for which there is a potential.

That this potential exists was shown on the following Sunday, when there was a BALMORAL sailing to Llandudno and Menai Straits. The ship sailed with a full load, leaving about 100 passengers without tickets behind. Next morning she sailed for Llandudno from whence a return by rail/road would be necessary. That ended for the season, Merseysiders opportunity for a day trip at sea.

Now so deprived of a chance to sail, the more elderly Merseysiders remember the lure of the Mersey in the 1920's. Daily sailings to Isle of Man, even to Ramsey on Fridays, Llandudno and the Straits, shorter trips to Eastham for a shilling, and round the Crosby Lightship for one and sixpence by FLYING BREEZE or EGERTON. Even the Rock Ferry sailing was interesting in viewing Cammell Laird's latest output, and that cost fourpence. This writer made cruises in VICTORIA to off-Blackpool and in MONA round the Northwest Lightship for four shillings. All providing inspiration to young Liverpudlians to make for themselves a career at sea.

Glorious weather favoured the annual River and Docks cruise of Friends of the Ferries on Saturday 18th June aboard OVERCHURCH. Just over 500 passengers enjoyed the event, and there is still plenty to see on the

Mersey, especially at high water. There was one jarring incident, however, for when passing the Chilean container ship MAIPO in Royal Seaforth Dock, one of the transporter cranes had a breakage of cables. Some of the upper steelwork and the control cab crashed to the deck, killing the driver.

On Sunday 31st July, there was a power boat race in the Mersey channels. At one time, one of the boats was reported as in a sinking condition, and another had to be taken in tow by the motor fishing boat EXCELSIOR. Hoylake and New Brighton lifeboats were on service.

In July the Greek passenger ship CITY OF POROS was cruising amongst the Aegean Islands, when grenades were thrown and there was shooting by several passengers. The ship was badly damaged and set on fire. There was death and injury and those responsible left the ship in a speedboat. The ship was built at Messina in 1962 as VULCANELLO, 668 tons, a 14 knot ferry.

On Sunday 17th July a race of Nobbys took place in the Mersey, after emerging from Canning entrance. There was a fresh northwesterly breeze and one of them was dismasted near Woodside, but assistance was at hand from fishing boats EXCELSIOR and BLACK ABBOT, with New Brighton lifeboat and the County Rescue launch not far away.

The Alexandra Towing Company have moved their head office from Castle Chambers, Liverpool to London. Towing services on the Mersey are not affected. Their Chairman Mr Henry Bicket retired in May 1988 after nearly 40 years with the firm. He has seen the firm through a period of great expansion.

NRP

STRUCTURE OF STAFF AND RESPONSIBILITY OF ENGINEERS AT SEA,
CONSIDERING R.M.S. 'QUEEN MARY'

The following table shows each Engineer's rank and respective responsibilities. It was not always strictly adhered to, but being subject to available certificated Engineers and the training required for the uncertificated.

The Chief Engineer was in complete charge of the machinery spaces, drawing information from his Senior Second Engineers and staff regarding the daily running of the plant and advising the Captain re availability of fuel and water stocks. Entertaining was also included in his brief. This, of course, is a simplification of his duties.

The Staff Chief Engineer was responsible for engineering staff and Hotel services to the passengers and crew, such as air conditioning, etc. He also shared the entertaining with the Chief Engineer. As above, an over-simplification.

Three Senior Second Engineers - Each was in complete charge of the staff and machinery spaces on his particular watch. They were aptly named 'Walking Seconds' as they usually visited each machinery compartment (eleven of them!) along the entire ship's length several times each watch! They would collect repair work lists from the Engineers in charge of each compartment before the end of the voyage.

Three Intermediate Second Engineers - Each was in charge of the Forward Engine Room, being regarded as the senior one, but they varied the finer changes in revolutions of the two outboard engines there, as per instructions from the Bridge. These were relayed by telephone to Nos. 2 and 4 Boiler Rooms, supplying steam to these engines, and also to the After Engine Room.

Three Junior Second Engineers - Each was in charge of the After Engine Room, housing the two inboard engines. They received instructions from the Forward Engine Room, as stated above, and relayed them to Nos. 3 and 5 Boiler Rooms, supplying steam to them. Of course, both Engine Rooms had separate telegraph systems for each engine, operated from the Bridge.

Three Senior Third Engineers - Each was in charge of the Forward Generating Room housing three steam turbo-generators, supplying the electrical load of the ship, excluding the main propulsion auxiliaries.

Three Intermediate Third Engineers - Each was in charge of the After Generating Room housing four turbo-generators, supplying the electrical load of the main propulsion auxiliaries.

Three Junior Third Engineers - These Engineers were the 'Chemists' of the ship and were in charge of the boiler feed water treatment. They operated a lime plant to remove temporary hardness and a base exchange plant to remove permanent hardness. Southampton Water had a hardness of about 12 degrees, so both plants were operating. New York's softer water had about 2½ degrees hardness, so only the base exchange plant was used. Each Engineer took samples from one-third of the twenty-seven boilers and analysed them by a series of chemical tests. These readings were then logged and the required 'dose' of chemicals prepared, to restore normal conditions for the feed water content for each particular boiler. They were responsible for all the

ENGINEER OFFICERS STAFF STRUCTURE - R.M.S. QUEEN MARY

DUTY TIME -

D = Days

W = Watchkeeping

NO:	RANK	DUTY TIME	RESPONSIBILITY
1	CHIEF ENGINEER	D	TOTAL - FOR ALL MAIN MACHINERY; ADVISES CAPTAIN RE OIL FUEL & WATER STOCKS ETC; ENTERTAINING, ETC.
1	STAFF CHIEF ENGINEER	D	FOR STAFF MATTERS; HOTEL SERVICES; AIR CONDITIONING, ETC; ENTERTAINING.
3	SENIOR 2ND ENGINEERS 1ST 8-12 WATCH) 2ND 12- 4 " 3RD 4- 8 "	W	COMPLETE FOR ALL MACHINERY AND STAFF ON HIS WATCH
3	INTERMEDIATE 2ND ENGRS. W 1ST 8-12 WATCH) 2ND 12- 4 " 3RD 4- 8 "	W	FOR FORWARD ENGINE ROOM DURING HIS WATCH.
3	JUNIOR 2ND ENGINEERS 1ST 8-12 WATCH) 2ND 12- 4 " 3RD 4- 8 "	W	FOR AFTER ENGINE ROOM DURING HIS WATCH.
AND CONTINUING IN THE SAME ORDER AS ABOVE -			
3	SENIOR 3RD ENGINEERS	W	FOR FORWARD GENERATOR ROOM
3	INTERMEDIATE 3RD ENGRS.	W	FOR AFTER GENERATOR ROOM
3	JUNIOR 3RD ENGINEERS	W	FOR WATER SOFTENING PLANT
3	SENIOR 4TH ENGINEERS -		
	1ST ...	D	FOR CHIEFS' OFFICE
	2ND ...	D	FOR HOTEL SERVICES
	3RD ...	D	FOR DECK WORK
3	INTERMEDIATE 4TH ENGRS.	W	FOR OIL FUEL
3	JUNIOR 4TH ENGINEERS	W	FOR NO.2 BOILER ROOM
3	SENIOR 5TH ENGINEERS	W	FOR NO.3 BOILER ROOM
3	INTERMEDIATE 5TH ENGRS.	W	FOR NO.4 BOILER ROOM
3	JUNIOR 5TH ENGINEERS	W	FOR NO.5 BOILER ROOM
3	SENIOR 6TH ENGINEERS	W	FOR THE STEERING GEAR
3	INTERMEDIATE 6TH ENGRS.	W	FOR NO.1 BOILER ROOM
3	JUNIOR 6TH ENGINEERS	W	FOR FEED PUMPS IN THE FORWARD ENGINE ROOM
3	SENIOR 7TH ENGINEERS	W	FOR FEED PUMPS IN THE AFTER ENGINE ROOM
3	INTERMEDIATE 7TH ENGRS.	W	FOR THE LUBRICATING OIL SYSTEM IN THE FORWARD ENGINE ROOM
3	JUNIOR 7TH ENGINEERS	W	FOR LUBRICATING OIL SYSTEM IN THE AFTER ENGINE ROOM
3	SENIOR 8TH ENGINEERS	W	AIR CONDITIONING
3	INTERMEDIATE 8TH ENGRS.	W	FOR THE SHAFT TUNNELS
3	JUNIOR 8TH ENGINEERS		
	(FLOATING ENGINEERS)	W	AS REQUIRED - REPAIRS, RELIEVING ETC.
<u>65</u>	ENGINEERS IN TOTAL		

water tanks in the ship - reserve feed, domestic and drinking water. They also took oxygen tests of the feed water each voyage.

Three Senior Fourth Engineers - As the chart shows, these three Engineers worked day work duties. Their responsibilities were divided as follows:-

1st Senior Fourth - Assisted in the Chief's Office with clerical work, such as staff watch rotas, repair lists, leave lists, logs and correspondence for both Chiefs.

2nd Senior Fourth - Supervised the work required in the Hotel services - kitchens, etc. Supervised the operation of the 'Carrier' air conditioning plant for the main public rooms and the normal ventilation and heating system of the passenger and crew accommodation.,

3rd Senior Fourth - Was the Deck Engineer responsible for the maintenance of the twenty-four lifeboat diesel engines, ship's sirens and windlasses. He also assisted where necessary, in repairing defects in kitchen auxiliaries under the supervision of the Hotel Services Engineer.

Three Intermediate Fourth Engineers - Controlled the oil fuel system of the ship. They pumped the oil fuel required by the five Boiler rooms, about one-thousand tons per day, from the oil fuel storage tanks, which lined both sides of the ship, into the 'ready use' or 'settling' tanks. There any water present settled and was drawn off before changing over to a full tank. One watch changed Nos.1, 2 and 3 Boiler Rooms, the next watch changed over Nos.4 and 5 Boiler Rooms and this cycle continued until the end of the voyage. While each partially empty 'settling' tank was being refilled the steam or electric transfer pumps were being run simultaneously. Other tanks, when empty, would later be refilled with sea water for ballast purposes. Soundings of all oil fuel tanks in use were taken at the end of every watch and the consumption per watch and per day calculated.

Three Junior Fourth Engineers - In charge of No.2 Boiler Room which, together with No.4 Boiler Room, supplied steam to the two outer engines in the Forward Engine Room. No.2 Boiler Room was regarded as the senior one of the two, because fine adjustments to the steam pressure were made there as necessary. Each Boiler Room contained six water tube boilers. The Engineers were responsible for the steaming of these boilers so as to give a steady steam supply, effect efficient combustion and ensure that the feed water supply was constant. The boilers were of the Yarrow type, being side-fired with seven burners each. Under steady steaming conditions the Engineer on watch instructed the firemen to clean and replace the fourteen burner tips of his 'own' two boilers. Superheater and air heater soot blowers were operated each night. Every voyage a fire drill was carried out in each Boiler Room .

Three Senior Fifth Engineers In charge of No.3 Boiler Room which, together with No.5 Boiler Room, supplied steam to the two inner engines in the After Engine Room. No.3 was the senior Boiler Room and the Engineers' duties were as above.

Three Intermediate Fifth Engineers - In charge of No.4 Boiler Room, the junior one. They kept as steady a steam supply as possible, but left the final adjustment of steam pressure to the Engineer in charge of No.2 Boiler Room.

Three Junior Fifth Engineers - In charge of No.5 Boiler Room, again the junior one. They kept steady steam conditions, the final adjustments of steam pressure being made by the Engineer in charge of No.3

Boiler Room.

Three Senior Sixth Engineers - Kept watches in the steering gear compartment, housing the telemotors which controlled the rudder movement as the ship answered the helm. This was the most after compartment above the rudder and very noisy - a most unpleasant place to be in bad weather, as the ship pitched and yawed!

Three Intermediate Sixth Engineers They were in charge of No.1 Boiler Room, housing the three 'Scotch' type Boilers, which supplied steam to the Forward or Hotel Services Generating Room.

Three Junior Sixth Engineers - They assisted their respective Intermediate Seconds, who were in charge of the Forward Engine Room. They controlled the four steam turbo feed pumps, two normally in use, which supplied feed water to the boilers of Nos.2 and 4 Boiler Rooms. They answered the telephones to and from the Bridge and Boiler Rooms. They also took hourly readings of the two revolution counters, then worked out the hourly average and also the average for the four-hour watch.

Three Senior Seventh Engineers - They assisted their respective Junior Seconds in the After Engine Room. Duties as above. They controlled the steam turbo feed pumps which supplied feed water to the Boilers of Nos.3 and 5 Boiler Rooms.

Three Intermediate Seventh Engineers - In charge of the lubricating oil system of the two outboard sets of engines in the Forward Engine Room. They checked the oil temperatures of the turbine and pinion bearings of the four turbines which comprise each set, along with the oil sprayers to each of the four pinions of the gear wheels. Each set of engines had its own separate forced lubrication system, which also lubricated the bearings and thrust pads of each 'Michell' thrust block. Water separators were run continuously to extract any water present in the lubricating oil. Samples of oil were taken each voyage and a series of chemical tests carried out to ensure purity. These Engineers also assisted the platform Seconds of the watch, as required.

Three Junior Seventh Engineers - In charge of the lubricating oil systems of the two inboard engines in the After Engine Room, with duties as above

Three Senior Eighth Engineers - They were watchkeepers who assisted the Hotel Services Engineer, monitored the temperature and relative humidity of the main public rooms and adjusted the speeds of the supply and extraction fans accordingly. They helped to run the 'Carrier' air conditioning plant to these rooms, as was required. They were responsible for complying with any passenger's requests re ventilation.

Three Intermediate Eighth Engineers - They were in charge of the 'tunnels', the compartments which housed the four propeller shafts. They supervised the shafts' bearings and plunger block temperatures and their lubrication. They also monitored the sea water ingress from the large shaft glands, tightened them as necessary and pumped the sea water overboard.

Three Junior Eighth Engineers - These Engineers called 'Floating Engineers' were useful on each watch, in the workshop, to help in any emergency or to relieve other Engineers when necessary. In this way they gained helpful experience for later promotion. As a 'Floating Engineer,' one amusing job I had to supervise was in one of the funnels. To prevent soot deposits from falling on passengers, the boiler uptake gases were washed with sprays of sea water in soot collectors situated inside the funnel. An electric pump in the Boiler Room pumped the sea water into a circular manifold pipe, located above each soot collector, to which rubber tubes were attached. The resulting sulphuric acid-laden sea water was then discharged overboard. Mussels grew

in this manifold pipe to quite a large size, choking the orifices of the rubber tubes. The job was to disconnect the manifold pipe and remove these unwelcome stowaways!

Fog Stand-bys at sea

Fog was a particular problem on the North Atlantic, especially near the Canadian coast. A staff rota was drawn up so as to maintain two extra Engineers in each Engine Room, in case of emergency. The rota covered the four hours following each watch, so that having done one such duty, one would have several off. Some lasted only a few minutes, the ship passing through a small fog bank, others for the entire four hours. As one had to use two lifts to reach the Engine Rooms, it sometimes happened that the fog stand-by was of such a short duration that one arrived too late to 'sign in' at the Engine Room platform. In this case the stand-by duty did not count! Such was the sense of responsibility in those days that these conditions were accepted without any extra pay.

Entering Port

On approaching a port, prior to picking up the pilot, more intensive stand-by conditions prevailed. All Engineers were called out to double-man the machinery spaces. On stopping to pick up the pilot, the 'time of arrival' was telephoned down from the Bridge to both Engine Rooms, then the two revolution counter readings were immediately taken and so the total revolutions of the complete voyage calculated. The stand-bys up the Rivers Solent and Hudson were somewhat lengthy and the usual 'Full Ahead' revolutions, which applied at sea, were reduced to 100. Further adjustments were made by varying the settings of the manoeuvring valves to give the corresponding steam pressures for half speed, slow, dead slow and stop. A double ring on the Engine Room telegraph of 'Finished with Engines' denoted the end of the stand-by. Before receiving this order there was always a waiting period of, roughly, twenty minutes after the final engine movement, while the ship, though alongside the quay, was being satisfactorily secured. Sometimes the Deck Officer would forget to ring this final instruction and two-thirds of the entire Engineering staff would be kept waiting. Thereafter one always felt uneasy! The cost of running such a great auxiliary plant (and boilers) must have been considerable. The Staff Chief Engineer was expected to deal with this!

On Arrival in Port

The ship having been secured and the stand-by condition ended, the staff in charge of the watch commenced the shut-down of the plant -

Engine Rooms -

The manoeuvring valves of all four engines were tightly closed. The turning gears of each engine engaged so as to lock their propeller shafts, and the turbines connected to them, in a stationary position. The auxiliary plant associated with the four main condensers was then shut down. As this was all electric, the electrical load on the main generating room switchboard began to fall away. So if three turbo-generators were running there, the Engineer in charge considered shutting one down.

Boiler Rooms

The shutting down of the twenty-four boilers in the four main boiler rooms took place simultaneously with the shutting down of the engine rooms, each boiler being filled with feed water to the "full guage glass" condition, the burners withdrawn and the forced draught fans stopped. The steam pressure was allowed to fall back and the air-lock doors opened. By this time very little electrical load remained of the main propulsion auxiliary plant and the two remaining generators of the main generator room would be shut down after transferring this remaining electrical load to the hotel services generator room. Thus the main generator room was then shut down altogether.

