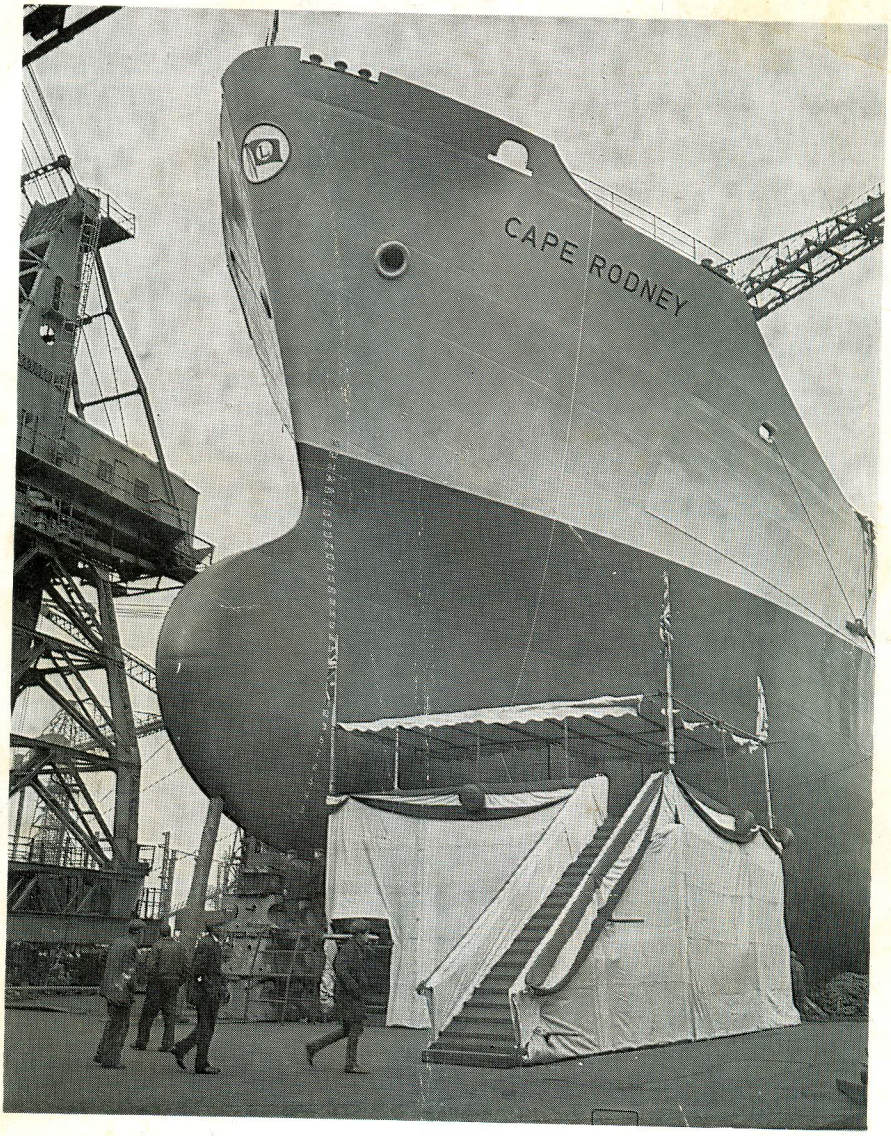

M.V. "CAPE RODNEY"

M.V. "CAPE RODNEY"

ACCEPTANCE TRIALS

on Firth of Clyde

WEDNESDAY, 26th MAY, 1965

Welcome on board 'Cape Rodney'.

You are invited for morning coffee in the Dining Saloon and Smoke Room on the Promenade Deck. Cloakrooms are available in the Cadets' cabins on the same deck.

Prior to a buffet luncheon in the Dining Saloon and Smoke Room, cocktails will be served from 12 noon in the Captain's and Owner's Dayrooms on the Boat Deck.

At about 3 p.m. there will be a demonstration of one of the Ship's Cranes and this will involve the operation of the Hatch Covers at No. 5 hold.

The Motor Launch will convey the party to Gourock at about 5.00 p.m.

We hope you will have an enjoyable and interesting day.

PLEASE NOTE

The Shipbuilders respectfully request the co-operation of the Trial Party should the Pilot or Managers (who are acting as the Ship's Officers) wish to restrict admittance to any part of the vessel to ensure ease of working or maximum safety.

SHIP No. 1154
m.v. "CAPE RODNEY"

The bulk carrier "Cape Rodney" was launched on 16th February, 1965 by Mrs J. Percival Agnew, wife of the Chairman of the Owning Company, the Lyle Shipping Company Limited of Glasgow, who have built the great majority of their ships with Lithgows Limited over the years.

The machinery for the "Cape Rodney" was manufactured and installed by Fairfield-Rowan Limited, Govan, Glasgow.

The "Cape Rodney" has been specially designed for the carriage of all types of grain without shifting boards; she is also self trimming. Other bulk cargoes, such as coal, iron ore, etc., can be carried in her spacious holds.

