

THUR. JAN 31 1901

No. 11409 <sup>26.</sup>

## REPORT ON MACHINERY.

Port of WEST HARTLEPOOL

Received at London Office

No. in Survey held at *West Hartlepool* Date, first Survey *7<sup>th</sup> June, 1900* Last Survey *25<sup>th</sup> June, 1901*  
 Reg. Book. *11409* (Number of Visits *74*)  
 on the *S.S. "Nassovia"* Tons { Gross *3835*  
 Net *2478*  
 Master *W. P. M. M.* Built at *West Hartlepool* By whom built *R. Gray & Co. Ltd.* When built *1901*  
 Engines made at *West Hartlepool* By whom made *Central Marine Engine Works, Ltd.* when made *1901*  
 Boilers made at *do* By whom made *do* when made *1901*  
 Registered Horse Power *400* Owners *Hamburg Americanische Packetfahrt* Port belonging to *Hamburg*  
*Actien Gesellschaft*  
 Nom. Horse Power as per Section 28 *274* Is Refrigerating Machinery fitted *no* Is Electric Light fitted *no*

ENGINES, &c.—Description of Engines *Quadruple on five cranks* No. of Cylinders *5* No. of Cranks *5*  
 Dia. of Cylinders *17.24.34.42.42* Length of Stroke *42* Revs. per minute *65* Dia. of Screw shaft *11.3* as per rule *11.3* Lgth. of stern bush *4.8*  
 Dia. of Tunnel shaft *11.2* as per rule *11.2* Dia. of Crank shaft journals *10.8* as per rule *10.8* Dia. of Crank pin *11* Size of Crank webs *16.8.6.8* Dia. of thrust shaft under  
 as fitted *11* as fitted *11*  
 Halls *11.2* Dia. of screw *16.0* Pitch of screw *14.0* No. of blades *4* State whether moveable *no* Total surface *85.4*  
 No. of Feed pumps *2* Diameter of ditto *3* Stroke *33* Can one be overhauled while the other is at work *yes*  
 No. of Bilge pumps *2* Diameter of ditto *3.2* Stroke *33* Can one be overhauled while the other is at work *yes*  
 No. of Donkey Engines *3* Sizes of Pumps *4x8-6.2.6.3 12x10* No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room *Seven, four 3.2, one 3.2, two 2.2* In Holds, &c. *Three, two 3.2 in each hold & one 2.2*  
*in tunnel well*  
 No. of bilge injections *1* sizes *5* Connected to condenser, or to circulating pump *Pump* Is a separate donkey suction fitted in Engine room & size *yes 3.2*  
 Are all the bilge suction pipes fitted with roses *yes* Are the roses in Engine room always accessible *yes* Are the sluices on Engine room bulkheads always accessible *none*  
 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*  
 That pipes are carried through the bunkers *none* How are they protected *-*  
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *yes*  
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *yes*  
 Then were stern tube, propeller, screw shaft, and all connections examined in dry dock *24.1.00* Is the screw shaft tunnel watertight *yes*  
 Is it fitted with a watertight door *yes* worked from *upper platform*