The passengers then going ashore, the hotel services electrical load for cooking, lighting and ventilation was dramatically reduced as the kitchens were shut down which, together with the stopping of deck machinery, air conditioning plants, lifts and sanitary services, meant that only one generator would be required in the forward or hotel service generator room. Also one 'Scotch' boiler only would then be required in No.1 boiler room to supply that steam. That drop in electrical load was quite rapid and, if three generators were running, the two not required would be shut down in quick succession.

Port Conditions

After the shut-down of plant was completed the rest of the arrival day was generally regarded as off duty time. However, in New York, where the time in port was only about three days, the 'estimated time of arrival' was naturally keenly noted, an early arrival being much preferred! Some very short "turnabouts" in New York, on the other hand, could be expected if the ship was delayed by fog or bad weather.

Port watches were arranged for Engineers manning -

- (1) Water softening plant
- (2) Oil transfers
- (3) Forward or Hotel Services Generator Room
- (4) No. 1 Boiler Room

These twelve Engineers remaining on their usual sea watches.

The remaining Engineers would revert to day work duties the day after arrival day, each to the compartment which he would man at sea. Work lists would have been compiled and work designated to each Engineer by the "Walking Seconds". 'Cunard' only employed Shore fitters for any particularly heavy or major work necessary, their own Engineers performing the lighter, routine repairs themselves. Typical work would have been attending to various boiler leaks, boiler guage glass renewals, the testing of the main condensers for leaks with an ultra violet ray lamp, supervising the cleaning of all boiler burner tips and the oil fuel pump strainers. The water softening Engineers were engaged in filling reserve feed, domestic and drinking water tanks, opening the air cocks on the boilers as they cooled and dosing them with the chemical solutions prepared beforehand to establish stable conditions of the feed water in each boiler.

Even as the tugs moved away, the first of the oil fuel barges came alongside. Her oil delivery and steam supply pipes were secured and approximately 5,000 tons of warm oil fuel were pumped into the oil fuel storage tanks, which line the ship on each side, being controlled by the Oil Transfer Engineer at the rate of 200/300 tons per hour. Especially before the pound was devalued from 4 dollars to 2 dollars 80 cents it was usual to 'top up' all the oil fuel storage tanks again immediately before sailing, so as to take away every available ton.

The Engineers in both hotel service and main generator rooms carried out any necessary repair on the idle generators, as did the engineers of No.1 boiler room.

The bulk of the repair work was expected to be completed during this second day in port, perhaps the only full working day, and the remainder completed by noon on the third day, so as to give the engineers a half day off duty if possible, the sea watches starting again at midnight that night.

At this time the main engine circulating pumps and auxiliary plant were started up and steam admitted to the main engines to begin warming them through, being periodically turned by the turning gear - maintaining 15" vacuum on the main condensers. To supply this electrical power the first generator would already have been on load in the main generator room. Steam raising would already have been commenced by lighting up the two wing fires of each of the twenty-four boilers. Being of the Yarrow water-tube type, steam raising was carried out safely and rapidly and full pressure was reached in several hours. As the hotel services electrical load was increased prior to the passengers embarking, extra generators were 'run up' as necessary.

The Captain carried out an inspection of the ship during the morning of sailing day and the engineers presented themselves in the main corridor of 'D' deck. The Captain did not inspect the engineers' quarters, nor the machinery spaces, but left the inspection of these compartments to the Chief Engineer.

Following this inspection the Captain conducted a crew boat drill at 11 a.m. Several lifeboats at random were lowered and their diesel engines started by the deck engineer. The three ship's sirens were then tested - a familiar sound to New Yorkers, as they could be heard at a distance of ten miles!

Next, the Chief Engineer conducted a trial of each of the four engines. The 15" vacuum was raised to maximum and the turning gear disengaged prior to giving each engine a 'kick' ahead via the steam manoeuvring valve and stopping it immediately afterwards with a little astern steam, to instructions from the Bridge.

Leaving Port

When leaving port, the same conditions applied as for the 'stand-by' for arrival. As the order rang on the engine room telegraphs the engineers of the previous watch took up their positions. Cunard ships always docked bow first in port. At Pier 90 New York, even with the help of tugs, a prolonged 'Full Astern' movement, of some minutes duration, was needed to clear the berth.

Although 50% of full power only was available at the astern turbines, the sudden contrast from a minimum to a maximum steam flow, as many of the 168 burners of the main boilers were ignited, was a problem, the operation having to be performed without producing smoke - and a possible fine to the Company! This operation was compounded by a sudden stop being ordered, as the tugs slew the ship till she was parallel to the river. This part of the job over, there followed a fairly leisurely run ~~only run~~ down the Hudson River at the usual 100 r.p.m. to Ambrose light vessel, where the Pilot disembarked. The revolution counter reading of each engine was then taken which, together with the time, signified the start of another voyage.

The above pattern was also followed when leaving Southampton.

Of course, routine calls were also made at Cherbourg and Halifax, Nova Scotia, where no river manoeuvring was involved. There the 'stand-bys' were of relatively short duration. Steam was maintained on all boilers for the short periods (roughly 2 hours) in port.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

ACCOUNTS FOR THE YEAR ENDED 30th APRIL 1988

INCOME AND EXPENDITURE ACCOUNT

<u>1986/7</u>	<u>EXPENDITURE</u>	<u>1987/8</u>	<u>1986/7</u>	<u>INCOME</u>	<u>1987/8</u>
27.22	BANK CHARGES	-	430.46	SUBSCRIPTIONS	383.02
177.17	'THE BULLETIN'	110.00	147.60	SALE OF LIFEBOAT BOOKS	-
21.63	SUNDRY PRINTING	15.90	12.20	CHRISTMAS SOCIAL	25.10
41.17	POSTAGES	50.65	10.07	SALE OF REFRESHMENTS	29.84
20.00	CHRISTMAS SOCIAL	11.96	-	" OF 'TRANSACTIONS'(old)	26.67
-	'TRANSACTIONS'	-	-	ADVERTISING REVENUE	100.00
	(cost to 30/4/88)	100.00		('TRANSACTIONS')	
-	SPEAKERS' EXPENSES	10.00			
-	MISCELLANEOUS	10.00			
<u>313.14</u>		<u>256.12</u>			
<u>£600.33</u>		<u>£ 564.63</u>	<u>£ 600.33</u>		<u>£ 564.63</u>

BALANCE SHEET

<u>1986/7</u>		<u>1987/8</u>	<u>1986/7</u>		<u>1987/8</u>
194.77	CURRENT A/c BALANCE	450.89	73.02	CURRENT A/c BALANCE	194.77
	30/4/88			30/4/87	
800.00	DEPOSIT A/c BALANCE	819.92	561.21	DEPOSIT A/c BALANCE	800.00
	30/4/88			30/4/87	
			47.40	DEPOSIT A/c INTEREST	19.92
			313.14	BALANCE INCOME/EXPENSES	256.12
<u>£994.77</u>		<u>£ 1270.81</u>	<u>£ 994.77</u>		<u>£ 1270.81</u>


HON. TREASURER

30th APRIL 1988

Last December a few members were invited to attend a seminar at the Dept. of Economic History. The speaker, Professor Lewis R. Fischer of the Maritime Studies Research Unit of the Memorial University of Newfoundland, presented the results of research into the wages of sailors on British sailing vessels over the period 1863 to 1900. The tables produced then are here reproduced. There seems to be great opportunities of further research into why there were so many variations.

We hope for an article from 'Skip' Fischer in the near future.

TABLE 1

REGION OF JOINING FOR WAGE SAMPLE OF ABS ON BRITISH
EMPIRE SAILING VESSELS, 1863-1900

<u>REGION</u>	<u>NUMBER</u>	<u>PERCENT</u>
England	34067	28.8%
Wales	7718	6.5
Scotland	3619	3.1
Ireland	4652	3.9
Northern Europe	18517	15.7
Canada	5141	4.3
United States	35059	29.7
West Indies	1412	1.2
South America	4594	3.9
India and Asia	1949	1.6
Australia	1509	1.2
Totals	118237	100.0

Notes: Africa, Oceania, New Zealand and southern Europe have been excluded from the analysis because of insufficient cases in too many years. The sample includes Able-bodied seamen serving on sailing vessels registered in Yarmouth, Halifax, and Windsor. Nova Scotia; Saint John, New Brunswick; and those captured in a one percent sample of all non-Canadian British Empire sailing vessels. For consistency, the sample also excludes all crew paid in any currency besides sterling or dollars.

Source: Memorial University of Newfoundland, Atlantic Canada Shipping Project, Computer Files derived from British Empire Agreements and Accounts of Crew, 1863-1900 (Hereafter referred to as "Crew List Wage Data Set").

TABLE 2
MEAN WAGES FOR ABLE-BODIED SEAMEN RECRUITED IN
ENGLISH PORTS, 1863-1900
(£ Sterling per month)

<u>YEAR</u>	<u>MEAN WAGES</u>	<u>YEAR</u>	<u>MEAN WAGES</u>
1863	3.09	1882	2.98
1864	3.41	1883	3.01
1865	2.99	1884	2.98
1866	3.31	1885	2.93
1867	3.11	1886	2.73
1868	2.96	1887	2.62
1869	2.89	1888	2.61
1870	2.83	1889	3.23
1871	2.96	1890	3.36
1872	3.36	1891	3.41
1873	3.58	1892	3.26
1874	3.60	1893	2.82
1875	3.43	1894	2.77
1876	3.38	1895	2.94
1877	3.32	1896	2.77
1878	3.10	1897	2.87
1879	2.72	1898	2.83
1880	2.62	1899	2.99
1881	2.78	1900	3.04

Note: Includes the 34,067 ABs described in Table 1.

Source: Crew List Wage Data Set.

TABLE 14
AVERAGE WAGES AND WAGE DIFFERENTIALS, 1863-1900
(£ Sterling per month)

<u>REGION</u>	<u>AVERAGE WAGE</u>	<u>DIFFERENTIAL FROM ENGLAND</u>
England	3.06	0
Canada	5.38	+2.32
United States	4.86	+1.80
Australia	4.11	+1.05
South America	3.61	+0.55
West Indies	3.30	+0.24
Scotland	3.30	+0.24
Ireland	3.27	+0.17
Wales	3.02	-0.04
Northern Europe	2.94	-0.12
India/Southeast Asia	2.94	-0.12

Note: Compiled by computing a weighted average of mean wages for each region in each year.

Source: Crew List Wage Data Set.

TABLE 13

INDEX OF WAGES PAID TO ABLE BODIED SEAMEN RECRUITED IN
VARIOUS REGIONS, 1863-1900

(English Wages = 100 for each year)

<u>YEAR</u>	<u>ENG</u>	<u>WAL</u>	<u>SCO</u>	<u>IRE</u>	<u>EUR</u>	<u>CAN</u>	<u>USA</u>	<u>WIN</u>	<u>SAM</u>	<u>IND</u>	<u>AUS</u>
1863	3.09	88	111	126	91	247	139	97	157	83	138
1864	3.41	80	111	104	83	204	174	66	112	75	115
1865	2.99	97	107	119	89	210	240	67	127	76	12
1866	3.31	96	108	108	77	171	143	98	122	70	1
1867	3.11	86	103	105	91	163	175	130	140	86	129
1868	2.96	94	112	111	95	176	183	99	134	89	10
1869	2.89	107	105	123	90	173	200	128	131	92	16
1870	2.83	99	110	106	94	211	200	111	143	90	137
1871	2.96	86	107	105	92	211	201	109	134	90	155
1872	3.36	93	106	105	82	242	175	111	118	85	139
1873	3.58	97	108	108	88	160	166	96	122	83	129
1874	3.60	98	106	103	94	189	163	105	135	88	139
1875	3.43	95	112	119	96	169	142	102	119	90	151
1876	3.38	100	112	108	97	142	125	104	125	92	148
1877	3.32	97	118	108	97	134	125	105	126	93	142
1878	3.10	97	107	105	98	129	130	105	118	100	149
1879	2.72	93	107	106	107	128	151	111	129	108	169
1880	2.62	96	112	108	109	163	173	95	122	112	182
1881	2.78	102	102	108	102	169	183	96	123	106	165
1882	2.99	105	106	97	99	211	179	129	112	101	170
1883	3.01	101	127	107	100	212	178	116	116	100	167
1884	2.98	100	110	103	102	194	161	108	120	101	150
1885	2.93	101	97	94	98	180	115	120	120	103	160
1886	2.73	93	95	105	103	181	169	102	112	99	149
1887	2.62	97	95	102	105	195	184	115	127	111	155
1888	2.61	106	103	102	107	202	183	116	121	114	167
1889	3.23	102	103	112	95	157	142	93	110	91	116
1890	3.36	103	99	117	90	171	139	100	106	96	149
1891	3.41	106	103	97	95	184	135	88	107	100	111
1892	3.26	103	126	101	99	153	144	95	105	94	122
1893	2.82	106	98	107	106	149	162	123	118	116	111
1894	2.77	106	104	106	108	184	143	117	110	112	105
1895	2.94	95	98	94	91	168	117	116	117	112	97
1896	2.77	103	107	104	99	159	136	106	122	99	118
1897	2.87	105	98	105	99	153	138	105	119	106	120
1898	2.83	104	97	101	95	121	142	131	112	107	133
1899	2.99	101	100	100	95	131	132	100	112	100	111
1900	3.04	99	99	99	107	168	134	99	126	101	126

Notes: English wages are in £ Sterling and fractions of that unit (see Table 2). WAL = Wales; SCO = Scotland; IRE = Ireland; EUR = Northern Europe; CAN = Canada; USA = United States; WIN = West Indies; SAM = South America; IND = India/Southeast Asia; AUS = Australia.

Source: Crew List Wage Data Set.

TABLE 20

LIVERPOOL WAGES IN COMPARATIVE PERSPECTIVE, 1863-1900:
ABLE-BODIED SEAMEN ON SAILING VESSELS
 (£ STERLING PER MONTH)

<u>YEAR</u>	<u>MEAN LIVERPOOL WAGES</u>	<u>% ENGLAND</u>	<u>% LONDON</u>
1863	2.72	88%	127%
1864	3.30	97	150
1865	2.78	93	129
1866	3.07	93	113
1867	2.91	94	128
1868	2.80	95	131
1869	2.65	92	125
1870	2.56	90	117
1871	2.67	90	122
1872	3.13	93	115
1873	3.41	95	110
1874	3.31	92	103
1875	3.26	95	107
1876	3.21	95	105
1877	3.19	96	105
1878	2.75	89	92
1879	2.28	84	110
1880	2.16	82	100
1881	2.39	86	98
1882	2.56	86	90
1883	2.81	93	103
1884	2.88	97	96
1885	2.38	81	110
1886	2.13	78	98
1887	2.12	81	102
1888	2.22	85	105
1889	2.69	83	88
1890	2.93	87	95
1891	3.05	89	99
1892	3.04	93	100
1893	2.17	77	73
1894	2.17	78	83
1895	2.14	73	100
1896	2.15	78	100
1897	2.34	82	105
1898	2.15	76	96
1899	2.91	97	94
1900	3.00	99	100

Notes: Includes 19255 cases for Liverpool; 7450 cases for London.

Source: Crew List Wage Data Set.

TABLE 21
REAL WAGES FOR LIVERPOOL ABS, 1863-1900
(In 1850 £ Sterling)

<u>Year</u>	<u>Real Wages</u>	<u>Year</u>	<u>Real Wages</u>
1863	£2.53	1882	£2.42
1864	3.11	1883	2.75
1865	2.59	1884	2.88
1866	2.69	1885	2.48
1867	2.40	1886	2.32
1868	2.35	1887	2.44
1869	2.34	1888	2.49
1870	2.27	1889	2.96
1871	2.36	1890	3.22
1872	2.61	1891	3.31
1873	2.80	1892	3.30
1874	2.83	1893	2.43
1875	2.88	1894	2.49
1876	2.92	1895	2.55
1877	2.82	1896	2.59
1878	2.50	1897	2.72
1879	2.21	1898	2.47
1880	2.02	1899	3.38
1881	2.28	1900	3.37

Notes: The calculations are based on the assumption that all wages are spent in England.

Source: Crew List Wage Data Set deflated by "Average Retail Prices" in G.H. Wood, "Real Wages and the Standard of Comfort since 1850," as cited in B.R. Mitchell and Phyllis Deane, Abstract of British Historical Statistics (Cambridge, 1962), 343-344.

at all the shops.

