Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 14029

Received at London Office 11 JAN 1946

Date of writing Report ..... 19 ..... When handed in at Local Office 7/9/ 19 45 Port of Belfast

No. in Reg. Book. Survey held at Belfast Date, First Survey 28 April 1944 Last Survey 31st Aug. 1945
Number of Visits 80

Single / on the ~~Twin~~ / ~~Triple~~ / ~~Quadruple~~ Screw vessel "BRITISH SUPREMACY" Tons Gross 8242 Net 4816

Built at Belfast By whom built Harland & Wolff Ld Yard No. 1284 When built 1945

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

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

Brake Horse Power 3,200 Owners British Tankers Ld Port belonging to London

Nom. Horse Power as per Rule ..... Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Carriage of Petroleum in Bulk.

OIL ENGINES, &c. —Type of Engines Heavy Oil H&W. B&W Type 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lb/□" Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 128 lb/□"

Span of bearings, adjacent to the crank, measured from inner edge to inner edge ..... Is there a bearing between each crank .....

Revolutions per minute 115 Flywheel dia. 2,489 mm Weight 2590 kgs. Means of ignition ..... Kind of fuel used .....

Crank Shaft, (Solid forged / Semi built / All built) dia. of journals as per Rule ..... / as fitted ..... Crank pin dia. ..... Crank webs Mid. length breadth ..... / Mid. length thickness ..... shrunk Thickness parallel to axis ..... / Thickness around eyehole .....

Flywheel Shaft, diameter as per Rule ..... / as fitted ..... **Intermediate Shafts,** diameter as per Rule as approved / as fitted 17" **Thrust Shaft,** diameter at collars as fitted ..... / as per Rule .....

Tube Shaft, diameter as per Rule ✓ / as fitted ✓ **Screw Shaft,** diameter as per Rule as approved / as fitted 16" ✓ Is the {tube / screw} shaft fitted with a continuous liner {✓ / yes ✓}

Bronze Liners, thickness in way of bushes as per Rule ..... / as fitted 13/16" ✓ Thickness between bushes as per Rule ..... / as fitted 21/32" ✓ 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 ✓ Is an approved **Oil Gland** or other appliance fitted at the after end of tube shaft no ✓ If so, state type ✓ Length of bearing in **Stern Bush** next to and supporting propeller 5'-0" ✓

Propeller, dia. 15'-6" ✓ Pitch 12'-0" No. of blades 4 Material Bronze whether moveable no Total developed surface 75 sq. feet

Method of reversing Engines ..... Is a governor or other arrangement fitted to prevent racing of the engine when declutched ..... 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 non-conducting material ..... 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. ..... Is the sea suction provided with an efficient strainer which can be cleared within the vessel .....

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

Pumps connected to the **Main Bilge Line** {No. and size ..... / How driven .....}

Is the cooling water led to the bilges ..... 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 ..... **Power Driven 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, No. and size:—In machinery spaces ..... In pump room .....

In holds, &c. .....

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 spaces led from easily accessible mud-boxes, 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 yes Are they fitted with valves or cocks yes. Are they fixed sufficiently high on the ship's side to be seen without lifting the platform 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 .....

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. ..... No. of stages ..... diameters ..... stroke ..... driven by .....

Auxiliary Air Compressors, No. ..... No. of stages ..... diameters ..... stroke ..... driven by .....

Small Auxiliary Air Compressors, No. ..... No. of stages ..... diameters ..... stroke ..... driven by .....

What provision is made for first charging the air receivers .....

Scavenging Air Pumps, No. ..... diameter ..... stroke ..... driven by .....

Auxiliary Engines crank shafts, diameter as per Rule ..... / as fitted ..... No. ..... Position .....

Have the auxiliary engines been constructed under special survey ..... Is a report sent herewith .....

and a List of

7-ed. 28.13.19
.15.16.17.21.22
.23.24.25.26

Visits 1945 / 114

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AIR RECEIVERS:—Have they been made under survey yes ✓ State No. of report or certificate 21432. ✓

Is each receiver, which can be isolated, fitted with a ~~safety valve~~ disc as per Rule yes ✓

Can the internal surfaces of the receivers be examined and cleaned yes ✓ Is a drain fitted at the lowest part of each receiver yes ✓

~~Injection~~ Starting Air Receivers, No. 2 ✓ Cubic capacity of each 450 cu ft. Internal diameter 6'-0 5/16" ✓ thickness 1" ✓

Seamless, lap welded or riveted longitudinal joint Riveted ✓ Material Steel ✓ Range of tensile strength 28/32 tons ✓ Working pressure by Rules ~~as approved~~ Actual 356 lb/□" ✓

~~Starting~~ Injection 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 yes

Is the donkey boiler intended to be used for domestic purposes only No. ✓

PLANS. Are approved plans forwarded herewith for shafting 15.1.44 (If not, state date of approval) Receivers 2.12.43. Separate fuel tanks

Donkey boilers 2.12.43. General pumping arrangements Pumping arrangements in machinery space 25.5.44

Oil fuel buring arrangements 5.5.44

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building — During progress of work in shops: 1944 Apl 28 May 5.10.13.23.24 June 9.20.26.30 July 27 Sept 18.28 Oct 2.4.6.10.12.17.18.23 Nov 1.6.7.8.14.22.24 Dec 4.6.12.13.14.18.28.29 1945 Jan 1.10.12.16.19.23.26.30.31 Feb 1.25.7.8.10.14.16.20.28 May 5.8.9.10.13.15.20.26 Apl 4.11.15.16.20.23.25.26.30 May 3.4.16.23.24 June 14.16.19 July 4.25.31 Aug 10.24.23.31

During erection on board vessel:

Total No. of visits 91

Dates of examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts 14.6.45 Tube shaft ✓

Screw shaft 14.6.45 Propeller 3.7.45 Stern tube 16.6.45 Engine seatings Engine holding down bolts

Completion of fitting sea connections 25.7.45 Completion of pumping arrangements Engines tried under working conditions

Crank shaft, material Identification mark Flywheel shaft, material, Identification mark

Thrust shaft, material Identification mark Intermediate shafts, material Steel Identification marks ll No. 478 T.D.S. 59791

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material Steel Identification mark ll No. 478 T.D.S. 59597. SPARE SCREWSHAFT:— ll No. 478 T.D.S. 52103.

Identification marks on air receivers No. 308 Lloyd's Test 556 lb WP 356 lb T.D.S. 22.11.44 ✓ No. 314 Lloyd's Test 556 lb. W.P. 356 lb. T.D.S. 12.12.44. ✓

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Description of fire extinguishing apparatus fitted

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. The donkey boilers, air receivers, propeller & screwshaft have been efficiently fitted on board & the vessel has been taken to the Clyde for installation of the main engines.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

Certificate (if required) to be sent to

The amount of Entry Fee ... ... £ : :

Special ... ... £ : :

Donkey Boiler Fee... ... £ : :

Travelling Expenses (if any) £ : :

When applied for 19

When received 19

Committee's Minute GLASGOW 8 JAN 1946

Assigned SEE ACCOMPANYING MACHINERY REPORT.

T. D. Philston

Engineer Surveyor to Lloyd's Register of Shipping.

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