

## "TAR BOATS"

by Michael Pryce

It was 1916 when Shell began to separate bitumen from fueloil at its small plant at Shellhaven, and during WW1, up to a dozen different grades of bitumen were developed to meet growing demand as roads were increasingly metalled. Up until then, bitumen was poured into open compounds to form lakes, allowed to solidify overnight, and then broken up by gangs of men with sledgehammers, and sent out in solid form. Further bitumen plants were opened at Stanlow and Ardrossan in the 1920's, and at Fawley in 1927. Bitumen, also known as asphalt, macadam, tarmac or mastic, depending on its grade and use, became more important as road transport developed, and initially was transported coastally in converted tankers. Later, ocean trades in bitumen with specially built ships commenced.

Bitumen tankers, or "the tar boats" as they were often called by seafarers, were specially designed to keep the cargo unusually hot, and this requirement was met by carrying cargo in the centre tanks only, so that heat loss to the sea around the ship was reduced to a minimum by having empty wing tanks. A steam heating installation of large capacity was fitted, with cargo lines shrouded with steam jackets, and duplex reciprocating pumps used to discharge it. On the larger ships, tank steam heating coils were divided into top, middle and bottom sections, so that failure of a coil would not leave a tank with no heating. The heating coils were not designed to raise the temperature of a bitumen cargo from atmospheric temperature to a pumpable temperature in a reasonable time, but to maintain the cargo in a pumpable state by making up for heat losses in transit. Maintenance and testing of the steam plant and heating coils often made for a heavy workload for the engineers on the ships, as no leaks could be allowed. Water entering hot bitumen would instantly convert into steam, mix with the bitumen, and create heavy frothing, causing the black froth to overflow onto the deck, or be ingressed into the gas-venting systems up the mast. Several horrifying stories of black froth bubbling out of the vents at the top of the foremast, then blowing over all the bridge front come to mind! Most early bitumen tankers tended to be steamships, so that the steam boilers could be used both for propulsion and cargo heating. Steam supplies could be a problem in some circumstances, and bitumen tankers trading up the east coast of the U.S.A. in winter in bad weather could often be reduced to a crawl, with the "Chief" shouting "You can have steam for the cargo or the engines, but NOT both!"

By 1938, 175,000 tons of bitumen per year was used in U.K. for "industrial" purposes (covering waterpipes, coating felts for proofing walls, flat roofs and basement floors, and electrical equipment) and 450,000 tons for road surfacing.

After WW2, large amounts were shipped from the Curacao refinery, and the oceangoing bitumen tankers mainly traded from there, whilst smaller ships traded around the U.K., French and Mediterranean coasts.

The normal loading temperature for bitumen is between 110 C and 150 C, although ships might sometimes be required to load at 160 C, but normal carriage should not go above this for thermal stress reasons on the ship. During 1983 on PALUDINA, tests were carried out in conjunction with Lloyds Register to load bitumen at up to 188 C. "Hot stuff" indeed, and bitumen tankers normally have wooden-soled shoes to allow the crewmen to walk on the hot decks. Tankers with midships accommodation could be recognised as bitumen carriers by having numerous small holes in the sides of the centrecastle to allow heat to escape. In later years, when Shell operated various types of tankers, it was possible to be on a L.N.G. carrier one trip, with the cargo at -160 C, and to be on a bitumen tanker next, with the cargo at +160 C! The bitumen tankers loading at Curacao were often alongside for a few days before loading started, giving the bitumen tanks a fueloil flush. Depending on the next grades of bitumen to be loaded, a few hundred tonnes of fueloil would be loaded into a tank, heated up, then pumped into the next tank, etc., thereby removing the majority of the bitumen remaining from the previous cargo. It was then pumped ashore. The ships were never allowed to bunker before doing this, and of course, when the fueloil bunkers were supplied, it mainly consisted of the stuff that they had previously been pumping around the tanks, by now suitably "fortified" with bitumen. Once

loading started in Curacao, it soon made the ship very hot and stuffy, especially when the tanks under the midships accommodation were loaded, after which the air-conditioning didn't stand a chance! Similar conditions existed on the ships discharging at Lagos. The major trade in the 1960's was to east coast U.S.A. ports, when the hot area under the accommodation became a much-sought refuge, especially in the middle of the night in winter when the giant billboard lights on large commercial skyscrapers visible across the harbour, alternately flashing up the time and then the temperature, started to show below-freezing figures.

A decline in the number of bitumen tankers took place from the mid-1970's, as refineries often added small bitumen plants to supply local needs, and carriage of bitumen feedstock could be undertaken by conventional tankers with conventional centrifugal pumps. Shell sold the Curacao refinery in 1985, thus removing the previous centre of its bitumen trade. Newer small bitumen carriers with modern tank insulation now heat the cargo by circulating heated oil instead of steam through the heating coils.

