

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 5 AUG 1943

Date of writing Report **23-8-1943** When handed in at Local Office **23-8-1943** Port of **Leith**  
 Date, First Survey **21-5-43** Last Survey **19-8-1943**  
 No. in Survey held at **Burntisland**  
 Reg. Book. **6709** on the **S.S. "BRIGHTON"**  
 (Number of Visits **ELEVEN**)  
 Built at **Burntisland** By whom built **Burntisland S. B. Co. Ltd.** Yard No. **271** Tons <sup>Gross</sup> **7345** <sub>Net</sub> **4878**  
 Engines made at **Glasgow** By whom made **J. Rowan & Co. Ltd.** Engine No. **1128** When built **1943**  
 Boilers made at **Glasgow** By whom made **J. Rowan & Co. Ltd.** Boiler No. **1116** When made **1943**  
 Registered Horse Power **512** Owners **R. Chapman & Son** Port belonging to **Newcastle**  
 Nom. Horse Power as per Rule **512** Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **Yes.**

**GINES, & Co.**—Description of Engines  
 No. of Cylinders \_\_\_\_\_ Length of Stroke \_\_\_\_\_ No. of Cylinders \_\_\_\_\_ Revs. per minute \_\_\_\_\_  
 No. of Cranks \_\_\_\_\_  
 Crank shaft, dia. of journals \_\_\_\_\_ Crank pin dia. \_\_\_\_\_ Crank webs \_\_\_\_\_ Mid. length breadth \_\_\_\_\_ Thickness parallel to axis \_\_\_\_\_  
 as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Mid. length thickness \_\_\_\_\_ shrunk \_\_\_\_\_ Thickness around eye-hole \_\_\_\_\_  
 Intermediate Shafts, diameter \_\_\_\_\_ Thrust shaft, diameter at collars \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_

Propeller Shafts, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Screw Shaft, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Bronze Liners, thickness in way of bushes \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness between bushes \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Is the after end of the liner made watertight in the hull 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 liners \_\_\_\_\_ 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 \_\_\_\_\_  
 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  
 Main Engines, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 Main Engines, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 Main Engines, No. and size **Two, 7' x 9 1/2' x 21"** Pumps connected to the Main Bilge Line { No. and size **2 on Main Eng. 1 Ballast 10' x 12' x 12"** 1 Gen. Service 8' x 5' x 8" }  
 How driven **Steam** How driven **Steam**  
 Main Pumps, No. and size **one - 10' x 12' x 12"** Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_

Oil Cooler \_\_\_\_\_ two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_  
 Suctions, connected to both Main Bilge Pumps and Auxiliary \_\_\_\_\_  
 In Engine and Boiler Room **2 Port 22 Star & 1 Centre 0ft. = 3" dia. 1 Direct Star = 5" dia.**  
 In Holds, &c. **N° 1 Hold 1P. 1S = 3" dia. N° 2 Hold 1P. 1S = 3" dia. N° 3 Hold 1P. 1S = 3" dia.**  
**1 Hold 1P. 1S = 3 1/2" dia & 1P. 1S = 3" dia. N° 5 Hold 1P. 1S. Well Section = 3" dia. & 1S. WELL SECTION = 2 1/2" dia.**  
**TUNNEL WELL SUCTION = 2 1/2" DIA.**

Independent Power Pump Direct Bilge Suctions, No. and size **one at 5" dia.** 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, except main injection on tank top, Port side.** 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, except main ballast on deep tank rule.** APPROVED ADMIRALTY 28-4-42.

Are the Blow Off Cocks fitted with a spigot and brass covering plate **Yes.**  
 How are they protected **Wood ceiling**  
 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 Shaft Tunnel watertight **Yes.** Is it fitted with a watertight door **No.** worked from \_\_\_\_\_

**IN BOILERS, & Co.**—(Letter for record \_\_\_\_\_) Total Heating Surface of Boilers \_\_\_\_\_  
 Which Boilers are fitted with Forced Draft \_\_\_\_\_ Which Boilers are fitted with Superheaters \_\_\_\_\_  
 and Description of Boilers \_\_\_\_\_ Working Pressure \_\_\_\_\_

**A REPORT ON MAIN BOILERS NOW FORWARDED 20/12/42.**  
**A DONKEY BOILER FITTED?** See Glasgow Reports 11/20/12/42. If so, is a report now forwarded? \_\_\_\_\_  
 the donkey boiler be used for domestic purposes only \_\_\_\_\_

**ANS.** Are approved plans forwarded herewith for Shafting \_\_\_\_\_ Main Boilers \_\_\_\_\_ Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_  
 (If not state date of approval) \_\_\_\_\_  
 General Pumping Arrangements \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_

**SPARE GEAR.**  
 Is the spare gear required by the Rules been supplied **Yes.**  
 Is the principal additional spare gear supplied **One C.I. Propellers.**

The foregoing is a correct description.

Manufacturer.



During progress of work in shops - -  
 Dates of Survey while building  
 During erection on board vessel - - - 21/5/43, 11/6/43, 15/6/43, 22/6/43, 7/7/43, 9/7/43, 29/7/43, 6/8/43, 12/8/43, 17/8/43, 19/8/43  
 Total No. of visits eleven.

Dates of Examination of principal parts—Cylinders Slides Covers  
 Pistons Piston Rods Connecting rods  
 Crank shaft Thrust shaft Intermediate shafts  
 Tube shaft Screw shaft in place 15-6-43 Propeller in place 15-6-43  
 Stern tube in place 11-6-43 Engine and boiler seatings 15-6-43 Engines holding down bolts 29-7-43  
 Completion of fitting sea connections 15-6-43  
 Completion of pumping arrangements 12-8-43 Boilers fixed 9-7-43 Engines tried under steam 12-8-43 & 19-8-43  
 Main boiler safety valves adjusted 12-8-43 & 17-8-43 Thickness of adjusting washers PORT BOILER CENTRE BOILER STAR BOILER  
 Crank shaft material Identification Mark Thrust shaft material Identification Mark  
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark  
 Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test  
 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. "CARLTON" Lth. Rpt. N: 2078

**General Remarks** (State quality of workmanship, opinions as to class, &c.) This machinery—Glasgow Report N: 6727—has been efficiently fitted on board, the materials and workmanship being sound and good. On completion, the safety valves were adjusted to 220 lbs/sq. in. and the Main and Auxiliary machinery were tried under working conditions at sea and found satisfactory. This machinery in my opinion, is in a safe, working condition and eligible to the class in the Register Book with the notation of L.M.C. 8-43, T.S.C.L., F.II.

Certificate to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 20-2-6  
 Special ... £  
 Donkey Boiler Fee ... £  
 Travelling Expenses (if any) £ 1-1-0  
 collected by Lth. & credited to Lth.  
 When applied for, 24-8-1943.  
 When received,

J. J. Campbell  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 31 AUG 1943

Assigned +LMC 8.43: 30 CL

