

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

23 OCT 1929

Date of writing Report 19 When handed in at Local Office 21. 10. 19 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 27. 2. 29 Last Survey 18. 10. 1929

Reg. Book. on the new steel S/S KNIGHT OF S/S MICHAEL (Number of Visits 46)

Built at Port Glasgow By whom built Lithgows Ltd Yard No. 828 When built 1929

Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 902 when made 1929

Boilers made at Glasgow By whom made David Rowan & Co. Ltd Boiler No. 902 when made 1929

Registered Horse Power 389 Owners Harport & Thornclay Line Ltd Port belonging to Harport & Thornclay

Nom. Horse Power as per Rule 389 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which Vessel is intended - P.S. 8-ES

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 70

Dia. of Cylinders 24"-40"-66" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 12.579" Crank pin dia. 13" Crank webs Mid. length breadth 18" Thickness parallel to axis 8 1/8" as fitted 12.579" Mid. length thickness 8 1/8" Thickness around eye-hole 8 3/4"

Intermediate Shafts, diameter as per Rule 12.579" Thrust shaft, diameter at collars as per Rule 12.579" as fitted 12.579"

Tube Shafts, diameter as per Rule 13.418" Is the tube shaft fitted with a continuous liner? yes as fitted 13.418"

Screw Shaft, diameter as per Rule 13.418" as fitted 13.418"

Bronze Liners, thickness in way of bushes as per Rule 5/16" Thickness between bushes as per Rule 3/4" Is the after end of the liner made watertight in the propeller boss? yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner? yes

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive? yes

If two liners are fitted, is the shaft lapped or protected between the liners? no Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft? no Length of Bearing in Stern Bush next to and supporting propeller 4'-6"

Propeller, dia. 17'-3" Pitch 16'-9" No. of Blades 4 Material Bronze whether Moveable no Total Developed Surface 98 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3/4" Stroke 24" Can one be overhauled while the other is at work? yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work? yes

Feed Pumps { No. and size 1 @ 8 1/2" - 6" x 18" 1 @ 6" - 4" x 12" Pumps connected to the { No. and size Ballast pump How driven steam steam Main Bilge Line How driven steam steam

Ballast Pumps, No. and size 1 @ 9" - 10" x 24" Lubricating Oil Pumps, including Spare Pump, No. and size -

Are two independent means arranged for circulating water through the Oil Cooler? - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps; - In Engine and Boiler Room 3 @ 2 1/4" & 1 @ 2 1/2" (dry tank) In Holds, &c. (fitted in G.R. - complete. S/S in hold - 2 @ 2 1/4" N° 2 hold - 2 @ 3" N° 3 hold - 2 @ 2 1/4" N° 4 hold - 2 @ 2 1/2" Tunnel well - 1 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4 1/2"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes? yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges? yes

Are all Sea Connections fitted direct on the skin of the ship? yes Are they fitted with Valves or Cocks? both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates? yes Are the Overboard Discharges above or below the deep water line? above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel? yes Are the Blow Off Cocks fitted with a spigot and brass covering plate? yes

What Pipes pass through the bunkers? G.R. How are they protected? G.R.

What pipes pass through the deep tanks? no deep tank Have they been tested as per Rule? -

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times? yes

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another? yes Is the Shaft Tunnel watertight? yes Is it fitted with a watertight door? yes worked from upper deck

MAIN BOILERS, &c.—(Letter for record (5)) Total Heating Surface of Boilers 5588 sq. ft.

Is Forced Draft fitted? yes No. and Description of Boilers 3 SB (250 H.P.) Working Pressure 180

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? -

PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers yes Donkey Boilers -

(If not state date of approval)

Superheaters - General Pumping Arrangements with ship report Oil fuel Burning Piping Arrangements -

SPARE GEAR. State the articles supplied:— In accordance with the Rules and in addition, one cast-iron propeller.

*[Large handwritten signature in green ink]*

The foregoing is a correct description,  
For David Rowan & Co. Ltd  
Arch. N. Grierson

Manufacturer.



20774

1929 Feb 27 Apr 10 17 23 June 12 13 18 20 22 July 1 8 9 10 23 29 30 Aug 1 2 6 8 12 13 15 19 21

Dates of Survey while building: During progress of work in shops -- 01-81; During erection on board vessel --- 24-28-29

Total No. of visits: 858 46

Dates of Examination of principal parts: Cylinders 2-8-29 Slides 11-9-29 Covers 17-9-29

Pistons 13-8-29 Piston Rods 13-8-29 Connecting rods 8-8-29

Crank shaft 21-8-29 Thrust shaft 29-8-29 Intermediate shafts 24-8-29

Tube shaft Tube shaft 23-8-29 Propeller 21-8-29

Stern tube 12-8-29 Engine and boiler seatings 8-10-29 Engines holding down bolts 8-10-29

Completion of fitting sea connections 11-10-29 Boilers fixed 7-10-29 Engines tried under steam 18-10-29

Completion of pumping arrangements 12-10-29 Thickness of adjusting washers 1/2" steel

Main boiler safety valves adjusted 12-10-29

Crank shaft material 9 steel Identification Mark No 2829 CR 24-8-29 Thrust shaft material 9 steel Identification Mark No 2829 J.D.M. 29-8-29

Intermediate shafts, material 1 steel Identification Marks No 2829 CR 24-8-29 Tube shaft, material - Identification Mark -

Screw shaft, material 1 steel Identification Mark No 2829 J.D.M. 23-8-29 Steam Pipes, material copper Test pressure 360 Date of Test 8-10-29

Is an installation fitted for burning oil fuel no Is the flash point of the oil to be used over 150°F. -

Have the requirements of the Rules for the use of oil as fuel been complied with -

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no If so, have the requirements of the Rules been complied with -

Is this machinery duplicate of a previous case yes If so, state name of vessel "Knight of St. George"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good. The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good. It is eligible in my opinion for Classification and the Record. - L.M.C. 10, 29/1

It is submitted that this vessel is eligible for classification and the Record. + L.M.C. 10.29 CL

258 (FD) 1/11/29

25/10/29

GLASGOW 22 OCT 1929

Committee's Minute

Assigned + L.M.C. 10.29

When applied for, 22 OCT 1929 When received, 25.10.29

Engineer Surveyor to Lloyd's Register of Shipping. S.C. Davis.

GLASGOW 22 OCT 1929

CERTIFICATE WRITTEN 70

