

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of Writing Report

28 JAN 1944

When handed in at Local Office

28 JAN 1944

Received at London Office

Port of

NEWCASTLE ON TYNE

No. in Survey held at  
Reg. Book.Newcastle on Tyne  
on the Tm. So. UMTATA.

Date, First Survey

26 May 1942

Last Survey

24 January 1944

(Number of Visits)

132

Gross Tons

7288

Net Tons

3799

When built

1944-1

Built at

Newcastle

By whom built

Swan, Hunter &amp; Wigham Richardson Ltd

Yard No.

1740

Engines made at

do.

By whom made

ditto

Engine No.

1740

When made

"

Boilers made at

do.

By whom made

ditto

Boiler No.

1740

When made

"

Registered Horse Power

14 HP of each reciprocating eng. 2600

Owners

Pullard, King &amp; Co Ltd

Port belonging to

LONDON.

Nom. Horse Power as per Rule

1145 including 1161

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Open seas

## ENGINES, &amp;c.—Description of Engines

Triple Exp. Recip. with L.H. Steam Turbines

Revs. per minute

119.

Dia. of Cylinders

23 1/2 + 38 + 64

Length of Stroke

39"

No. of Cylinders

6

No. of Cranks

6

Crank shaft, dia. of journals

as per Rule 12.72

as fitted 13 1/8"

Crank pin dia.

13 1/4"

Crank webs

Mid. length breadth

"

shrink

Thickness parallel to axis

6 1/2"

Intermediate Shafts, diameter

as per Rule 12.49

as fitted 12 1/8"

Thrust shaft, diameter at collars

as per Rule 12.72

as fitted 3 1/2" = 13.38"

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 13.74

as fitted 14 1/4"

Is the shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule 3/4"

as fitted

Thickness between bushes

as per Rule 19/32 min.

Is the after end of the liner made watertight in the

propeller boss

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 the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

in one piece

Is an approved Oil Gland or other appliance fitted at the after end of the tube

a tight fit

If two liners are fitted, is the shaft lapped or protected between the liners

No

Propeller, dia.

15'0"

Pitch

15'0"

No. of Blades

4

Material

M. Bronze

whether Moveable

No

Total Developed Surface

77. sq. feet

Feed Pumps worked from the Main Engines, No.

Nil

Diameter

Stroke

Can one be overhauled while the other is at work

yes

Bilge Pumps worked from the Main Engines, No.

Nil

Diameter

Stroke

Can one be overhauled while the other is at work

yes

Feed Pumps

No. and size

3-22 1/2 x 15 1/2 x 24"

Pumps connected to the

Main Bilge Line

No. and size

2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

How driven

Steam

Ballast Pumps, No. and size

one 14 x 12 1/2 x 24" duplex

Lubricating Oil Pumps, including Spare Pump, No. and size

3 9'8" x 18"

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

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

In Pump Room

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

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In 2 1/2 x 10 1/2 x 24" and 1 Ballast P. 14 x 12 1/2 x 24"

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

2 1/4"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

2 1/4"

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

yes

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

below

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 bunkers

nil

How are they protected

"

What pipes pass through the deep tanks

nil

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

yes

Is it fitted with a watertight door

no

worked from

yes

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

S.)

Total Heating Surface of Boilers

14,112 sq. ft.

Is Forced Draft fitted

yes

No. and Description of Boilers

4 Single Ended

Working Pressure

225 lb.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

yes

Is the donkey boiler intended to be used for domestic purposes only

yes

PLANS.

Are approved plans forwarded herewith for Shafting

13-1-42

Main Boilers

21-1-42

Auxiliary Boilers

yes

Donkey Boilers

yes

Superheaters

General Pumping Arrangements

30-6-42

Oil fuel Burning Piping Arrangements

14-5-43.

Pumping Arrangements in E.R.

28-10-42

SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes

State the principal additional spare gear supplied

Propellers 1 R.H. &amp; 1 L.H., 2 sets of HP piston rings, 2 sets of MP piston rings

2 sets of journal pads for Mitchell plunger blocks, 1 Impeller &amp; 1 Impeller shaft for Circ. water pump,

100 tubes for main Condenser, 25 tubes for Aux. Cond.; 50 gaskets &amp; 200 Cranes installers packing

rings for main Condenser.

