

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 19... When handed in at Local Office 19... Port of **DUNDEE**

No. in Survey held at **DUNDEE** Date, First Survey **21st Nov, 1944** Last Survey **9th Nov. 1945**
 Reg. Book (Number of Visits) **411** Tons { Gross **7056**
37505 on the **S.S. "EMPIRE FAVOUR"** Net **4917**

Built at **DUNDEE** By whom built **Caledon S.B. & E. Co. Ltd.,** Yard No. **411** When built **1945**

Engines made at **Glasgow** By whom made **Duncan Stewart & Co. Ltd.** Engine No. **217** When made **1945**

Boilers made at **Dundee** By whom made **Caledon S.B. & E. Co. Ltd.** Boiler No. **B.S.100** When made **1945**

Registered Horse Power **2500** Owners **Ministry of War Transport** Port belonging to **Dundee**

Nom. Horse Power as per Rule **510** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

Trade for which vessel is intended **-**

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

Dia. of Cylinders Length of Stroke No. of Cylinders No. of Cranks

Crank shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis
 as fitted Mid. length thickness shrunk Thickness around eye-hole

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

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { screw }

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as fitted Is the after end of the liner made watertight in the propeller boss

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 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 Is an approved Oil Gland or other appliance fitted at the after end of the tube

at If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet

Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps { No. and size **2 off 7"x9½"x21"** Pumps connected to the { No. and size **1 off 7"x9½"x21"** **1 off 10½"-13"-24"**
 How driven **Steam** Main Bilge Line How driven **Steam**

Ballast Pumps, No. and size **1 off 10½"-13"-24"** Lubricating Oil Pumps, including Spare Pump, No. and size **None**

Are two independent means arranged for circulating water through the Oil Cooler **None** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room **Engine Room 2 off 3" 1 off 3½" Portable To Ballast pump only**

In Pump Room In Holds, &c. No. **1, 2, 3, 5, & 6 Holds 2 off 3" each hold**
2. 3" in Ball Room (see also 12/48)

Tunnel well **1 off 2½"**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 off 9"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 off 5"**

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 **BELOW**

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 **None** How are they protected

What pipes pass through the deep tanks Have they been tested as per Rule **Yes**

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 **No** worked from **-**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **7248 sq. feet**

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

No. and Description of Boilers **3 S.B.** Working Pressure **220lbs**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **See Dundee Report No. 9409**

IS A DONKEY BOILER FITTED? **No** 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 **11.4.45** Main Boilers **18.12.42** Auxiliary Boilers **-** Donkey Boilers **-**
 (If not state date of approval)

Superheaters **-** General Pumping Arrangements **11.4.43** Oil fuel Burning Piping Arrangements **-**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes**

State the principal additional spare gear supplied **See Glasgow report No. 67087. As per Rule and Specification.**

FOR AND ON BEHALF OF
 THE CALEDON SHIPBUILDING & ENGINEERING CO. LTD.

The foregoing is a correct description.

Henry Main Managing Director Manufacturer.

Dates of Examination of principal parts—Cylinders..... Slides..... Covers.....

Pistons..... Piston Rods..... Connecting rods.....

Crank shaft..... Thrust shaft 14.9.45..... Intermediate shafts 14.9.45.....

Tube shaft..... Screw shaft 7.8.45, 19.7.45..... Propeller 14.8.45.....

Stern tube 1.8.45..... Engine and boiler seatings 26.6.45..... Engines holding down bolts 27.9.45.....

Completion of fitting sea connections 21.8.45.....

Completion of pumping arrangements 19.10.45..... Boilers fixed 31.8.45..... Engines tried under steam 19.10.45, 9.11.45.....

Main boiler safety valves adjusted 19.10.45..... Thickness of adjusting washers Port P.S. 5/16" 3/8" Centre P.S. 5/16" 3/8" Starboard P.S. 11/32" 11/32"

Crank shaft material..... Identification Mark..... Thrust shaft material Steel Identification Mark See below

Intermediate shafts, material Steel Identification Marks See Below Tube shaft, material..... Identification Mark.....

Screw shaft, material Steel Identification Mark See below Steam Pipes, material Steel Test pressure 660lbs Date of Test 16.10.45, 10.10.45

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.....

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 Yes If so, state name of vessel S.S. "EMPIRE CANYON" with Mr. Dyer

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey. It has been satisfactorily installed in the vessel, tried under full working conditions and found satisfactory. The Boiler safety valves have been adjusted under steam to 220lbs per sq. inch and found satisfactory and is eligible in my opinion for record in the Register Book of + L.M.C. 11-45, C.L. 3 S.B. working pressure 220lbs per sq. inch. The specification requirements have been carried out satisfactorily. American Shafting - Admiralty issue - Admiralty letter GRA/MB/27/1 1st August 1944 attached.

Thrust Shaft. N.A.610 S.E.T. 10. No.4 B.C.N. 2798 7/3/45. H.T.20091-1 A.W.
Intermediate No. 4 & 5, N.A.607. H.T. 5D513B.1. S.E.T. 10.No.1 B.C.N.2798. 7/3/45. A.W.
" " 6 & 7, N.A.757. H.T.11184-2 S.E.T. 16 No.2. 7/3/45 A.W.
" " 8 & 9, N.A.605 H.T. 30397 E.1. SET.10 No.2 B.C.N.2798 7/3/45 A.W.
Screw 503 H.T. 10455-2 S.E.T. 10 No.1 B.C.N. 2798. 16/7/45 A.W.

G. E. Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____
Assigned *-1- Rec 11.45*