

REPORT ON OIL ENGINE MACHINERY.

No. 18952

5 SEP 1928

Received at London Office

Date of writing Report 20th August 28 When handed in at Local Office 31st August 28 Port of Greenock
No. in Survey held at Greenock Date, First Survey 29th July 1924 Last Survey 29th August 1928
Leg. Book. Number of Visits 62

on the Single Triple Screw vessel "Brunswick" Tons Gross
Built at Greenock By whom built Scotts & Co. Ltd. Yard No. 534 When built 1928
Engines made at Greenock By whom made Scotts & Co. Ltd. Engine No. 4509 When made 1928
Boilers made at Greenock By whom made Scotts & Co. Ltd. Boiler No. 606 When made 1928
Horse Power 2800 Owners The Atlantic Refining Co. Ltd. Port belonging to Panama
Horse Power as per Rule ? Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
made for which vessel is intended Foreign

ENGINES, &c.—Type of Engines 4 Main & 2 Aux. Diesel Engines Coupled to Main Generator on Propelling Shaft 2 or 4 stroke cycle Single or double acting
Maximum pressure in cylinders _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____
of bearings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank _____
Revolutions per minute _____ Flywheel dia. _____ Weight _____ Means of ignition _____ Kind of fuel used _____
Crank Shaft, dia. of journal _____ as per Rule _____ Crank pin dia. _____ Crank Webs _____ Mid. length breadth _____ Thickness parallel to axis _____
as fitted _____ Intermediate Shafts, diameter _____ as per Rule _____ Thrust Shaft, diameter at collars _____ as per Rule _____
as fitted _____ as fitted _____ Is the screw shaft fitted with a continuous liner Yes
Screw Shaft, diameter _____ as per Rule _____ as fitted _____ Thickness between bushes _____ as per Rule _____
as fitted _____ Is the after end of the liner made watertight in the _____
liner boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner _____
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 _____
liners are fitted, is the shaft lapped or protected between the liners _____ Is an approved Oil Gland or other appliance fitted at the after _____
the tube shaft No Length of Bearing in Stern Bush next to and supporting propeller 60"
eller, dia. 16.6" Pitch 1.83 1/4" No. of blades 4 Material Brass whether Moveable Yes Total Developed Surface 82 sq. feet
od of reversing Motor Electric Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication _____
Thickness of cylinder liners _____ Are the cylinders fitted with safety valves _____ Are the exhaust pipes and silencers water cooled or lagged with _____
ducting material _____ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
ng Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Pumps worked from the Main Engines, No. None Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
s connected to the Main Bilge Line { No. and Size 4. (3 at 450 Gallons/min. one at 325 Gallons/min.)
How driven Motor
st Pumps, No. and size one 325 Gallons/min. Lubricating Oil Pumps, including Spare Pump, No. and size on Main Engines
o independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____
, No. and size:—In Machinery Spaces 5. 3 1/2" 3 at 450 Gallons + one at 325 Gallons per min.
s, etc. 1. 8 in each. For Cargo hold. 1. 3 1/2"
endent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 6"
l the Bilge Suction pipes in Hold and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces _____
m easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both
y fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above
y 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
ipes pass through the bunkers ? None How are they protected _____
ipes pass through the deep tanks _____ Have they been tested as per Rule _____
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
rrangement 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 _____
ment to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door None worked from _____
od vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork _____
Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
ary Air Compressors, No. Two No. of stages 2 Diameters 5 1/2" x 23 1/4" Stroke 5" Driven by Motor
Auxiliary Air Compressors, No. one No. of stages one Diameters 1 1/2" x 1 1/2" Stroke 4" Driven by Hand
nging Air Pumps, No. _____ Diameter _____ Stroke _____ Driven by _____

liary Engines crank shafts, diameter _____ as per Rule _____
as fitted _____
RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
he internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces manhole
ere a drain arrangement fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. Two Cubic capacity of each 208 Internal diameter 4.2" thickness 19/32"
Seamless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 28-32 Working pressure by Rules 262
Air Receivers, No. Two Total cubic capacity 13 Internal diameter 12" thickness 3/8"
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26-30 Working pressure by Rules 267

WASTE HEAT

IS A [REDACTED] BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shasting

Receivers

Separate Tanks

Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

see separate line attached

The foregoing is a correct description.

SCOTT'S SHIPBUILDING & ENGINEERING COMPANY, LIMITED.

J. Rich

Manufacturer.

Dates of Survey while building
During progress of work in shops-- (1924) July 29 Sept. 15 22 Oct. 1 Nov. 3 10 22 Dec. 2 4 11 (1928) Jan 10 18 25 24 Feb. 1 8 13 23 24 29 Mar. 4 12 20 23 28 April 3 11 23 26
During erection on board vessel-- 30 May 1 4 10 15 14 24 June 1 11 26 July 10 12 13 16 18 19 20 23 24 25 24 Aug. 4 8 13 20 23 24 25 24 29
Total No. of visits 62

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
Crank shaft ✓ Flywheel shaft ✓ Thrust shaft 30 H. 28 Intermediate shafts ✓ Tube shaft ✓
Screw shaft 30 H. 28 Propeller 30 H. 28 Stern tube 13 3 28 Engine seatings 24 2 28 Engines holding down bolts 23 4 28
Completion of fitting sea connections 24 2 28 Completion of pumping arrangements 23 8 28 Engines tried under working conditions 29 8 28
Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material S Identification Mark LR 2122 WGM Intermediate shafts, Material ✓ Identification Marks ✓
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S Identification Mark LR 2122 WGM

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous case No If so, state name of vessel

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

Three Buguis (Antwerp Repl. No. 15484) & Rue Marie
Electrical Propulsion Plant (London Repl. No. C 5076)
• The Waste Heat Boiler have been built under
Special Survey & are now securely fitted on
board, tried under working conditions
• found satisfactory
The Machinery is eligible in my opinion for
an record of. ✠ LMC 8.28

GREENOCK.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 125 : 3 : 10 When applied for,
as per London Letter 27/7/27 : : 30th August 1928.
Special ... £ : : :
Air Reservoirs ... £ 6 : 6 : When received,
Donkey Boiler Fee ... £ : : :
Travelling Expenses (Daily) £ 2 : 2 : 15th September 1928
see details attached.
Committee's Minute GLASGOW 4- SEP 1928

Assigned + LMC 8.28

W. M. London-Maclean
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation