

REPORT ON OIL ENGINE MACHINERY.

No. 11100

MON. 18. AUG. 1919

MARKS.

Date of writing Report

19

When handed in at Local Office

15th Aug. 1919

Port of

Received at London Office

Grimsby

No. in Survey held at

Lincoln

Date, First Survey

May. 13.

Last Survey

July 25 1919.

Number of Visits

4

on the

Single
Twin
Triple

Screw vessels

2000 ton Schooner

Master

Built at

Australia

By whom built

Kishan Mayall

Yard No.

When built

Engines made at

Lincoln

By whom made

Ruston & Prosser Ltd (Eng 10796)

Engine No.

10796

When made

1919

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 320

Owners

Commonwealth Government

Port belonging to

Nom. Horse Power as per Rule

91

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

L ENGINES, &c.

Type of Engines

Cylinder

420 1/2 x 480 1/2

2 or 4 stroke cycle

2

Single or double acting

Single

Maximum pressure in cylinders

300 lbs

No. of cylinders

Four

No. of cranks

Four

Diameter of cylinders

16 1/2

Length of stroke

18 1/2

Revolutions per minute

225

Means of ignition

Hot Bulb

Kind of fuel used

Shale or Crude oil

Is there a bearing between each crank

Yes

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

21 1/2"

Distance between centres of main bearings

2'-9 1/2"

Is a flywheel fitted

Yes

Diameter of crank shaft journals

as per Rule approved

Diameter of crank pins

7 1/2

Breadth of crank webs

as per Rule approved

Thickness of ditto

as per Rule approved

Diameter of flywheel shaft

as per Rule

4 1/2

Diameter of tunnel shaft

as per Rule

as fitted

Diameter of thrust shaft

as per Rule

as fitted

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

Yes

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

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

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

Is outer gland fitted to stern tube

Length of stern bush

Diameter of propeller

No. of blades

Pre-ignition on engine when at the time would be detached

No. of blades

state whether moveable

Total surface

square feet

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

Yes

Thickness of cylinder liners

34 1/2

Cylinders fitted with safety valves

No

Means of lubrication

Atom. Light feed.

Are the exhaust pipes and silencers water cooled or lagged with

ducting 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

The vessel

Yes

No. of bilge pumps fitted to the main engines

One

Diameter of ditto

3 1/2

Stroke

58

Can be overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

How driven

Pumps

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

Sds, etc.

No. of ballast pumps

How driven

Sizes of pumps

Is last pump fitted with a direct suction from the engine room bilges

State size

Is a separate auxiliary pump suction fitted in

Room and size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine Room always accessible

Are valves on Engine Room bulkheads always accessible

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

Are valves or cocks

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

Are 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

Are 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

Communication between the sea and the bilges

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

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

No. of stages

One

Diameters

Two

Stroke

4 1/2

Driven by

Cap on flywheel

No. of stages

One

Diameters

Two

Stroke

4 1/2

Driven by

No. of stages

One

Diameters

Two

Stroke

4 1/2

Driven by

Diameter

One

Stroke

Two

Driven by

One

Driven by

Are the air compressors

One

Are they easy of access

One

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Foundation

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

t. 4b

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	<i>Cylinders not tested by water</i>		<i>650 lbs</i>		
COVERS	<i>Cast-Steel bolts + fast-cover in one?</i>		<i>600 lbs</i>		<i>Tested by Admiralty Super</i>
JACKETS	<i>made by F. H. Lloyd + Co</i>		<i>400 lbs</i>		<i>do -</i>
PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
2nd					
3rd					
AIR RECEIVERS—STARTING					
INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER					
WATER JACKET			<i>25 lbs.</i>		<i>Tested by Admiralty Super</i>
SEPARATE FUEL TANKS					<i>President + in constant attendance</i>

PLANS. Are approved plans forwarded herewith for shafting *ho but Lige as* *ho* Separate Tanks *ho*

SPARE GEAR

The foregoing is a correct description,

RUSTON & HORNSBY, LIMITED.

Manufacturer.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits 3

Engineering Department
May 13. 14. 16 1919

Dates of Examination of principal parts—Cylinders 16/5/19 Covers 16/5/19 Pistons 16/5/19 Rods 16/5/19 Connecting rods 16/5/19
Crank shaft 16/5/19 Thrust shaft 16/5/19 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 *SM Steel* Identification Mark on Do. *G.D.N.* Material of thrust shaft *SM Steel* Identification Mark on Do. *G.D.N.*
Forced by Langley & Co Langley *Forced by Ruston Hornsby*
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 case *Yes.* If so, state name of vessel *Dranti Limburg, Groningen*
Gm. Report 10866/7/8.

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

This engine has not been built under Special Survey. The materials have been tested by Admiralty officers who also applied the following hydraulic pressures: Cylinders 650 lbs. Jacket of expansion + jackets 25 lbs. See above. The bench trials were witnessed + the engine was afterwards opened up for examination. The workmanship and materials are good. The engine has been sent to Australia for fitting on board + on completion the ship will be eligible in my opinion for the notation LMC with date. See London L E 12/6/19. + E 22/7/19.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 13 : 13 : 4 *7/14/19* *to be charged*
Donkey Boiler Fee ... £ : : When received, *13/2/19*
Travelling Expenses (if any) £ 3-18-3 : *13/2/19*

Committee's Minute *FRI. 6 AUG 1925* *TUES. 21 SEP 1925*

Assigned *Eu Shi Rpt 23/10*

B. Ritchie.
Engineer Surveyor to Lloyd's Register of Shipping.



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