

REPORT ON OIL ENGINE MACHINERY.

No. 91443

Received at London Office

26 AUG 1927

Date of writing Report 17th Aug. 1927. When handed in at Local Office

Port of Ipswich (London)

No. in Survey held at Ipswich Reg. Book.

Date, First Survey 9th June Last Survey 16th Aug. 1927.

Number of Visits

on the ^{Single} ~~Double~~ ~~Triple~~ Screw vessels

"ISIRY"

Tons ^{Gross} _{Net}

Master - Built at Brighton By whom built Aldous & Co. Yard No. 1291 When built 1927.

Engines made at Stockholm By whom made J. & C. G. Bolander's Co. Engine No. 18719/20 When made 1927.

Donkey Boilers made at - By whom made - Boiler No. - When made -

Brake Horse Power - Owners The Argentine Nav. Co. Port belonging to

Nom. Horse Power as per Rule 34 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

See Spec. Ref. No. 2775

OIL ENGINES, &c.—Type of Engines 2 or 4 stroke cycle - Single or double acting

Maximum pressure in cylinders - No. of cylinders - No. of cranks - Diameter of cylinders

Length of stroke - Revolutions per minute - Means of ignition - Kind of fuel used

Is there a bearing between each crank - Span of bearings (Page 92, Section 2, par. 7 of Rules)

Distance between centres of main bearings - Is a flywheel fitted - Diameter of crank shaft journals as per Rule as fitted

Diameter of crank pins - Breadth of crank webs as per Rule as fitted - Thickness of ditto as per Rule as fitted

Diameter of flywheel shaft as per Rule as fitted - Diameter of tunnel shaft as per Rule as fitted 88.3 mm = 3.48" - Diameter of thrust shaft as per Rule as fitted 4 3/4"

Diameter of screw shaft as per Rule as fitted 3.98" as fitted 4 3/4" Is the screw shaft fitted with a continuous liner the whole length of the stern tube. No

Is the after end of the liner made watertight in the propeller boss - If the liner is in more than one length are the joints burned

If 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 - If without liners, is the shaft arranged to run in oil No

Type of outer gland fitted to stern tube - Length of stern bush 19" - Diameter of propeller 4'-2"

Pitch of propeller 2'-11" No. of blades 3 state whether moveable no Total surface 6.96 square feet

Method of reversing - Is a governor or other arrangement fitted to prevent racing of the engine when declutched - Thickness of cylinder liners

Are the cylinders fitted with safety valves - Means of lubrication - Are the exhaust pipes and silencers water cooled or 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

No. of cooling water pumps - Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

No. of bilge pumps fitted to the main engines One Diameter of ditto 4" Stroke 4" Can one be overhauled while the other is at work - No. of auxiliary pumps connected to the main bilge lines to fore & aft compartments

Sizes of pumps - No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps: - In engine room one 1 1/2"

and in holds, etc. one 1 1/2" No. of ballast pumps - How driven - Sizes of pumps

Is the ballast pump fitted with a direct suction from the engine room bilges - State size - Is a separate auxiliary pump suction fitted in engine room and size

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine Room always accessible Yes

Are the sluices on Engine Room bulkheads always accessible none Are all connections with the sea direct on the skin of the ship Yes

Are they valves or cocks cocks 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 above Are they each fitted with a discharge valve always accessible on the plating of the vessel No

Are all pipes, cocks, valves and 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 - 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 main air compressors - No. of stages - Diameters - Stroke - Driven by

No. of auxiliary air compressors - No. of stages - Diameters - Stroke - Driven by

No. of small auxiliary air compressors - No. of stages - Diameters - Stroke - Driven by

No. of scavenging air pumps - Diameter - Stroke - Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted - Are the air compressors and their coolers made so as to be easy of access

RECEIVERS:—No. of high pressure air receivers - Internal diameter - Cubic capacity of each

Material Seamless, lap welded or riveted longitudinal joint - Range of tensile strength