### SHELL BITUMEN TANKERS

**SHELLPHALTE** Completed 11/1928 by Cant. Nav. Triestino, Monfalcone as LEONOR for £65,626.

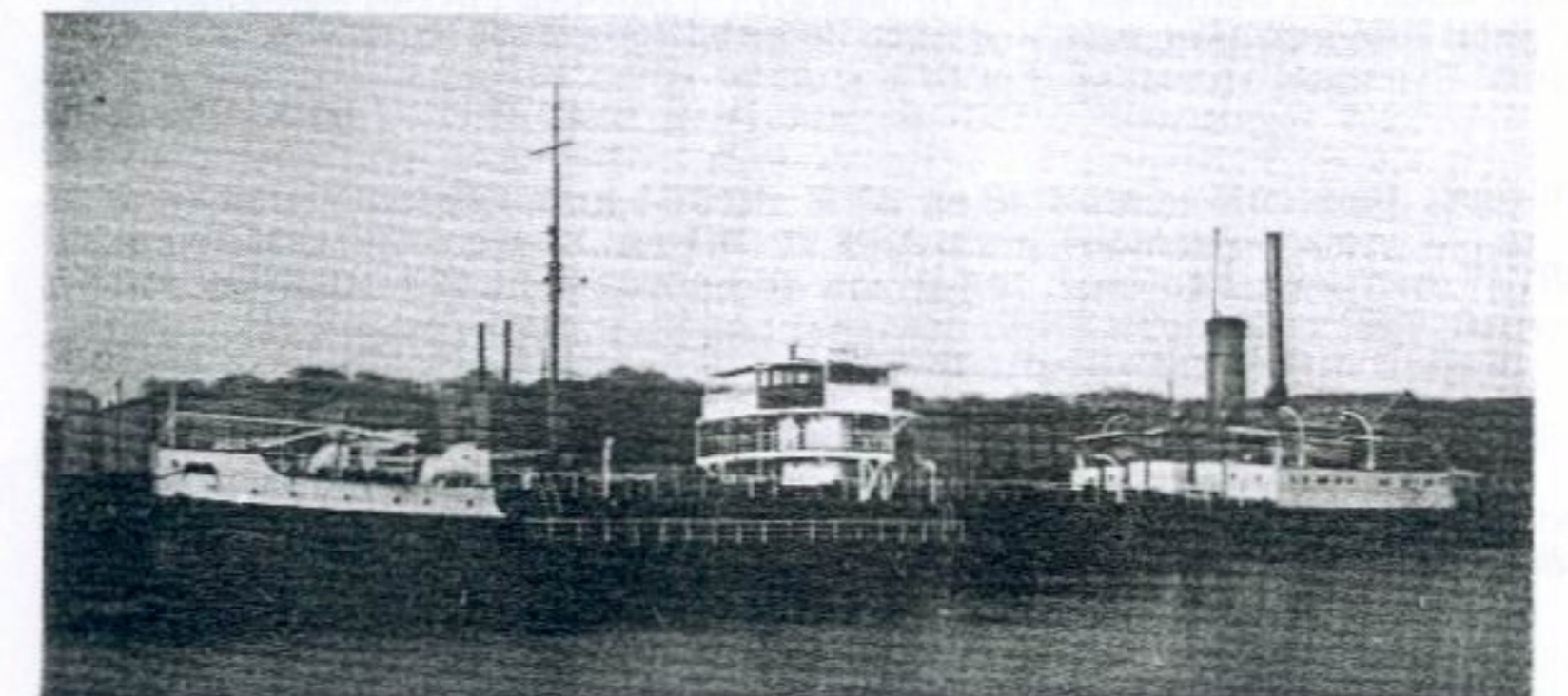
2582g 1167n 3068d 316' (o.a.) 49.6'. Triple-expansion, twin-screw, 9 knots. Dutch flag when built, and one of a class built for the Lake Maracaibo trade. To Shell France in 1931, renamed SHELLPHALTE, and converted to carry bitumen. To Soc. Anon. Francaise des Petroles Shell in 1932, renamed



SPRAMEX at Heysham 29/4/57

D. I. Harmsworth

SPRAMEX, registered at Algiers. Carried bitumen in 5 centre tanks. Voyage examples from old "Lloyds Indices":— Pauillac to Rouen 10/1932, Preston to Grangemouth 9/1933. Survey Rouen 1936. Survey La Rochelle 1939. Survey Bordeaux 1946. Manchester to Rouen 1/1946. Survey La Rochelle 1949. Bona to Port de Bouc 5/1951. Heysham 1952. At Petit Couronne 11/1953. Sold and renamed BASSENS in 1958. Sold and renamed ELORO (Italian) in 1965. Arrived La Spezia 10/3/83 for demolition.

