

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 104060

Received at London Office

8 NOV 1946

Date of writing Report

19

When handed in at Local Office

6. 11. 46 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Newcastle on Tyne

Date, First Survey (1945) Oct. 30th Last Survey Oct. 26th 1946

Reg. Book.

88764 on the

Single
Triple
Quadruple

Screw vessel

M.V. REGENT TIGER

Tons Gross 9960.24
Net 5930.59

Built at

Wallsend on Tyne

By whom built

Swan Hunter, Wigham Shipyard No. 1743 When built 1946

Engines made at

Neptune Works Walker

By whom made

Engine No. 1834 When made 1946

Donkey Boilers made at

By whom made

Boiler No. 1834 When made 1946

Brake Horse Power

4750

Owners

Oil Tank Steamship Co Ltd Port belonging to London

Norm. Horse Power as per Rule

1011

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

M.N.

1012

Carrying petroleum in bulk

88%

IL ENGINES, &c.—Type of Engines Swan Hunter Doxford opposed piston 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders

640 lb/in²

Diameter of cylinders

28 1/2 in

Length of stroke

22 1/2 in

No. of cylinders

4

No. of cranks

4-3 throw

Mean Indicated Pressure

85 lb/in²

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

1080 mm

1410 mm

Is there a bearing between each crank EACH-3 throw

Revolutions per minute

110

Flywheel dia.

2460 mm

Weight

6.14 Tons

Means of ignition

Compression

Kind of fuel used

Heavy oil

Crank Shaft, {
Solid forged
Semi built dia. of journals
As built

as per Rule
as fitted

498 mm
540 mm

Crank pin dia.

540 mm

Crank Webs

Mid. length breadth

770 mm

Thrust Shaft, diameter at collars

as per Rule

15.11

Flywheel Shaft, diameter

as per Rule

540 mm

Intermediate Shafts, diameter

as per Rule

14.65

as fitted

22 1/4 in

Is the tube

screw

shaft fitted with a continuous liner

Yes

Tube Shaft, diameter

as per Rule

16.09

as fitted

Screw Shaft, diameter

as per Rule

21 1/8

Is the tube

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule

1 1/16 - 1 1/32 in

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 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

shaft

If so, state type

Yes

Propeller, dia.

17-2

Pitch

13-0

No. of blades

4

Material

Brass

whether Moveable

No

Total Developed Surface

102

sq. feet

Method of reversing Engines

Compound air

Is a governor or other arrangement fitted to prevent racing of the engine when disengaged

Yes

Means of lubrication

Yes

Joined

Thickness of cylinder liners

25 mm

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

Lagged

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Yes

Cooling Water Pumps, No.

2

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Bilge Pumps worked from the Main Engines, No.

Yes

Diameter

Yes

Stroke

Yes

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

(1) BALLAST 8x9x10-130T/HR.

(2) BILGE 7x8x8-100T/HR.

How driven

Steam

Is the 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

Yes

Ballast Pumps, No. and size

(1) 8x9x10-130T/HR

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

(2) 9x8x18-50T/HR

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Pumps, No. and size:—In Machinery Spaces

3-3 1/2 dia.

1-3 dia Dry Tank

1-2 dia E. R. Cofferdam

In Pump Room

2-4 dia

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

(1) 6 dia BALLAST

(1) 6 dia BILGE

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

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 platform plates

Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

What pipes pass through the bunkers

Yes

What pipes pass through the deep tanks

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

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Yes

Main Air Compressors, No.

Yes

No. of stages

Yes

Diameters

12 3/4 - 3"

Stroke

Yes

Driven by

Yes

Auxiliary Air Compressors, No.

2

No. of stages

3

Diameters

12 3/4 - 10 1/4 - 3"

Stroke

7"

Driven by

Steam engine

Small Auxiliary Air Compressors, No.

Yes

No. of stages

Yes

Diameters

Yes

Stroke

Yes

Driven by

Yes

What provision is made for first Charging the Air Receivers

Auxiliary compressors

Scavenging Air Pumps, No.

