

REPORT ON OIL ENGINE MACHINERY.

No. 11100

MON. 18. AUG. 1919

Received at London Office

Date of writing Report

When handed in at Local Office

15th July 1919 Port of *Grimsby*

Date, First Survey *May 13*

Last Survey *July 25* 1919

Number of Visits *4*

No. in Survey held at *Lincoln*

Lincoln

Single }
Twin }
Triple }
Screw vessels

2000 ton Schooner

Tons {
Gross
Net

Master

Built at *Australia*

By whom built *Kidman Mayall*

Yard No.

When built

Engines made at *Lincoln*

By whom made *Renton & Worsley Pa (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

Indicated Horse Power as per Rule *91*

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

MAIN 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 *7 1/2*

Diameter of crank pins *7 3/32*

Breadth of crank webs *10 5/8*

Thickness of ditto *4 3/32*

Diameter of flywheel shaft *4 1/4*

Diameter of tunnel shaft

Diameter of thrust shaft *6 7/8*

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

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

Does the liner do 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 *Yes*

When liners are fitted, is the shaft lapped or protected between the liners *Yes*

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

Is a water gland fitted to stern tube *Yes*

Length of stern bush *Yes*

Diameter of propeller *Yes*

Number of propeller blades *3*

No. of blades

state whether moveable *Yes*

Total surface

square feet *34 1/2*

Is there a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes*

Thickness of cylinder liners *0.134*

Are the exhaust pipes and silencers water cooled or lagged with insulating material *Water cooled*

Means of lubrication *Forced. Light feed.*

Are the exhaust pipes and silencers water cooled or lagged with insulating 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 *Yes*

No. of cooling water pumps *One*

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

Is the vessel *Yes*

No. of bilge pumps fitted to the main engines *One*

Diameter of ditto *3 29/32*

Stroke *58*

Can the pumps be overhauled while the other is at work *Yes*

No. of auxiliary pumps connected to the main bilge lines *Yes*

How driven *Yes*

Number of pumps

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

Ballast pumps, etc.

No. of ballast pumps *Yes*

How driven *Yes*

Sizes of pumps *Yes*

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

State size *Yes*

Is a separate auxiliary pump suction fitted in engine room and size *Yes*

Are all the bilge suction pipes fitted with roses *Yes*

Are the roses in Engine Room always accessible *Yes*

Are the roses in Engine Room always accessible *Yes*

Are the valves on Engine Room bulkheads always accessible *Yes*

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

Are the valves or cocks *Yes*

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

Are the discharge pipes above or below the deep water line *Yes*

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

Are the valves, cocks, pumps in connection with the machinery accessible at all times *Yes*

Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges *Yes*

Is the screw shaft tunnel watertight *Yes*

Is it fitted with a watertight door *Yes*

Is it fitted with a watertight door *Yes*

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

Number of air compressors *One*

No. of stages *Two*

Diameters *4" dia 1st Stage*

Stroke *5 1/2"*

Driven by *Cop on flywheel*

Number of air compressors *One*

No. of stages *Two*

Diameters *4 1/2" - 4 1/2" Stage*

Stroke

Driven by

Number of air compressors

No. of stages

Diameters

Stroke

Driven by

Number of air compressors

No. of stages

Diameters

Stroke

Driven by

Are the air compressors easy of access *Yes*



Lloyd's Register Foundation

WIM-0155

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	Cylinders not tested by water		650 lbs		
COVERS	Cast-Steel bolts + part-covers in one? made by F. H. Lloyd + Co Wednesbury.		600 lbs	Tested by Admiralty Super	- do - / 11/19
JACKETS			40 lbs		
PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
2nd					
3rd					
AIR RECEIVERS—STARTING					
INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER					
WATER JACKET			25 lbs.	Tested by Admiralty Super	President + in constant attendance
SEPARATE FUEL TANKS					

of writing Report
in Survey held at Book.
Single on the Twin Triple
ines made at
key Boilers made a
e Horse Power
Horse Power as p

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

SPARE GEAR

ENGINES, &
imum pressure in cylinder
th of stroke 18 29
ere a bearing between each
nce between centres of m
eter of crank pins
eter of flywheel shaft
tonnage of crank
of force of shaft
el of screw shaft
as fitted
after end of the liner m
liner does not fit tightly
liners are fitted, is the
of outer gland fitted to s
of propeller
Precision of
of reversing
he cylinders fitted with s
conducting material

The foregoing is a correct description,

RUSTON & HORNSBY, LIMITED.
12/8/19
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 sealings ✓
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.D.A. Material of thrust shaft S.M. Steel Identification Mark on Do. G.D.A.
Forged by Layley & Co Layley Forged by Ruston Hornsby
Material of tunnel shafts ✓ Identification Marks on Do. ✓ Material of screw shafts ✓ Identification Marks on Do. ✓

the vessel Yes
one be overhauled while
of pumps
in holds, etc.
e ballast pump fitted wi
ine Room and size
the stices on Engine R
they valves or cocks
the discharge pipes abo
all pipes, cocks, valves a
ommunication between the s
ed from
of main air compressor
made by Reav
of auxiliary air compre
of small auxiliary air
of scavenging air pump
meter of auxiliary Dies

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 'Drenté Limburg' Groningen G.M. 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 cylinder + 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.R. E 12/6/19 + E 22/7/19.

RECEIVER
erial
ickness
al cubic capacity
ange of tensile strength
ed with a safety valve a
er surfaces. ho

The amount of Entry Fee ... £ : : When applied for, 7/11/19
Special ... £ 13 : 13 : 4
Donkey Boiler Fee ... £ : : When received, 13/2/20
Travelling Expenses (if any) £ 3-18-3 : 13/2/20

J.D. Ritchie.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 6 AUG 1925 TUES. 21 SEP 1925
Assigned eu Shi Rpt 23/19



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.