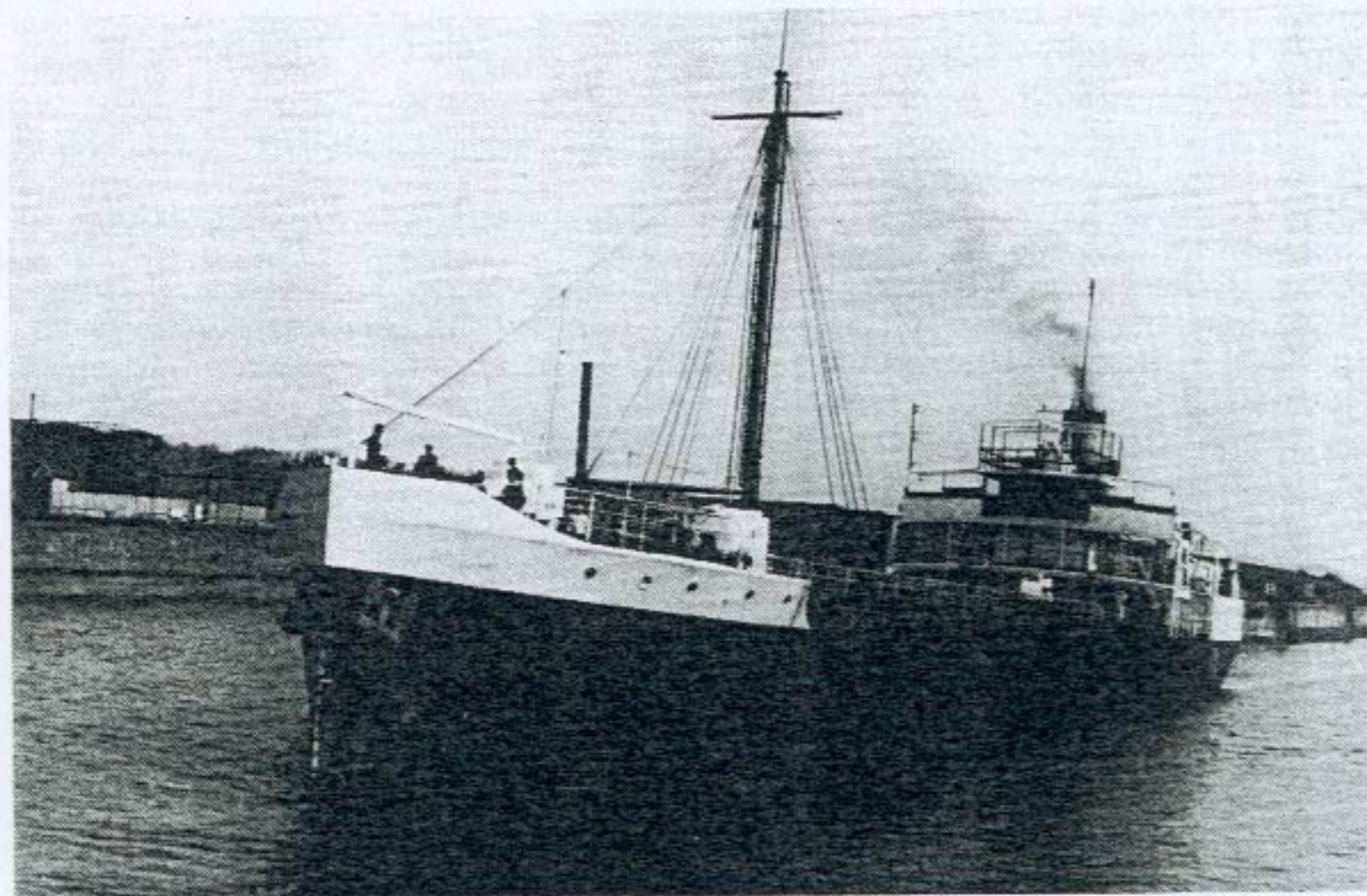


MEXPHALTE

John Clarkson



**MEXPHALTE** Completed 11/1928 by Sir J. Laing & Sons Ltd., Sunderland, as PAQUITA for £65,151 for N.V. Curacaosche Scheeps. Maat., for Lake Maracaibo trade. 2578g 954n 3089d 302.5' (b.p.) 49.6'. Triple expansion, twin-screw, 10 knots. To Soc. Anon. Francaise des Petroles Shell in 1931, renamed MEXPHALTE, registered at Algiers. Carried petroleum in bulk, or asphalt only and limited to centre tanks. Voyage examples:— Southampton to Gibraltar 10/1932. Pasajes to Gironde 9/1933, survey Birkenhead 1937. Survey Rouen 1938. Survey Havre 5/1940. In 1941-42 L.R. as "v/l last reported in port in enemy occupation". At Kiel 9/1944 burnt out and sunk. Salvaged, repaired, re-entered service as BENNO (German). Sold and renamed ALIZE (French) in 1960. Sold and renamed ARKADIA (Greek) in 1971.