One double acting

Diameter

1680 mm

Stroke

1400 mm

Driven by

Crank shaft

Auxiliary Engines crank shafts, diameter

as per Rule

Approved

as fitted

3 1/4"

Position

Aft engine room

Is a report sent herewith

Yes

Manchester RPL 12609

004534-004540-0086

AIR RECEIVERS:—Have they been made under survey Yes State No. of Report or Certificate ✓
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 ✓
Starting Air Receivers, No. 2 Total cubic capacity 400 cub ft Internal diameter 5'-0" thickness 1 5/16"
Seamless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 29-33 Tons Working pressure 602 lbs sq in

IS A DONKEY BOILER FITTED? Yes - Two If so, is a report now forwarded? Yes
Is the donkey boiler intended to be used for domestic purposes only No
PLANS. Are approved plans forwarded herewith for Shafting Yes Receivers Yes Separate Fuel Tanks Yes
(If not, state date of approval)
Donkey Boilers Yes General Pumping Arrangements Yes Pumping Arrangements in Machinery Space Yes
Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
State the principal additional spare gear supplied 1 Spare screw shaft. 1 Upper piston rod, piston & skirt. 1 Lower piston rod, piston & skirt. 1 Lower piston skirt (heavy) 7 Piston rings. 1 Flywheel liner. 1 Main bearing complete. 2 Side rod bolts. 2 Fuel valve bodies & spindles. 2 Fuel pump bodies complete. 6 Piston water service elbows. 4 Rubber hoses for upper P.W.S. 1 Swinging link & quadrant for upper P.W.S. 1 Complete cylinder lubricator. 1 Gross assorted washers. Assorted springs.

(For SWAN, HUNTER & WIGHAM RICHARDSON LTD.)

The foregoing is a correct description,

P.L. Long Manufacturer.

Dates of Survey while building { During progress of work in shops - (1945) Oct. 30, 31 Nov. 19, 26, 30, Dec. 11, 12, 18, 21, (1946) Jan. 3, 7, 14, 16, 21, 25, 28, Feb. 1, 5, 7, 8, 11, 12, 20, 22, 25 Mar. 4, 8, 11, 13, 15, 19, 22, 26 Apr. 2, 9, 10, 12, 15, 18, 23, 24, 29, 30 May 1, 2, 3, 6, 7, 8, 9, 10, 14, 17, 20, 27, 29, 30, 31 June 6, 12, 14, 15, 17, 18, 21, 24, 26, 27 July 1, 3, 5, 10, 16, 18, 19, 22, 26 Aug. 14, 15, 20, 21, 28, 30 Sept. 2, 3, 5, 6, 13, 17, 19, 23, 25, 27, Oct. 10, 11, 14, 15, 17, 21, 26.
During erection on board vessel -
Total No. of visits 104

Dates of Examination of principal parts—Cylinders 14-5-46 Covers ✓ Pistons 14-5-46 Rods 25-2-46 Connecting rods 8-3-46
Crank shaft 25-1-46 Flywheel shaft 25-1-46 Thrust shaft 25-1-46 Intermediate shafts 21-6-46 Tube shaft ✓
Screw shaft 14-6-46 Propeller 21-6-46 Stern tube 15-6-46 Engine seatings 10-10-46 Engines holding down bolts 10-10-46
Completion of fitting sea connections 1-7-46 Completion of pumping arrangements 11-10-46 Engines tried under working conditions 17-10-46
Crank shaft, Material O.H. Steel Identification Mark 14625 G.H.M. Flywheel shaft, Material O.H. Steel Identification Mark its crank shaft
Thrust shaft, Material O.H. Steel Identification Mark its crank shaft Intermediate shafts, Material O.H. Steel Identification Marks 14737 F 7478
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material O.H. Steel Identification Mark 14737 F 7475
Identification Marks on Air Receivers LLOYD'S TEST
T.P. 800 lbs sq in
W.P. 600 lbs sq in
10-5-46 J.H.M.

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
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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 ✓
Is this machinery duplicate of a previous case Yes If so, state name of vessel REGENT TIGER.
General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with rule requirements & approved plans. Materials & workmanship are good. The machinery was satisfactorily tested on mooring & sea trials & in my opinion is eligible for classification with records of +L.M.C. 10, 46. 2 D.B. 180 lbs sq in T.S.C.L.

Inspected approved 17.1.45 and 14.10.46
J.H.M.

The amount of Entry Fee .. £ 6 : 0 : 0 When applied for NOV 1945
Special £ 125 : 5 : 6
Donkey Boiler Fee £ 27 : 0 : 0 When received,
AIR RECEIVERS
Travelling Expenses (if any) £ 4 : 4 : 0

J. H. Matthews
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 13 DEC 1946

Assigned +LMC 10.46 Oil Eng.
C.L.