The following are her principal particulars:—

Length Overall	526-ft. 11½-ins.
Length B.P.	495-ft. 0-ins.
Breadth Extreme	68-ft. 0-ins.
Depth Moulded to Upper Deck	41-ft. 6-ins.
Load Summer Draught	29-ft. 11¼-ins.
Deadweight on 29-ft. 11¼-ins. draught	17,250 tons.
Total Water Ballast	5,547 tons
Total Grain Capacity	878,983 cub. ft.
Designed Trial Speed	about 16 knots
Maximum Service Rating of Main Machinery	9,600 B.H.P.

The vessel is fitted with a Trident/Lithgow Ram Bow and during the measured mile trials in the ballast condition a speed of 17.33 knots was achieved in adverse weather conditions with the main engine developing 8,530 B.H.P. This result more than confirmed the 24% improvement predicted by model tests for the ram bow against the conventional bow.

The "Cape Rodney" has been built under special survey to the highest class of Lloyd's Register of Shipping—Class *100 A1, strengthened for ore cargoes—Nos. 2 and 4 holds may be empty. She also meets the requirements of the Board of Trade, the International Load Line and Safety of Life at Sea, Suez Canal and Panama Canal Regulations.

The vessel has a single deck, with a rounded sheerstrake in way of the cargo holds, a well raked stem, cruiser stern and fitted with the new ram bow designed by Lithgows technical team. She is fitted with a single 4-bladed propeller and a semi-balanced streamlined rudder of the 'Simplex' type. The engine room and accommodation are situated aft.

The vessel has one foremast, fitted with a crows nest, and a streamlined combined signal and radar mast, and her profile presents a cleancut and pleasing picture.

The vessel's hull is divided into five main cargo holds, and the double bottom tanks are carried up the sides to form hoppers. To make the vessel self-trimming, top wing ballast or grain tanks, with 30° slope, are fitted. Grain hatches are provided to these tanks for loading grain.

The double bottom under the engine room is divided into tanks for diesel fuel, feed water and lubricating oil.

The hull is all welded with the exception of two side shell seams.

The hold bulkheads are corrugated vertically. The top wing tanks are plane, with bulb plate longitudinals, scalloped to allow grain to run freely. The double bottom centre tanks Nos. 3 and 4 are arranged for oil fuel. The remainder of the double bottom and hopper side tanks are arranged for water ballast. No. 5 double bottom centre tank is also arranged as a reserve oil fuel tank.

No wood sheathing is fitted in the holds, but the tank top plating is suitably increased in thickness. A further Owners' increase has been introduced above the requirements for carrying heavy cargoes. Each hold is served by a large hatch, fitted with MacGregor's patent single-pull steel watertight covers.

The holds are ventilated by two natural ventilators of H. Buchanan & Company manufacture, fitted in each cargo hatch.

The vessel is fitted with a $C.O.^2$ fire extinguishing and smoke detecting system throughout all cargo holds and machinery room, to the full requirements of the New York National Cargo Bureau.

The deck machinery, supplied by Clarke Chapman & Company Ltd., consists of the following:—

1 electrically driven, totally enclosed anchor and mooring windlass.

1 electrically driven, totally enclosed warping winch with two warping ends.

3 electrically driven, totallly enclosed cargo winches of Clarke Chapman, Ward Leonard type, fitted on Forecastle deck to operate Velle crane (one 8 ton hoisting winch, one 5 ton topping winch and one 5 ton slewing winch).

2 7½-ton electrically driven level luffing grabbing type deck cranes, complete with grabs (one between No. 2/3 hatches and one between No. 4/5 hatches), capable of working through 360°.

2 1-ton stores cranes of the new ram hydraulic winch type, supplied by McLachlan Davits Ltd., situated on the Boat Deck aft.

The steering gear is of the four ram electric hydraulic type, supplied by John Hastie & Co. Ltd. The gear is arranged for a Brown/Hastie combined steering console and is suitable for use with the gyro pilot.

On the boat deck there are two 26-ft. fibreglass lifeboats, one fitted with a motor and the other fitted with Viking hand propelled gear for 55 and 58 persons respectively, both supplied by Viking

Marine Co. Ltd. The boats are arranged on gravity davits by Marine & Allied Industries (C. & I.) Ltd.

No wood decking is fitted on the decks over accommodation. The steel decks are painted and insulated on the underside.

The accommodation is arranged aft and complies fully with the Board of Trade Regulations. On the navigating bridge are situated the combined chartroom and wheelhouse and radio room. Navigational equipment supplied on this vessel includes Brown/Hastie combined steering console, Arma-Brown gyro compass, radar by Marconi, Marconi direction finder, Marconi echo sounder and Decca Navigator.

The captain's, chief engineer's and owner's suites and pilot are located on the boat deck. The promenade deck houses the chief officer, 2nd engineer, radio officer, cadets and remainder of officers and engineers. The officers' smoke room, dining saloon, pantry and engineers' washplace and changeroom are also situated on this deck.

On the poop deck are the chief steward's, P.O.'s and fitters' accommodation, also the hospital and dispensary, crew's recreation room, engineroom crew, deck crew and P.O.'s messes, cafeteria, galley, stewards' mess and recreation room and engineers' duty mess. The deck and engineroom crew and catering staff, together with their washplaces, provision store, bonded locker, laundry and refrigerated storerooms are housed on the upper deck aft.