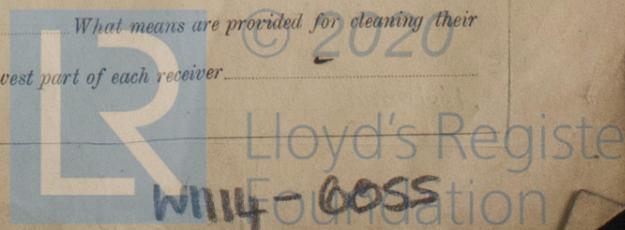
Working pressure by Rules - No. of starting air receivers - Internal diameter

Cubic capacity - Material Seamless, lap welded or riveted longitudinal joint

Range of tensile strength - thickness - Working pressure by rules - Is each receiver, which can be isolated,

with a safety valve as per Rule - Can the internal surfaces of the receivers be examined - What means are provided for cleaning their

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



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	<i>13-7-27</i>			<i>13-7-27</i>	
COVERS	<i>✓</i>				
JACKETS	<i>✓</i>				
PISTON WATER PASSAGES	<i>✓</i>				
MAIN COMPRESSORS—1st STAGE	<i>✓</i>				
2nd	<i>✓</i>				
3rd	<i>✓</i>				
AIR RECEIVERS—STARTING	<i>✓</i>				
INJECTION	<i>✓</i>				
AIR PIPES	<i>✓</i>				
FUEL PIPES	<i>✓</i>				
FUEL PUMPS	<i>✓</i>				
SILENCER	<i>✓</i>				
WATER JACKET	<i>✓</i>				
SEPARATE FUEL TANKS	<i>13-7-27</i>	<i>-</i>	<i>10 lbs. 0"</i>	<i>✓</i>	<i>✓</i>

PLANS. Are approved plans forwarded herewith for shafting *Yes* Receivers Separate Tanks *Yes*

SPARE GEAR *See attached list*

The foregoing is a correct description.

FOR APPROVAL
W. J. Rowell
SECRETARY

Manufacturer.

Dates of Survey while building

During progress of work in shops--	<i>May 25, June 3, 14, 20, July 8, 11, 13.</i>
During erection on board vessel--	<i>July 5, Aug. 9, 16</i>
Total No. of visits	<i>11</i>

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*

Crank shaft *✓* Thrust shaft *✓* Tunnel shafts *14-6-27*, Screw shaft *14-6-27*, Propeller *14-6-27*, Stern tube *14-6-27*, Engine seatings *5-7-27*

Engines holding down bolts *9-8-27*, Completion of pumping arrangements *16-8-27*, Engines tried under working conditions *16-8-27*

Completion of fitting sea connections *9-8-27*, Stern tube *9-8-27*, Screw shaft and propeller *9-8-27*

Material of crank shaft *-* Identification Mark on Do. *✓* Material of thrust shaft *-* Identification Mark on Do. *-*

Material of tunnel shafts *Steel* Identification Marks on Do. *A.E.F.* Material of screw shafts *Steel* Identification Marks on Do. *A.E.F.*

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

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"Specary"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery has been completed and installed in accordance with the approved plans and the requirements of the Rules. The materials and workmanship are good. The machinery has been tried under full working conditions and found satisfactory. Speed of vessel 8 1/2 knots. R.P.M. of engine at full power 378 ahead & astern. Minimum R.P.M. for manoeuvring 135. The machinery of this vessel is eligible in my opinion to be classed with the record LMC 8.27.*

The amount of Entry Fee ... £ : : When applied for,
Fitting on board
 Special ... £ 3 : : *26.8 1927*
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : : *25/2/28*
(See Hull report)

L. Young for self & A.E. Farman
Engineer Surveyor to Lloyd's Register of Shipping.

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

Committee's Minute

FRI 2 SEP 1927

Assigned *Thome 8.27*
Oil Engines

CERTIFICATE WRITTEN



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Foundation