

REPORT ON OIL ENGINE MACHINERY.

N^o 1099

MON. 18 AUG. 1919

Received at London Office

of writing Report

When handed in at Local Office

15th Aug 1919 Port of

in Survey held at

Lincoln

Date, First Survey

and

Last Survey July 1st 1919

Number of Visits

on the Single } Screw vessels 2000 ton Schooner
Twin }
Triple }

Tons } Gross
Net

Built at

Australia

By whom built

Thos. & Mayall Yard No.

When built

ines made at

Lincoln

By whom made

Ruston & Prosser (Eng. 10776)

Engine No.

When made

1919

key Boilers made at

By whom made

Boiler No.

When made

ke Horse Power 320

Owners Commonwealth Government

Port belonging to

l. Horse Power as per Rule 91

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Type of Engines

Polinder

420¹/₂ x 480¹/₂

2 or 4 stroke cycle 2

Single or double acting Single

imum pressure in cylinders 300 lbs

No. of cylinders 4

No. of cranks 4

Diameter of cylinders 16¹/₂ 16¹/₂

th of stroke 18²⁹/₃₂

Revolutions per minute 225

Means of ignition Hot Bulb

Kind of fuel used

Shale or Crude oil

ere a bearing between each crank

Yes

Span of bearings (Page 92, Section 2, par. 7 of Rules)

nce between centres of main bearings

21 9¹/₁₆

Is a flywheel fitted

Yes

Diameter of crank shaft journals

as per Rule 7³/₃₂

eter of crank pins

7³/₃₂

Breadth of crank webs

as per Rule 10⁷/₈

Thickness of ditto

as per Rule 4¹/₁₆

eter of flywheel shaft
Diameter of crank shaft
Diameter of screw shaft

as per Rule 4¹/₁₆

Diameter of tunnel shaft

as per Rule

Diameter of thrust shaft

as per Rule

as fitted 6⁷/₈

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

after end of the liner made watertight in the propeller boss

If the liner is in more than one length are the joints burned

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

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

If without liners, is the shaft arranged to run in oil

of outer gland fitted to stern tube

Length of stern bush

Diameter of propeller

of propeller

No. of blades

state whether moveable

Total surface

square feet 34¹/₂

od of reversing

Precaution on Engine which at the time is disclutched

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

Yes

he cylinders fitted with safety valves

No

Means of lubrication

Greased. Sight feed

Are the exhaust pipes and silencers water cooled or lagged with

conducting material

water cooled

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

No. of cooling water pumps

One

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

in the vessel

Yes

No. of bilge pumps fitted to the main engines

One

Diameter of ditto

3²⁹/₃₂

Stroke 5¹/₂

one be overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

How driven

of pumps

No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room

in holds, etc.

No. of ballast pumps

How driven

Sizes of pumps

ballast pump fitted with a direct suction from the engine room bilges

State size

Is a separate auxiliary pump suction fitted in

ine Room and size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine Room always accessible

the sluices on Engine Room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

they valves or cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates

the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

all pipes, cocks, valves and pumps in connection with the machinery accessible at all times

Are the bilge suction pipes, cocks and valves arranged so as to prevent any

munication between the sea and the bilges

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

ed from

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

of main air compressors

One

No. of stages

Two

Diameters 4¹/₂ 4¹/₂

Stroke 5¹/₂

Driven by Cap on Fly wheel

of auxiliary air compressors

No. of stages

Diameters

Stroke

Driven by

of small auxiliary air compressors

No. of stages

Diameters

Stroke

Driven by

of scavenging air pumps

Diameter

Stroke

Are the air compressors and their coolers made so as to be easy of access

meter of auxiliary Diesel Engine crank shafts

as per Rule

Internal diameter

Cubic capacity of each

RECEIVERS:—No of high pressure air receivers

Material

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

Thickness

Working pressure by Rules

No. of starting air receivers

Two

Internal diameter 14¹/₂

al cubic capacity

21 Cub ft

Material

Steel

Seamless, lap welded or riveted longitudinal joint

Riveted

age of tensile strength

thickness

Working pressure by rules

Is each receiver, which can be isolated, What means are provided for cleaning their

ed with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

No

Is there a drain arrangement fitted at the lowest part of each receiver

Yes

er surfaces

None

Air receivers made by Messrs Clayton of Leeds

Register Foundation

9510 - UIM

IS A DONKEY BOILER FITTED?

If so, is a report note forwarded?

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS			40 lbs.		These tests made by Admiralty Officers. Remains in constant attendance
" " <i>fast covers & hot bulb, made of cast steel by F.H. Long</i>		<i>Medium duty</i>	<i>40 lbs.</i>		
" " JACKETS		<i>Jackets</i>	<i>40 lbs.</i>		
" " PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
" " 2nd "					
" " 3rd "					
AIR RECEIVERS—STARTING					
" " INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER			<i>25 lbs.</i>		
" " WATER JACKET			<i>25 lbs.</i>		
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *ho but legs as Receivers*
(If not, state date of approval) *approved for Stockholm Engine*

SPARE GEAR

The foregoing is a correct description,

RUSTON & PROSSER, LIMITED.

Manufacturer.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits

12 July 1919

Dates of Examination of principal parts—Cylinders *1/7/19* Covers *1/7/19* Pistons *1/7/19* Rods *1/7/19* Connecting rods *1/7/19*
Crank shaft *1/7/19* Thrust shaft *1/7/19* Tunnel shafts Screw shaft Propeller Stern tube Engine seatings
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Material of crank shaft *S. M. Steel* Identification Mark on Do. *G.S.A.*

Material of thrust shaft *S. M. Steel* Identification Mark on Do. *G.S.A.*

Material of tunnel shafts Identification Marks on Do.

Material of screw shafts Identification Marks on Do.

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous one? *Yes.*

If so, state name of vessel

Arctic Limburg & Groningen
See Gen Repts 10866/17/18.

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

This engine has not been built under special survey. The materials were tested by Admiralty officers. The workmanship & materials are good.

Prior to the examination of the parts detailed above, this engine had been running for some months at the works of Messrs Ruston & Prosser at Lincoln.

The engine has been sent to Australia and on completion the case will be eligible in my opinion for the notation LMC with date see London Ltr E 2/6/19 & E 22/7/19.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

Assigned

See Ltr Rpt 2363

B. Ritchie

Engineer Surveyor to Lloyd's Register of Shipping.



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