**SHELSPRA**

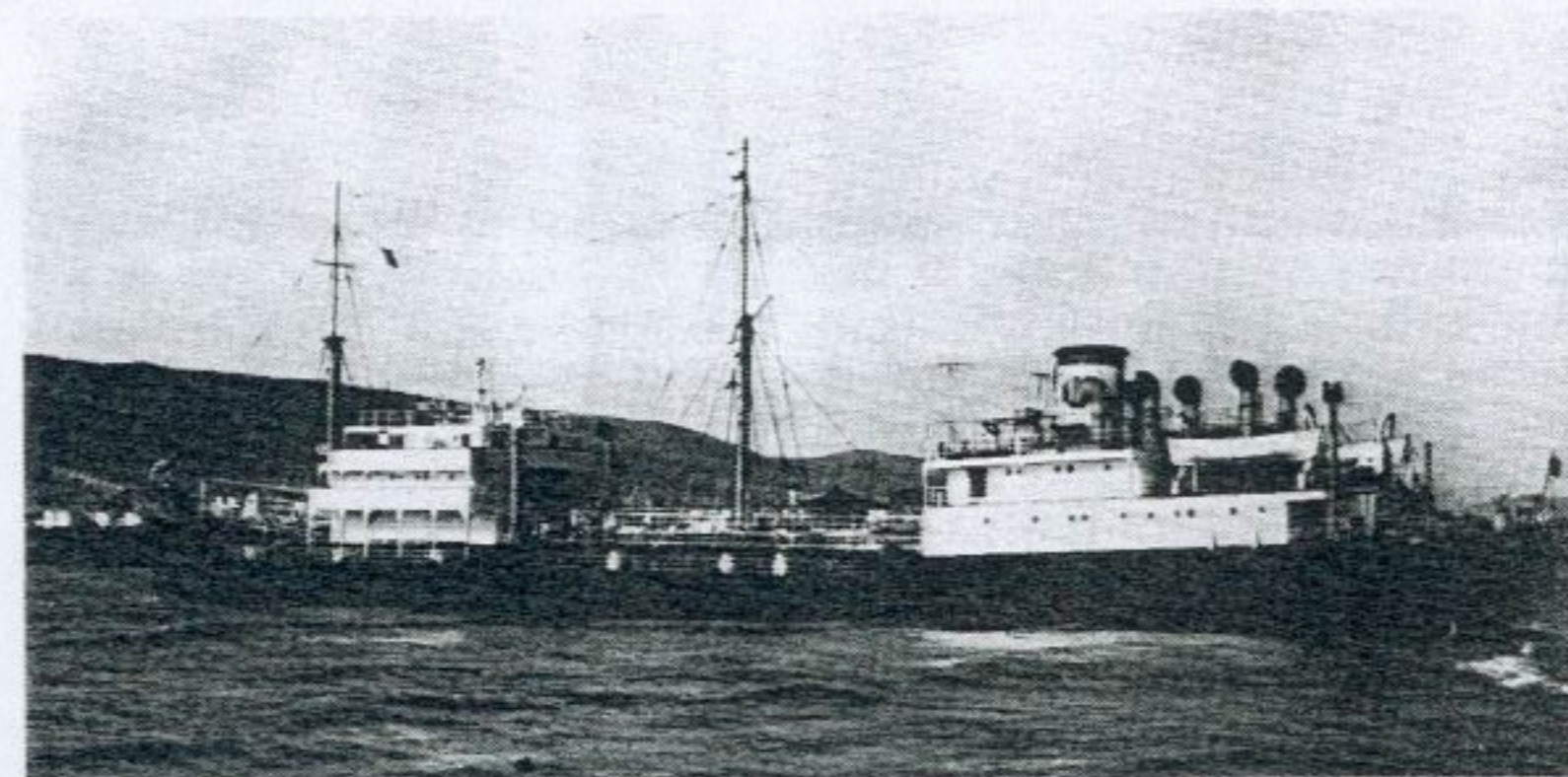
*John Clarkson*

**SHELSPRA** Completed 6/1923 by Rotterdam Drydock Co., Rotterdam, as MARIQUITA for £54,013 for Curacaosche Scheeps. Maat. To Shell Venezuela in 1929, same name. 1951g 813n 1983d 279.9' (b.p.) 46.5' 13.9'. Triple-expansion, twin screw, 9½ knots. To Soc. Anon. Francaise des Petroles Shell in 1934, renamed SHELSPRA, registered at Algiers. Voyage examples:— Survey Rouen 3/1935. Survey Havre 5/1939. Survey Havre 4/1940. At Marseilles 1/1946. Shellhaven to La Pallice 1/1947. Survey Bordeaux 10/1948. Port de Bouc to Bona 5/1951. Sold 1955 to French breakers.

**POMELLA** Completed 3/1937 by Cammell Laird & Co., Birkenhead, for £160,000. 6799g 3945n 9700d 457.3' (o.a.) 57.5' 26'6¼" draft. Motorship, 12 knots. Anglo-Saxon Petroleum Co., London. Voyage example:— Survey Birkenhead 9/1940. Sunk by German M.T.B. torpedo 9/7/42 in 50.19 N, 03.00 W (off Tor Bay).

**MEXPHALTE** Originally launched 1943 as 1927g tanker by builders at St. Nazaire for Shell France, but scuttled incomplete in River Seine. Refloated in 1949 and taken to yard at Quevilly (Ch. de Normandie) in 10/1948 for completion. Entered service 4/1950. 1969g 928n 2441d 262.1' 36'10". Motorship. Voyage examples:— Algiers to Pauillac 5/1951, Port de Bouc to Saffi 11/1953, Bona to Port du Bouc 12/1955. Sold and renamed PETRO BASSENS (French) in 1966. Sold and renamed BITUMAR (Italian) 1966. Sold to breakers at La Spezia 1/1985 (Photo as BITUMAR on page 229 April 1985 M.N.).

**PATELLA** Completed 12/1946 by Harland & Wolff Ltd., Belfast, for £450,000. 8277g 412n 12043d 483' (o.a.) 59.5' 27'6¼" draft. Motorship, 12 knots. Anglo-Saxon Petroleum Co., London. Was basically similar to post-war "N" class tankers, but with wider centre tanks. Voyage examples:— New York to Curacao 5/1951, New York to Curacao 11/1953, San Juan (PR) to Port Everglades 12/1955, Jacksonville to Curacao 1/1958, Hampton Roads to Curacao 1960, Curacao to Lyttelton 1962, Saffi to Curacao 11/1963, Baltimore to Curacao 1967. Arrived at Bruges 11/9/67 for demolition (sold for £57,000). **PALUDINA** Completed 1/1949 by Swan Hunter & Wigham Richardson Ltd., Wallsend, for £430,000. 6414g 2926n 9390d 446.2' (o.a.) 54.4' 25'6¼" draft. Motorship, 12 knots. Anglo-Saxon Petroleum Co., London. Was basically similar to post-war "L" class tankers, but with wider centre tanks. Voyage examples:— Tampa to Curacao 5/1951, Jacksonville to Curacao 11/1953, Punta Cardon to Rotterdam 12/1955. Laid up in River Blackwater 13/1/60, but back in service by 1/1962, New York to Curacao 1962. Arrived Bruges 21/2/64 for demolition.



