

REPORT ON OIL ENGINE MACHINERY.

No. 94780

-6 MAR 7

Received at London Office

NEWCASTLE-ON-TYNE

Date of writing Report

When handed in at Local Office

5/31, 1937 Port of

Date, First Survey

16 July

Last Survey

4/31

1937

Number of Visits

49

No. in Survey held at
Reg. Book.

Newcastle on Tyne

Single
Triple
Quadruple

Screw vessel

ABBNEYDALE.

Tons
Gross 8299
Net 4936

Built at Newcastle on Tyne

By whom built Swan, Hunter & Wigham

Yard No. 1506 When built 1937

Engines made at Sunderland

By whom made W. Doreford & Sons Ltd.

Engine No. 195 When made 1937

Donkey Boilers made at Newcastle

By whom made Swan, Hunter & Wigham

Boiler No. 1506 When made 1937

Brake Horse Power 2850

Owners The Admiralty

Port belonging to LONDON.

Nom. 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

Ocean going 23 5/8

91 1/16

OIL ENGINES, &c.—Type of Engines Doreford opposed piston oil engine 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 40 kg/cm² 370 lb

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

Revolutions per minute 97

Crank Shaft, dia. of journals as per Rule

Flywheel Shaft, diameter as per Rule

Tube Shaft, diameter as per Rule

Bronze Liners, thickness in way of bushes as per Rule

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

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

shaft No

Propeller, dia. 16' 9"

Method of reversing Engines forced

non-conducting material lagged

Cooling Water Pumps, No. 1

What special arrangements are made for dealing with cooling water if discharged into bilges

Bilge Pumps worked from the Main Engines, No. 2

Pumps connected to the Main Bilge Line

Ballast Pumps, No. and size

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

Pumps, No. and size:—In Machinery Spaces

In Holds, &c.

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

Are all the Bilge Suction pipes in Hold

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 fixed sufficiently high on the ship's side to be seen without lifting the platform plates

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

What pipes pass through the bunkers

What pipes pass through the deep tanks

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

If a 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

Auxiliary Air Compressors, No. 2

Small Auxiliary Air Compressors, No. 2

Scavenging Air Pumps, No. 2

Auxiliary Engines crank shafts, diameter

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

High Pressure Air Receivers, No. 2

Seamless, lap welded or riveted longitudinal joint

Starting Air Receivers, No. 2

Seamless, lap welded or riveted longitudinal joint

Length of stroke 1340 mm

No. of cylinders 4

No. of cranks 4

Kind of fuel used Heavy oil fuel

Means of ignition Compressor

Crank Webs Mid. length breadth

Crank pin dia. 12.85"

Intermediate Shafts, diameter as per Rule 16.5"

Thrust Shaft, diameter at collars as per Rule 14.24"

Screw Shaft, diameter as per Rule 16.5"

Is the shaft fitted with a continuous liner Yes

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 One length

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 tight fit

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

Length of Bearing in Stern Bush next to and supporting propeller 5' 6 1/2"

Total Developed Surface 91 sq. feet

Means of lubrication

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

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material lagged

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

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

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Scavenging Air Pumps, No. 2

Auxiliary Engines crank shafts, diameter

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

High Pressure Air Receivers, No. 2

Seamless, lap welded or riveted longitudinal joint

Starting Air Receivers, No. 2

Seamless, lap welded or riveted longitudinal joint

Is it fitted with a watertight door

worked from

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002352-002361-0072

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 - For Auxy. Pumps + Air Compression etc.*
PLANS. Are approved plans forwarded herewith for Shafting *30/12/35 + 8/4/36* Receivers *10/1/36 + 8/4/36* Separate Tanks *7/3/36 + 8/4/36*
(If not, state date of approval) *In ER. 11/3/36*
Donkey Boilers *15/11/35 + 23/11/35* General Pumping Arrangements *For ER 24/4/36* Oil Fuel Burning Arrangements *✓*
+ 8/4/36 SPARE GEAR.

Has the spare gear required by the Rules been supplied? *Yes*
State the principal additional spare gear supplied *1 Set of ahead Thrust Pins*
1 - 6 feed T & K Lubricator for Cylinders
1 - Solid Cast Iron Propeller
1 - Screw Shaft complete with Cl. & nut.
2 - Spare feed check valve lids.
12 - Boiler tubes ; 1 Safety Valve spring.
1 set of cages for feed water filters
1 nest of tubes for distilled water cooler
1 " " " oil cooler.
1 set of cages or strainers for forced lubrication filters.

FOR The foregoing is a correct description.
SWAN, HUNTER, & WIGRAM RICHARDSON, L.

E. J. Dacey

Manufacturer.

Dates of Survey while building
During progress of work in shops - - *1936 July 16, Aug. 12, 25, 28, 31, Sep. 3, 4, 10, 30, Oct. 5, 15, 16, 26, 27, 28, Nov. 2, 4, 11, 19.*
During erection on board vessel - - *1937 20, 26, 27, 30, Dec. 1, 2, 14, 15, 17, 21, 27, 28, 31, Jan. 5, 6, 11, 14, 18, 21, 28, Feb. 2, 5, 12, 17, 18, 19, 22, 25, 26, Mar 4.*
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 *14-12-36* Tube shaft *✓*
Screw shaft *2-12-36* Propeller *2-12-36* Stern tube *20/11/36* Engine seatings *2/2/37* Engines holding down bolts *2/2/37*
Completion of fitting sea connections *30/11/36* Completion of pumping arrangements *25/2/37* Engines tried under working conditions *25/2/37*
Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material *✓* Identification Mark *✓* Intermediate shafts, Material *S. M. Steel* Identification Marks *6605 HAI 331 + 332.*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S. M. Steel* Identification Mark *working 6605 HAI 333*
Spare " HAI 334.

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 *✓* 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 *British Fame New Rpt 94124*
British Insurance. " " 94275

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 the Rules and approved plans, and the materials and workmanship are good.
The Machinery has been satisfactorily installed on board & tested under working conditions, and the Vessel is eligible in my opinion for record + LMC 3.37. TS. A. 2DB. WP 150th.

The amount of Entry Fee .. £ *✓* : When applied for, *5 MAR 1937*
Special *45" installing* £ *21* : *17* :
2 Donkey Boilers Fee £ *17-6-0* *27* : *8* :
2 Starting Air Reels £ *10-2-0* *4* : *4* :
Travelling Expenses (if any) £ *4* : *4* :
16.3.37

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

Committee's Minute
Assigned *+ LMC 3.37 oil Eng*
2 D.B. - 150th