The foregoing is a correct description.

SWAN, HUNTER, &amp; WIGHAM RICHARDSON, LTD.

Manufacturer.

G. J. Stacey  
Director.

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Lloyd's Register  
Foundation

002970-002977-0150



1942  
During progress of work in shops -- MAY. 26. 28. OCT. 7. NOV. 13. 21. DEC. 24. 11. 16. 23. 1943  
MAY. 3. 4. 7. 11. 18. 20. JUNE. 1. 2. 4. 10. 16. 17. 18. 22. 23. 24. 25. 29. JULY. 1. 2. 12. 14. 16. 20. 21. 22. 23. 26. 27. 30. AUG. 4. 6. 11. 12. 16. 24. 27. 30.  
AUG. 31. SEPT. 1. 2. 6. 7. 9. 10. 13. 17. 22. OCT. 6. 11. 12. 14. 21. 22. 26. 27. 28. 29. NOV. 1. 2. 3. 5. 9. 10. 12. 15. 16. 18. 19. 22. 23. 24. 29. 30.  
DEC. 6. 8. 9. 10. 13. 15. 17. 20. 21. 24. 28. 30. 1944 JAN. 3. 4. 5. 11. 12. 14. 20. 24.  
During erection on board vessel --  
Total No. of visits 132

Dates of Examination of principal parts--Cylinders P. 29-10-43 S. 5-11-43 Slides 15-11-43 Covers as Cyls  
Pistons 15-11-43. Piston Rods 10<sup>th</sup> & 15<sup>th</sup>-11-43. Connecting rods 10<sup>th</sup> & 15<sup>th</sup>-11-43.  
Crank shafts P. 12/7/43; S. 22/9/43 Thrust shafts P. 27-8-43; S. 2-9-43 Intermediate shafts 27/7/43.  
Tube shaft ✓ Screw shafts 22/7/43. Propellers 4/8/43.  
Stern tubes 20<sup>th</sup> & 22<sup>nd</sup>/7/43. Engine and boiler seatings 20/7/43. Engines holding down bolts P. 18-11-43 S. 23-11-43.  
Completion of fitting sea connections 1-9-43.  
Completion of pumping arrangements 20-12-43. Boilers fixed 6-10-43 Engines tried under steam 21-12-43  
Main boiler safety valves adjusted 20-12-43. Thickness of adjusting washers For<sup>d</sup> BLR A. 11/32; F 5/16; SPT 3/8; Port BLR A. 7/16; F 11/32; SPT 15/32  
Crank shafts material 7. Stl Identification Mark 11702. HAI. Thrust shafts material 7. Stl Identification Mark 11702. HAI.  
Intermediate shafts, material 7 Stl Identification Marks 11702. HAI. Tube shaft, material ✓ Identification Mark -  
Screw shaft, material 7 Stl Identification Mark 11702 HAI Steam Pipes, material SD(O.H) Stl Test pressure 675 lb Date of Test 18-6-43  
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes  
Have the requirements of the Rules for the use of oil as fuel been complied with Yes  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo In D.T. Yes If so, have the requirements of the Rules been complied with Yes  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with not desired  
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.)

The Machinery has been built under Special Survey in accordance with the Society's Rules and approved plans, and the materials and workmanship are good. The Machinery has been satisfactorily fitted on board the vessel and tried under steam under working conditions, and is eligible in my opinion, to be classed with this Society, and to have record + LMC. 1-44, and the notations 4.5B(spt). 225 lbs. WP. TS. CL.  
Fitted for oil fuel 1-44. Flash point above 150°F.

According to advice given the secondary steam pipes are made of Bessemer Steel. S.G.

The amount of Entry Fee ... £ 6 : - :  
Special ... £ 128 : 12/6 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 2 FEB 1944  
When received, 19

A. Watt  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute THURS 9 MAR 1944  
Assigned + LMC 1-44