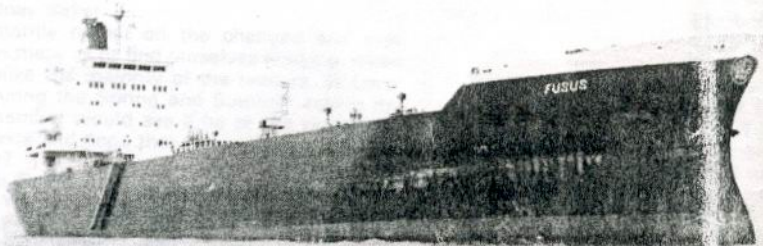


SHELL PRODUCT TANKERS — "F" and "E" Class

by M. H. Pryce

In the early 1950's, Shell embarked on a large newbuilding programme of 18,000 dwt. general-purpose tankers, and the resulting "H", "K" and "A" class ships, numbering nearly ninety, were to be seen in most ports of the world during the next two decades. By the early 1970's, it was deemed necessary to consider replacements for the older ships, which were shortly to reach the economic end of their lives. In the years since their building, increased oil consumption had led to an increase in the size of product tankers, and a standard size of approximately 32,000 dwt. was decided on.

The first group of nine tankers were built by Haugesund Mekaniske Verksted, Haugesund, Norway, as yard numbers 48-56. First to be completed was FJORDSHELL in February 1974, for A/S Shell Baatene, Norway, for coastal duties in Scandinavian waters, and differed in construction and equipment from the following eight ships because of her design for coastal trading. The accommodation has one deck less due to the smaller crew allowed under Norwegian law, and a bow thruster assists berthing operations. Tonnages are 18,625 g., and 32,465 dwt., with a Sulzer 10,500 b.h.p. main engine. Initial intended name was FAUNUS, but was changed to suit the trading area. The remainder of the ships were true sisters, and entered service as FULGUR (Oct



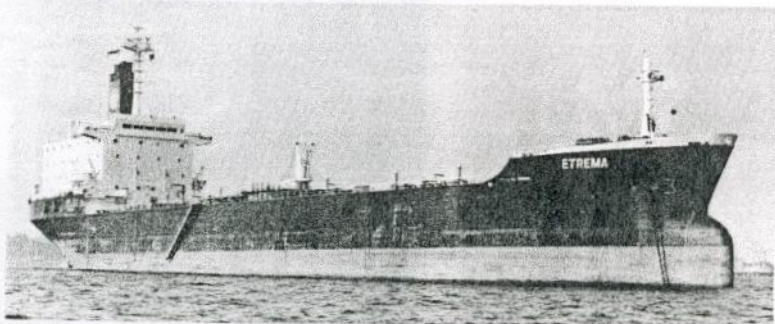
FUSUS

Author's photograph

1974), FELANIA (Feb 1975), FUSUS (May 1975), FELIPES (Nov 1975) FICUS (Feb 1976), FLAMMULINA (April 1976), FOSSARINA (Oct 1976) and FOSSARUS (Dec 1976). Registered owners were either Citizens Trust Co., or United States Trust Co., on demise charter via Asiatic Petroleum Shipping Corp. to Shell International Petroleum Co. When built, FULGUR, FELANIA, FOSSARINA, and FOSSARUS were managed and manned by Shell Tankers B.V. (Netherlands), whilst FUSUS, FELIPES, FICUS and FLAMMULINA were managed and manned by Shell Tankers (U.K.) Ltd. All eight are registered under the Liberian flag. All nine "F" class have dimensions 170.69 (length o.a.), 163.06 (length b.p.), 25.94 beam, and except for FJORDSHELL, are 19,275 g., 12,723 n., and 32,230 dwt., on summer draft of 11.37. Main engines are two 6 cyl. M.A.N. R6V52/55 driving a 4-blade controllable pitch propeller via flexible couplings and reduction gearbox. Two A.E.G. generators, coupled via power take-off drive to the gearbox supply power for 4x 900M³/H electric cargo pumps, and power a high pressure hydraulic system for drive of all mooring winches, anchor windlasses and deck crane. The ships are designed for white oils only.

and lack of heating coils has allowed a simplified machinery lay-out, with no steam-raising plant. Average speed 15 knots.