Now to the Everton and Fitzjames. Time has not allowed me yet to track down the demise of either, but the following is what I currently have:

Everton. Lloyds Register c1874 details her as Lady Bowen, ex Everton. Barque 892 net tons. Built Hartley at Miramichi 1861. Owner: R. Townes & Co., Sydney. The 1876/7 LR gives her owner as Stuart & Co. Sydney. She departed Kalyx, Sweden on Oct 23 1874 with a timber cargo for Adelaide, under Captain Fergusson. After a protracted passage through the Baltic and North Sea she anchored off Sheerness on Dec. 17 and Capt. Fergusson promptly resigned (no reason given). He was replaced by Captain Alfred Nicholas, but a fresh start was not made until January 29. Heavy weather in Biscay caused the freshwater tanks to leak and they had to put in to St Vincent for fresh supplies. In Lat. 43 S Long 11.52W 'an extremely violent gale was experienced in which the whole of the steering gear was destroyed.' Temporary tackles were rigged to steer the ship and she made for the safety of Capetown. Arrived there May 3. Cargo discharged to allow unshipping of the rudder, when it was found that only one of the pintals was still in place. A lucky escape. After repairs and reloading cargo, departed July 16. Arrived Port Adelaide August 26 1875.

I have recently found a further arrival at Port Adelaide - viz: Arrived November 6 1879, ex Puget Sound July 25, via Sydney October 15 (called there for orders). She carried timber and was commanded by Captain Charles Barnes. Owner then given in Lloyds Register as J.C. Ellis, Sydney.

Fitzjames. In 'White Star', Roy Anderson gives her arrival at Lisbon, leaking, as February 14 1866. Condemned as unseaworthy there. I have very little positive information for the following decade or so. She is still in Lloyds Register into the early 1870s - Capt. Wardrop, en route Liverpool-Australia; no owner given. However, until I can trace her eventual arrival at Melbourne, this period cannot be clarified. It seems likely that after being condemned she was sold locally, repaired and sent off to complete her interrupted voyage to Melbourne.

At all events she did make it to Melbourne. It is unlikely that she ever made a trading voyage after that, but confirmation of that will have to wait until I am able to trace her movements in Victorian waters. A story that I have dug up about her states that 'after many vicissitudes she became the property of Melbourne men. Fitting her out was contemplated, but abandoned, and it is stated that her last owner [this refers to a Mr Donaldson, her last owner in Melbourne, before she came to Adelaide] seriously thought of sinking her at the end of a pier to make a wool shed.'

However, at this stage (1876) the South Australian Government came on the scene, searching for a suitable vessel to be used as a quarantine hulk for Port Adelaide. They bought the Fitzjames and she was towed round to Port Adelaide in the excellent time of three days. Her lower masts were still stepped, but in all she was in terrible shape. A lot of work was done to make her habitable, and by early December 1876 she was at anchor two miles off the Semaphore.

She continued here in the role of quarantine hulk until the beginning of 1880. At this time it was clear she was inadequate for the purpose and the quarantine station was transferred to Torrens Island, in Adelaide's Port River. The Fitzjames was then at once taken over by the Boys Reformatory to house recalcitrant youngsters, still anchored out in Gulf St Vincent. Despite her poor condition, which steadily deteriorated further as time went by, she continued in this role until May 1891. At this point the boys were taken off and housed on shore. This was probably the end of her career, but I have not yet been able to track down her fate.

You might also be interested in an item I have recently come across. In The Passage Makers, the little brig owned by Baines, the Wannan, has an entry stating: No record of her sailing to Australia. That can now be amended, because she arrived at Port Adelaide on January 31 1854 from Liverpool. No other details on this yet.

Recent News

On 1st October last the Pilotage Acts based on the Pilotage Act 1913 were no longer in force. In their stead local port authorities are empowered to operate pilot services.

Until 30th September pilots in the United Kingdom were self-employed. Now in Liverpool their status is that of employees of the Mersey Docks & Harbour Co.

The number of pilots early in 1987 at Liverpool was almost 150. The number at the beginning of June was 94. Now there are 67.

Pilotage for vessels up to 1600 tons is no longer compulsory. The design of modern vessels is such that vessels of 1599 ton are perhaps three times as large as those of two decades ago.

With much reduced crews and increasingly complicated safety regulations masters will be under great strain when they are expected to reduce costs by refusing the services of pilots.

The "name" BULLETIN

Only one suggestion has been put forward to replace the title of this publication. Diana Hirst thinks the name NAUTILUS is worthy of consideration.

The Editor thinks the name MARITIME MERSEYSIDE *appropriate*.

WHAT DOES OUR READER THINK ??

The Council are going to discuss this shortly.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol.32 No.3



Winter 1988

BULLETIN

Compliments of the Season

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Editorial Notes

This issue completes the 'inside story' of the Engineers on the Cunard 'Queens'. Ernest Cross has offered another contribution to be printed in the Summer or Autumn issue next year.

It is just sixty years since the VESTRIS sank with heavy loss of life and it is fitting to mark this little remembered disaster with an article. Does anyone know surviving relatives of Capt Carey or Chief Officer Johnston?

The Science Museum, South Kensington, is one of our corporate members and we are indebted to Mr Day for his contribution.

Society Notes

Would members please note that the January and February meetings will be held at the Maritime Museum at lunch-time. Coffee will be available before the business commences.

At the October meeting a good turn-out of members heard James Cowden give an interesting and entertaining talk about his travels in the Pacific on an Elder Dempster container ship.

The well-attended November meeting on 'Freak Ships' produced a lively question and answer session and Dr Barrass could have had no doubt of the interest which his talk about ships of unusual design produced.

There is a note from the Secretary, on a later page, about the proposed visit to British Nuclear Fuels at Capenhurst.

Of all the incidents I've studied and written about, none has stirred in me more variety of emotion and feeling than the loss of the VESTRIS: anger, sympathy, pity, despair, humour, helplessness, irritation, annoyance - both rational and irrational. The tragedy was born of a system into which was built laxity and incompetence. So many minor imperfections had been accepted over the years by many responsible people that when a list developed, those imperfections added up to a condition which had to be as fatal as an exocet missile.

S.S. VESTRIS left New York carrying 188 passengers on Saturday 10th November 1929 at 1600 bound for South American ports. With something like 3,000 tons of cargo in the hold and a similar amount of coal in the bunkers, this was a normal routine voyage. Dropping the pilot off Ambrose Lightvessel in calm weather, she sailed South with winds increasing steadily from the NE. At 0200 Sunday she had a list of 5° to starboard. By noon the same day the vessel would not steer properly in the gale force winds; no attempt was made to bring her head to wind and sea. She was allowed to lie in the trough of the high seas with the wind at NE 7/8 and a list of 5 to 7 degrees.

At 1930 the ship was struck by a couple of heavy seas and water was entering through badly fitting openings in the upper hull. The list became markedly greater (perhaps 20°). Things began to go wrong with the pumps. Then, about 0830 Monday a general alarm was broadcast on W/T Radio and an SOS sent out at 0956. The ship foundered shortly after 1400 Monday with the loss of 112 of which 52 were passengers including 29 women and all 12 children on board. As the vessel turned over, the Master walked down the port side of the hull without a life-jacket. His last words were, "My God. My God. I am not to blame for this".

For over forty years a New York - South America Service had been operated by Lamport and Holt & Co. Four passenger-cargo vessels of the 42 strong Liverpool, Brazil & River Plate Steam Navigation Co fleet (wholly owned by L&H) were placed on the run: VAUBAN, VESTRIS, VANDYCK and VOLTAIRE. Of the four originally built in 1911/12, the latter was captured by a German raider in 1916. A new VOLTAIRE, built in 1923 to the same design, was 'Commodore' ship. After the 1st World War the "V" ships, released from Government service, were dry-docked at Hoboken and did not return to the UK. The crews were mostly from Barbados: the Master and Mates from the UK. A system of reliefs for leave, promotion, retirement and health was irregular but generally arranged to allow leave at less than two-yearly intervals.

One of the four ships sailed from New York every week. Prior to sailing cargo loading was discussed at the Broadway offices of Sanderson & Co, the Agents. H Wheeler, an employee of Sandersons acting as marine superintendent, held a loading conference in his office on the loading berth on the day before sailing. Customarily the Master and Mate of the ship concerned attended. The Stevedores, Hogan & Co. were experienced and of good repute. But their disposition of the cargo was controlled by 1) instructions from Wheeler to fill the ship with cargo and coal, 2) the cargo having to be placed so as to be accesible at the various ports of call and 3) the cargo arriving at the quay to be loaded up to the last minute. David Cook, Managing Director of Sanderson & Co (formerly of L & H, Liverpool) said later, "Shippers demand that we take their cargo right up to the last moment. Very often their credits are running out at the bank and that sort of thing and great pressure is put upon me at the office to take their cargo if it is delivered on the morning of sailing. If I do not do it other lines will and other lines do not have the regulations to adhere to that we have". The VESTRIS, 10,494 grt, 6,622 nrt, built at Belfast, 495.5ft long, 60.8ft beam was a shelter-deck vessel with twin screws having a speed of 13.5 knots. Her mean loaded draft gave a freeboard of 5ft 1 1/2ins and one of the important features of the sinking arising at the Inquiry into the loss of the ship was the sailing draft.

There had been a history of these ships sailing overloaded. It is certain that one of the principal officers and officials both ashore and afloat knew that years earlier the ship had sailed in an overloaded condition and that the Board of Trade had asked for an explanation:-

Merchantile Marine
Board of Trade
London
10th November

Gentlemen

I am directed by the Board of Trade to state that it appears from the entries in the official book of the ss "Vestris" for the voyage ended on the 29th July last, that the freeboard of the vessel on leaving New York on 29th May was 3ft 11 1/4 ins. The centre of the disc is stated to be placed at 5ft 10 ins below the upper deck line. The Board would be glad to know if you would be good enough to forward from the Master an explanation of this apparent overloading and forward it to this Dept together with any observations you may wish to make in this matter.

Signed etc.

--000--

Lampport &
25 Broad
New York
2 December

Lampport & Holt Ltd
Liverpool

Dear Sirs

"Vestris"

We received your letter of 13th November on the question of this steamer's draft on sailing. This vessel left Pier 14, Hoboken, on May 29th with a mean draft of 28ft, the extra weight consisting of 1,610 tons of water. Steamer proceeded to an anchorage off Liberty where water of necessary quantity was pumped out to bring her to 26ft 9 1/4 ins before proceeding to sea. Captain then in command of the VESTRIS, confirms this. Unfortunately the actual draft of the ship on leaving the pier had been entered in the log by an officer who was not aware when he made the entry that the vessel was to be lightened and the crew preferred to allow the figure to stand as he was averse to making any erasure in the official log. For reasons of stability and to meet the conditions under which we receive the cargo, the water was left in the ship until her loading was actually completed and the excess water was removed before the vessel left the harbour.

Signed

D Cook

Managing Director.

--00000--

Lampport & Holt Ltd
Liverpool

Sirs

With reference to your letter of 15th December respecting the freeboard entries in the official book of the "Vestris", I am directed by the Board to state that they accept the explanation offered by the Master.

With regard to the Master's statement that the entries had been made by one of the ship's officers I am to point out that Section 436(3) of the M.S. Act 1894, requires the entries to be made by the Master, and the Board would be glad if you would be good enough to instruct the Master of the ship in this sense.

Yours etc Signed

--00000--

In spite of these letters it is quite apparent that the practice of overloading had continued with the knowledge of all concerned, indeed Capt Clark's evidence at the Inquiry bears this out. Under questioning he admitted that the ship did not anchor in New York harbour but sailed almost 5ins too deep because he did not want to throw away good fresh water. (At the Inquiry documents appeared which indicated that there could have been as much as 12 inches overloading at times).

Capt Clark retired in 1927. One of his successors was Capt Carey who spent almost 18 months on the VESTRIS and was relieved for a voyage by Capt William A Bantra, a close friend.

After four weeks at home in Crosby, near Liverpool, Capt W J Carey travelled to New York on the White Star liner CELTIC to join VESTRIS. He had been four years on the run and was then, at the age of 64 and after 21 years in command, Lamport's senior Master. Having served all his sea-going career with the Company he was the most trusted of employees and was to take command of the VOLTAIRE after one voyage in the VESTRIS to allow leave rotation of Masters.

He was re-entering a system which he knew and which he also knew to be flawed.

As he stepped onto the deck of the VESTRIS on 9th November all was hustle and bustle, as only those who have visited the Port of New York before 1965 could know: cargo being loaded from lighters and quay, bunkering from lighters while the deck-hands tended the bunkering chutes on the Boat-deck and hosed down to prevent coal dust entering the passenger accommodation. The coal loaded via the Boat-deck fell through chutes into the hanging bunkers on each side of the upper engine room space. The cross-alleyway hatches were usually but not always battened down at sea. There were half doors on each side of the ship in way of the cross-alleyways. (The 'hanging' bunkers were described as appearing to be enclosed galleries to persons standing and looking upwards and outwards from the starting platform of the engine-room.)

Capt Carey did not attend the morning conference in Broadway or in Wheeler's office on the Pier; neither did Chief Officer F W Johnson, newly promoted to the position after several voyages as 1st Mate of the VESTRIS. On the Master's desk a letter was left with his sailing orders:-

Capt Carey, ss 'Vestris'

Dear Sir,

The Vestris is due to sail at 3.45 pm tomorrow, Saturday 10th November. Please have your vessel in readiness to proceed at that time.

Yours etc Heasley

Capt W S Heasley was assistant Marine Superintendent, New York, working for Sanderson & Co on secondment from Lamport's who paid his salary. He had served as Chief Officer in the "V" class vessels.

Immediately prior to sailing Stevedore Hogan noted that the draft in his notebook: 26ft 8ins F. 27ft 11ins A. At the same time the 2nd Mate read the draught and filled in the pilot's card with the deepest draught, 27ft 11ins. The ship sailed on the tide with the official draft recorded as 26ft 7ins forward, 27ft 18ins aft and 27ft 1ins mean. Allowing 4½ins for density the SW draft would be 26ft 9ins.

The cargo said to be on board was 2,942 tons and coal 2,999 tons. In fact evidence later showed the coal to amount to 3,019 tons - the extra coal was carried in the boat-deck chutes - some 40 tons. In total the Inquiry thought that the ship's deadweight was 9,388 tons (including water ballast) giving a draft of about 27ft 2ins. She had been overloaded; she was about 5ins too deep.

Sailing on time at 1545 Vestris steamed down the Bay, dropped the pilot in calm weather and set course S11°E. The wind began to blow from the NE and steadily increased in strength. At 0200 on the 11th, the 2nd Mate, E Watson, called the Master to report his concern at a list of 3° to 5° to starboard and that the ship was taking heavy spray.

The weather continued to deteriorate, the list to starboard increased. Even with a mere 2° list, at that draft some scuppers and sanitary discharges were below the water-level. At 6° the ash-ejector orifices were under water. When rolling these openings were well under water and let in water which appears to have entered the hanging bunkers. And there were drainage scuppers in the hanging bunkers which led to the engine-room bilges. Whenever a wave struck the half doors of the cross-alleyways, water entered which also found its way into the hanging bunkers.

By noon Sunday the ship, which had been steering wildly would not steer and when the 2nd Mate went on watch the ship was hove to with stern and port quarter to sea, the engines stopped or just turning over from time to time. No attempt was made to bring the vessel head to wind and sea. About this time Capt Carey sent a radio-telegram to New York reporting that the ship was hove to. The list continued to increase and even with heavy rolling in the high seas the vessel did not return to the upright.

About 1400 the Master instructed the Chief Engineer to pump out No 5 starboard double-bottom tank. The latter did not remind the Master that there were no wing suction in Nos 4 and 5 tanks, and at 1700 when pumping was completed there would be some 35 tons of water, slack water, remaining in the tank. At 1800 the pumps were set to emptying No 4 tank so that at 2000 pumping ceased with 60 tons left in the tank.

Two heavy seas struck the vessel on the port bow at about 1930 and the list to starboard increased; at the same time heavy cases of machinery and cars shifted in the hold. At 2000 the pumps began to lose efficiency and the list was probably about 15°.

On Sunday at 0400 with a list of 20° the Master gave orders to pump out No 2 starboard DB tank. This tank had wing suction but in those stability conditions pumping out only served to increase the list.

A General Alarm Signal was broadcast at 0835 followed at 0956 by the SOS.

The following messages were then exchanged :-

1040: L&H NY to Vestris, Wire us immediately your trouble.

1100 Carey to L&H Hove to from noon yesterday. During night developed 32 degrees list. Starboard deck under water, lying on beam ends, impossible proceed anywhere. Sea moderately rough.

1127 Lamport NY to Vestris, U S Destroyer DAVIS proceeding to your assistance.

The order to abandon ship was given at about 1000. There were ample lifeboats for all aboard but a number were lost in launching.

An American businessman waiting to board a lifeboat chatted to a young woman holding a 6 year old boy in her arms. To the child he said "Hey Kid, some game this, ain't it?" The boy, clinging to his mother, nodded but appeared quite unconvinced.

As can be imagined, in a heavy sea not all the boats were got away and not all those which were launched were undamaged. It is likely that the greatest loss of life occurred in the damaged lifeboats.

All the children and their mothers were placed in boat nos 4, 6 and 8, which had been lowered to 15ft from the water. No 4 boat was never released from the falls and went down with the ship. The falls of No 6 were cut but the boat was almost cut in two by a davit. No 8 was damaged during the lowering, repaired and got clear of the ship, only to be almost immediately swamped. The "kid" was right not to be convinced. No one in these boats survived.

