

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 44184

Received at London Office

22-11-24

Port of Glasgow

When handed in at Local Office

22-11-24

Port of Glasgow

Date, First Survey

30-8-1923

Last Survey

19-11-1924

Number of Visits

40

237739 on the

Single

Twin

Screw vessels

"ATAGO MARU"

Tons

Gross 7539

Net 4670

Master

Built at

Port-Glasgow

By whom built

Rithgors Ltd.

Yard No.

762

When built

1924

Engines made at

Winterthur

By whom made

Sulzer Bros.

Engine No.

5165

When made

1924

Boiler made at

Annan

By whom made

Cochran & Co., Annan

Boiler No.

9267

When made

1924

Brake Horse Power

4000

Owners

Nippon Yusen Kaisha

Port belonging to

Tokio

Nom. Horse Power as per Rule

986

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.

Type of Engines

Sulzer - see Winterthur Rpt. No 50

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

106

Means of ignition -

Kind of fuel used - Diesel oil

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 -

of crank pins -

Breadth of crank webs as per Rule -

Thickness of ditto as per Rule -

of flywheel shaft as per Rule -

Diameter of tunnel shaft as per Rule 12.86 as fitted 13

Diameter of thrust shaft as per Rule -

of screw shaft as per Rule 13.22 as fitted 13 7/8

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

ter end of the liner made watertight in the propeller boss yes

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

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 yes - charged

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

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

outer gland fitted to stern tube none

Length of stern bush 4'-8"

Diameter of propeller 15'-0"

propeller 14'-0"

No. of blades 4

state whether moveable yes

Total surface 68.6 square feet

of reversing direct

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

Thickness of cylinder liners -

cylinders fitted with safety valves -

Means of lubrication forced

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 Exhaust to funnel

No. of cooling water pumps - 2

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 -

Diameter of ditto -

Stroke -

be overhauled while the other is at work -

No. of auxiliary pumps connected to the main bilge lines 2

How driven Motor

pumps 7 1/2 Centrax Type (2)

No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps: - In engine room 4" 2 3/4" + 2" 2 1/2" to COFFER DAMS

holds, etc. N°1-2" 3/4"; N°2-2" 3/4"; N°3-2" 3/4"; N°4-2" 3/4"; N°5-1" 3/8"; N°6-1" 3/8"; N°7-1" 3/8"; N°8-1" 3/8"; N°9-1" 3/8"; N°10-1" 3/8"

No. of ballast pumps 2

How driven Motor

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

State size 107"

Is a separate auxiliary pump suction fitted in IN HOLDS & TUNNEL WELL

Room and size 10' 6"

Are all the bilge suction pipes fitted with roses yes

Are the MUD BOXES & STRAIGHT TAIL PIPES in Engine Room always accessible yes

shutters on Engine Room bulkheads always accessible none

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

of valves or cocks both

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

discharge pipes above or below the deep water line above & below

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

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 yes

Is it fitted with a watertight door yes

from Upper Deck

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

main air compressors -

No. of stages -

Diameters -

Stroke -

Driven by -

auxiliary air compressors -

No. of stages -

Diameters -

Stroke -

Driven by -

small auxiliary air compressors -

No. of stages -

Diameters -

Stroke -

Driven by -

scavenging air pumps -

Diameter -

Stroke -

Driven by -

ater of auxiliary Diesel Engine crank shafts as per Rule -

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 -

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 -

of tensile strength -

thickness -

Working pressure by rules -

Is each receiver, which can be isolated,

fitted with a safety valve as per Rule -

Can the internal surfaces of the receivers be examined -

What means are provided for cleaning their

inner surfaces -

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

Lloyd's Register Foundation

006505-006511-0103

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes - Glasgow Report*

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	<i>See Winterthur Report</i>				
" " COVERS					
" " JACKETS					
" " PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
" 2nd "	<i>25.9.24 to 28.10.24</i>	<i>1000 lbs/sq in</i> <i>450 lbs/sq in</i>	<i>2000 lbs/sq in</i> <i>1350 lbs/sq in</i>	<i>H.B.P.</i> <i>H.B.P.</i>	
" 3rd "					
AIR RECEIVERS—STARTING					
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS { <i>Betting Tanks</i> <i>Daily Service</i>	<i>25.6.24</i>		<i>8 1/2 lbs/sq in</i> <i>21 lbs/sq in</i>	<i>A.C.</i> <i>A.C.</i>	

PLANS. Are approved plans forwarded herewith for shafting - *Winterthur Rpt* Receivers - *Winterthur Rpt* Separate Tanks *Yes*
(If not, state date of approval)
SPARE GEAR *As per Winterthur Report & in addition the following - 4 propeller blades, one prop complete & various small items see list attached to Winterthur Report.*

The foregoing is a correct description,
For David Rowan & Co Ltd
Archd N. Grierson Manufacturer.

Dates of Survey while building { During progress of work in shops - *1923 Aug 30 Oct 17 Dec 19 1924 Mar 20-26 Apr 22-30 May 14-21-28 Jun 10-11-25 July 1- Aug 13-14-20-26 Sep*
During erection on board vessel - *23-25 Oct 1.6.9.15-16.17 18-20 22-28 29-31 Nov 6.7.10-18-19.*
Total No. of visits *40.*

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

Crank shaft Thrust shaft Tunnel shafts *13.6.24* Screw shaft *22.4.24* Propeller *22.30.4.24* Stern tube *6.6.24* Engine seatings *18*

Engines holding down bolts *21.10.24* Completion of pumping arrangements *6-11-24* Engines tried under working conditions *18 & 19-1*

Completion of fitting sea connections *T* Stern tube *T* Screw shaft and propeller *SEE Greenock*

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. *LLOYD'S N:786 D.C.B.13-6-24* Material of screw shafts *Steel* Identification Marks on Do. *LLOYD'S N:6679 H.C.F.224*

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

Is this machinery duplicate of a previous case *No* If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery has been fitted on board under special survey, tried and found satisfactory. It is eligible in our opinion for Classification and Record + LMC 11,24 and notation of DB 100 lbs.

The amount of Entry Fee *1/2 of Special Survey* When applied for, Special ... *all charged at Winterthur* 19

Donkey Boiler Fee ... 19

Travelling Expenses (if any) *to Glasgow* 19

Committee's Minute *GLASGOW 2-DEC 1924*

Assigned *+ LMC 11,24*

A.B. Forster. SCDario.
Engineer Surveyor to Lloyd's Register of Shipping

22/11/24

GLASGOW 2-DEC 1924

THES. 16 DEC 1924

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