

Date of writing Report 24 Dec 1918 When handed in at Local Office

19 Port of AMSTERDAM

Received at London Office 31 DEC 1928

o. in Survey held at A M S T E R D A M
g. Book.

Date, First Survey 14 October. Last Survey 24 March 1926
Number of Visits 14.

Number of Visits 14

-- on the *Single* }
 Twin } ~~XXXXXX~~ OIL ENGINE NO. 1973 for a 340 tons tanker
 Triple }
 Quadruple }
 Kobe } By whom built Mitsui Bussan Kaisha Co. L

Tons { Gross
Net

Quadruple					
Wilt at	Kobe	By whom built	Mitsui Bussan Kaisha Co. Id.	Yard No.	1201
Engines made at	Amsterdam	By whom made	Kromhout Motoren Fabriek	Engine No.	4973
Donkey Boilers made at	-	By whom made	-	Boiler No.	-
Brake Horse Power	350	Owners	Ned. Ind. Tank Stoomboot My.	Port belonging to	Rotterdam
Net Horse Power as per Rule	100	Is Refrigerating Machinery fitted for cargo purposes	-	Is Electric Light fitted	-
Trade for which vessel is intended	-	Sanriku-Coast, Japan			

ENGINE, &c.—Type of Engines *Krambach vertical, Type 4 M. 6.* 2 or 4 stroke cycle *Single or double acting*
 Maximum pressure in cylinders *18 1/2 lb. per sq. in.* Diameter of cylinders *42 1/2 in.* Length of stroke *48 1/2 in.* No. of cylinders *4* No. of cranks *4*
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *53 1/4 in.* Is there a bearing between each crank *Yes*
 Revolutions per minute *140* Flywheel dia. *1000 in.* Weight *2800 lbs.* Means of ignition *Spark plug* Kind of fuel used *Coke oil*
 Crank Shaft, dia. of journals *as per Rule* *4 1/2 in.* Crank pin dia. *1 1/4 in.* Crank Webs *Mid. length breadth 4 1/2 in. 11 1/2 in.* Thickness parallel to axis *Mid. length thickness 2 1/4 in. 2 1/4 in.* Thickness around eye hole *2 1/4 in.*
 Flywheel Shaft, diameter *as per Rule* *2 1/2 in. 1 1/2 in.* Intermediate Shafts, diameter *as per Rule* Thrust Shaft, diameter at collars *as per Rule*
 Propeller Shaft, diameter *as per Rule* *2 1/2 in.* Screw Shaft, diameter *as per Rule* Is the { tube } shaft fitted with a continuous liner { *Yes* }
 Bronze Liners, thickness in way of bushes *as per Rule* *1/4 in.* Thickness between bushes *as per rule* *1/4 in.* Is the after end of the liner made watertight in the *Yes*
 Propeller boss *Yes* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *Yes*

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 not attacked by the oil? ☐
 If two liners are fitted, is the shaft lapped or protected between the liners. ☐ Is an approved **Oil Gland** or other appliance fitted at the after end of the tube shaft? ☐
 Length of Bearing in **Stern Bush** next to and supporting propeller
 Length of Bearing in **Forward Bush**
 Total Developed Surface sq. feet

Propeller, dia. *6* **Pitch** *18* **No. of blades** *4* **Material** *cast iron* **whether Movable** *yes* **Total Developed Surface** *144*
Method of reversing Engines *forward* *Is a governor or other arrangement fitted to prevent racing of the engine when declutched* *yes* **Means of lubrication** *grease*
Thickness of cylinder liners *1/2 in* **Are the cylinders fitted with safety valves** *no* **Are the exhaust pipes and silencers water cooled or lagged with** *no*
non-conducting material *no* **If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine** *flame*
Is there a strainer in the exhaust *yes* **Is there a means of clearing the strainer** *yes*

non-conducting material. *If the exhaust is led overboard near the water line, it will freeze.*

Cooling Water Pumps, No. *2*. *Is the sea suction provided with an efficient strainer which can be cleared within the vessel?*

Bilge Pumps worked from the Main Engines, No. *2*. Diameter *12 1/2* Stroke *100* Can one be overhauled while the other is at work? *Yes*

Pumps connected to the Main Bilge Line	No. and Size	2 Friedman 14/2
	How driven	

Ballast Pumps, No. and size **Lubricating Oil Pumps, including Spare Pump, No. and size** *(4) 2 pump pump 40*

Are two independent means arranged for circulating water through the Oil Cooler

Pumps, No. and size:—In Machinery Space.....

In Holds, &c......

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size..... Are the Bilge Suctions in the Machinery Space.....

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all **Sea Connections** fitted direct on the skin of the ship..... Are they fitted with Valves or Cocks.....

Are the **Overboard Discharges** above or below the deep water line.....

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

What pipes pass through the bunkers.....

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times.....

