

REPORT ON OIL ENGINE MACHINERY.

No 25

Received at London Office

12 MAY 1942

Writing Report

When handed in at Local Office

Port of NOTTINGHAM

Survey held at LINCOLN

Date, First Survey 21.10.41

Last Survey 9-4 1942

Number of Visits 16

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "Port Leven". NOW NAMED "Prodigal".

Tons Gross
Net

at LISBON

By whom built COMPANHIA UNIAO FABRIL

Yard No. 112 When built 1942

es made at LINCOLN

By whom made RUSTON & HORNSBY, LTD.

Engine No. 206514 When made 1942

Boilers made at

By whom made

Boiler No. When made

Horse Power 560

Owners LOCK FISHING CO. [DIRECTOR OF NAVY CONTRACTS]

Port belonging to

Horse Power as per Rule 107

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted YES

for which vessel is intended

ENGINES, &c.—Type of Engines VERTICAL SOLID INJECTION 7VGBM 2 or 4 stroke cycle 4 Single or double acting SINGLE

um pressure in cylinders 675 LB.

Diameter of cylinders 12 1/2"

Length of stroke 15"

No. of cylinders 7

No. of cranks 7

Indicated Pressure 100.5 LB

f bearings, adjacent to the Crank, measured from inner edge to inner edge 13 13/16"

Is there a bearing between each crank YES

tions per minute 430

Flywheel dia. 51"

Weight 37 CWT.

Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

ft. Solid forged

dia. of journals 9"

as per Rule APPD 4.8.39

as fitted

Crank pin dia. 7"

Mid. length breadth 12"

Thrust Shaft, diameter at collars 6.20"

as per Rule

as fitted

Steel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule APPD 7.2.41

as fitted

Is the

shaft fitted with a continuous liner

Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule APPD 7.2.41

as fitted

Is the

shaft fitted with a continuous liner

No

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

liner boss

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

ner 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

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

If so, state type

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

8'-3"

Pitch 8'-1"

No. of blades 3

Material MANG. BRONZE.

whether Moveable No

Total Developed Surface 26

sq. feet

d of reversing Engines REVERSE 6 REDUCTION

14RS-2 1/2:1

1" GEAR

a governor or other arrangement fitted to prevent racing of the engine when declutched YES

Means of lubrication

Thickness of cylinder liners 1"

Are the cylinders fitted with safety valves YES

Are the exhaust pipes and silencers water cooled or lagged with

ducting 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

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

No. and Size 1-2 1/2"

No. 5 TRUSLOVE "CONQUEST" G.S. & BILGE PUMP - 20 TON/HR.

How driven 4VROZ AUX. ENG.

cooling water led to the bilges

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

FOR ENGINE 1 1/2" RUSTON GEAR PUMP

FOR GEARS 1 1/2" DRYSDALE HORZ OIL PUMP

SPARE 2-2" HAMWORTHY ROTOFOL PUMPS

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

In Pump Room

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

Oil Cooler YES

Are the Bilge Suctions in the Machinery Spaces

No. and size:—In Machinery Spaces

Is the Shaft Tunnel

Is it fitted with a watertight door

worked from

Is the vessel, what means are provided to prevent leakage of oil from saturating the woodwork

Air Compressors, No.

No. of stages

Diameters

Stoke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

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Stoke

Driven by

provision is made for first Charging the Air Receivers

4VROZ ENG. IS HAND STARTING.

enging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule APPD 17.5.40

as fitted P 3" J 3"

Position

Is a report sent herewith YES

Are the Auxiliary Engines been constructed under special survey YES

Is the vessel, what means are provided to prevent leakage of oil from saturating the woodwork

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4B 25.

AIR RECEIVERS: — Have they been made under survey **YES** State No. of Report or Certificate **C 371, 27**
 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 by Rules ☒
Starting Air Receivers, No. **2** Total cubic capacity **46.8 cu. ft.** Internal diameter **2'-6"** thickness **3/8"**
 Seamless, lap welded or riveted longitudinal joint **SEAMLESS** Material **SM. STEEL** Range of tensile strength **26-30** Working pressure by Rules **APPD 5**
 Actual **300**

IS A DONKEY BOILER FITTED? ☒ 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 **{ 4.8.39** Receivers **5.5.38** Separate Fuel Tanks **{ 25.2.41**
 (If not, state date of approval) **4.2.41**
 Donkey Boilers ☒ General Pumping Arrangements ☒ Pumping Arrangements in Machinery Space ☒
 Oil Fuel Burning Arrangements ☒

SPARE GEAR.

Has the spare gear required by the Rules been supplied **YES**
 State the principal additional spare gear supplied **TO ADMIRALTY REQUIREMENTS.**

Ruston & Hornsby, Limited,

The foregoing is a correct description.

L. Evans

Manufacturer.

Oil & Gas Engine Dept.

Dates of Survey while building { During progress of work in shops - - } **21.10.41 To 9.4.42** **16 VISITS.**
 { During erection on board vessel - - } ☒
 Total No. of visits ☒
 Dates of Examination of principal parts—Cylinders **{ 23.12.41** Covers **{ 23.12.41** Pistons **9.4.42** Rods ☒ Connecting rods **9.4.42**
 Crank shaft **{ 27.11.41** Flywheel shaft ☒ Thrust shaft ☒ Intermediate shafts ☒ Tube shaft ☒
 { 9.4.42 }
 Screw shaft ☒ Propeller ☒ Stern tube ☒ Engine seatings ☒ Engines holding down bolts ☒
 Completion of fitting sea connections ☒ Completion of pumping arrangements ☒ Engines tried under working conditions **SHOP TRIALS**
 Crank shaft, Material **SM. STEEL.** Identification Mark **321 ANT 27.11.41** Flywheel shaft, Material ☒ Identification Mark ☒
 Thrust shaft, Material ☒ Identification Mark ☒ Intermediate shafts, Material ☒ Identification Marks ☒
 Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material ☒ Identification Mark **5977**
 Identification Marks on Air Receivers **B 2863, B 2864**

LLOYD'S TEST
600 LB/SQ. IN.
W.P. 300 LB/SQ. IN.
JB 17.4.42. JB.

Is the flash point of the oil to be used over 150° F. ☒
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ☒
 Description of fire extinguishing apparatus fitted ☒
 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 **YARD No. 107**

General Remarks (State quality of workmanship, opinions as to class, &c.)

This engine has been built under Special Survey in accordance with the approved plans and the Society's Rules. The materials and workman are good. Shop trials carried out at the maker's works were satisfactory.
The engine has been despatched to Lisbon for installation in the ves

Now charged :- £ 20-0-0 as per letter 12.2.41
2124 T 40 13 48-55.

The amount of Entry Fee .. £ : : When applied for,
 • Special ... £ **20 : 0 :** Monthly M/c.
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 19.

Committee's Minute

FRI. 28 AUG 1942

Assigned

See Lis. 3570a

J. Buchanan
 Engineer Surveyor to Lloyd's Register of Shipping



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 Foundation