The VESTRIS sank about 1400 with the nearest rescuing vessel some four hours away - she would arrive at dusk. Ultimately eight boats were picked up by steamers AMERICAN SHIPPER, MIRIAM, and BERLIN. The USS WYOMING picked up nine men, presumably from the wreckage.

A formal investigation by a Court of Inquiry was held at Westminster, between April and July of the following year. The evidence of witnesses and experts took forty days. Judgement was given in the Royal Courts of Justice. The Courts found nine contributory causes of the sinking and loss of life :-

1. Overloading of the vessel beyond her load line.
2. Tender condition of the ship.
3. Insufficient margin of stability and reserve buoyancy.
4. Heavy weather; high wind and sea causing the vessel to list to starboard.
5. Leaks from starboard ash ejector, booby hatch on shelter deck and the half doors on upper deck.
6. Upper deck hatches in starboard shelter deck bunker and cross-alleyway not being battened down soon enough in some cases and not being battened down at all in others
7. Water finding its way into lower bunkers, saturating the coal, causing list and probably preventing pumps from working efficiently.
8. The scuppers becoming, after a certain angle of heel was reached, a means of incursion of water into the upper deck which, in the VESTRIS (being a shelter deck vessel) was also the weather deck. These scuppers, not being stopped or plugged when the vessel listed, gave ready access of the sea to the upper deck and so reduced the margin of stability.
9. Wing suction not fitted in all ballast tanks.

The Court considered that Mr David Cook, Mr Harry Wheeler and Captain Heasley were guilty of 'wrongful act and default' which contributed to the loss of the VESTRIS. It ordered David Cook to pay £500 towards the cost of the investigation. The two employees of Sandersons continued to work there; Capt Heasley was later a master in ships of Lamport and Holts. Chief Officer Johnson and another senior officer of Lamports resigned from the Company after giving evidence to the American authorities and then to American newspapers

This disaster again brought about the view that there should be some form of check on British vessels arriving and leaving overseas ports. Something numerous Governments had had in mind for several decades.

But wherever the blame lies we should note that the loss of the ship occurred through a system which needed to be up-dated, adjusted and completely examined at frequent intervals. Recent incidents support this concept.

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NEW BOOK

SAMUEL WALTERS 1812 - 1882

by S Riley

Conway Maritime Press

128pp 8pp in colour Hardback £12.95

Stephen Riley was Assistant to M K Stammers for several years before he left to take a post at the National Maritime Museum, Greenwich.

A year earlier he toured New York and New England on a scholarship to seek out paintings by Samuel Walters both in private hands and in well-known establishments and museums. On his return he gave the LNRS a splendid illustrated talk.

If that talk be the measure, this book is a worthwhile acquisition.

Ro - Ro STABILITY PROBLEMS

On 21st April, Dr C B Barrass FRINA, Principal Lecturer and Consultant from the Department of Maritime Studies, Liverpool Polytechnic, discussed a number of problems encountered in the design and operation of Roll-on Roll-off Sea Ferries and the restraints imposed upon naval architects in their professional desire to ensure adequate margins of stability consistent with safety. The proofs of the explanations given were demonstrated in mathematical expressions of ship-design technology.

Ro-Ro vessel initial stability is very high and the configuration of immersed body-sections give scope for significant shift to leeward of the transverse centre of buoyancy so that good stability is maintained at low angles of heel. But, owing to the high centre of gravity caused by the tall superstructure for maximum passenger accommodation and heavy vehicles loaded at or above the load water line level, an angle of heel may be reached where stability is suddenly lost beyond recovery. Although this may be a rare circumstance, the probability risk is uncomfortably high. The wall-sided construction is, in many vessels, exceptionally tall which means that windage is also high and with strong wind on the beam an uneasy and perhaps dangerous roll may develop. Sailings should, therefore, be controlled at the Master's discretion, by weather conditions and not by an operator running a time-table and willing to take commercial risks.

A review of the safety record of these ships over the past few years revealed, what must be judged to be, an unacceptable number of sea 'incidents' which have caused the loss of many lives. Human error, likely to be caused by routine fatigue and insufficient time allowed for full safety checks in port 'turn round', may well account for a high percentage of these accidents. The HERALD OF FREE ENTERPRISE Zeebrugge disaster (which was not dwelt upon but could scarcely be lifted from our thoughts) had heightened anxiety in professional circles taking a responsible view of these matters.

Dr Barrass drew attention to a number of conditions and circumstances which may cause any ship to heel and others peculiar to Ro-Ro ferries, all of which put Ro-Ro ferries at higher risk than most other vessels. These are listed in Table 1. He then considered measures that might be taken to mitigate these risks, if not to eliminate them, and to improve the prospects of passengers and crew escaping if disaster did strike. These are listed in Table 2.

Perhaps the most alarming characteristic of Ro-Ro ferries is the speed with which they capsize and sink once the danger limit of heel is exceeded. The present 'abandon ship' facilities, however well the deck drill may be practised, limit the number of prospective survivors to an appallingly low figure. Whatever measures are taken, ships would have to be taken out of service for a long time for modification. This would cause owners to hesitate before proceeding with a modification programme.

The whole matter confronts the Ministry of Transport with a most embarrassing dilemma, and although Owners are likely to put less pressure on staff and crews to speed up 'turn rounds' in future (though current events show no evidence of this), adequate legislation to fully deal with the matter will in all probability be delayed for a very long time. The matter must not be permitted to rest and be forgotten until another 'Zeebrugge' overtakes us.

Some of the views recorded in this report were expressed from the floor and the prevailing view of the members was that commercial pressures were primarily to blame for this most unsatisfactory state of affairs.

Table 1

Causes of Ships to Heel

1. Shift of cargo to port or starboard.
2. Free surface effects.
3. Icing up of superstructure.
4. Emptying bottom tanks.
5. Turning ship to new course heading.
6. Ship squat.
7. Permeability "u".
8. Ship has narrow beam i.e. BR.M⁽¹⁾.
9. Ship has not enough freeboard.
10. Watertight doors not closed.
11. Insufficient subdivision by longitudinal and transverse bulkheads.
12. Human factors 60%-80% could be as high as 90% controllable by management.
13. Bilging of side compartments.
14. External forces of wind and waves possibly working against a component of current speed and so producing heeling couple.
15. Trim by the bow.
16. Heavy seas breaking over upper and f'c'sle decks combined with blocked scuppers and locked free-ing ports.
17. Fire possibly followed by explosion.
18. Open access doors.
19. Ship to ship interaction effects.
20. Commercial pressure for fast 'turn-round'.
21. Auto-pilot failure causing rudder helm hard to port or starboard as in "Zenobia" 10° list to port incident.

Table 2

Measures to Decrease Vulnerability

1. Fit longitudinal bulkheads using B/5 guidance lines.
2. Fit transverse bulkheads.
3. Fit polystyrene spheres and cylinders to improve $u = 100\%$ for empty compartment to $u = 50-60\%$. (u = permeability).
4. Increase freeboard to increase GZ_{max} and stability range.
5. Instal areoplane type of evacuation.
6. Reduce speed to reduce squat effect.
7. Increase margin line from 76mm to 100mm.
8. More information of weights and VCG's loaded and unloaded on/off Ro-Ros.
9. Increase of GM_i from 1.5m to 2.0m before sailing.
10. Automatic cutouts in system if safety functions by crew incomplete
11. Crossflooding arrangements to counteract bilging effects on one side of Ro-Ro by high powered pumps.
12. Compulsory fastening down of cars and lorries to deck.
13. More flare to improve inertia of the water plane.
14. High standards of inspection and maintenance to maintain good seaworthiness.
15. Refresher courses for crew members in ship stability and Ro-Ro vulnerability.
16. Vocal assurance rather than indicator lights to verify safety procedures complete.
17. Enter ship through stern door and leave by stern door. This is possible if ships designed with greater breadth.
18. Side ports as on "Tor Scandinavia" and "Britannia".

Footnote:- The attention of the Society has been drawn to a paper entitled 'The Safety of Ro-Ro Passenger Ferries' by J R Spouge BSc MRINA, read before the Institution early this year. Only large sea-going Ro-Ro passenger ferries are considered and the design and operation of such vessels is examined relative to the hazards of ferry travel and the vulnerability of the ships. An appendix briefly recounts the circumstances in which seven notable passenger ferry sinkings occurred and other accidents are cited in the text, from all of which Table 3 is constructed.

Table 3:- Notable Ro-Ro Passenger Ferry Sinkings

SHIP	LOCATION	YEAR	NO. ON BOARD	NO. OF DEAD
Princess Victoria	Irish Sea	1953	172	134
Skagerak	Skagerak	1966	144	1
Wahine	Wellington NZ	1968	735	51
Zenobia	Cyprus	1980	151	0
Tampomas II	Java Sea	1981	?	580
European Gateway	Felixstowe	1982	70	6
Dona Daz	Phillipines	1987	?	1500
Herald of Free Enterprise	Zeebrugge	1987	539	193

MERSEY & GENERAL NOTES.

The livestock carrier BRIONI has gone to Yugo Slav breakers after a lengthy lay-up at Cres Island, near Rijeka. She will be remembered as TUSKAR, the last ship used on the Liverpool/Waterford weekly service of Clyde Shipping Company. She was built by C.Connell and Co, Glasgow in 1962 and served on the Irish route without passenger accommodation until 1968, when bought by Yugo-Slavs.

The Panamanian car carrier REIJIN with a full load of Japanese cars went aground near Leixoes early-r in 1988. Badly damaged, salvage proved difficult and the unusual decision was taken to scuttle her with all her cars, in deep water.

NORDLYS was a passenger and cargo vessel well known on the North Cape route from Bergen. She was registered in Oslo and built in 1951. When being refurbished at Sarpsborg, fire broke out. She was declared a total loss, and sank under tow to Bilbao breakers in July 1988.

Ships often seen at Eastham these days are MAPLEWOOD, BIRCHWOOD and OAKWOOD. These were formerly CENTAURMAN, MAHSMAN & VEGAMAN respectively. They are now under the houseflag of Buries Markes Ltd having been in the fleet of Rowbotham Tankships.

The Cawood containers ships CRAIGANTLET & CRAIGAVAD which maintained a service between Garston and Belfast have been sold and renamed NEPTUNUS and SATURNUS respectively. They were replaced by the chartered ARDLOUGH (sunk) and KENMARL.

When the Iran-Iraq war ended, numerous ships were freed which had been bottled up in the Shatt-el-Arab River for eight years. Of these, IBN AL HAITHAM emerged under her own power, and went for refit. Owned by the United Arab Shipping Co, she was built by Scotstoun Marine Ltd in 1976.

21st February 1970 was an important day on the Mersey, for we watched the arrival at Tranmere of MELO, the largest vessel ever to enter the port. But this summer saw the arrival in the Mersey of the even larger Portuguese tanker NISA.

A Faithful, Trustworthy and Skilful Navigator

Captain Samuel Brooks, 1831-1904

While reviewing my father's life at sea, I came across glimpses of the character of Samuel Brooks that indicate that he was certainly not the sadistic martinet we can read of in accounts of life at sea in the nineteenth century. My father's notes describe a genial, almost gentle man, but one nevertheless with a strict sense of duty that he naturally enough expected in others - in short, a believer in the "Victorian ethic" that tends to be scorned in certain quarters today.

Samuel Brooks was born in Todmorden, Yorkshire, also the birthplace of my father Benjamin Dawson. The captain was a great friend of the family and it was through this connection that young Ben found himself in April 1891, just before his 17th birthday, employed as servant to the captain at a wage of £2 per month - with the exciting prospect of spending his birthday in New York riding the overhead railway. Ben's notes tell us: "Captain Brooks took a great interest in me and sent me to his tailor to be fitted out with winter and summer uniforms, cap and sea-boots. I sure felt proud when I received my first uniform and looked quite smart in my small cut-away vest".

Dossing with 30 men in the conditions of the "glory hole" made young Ben so ill that the captain agreed with the ship's doctor to allow him special quarters in a small spare cabin, with meals to be taken in the pantry. What luxury compared to what the average apprentice had to suffer!

That was enough to make me want to find out more about this unique captain.

Samuel Brooks started his seafaring life in 1846 as an apprentice in the schooner PATRIOT of Plymouth, engaged in the Mediterranean fruit-trade. In 1851 he sailed round Cape Horn to Panama and back in the brig BESSIE of Liverpool, going out as AB and coming home, incredibly, as her master. After certifying as first mate in Liverpool in 1853 he sailed to Calcutta in that capacity in the barge KEDGEREE of Belfast. Having gained his master's ticket in 1855 he graduated to larger vessels, making his first voyage with the Inman Line as second officer in s.s. CITY OF BALTIMORE carrying French troops to the Mediterranean and Black Sea for service in the Crimea. That voyage marked the beginning of his 26 year long connection with Inman, during which he served in a dozen or so of the renowned CITY ships.

The next year, 1856, saw the start of his almost unbroken 38 year long association with the regular transatlantic passenger trade, when he was promoted to first officer of his previous ship, now switched from war service and plying the route from England to Philadelphia. Later that year, her port of call was re-scheduled to New York as part of Inman policy to compete directly with the rival Cunard Line.

Cunard had established the first regular passenger service across the Atlantic with p.s. BRITANNIA and gradually built up an impressive list of ever-increasing speed records. But the competition was not only between lines, but also between Britain and the US. It is significant that the year in which the US took the Americas Cup, 1851, also saw the coveted Atlantic record go to the American Collins Line. But the losses of their ARCTIC in 1854 and PACIFIC in 1856 were catastrophes from which they never really recovered and after that, the honours returned once again to Cunard.

Captain Brooks, remaining faithful to the Inman Line, achieved his rank at the earliest age of 27, when he took command of s.s. GLASGOW. She had been bought in 1859, s.s. CITY OF GLASGOW having been lost without trace at great loss of life in 1854. Tragedy was to overcome the Inman Line again when s.s. CITY OF BOSTON, which Captain Brooks had commanded in 1866/7, disappeared for ever in 1870.

Was safety at sea sometimes sacrificed for speed? It was certain that, as representatives of lines striving for supremacy on the high seas, captains were subjected to considerable pressure. The kudos to be attained by a Blue Riband captain could only have been surpassed by that of the famous winners of the Tea Clipper premium races. The name of Captain Brooks does not however feature in the lists, although he was to enjoy command of s.s. CITY OF BRUSSELS in 1872/3, some three years after her gaining the honours.

War had played a part in giving Captain Brooks promotion and it also contributed to Inman's success on the Atlantic. They had been quick to exploit the gap which the American Civil War had created; s.s. CITY OF BRUSSELS had been the last of the three new CITY ships that the line had ordered in the attempt to win more trade. With her success, the contest really opened out between the rival British lines.

Apart from the competition for passengers, there was another practical aim attached to this rivalry and that was to gain the valuable mail contracts. Inman's perseverance had paid off in this respect when the line was awarded a mail subsidy in 1867 - when the responsibility for ocean mails was transferred from the Admiralty to the Postmaster-General - to replace the Cunard contract which had been in operation ever since BRITANNIA started in 1840. To cap that success for Inman, s.s. CITY OF BERLIN won the Blue Riband in 1875.

After his 26 years with the Inman Line, during which time he celebrated his 500th transatlantic crossing, Captain Brooks joined one of the rivals on the run, the Guion Line, in 1882. Perhaps he hoped for better fortune after the switch: his chances must have seemed brighter when he later obtained command of the famous s.s. ARIZONA. She had been designed expressly to capture the Blue Riband and this she had done on her maiden voyage in 1879. That she was a staunch as well as a swift ship was demonstrated in November that year, when, at full speed, she rammed a giant iceberg off the Newfoundland Banks and survived the ordeal, reaching St. Johns under her own steam.

Captain Brooks, however, had come to her - as to the CITY OF BRUSSELS - three years too late. But he had compensations for not gaining the trophy with ARIZONA. He was in charge of a forerunner of that type of vessel which came to be known as the Atlantic Greyhound. Now, after her initial burst, she had steadily become one of the most popular passenger ships in the trade, especially renowned for her superb comfort. This obviously reflected Guion policy, for by April 1882, their new ALASKA had taken over as record holder. In June of that year, she broke through the bewitching seven day barrier for the crossing.

Captain Brooks served the last 12 years of his seafaring life in command of ARIZONA and it was towards the end of this time that Ben Dawson joined her.

The fine character of the captain that emerges from Ben's simple account had been more formally and more floridly expressed in the style of the period a few years earlier to mark the occasion of the Captain's 600th crossing of the Atlantic in 1888. A number of friends entertained him to a complimentary dinner and presented him with an illuminated address. The title of this article is one small part of that address. Its last sentence was: "May you be as prosperous as heretofore, and may no disaster to life or ship happen to mar so brilliant and successful a career".

Captain Brooks lost neither ship nor passenger, but it must have been a very sad day indeed for him when in October 1891 on the homeward run he did lose a crew member, presumably the only one ever. Ben tells the story: "One trip I have special reason to remember was that from Liverpool, in the middle of October 1891, when homeward bound in a strong westerly gale. It was my brother Bob's first trip to sea as 3rd baker. The ice-house and vegetable lockers were located under the forecastle head. Along with Walter Lanby, the sculleryman, he was

bringing some stores for the galley when they were caught by a heavy sea. Luckily, my brother dropped everything and clung to his lifeline with both hands, but his mate was not so fortunate and was washed overboard and never seen again."