The second group of six tankers were built by St. Johns Shipbuilding & Drydock Co. Ltd., Saint John, New Brunswick, Canada, as yard numbers 1118–1123. First to be completed was ERINNA (Oct 1977), followed by ETREMA (March 1978), ENTALINA (July 1978), ERODONA (Nov 1978), ENSIS (Jan 1979) and ELONA (May 1979). The first four are owned by Shell Bermuda Oversea Ltd., managed and manned by Shell Tankers (U.K.) Ltd., under British flag, while the last two are owned by Lepton Shipping Corp., managed and manned by Deutsche Shell Tanker G.m.b.H., under Liberian flag.



ETREMA

Author's photograph

Main engines are a single Sulzer 6RND76, providing 12,000 b.h.p., and driving a 4-blade controllable pitch propeller, giving an average speed of $14\frac{3}{4}$ knots. Two vertical "Sunrod" boilers provide steam for cargo heating, mooring and anchor windlasses, and for 4x 900M³/H cargo pumps. All have dimensions 169.30 (length o.a.), 162.0 (length b.p.), 26.07 beam, and are 19,656 g., 12,962 n., and 30,990 dwt., on summer draft on 10.92.

The third group of four tankers were built by Mitsui Engineering & Shipbuilding Co. Ltd., Chiba, Japan, as yard numbers 1123–1126. First to be completed was EBURNA (Jan 1979), followed by ERVILIA (June 1979),



EBALINA

Author's photograph

EUPLECTA (Jan 1980), and EBALINA (May 1980). (Thus, coincidentally, ELONA and EBURNA are both yard number 1123). All are owned, managed and manned by Shell Tankers (U.K.) Ltd., under British flag. Main engines are a single 6 cyl. Mitsui B. & W. DE 6L67GFC, providing 11,200 b.h.p., and driving a 4-blade controllable pitch propeller, giving an average speed of $14\frac{3}{4}$ knots. Two vertical "Sunrod" boilers provide steam for the same services as on the other "E" class. The four Mitsui ships were the result of a renegotiated contract for yard number 1049, a 310,991 dwt. VLCC, which would have been the fourth such ship from Mitsui for Shell, after LANISTES, LACONICA and LITIOPA.

Although differing in details, all the "F" and "E" class have common standards. All engine spaces are highly automated, worked from a central control room, and designed for unmanned operation, with direct bridge-control of the

engines. All have 7 sets of port, centre and starboard cargo tanks, giving 21 in total, except the Mitsui "E"s, which have nos. 2c and 4c subdivided to give a total of 23 tanks. The aftermost wing tanks are used as slop tanks for tankcleaning purposes. All cargo tanks and pipelines are fully painted with epoxy or zinc, and all cargo pumps are self-priming and able to fully drain tanks without separate stripping pumps and lines. All cargo valves are hydraulically controlled from mimic displays in a cargo control room, from where pump speeds and discharge pressures are also controlled, and where tank levels, cargo temperature and hull draft are displayed. All crew members have separate cabins with private facilities and all cabins are above poop-deck level, making the accommodation-block high in appearance. Navigation equipment consists of twin gyrocompass units, twin radar units, with a third radar for automatic plotting, Magnavox satellite navigator, Decca navigator, Loran receiver, and constant-reading echo sounder equipment operating from bow or stern transducers.

Although total accommodation for between 35-45 is provided (including shoreworkers cabins and spare berths), normal complement (excluding cadets and trainees) is about the mid-twenties, depending on flag and union agreements with manning scales.

Since entering service, the tankers have been engaged in worldwide trading, based mainly from the Singapore, Curacao and Rotterdam refineries. In the oil trades, this type of tanker is known as the "MRX," the MR indicating Medium Range size, and the X to differentiate from earlier tankers of a similar dwt., but built with a length of up to 210 metres, and unable to use some of the ports used by the MRX. With a length the same as the 18,000 dwt. tankers they replace, they are able to use the same berths, carrying more cargo for the same length when depths permit, or deadfreighting when depth restrictions apply. It is an indication of the rate of change in the tanker world that only twenty years before the first "F" class was delivered, this size of tanker was being introduced as the latest standard-size supertanker for carrying single grades of crudeoil.