

REPORT ON MACHINERY.

No. 37

No. in Survey held at *Gotthenburg*

Reg. Book.

Date, first Survey *15th of May 1880* Last Survey *4th of Novemb 1880*

(Received in London Office)

Tons *1304/983*

on the *Steel Steam Ship* *Novoselsky*

Master *B. Schwarz* Built at *Lindholmen Works* When built *1880*

Engines made at *Lindholmen Works* By whom made *Motela Company* when made *1880*

Boilers made at *Lindholmen Works* By whom made *Motela Company* when made *1880*

Registered Horse Power *160* Owners *Novoselsky & Palaschkoffsky* Port belonging to *Petersburg*

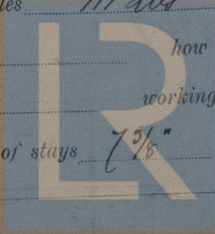
ENGINES, &c.—

Description of Engines *Compound*
 Diameter of Cylinders *48 1/2" x 29 1/2"* Length of Stroke *33"* No. of Rev. per minute *68* Point of Cut off, High Pressure *1 1/2"* Low Pressure *1 1/2"*
 Diameter of Screw shaft *9 1/4"* Diameter of Tunnel shaft *9 1/4"* Diameter of Crank shaft journals *9 1/2"* Diameter of Crank pin *8 3/4"* size of Crank webs *1 1/4" x 5 3/4"*
 Diameter of screw *13' 4 1/2"* Pitch of screw *11' 1"* No. of blades *4* state whether moveable *No* total surface *140 square feet*
 No. of Feed pumps *2* diameter of ditto *5 1/8"* Stroke *7 1/2"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *2* diameter of ditto *4 3/8"* Stroke *13"* Can one be overhauled while the other is at work *Yes*
 Where do they pump from *Engine room*
 No. of Donkey Engines *2* Size of Pumps *6 3/4" x 4 1/2"* Where do they pump from *each compartment*

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
 No. of bilge injections *1* and sizes *5 5/8"* Are they connected to condenser, or to circulating pump *Circulating Pumps*
 How are the pumps worked *with Levers from main Engine*
 Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Valves and Cocks*
 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
 What pipes are carried through the bunkers *No* 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 *October 1880*
 Is the screw shaft tunnel watertight *Yes* and fitted with a sluice door *Yes* worked from *Main Deck*

BOILERS, &c.—

Number of Boilers *2* Description *Horizontal Multitubular, Circular*
 Working Pressure *70 Lbs* Tested by hydraulic pressure to *140 Lbs* Date of test *4th of September 1880*
 Description of superheating apparatus or steam chest *Circular Steam chest with dished end plates*
 Can each boiler be worked separately *Yes* Can the superheater be shut off and the boiler worked separately
 No. of square feet of fire grate surface in each boiler *35 square feet* Description of safety valves *Adams Patent*
 No. to each boiler *2* area of each valve *11.2 square inches* Are they fitted with easing gear *Yes*
 No. of safety valves to *Steam chest* *1* area of each valve *7.7 square inches* are they fitted with easing gear *Yes*
 Smallest distance between boilers and bunkers or woodwork *5"*
 Diameter of boilers *10' 10 1/4"* Length of boilers *10'* description of riveting of shell long. seams *double riveted double butt joints* circum. seams *double riveted lap joints*
 Thickness of shell plates *5/8"* diameter of rivet holes *7/8"* whether punched or drilled *Drilled* pitch of rivets *2 1/4"*
 Lap of plating *4 1/2"* per centage of strength of longitudinal joint *70* working pressure of shell by rules *83 Lbs*
 Size of manholes in shell *15 1/2" x 10 1/4"* size of compensating rings *4 1/2" x 1"*
 No. of Furnaces in each boiler *2* outside diameter *37"* length, top *7' 5 1/2"* bottom
 Thickness of plates *1/2"* description of joint *Butterfly* if rings are fitted *—* greatest length between rings
 Working pressure of furnace by the rules *81 Lbs*
 Combustion chamber plating, thickness, sides *7/16"* back *7/16"* top *7/16"*
 Pitch of stays to ditto sides *7 3/8"* back *7 3/8"* top *7 3/8"*
 If stays are fitted with nuts or riveted heads *riveted heads* working pressure of plating by rules *81 Lbs*
 Diameter of stays at smallest part *1 1/8"* working pressure of ditto by rules *111 Lbs*
 End plates in steam space, thickness *5/8"* pitch of stays to ditto *14"* how stays are secured *bolts to Gussied Plates*
 Working pressure by rules *71 Lbs* diameter of stays at smallest part *2 1/4"* working pressure by rules *123 Lbs*
 Front plates at bottom, thickness *1/2"* Back plates, thickness *1/2"* greatest pitch of stays *7 3/8"* working pressure by rules *123 Lbs*