**FRAGUM**

*John Clarkson*

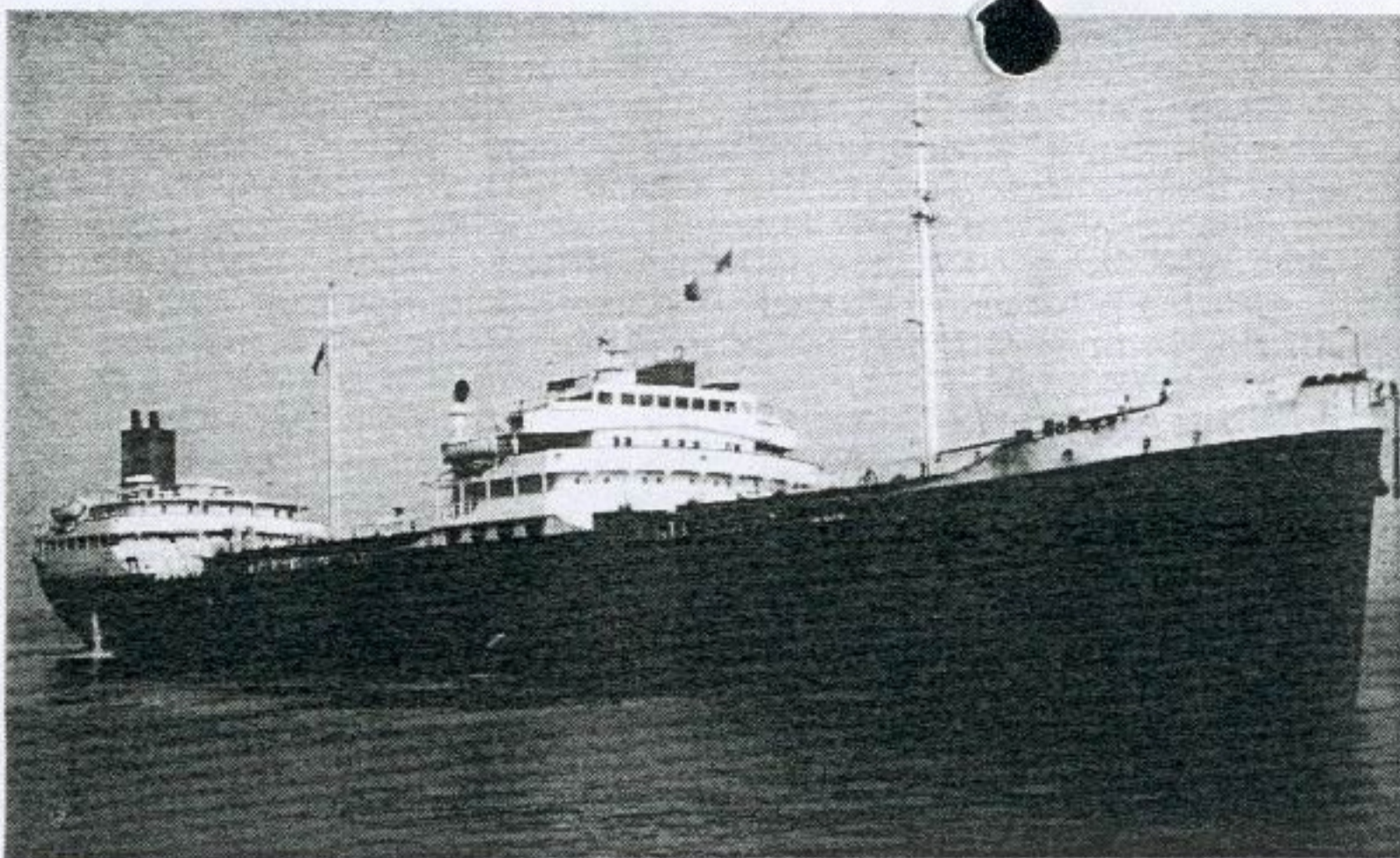
**FRAGUM** Completed 4/1952 by Smiths Dock Co. Ltd., Middlesbrough, for £333,771. 2926g 1280n 3416d 331'11" (o.a.) 46'4" 17'0¼" draft. Triple-expansion, 11½ knots. Anglo-Saxon Petroleum Co., London. Mainly used on W. Coast of U.K. coastal trade between Mersey ports, Heysham and Ardrossan. To Shell Oil New Zealand and renamed MAUREA in 1963, for N.Z. coastal trade. Sold and renamed DAYU (Liberian) in 1971. Arrived Hong Kong 3/1976 for demolition by Fuji Marden & Co., Ltd.

**SHELLPHALTE** Completed 7/1952 by John Crown & Sons Ltd., Sunderland, for £273,000. 2929g 1279n 3432d 331'11" (o.a.) 46'1" 17'0¾" draft. Triple-expansion, 11½ knots. Soc. Maritime Shell, registered at Le Havre. Sistership to FRAGUM. Voyage example:— Algiers to Port de Bouc 11/1953. Sold and renamed PORT BLANC (French) in 1963. Sold and renamed RAGNO (Italian) in 1972. Sold and renamed PETRO ASPHALT 1 (Greek) in 1973. Renamed PETROLA XII in 1974. Renamed PETROLA 12 in 1976. Sold to Greek breakers and lying at Eleusis Yard 28/9/82. (Photo as PETROLA 12 at breakers on page 173 March 1984 M.N.).

**SHELLMAC** Completed 1954 by Ch. & At. de St. Nazaire (Penhoet), Quevilly. 1207g 409n 1161d 230'4" 36'11" 12'7¾" draft. Triple-expansion. Soc. Maritime Shell, registered at Le Havre. Sold and renamed PETRO LORMONT (French) 1967. Sold and renamed GERS (French) in 1969. Arrived Aviles 6/10/70 for demolition.

**PLAGIOLA** Completed 11/1954 by Deutsche Werft A.G., Hamburg. 11,007g 6311n 15,780d 525'4" 66'8" 28'10". Steam turbines, 14 knots. N.V. Curacaosche Scheep. Mij., but within 6 months of completion, transferred to Shell Petroleum Co., London. Voyage examples:— Boston to Curacao 1958,





**PLAGIOLA**

*Alex Duncan*

Curacao to Auckland and Wellington 7/1959, Curacao to Fredericia 1960, Curacao to New York 1962, Curacao to Portland (Me) 1967, Curacao to Tobruk, Benghazi, Tripoli (Lib), Alicante and Setubal 1969, Curacao to Bridgeport 1973. Arrived Valencia 30/3/74 for demolition.

**PLATIDIA** Completed 3/1955 by Deutsche Werft A.G., Hamburg. Sistership to PLAGIOLA.

11,007g 6311n 15,780d 525'4" 66'7" 28'10" draft. Steam turbines, 14 knots. N.V. Curacaosche Scheeps. Mij., but within 6 months of completion, transferred to Shell Petroleum Co., London. Voyage examples:— Boston to Aruba 1958, Jacksonville to Curacao 1960, Puerto Miranda to Rotterdam 1962, Curacao to Alicante and Setubal 1967, Curacao to San Juan 1969, Curacao to Takoradi and Lagos 1973. Arrived Castellon, Spain, 11/3/74 for demolition.