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one space to another? ☐ Yes ☐ No

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. 1		No. of stages	2	Diameters	3 1/2" x 4 1/2"	Stroke	4"	Driven by	Main engine
Main Air Compressors, No. 2		No. of stages	1	Diameters	3 1/2" x 4 1/2"	Stroke	4"	Driven by	Aux. engine

Auxiliary Air Compressors, No. <i>1</i>	No. of stages <i>2</i>	Diameters <i>5 1/2 4 4 2</i>	Stroke <i>7</i>	Driven by <i>Hand</i>
High Air Compressors, No. <i>1</i>	No. of stages <i>1</i>	Diameters	Stroke	Driven by <i>Hand</i>

Small Auxiliary Air Compressors, No. 1 Diameter 2 Stroke 4 Driven by 1

Scavenging Air Pumps, No. 1 Diameter 2 Stroke 4 Driven by 1

Auxiliary Engines crank shafts, diameter
as per Rule *Assn. E.R.I. = 85 in. CP 4974*
as fitted *Assn. E.R.I. 45 in. CP 4975*

THE RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *Yes*

Can the internal surfaces of the receivers be examined ye ✓ What means are provided for cleaning their inner surfaces thin me

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

High Pressure Air Receivers. No. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint	Material	Range of tensile strength	Working pressure by Rules
	44 b 714	Internal diameter	5 1/8" thickness 1/2"

Starting Air Receivers, No. 1 **Total cubic capacity** 16.0 **Internal diameter** 18 in.

Is welded or riveted longitudinal joint none **Material** Steel **Range of tensile strength** 10-12 tons **Working pressure by Rules** 50 psi

Seamless, lap welded or riveted longitudinal

008049-008060-023



IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

PLANS. Are approved plans forwarded herewith for Shafting ☒

(If not, state date of approval)

Receivers *Li. Lander* Separate Tanks ☒

Donkey Boilers ☒

General Pumping Arrangements ☒

Oil Fuel Burning Arrangements ☒

SPARE GEAR

1 Combustion chamber, 1 piston complete with rings and pin
12 piston rings; 4 ignition plates; 1 set of main bearing brass, bolts
3 bottom end brass with bolts and nuts; 4 gudgeon pins;
4 roller steel shafts; 1 fuel pump complete; 1 fuel injector; 4 ignition
plates; 1 thread with nuts for cylinder head; 1 set of piston rings for
compressor, various lengths of tubes; 1 set of valves and springs for
compressor; packings for fuel injector and ignition plates; valves for bilge
and cooling pumps; 2 gudgeon pins; valves for crankcase; oil fuel pump

The foregoing is a correct description,

N.V. KROMHOUT MOTOREN FABRIEK

D. GOE *D. Goe* Jr.

Manufacturer.

Dates of Survey while building
During progress of work in shops -
During erection on board vessel -
Total No. of visits 14

17/10. 20/10. 23/10. 25/10. 5/11. 7/11. 16/11. 19/11. 26/11. 2/12. 9/12. 10/12. 14/12. 24/12.

Dates of Examination of principal parts—Cylinders 17/10. 20/10. Covers 17/10. 20/10. Pistons 17/10. 20/10. Rods 17/10. 20/10. Connecting rods 24/10. 18/11.

Crank shaft 20/10. 14/11. Flywheel shaft 20/10. Thrust shaft 20/10. 26/11. Intermediate shafts 20/10. Tube shaft 20/10.

Screw shaft 20/10. Propeller 20/10. Stern tube 20/10. Engine seatings 20/10. Engines holding down bolts 20/10.

Completion of fitting sea connections 20/10. Completion of pumping arrangements 20/10. Engines tried under working conditions 24/10. 28/10.

Crank shaft, Material Steel Identification Mark Hyd. 1882 v.s. Flywheel shaft, Material Steel Identification Mark 29.9.20

Thrust shaft, Material Steel Identification Mark Hyd. 1849 v.s. Intermediate shafts, Material Steel Identification Marks 25.10.20

Tube shaft, Material Steel Identification Mark 25.10.20 Screw shaft, Material Steel Identification Mark 25.10.20

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ☒

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ☒ If so, have the requirements of the Rules been complied with ☒

Is this machinery duplicate of a previous case ☒ If so, state name of vessel *Ant. Cap. OP: 10678*

General Remarks (State quality of workmanship, opinions as to class, &c.) *See by OP: 3474*

The oil engine has been constructed under special survey in accordance with the approved plan and Secretary's letter.

All materials tested as required, workmanship good. Engines tried under full working conditions on test bench and good.

The amount of Entry Fee ... £ : : When applied for, 19

Special ... £ 300.- : : When received, 15-1-19

Donkey Boiler Fee ... £ : : 15-1-19

Travelling Expenses (if any) £ 12.- : : 15-1-19

Committee's Minute

FRI. 21 FEB 1930

Assigned

See Kobe 6719

H. W. Bernhardt
Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation