

REPORT ON OIL ENGINE MACHINERY.

No. 4225
13 NOV 1928of writing Report 15th October 1928 When handed in at Local OfficePort of **YOKOHAMA**in Survey held at **Kamata**Date, First Survey 19th JuneLast Survey 15th October 1928on the ☒ Single ☒ Twin ☒ Triple Screw vesselsTons ☒ Gross ☒ NetBuilt at **Kamata**

By whom built

Yard No. ☒ When built ☒Engines made at **Kamata**By whom made **Kiugata Tekkocho.**Engine No. **1496** When made **1928**

Boilers made at

By whom made

Boiler No. When made

Horse Power **150**Owners **For Mitsubishi Loan Kaisha Nagasaki**Port belonging to **(building to class)**

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Type of Engines **L6K.**Maximum pressure in cylinders **550 lb per square inch**No. of cylinders **6**No. of cranks **6**Diameter of cylinders **9" Single**Length of stroke **12"**Revolutions per minute **350**Means of ignition **Compression**Kind of fuel used **Heavy oil.**

Is there a bearing between each crank

Yes.Span of bearings (Page 92, Section 2, par. 7 of Rules) **11 1/2"**

Distance between centres of main bearings

16 3/4"

Is a flywheel fitted

Yes.Diameter of crank shaft journals **as per Rule 5.08"**Diameter of crank pins **5.3125"**Breadth of crank webs **as per Rule**Thickness of ditto **as per Rule 7.06"**Diameter of flywheel shaft **as per Rule**Diameter of tunnel shaft **as per Rule**Diameter of thrust shaft **as per Rule**Diameter of screw shaft **as per Rule**

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

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

Is an outer gland fitted to stern tube

Length of stern bush

Diameter of propeller

Pitch of propeller

No. of blades

State whether moveable

Total surface

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

Yes.Means of lubrication **Forced.**

Are the exhaust pipes and silencers water cooled or lagged with

conducting material **Silica water cooled.** If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engineNo. of cooling water pumps **One.** Is the sea suction provided with an efficient strainer which can be cleared

Can this vessel

No. of bilge pumps fitted to the main engines

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

How driven

No. of pumps

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

In holds, etc.

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

Are the roses in Engine Room always accessible

Are the sluices on Engine Room bulkheads always accessible

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

Are they valves or cocks

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

Are the 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 all 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

Is it

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 **One**No. of stages **2**Diameters **2 3/8" & 8 3/8"**Stroke **6.25"**Driven by **Crank shaft.**

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**

Are the air compressors and their coolers made so as to be easy of access

RECEIVERS:—No. of high pressure air receivers **One**Internal diameter **19 1/2" mfm.**Cubic capacity of each **21.8 litre.**Material **Mild Steel**Seamless, lap welded or riveted longitudinal joint **Seamless**Range of tensile strength **28/30 tons per sq. in.**Thickness **9.5 mfm.**Working pressure by Rules **11 1/2 lb per sq. in.**No. of starting air receivers **2**Internal diameter **29 1/2" mfm.**Cubic capacity **137.5 litre**Material **Mild Steel**Seamless, lap welded or riveted longitudinal joint **Seamless**Range of tensile strength **28/30 tons per sq. in.**Thickness **11 mfm.**Working pressure by rules **9 1/2 lb per sq. in.**

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

No.

What means are provided for cleaning their

Surfaces **By drain.**

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

Yes.Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	6 th August	550lb	1100lb	R S	
" " COVERS	6 th August	550lb	1100lb	R S	
" " JACKETS	22 nd August	7lb	30lb		
" PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE	6 th August	120lb	400lb	R S	
" 2nd	6 th August	1000lb	2000lb	R S	
" 3rd					
AIR RECEIVERS—STARTING					Air bottles stamped:
" INJECTION					No 6 110130-14
AIR PIPES	7 th Sept.	1000lb	2000lb	R S	Lloyd's Test 29965 Lloyd's Test 29
FUEL PIPES	7 th Sept.	1000lb	2000lb	R S	W.P. 1207lb. W.P. 1207lb
FUEL PUMPS					PK 27.7.27 PK 29.9.2
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting No. Approved 8-6-28 Receivers ✓
(If not, state date of approval)

Separate Tanks

SPARE GEAR 1 set of studs & nuts for cylinders. 1 piston packing rings & gudgeon pin. 3 set packing rings. 1 set of crank shaft coupling bolts. 1 set bearing for top & bottom ends. 1 set of main bearing bolts. 6 air exhaust valves. 2 exhaust valve seats. 6 exhaust valve springs. 1 starting air valve. 1 fuel valve. 3 fuel valve needles. 1 flame plate. 1 cylinder safety valve. 1 set of fuel pump valves. 1 fuel pump complete. 1 lubricating oil valve. 1 set of piston rings for air compressor. 1 set of air valves for compressor also seats. 1 set of valves for cooling water pump. 1 set of bearing bases for gudgeon pin for air compressor also for crank pin. 2 air bottle valves. Various lengths of pipes for fuel, air injection & delivery also a number of springs.

The foregoing is a correct description,

Niigata Tekkosho,

Manufacturer.

Shop Superintendent, Shigeo Kato

Dates of Survey while building { During progress of work in shops - 19-6-28, 15-7-28, 6-8-28, 22-8-28, 7-9-28, 24-9-28, 3-10-28, 8-10-28.
During erection on board vessel - ✓
Total No. of visits 8

Dates of Examination of principal parts—Cylinders 6-8-28 Covers 6-8-28 Pistons 22-8-28 Rods 15-7-28
Connecting rods 6-8-28

Crank shaft 7-9-28 Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓
Engines holding down bolts ✓ Completion of pumping arrangements ✓ Engines tried under working conditions 24-9-28
3-10-28

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓
Material of crank shaft Mild Steel Identification Mark on Do. FBS 138 74-78 Material of thrust shaft ✓ Identification Mark on Do. ✓

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. 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.) These engines have been built under special Survey in accordance with the requirements of the Rules. The materials and workmanship have been found good. The engines examined under working conditions and found satisfactory.

The amount of Entry Fee ... £ :
Special ... Yen 240⁰⁰ :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) Yen 40⁰⁰ :
When applied for, 15-10-1928
When received, 20-10-1928

J. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 29 NOV 1929

TUE. 24 MAR 1930

Assigned

See Reg. rpt. J.R. No. 1691

LR-FAP-TB.12-78



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