

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 70306

5 JAN 1946

Received at London Office

11 JAN 1946

Date of writing Report 19 When handed in at Local Office 7.1.46 Port of GLASGOW

No. in Survey held at GLASGOW Date, First Survey 17.11.45 Last Survey 21st Dec. 1945

by Rules Reg. Book. Number of Visits 100

Actual 3566/8 on the Single Screw vessel M.V. "BRITISH SUPREMACY" Tons Gross 8242
Triple
Quadruple Net 4816

By whom built Harland & Wolff Ltd., Yard No. 1284 When built 1945

Engines made at Glasgow By whom made Harland & Wolff Ltd., Engine No. 9508 When made 1945
A/MS/463

Donkey Boilers made at Belfast By whom made Harland & Wolff Ltd., Boiler No. 1284 When made 1945

Brake Horse Power 3200 Owners British Tanker Co. Ltd., Port belonging to London

Nom. Horse Power as per Rule 490 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Tanker

II. ENGINES, &c.—Type of Engines Heavy Oil Airless Injection 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lbs/sq.in. Diameter of cylinders 740m/m Length of stroke 1500m/m No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 128 lbs/sq.in. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 972m/m Is there a bearing between each crank Yes

Revolutions per minute 115 Flywheel dia. 2489m/m Weight 2590 Kgs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, { Solid forged dia. of journals as per Rule as approved 505m/m Crank pin dia. 505m/m Mid. length breadth 980m/m Thickness parallel to axis 310m/m
 { Semi built as fitted 505m/m Crank Webs Mid. length thickness 310m/m Thickness around eyehole 292.5m/m
 { All built Bored 115m/m Bored 230m/m as approved Thickness around eyehole as approved

Flywheel Shaft, diameter as per Rule as approved Intermediate Shafts, diameter as per Rule as approved Thrust Shaft, diameter at collars as per Rule 454m/m
 as fitted - as fitted - as fitted -

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

Bronze Liners, thickness in way of bushes as per Rule as approved Thickness between bushes as per Rule as approved 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 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 - Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft - 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

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes Means of lubrication Forced

Thickness of cylinder liners 53 to 41m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water-cooled or lagged with non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine -

Cooling Water Pumps, No. 2 S.W. 2 F.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

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

Pumps connected to the Main Bilge Line { No. and Size 1 M.E. 80 tons per hour. 1 Bilge 100 tons/hr. 1 Ballast 170 tons/hr.
 { How driven steam steam

Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements -

Ballast Pumps, No. and size 1 @ 170 tons / hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 100 tons/hr.

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces E.R. 3 @ 3 1/2" 2 off 2" Gutterways O.F.T. pump In Pump Room -

In Holds, &c. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 @ 6"

Are all the Bilge Suction pipes in Holds and Tunnels well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces 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 platform 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 -

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 None Is it fitted with a watertight door - worked from -

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -

Main Air Compressors, No. None No. of stages - Diameters - Stroke - Driven by -

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 280m/m 245m/m Stroke 130m/m Driven by Steam

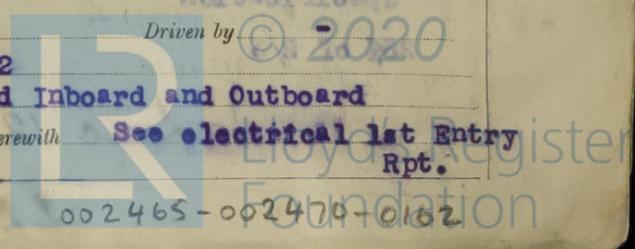
Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

What provision is made for first Charging the Air Receivers Steam Driven compressors

Scavenging Air Pumps, No. None Diameter - Stroke - Driven by -

Auxiliary Engines crank shafts, diameter as per Rule Steam driven No. 2 Position Starboard Inboard and Outboard
 as fitted - as fitted -

Have the Auxiliary Engines been constructed under special survey - Is a report sent herewith See electrical 1st Entry Rpt.



AIR RECEIVERS:—Have they been made under survey State No. of Report or Certificate
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule
 Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver
Injection Air Receivers, No. None Cubic capacity of each Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual
Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

IS A DONKEY BOILER FITTED? Yes (2) If so, is a report now forwarded? see Belfast Rpt. No. (14029)
 Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for Shafting 7.1.44 Gls. Receivers 28.12.44 Bel. Separate Fuel Tanks 25.5.44
 (If not, state date of approval) 3.8.44 Bel. Pumping Arrangements in Machinery Space 17.10.44
 Donkey Boilers 18.11.43 Bel. General Pumping Arrangements 17.10.44 Bel. Pumping Arrangements in Machinery Space 17.10.44
 Oil Fuel Burning Arrangements

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied as per Rule and specification

Inspection records were taken from a sister vessel H.W. yard 1195 which were found satisfactory.

The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED,
 Wm. J. Wright, Finnieston Secretary
 See Sept letter 21.4.44
 Yard no 1284 FILE
 Manufacturer.

Dates of Survey while building
 During progress of work in shops-- 1943 Nov 17, 1944 Jan 10, 24, 28, Mar 15, 28, 31, May 1, 4, 16, 18, 21, 24, Jun 5, 7, 12, 15, 19, 22, 26, 28, Aug 4, 26, Aug 7, 11, 17, 24
 During erection on board vessel-- 1943 Dec 14, 27, Dec 31, 1944 Jan 1, 16, 20, 21, 23, 30, Mar 11, 18, 27, 1945 Jan 3, 8, 11, 17, 24, 25, 7, 14, 15, 26, Mar 5, 7, 12, 15, 19, 24, 25, 31
 Total No. of visits 100

Dates of Examination of principal parts—Cylinders 3.8.45 to 3.9.45 Covers 3.8.45 to 3.9.45 Pistons 10.9.45 to 13.9.45 Rods 10.9.45 to 13.9.45 Connecting rods 9.8.45
 Crank shaft 1.11.44 Flywheel shaft Thrust shaft 1.11.44 Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine sealings 19.9.45 Engines holding down bolts 26.11.44
 Completion of fitting sea connections Completion of pumping arrangements 13.12.45 Engines tried under working conditions 13.12.45
 Crank shaft, Material Steel Identification Mark LLOYDS 9508 Flywheel shaft, Material Identification Mark 20.12.45
 Thrust shaft, Material Steel Identification Mark LLOYDS S. 9524 Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark
 Identification Marks on Air Receivers No. 308 No. 314

Is the flash point of the oil to be used over 150° F. Yes
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes
 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 Yes If so, state name of vessel "BRITISH MIGHT" with an engine

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been constructed under Special Survey and in accordance with the approved plans, the Rules of this Society and the Ministry of War Transport Specification for the main engines. The materials and workmanship are good. The machinery has been efficiently secured in position on board the vessel and afterwards tried under full working conditions with satisfactory results. The machinery is eligible in my opinion to be classed in the Register Book with the notation + L.M.C. 12.45 C.
Fitted for oil fuel 12.45 F.P. above 150° F. 2 D.B. W.P. 150 lbs per sq. inch.

NOTE:- Specification main engines only.
Torsional records notice No. 1803. This machinery is a duplicate of M/V. "BRITISH COURAGE"
See London Letter 20/3/44.

The amount of Entry Fee .. £ 5 : 0 : 0 When applied for, 29/12/45
 Special £ 98 : 10 : 0 When received, 19
 Donkey Boiler Fee £ 16 : 8 : 0
 Specification
 Travelling Expenses (if any) £ : :
25% of 2/3
 Committee's Minute GLASGOW 8 JAN 1946

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

Assigned 1- June 12.45
208 150 lb.