**PALLIUM** Completed 4/1959 by Deutsche Werft A.G., Hamburg.

13,007g 7784n 19,570d 560'0" 71'11" 30'0<sup>1</sup>/<sub>4</sub>" draft. Steam turbines, 14 knots. Shell Tankers Ltd., London. Similar to "A" class tankers, but with wider centre tank. Voyage examples:— New York to Curacao 1960, Curacao to Port Everglades 1962, Curacao to Auckland, Wellington, Lyttelton and Bluff 12/1963, New York to Curacao 1967, Curacao to Savannah, Morehead City, New York and Freeport 1969, Alicante to Curacao 1969, Curacao to Larvik and Dublin 1973, Teesport to Curacao 1977, Curacao to Apapa/Lagos 1978, Curacao to Dakar 4/1981, Curacao to Jeddah 8/1981, Mauritius to Bahrain 1/1982. Arrived Gadani Beach 19/4/82 for demolition.



**PARTULA** at Rotterdam 15/4/80

*C. B. Mulholland*

**PARTULA** Completed 6/1959 by Deutsche Werft A.G., Hamburg. Sistership to PALLIUM. 13,007g 7784n 19,539d 560'0" 71'11" 29'9<sup>1</sup>/<sub>2</sub>" draft. Steam turbines, 14 knots. Shell Tankers Ltd., London. Voyage examples:— Baltimore to Fall River 1960, Curacao to Port Harcourt and Lagos 1962, Curacao to Fredericia and Copenhagen 1967, Curacao to Providence and Savannah 1973, Port Harcourt to Curacao 1977, Abidjan to Cardiff (for drydock) 1979, Gibraltar to Ravenna, arrived 10/3/81, where sold to Italians and renamed LUSSIN.

**TROLLSKJELL** Completed 1964 by Drammen Slip & V.S., Drammen.

836g 1040d Motorship. A/S Shell Batane, Norway. Sank off Oksoy 9/5/69 after collision with AMETA (1200/64) on voyage Larvik to Tromso. (Photo page 221 July 1969 M.N.).

**PALUDINA** Completed as URSHALIM 4/1968 by Verolme Dock, Rozenburg. 15,385g 11,523 25,136d 574'8" 74'11" 33'2" draft. Motorship, 15 knots. Owned by Grosvenor Shipping Co. (Mollers, H.Kong), time chartered by Shell International Marine Ltd. Purchased by Shell Tankers (UK) Ltd. and renamed PALUDINA in 1973.

Voyage examples:— New York to Curacao 1974, Teesport to Boston 1977, Adidjan to Curacao 1978, Piraeus to Curacao 1979. Damaged in collision with bulk carrier CHRISTINA C (16,381/78) at entrance to Lagos 9/1/81 (Admiralty Court later found CHRISTINA C to be 100% to blame). Syros to Curacao 1981, Morehead City to Curacao 8/1981, Brest to Adidjan 1/1982, Shuaiba to Singapore 7/1982. (An unusual discharge in 1983 was a cargo of 22,050 tonnes of bitumen from Curacao via Suez to Shuaiba, where it was slowly pumped out over the period of one month into 556 road tankers). Port Everglades to Curacao 1984. Sold at Malta and renamed NOBILITY (Cypriot) in 1986.



**POMELLA**

*G. Monteny*

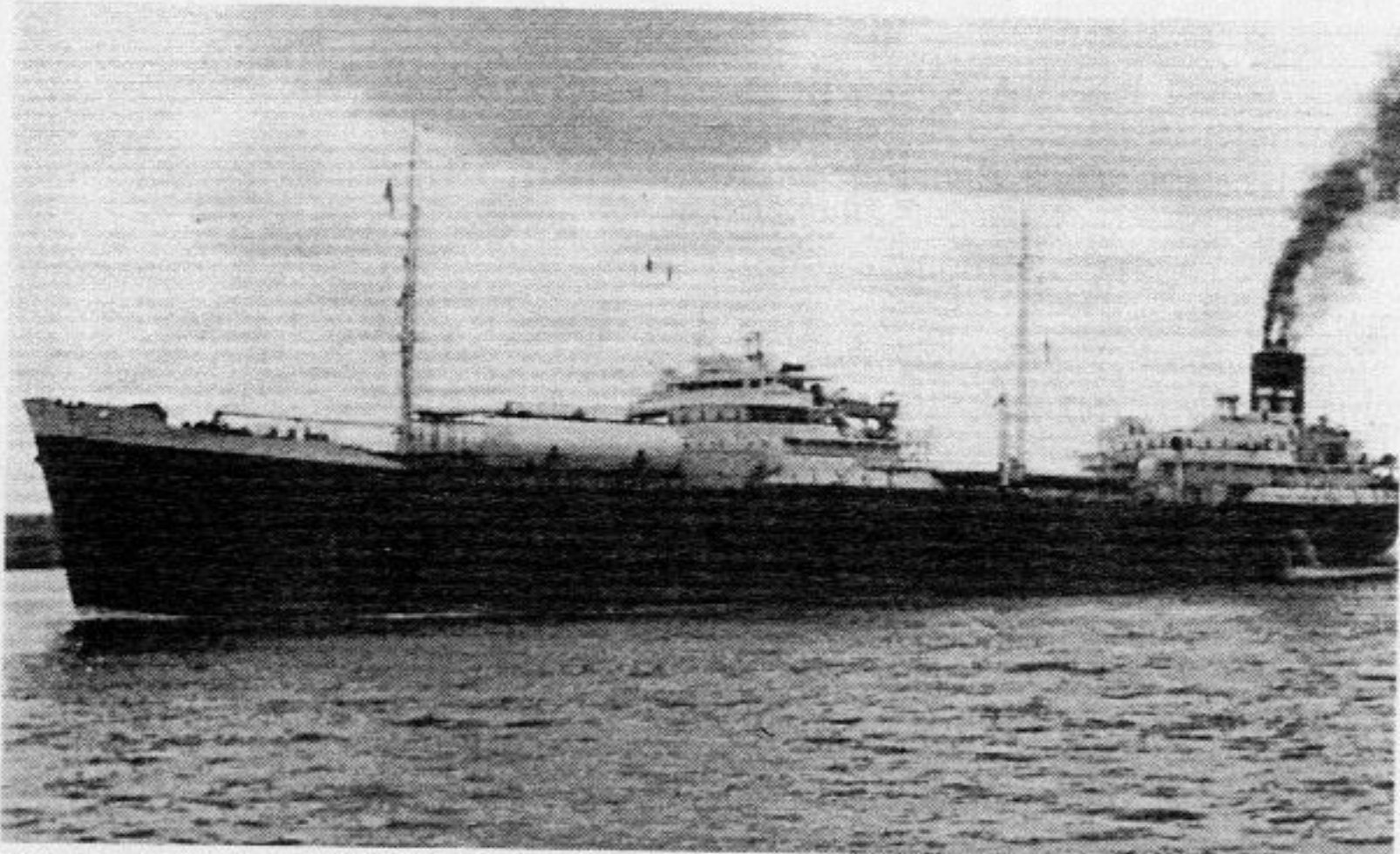
**POMELLA** Completed as HORAMA 7/1967 by Verolme Dock, Rosenburg. Sistership to PALUDINA.

