

# REPORT ON MACHINERY.

14562

Port of *Sunderland*

No. *14562*

No. in Survey held at *Sunderland*

Reg. Book.

Date, first Survey *20 June 1887* Last Survey *22 March 1888*

Received *MONDAY 26 MARCH 1888*  
(Number of Visits *36*)

*2082.21*  
Tons *3194.80*

on the *S.S. "Mieke Maru"*

Master *J. H. Pyne* Built at *Sunderland* By whom built *R. Thompson & Sons* When built *1888*

Engines made at *Sunderland* By whom made *John Dickinson* when made *1888*

Boilers made at *Sunderland* By whom made *John Dickinson* when made *1888*

Registered Horse Power *250* Owners *Nippon Yusen Kaisha S.S. Co.* Port belonging to *Tokio*

## ENGINES, &c.—

Description of Engines *C. I. D. a. S. C. Triple compound, three cranks*  
Diameter of Cylinders *25.40 4 6 6* Length of Stroke *45* No. of Rev. per minute *60* Point of Cut off, High Pressure *1/2 stroke* Low Pressure *1/2 stroke*

Diameter of Screw shaft *12 1/2* Diam. of Tunnel shaft *12 1/4* Diam. of Crank shaft journals *12 3/4* Diam. of Crank pin *12 3/4* size of Crank webs *patent*

Diameter of screw *17-0* Pitch of screw *19-0* No. of blades *4* state whether moveable *not* total surface *80 sq*

No. of Feed pumps *2* diameter of ditto *4* Stroke *21* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* diameter of ditto *4 1/2* Stroke *21* Can one be overhauled while the other is at work *yes*

Where do they pump from *Fore. main. engine room. after tank & peak tanks and wells*

No. of Donkey Engines *2* Size of Pumps *19" x 15 1/4" x 3" x 6"* Where do they pump from *all tanks, wells. sea*

*and peaks.*

Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*

No. of bilge injections *one* and sizes *1 1/4* Are they connected to condenser, or to circulating pump *circulating pump*

How are the pumps worked *By levers on after engine*

Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Both*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the discharge pipes above or below the deep water line *above*

Are they each fitted with a discharge valve always accessible on the plating of the vessel *yes* Are the blow off cocks fitted with a spigot and brass covering plate *yes*

What pipes are carried through the bunkers *none*

How are they protected

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *new vessel*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *top platform.*

## BOILERS, &c.—

Number of Boilers *Two* Description *Ordinary type. dble end* Whether Steel or Iron *Steel excepting tubes & girders*

Working Pressure *150 lbs* Tested by hydraulic pressure to *300 lbs* Date of test *19-1-88.*

Description of superheating apparatus or steam chest *none*

Can each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately *no superheater*

No. of square feet of fire grate surface in each boiler *69 sq* Description of safety valves *direct spring* No. to each boiler *2*

Area of each valve *8.3 sq* Are they fitted with easing gear *yes* No. of safety valves to superheater *—* area of each valve *—*

Are they fitted with easing gear *—* Smallest distance between boilers and bunkers or woodwork *15"* Diameter of boilers *12-3"*

Length of boilers *15-6"* description of riveting of shell long. seams *Lap 5 rows of rivets* circum. seams *centre treble, end double* Thickness of shell plates *1 3/8"*

Diameter of rivet holes *1 1/4"* whether punched or drilled *drilled* pitch of rivets *3" 4 1/2"* Lap of plating *14 3/8"*

Per centage of strength of longitudinal joint *99%* working pressure of shell by rules *153 lbs* size of manholes in shell *16 x 12"*

Size of compensating rings *8" x 1 3/8"* No. of Furnaces in each boiler *4*

Outside diameter *3-11"* length, top *6-0"* bottom *6-0"* thickness of plates *9 1/16"* description of joint *corrugated* if rings are fitted *no*

Greatest length between rings *—* working pressure of furnace by the rules *150* combustion chamber plating, thickness, sides *1/2"* back *none* top *19 1/32"*