Diameter of tubes $3\frac{3}{4}$ " pitch of tubes $4\frac{1}{8}$ " thickness of tube plates, front $\frac{5}{8}$ " back $\frac{1}{8}$ "
 How stayed Stay tubes pitch of stays $14\frac{1}{2}$ " width of water spaces $1\frac{1}{8}$ "
 Diameter of Superheater or Steam chest $4\frac{1}{2}$ " length $5\text{'-}10\text{'}$
 Thickness of plates $\frac{3}{8}$ " description of longitudinal joint *double lap* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $2\frac{1}{8}$ "
 Working pressure of shell by rules 92 lbs 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 $\frac{1}{2}$ " How stayed *disks, and stayed with screw stay and nuts, rivets washers*
 Superheater or steam chest; how connected to boiler *Copper pipes and Valves*

DONKEY BOILER—

Description *Horizontal, Multitubular, Circular*
 Made at *Lindholm's Works* By whom made *Alstede Company* when made *1880*
 Where fixed *Maindeck* working pressure *60 lbs* Tested by hydraulic pressure to *140 lbs* No. of Certificate
 Fire grate area *8.2 square feet* Description of safety valves *Common with levers* No. of safety valves *1* area of each *7 square*
 If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *Yes*
 Diameter of donkey boiler *6'-4"* length *6'-11"* description of riveting *Single rivet lap joint*
 thickness of shell plates $\frac{7}{16}$ " diameter of rivet holes $\frac{13}{16}$ " whether punched or drilled *Punched*
 pitch of rivets $2\frac{1}{4}$ " lap of plating $2\frac{1}{2}$ " per centage of strength of joint *See 3rd Reg. Report*
 thickness of crown plates stayed by —
 Diameter of furnace, top 30 " bottom — length of furnace $5\text{'-}2\text{'}$
 thickness of plates $\frac{7}{16}$ " description of joint *Outside Butt straps*
 thickness of furnace crown plates — stayed by —
 Working pressure of shell by rules *64 lbs* working pressure of furnace by rules *111 lbs*
 diameter of uptake thickness of plates thickness of water tubes

The foregoing is a correct description,

Manufacturer.

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

The Machinery is of good construction and material and the workmanship well executed.

The Shellplates in the boilers and Steamchest are of Bessemer steel with drilled rivetholes and tested in accordance with the Rules and Reports.

All other parts of the Boilers are of Swedish Boiler Iron.

The workmanship on the Boilers is well executed.

The machinery and boilers are examined by me from the commencement of the work until the final test of machinery under steam and found to be at this date viz 4th of Nov: 1880 in good order and safe working condition and in my opinion merits the favorable consideration of the Committee to be *Classed & Lloyd's M.C.*

The amount of Entry Fee 3 : : received by me,

Special .. £ 24 : :

Certificate (if required) .. £ 2 : : 4^{th} Nov 1880

To be sent as per margin.

(Travelling Expenses, if any, £

29 : 7

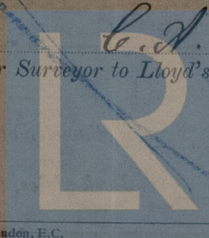
Committee's Minute

Friday Nov 26th

1880

+ Lloyd's Rep TBW

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



Lloyd's Register
Foundation