On another voyage, in a dense fog at midnight two days before arriving in New York, ARIZONA collided with a barque and seemed to have sunk her, since after cruising around searching for her, she could not be found. Later it was discovered that the barque, which had been carrying timber, had remained afloat. She was located some days after the collision and towed into Boston. The Guion Line eventually had to pay compensation to her owners.

Besides recording such sad incidents, Ben also kept copies of the daily logs during the 20 months and 18 round trip voyages during which he served the captain. He also produced copies for sale to the cabin passengers and soon had a roaring trade going. The notes he left show that by his time the crossing was averaging about eight days. But on one voyage from Queenstown, 25 July 1891, to New York, Captain Brooks had the pleasure of clipping two minutes from ARIZONA's old 1879 record, made in the eastward direction. The new record, held by White Star's TEUTONIC, was now nearly two days faster, so it was really a last fling for ARIZONA, especially as fresh financial troubles were brewing for the Guion Line. Once before, in 1884, they had managed to stave off disaster by selling their crack liner s.s. OREGON to Cunard, only to have the added ignominy of her breaking the record for the rival line. She was so fast that she was one of the 16 vessels taken up in 1885 by the Admiralty as an armed cruiser, during the scare about the possibility of war with Russia over their invasion of Afghanistan. After being returned to normal service, she sank after a collision on the way in to New York. By a strange coincidence, my grandparents were passengers aboard, all of whom, together with the crew, were saved.

The sale of OREGON had kept Guion's solvent for a few more years, but stringent new measures had to be taken once again in 1892. A true sign of the ailing times was that speeds were reduced in order to economise on coal consumption.

With the imminent threat of the Guion Line going out of business, Ben Dawson left their employment at the end of 1892 to join the Blue Funnel Line.

By 1893, the Guion fleet was sadly outdated and Captain Brooks must have been thankful to retire in June 1894. By then, he had amassed the incredible record of 690 transatlantic crossings in his 48 years at sea. What an experience it is to look through the pages of handwritten records that the Board of Trade made at the time of each officer's service, still available to view at the Public Records Office at Kew. Captain Brooks's records have the appearance almost of a full orchestral score.

In December 1894 he won the then handsome prize of £10 offered by the weekly paper TIT-BITS to the sailor who could prove that he had travelled the greatest number of miles on the ocean. I was more than pleased to be able to have his record, over 2 million nautical miles, quoted in the Guinness Book of Records.

Captain Brooks enjoyed some ten years of retirement in his home town where he died on 17 February 1904, and was buried on 22nd. It was one of the great regrets of my father's life that duty ordained that he should arrive home from a voyage to Japan on the very same day as the Captain's funeral, but too late to attend it.

It is amazing that, although ships' speeds have increased enormously and conditions on board have improved beyond all recognition since Captain Brooks' days, the tenacity and sense of duty of men like him - and, I am proud to say, of my own father - will never again be matched. No man would now stick it that long. They certainly bred them tough in those days.



SAMUEL BROOKS—(QUION: "ARIZONA").
From a photograph by R. A. Lewis, New York.

Captain Samuel Brooks, of the *Arizona*, is another example of the colossal captain. He is a man of powerful frame, but scarcely so tall as Captain Murray. He is about five years the senior of the *Alaska's* commander, and wears a full gray beard most becomingly. He is a man of distinguished appearance, who blends suavity with a dignity that never repels, but prevents intrusive familiarity. He is a favorite with every passenger. Madame Patti almost invariably crosses the Atlantic on Captain Brooks's steamer. Mrs. Langtry, Henry Irving, and a host of other people known as well on one side of the sea as the other, speak in terms of admiration of this popular officer. He has been twenty-eight years in the Atlantic service. His record shows that he has crossed the ocean 540 times, without the loss of a single life on his vessel. In this time he has added extra laurels to his wreath by rescuing many persons.

--ooOoo--

MERCHANT SEAMENS REGISTER CERTIFICATE

In the 1830's the British Government introduced a form of registration for merchant seamen. This failed, for the seamen of the post-Napoleonic Wars era were still in fear of infamous and illegal press-gangs.

A decade earlier there was an attempt, by a group of shipowners and seamen's charities, to gather together a 'pool' of sober, reliable and competent seamen. The illustration opposite is a copy of a certificate, possibly the only one in existence,

--ooOoo--

Merchant Seamen's Registry,

UNDER THE PATRONAGE OF THE SHIP OWNERS' SOCIETY.

No. 2, Commercial Road, near Rattiff Cross.

10th June 1820

This is to certify, That it appears by the Return made to this Office

That the Bearer *John Dyer* - Ordinary Seaman

is of a good Character *has been Four years at Sea; and is*

Reported by his last Captain as a Very Good young Man

Aged *10* Years

Born in *Devonshire*

Height *five* Feet *three* Inches

Fair Complexion *light* Hair

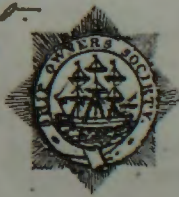
Marked

Served last in the *Ship Sarah Christina* - to and from

Samoa *John Fisher* Commander.

Further Particulars of him are to be found, if required, at this Office,
by reference to the Book, No. *2* page *184*

45/6
H. D. Dwyer
Superintendents.



THE SCIENCE MUSEUM AND ITS MARITIME COLLECTIONS

by L R Day, former Keeper of the Library

The Science Museum library was founded as the Science Library of the South Kensington Museum, to serve the curators of the Museum's science collections and the professors and students of the science colleges that had been gathered into South Kensington in the 1870s. The Library was thus part of the complex of museums, libraries and colleges that had grown up in this part of London, the outcome of the tremendous success of the Great Exhibition of 1851 and the movement to improve the scientific and technical education of the people. The immediate result was the setting up of the Science and Art Department in 1853 with the avowed aim of increasing 'the means of industrial education and to extend the influence of science and art on productive industry'. In 1857 the Department established the South Kensington Museum, with exhibits drawn from a number of sources including the Great Exhibition itself. The so-called Science Collections comprised a rather motley variety of objects, such as models of industrial plant and specimens of materials, but they were augmented and improved over the years.

The nautical content of the Museum gained notably when in 1864 the Royal School of Naval Architecture and Marine Engineering was set up in South Kensington by the Admiralty and a marine collection was started at the Museum, consisting of ship models lent by the Admiralty. These were added to by objects from shipbuilding and shipowning firms. When the Admiralty removed their objects in 1873, on transfer of the School to Greenwich, there remained a considerable marine collection which has been added to ever since.

When the Library was set up in 1883, it was formed by amalgamating two major collections of books. One was the library of the Museum of Practical Geography in Jermyn Street, apart from a few that were retained there for the use of the officers of the Geological Survey. That Library had itself originated in 1843 with the donation to the nation by Sir Henry de la Boche of his valuable library of scientific books. The other collection consisted of the science books of the Education Library that had stemmed from an exhibition of educational books and equipment in 1854.

The Library grew steadily and in 1907 it took up new premises, including a handsome large reading room, which it was to occupy for over sixty years. Several important administrative changes were made which set the pattern for the future. In 1899 the Museum had at the request of Queen Victoria been renamed the Victoria and Albert Museum, denoting for a while both the science and arts collections. Then in 1909 the arts and science collections, which had been gradually distinct identities, were formally separated, the arts retaining the name ordained by the Queen, the latter becoming the Science Museum.

At around the same time, the science colleges were hived off from the State and merged to form the Imperial College of Science and Technology. The Library continued to serve the College, which did not develop its own facilities until the 1960s. Even now, the College makes considerable use of the Library, although providing literature for its professors and students is no longer a function of the Library.

During the 1920s the Library embarked on an expansion programme and within ten years could boast the largest collection of scientific periodicals in the country. At the same time, the lending service was extended to all parts of the United Kingdom. This service became increasingly popular and with the information explosion during and after World War 2 threatened to swamp the Library's resources, at the expense of the services to the South Kensington users, whom the Library had been set up to serve. This conflict was resolved by the setting up of a library at Boston Spa in Yorkshire, now the Document Supply Centre of the British Library. In 1962 Boston Spa took over the national lending function and

also some ten thousand sets of periodicals, mainly in the less-used languages and in subjects of less concern in South Kensington. The Science Museum Library continued to support Boston Spa, however, by acting as one of the back-up libraries. Certain categories of request are passed on to the Library and are satisfied either by lending from its stock or by supplying photocopies; this is the only way in which the general public can borrow from the Library.

The reorganisation of the national libraries in the early seventies that led to the setting up of the British Library had implications for the Science Museum Library, for it was given the specific role of acting as the national library for science and technology. Greater emphasis was also laid on serving the curators in the various departments of the Science Museum and on supporting the Museum's role in promoting an understanding of science and industry and in fostering an awareness of their importance to the nation. It is to serve these purposes that the Library's collecting policy and the organisation of its stock and services are now specially directed.

The stock of the Library falls into three categories - printed literature, archive and manuscript material and the picture collection. The printed literature collection now amounts to over 600,000 volumes including about 20,000 sets of periodicals, nearly 2000 of them current. The earliest books are kept in the Rare Book Collection, some 4000 mainly pre-1800 books and periodicals including first editions of the major classics in the history of science. There is a good collection of nineteenth century literature and a selection of the principal works of the present century, with special emphasis on the subjects covered by the Museum, which includes shipping and marine engineering. The Library aims at acquiring, as comprehensively as possible, all books and periodicals on the history of science, engineering and industry in whatever language. The entire history of science collection is shelved in a reading room devoted to this subject on open access shelves so that the visitor can browse freely in this unrivalled collection. It includes some 2000 books on marine subjects and related areas such as navigation and steam engineering. Technical aspects of naval history are covered but not the purely military side. In other parts of the Library will be found primary maritime works of different periods. It is noteworthy that there is also a complete collection of British patent specifications together with ancillary literature, the last few years being in microform, and also a large quantity of trade catalogues.

The Archives Collection was set up in 1977 and is in the process of centralising in the Library the Museum's holdings of unpublished and manuscript material, of importance as source material for the study of the history of science, especially if it has particular relevance to the Museum's objects. There are scattered papers of maritime interest and these are best found by consulting the catalogues and lists in the Library. Of particular note are the ship plans, of which there are over 200, mainly of named vessels, including 'Great Eastern', 'Great Western' and 'Warrior'. In addition, there are some 900 plans, together with many photographs, in the Museum's transport department.

Finally, the Picture Collection was established in 1976 with the similar object of centralising the cataloguing and care of the Museum's pictures, in whatever medium. There are many of marine subjects and the 'Great Eastern' features here too, with a hand-coloured lithograph of the great vessel by J Scott Russell and a set of attractive watercolours recording its early days of cable-laying.

The present library building, opened in 1969, has perhaps less of an aura than the old one, but is far more practical and the collections are disposed more conveniently for the public and the staff. Apart from the History of Science reading room with its fine collection of secondary works, other categories are also on open access shelves: all post-1960 books, the last 25 years 'periodicals', bibliographies and abstract journals. Earlier literature is kept in the closed areas but can be produced on application within a few minutes. Visitors who wish

to browse through long runs of the older journals can, in certain circumstances, be admitted to the closed shelves. The Library is open daily except Sundays and bank-holiday weekends from 1000 to 1730 hours, free of charge and without formality. But those wishing to consult the rare-book archives and pictorial collections need to obtain a readers's ticket, by applying at the enquiry desk, completing a form and presenting means of identification. As the archives and pictures are still somewhat scattered, it is usually advisable to telephone or write to the Library a day or two before making a visit to state one's requirements.

Apart from making its material available to the user, the Library offers a number of services. Any large library presents a daunting prospect to one making his or her first visit and so it is important to remember that its staff are there to help in showing visitors their way around the catalogues and the literature. Enquiries about the literature are welcomed and lists of references to specific subjects may be compiled on request. Enquiries are also dealt with by telephone, telex or by post. A wide range of photo- and micro- copying facilities is offered and for an appropriate fee searches in the main computer databases can be carried out. The Library has from the beginning maintained its own alphabetical and subject catalogues and from 1984 new acquisitions have been entered in its computer database. In addition, certain special indexes have been maintained, as the bibliography of the history of science and technology is less highly organised than, say chemistry. For example, the 20-odd bibliographies that appeared in the early Transactions of the Newcomen Society have been copied and rearranged in a single sequence and many of the historical entries in the Engineering Index have also been copied and filed with the Newcomen entries, thus forming a valuable source of literature in this field, and many entries of interest to the maritime historian are included.

In these and other ways which it has not been possible to mention here the Library's rich collections are made readily available to all who have an interest at whatever level, in the history of science and technology, of which maritime history forms a significant part.

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Note from the LNRS Secretary

In accordance with Members' wishes a visit has been arranged to BRITISH NUCLEAR FUELS PLC, Capenhurst Works, Chester, for 10.30 am on Wednesday 15th March 1989.

Please let Mrs Diana Hirst, LNRS Secretary (Tel: 051-608-2281) have your Name, Address and Nationality before mid-February if you wish to join the party. The application form has to be returned to Capenhurst by 1st March 1989. We are advised that last minute substitution cannot be allowed nor can anyone not on the list be admitted to the Plant.

Luncheon can be arranged for 12.30 pm at the Capenhurst Sports and Social Club - details of menu later - a choice of hot or cold meal - to be paid for by members themselves!

(Cunard Engineers continued)

The Electrical Supply System of the "Queen Mary"

As explained earlier, the three steam turbo-generators of the forward or hotel services generator room supplied the ventilation fans, galleys, deck machinery, lifts and sanitary services, in addition to heating and lighting, etc. and each one of 1,300 K.W. output at 225 volts D.C. The four turbo-generators in the main or after generator room were of the same output, supplying the electrical power for the main propulsion auxiliaries, making a total of 9.1 Megawatts. Impressive, when considering 9,100 1-bar electric heaters, but not so, when related to the Summer, 1988 consumption of 70 M.W. for Birkenhead (within the old boundary, excluding Cammell Laird & Co.).

The generators had an overload capacity of 25% for 2 hours and 50% for five minutes.

These two generator rooms could be coupled up electrically so that load could be transferred from one to the other in an emergency.

The electricity supply was distributed throughout the ship via 52 auxiliary switchboards.

For emergency supply, the ship was fitted with two 8 cylinder oil engine generators which delivered 75 K.W. each at 225 volts D.C. These generators were used if starting up from cold and would have powered a small heating and pumping oil fuel unit in No.1 boiler room, so getting one of the Scotch boilers away under natural draught.

Staff Structure of Electrical Officers

The "Queen Mary" carried about 20 Electrical Officers, designated as follows, with respective responsibilities, as shown below:-

1 Chief Electrical Engineer	In complete charge	Day Work
1 Second "	Assisted Chief Electrical Engineer in allocation of work	Day Work
3 Third "	Hotel services switchboard	Watch-keeping duties
3 Fourth "	Main propulsion switchboard	" "
3 Fifth "	)Checking auxiliary switchboards (deck	" "
3 Sixth "	)watches) repairs to	" "
3 Seventh "	)passengers' requirements, lifts, cabin lights, repairs to	" "
	)kitchens, lights in	
	)machinery spaces, checking running motors.	
3 Eighth "	Cinema Operators	Day work

During 'standby' duty when entering or leaving port, the hotel services and main propulsion switchboard would be double-manned, also during fog 'standbys'. During all these 'standbys', an electrical engineer was in each engine room, noting the times of the telegraph instructions.