The officers' smokeroom and dining saloon are finished with full height polished veneered timber; Weathered Sycamore and Australian Walnut are used in the officers' smokeroom and Toned Australian Maple in the dining saloon.

The senior officers' accommodation and junior officers' cabins have been tastefully decorated with patterned soft plastics. The various soft plastics together with contrasting upholstery and contemporary furniture, combine to give the officers' accommodation a modern and pleasing appearance. The passageway in the senior officers' accommodation is finished with a timber veneered dado with vynide above. Passageways throughout the junior officers' accommodation are finished in full height vynide on both sides.

Petty officers' and crews' cabins and passageways on cabin side are finished in full height vynide. The pantries, crews' messrooms and recreation rooms are finished in full height hard plastic in pastel colours.

A well equipped galley is provided to serve the officers and crew.

The accommodation is air conditioned throughout, the equipment being supplied and installed by Thermotank Limited.

Paints were supplied by Camrex Paints Ltd., W. & J. Leigh Ltd., and Federated Paints Ltd. All steel plates and sections received a coat of Shot-o-kote primer immediately after shotblasting. Extensive use has been made of epoxy type paints throughout this vessel, which will reflect in reduction of maintenance costs.

The electrical installation is by The Sunderland Forge and Engineering Co. Ltd.

The upholstery and deck covering in the accommodation are by Rowan & Bowden Limited.

The sternframe and rudder are supplied by A/S Strommens Vaerksted.

The refrigerated store rooms consist of a meat, vegetable, fish and handing room; the combined capacity of these rooms amounts to 1,805 cub. ft. (bale). The temperatures of these rooms are maintained by a refrigerating plant manufactured by J. & E. Hall Ltd., and insulation carried out by Newalls Insulation Company Ltd.

Description of Machinery Installation

Built by Messrs Fairfield-Rowan Ltd., to Lloyds survey and requirements the propelling machinery comprises one Fairfield-Rowan Sulzer Vertical direct reversible supercharged oil engine of the single acting two stroke RD type, driving through line shafting a single four-bladed manganese bronze propeller of Heliston design.

The main engine has bedplate and columns of fabricated steel construction. The engine is a six-cylinder unit, each cylinder having a bore of 760 m/mx1550 m/m stroke, to develop a maximum continuous output of 9,600 B.H.P. (Metric) at 119 R.P.M.

Two Brown-Boveri turbo-chargers, of the VTR 630 type exhaust gas driven from the main engine and complete with air filters and silencers, are fitted for dealing with the first stage of the compression work. The engine employs the cross scavenge principle through ports in the cylinders, the air being supplied by the turbo-chargers which operate on the pulse system and are independent of the crankshaft. Starting air for main engine purposes is stored at 425 p.s.i.g. in the two cylindrical starting air-storage tanks, charged by two Hamworthy vertical motor driven two-stage air compressors.

The main engine is suitable for operating on oil fuel of viscosity not exceeding 3,500 seconds Redwood No. 1 at 100° F. It is of the crosshead type with complete separation between cylinder and crankshaft, thus eliminating any risk of contaminating the crankcase lubricating oil with the products of combustion.

The cylinder heads and jackets are cooled by fresh water, circulated in a closed system by Hamworthy non self-priming vertical spindle centrifugal pumps. The pistons are fresh water cooled, two Hamworthy self priming pumps being fitted. All crankcase bearings, crossheads and guides are lubricated through a forced lubricating oil system by Stothert and Pitt vertical spindle type pumps. A separate lubricating oil system is fitted for the turbo-blowers. Each system is complete with all necessary storage and header tanks, coolers and filters, etc.

The oil fuel for main engine purposes is purified by two De Laval self-cleaning units arranged for series operation. One De Laval purifier is provided for diesel oil purification, and arranged to act as standby for the heavy oil purifiers. In addition, one De Laval purifier is provided for dealing with lubricating oil.

Power is supplied to the motor-driven auxiliaries at 440 volts, 3 phase, 60 cycles A.C. by three 300 kw W. H. Allen self-contained diesel alternators running at 720 r.p.m. The main breakers and circuit breakers for electric motor-driven auxiliaries, together with switches, fuses, preference trips and paralleling instruments are accommodated on a common main switchboard of the "Dead Front" type.

Steam for domestic purposes, fuel oil heaters, feed pumps etc., is supplied at 100 p.s.i.g. by one Cochran vertical boiler and one Cochran vertical exhaust gas boiler.

Fresh water is produced by one Nirex Fresh Water Generator having a capacity of 10 to 15 tons per 24 hours utilising heat from the main engine cylinder cooling water as a heating medium.

Other auxiliary machinery includes two Hamworthy motor-driven vertical spindle non-self priming sea water pumps, two Hamworthy General Service Pumps, each having a capacity of 115/75 tons/hour, two Hamworthy Ballast Pumps each having a capacity of 600 tons/hour and one Simplex Turbulo Oily Water Separator capable of passing 50 tons/hour.