BOILERS, &c.—(Letter for record *(S)*) Total Heating Surface of Boilers *3010* Is forced draft fitted *Belius Lane*  
 No. and Description of Boilers *Two Single ended Steel* Working Pressure *268 lb* Tested by hydraulic pressure to *536 lb*  
 Date of test *17.12.00* Can each boiler be worked separately *yes* Area of fire grate in each boiler *45.5* No. and Description of safety valves to  
 each boiler *Two Spring* Area of each valve *7.04* Pressure to which they are adjusted *240 lb* Are they fitted with easing gear *yes*  
 Smallest distance between boilers or uptakes and bunkers or woodwork *2.6* Mean dia. of boilers *13.0* Length *10.7* Material of shell plates *Steel*  
 Thickness *1.23* Range of tensile strength *29-32* Are they welded or flanged *Both* Descrip. of riveting: cir. seams *none* long. seams *Belius Lane*  
 Diameter of rivet holes in long. seams *1.16* Pitch of rivets *10.34* Lap of plates or width of butt straps *24.8*  
 Percentages of strength of longitudinal joint *89* Working pressure of shell by rules *310 lb* Size of manhole in shell *16.12*  
 Size of compensating ring *2.5-2.0-1* No. and Description of Furnaces in each boiler *3 Morrison* Material *Steel* Outside diameter *3.12*  
 Length of plain part *top 6.6 bottom 6.9* Thickness of plates *crown 1.16 bottom 1.16* Description of longitudinal joint *Welded* No. of strengthening rings *-*  
 Working pressure of furnace by the rules *278* Combustion chamber plates: Material *Steel* Thickness: Sides *1.16* Back *1.16* Top *1.16* Bottom *1.14*  
 Pitch of stays to ditto: Sides *7.5* Back *7.5* Top *7.5* If stays are fitted with nuts or riveted heads *into* Working pressure by rules *280*  
 Material of stays *Steel* Diameter at smallest part *1.63* Area supported by each stay *58* Working pressure by rules *324* End plates in steam space:  
 Material *Steel* Thickness *1.32* Pitch of stays *14.5-14.5* How are stays secured *by nuts* Working pressure by rules *269* Material of stays *Steel*  
 Diameter at smallest part *2.91* Area supported by each stay *210* Working pressure by rules *316* Material of Front plates at bottom *Steel*  
 Thickness *1.78* Material of Lower back plate *Steel* Thickness *1.32* Greatest pitch of stays *14* Working pressure of plate by rules *289*  
 Diameter of tubes *3.4* Pitch of tubes *4.5* Material of tube plates *Steel* Thickness: Front *1.78* Back *1.76* Mean pitch of stays *9.4*  
 Pitch across wide water spaces *14.4* Working pressures by rules *295 lb* Girders to Chamber tops: Material *Steel* Depth and  
 thickness of girder at centre *9.4x1.2* Length as per rule *2.5* Distance apart *7* Number and pitch of Stays in each *Two 7.5 pitch*  
 Working pressure by rules *300 lb* Superheater or Steam chest; how connected to boiler *as per plan approved* Can the superheater be shut off and the boiler worked  
 separately *yes* 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  
 stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear



SPARE GEAR. State the articles supplied:— 2 Main bearing bolts, 2 top end bolts, 2 bottom end bolts  
2 sets of shaft coupling bolts, 1 set of crank coupling bolts all fitted with nuts, 1 set  
of eccentric straps & sheave, 1 set of tide pump valves, 1 set of feed pump valves, Springs  
for H.P. piston, 1 cast iron propeller, 1 propeller shaft, 1<sup>st</sup> crank shaft, slide valve spindle  
The foregoing is a correct description, 1 pair of top end, 1 pair of bottom end & scrapers, air and  
circulating pump. One set of rods, 1 set of pump links  
3% Condenser boiler tubes, Safety valves for the condenser

|                   |   |           |  |            |
|-------------------|---|-----------|--|------------|
| white<br>building | board vessel - -<br>Total No. of visits | <u>94</u> | Is the approved plan of main boiler forwarded herewith | <u>yes</u> |
|                   |   |           | " " " donkey " " "                                     | no         |

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been specially*  
*surveyed during construction the material and workmanship good & renders*  
*the vessel eligible in my opinion to have the Record \* Lm C 1.01 in the*  
*Register Book of the Society*

*It is submitted that  
this vessel is eligible for  
THE RECORD.* + LMC 1.01. FD.

|                                |   |    |   |    |                                  |
|--------------------------------|---|----|---|----|----------------------------------|
| The amount of Entry Fee..      | £ | 2  | : | :  | } When applied for,<br>30.1.1901 |
| Special .. .. .                | £ | 33 | : | 14 |                                  |
| Donkey Boiler Fee .. .. .      | £ | :  | : | :  |                                  |
| Travelling Expenses (if any) £ | : | :  | : | :  |                                  |
|                                |   |    |   |    | When received,<br>30.1.1901      |

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

### Committee's Minute

FRI 1 FEB 1901

*Assigned*

MACHINERY CERTIFICATE  
WRITTEN.

31.1.51

31.1.01



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Foundation

W. H. Northpool.