Pitch of stays to ditto, sides *7 1/8" x 6 3/4"* back *—* top *8" x 8 1/4"* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by rules *151*

Diameter of stays at smallest part *1-13* working pressure of ditto by rules *164* end plates in steam space, thickness *1 3/8"*

Pitch of stays to ditto *18 1/4" x 16"* how stays are secured *dble nuts* working pressure by rules *152 lbs* diameter of stays at smallest part *2-6*

working pressure by rules *163 lbs* Front plates at bottom, thickness *3/4"* Back plates, thickness *—*

Greatest pitch of stays *—* working pressure by rules *—* Diameter of tubes *3 3/4"* pitch of tubes *4 1/2" x 4 1/2"* thickness of tube plates, front *7/8"* back *7/8"* how stayed *stay tubes* pitch of stays *9 x 9"* width of water spaces *1 1/2"*

Diameter of Superheater or Steam chest *none* length *—* thickness of plate *—* description of longitudinal joint *—* diam. of rivet holes *—*

Pitch of rivets *—* working pressure of shell by rules *—* diameter of flue *—* thickness of plates *—* If stiffened with rings *—*

Distance between rings *—* working pressure by rules *—* end plates of superheater, or steam chest; thickness *—* how stayed *—*

Superheater or steam chest; how connected to boiler *—*



DONKEY BOILER— Description *Cylindrical, single ended, ordinary type, Steel.*  
 Made at *Gateshead* by whom made *Clarke, Chapman & Parsons* when made *20/2/88* here fixed *upper deck*  
 Working pressure *90 lbs* tested by hydraulic pressure to *180 lbs* No. of Certificate *2428* fire grate area *28 sq* description of saf  
 valves *direct spring* No. of safety valves *2* area of each *3.98* if fitted with easing gear *yes* if steam from main boilers c  
 enter the donkey boiler *no* diameter of donkey boiler *4'-0"* length *8'-0"* description of riveting *dbl riveted lap*  
 Thickness of shell plates *1/2"* diameter of rivet holes *15/16"* whether punched or drilled *drilled* pitch of rivets *3 1/4"* lap of plating *4 1/2"*  
 per centage of strength of joint *41%* thickness of ~~end~~ plates *1/16"* stayed by *1 1/8" steel stays 14" pitch*  
 Diameter of furnace ~~top~~ *4'-0"* bottom *—* length of furnace *5'-6"* thickness of plates *17/32"* description of joint *single butt sh*  
 Thickness of ~~furnace~~ *combustion chamber* plates *1/2"* stayed by *1 1/2" stays 9" pitch* working pressure of shell by rules *90.*  
 Working pressure of furnace by rules *114 lbs* diameter of ~~tubes~~ *3"* thickness of plates *1/16"* thickness of water tubes *none*

SPARE GEAR. State the articles supplied: *Top and bottom connecting rod bolts & nuts. two 2*  
*bearing bolts & nuts. one set of coupling bolts & nuts. feed & bilge pump*  
*valves. propeller. bolts. nuts & iron assorted*

The foregoing is a correct description,  
 FOR JOHN DICKINSON *John* Manufacturer. of main engine & boilers

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*The machinery of this vessel has been constructed under special survey*  
*the material and workmanship are good and efficient and the engine*  
*when tried under steam worked satisfactorily. In my opinion the machinery*  
*of this vessel is in good order and safe working condition and eligible for*  
*the notification in the Register Book of LMC 388.*

This submitted that this vessel  
 is eligible to have the notification  
 Date 3/8/88 received

26/3/88

*Large handwritten signature or initials in blue ink.*

The amount of Entry Fee .. £ *2 : 0* : — received by me, *at L.S.*  
 Special .. £ *32 : 10* : —  
 Donkey Boiler Fee .. £ : : —  
 Certificate (if required) .. £ : : — *28/3/1888*  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ : : —)

Committee's Minute  
*+ LMC 3/88*  
 TUES 27 MARCH 1888

*Paul Salmon*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping



Lloyd's Register  
 Foundation