Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 18696.

Received at London Office 17 MAR 1949

Date of writing Report 7th March 1949. When handed in at Local Office 12th March 1949 Port of MIDDLESBROUGH.

No. in Reg. Book. Survey held at ..... Date, First Survey 22nd March 1948 Last Survey 10th March, 1949.

Number of Visits 47.

Single / on the Twin / Triple / Quadruple Screw vessel m.v. "BRITISH YEOMAN". Tons Gross 8741. Net 5038.

Built at Haverton Hill-on-Tees. By whom built Furness S.B. Co. Ltd. Yard No. 412 When built 1949

Engines made at Wallsend. By whom made N.E. Marine Eng. Co. (1938) Ltd. Engine No. 3160 When made 1948

Donkey Boilers made at Wallsend. By whom made -do- Boiler No. 3160 When made 1948

Brake Horse Power 3100. Owners British Tanker Co. Port belonging to London.

Nom. Horse Power as per Rule 688 M.N. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Carrying Petroleum in Bulk.

ENGINES, &c.—Type of Engines ..... 2 or 4 stroke cycle ..... Single or double acting .....

imum pressure in cylinders ..... Indicated Pressure ..... 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 .....

lutions per minute ..... Flywheel dia. ..... Weight ..... Means of ignition ..... Kind of fuel used .....

k / t, 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 .....

Reports No. 106676 Newcastle

heel Shaft, diameter as per Rule ..... as fitted 3.8 ..... Intermediate Shafts, diameter as per Rule ..... as fitted ..... Thrust Shaft, diameter at collars as per Rule ..... as fitted .....

Shaft, diameter as per Rule ..... as fitted ..... Screw Shaft, diameter as per Rule ..... as fitted 17¾ ✓ Is the tube / screw shaft fitted with a continuous liner Yes ✓

ze Liners, thickness in way of bushes as per Rule 27/32" as fitted 7/8" Thickness between bushes as per Rule 21/32" as fitted 21/32" Is the after end of the liner made watertight in the

ller 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-

sive Yes ✓ 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

tube shaft No ✓ If so, state type - Length of bearing in Stern Bush next to and supporting propeller 5' 11"

eller, dia. 16'7" ✓ Pitch 11'6" No. of blades 4 Material Bronze whether moveable No Total developed surface 95 sq. feet

od of reversing Engines Hand lever ✓ Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of

ation Forced ✓ Thickness of cylinder liners 25 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

ged with non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

o the engine - Cooling Water Pumps, No. Two 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 Bilge & San. 7" x 8" x 8" 1 Ballast 10" x 12" x 10" ✓ / How driven Steam

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

ements -

Pumps, No. and size 1-10" x 12" x 10" ✓ Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1-8" x 7" x 13" Weir's Steam (Standby) ✓

o independent means arranged for circulating water through the Oil Cooler Yes ✓ Suctions, connected to both main bilge pumps and auxiliary

umps, No. and size:—In machinery spaces 3-3½" suctions, 1 - 2½" E.R. Cofferdam, 2-2½" suctions from oil bilge/Aux. In pump room Ford. 1 - 2" Main pump room ford - 2-4" " " - 2-4"

ls, &c. Upper Hold 2.2", Lower Hold 2.2" Deep Tank 2.4" Fore peak 1-4". Ford. cofferdam 1 - 3"

ndent Power Pump Direct Suctions to the engine room bilges, No. and size Ballast Pump Bilge Suct. 1-8" Bilge & San. Pump Suct. 1-5 ✓

the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes ✓ Are the bilge suctions in the machinery spaces led from easily

le 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 ✓ Are they fixed

tly 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 brasscovering plate yes ✓

ipes pass through the bunkers None ✓ How are they protected -

ipes pass through the deep tanks None ✓ 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 ✓

rangement 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

r from one compartment to another Yes ✓ Is the shaft tunnel watertight None ✓ Is it fitted with a watertight door - worked from -

d vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork .....

Air Compressors, No. Two ✓ No. of stages 3 diameters See London Certificate stroke ..... driven by No. D. 15838

iary Air Compressors, No. - No. of stages ..... diameters ..... stroke ..... driven by .....

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

provision is made for first charging the air receivers Steam driven compressors. ✓

nging Air Pumps, No. - diameter ..... stroke ..... driven by .....

iary Engines crank shafts, diameter as per Rule ..... as fitted ..... No. Inboard R.2/65750/3 Outboard R.2/65750/4 Position .....

he auxiliary engines been constructed under special survey Yes Is a report sent herewith See attached London Report No. 116185

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12. 21.

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21. 24. 25.

No. of Visits 1

002916-002922-0150

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AIR RECEIVERS. — Have they been made under survey? Yes State No. of report or certificate C.1376

Is each receiver, which can be isolated, fitted with a safety valve 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 Air Receivers. No. – 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. 2424 Total cubic capacity 500 cu. ft. Internal diameter 49½" thickness 1.5/32"

Seamless, lap welded or riveted longitudinal joint Butt Strap Material OH. Steel Range of tensile strength Shell 28-32 Ends 26-30. Working pressure by Rules – Actual 600 per sq. inch

IS A DONKEY BOILER FITTED Yes (2) If so, is a report now forwarded See accessible Rpt. No. 105675

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

PLANS. Are approved plans forwarded herewith for shafting? Yes, Duplicate case (If not, state date of approval) Receivers Yes Separate fuel tanks

Donkey boilers No General pumping arrangements Yes Pumping arrangements in machinery space Yes

Oil fuel boring arrangements Yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes, See attached list

State the principal additional spare gear supplied See New. Report No. 105675

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building

During progress of work in shops: 1948. Oct. 22. Nov. 23. 26. Sept. 8. Oct. 5. 7. 13. 19. 22. 27. Nov. 10. 12. 16. 18. 29. Dec. 14. 21. (1949) Jan. 4. 6. 11. 12. 14. 18. 19. 20. 24. 26. 27. 28. Feb. 2. 4. 7. 11. 14. 15. 16. 21. 22.

During erection on board vessel: Mar. 1. 2. 4. 7. 8. 10.

Total No. of visits 47.

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

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft 18.10.48 Propeller 18.10.48 Stern tube 5.10.48 Engine seatings 19.1.49 Engine holding down bolts 24.

Completion of fitting sea connections 15.10.48 Completion of pumping arrangements 4.3.49 Engines tried under working conditions 22/2

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

Thrust shaft, material – Identification mark – Intermediate shafts, material OH. Steel Identification marks S.96

Tube shaft, material – Identification mark – Screw shaft, material OH. Steel Identification mark No. 959 S.958

Identification marks on air receivers S.W. 2424 Port 14.5.48 Starboard 2424 21.5.48 S.W.

Propeller No. 23668. Lloyd's No. D. 17.9.48.

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

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 Yes If so, state name of vessel British Isles.

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

These engines and boilers have been fitted aboard this vessel in accordance with the approved plans and Rule requirements and on completion the machinery was tried out under working conditions and found satisfactory and in our opinion is now eligible for record +LMC. 3.49. and Notation of TS. (C.) 3.49.

Fitted for burning oil fuel 3.49. (F.P. above 150°F).

Fitted forced draught.

(Certificate (if required) 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 ... £ : :

Special (1/3) ... £ 70 : 17 :

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : :

When applied for 16/3/ 1949.

When received 19

C. Norman Stuart & E. Howe

Engineer Surveyor to Lloyd's Register of

Committee's Minute FRI. 8 APR 1949

Assigned +LMC 3.49 Oil Eng

C.L. 2DB 150lb.

Has the Steel been tested as required by the Rules?

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