

REPORT ON OIL ENGINE MACHINERY.

No. 146115

6 FEB 1957

of writing Report 19 When handed in at Local Office 19 Port of **LIVERPOOL**
 in Survey held at **NORTHWICH** Date, First Survey **10th Dec/54** Last Survey **3rd Jan. 1957.**
 Book. Number of Visits **14**
 Single on the Main Triple Quadruple
VOITH SCHNEIDER "PROPELLED B.P. EXPLORER"
 Tons Gross **303** Net **188**
 Built at **NORTHWICH.** By whom built **W. J. YARWOOD & SONS, LTD.** Yard No. **900** When built **1956.**
 Engines made at **STAMFORD, LINES** By whom made **BLACKSTONE & CO. LTD.** Engine No. **m. 67362** When made **1956.**
 Key Boilers made at **✓** By whom made **✓** Boiler No. **✓** When made **✓**
 Brake Horse Power { Maximum **360** Service **72.** Owners **✓** Port belonging to **LONDON.**
 N. as per Rule **72.** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**
 Made for which vessel is intended **River Severn.**

ENGINES, &c. — Type of Engines 2 or 4 stroke cycle. Single or double acting.
 Maximum pressure in cylinders. Diameter of cylinders. Length of stroke. No. of cylinders. No. of cranks.
 Indicated Pressure. Span of bearings (i.e., distance between inner edges of bearings in of a crank). Is there a bearing between each crank. **London Report No 133896** Revolutions per minute { Maximum **600** Service **✓**
 Flywheel dia. Weight. Moment of inertia of flywheel (lbs. in² or Kg. cm²). Means of ignition. Kind of fuel used.
 " " " " balance wts. (" " " ")
 Crank pin dia. Crank webs Mid. length breadth. Thickness parallel to axis.
 dia. of journals as per Rule. as fitted. Crank pin dia. Crank webs Mid. length thickness. shrunk Thickness around eyehole.
 Wheel Shaft, diameter as per Rule. as fitted. Intermediate Shafts, diameter as per Rule. as fitted. **4 1/2 / 3 1/2** Thrust Shaft, diameter at collars as per Rule. as fitted.
 Propeller Shaft, 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. **✓**
 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 fitted at the after end of stern tube. **✓**
 If so, state type **VOITH - SCHNEIDER (See Cont. No 4419)** 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
 Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²). **—** Kind of damper, if fitted. **—**
 Method of reversing Engines **NONE.** Is a governor or other arrangement fitted to prevent racing of the engine **YES** Means of lubrication **FORCED** Thickness of cylinder liners **✓** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled lagged with non-conducting material. **yes**
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. **NONE** Cooling Water Pumps, No. and how driven **Two - m.e. attached** Working F.W. **one**
 Spare F.W. **one** 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. and capacity **one - 17 Tons/Hr.** Can one be overhauled while the other is at work. **✓**
 Pumps connected to the Main Bilge Line { No. and capacity of each **Two - m.e. attached @ 17 T/H + 95 pump 30 T/H.** How driven **m.e. belt driven.** **aux engine.**
 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. **✓**
 Ballast Pumps, No. and capacity **1 95 - 30 T/H.** Power Driven Lubricating Oil Pumps, including spare pump, No. and size **See Sdr Rep. 133896**
 Are two independent means arranged for circulating water through the Oil Cooler. **yes** Branch Bilge Suctions.
 No. and size:—In machinery spaces. **1 @ 2" in E.R.; 1 @ 2" in prop. comp't.** In pump room. **✓**
 Holds, &c. **one at 2" in aft C/D.**
 Direct Bilge Suctions to the engine room bilges, No. and size **one at 2" dia; one at 2 1/2" dia.**
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. **yes** Are the bilge suction in the machinery spaces 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. **yes** Are they fixed sufficiently high on the ship's side to be seen without lifting the platform 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. **✓**
 What pipes pass through the bunkers. **NONE** How are they protected. **✓**
 What pipes pass through the deep tanks. **NONE** 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. **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. **✓** Is it fitted with a watertight door. **✓** worked from. **✓**
 Is 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. **See Sdr Rep** No. of stages. diameters. stroke. driven by **m.e.**
 Auxiliary Air Compressors, No. **one** No. of stages. **two** diameters. **Capacity stroke 12 ft³/min** driven by **starbd aux engine**
 Small Auxiliary Air Compressors, No. **✓** No. of stages. **✓** diameters. **✓** stroke. **✓** driven by **✓**
 What provision is made for first charging the air receivers. **Hand started aux. engine**
 scavenging Air Pumps or Blowers, No. **✓** How driven. **✓**
 Auxiliary Engines Have they been made under survey. **yes** Engine Nos. **8442 + 672.** Lloyd's Register
 Makers name **R. A. Lister Ltd.** Position of each in engine room **P+S side of E. Room.** Foundation
 Report No. **S.C. 4611 + 4466**
 002592-002601-0278

AIR RECEIVERS:—Have they been made under survey

State No. of report or certificate

State full details of safety devices

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

Injection Air Receivers, No.

Cubic capacity of

Internal diameter

thickness

Seamless, welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED

No.

If so, is a report now forwarded

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

PLANS. Are approved plans forwarded herewith for shafting

1.11.55

Receivers

Separate fuel tanks

Donkey boilers

General pumping arrangements

and

Pumping arrangements in machinery space

14.7.55

Oil fuel burning arrangements

2.2.56

(Plans forwarded with Rpt No 145184-B.P. Manufacturer)

Have Torsional Vibration characteristics been approved

Yes

Date and particulars of approval

15/10/56

18/2/57

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State if for "short voyages" only

Yes

State the principal additional spare gear supplied

W. J. YARWOOD & SONS LTD.

The foregoing is a correct description, & the particulars of the installation are as approved for

A. Deakin

Director

Manufacturer.

Dates of Survey while building

During progress of work in shops

During erection on board vessel

10/12/54 to 3/1/57

Total No. of visits

14

Dates of examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings 21.9.56 Engine holding down bolts 9.11.56

Completion of fitting sea connections 21.9.56 Completion of pumping arrangements 18.12.56 Engines tried under working conditions 20.12.56

Crank shaft, material Identification mark Flywheel shaft, material Identification mark

Thrust shaft, material Identification mark Intermediate shafts, material Steel Identification marks

Tube shaft, material Identification mark Screw shaft, material Identification mark

Identification marks on air receivers

Welded receivers, state Makers' Name

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

Full description of fire extinguishing apparatus fitted in machinery spaces 1 hydrant, hose spray nozzle 2-2 gal extinguisher

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 1 sand bin in E. Room 2-2 gal extinguisher in purser

What is the special notation desired

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 "B.P. Manufacturer"

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) The machinery of this vessel has been installed under Special Survey, in accordance with the Society Rules, the Secretary's letter and approved plans, and the workmanship & materials are good. The machinery has been tried under full power working conditions and found satisfactory, and is eligible in my opinion for classification, with record of + LMC 1,57 and notations "Carrying Petroleum in Bulk", "Oil Engine", "Directional propeller"

The amount of Entry Fee

Inst. £ 20 : 0

Special ... £ :

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ 8 : 12/6

When applied for 19

When received 19

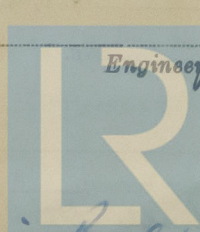
- 5 FEB 1957

Committee's Minute

Assigned

+ LMC 1.57

Car. ht. in Bulk



Lloyd's Register Foundation