

REPORT ON MACHINERY

No. 16761

WED. NOV. - 4. 1914

Date of writing Report 30th Oct. 1914 When handed in at Local Office 30th Oct. 1914 Port of Greenock

No. in Survey held at Port Glasgow Date, First Survey Aug 6th Last Survey 1st Sept 1914
Reg. Book. 1218 on the T. S. S. "TSUSHIMA MARU" (Number of Visits)

Master E. Lombes Built at Port Glasgow By whom built Russell & Co
Engines made at Glasgow By whom made J. Rowan & Co when made 1914
Boilers made at _____ By whom made _____ when made _____

Registered Horse Power _____ Owners Nippon Yusen Kaisha Port belonging to Tokio
Nom. Horse Power as per Section 28 _____ Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

Tons { Gross 6712
Net 4314
When built 1914

ENGINES, &c.—Description of Engines

Dia. of Cylinders		Length of Stroke	Revs. per minute	Dia. of Screw shaft	No. of Cylinders	No. of Cranks
as per rule				as per rule		
as fitted				as fitted		
Material of screw shaft		Is the screw shaft fitted with a continuous liner the whole length of the stern tube				
		Is the after end of the liner made water tight				
		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				
		Length of stern bush				
Dia. of Tunnel shaft		Dia. of Crank shaft journals		Dia. of Crank pin		Dia. of thrust shaft under
as per rule		as per rule				
as fitted		as fitted				
Collars		Pitch of Screw		No. of Blades		State whether moveable
Dia. of screw						Total surface
No. of Feed pumps		Diameter of ditto		Stroke		Can one be overhauled while the other is at work
No. of Bilge pumps		Diameter of ditto		Stroke		Can one be overhauled while the other is at work
No. of Donkey Engines		Sizes of Pumps		No. and size of Suctions connected to both Bilge and Donkey pumps		
In Engine Room				In Holds, &c.		
No. of Bilge Injections		sizes		Connected to condenser, or to circulating pump		Is a separate Donkey Suction fitted in Engine room & 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 stokehold plates		
Are they 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		Are the Discharge Pipes above or below the deep water line		
What pipes are carried through the bunkers		How are they protected				
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings 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						
Dates of examination of completion of fitting of Sea Connections		of Stern Tube		Screw shaft and Propeller		
Is the Screw Shaft Tunnel watertight		Is it fitted with a watertight door		worked from		

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

Total Heating Surface of Boilers	Is Forced Draft fitted	No. and Description of Boilers	
Working Pressure	Tested by hydraulic pressure to	Date of test	No. of Certificate
Can each boiler be worked separately	Area of fire grate in each boiler		No. and Description of Safety Valves to each boiler
Area of each valve	Pressure to which they are adjusted		Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork	Mean dia. of boilers	Length	Material of shell plates
Thickness	Range of tensile strength	Are the shell plates welded or flanged	
long. seams	Diameter of rivet holes in long. seams	Pitch of rivets	Descrip. of riveting: cir. seams
Per centages of strength of longitudinal joint	Working pressure of shell by rules	Size of manhole in shell	
Size of compensating ring	No. and Description of Furnaces in each boiler		Material
Length of plain part	Thickness of plates	Description of longitudinal joint	
Working pressure of furnace by the rules	Combustion chamber plates: Material		Thickness: Sides
Pitch of stays to ditto: Sides	Back	Top	Working pressure by rules
Material of stays	Diameter at smallest part	Area supported by each stay	Working pressure by rules
Material	Thickness	Pitch of stays	How are stays secured
Diameter at smallest part	Area supported by each stay	Working pressure by rules	Material of Front plates at bottom
Thickness	Material of Lower back plate	Thickness	Greatest pitch of stays
Diameter of tubes	Pitch of tubes	Material of tube plates	Thickness: Front
Pitch across wide water spaces	Working pressures by rules	Girders to Chamber tops: Material	Depth and thickness of girder at centre
Working pressure by rules	Superheater or Steam chest; how connected to boiler	Can the superheater be shut off and the boiler worked separately	
holes	Diameter	Length	Thickness of shell plates
If stiffened with rings	Distance between rings	Working pressure by rules	Material
Working pressure of end plates	Area of safety valves to superheater	Are they fitted with easing gear	

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 casing 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:—

The foregoing is a correct description,

Manufacturer.

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

Is the approved plan of main boiler forwarded herewith

Is the approved plan of main boiler forwarded herewith " " " donkey " " "

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings *1/19/14* _____ 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 shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

General Remarks (State quality of workmanship, opinions as to class, &c. *Propellers & fastenings of sea connections examined before launching & found in order.*)

Certificate (if required) to be sent to Committee's Minute.

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

Special .. £ _____ : _____

Donkey Boiler Fee .. £ _____ : When received, _____

Travelling Expenses (if any) £ _____ : _____

Shaw
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **GLASGOW 2 - NOV. 1914**

FRI. NOV. 20. 1914

Assigned See minute on G.L. R.N. 34573