15,815g 10,697n 23,170d 574'8" 74'11" 33'2" draft. Motorship, 15 knots. Owned by Eastmead Shipping Co. (Mollers, H.Kong). Originally building as NORDVARD for Klosters Red., Norway. Time chartered by Shell International Marine Ltd. Purchased by Shell Tankers (UK) Ltd., and renamed POMELLA in 1974. Voyage examples:— Curacao to New Haven 1974, Curacao to Setubal 1977, Curacao to Apapa and Lagos 1978, Curacao to Buenos Aires 4/1981, Fos to Piraeus 8/1981, Bukom to Bahrain 1983, Portsmouth (NH) to New Orleans 1984, Curacao to Norfolk, Va, 9/1986.

In addition to the full-time bitumen tankers listed above, other tankers were part-time bitumen tankers, or partial conversions for bitumen carriage. LABIOSA, 6473/48, LEMBULUS, 6503/48 and LIPARUS, 6473/48, were reported to have carried bitumen at times.



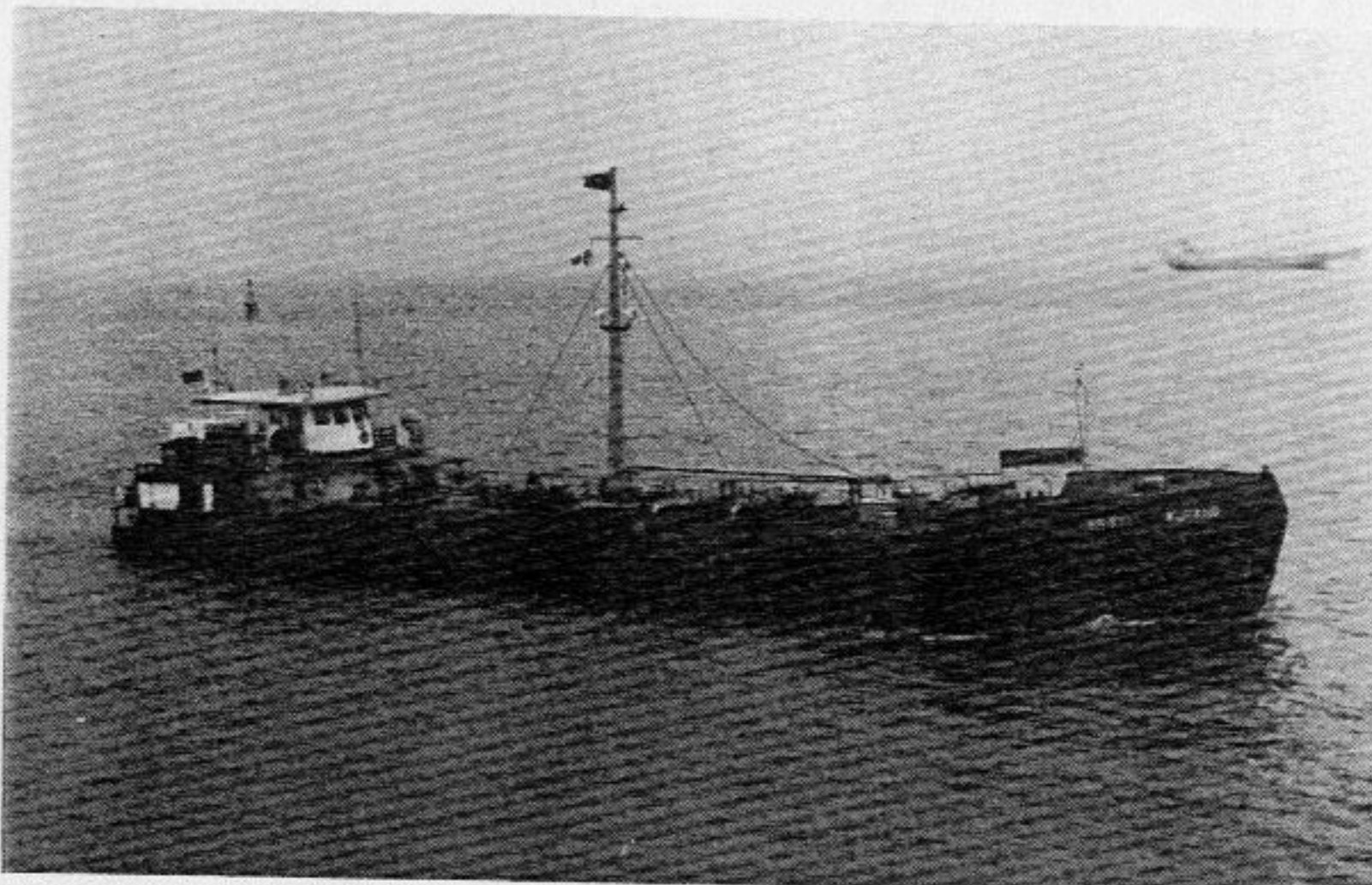
**MURAI** Completed 1925 by Taikoo Dock & Eng. Co., Hong Kong, as TAI PING, SHAN. 223g 215n 120' 21' 10". Non-propelled oil barge, converted to carry bitumen in early 1960's for Shell Co. of Singapore. Towed between Pulau Bukom and Woodlands, Singapore, by small tug. Demolition commenced 26/7/79 at Singapore.



