

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **11 NOV 1943**

Date of writing Report **9 NOV 1943** When handed in at Local Office **9 NOV 1943** Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at **Wallsend on Tyne** Date, First Survey **1-6-43** Last Survey **22-10-1943**
 Reg. Book **S/S Empire Canyon** (Number of Visits **10**)

Built at **Quidde** By whom built **Caledon S.S. & Eng Co Ltd** Yard No. **408** When built

Engines made at **Wallsend** By whom made **N.E. Marine Eng Co Ltd** Engine No. **3065** When made **1943**

Boilers made at By whom made Boiler No. When made

Registered Horse Power Owners **Ministry of War Transport** Port belonging to

Nom. Horse Power as per Rule **510?** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

ENGINES, &c.—Description of Engines **Triple Expansion** Revs. per minute **76**

Dia. of Cylinders **24 1/2 - 39 - 70** Length of Stroke **48** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals **13.98** as per Rule **14 1/4** as fitted Crank pin dia. **14 3/4** Crank webs Mid. length breadth **22"** Thickness parallel to axis **9"**
 as fitted **14 1/4** Mid. length thickness **9"** shrunk Thickness around eye-hole **6 3/8"**

Intermediate Shafts, diameter **13.32** as per Rule **13 9/16** as fitted Thrust shaft, diameter at collars **13.98** as per Rule **14 1/4** as fitted

Tube Shafts, diameter **14.84** as per Rule **15 1/4** as fitted Is the **inlet** screw shaft fitted with a continuous liner **yes**

Bronze Liners, thickness in way of bushes **.753** as per Rule **.81** as fitted Thickness between bushes **.565** as per Rule **.65** as fitted 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

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

If two liners are fitted, is the shaft lapped or protected between the liners **yes** Is an approved Oil Gland or other appliance fitted at the after end of the tube at **no** If so, state type **yes** Length of Bearing in Stern Bush next to and supporting propeller **5'-1"**

Propeller, dia. **17-10 1/2** Pitch **15.6'** No. of Blades **4** Material **CI.** whether Moveable **no** Total Developed Surface **114 3/4** sq. feet

Feed Pumps worked from the Main Engines, No. **2** Diameter **4** Stroke **27"** Can one be overhauled while the other is at work **yes**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **4** Stroke **27"** Can one be overhauled while the other is at work **yes**

Feed Pumps No. and size Pumps connected to the Main Bilge Line No. and size How driven

Ballast Pumps, No. and size 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 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

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

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

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

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

What Pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks 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

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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters

No. and Description of Boilers Working Pressure

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED? If so, is a report now forwarded?

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting **Standard B** Main Boilers Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied **yes (main engines)**

State the principal additional spare gear supplied

The foregoing is a correct description.

John Neill

DIRECTOR

Manufacturer.



1943 JUNE 1. JULY 20. AUG. 5. 6. 9. 19. 26. OCT. 4. 18. 22. - 10 Visits.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits

Dates of Examination of principal parts—Cylinders 9.8.43 Slides 4.10.43 Covers 9.8.43
 Pistons 4.10.43 Piston Rods 4.10.43 Connecting rods 4.10.43
 Crank shaft 20.7.43 Thrust shaft 19.8.43 Intermediate shafts 5.8.43
 Tube shaft ✓ Screw shaft 21.10.43 Propeller 22.10.43
 Stern tube 18.10.43 Engine and boiler seatings ✓ Engines holding down bolts ✓
 Completion of fitting sea connections ✓
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓
 Crank shaft material Steel Identification Mark 8145 8171 ERB. 8366 ERB
 Intermediate shafts, material Steel Identification Marks 8145 8171 ERB. 8366 ERB
 Screw shaft, material Steel Identification Mark 8145 8171 ERB. 8366 ERB
 Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓
 Is an installation fitted for burning oil fuel. 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. If so, have the requirements of the Rules been complied with.
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with.
 Is this machinery duplicate of a previous case. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been constructed under Special Survey in accordance with the Requirements of the Rules, the Approved Plan & the Specification. The materials & workmanship are good.

The machinery has been forwarded to Dundee where it will be fitted in Caledon S.B.T. & Co. Ltd. Ship No 408.
 See Dundee Machinery report No. 9403 & B.S. report No. 9065.

The amount of Entry Fee	£ 6 : 0 : 0	When applied for,
2/5 Special + 25%	£ 50 : 5 : 0	1-9 NOV 1943
Donkey Boiler Fee	£ : : :	When received,
Travelling Expenses (if any)	£ : : :	10

R. Loffitt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned

GLASGOW 11 JAN 1944