Differences between "Queen Mary" and "Queen Elizabeth"

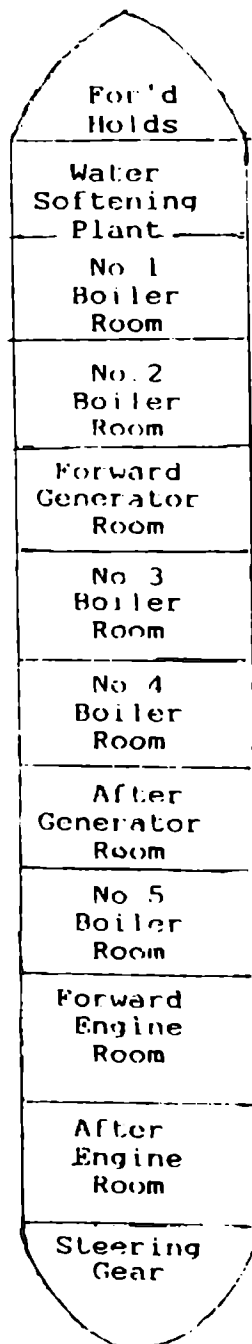
Prior to the building of the "Queen Elizabeth" suggestions requested from both engineer and electrical officers of the "Queen Mary" and some of these were incorporated in the design of the "Queen Elizabeth". The main differences were as follows:-

- 1) "Queen Elizabeth" had a longer, sleeker look than her elder sister with the absence of the forward well deck.
- 2) Removal of the ugly "scoop" type of boiler forced draught air trunking, air being drawn through slatted inlets in sides of funnel casings.
- 3) Only two funnels which, together with their interior staying, gave extra sports area for passengers.
- 4) Number of boilers reduced from 27 to 12. The elimination of boiler gas uptakes meant that approximately 200 more passengers could be carried and also more cargo in the forward holds.
- 5) The water softening plant was removed from forward to a central position and contained beneath the switchboard of the generator room - much more convenient for the water-softening engineers.
- 6) One large generating room replaced the two separate ones of the "Queen Mary", these two switchboards being placed athwartship handier for electrical officers.
- 7) Instead of 7 generators in two generating rooms, this one room contained 4 generators each in tandem, i.e. 8 generators. Each generator was of 1100 K.W. normal capacity. Therefore 2200 K.W. was the output for each unit. Total output 8,800 K.W. at 225 volt D.C., some 300 K.W. less was required with this design. ("Queen Mary" had the normal capacity of 9,100 K.W.)
- 8) Boiler Rooms 1 and 2, and 3 and 4, were adjacent to each other, which meant better communication was achieved between the engineers each pair, as the air-lock door was open between them. In the case of the "Queen Mary" they were separated by generator rooms.
- 9) Only 8 machinery compartments (although the generator room could be subdivided via the watertight door) against 11 in the "Queen Mary" - an improvement for supervising staff.
- 10) No.1 Boiler Room contained 2 boilers, No.2 4 boilers, No.3 4 boiler and No.4 Boiler Room 2 boilers. In the "Queen Mary" each main boiler room contained 6 boilers, but the engineer could only observe the water level in 4 boilers from one position, there being always the other two. (The boilers were arranged in two rows three boilers each). As the feed water regulators could not always be relied on, especially at the lower steaming rates, a member of the boiler room staff always had to be on the move inspecting the six.
- 11) An extra 12' or so in the length of the "Queen Elizabeth", so as to accommodate the third anchor in the bow.

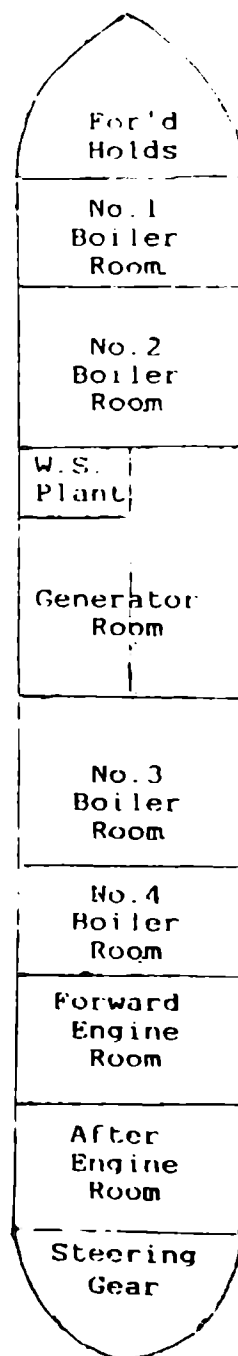
COMPARISON BETWEEN "QUEEN MARY" AND "QUEEN ELIZABETH"

ROUGH SKETCHES OF MACHINERY SPACES (NOT TO SCALE)

'QUEEN MARY'



"QUEEN ELIZABETH"



Differences in Routine and Performance between "Queen Mary" and "Queen Elizabeth"

There really was very little difference in routine between the two vessels. One was able to sign off articles on one vessel, prepare on leave and then sign on and, quite comfortably, perform duties on the other vessel - hopefully at a higher rank!

Although "Queen Mary" had 24 smaller boilers for its main propulsion, apart from the problem of attending to a group of 6 boiler water levels, each of its 7 burners per boiler consumed oil, at a smaller rate and so required smaller burner tips. At normal service speed each boiler room only required about 6" air gauge of forced draught fans for efficient combustion. With the 12 larger boilers of the "Queen Elizabeth" each burner consumed much more oil fuel; much larger tip orifices were required. Difficulty was experienced, at times to produce smoke-free conditions requiring about 9" air gauge, a probable reason for not forcing the ship to break any records, "Queen Mary" already holding the 'Blue Riband'. In later years steam atomisation of the oil fuel was introduced to these ships to good effect, of course, a further increase of total steam consumption incurred, perhaps, the use of evaporators. By this time the "United States" captured the 'Blue Riband' with a much increased speed of 35.59 knots.

The "Queen Elizabeth", like the "Queen Mary", had a full normal service power of 158,000 S.H.P. at 28.5 knots, by the selection of steam control valves to each high pressure turbine with 24 steam nozzles in use. Further power of 181,700 S.H.P. was possible by the selection of other steam control valves with 28 steam nozzles in use. Bypass valves were also incorporated in the H.P. turbine casings, so that she could bypass some of the earlier expansion stages and increase the pressure in the first intermediate steam turbine, thus increasing the maximum power available to a probable 200,000 S.H.P. These bypass valves were only opened in extreme emergency, or when it was desirable to obtain the maximum power from the machinery. 'Cunard' was contracted to run the "Queen Elizabeth" at her full normal service speed.

Both ships rolled badly and being 'stiff' ships could not be forced into heavy seas at their normal service speed without damage to the superstructure or crockery! The usual pattern was to drop the engine revolutions considerably from the normal 180 R.P.M. at first and then attempt to increase them whenever possible. One could forecast some of these revolution changes on the engine room platforms by the 'feeling of the ship' before the orders were telephoned down from the Bridge!

During my years of service on the Queens, leave was about 52 days per annum. It was customary to do about 4 voyages and then have 7 days voyage off so that, in theory, one would have 3 voyage leaves a year, totaling 42 days, taking the remainder at the annual winter dry dock period. During this time the Queen's hull would be cleaned and repainted and rudder, propellers and hull valves examined. Leave dates were never known in advance, only during the homeward voyage. Of course those living away from the home port of Southampton lost a day travelling home. So as not to lose more leave, they would invariably return on an overnight train, join the ship late morning and pick up after-noon day work. I particularly recall an Engineer who, unfortunately lived in Wick! On each leave notice appeared the words "SUBJECT TO THE EXIGENCIES OF THE SERVICE", which could mean anything!

Accommodation was quite good, particularly in the 'Queen Elizabeth' being situated on the verandah deck. The engineers' mess room was on the sports deck above, with an exercise area. In the case of the "Queen Mary", accommodation was originally built on the port side of the after end of 'E' deck intended for the more junior engineers, the seniors being accommodated in single cabins on the verandah deck. The cabins on 'E' deck soon proved unsatisfactory, owing to lack of adequate ventilation and other problems and alternative, mainly double berthed, accommodation was built aft of the senior engineers', also on the verandah deck. The mess room remained as designed on 'D' deck, a somewhat awkward arrangement.

In the case of both ships, the food was good, being of cabin class standard although, having to keep sea-watch duties, the need to relieve each other during the standby conditions, and the rather slow stewardship, meant that one could not always enjoy a full meal. The salary was good, although on some voyages, when encountering long periods of fog, one worked twice as many hours as expected!

As the years advanced, the conditions of service did not fulfill the hopes of some of the incoming junior officers, the early signs of more recent attitudes. For instance, some expected that if 'Cunard' required them to wear uniform or 'livery' as they chose to term it, then 'Cunard' must be expected to pay. Two uniforms were needed, also a mess jacket, in addition to white overalls. Facilities to wash these overalls were rather primitive. A bar of coarse soap was provided each voyage for the purpose, the overalls being washed and scrubbed by hand. Luckily there were plenty of drying spaces due to the hot conditions in the engine and boiler rooms!

In later years periodic meetings were held on board, chaired by one of the senior third engineers, who submitted these requests to a 'standing committee' organised by 'Cunard'. Typical suggestions, in addition to the above, were the provision of washing machines (complete with spares!) and that all engineers should have first-class rail tickets when proceeding on leave. Unfortunately the Queens, by then, were already being threatened by the jumbo jet and the number of passengers dwindling. 'Cunard' was not unreasonable, but progress was rather slow.

Social conditions on the Queens were somewhat difficult, little or no contact with the passengers being allowed, although attendances at the cinema were quite usual. Theoretically senior engineer officers would be expected to attend certain social functions, along with senior officers from other departments. In practice, however, this appeared to be discouraged, apart from any entertaining by the Chief and Staff Chief Engineers, who were on daywork hours. The operation of the sea-watch system, of course, worked against the concept of entertaining. The safety of the ship, as far as its machinery was concerned, was of paramount importance.



LIVERPOOL NAUTICAL RESEARCH SOCIETY

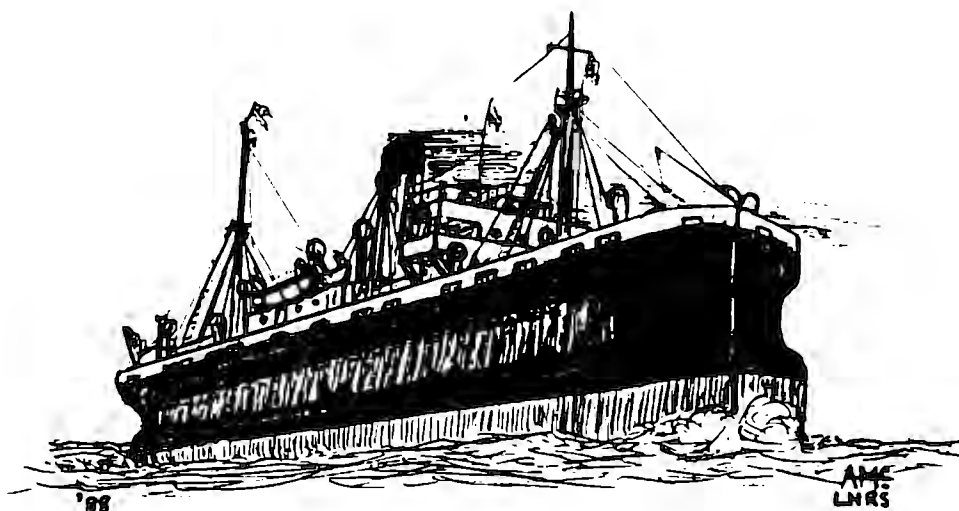
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BULLETIN



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Society Notes

The Xmas Social was a very enjoyable affair, not least due to the efforts of Diana Hirst and Betty Summerfield in providing excellent refreshments for all tastes. The members were entertained by a lively and amusing talk by our President, Canon 'Bob' Evans. However we were somewhat taken aback by the news that Bob is to retire in June and will be living in Penarth, South Wales. We wish him a long and happy retirement!

January Meeting:

Thirty members were present to hear Kate Lomas's highly entertaining and informative talk on 'Liverpool and Emigration'. Thank you Kate.

February Meeting:

A similar number attended when Gordon Read, Museum Archivist, explained the range of material available on emigration through Liverpool (and other UK ports) especially to Australia. We learned of the fates (and fortunes) of some of the emigrants who kept diaries of their experiences.

Diana Hirst also wishes to pass on the cordial greetings sent to all members by Charles Dawson of Sweden (see Editorial Notes below).

Editorial Notes

Following up Charles Dawson's article on Capt Brooks in the last issue, he has sent an item on his father, Benjamin Dawson, a Chief Steward in Blue Funnel, linking it neatly with the Cape Horner's Association.

TURRET DECK SHIPS

by Alan McClelland

British imperial expansion and the increase in international trade which was a concomitant factor in the latter part of the nineteenth and early twentieth centuries led to a ferment in ship design and engineering. Steam propulsion for cargo ships, demonstrated so successfully by Alfred Holt, came to assume greater and greater importance with the opening of the Suez Canal and the further development of the multiple expansion engine from the compound of the mid 1850's to the triple expansion first successfully employed in the liner ABERDEEN in 1881. Soon tramp steamers came to be fitted with triple expansion engines and the demise of the sailing ship in deep sea trades was inevitably hastened.

Economies of scale exercised obvious attractions for manufacturers, merchants and shipowners as markets for finished goods and consequent demands for raw materials increased. Iron and subsequently steel sailing and steam vessels were built to increasing dimensions. Problems were soon encountered in ensuring adequate longitudinal as well as transverse strength and at the same time providing cargo holds which were as free as possible from internal obstructions such as pillars supporting the decks above them. In Liverpool in 1896 Henry Bell Wortley and Alfred Holt introduced the girder system in which decks were supported by heavy girders and widely spaced pillars with side frames spaced further apart.

Meanwhile at Sunderland in 1892 William Doxford & Sons had completed the steamer SAGAMORE for the Liverpool owners William Johnston & Co. to the American MacDougall's cigar shaped "whaleback" design with its cheaply constructed, cambered hull. Arthur Haver, Doxford's Chief Draughtsman, took its basic principle, which included the provision of vertical steel turrets rising from the upper deck to form supports for superstructures and machinery casings, and arrived at the notion of creating a raised, continuous trunk. This trunk, called the turret deck, not only provided increased buoyancy but in turning back heavy beam seas from vulnerable hatches and other openings in erections on deck improved general seaworthiness. Below the turret deck the hull was nipped in before a curve led to a cambered out harbour deck running along each side. The hull below the harbour decks was of normal form for the times. Of particular importance to tramp ship owners with their large stake in bulk cargo trades was the fact that in single deck versions the trunk acted as a "feeder" so that as coal, grain or ores settled or shifted more would descend from it, to fill any voids.

Another advantage of the turret deck design was that it afforded a much larger deadweight capacity for a given registered tonnage than its immediate competitors. Further, in those days of cheap labour, port charges formed a considerable part of a ship's running costs and were based on net tonnage, so considerable savings could be gained. If the turret ship used the Suez Canal in the course of her voyaging yet another advantage lay in the way in which liability for dues was calculated - it was based on measurements which involved "breadth" at the upper deck.

Turret deckers were built in various configurations but mostly with engines amidships. Some, like the Ritson sisters LIME BRANCH and POPLAR BRANCH of 1901 and 1902, were described as "veritable forests of masts and derricks, having several sets of goal post masts and much cargo handling gear. The design aroused much controversy, some of which even reverberated into the "Slop Chest" columns of "Sea Breezes" in the 1950s. However, the completion of 182 turret decked steamers brought much prosperity to Doxfords. After several capsizings the turret's stability in certain conditions was called into question, but the builders were able to demonstrate that problems were unlikely to occur if a ship had her double

bottom tanks filled with water before loading certain homogeneous cargoes in the holds or reserve bunkers on the turret deck. Most turret deck ships were built as tramps with slow turns of speed but, having bought two from other owners for evaluation (the BULLIONIST and IMPERIALIST), the Clan Line had 28 built between 1898 and 1907, several of which were capable of 12 knots - a performance which compared well with those of cargo liners of other firms. Apart from William Johnston & Co. the other Liverpool shipowners who interested themselves in turret ships were Crow, Rudolf & Co. who took delivery of the BELLE OF ENGLAND and BELLE OF FRANCE in 1905, and Jos. Chadwick & Co. for whose Astral Shipping Co. the DRUMELDRIE and DRUMCONDRA were launched in 1906.

With the revision of the Tonnage and Load Line Regulations which started in 1907, other designs came to be favoured for dry cargo carriers, especially the shelterdecker, and after 1911 when the ORANGEMOOR was delivered to W. Runciman's Moor Line, no more turret decked steamers were built. That same year Ropners produced their LEVENPOOL, a long bridge decked steamer with large bunker capacity enabling her to be employed to advantage in the long distance bulk trades such as those in grain from Australia and nitrates from the west coast of South America. A steamer of her type with a bridge structure which covered at least 70% of her length was allowed a length:depth ratio of 14 rather than 12 and the design gave an increase in carrying capacity without an increase in registered tonnage. The LEVENPOOL, therefore, conferred some of the advantages which had been claimed for the turret design but eventually ships of her type were superseded in their turn by the shelterdecker.

Further reading, including details of all completions:-

Leonard Gray and John Wingwood, "The Turret Ships" (The World Ship Society)

In an afterthought, Alan writes:

It is interesting to recall that our member, the late Captain Chubb, discovered the turret steamer HERMANN FRITZEN, ex WERNER KUNTSMANN, ex EFSTATHIOS, ex CLEARWAY, ex NONSUCH lying abandoned in a backwater at Hamburg after the Second World War. She was salvaged, refitted and continued trading until 1958/59. Originally built for Bowles Brothers of London in 1906, there is a yarn that on her maiden voyage members of her crew vandalised part of her accommodation, which was said to be advanced for its day, and sold the fittings at the first port of call!

So far as Liverpool shipowners and the turret design are concerned I have been unable to identify whether it was a principal of Crow, Rudolf & Co. or Chadwicks who was the subject of this story in "Tynesider" by Leonard Johnstone (in essence a biography of the prominent tramp shipowner Sir Arthur Munro Sutherland)

Sir Arthur's brother Benjamin was an agent for Doxfords and reputedly a born salesman. One day he called on a Liverpool owner who was just about to leave his office. Mr Sutherland said he had hoped to interest him in the turret ship. "What, turrets" exclaimed the shipowner. "I wouldn't dream of owning one. They're much too ugly."

"Did you know Pierpoint Morgan?" rejoined Mr Sutherland

"The millionaire, you mean? What's he got to do with it?"

"He was the ugliest man I ever saw," replied a smiling Mr Sutherland.

