

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 20 NOV 1942

Port of Hull

Date, First Survey 23. 5. 42. Last Survey 8. 10. 1942.

Survey held at Hessle & Hull. Date, First Survey 23. 5. 42. Last Survey 8. 10. 1942.

Reg. Book on the TUG "EMPIRE TITAN" (Number of Visits 29)

Built at HESSLE By whom built HENRY SCARR Yard No. 10 When built 1942

Engines made at TRON By whom made ALSA SHIPBUILDING Co. Engine No. 185 When made 10

Boilers made at HULL By whom made B.D. Holmes & Co. Ltd Boiler No. 1603 When made 10

Registered Horse Power 1150 Owners Ministry of War Transport Port belonging to Hull

Nom. Horse Power as per Rule 177 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

Trade for which vessel is intended General Cargo

Engines, &c.—Description of Engines Steam reciprocating 65630 Revs. per minute 130

Dia. of Cylinders 16" 26" 43" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals 8.794 as per Rule 9" Crank pin dia. 9" Crank webs 17 1/2" Mid. length breadth 5 5/8" Thickness parallel to axis 5 5/8"

Intermediate Shafts, diameter 8.375 as per Rule 8 5/8" Thrust shaft, diameter at collars 8.9" as per Rule 9 1/8"

Tube Shafts, diameter none as fitted none Screw Shaft, diameter 9.7" as per Rule 9 3/8" Is the tube shaft fitted with a continuous liner no

Bronze Liners, thickness in way of bushes no liner as per Rule no Thickness between bushes no as fitted no 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 yes

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 yes

If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube yes

at yes If so, state type NEWARK O.G. N°1 Length of Bearing in Stern Bush next to and supporting propeller 42"

Propeller, dia. 11' 0" Pitch 11' 8" No. of Blades Four Material C.I. whether Moveable solid Total Developed Surface 46 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16" Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size One Weir Pumps connected to the { No. and size 2.53" dia x 16" stroke from One 7x7x8" duplex

How driven Independent Steam Main Bilge Line { How driven main engines Dawson Donkey, independent action

Ballast Pumps, No. and size One 7x7x8" duplex Lubricating Oil Pumps, including Spare Pump, No. and size yes

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room Two each 2" dia. Boiler room two 2 1/4"

In Pump Room yes In Holds, &c. One each of 2" dia to fore peak, aft peak and

Mid Bilge yes

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 5 1/2" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 0 2 1/2"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes

Are the Bilge Suctions in the Machinery Space 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 COCKS ON SKIN Are they fitted with Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Overboard Discharges above or below the deep water line above

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 bunks none How are they protected yes

What pipes pass through the deep tanks none Have they been tested as per Rule yes

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 no tunnel Is it fitted with a watertight door yes worked from yes

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2778 sq. ft.

Which Boilers are fitted with Forced Draft all Which Boilers are fitted with Superheaters none

No. and Description of Boilers One S.B. Working Pressure 210 lbs/sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes

Can the donkey boiler be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for Shafting 3-1-41 Main Boilers 8-8-40 Auxiliary Boilers yes Donkey Boilers yes

(If not state date of approval)

Superheaters yes General Pumping Arrangements 1-11-40 Oil fuel Burning Piping Arrangements yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied as specification

The foregoing is a correct description.

Manufacturer.

During progress of work in shops - - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits.

May 23rd, June 8th 16th, 22nd, 23rd, July 3rd, 15th, 30th, Aug 6th, 19th, 25th
 Sept 8th, 10th, 12th, 14th, 15th, 16th, 17th, 21st, 22nd, 23rd, 28th, 29th, Oct 1st, 2nd, 5th, 6th, 7th, 8th
 29.

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____
 Pistons _____ Piston Rods _____ Connecting rods _____
 Crank shaft _____ Thrust shaft _____ Intermediate shafts _____
 Tube shaft _____ Screw shaft _____ Propeller _____
 Stern tube _____ Engine and boiler seatings _____ Engines holding down bolts _____
 Completion of fitting sea connections _____
 Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____
 Main boiler safety valves adjusted _____ Thickness of adjusting washers _____
 Crank shaft material _____ Identification Mark _____ Thrust shaft material _____ Identification Mark _____
 Intermediate shafts, material _____ Identification Marks _____ Tube shaft, material _____ Identification Mark _____
 Screw shaft, material _____ Identification Mark _____ Steam Pipes, material _____ Test pressure _____ Date of Test _____
 Is an installation fitted for burning oil fuel _____ Is the flash point of the oil to be used over 150° F. _____
 Have the requirements of the Rules for the use of oil as fuel been complied with _____
 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 machinery of this vessel has been constructed in accordance with the approved plans, the Rules, and the specification; of tested materials made by firms accredited by the Society. The workmanship and material are good.

The main and auxiliary machinery have been fitted on board, tried under steam at as near full power as practicable in the basin, found satisfactory in all respects. It is eligible in our opinion, when classed, to record of * LMC 10.42 and O.G., with notation T. 3 cyl. 16", 262 1/2 177 NHP. ONE S.B. 210 1/2" 3 C.F. G.S. 64 1/2 H.S. 2778 1/2 F.D.

The amount of Entry Fee ... £ : :
 Special ... £ 33 : 3
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :

When applied for, 19 NOV 1942
 When received, 19

Committee's Minute ...
 Assigned ...

W. Shillies & John Douglas
 Engineer Surveyor to Lloyd's Register of Shipping.