

# REPORT ON MACHINERY.

No. 2485

Received at London Office

WED. 9 - JUL. 1919

Writing Report 19 When handed in at Local Office 10 Port of Kobe

Survey held at Date, First Survey 10<sup>th</sup> June 1918 Last Survey 28<sup>th</sup> March 1919  
(Number of Visits 23)

on the Twin Screw Engines for Asano Shipyard No. 16  
Built at Furuichi By whom built Naikyu Mansu deano S. B. Co. Tons Gross Net

made at Osaka By whom made Kubota Iron Works when made 3. 1919

made at Tokyo By whom made Shikawajima S. B. Co. when made 5. 1919

red Horse Power Owners Katsuda Kisen Kaisha Port belonging to

orse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

VES, &c.—Description of Engines Triple Expansion Twin Screw No. of Cylinders 6 No. of Cranks 6

Cylinders 22:36:61 Length of Stroke 48 Revs. per minute Dia. of Screw shaft as per rule 13.4 as fitted 13.7/8 Material of steel

screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight

propeller boss Yes If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two

are fitted, is the shaft lapped or protected between the liners Length of stern bush 5.2

Tunnel shaft as per rule 12.159 Dia. of Crank shaft journals as per rule 12.76 Dia. of Crank pin 13.2 Size of Crank webs 8.4 x 24.2 Dia. of thrust shaft under

13.8 Dia. of screw 16.0 Pitch of Screw 18.0 No. of Blades 4 State whether moveable Yes Total surface 85.3

Feed pumps Two Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

Bilge pumps Two Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

ine Room In Holds, &c.

Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

connections with the sea direct on the skin of the ship Are they Valves or Cocks

Do. y sized sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Do. y each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

pipes are carried through the bunkers How are they protected

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

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ERS, &c.—(Letter for record) Manufacturers of Steel

Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

ng Pressure Tested by hydraulic pressure to Date of test No. of Certificate

ch boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

iler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

st distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

ess Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

eam Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

ntages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

ng pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

ial of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

ial Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

ter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

ess Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

ter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

Shippin ess of girder at centre Length as per rule Distance apart Number and pitch of stays in each

ing pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

tely Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

ened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

ing pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

W1341-0042

Lloyd's Register Foundation

**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_

Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of Safety \_\_\_\_\_

Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Date of adjustment \_\_\_\_\_

If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_

Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Descrip. of riveting long. seams \_\_\_\_\_

Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of stays to do. \_\_\_\_\_ Dia. of stays \_\_\_\_\_

Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_

Working pressure of furnace by rules \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_

Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:—

大阪市南區 *The foregoing is a correct description,*

久保田権四郎  Manufacturer.

Dates of Survey while building: During progress of work in shops— 10, 14, 20 June, 6, 20, 24, 27 July, 14 Aug., 30 Sept., 5, 10, 26 Oct., 14 Nov., 4, 9, 18, 25 Dec. 1918, 15, 29 Jan., 11 Feb., 5, 10, 28 Mar. 1919

During erection on board vessel—

Total No. of visits 23

Is the approved plan of main boiler forwarded herewith—

Dates of Examination of principal parts—Cylinders 9/12/18, 12/1/19 Slides 30/9/18 etc Covers 12/2/19 etc Pistons 14/11/18 etc Rods 8.5.18, 22.5.18, 3.6.18, 10.6.18, 24.6.18, 22.8.18

Connecting rods 22.8.18 Crank shaft 18.12.18 Thrust shaft 5/10/18 Tunnel shafts 10/10/18 Screw shaft 10.12.18 Propeller 27.3.19

Stern tube 25/12/18 Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shafts Steel Identification Mark on Do. LLOYDS 5-10-18, 18-12-18 Material of Thrust shafts Steel Identification Mark on Do. Y.J. R

Material of Tunnel shafts Steel Identification Marks on Do. LLOYDS 5-10-18; 10-10-18 and 30-9-18 Material of Screw shafts Steel Identification Marks on Do. LLOYDS 4-12-18, Y.J. R

Material of Steam Pipes Test pressure Spare set sh. LLOYDS 4-12-18, Y.J. R LINER FITTED 10-1-19

General Remarks (State quality of workmanship, opinions as to class, &c.)

Mark on spare crank shaft:— LLOYDS 25.12.18, Y.J. R

These engines have been made & fitted together at the Kubota Iron Works Osaka under Special Survey & in accordance with the Rules & the materials & workmanship have been found good. The steel forgings (excepting two tunnel shafts made at the Masoran Nippon Steel Works) have been forged & rough turned at the Kobe Steel Works.

The engines have been sent to Yokohama to be fitted on board.

*A.H.P.*

The amount of Entry Fee .. £ : : When applied for, 2<sup>nd</sup> May 1919

Special .. £ 200 : : When received, 13<sup>th</sup> May 1919

Donkey Boiler Fee .. £ : :

Travelling Expenses (if any) £ : 20 :

*Y. Jo.*  
Assist. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute  
Assigned

FRI JUL 18 1919



Certificate (if required) to be sent to the Surveyors on or below the space for Committee's Minute.