The shipowner thereupon asked the agent into his office and after further technical discussion gave him an order for two of those "ugly" steamers!

"CLAN RANALD" (S.S.).

The Merchant Shipping Act, 1894.

REPORT of a Court of Inquiry held at Port Adelaide, South Australia, on the 3rd, 4th, 5th, 8th, and 9th days of February, 1909, into the circumstances attending the loss of the s.s. "CLAN RANALD," of Glasgow, off Troubridge Hill, Gulf St. Vincent, on 31st January, 1909.

An inquiry was held at the Marine Board Offices, Port Adelaide, on the 3rd, 4th, 5th, 8th, and 9th February, 1909, before Arthur Searcy, Esquire, J.P., President of the Marine Board of South Australia, and W. Berry, Esquire, Angus Campbell, Esquire, J.P., R. Fricker, Esquire, F. W. Vasey, Esquire, A. S. Neill, Esquire, J.P., and P. D. Haggart, Esquire, J.P., into the circumstances connected with the loss of the British steamship "Clan Ranald," in the Gulf St. Vincent, off Troubridge Hill, on the night of the 31st January, 1909.

The "Clan Ranald," registered at Glasgow, Official Number 111290, was a schooner rigged turret steamer, built of iron in 1900, 2,286 tons register, owned by Messrs. Cayzer, Irvine & Co., of Glasgow, and under the command of A. S. Gladstone, who held a certificate of competency as master, No. 010424, issued by the Board of Trade.

The first information of the casualty that reached the Board was a telegram, dated the 31st January, from the Harbour Master at Edithburgh, stating that a steamer was drifting towards shore about two miles out, abreast of Troubridge Hill, and shortly afterwards a further telegram was received from the same source that she had sunk and that most of the crew were drowned.

The "Clan Ranald," laden with grain and flour, left the harbour of Port Adelaide, bound for South Africa, via Albany, Western Australia, at 7 a.m. on the 31st of January, the weather being fine and clear, with a strong breeze from the S.S.E.

At the time of departure she had a list of four degrees to starboard, but the evidence shows that upon reaching the open sea the list increased to six degrees; this list, however, did not further increase as the vessel proceeded down the Gulf, and was no greater when abreast of Troubridge Island Light at 12.10 p.m. The course steered from the time of leaving the Semaphore Anchorage at 9.10 a.m. until noon was S. 50° W., true, when it was found that the ship had been set northward and westward, and the chief mate, who was in charge, hauled her out half a point, making the course S. 45° W., true. At 12.50 the course was again altered to S. 73° W. (by compass) to pass three miles to the southward of Althorpe Island.

At about 2 p.m., when on the last-mentioned course, the vessel suddenly heeled over to starboard, placing that side of the turret deck under water, and she never righted again.

The ship was still on her course, rockets were fired, and then the helm was starboarded with a view of counteracting the list, but it had no effect. About 5 p.m. the helm was put hard a port, the propeller still continuing to revolve slowly, hoping that it would put the ship towards shore. About 8 p.m. the anchor was let go with 90 fathoms chain outside, which brought the ship's head to wind and sea which was described as moderate; the anchor held, but the vessel still maintained her dangerous angle until about 9.30 p.m., when the tarpaulin covering of No. 5 hatch came off, and she began to settle down and increase the list, and about 10 p.m. she sank out of sight.

The vessel's ballast tanks, it is proved, were pumped dry before leaving Port Adelaide, and the well was sounded in the river shortly before reaching the anchorage, and the witnesses examined all affirm that there was no possibility of water getting into the vessel. She was practically a full ship, having approximately 6,600 tons of cargo on board, and in addition had 70 tons of coal on the turret deck—50 on the starboard side and 20 on the port side—and about 50 tons on each side of the fiddley deck. It was stated that the ship was well found, in good condition, and had a crew of 64 all told, 24 of whom reached the shore by such boats, &c., as were available, or by swimming. Forty were drowned, including the master, chief engineer, second mate, third engineer, fourth engineer, and chief steward.

There is no evidence as to the value of the vessel, or what amount, if any, she was insured for, or as to the value of the cargo or insurance thereon.

The Board having taken all evidence available, extending over five separate meetings, and after the fullest investigation, have failed to elicit any evidence which clearly accounts for the sudden careening of the "Clan Ranald" on Sunday, 31st January.

A theory is advanced by experts that no shifting of cargo occurred as a cause of the wreck, and, again, that entrance of water into the vessel, unknown to her officers, could alone account for her suddenly heeling over about 2 p.m. on the above date.

It has been thought, on the other hand, by some members of the Board, and this view is supported by the first and third officers and the second engineer (who survived), that although coal had been safely carried on her bridge and main decks on previous voyages—that when she left Port Adelaide on her final voyage the weight of coal on her deck, coupled with her six degrees of starboard list on starting, was apparently sufficient to endanger her stability. The Board are satisfied that the "Clan Ranald" was well found in every respect, and that her cargo was properly stowed. The Board have to regret that the master (who has not survived) had to leave the performance of his duty as master, through indisposition, to the chief officer.

The Board, after this full investigation, cannot find any valid ground for suggesting charges against any of the surviving officers, and as regards the deceased officers who were on watch, there exists no evidence to show that they neglected their duties.

The Board, having received a sworn statement from the master of the s.s. "Uganda" in explanation of his not having gone to the assistance of the vessel when passing up the Gulf St. Vincent, accept the same as satisfactory.

In all probability had the officers of the "Clan Ranald," at once after the disaster, fired the distress sound signals, assistance would have been forthcoming.

As reflecting on the discipline of the ship, it was elicited during the inquiry that two fires had occurred in the port coal bunker during the ship's stay in port and had not been reported to the authorities.

The Board are of opinion that an error of judgment was committed in anchoring the ship after heeling over at 2 o'clock.

The Board find that the surviving officers and men behaved well after the accident at 2 p.m.

The Board further desire to express their sympathy with the relatives of the lost officers and members of the crew.

The loss of all the officers on watch at the time of the disaster has necessarily rendered the task of the Board more difficult in trying to get at the actual cause of the accident.

JOHN DARBY,
Secretary to the Marine Board
of South Australia.

Marine Board Offices,
Port Adelaide,
12th March, 1909.

(Issued in London by the Board of Trade on the
4th day of May, 1909.)

BRITISH MARITIME LEAGUE CONFERENCE 1988
The Merchant Fleet and Britain's Economy
From a paper by The British Maritime Charitable Foundation

We have examined the economic effects of possessing a merchant fleet under five main headings and our conclusions are summarised below:-

1. Value added

UK Merchant shipping still provides over £1.0 billion per annum direct Value Added contribution to the UK economy, has a high value added per employee and makes a direct impact on the balance of payments. This is despite the fact that it no longer has equality of opportunity either with the rest of UK industry or with its overseas competitors. The industry is efficient; its profitability in recent years, mainly on the shipowning side, reflects a worldwide over-supply of ships due to subsidies given to shipyards at a time of massive shipbuilding overcapacity.

2. Importance of maritime skills to the wider economy

Direct employment by the industry at sea and ashore is now just under 50,000. Most of those we consulted thought it necessary to provide experienced senior officers and managers for many purposes over and above the needs of the seagoing merchant fleet. Their skills are needed in many sectors of industry and commerce which are related in one way or another to ships and the sea.

3. Threats, opportunities and influence

There is no immediate threat to shippers' freedoms from any hostile combination of foreign owners. Looking 10 years or more ahead, the threat still appears on the whole unlikely, but long-term forecasts in this area have proved unreliable and it would be safest for the UK and the European Community to maintain a presence in shipping as an insurance policy. A capability should also be retained to respond to new opportunities not directly related to normal shipping services: North Sea oil yesterday and today, 'Resources from the Sea' tomorrow? Possible loss of influence is also important. The UK is still well represented in the international bodies which control the world's seaborne trade, but a seat at the table once lost might not be easily regained.

4. Linkages with other industries

British Shipbuilding benefits enormously from a strong Merchant Shipping Industry, with consequences for employment in key areas of the country. The Marine Equipment Supply Industry would be severely damaged without British Shipping. The UK and Europe is in danger of being dependent on the Far East for its future marine technology and research.

The City has already suffered the decline of the UK fleet and disappearance of the rest would make little short-term difference. Its marine-based institutions, insurance, shipbroking, banking and finance, the courts and arbitration, etc, are strong but in the longer term the loss of the maritime skills base could see the City's high market share of international marine business eroded faster. London's role as the major maritime centre is already being eroded. There is a desire in the City to have a healthy home shipping industry again.

5. Effect on employment

The total number of jobs which would be at risk if the merchant fleet were to disappear entirely, taking account of the linkages to other industries outlined above, would be at least 100,000. Although the jobs would go, many of those affected would probably find other employment.

The Total Number of Jobs Affected

Seafarers	34,000
Shipping - Shore Based	16,000
Merchant Shipbuilding and Repair	12,000
Marine Technology	3,000
Marine Equipment	25,000
The City and Commercial Services	15,000

Total: 105,000

This suggests a 'multiplier' of 3:1, i.e. a total of three jobs at risk for every seafarer who becomes unemployed. The ratio is probably higher; we have not taken account of chandlery, victualling, medical services or supply of non-specialised equipment and there may be other omissions. It is known that in the port of Hamburg, an industry too dissimilar to be directly relevant, the multiplier is 6:1.

The task of the BMCF is to report what we have found, in this instance, to reflect as closely as possible the views expressed by a wide cross-section of people in or closely affected by shipping. We have listed above some principal effects on the UK economy which would follow from the loss of the merchant fleet, leaving others as policy implications that might be derived from them.

THE WRECK MUSEUM - CUXHAVEN

Opened in 1980, the Wreck Museum, the only one of its kind in Europe, is a unique collection of over 1500 objects formerly in private hands. They cover the last two centuries and come from the German Bight and the approaches to Emden, Bremen and Hamburg. It is estimated that up to 4000 wrecks have been lost in this area since the Middle Ages. The aim of the Museum is to preserve any relics, display them as living history and try to conserve and restore new items brought to light. Although only a part of the collection can be used at any one time it helps visitors to form a picture of the salvage work in local waters and to learn something of the many marine dramas and tragedies of the past.

Wreck Search

The German Hydrographic Institute at Hamburg has specially equipped vessels which are in daily service patrolling the coastal waterways. Known wrecks are checked for any alteration in position and, occasionally, previously unknown wrecks are discovered and have to be removed. Since December 1945 when the Institute began its work, thousands of wrecks have been discovered in the North Sea and the Baltic and their position recorded and dangers to shipping removed.

Salvage Work

The difficulties presented by tidal range and silting make it impossible to salvage more than fragments of the sunken vessels but a considerable amount of material has been recovered from cargoes including copper, brass, lead, tin and other metals. The TWYFORD, a specially designed salvage vessel built in Aberdeen in 1952, was in service throughout the world but mainly in the North and Irish Seas. As the value of non-ferrous metals began to fall during the 1970s, the work became unprofitable and the vessel was laid up in Cuxhaven in 1978 and broken up some years later. On display is her observation chamber which could be lowered to a depth of 300 metres and the operator enabled to operate the grabs.

On Display

Many exhibits are of particular interest to British visitors. The ss VANDALIA (built at Glasgow as the INVERCLYDE) collided with a floating dry-dock near Hamburg in October 1912. The rudder blade and many smaller items are displayed. Submarine (2-man Seehund type). Scuttled in Baltic 1945.

In 1883, whilst lying at anchor off Glückstadt with a cargo of saltpetre from Chile, the sailing vessel PAPOSO was run down and sunk by the British steamer CRAMLINGTON. The PAPOSO was built by James Laing at Sunderland and sailed for twenty years as the BOTANIST with T & J Harrison of Liverpool before being sold to H Bölsch of Hamburg. The wreck was discovered in 1967 during work to deepen the Elbe and the objects on display such as the sextant, nameplate, weights etc form part of the Baltes collection which was the basis of this Museum.

In 1891 the British steamer KAFFRARIA was rammed by the tug BORKUM and beached in a sinking condition near Otterndorf where many families still possess relics from the wreck. The anchor and remains of the mast are on display.

The Hamburg-American liner CIMBRIA, built by Caird & Co., Greenock collided with the British Freighter SULTAN on 29th January, 1883, twenty miles north of Borkum Island. She sank with the loss of 434 lives. The wreck was discovered by chance in 1974 and objects from the wreck are on display.

On 7th February 1893 the British steamship KESTREL sank after being in collision with the British steamship REGALIA near Brunsbüttel. Many animals from the cargo of sheep and pit-ponies perished and fishermen from Finkenwerder who plundered the wreck under cover of darkness were caught and heavily fined! Medicine bottles, cabin furniture and other artefacts are exhibited.

In March 1916 HM Submarine E-24, Lt Commander Napier, was laying mines in the German Bight when she touched a presumably British mine and sank with the loss of all 34 of her crew. The wreck was raised in 1973 in mistake for a German U-boat which lay nearby. The remains of the crew were interred at the British War Cemetery at Soltau, Luneburg Heath and the wreck was broken up over a period of years at Cuxhaven.

Remnants on display include port and starboard propellers and also some gooseberries once part of the submarine's provisions.

Six German freighters, carrying iron-ore from Sweden, were sunk in one day in the Baltic by HM Submarine E-19. Swedish divers were filmed as they worked on the wrecks a few years ago and this video film, as well as relics from the ships, is shown to visitors.

Relics from the German light cruiser WIESBADEN can be seen. She was sunk at the Battle of Jutland and the sole survivor, Leading Stoker Zenne, has left a vivid description of the scene on board during the shelling. Amongst those who lost their lives was the poet and author Gorch Fock.

There are four figureheads on display. One came from the Swedish sailing vessel NYERT which sank in the Elbe in 1921 but the other three came from British ships and have not, as yet, been identified.

The Wreck Museum is continuing to enlarge its display of new objects and relics found in the neighbouring waters and visitors from this side of the North Sea would find an enthusiastic welcome and much to interest them.

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From "The Shipping World" January 1889

Selected by A J Blackler

MERSEY AND DISTRICT

Curious Dock Accident

An action was brought before the Liverpool County Court by Mr H G Barry, shipowner of Lymington, against the Alexandra Towing Company of Liverpool, to recover the sum of £9.16s to replace a boat belonging to ss LYMINGTON, which had been destroyed through collision with the defendant's tugboat ALEXANDRA in the Alexandra Dock. It appeared that on the day of the accident the LYMINGTON was lying alongside the quay with her small boat fastened to the stern. Two tugs - one of them belonging to the defendants - were towing the ss LAKE HURON through the same dock, but whilst under her own steam, she ran into the stern of the LYMINGTON and did some damage which, however, was repaired at the LAKE HURON's expense. On perceiving the approach of this vessel, the LYMINGTON's men removed her small boat from the stern to the starboard side of the ship, and whilst in that position it was smashed to pieces by the tug ALEXANDRA. The defence was that the accident occurred through the fault of the LAKE HURON, whose owners were therefore liable, and that the plaintiff was guilty of contributory negligence in putting the boat on the starboard side when the proper place was under the bows. After a number of witnesses had been examined his Honour said he thought the plaintiff had acted injudiciously in not moving the boat to a safe place. Instead of this, he put it in a position of greater danger than it was before, and thus the accident occurred. Judgement was given for the defendants.

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A J (Tony) Blackler has unearthed a couple of paragraphs re Emigrants on Cattle Ships (or was it Cattle on Emigrant Ships?) - see Summer Edition!

NOTES :

The Ramsey Coastguard station IOM was closed down at 0900 gmt on Tuesday 17th January 1989 in compliance with Government cuts. Members of the staff have been fortunate to secure jobs at other stations in the UK. Ramsey had a very effective VHF range for small vessels in the Irish Sea area, with the additional advantage of a VHF direction finder on the summit of Snaefell. The Liverpool Coastguard station at Hall Road, Crosby may be hard pressed to cover the whole Irish Sea area, especially in waters to the west of Isle of Man and the southern Scottish coastline. With ever increasing numbers of small pleasure craft being fitted with VHF radio telephones, reliant on the Coastguard service, this closure seems to this writer, an extremely retrograde step.

LADY OF MANN is to have a large refit at Birkenhead this spring costing two and a half million pounds. The interior is to be redesigned to accommodate 35 more cars and there will be extensive carpetting in lounges and more varied furnishing. The work will be carried out by Messrs Wright and Beyer.

Heysham Harbour is to have a second linkspan costing £4m. The present one is being used by three companies - Isle of Man Steam Packet Sealink, Merchant Ferries and Belfast Freight Ferries. Also a new dock is being started to accommodate vessels of 9,000 d.w.t. and with a dredged depth of 5.1 metres.

NAME CHANGES.

INISHARK ex DARELL
INISHEER ex LIA VENTURA ex ELISA VON BARSSSEL
INISHOWEN ex RAIMUNDO A

The coaster GLADONIA was on a passage from Avonmouth to New Ross in January when she went ashore at Tramore, C. Waterford. She had certainly missed her way into the wide mouth of the River Suir. Efforts were made to unload some of the 800 tons of grain on the beach, and tug FAIRPLAY IX failed at first to refloat her but with the assistance of tug SEA ALERT she came off, and was anchored off Dunmore East.