**HYRIA** in Saigon River in 1974

*M. H. Pryce*

**HYRIA** Completed 10/1954 by Lithgows Ltd., Port Glasgow. 12,132g 6980n 17,916d 555'8" 69'5" 30'8 1/4" draft. Built as standard "H" class tanker. Shell Bermuda (Overseas) Ltd., London. In 1962, no. 11 centre tank covered for bitumen at Yokohama drydock. Also fitted with two 100 ton L.P.G. tanks on foredeck. Traded thereafter between Singapore and Saigon, or Singapore and Hong Kong. No. 7 centre tank also converted to carry bitumen in 1968. Hull damaged amidships by Vietcong mine at Nha Be, Saigon, 8/4/74. After peak tank damaged by Vietcong mine at Nha Be 3/1/75. (Mine damage repaired on arrival back at Singapore each time). Arrived Kaohsiung 2/8/75 for demolition.



**KUPANG** at Bukom 22/10/82

*M. H. Pryce*

**SHELL CHARAIMA** Completed as GLEBULA 12/1954 by Bremer Vulkan, Vegesack. 10,475g 5000n 15,100d 502'3" 67'2" 27'3/4" Triple-expansion, twin-screw, 12 knots. Shell Co. of Venezuela, built for Lake Maracaibo trade. Some tanks converted to carry bitumen. To Maravan 1976, renamed CHARAIMA. Arrived Dalmeir 23/12/78 as RAIMA for demolition.

**KUPANG** Completed 1965 by Hong Kong & Whampoa Dock Co. Ltd., Hong Kong. 465g 377n 775d 149'7" 34'8" 9'8". Motorship. Shell Co. of Singapore. Originally a bunkering tanker at Singapore, but converted in 1979 to carry bitumen between Pulau Bukom and Woodlands, Singapore.

## UP SPIRITS

by P. J. August

There cannot be many ex-sailors who do not feel nostalgic about the ending of the rum ration for serving British sailors, nicknamed Black Tot Day, 31st July 1970, brought to an end the three hundred and thirty year old tradition that was introduced in the West Indies by Admiral Vernon (old Grogam to his sailors).

The cool brown liquid, with its unique flavour, and effective warm glow, from 1866, had a prescribed strength of 95.5% proof, and was a mixture of rum from the West Indies, such exotic places as Demarara, Trinidad, with a small proportion from Barbados, Martinique and elsewhere.

It was mid-day, or thereabouts, that "up spirits" was piped and the Rum Bosun doled out the daily rum ration to the crew.

One of the Rum Bosun's perks was to place a couple of his fingers in the measure when dishing out the rum and this meant, of course, that there was always a good residue of rum for him.

During the war when it was difficult to obtain rum from the West Indies, it was brought from South Africa and Australia although this change in the blending did not go down at all well with the more mature members of the ship's company who yearned for the real taste of "Pussers" rum. Of course there is still a splicing of the mainbrace on special occasions and then a special rum ration was issued.

A sailor's life was extremely hard when the rum ration was first introduced and it is said that it was to compensate for the tough life at sea, the hard tack and ship's biscuit, that they had to endure.

The rum ration had many critics who felt that the concoction of two parts water and one part rum, which was said to equal four gin and tonics daily, was a precursor to alcoholism in later life, so many previous attempts had been made to abolish the tradition.

Another criticism was that the increasing complexity of modern machinery in the modern navy demands a clear head and steady hands and the rum ration was declared "an anachronism of modern times".

It was Admiral of the Fleet, Sir Michael Le Fanu, the First Sea Lord, who had the dubious honour of dispensing with the Royal Navy's rum ration and the saving of £300,000 per annum that it had cost.

At first there were fears of mutiny on the lower decks but these were placated by an agreement with the Treasury that a payment of £2.7 million be paid into a trust fund to provide amenities for the lower deck and the Sailors Fund was formed.

The "Tot fund" caters for the well-being of sailors and their families by providing sports gear, swimming pools, and disco equipment for them.

But "Pussers" rum has been saved for posterity by an American, Charles Tobias, who negotiated with the Admiralty for the right to produce the spirit commercially, from which the Sailors Fund would gain.

Nowadays, for every case of the rum that is sold £2 in royalties is paid to the "Tot Fund" and in March 1988 £16,300 was handed over.

Ships companies today can buy up to three cans of beer a day in lieu of their rum ration but I am sure that every sailor will agree that this is a poor substitute for the rich smoothness of Nelson's Blood!