

REPORT ON OIL ENGINE MACHINERY.

No. 18249.

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Date of writing Report 26th Mar 1947. When handed in at Local Office 29th Mar. 1947. Port of MIDDLESBROUGH.

Survey held at MIDDLESBROUGH. Date, First Survey 13th May, 1946; Last Survey 22nd March, 1947. Number of Visits 49.

Single on the Twin Triple Quadruple Screw vessel n.v. "BRITISH EMPRESS". Tons Gross 8745 Net 4988

built at Haverton Hill. By whom built Furness S. B. Co. Ltd. Yard No. 391 When built 1947

engines made at Sunderland. By whom made Wm. Doxford & Sons Ltd. Engine No. 2765 When made 1947

Donkey Boilers made at Wallsend. By whom made N.E. Marine Eng. Co. (1938) Ltd. Boiler No. 2765 When made 1947

Indicated Horse Power 3100 Owners British Tankers Co. Port belonging to London.

Reg. Horse Power as per Rule 687 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Tanker

ENGINES, &c. - Type of Engines 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

Mean Indicated Pressure Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Distance 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

ank 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 eye-hole

Wheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted 450 m/m as per Rule 431 m/m

be Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner Yes

onze 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

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

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-

rosive. 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

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

propeller, dia 16'7" Pitch 11'5" No. of blades 4 Material Mangrove whether moveable No Total developed surface 95 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

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 Yes

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

mps connected to the Main Bilge Line No. and size 2 Bilge & San. 7" x 8" x 8 x 1 Ballast 10" x 12" x 10" How driven Shadm.

he 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

last Pumps, No. and size 1-10" x 12" x 10" Power Driven Lubricating Oil Pumps, including spare pump, No. and size

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

re pumps, No. and size: - In machinery spaces 3-2 1/2" & 2 - 2 1/2" from Trans. P. to oily bilge In pump room Ford 1 - 2 Main

holds, &c. Upper hold 2-2" Lower hold 2-2" Deep tank 2-1" Fore peak 1 - 4"

ependent Power Pump Direct Suctions to the engine room bilges, No. and size Bilge & San. direct 1-5" & Ballast Pump bilge direct 1-8"

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

possible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes

all Sea Connections fitted direct on the skin of the Ship. Yes Are they fitted with valves or cocks. Both Are they fixed

ciently 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

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

at pipes pass through the bunkers. None How are they protected

at pipes pass through the deep tanks. Have they been tested as per Rule

all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. Yes

re 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

es, or from one compartment to another. Yes Is the shaft tunnel watertight. None Is it fitted with a watertight door. - worked from. -

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. 2 See London Co. No. of stages 3 diameters stroke driven by Steam

uxiliary Air Compressors, No. None No. of stages diameters stroke driven by

small Auxiliary Air Compressors, No. 1 No. of stages diameters stroke driven by

that provision is made for first charging the air receivers. By own Power Steam Driven Compressor

evenging Air Pumps, No. diameter stroke driven by

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

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

AIR RECEIVERS:—Have they been made under survey Yes ✓ State No. of report or certificate Explosion discs
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. 2 Cubic capacity of each 300 cu. Ft. Internal diameter 4' 1 1/2" thickness 1.5/32"

~~Seamless, lap welded or riveted~~ longitudinal joint (See W. Hpl. Rpts 1226/7) Material O.H. Steel Range of tensile strength See Newcastle Report No. 104056 Working pressure Actual

Starting Air Receivers, No. 2 Total cubic capacity 300 cu. Ft. Internal diameter 4' 1 1/2" thickness 1.5/32"

~~Seamless, lap welded or riveted~~ longitudinal joint Yes ✓ Material O.H. Steel Range of tensile strength See Newcastle Report No. 104056 Working pressure Actual

IS A DONKEY BOILER FITTED Yes ✓ If so, is a report now forwarded See Newcastle Report No. 104056

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

PLANS. Are approved plans forwarded herewith for shafting 3/1/46 Receivers 8/5/46 Separate fuel tanks 21/9/46

Donkey boilers - General pumping arrangements 17/10/46 Pumping arrangements in machinery space 21/9/46

Oil fuel burning arrangements 7/8/46

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓

State the principal additional spare gear supplied See attached list

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 1946. May 13, Aug. 14, 27, Sept. 2, 23, Oct. 2, 4, 9, 14, 18, 22, 30, Nov. 1, 4, 5, 12, 25, 29, Dec. 11, 13, 16, (2), 18, 20, 24, 30, 1947. Jan. 3, 20, 22, 24, 29, 31, Feb. 3, 6, 14, 18, 20, 27, Mar. 3, 5, 6, 7, 10, 14, 18, 19, 21, 22.
During erection on board vessel - - Mar. 3, 5, 6, 7, 10, 14, 18, 19, 21, 22.
Total No. of visits 49.

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

Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts - Tube shaft -

Screw shaft 14.10.46 Propeller 14.10.46 Stern tube 4.10.46 Engine scatings 27.8.47 Engine holding down bolts 15.1.47

Completion of fitting sea connections 14.10.46 Completion of pumping arrangements 5.3.47 Engines tried under working conditions 21.2.47

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

Thrust shaft, material - Identification mark - Intermediate shafts, material O.H. Steel Identification marks 9244 J.

Tube shaft, material - Identification mark - Screw shaft, material O.H. Steel Identification mark 9232 J.D.

Identification marks on air receivers 2375 A.O. 25/10/46 and 2367 S.W. 26/9/46.

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 Steam smothering and perforated water pipes and Phomene hand fire extinguishers.

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 M.V. "BRITISH ADMIRAL".

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

These engines and boilers were fitted on board 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 my opinion is now eligible for record of WMC. 3.47. and notation of T.S. (C.L). 3.47. Forced draught fitted.

The amount of Entry Fee ... £ : :
1/3 Special ... £ 36 : 9 : When applied for 1.4.47 19 47.
Donkey Boiler Fee... £ : : When received 19
Travelling Expenses (if any) £ : :
Committee's Minute FRL 2 MAY 1947
Assigned + LMC 3.47 Oil Eng.
C.L. 2DB 150/16.

Shorman Stuart & G.E. Ouch
Engineer Surveyor to Lloyd's Register of Shipping
Lloyd's Register Foundation