YARRAWONGA, an 85,000 tons deadweight bulker, was on passage from Sweden to Canada in ballast in January, when she suffered damage through heavy weather west of the Irish coast. The Irish Navy, concerned about the threat of the vessel's fuel oil, should she break up, sent the frigate EITHNE. Yarrowonga's crew was taken off by helicopter, and after a long struggle the Dutch tug TYPHOON towed the casualty to Rotterdam.

The Swan Hunter yard on the Tyne is preparing to launch the frigate HMS MARLBOROUGH designed for anti-submarine operations. It is said that she will be a very quiet ship, machinery noise will be cut to a minimum. She is also being designed to produce a weak response to radar, and to give the minimum superstructure "bounce" to radar beams.

NRP.

Exclusive marine clubs

One of the most exclusive clubs in the world must be the Cape Horn Club, A.I.C.H. to use its French initials, since it was founded in St. Malo at the end of the 1930s. To be a member you must have rounded the Horn in a merchant sailing ship without auxiliary engines. Today there are probably some 1500 members still alive and kicking; most of them are in their 70s or 80s but there are of course some older. There is an interesting order of rank in the club, with designations after various seabirds. You are an albatross if you have rounded the Horn as captain, a mollyhawk if you took your skipper's ticket later; a Cape-dove if you are one of the others, and that even includes being a passenger.

The club's emblem appropriately contains the head of an albatross. In its mouth, the bird has an "iron". This implement, encased in fat, was used by seamen when they were trying to catch seabirds alive. It was a rule never to kill an albatross, for this bird was considered to shelter the soul of a seaman.

One day of course the club will cease to exist, and I should imagine that by that time neither will there be any left of the old-timers who held the two million mile record at sea. This thought struck me when I was writing the story about Captain Samuel Brooks (Bulletin, Winter 1988) who in December 1894 won the £10 prize offered by the weekly paper TIT-BITS for his record number of miles travelled at sea: over two million.

Since my own father Benjamin Dawson had first gone to sea as Captain Brooks' servant, and after that spent most of the rest of his working life with the Blue Funnel Line, it seemed that he too might have amassed such an enormous mileage. He always had the idea of writing up an account of his life, but never managed it. He did however leave copious notes and these I have been able to draw upon to show that he too travelled over two million miles at sea. I give below the synopsis of his life which I have at last been able to put together. I think it helps to echo the sentiments of my last paragraph in the Captain Brooks article.

Even if there are no other two million milers now alive, perhaps there are others who have followed after them and recorded the lives of these indefatigables?



BENJAMIN DAWSON

born Todmorden, Yorks. 12.04.1874

died Liverpool 18.03.1952

Voyage dates	Vessel	Line rank, mthly. wages	Captain	Route & comments
1- 18	ARIZONA 3. 4.91 - 6.12.92	GUION C'pns Servant, £2	Samuel Brooks	L'pool-Q'town-N.York-L'pl.
19	PATROCLUS (I) 4. 1.93 - 30. 5.93	NSM 'OCEAN' 4th Stwd	- Pulford	<i>Ben joined Holts 16.12.92</i> B'head-Tangiers-Algiers- Tunis-Jeddah-Java-A'dam-L'pl
20	s.y. ARGO (II) 19. 6.93 - 9. 8.93	BLUE FUNNEL 4th Stwd	H. Johnson	L'pl-Oban- 18(?) Scan. ports- Farø Is.-P.Erin-L'pl; (<i>cruise</i> <i>in Alfd. Holt's private s.y.</i>)
21	PRIAM (II) 26. 8.93 - 25. 2.94	BLUE FUNNEL 4th Stwd, £3	(F?) J.S. Thompson	L'pool-Suez-Penang-S'pore-H.K.- S'hai-Y'hama-Kobe-Moji-S'pore- Sumatra-Colombo-Suez-New York- (<i>towed s.s. FOREST HOLME in to</i> <i>Halifax in a snowstorm</i>) - L'pl
22	PALAMED (I) 10. 8.94 - 21-12.94	BLUE FUNNEL 3rd Stwd	(O?) A.P. Williams	B'hd-T'giers-A'giers-Tunis- Pt. Said-Jeddah-C'bo-Penang- S'pore-HK-Amoy-F'chow-Kobe- Y'hama-HK-London (<i>Ben left</i> <i>BF in hope of fast promotion</i>)
23	LOUISIANIAN 23. 1.95 - 26. 3.95	W.I./PACIFIC Std & Ptryman	W.S. Wallace	L'pl-B'does-Tr'dad-La Guayra- Puerto Cabello-C'çao-S. Marta- Sabanilla-Cartagena-Colon-L'pl (<i>Ben left W.I.P. disenchanted</i>)
24	TELAMON (I) 8. 5.95 - 16. 9.95	BLUE FUNNEL 4th Stwd	(T. Purdy	(<i>Ben back with Blue Funnel!</i>) L'pl-China-Japan-London
25	25. 9.95 - 28. 9.95	3rd Stwd	)	L'pool-Manchester-L'pool
26	ANCHISES (I) 16.11.95 - 28.12.95	BLUE FUNNEL 2nd Stwd, £4 +£1 bonus	W. Gardner	L'pl-Singapore (<i>to be sold</i>)
27	AGAMEMNON (I) dates not known	BLUE FUNNEL Extra 2nd Stwd	Steeves	S'pore-C'bo-Malabar Coast- Madras-Jeddah-L'pl
28	DEUCALION (I) 1. 4.96 - 14. 5.96	NSM 'OCEAN' 2nd Stwd	J. Edmondson	L'pl-T'giers-A'giers-Tunis- Singapore (<i>ship transferred</i> <i>to Blue Funnel subsidiary,</i> <i>East Indian Ocean SS Co</i>)
29	PALAMED (I) dates not known	BLUE FUNNEL Extra 2nd Stwd	?	Singapore-Liverpool
30	30. 7.96 - 5.11.96	2nd Stwd	A.P. Williams	B'head-Kobe (<i>to be sold</i>). <i>With</i> <i>a month to spare in Kobe, Ben</i> <i>joined a judo club.</i>

31	TEUCER (II)	NSM "OCEAAN"	W.H. Adair	Kobe-London
	6.11.96 - 5. 1.97	Extra 2nd Stwd		
	LAERTES (I)	NSM "OCEAAN"	(N?)	
32	23. 2.97 - 12. 6.97	2nd Stwd	G.W.D. Keay	L'pl-A'dam-A'giers-F.Said
			(Capt. Keay sent home sick from F.Said.	
			Capt. R. Williams took over)	
				Suez-Penang-S'pore-Batavia-
				Semarang-Surabaya-Probolinggo-
				Macassar-Tjila Jap-Padang-
				Pula Wai-C'bo-Perim-A'dam
33	10. 7.97 - 11.11.97	2nd Stwd	R. Williams	Liverpool-Java-Amsterdam
34	27.11.97 - 22. 3.98)			
35	16. 4.98 - 31. 8.98	2nd Stwd	A.D. Baker	ditto
	(Ben promoted to Chief Steward			
	in Singapore, May 1898)			
36	24. 9.98 - 9. 1.99	)	A.D. Baker	ditto
37	17. 1.99 - 20. 5.99	)		Amsterdam-Java-Amsterdam
38	1. 6.99 - 21. 9.99	)		ditto
39	27. 9.99 - 26. 1.1900	)		ditto
	PRIAM (II)	NSM "OCEAAN"		
40	16. 2.1900 - 17. 6.1900	)	J.W. Walker	ditto
41	6. 7.1900 - 11.10.1900	)		ditto
	PYRRHUS (I)	BLUE FUNNEL		
42	16. 2.01 - 28. 6.01		ditto	B'head-Straits-China-Japan
				(N. Island, Otaruni)-L'pl
43	27. 7.01 - 2.12.01		ditto	ditto - London
44	21.12.01 - 10. 5.02		ditto	ditto
	ANTENOR (II)	BLUE FUNNEL		
45	21. 6.02 - 20.10.02		M.H.F. Jackson	B'hd-China-Japan-London
			("alphabetical")	(with troops from Hong Kong)
46	15.11.02 - 12. 3.03		L.M. Bevan	B'hd-China-Japan-London
	ULYSSES (III)	BLUE FUNNEL		
47	2. 4.03 - 1. 9.03	)	L.M. Bevan	Glasgow-Adelaide non-stop
				(49 days)-M'bourne-Sydney
				Brisbane-Las Palmas-L'pl
48	25. 9.03 - 22. 2.04	)		B'hd-China-Japan-L'pl
49	25. 3.04 - 2. 8.04	)		ditto - London
50	25. 8.04 - 26.12.04	)		B'hd-China-Japan-London
51	21. 1.05 - 14. 6.05	)		B'hd-China-Java-Glasgow
52	30. 6.05 - 19.11.05	)		ditto-Belfast

53	OOPACK (II)	PLUE FUNNEL	J. Barber	B'hd-China-Java-L'pi
	9.12.05 - 17-	4-06		
	PING SUEY (I)	BLUE FUNNEL		
54	12. 5.06 - 12. 9.06	)	E. Warrall	B'hd-Japan-London
55	27.10.06 - 4. 3.07	)		ditto
56	29. 3.07 - 9. 8.07	)		B'hd-Japan-L'pl
57	8. 9.07 - 12. 1.08	)		ditto
58	15. 2.08 - 2. 8.08	)		B'hd-China-Java-Newport
	PERSEUS (I)	BLUE FUNNEL		(new ship)
59	12. 9.08 - 26-12.08	)	E. Warrall	B'fast(yard)-Japan-London
60	6. 2.09 - 30. 5.09	)		B'hd-China-Japan-London
61	26. 6.09 - 17.10.09	)		ditto
62	13.11.09 - 10. 3.10	)		ditto
63	9. 4.10 - 6. 8.10	)		ditto
64	4. 9.10 - 22.12.10	)		ditto
65	28. 1.11 - 14. 5.11	)	D. Robinson	B'head-Japan-London
66	10. 6.11 - 29. 9.11	)		ditto
67	4.11.11 - 18. 2.12	)		ditto
68	9. 3.12 - 17. 8.12	)		B'head-Japan-Swansea
69	10. 8.12 - 5.12.12	)		B'head-Japan-London
70	11. 1.13 - 27. 4.13	)		ditto
71	31. 5.13 - 13. 9.13	)		ditto
72	LYCAON (I)	CHINA MUTUAL	J. Watt Walker	(new ship)
	1.11.13 - 15. 2.14			B'head-China-Japan-London
	ANTILOCHUS (I)	BLUE FUNNEL	("goal-poster")	
73	28. 2.14 - 29. 8.14	)	George A. Flynn	B'hd-Far E.-Puget Sd.-London
74	10.10.14 - 26. 4.15	)		do.-L'pool
75	22. 5.15 - 21. 9.15	)	-Fought off U-boat in Medi 10.9.15	do.-London
76	23.10.15 - 1. 4.16	)		B'head-Far East-Glasgow
77	21. 4.16 - 2.10.16	)		B'head-Far East-Liverpool
78	10.11.16 - 4. 7.17		George K. Houghton	Far East-C'bo-Bombay- Dar es Salam-Durban-Capetown- Freetown-Plymouth
79	5. 7.17 - 23. 3.18		ditto	Plymouth-N.York-Panama-H'lulu Japan-Vladivostok-(with rlyw. eqpmnt. for Russia) HK- Vancouver-Frisco-Kingston- Newport, Virg.-Belfast
80	ELPENOR (I)	CHINA MUTUAL	H.S. Andrews	Birkenhead-New York;
	31. 5.18 - 12. 6.18		Extra Ch. Std.	(train to Vancouver)
	TYNDAREUS	CHINA MUTUAL	G. Stout	
81	6. 7.18 - 11.11.18			Seattle-Y'hama-Keelung-London

82	TYNDAREUS	CHINA MUTUAL	E.B. Francis	London-NY-Colon-Puget Sd - H'lulu-S'hai-Manila-Puget Sd Seattle
	3.12.18 - 16.11.20			
83	BALTIC	WHITE STAR	not known	New York-Liverpool <i>Christmas crossing (as passenger, with family, returning from Vancouver)</i>
84	EURYADES (I)	OCEAN SS Co	George K. Houghton	
	ex INDRA Royden's INDIA LINE			
	9. 3.21 - 21. 3.21			Birkenhead-Glasgow return
85	BELLEROPHON (II)	BLUE FUNNEL	A.J. Bibbington	ditto
	23. 3.21 - 6. 4.21	£28		
86	AENEAS (I)	BLUE FUNNEL	J.W. Collister	ditto
	22. 9.21 - 4-10.21			
87	<i>Acting Superintendent Steward in Amsterdam</i> 10.21 - 12.22			
88	TEIRESIAS (I)	BLUE FUNNEL	J. Riepenhausen	
	9.12.22 - 19. 3.23	£25/10/-		B'hd-China-London
89	28. 4.23 - 20. 8.23		J.G. Reynard	ditto-Amsterdam
	HECUBA (II)	BLUE FUNNEL	T.C. Wilkinson	
90	(ex NDL BRANDENBURG)			
	2.11.23 - 31.12.23	)	T.C. Wilkinson	S'hampton-Bombay ret. (trooping)
)		
91	10. 1.24 - 11. 3.24	)		ditto-Falmouth
92	PATROCLUS (III)	BLUE FUNNEL	G. Clark	London-Farø Is- Glasgow (trials?) (new ship)
	2. 7 24 - 6. 7.24	Extra CS		
	HECTOR (IV)	BLUE FUNNEL	W.A. Dawson	(new ship)
93	11.10.24 - 23. 1.25)	)	(no relation)	B'head-N. China-London
94	28. 2.25 - 8. 6.25))		
95	14. 8.25 - 25.11.25))		
96	21. 1.26 - 6. 4.26))		
97	ASCANIUS (II)	BLUE FUNNEL	J. Agnew	L'pl-Australia-B'head
	4. 6.26 - 7.10.26			
98	AENEAS (I)	BLUE FUNNEL	W.K. Wallace	B'hd-N. China-London
	6.11.26 - 19. 2.27			Dec. '26, rescued 99 crew of s.s. AYRSHIRE, on fire in the Indian Ocean
	ANCHISES (III)	BLUE FUNNEL		
99	26. 3.27 - 2. 8.27	£23	R. Woodgett	L'pl-Australia-B'head
100	1.10.27 - 20. 2 28		(son of CUTTY SARK's captn. R.W. Sr.)	ditto

ANTENOR (III)		BLUE FUNNEL		
101	1. 4.29 - 11.10.29	£23	J.G.Reynard	Birkenhead-China-London
102	22. 6.29 - 11.10.29		R.Woodgett	ditto

*Approximately two years ashore. Holt's Head Office Dining Room
(India Buildings, Liverpool).*

ANCHISES (III)		BLUE FUNNEL		J.K.Dunlop	
103	12. 9.31 - 22. 1.32	£23-10%			L'pool-Australia-B'head
104	13. 2.32 - 28. 5.32				B'head-Far East-London
105	13.10.32 - 30. 1.33				L'pool-Australia-B'head
106	9. 3.32 - 9. 7.33				B'head-Australia-return
107	21. 9.33 - 19. 1.34				ditto
108	15. 2.34 - 19. 6.34				ditto
109	8. 9.34 - 7. 1.35				ditto
110 2. 2.35 - 1. 6.35			C.A.Lakin		L'pool-Australia-B'head
111 27. 7.35 - 19.11.35					B'hd-Austr-Tasmania-ret.
112 14.12.35 - 11. 4.36					B'hd-Australia-return
113 9. 5.36 - 5. 9.36		£26	Evan Jones		ditto
114 31.10.36 - 20. 2.37					
115 13. 3.37 - 10. 7.37					
116 18. 9.37 - 12. 1.38					
117 12. 2.38 - 7. 6.38		£27			
118 4. 7.38 - 13. 7.38		18s.8d per day			Glasgow-Liverpool
119 16. 7.38 - 8.11.38		£27	D.W.James		B'head-Australia-return

Ben Dawson continued his service with Holts ashore for another eleven years as clerk, assistant commissionaire and fire-watcher, finally retiring at the age of 75 on December 20th 1949, after nearly 57 years with the firm. He liked to point out that he went to sea before that too, with another line (Guion).

He had already been presented by the firm with a new house when he retired from the sea in 1938, but for him the crowning recognition was the presentation of a complimentary voyage for him and his wife, to make his grand total of 120 voyages:

NESTOR (III)		BLUE FUNNEL		
120	23.12.49 - June 1950 (as passenger)		E.W.Powell	Liverpool-Australia-return

At the Reunion Dinner which was held on board NESTOR on 1st July 1950, after she had docked in Liverpool on her final voyage, Ben Dawson was the proud claimant to be the oldest surviving officer present of all 177 retired masters, chief engineers and chief stewards. Captain H.S.Andrews, with whom Ben had sailed in 1918 to New York in ELPENOR (I), was the only other officer who had started with the company in the 19th century. When Ben became chief steward at the age of 24, he was the youngest of that rank in the firm; when he left the sea, he was the oldest, and when he finally retired, he must have been the sole survivor of those men who had been to sea with Mr.Alfred Holt himself.