

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

18 JUN 1942

Date of writing Report

19

When handed in at Local Office

15: 6: 1942 Port of

GLASGOW

20 NOV 1942

No. in Survey held at  
Reg. Book.

TROON

Date, First Survey 26: 12: 41

Last Survey

1. 6.

1942

on the

"EMPIRE TITAN"

(Number of Visits 28)

Built at

THORNE

By whom built

HENRY SCARR LD.

RICHARD DUNSTON LTD

Yard No.

423

Tons

When built

Engines made at

TROON

By whom made

AILSA SHIPBUILDING

Engine No.

185

When made

1942

Boilers made at

W. H. H. H.

By whom made

Central Marine

Boiler No.

R-24

When made

-

Registered Horse Power

1,100

Owners

Ministry of War Transport

Port belonging to

-

Nom. Horse Power as per Rule

177

Is Refrigerating Machinery fitted for cargo purposes

-

Is Electric Light fitted

-

Trade for which Vessel is intended

-

ENGINES, &amp;c.—Description of Engines STEAM RECIPROCATING

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

as per Rule 8.794

as fitted 9"

Crank pin dia.

9"

Crank webs

Mid. length breadth 14 1/2"

Mid. length thickness 5 3/8"

shrink

Thickness parallel to axis 5 5/8"

Thickness around eye-hole 4"

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust shaft, diameter at collars

as per Rule

as fitted

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

tube

screw

shaft fitted with a continuous liner

-

Bronze 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

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

a t

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

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

Pumps connected to the

No. and size

Pumps

How driven

Main Bilge Line

How driven

Ballast Pumps, No. and size

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;—In Engine and Boiler Room

In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size

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 Space 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

Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold 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

MAIN BOILERS, &amp;c.—(Letter for record

Total Heating Surface of Boilers

2778

Which Boilers are fitted with Forced Draft

Yes

Which Boilers are fitted with Superheaters

No. and Description of Boilers

Working Pressure

210 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

Main Boilers

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

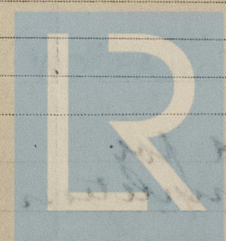
YES.

State the principal additional spare gear supplied

PH M.O.W.T. SPECIFICATION.

The foregoing is a correct description.  
FOR AILSA SHIPBUILDING CO. LIMITED

Manufacturer.



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Lloyd's Register  
Foundation

009222-006230-0130



1941 Dec: 26 (1942) Jan: 5. 12. 14. 20. 23 Feb: 13. 18. 26 Mar: 3. 10. 13. 17. 23. 27 Apr: 3. 13. 22. 28 May: 1. 4. 6. 8. 13. 15. 20. 25 June: 1

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits 28

Dates of Examination of principal parts—Cylinders 10.3.42 Slides 10.3.42 Covers 10.3.42

Pistons 28.3.42 Piston Rods 22.4.42 Connecting rods 6.5.42

Crank shaft 22.4.42 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 STEEL Identification Mark No 508 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 No. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under Special Survey and in accordance with the approved plans and the Society's Rules. The materials and the workmanship are good. The machinery is eligible in my opinion to be classed + L.M.C with date when it has been efficiently installed on board vessel, and tested under working conditions. The machinery has been constructed in accordance with the M.O.W.T specification it has been despatched to Thorne for fitting on board.

The above main engine fitted on board Empire Titan at Hull: see additional report 4. W.S. Shields.

The amount of Entry Fee ... £ 3 : - : - When applied for, 17.6.1942

2/5 Special Specimen ... £ 17 14 : - : - When received, 19...

Donkey Boiler Fee ... £ 4 : 8 : 6

Travelling Expenses (if any) £ 3 : 14/-

Committee's Minute GLASGOW 16 JUN 1942

Assigned Inspected for completion

James Crawford.  
Engineer Surveyor to Lloyd's Register of Shipping.

FRI, 27 NOV 1942

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See Hull 30 57812

Lloyd's Register Foundation