

REPORT ON MACHINERY.

4111

Port of *Aberdeen*

THURS 7 AUGUST 1890

Received at London Office

13

No. *4111*

No. in Survey held at *Aberdeen*
Reg. Book.

Date, first Survey *Jan 6*

Last Survey *Aug 4*

1890

(Number of Visits *46*)

on the *Screw Steam Trawler*

"North East"

Tons *25 net*

Master *D. Brighton*

Built at *Aberdeen*

By whom built *Messrs Hall Russell & Co*

When built *1890*

Engines made at *Aberdeen*

By whom made *Messrs Hall Russell & Co*

when made *1890*

Boilers made at *Aberdeen*

By whom made *Messrs Hall Russell & Co*

when made *1890*

Registered Horse Power *50*

Owners *Mr W. Pyper*

Port belonging to *Aberdeen*

ENGINES, &c.—

Description of Engines *Compound Inverted direct acting surface condensing*

Diameter of Cylinders *14" 3/4* Length of Stroke *24"* No. of Rev. per minute *100* Point of Cut off, High Pressure *16 1/4* Low Pressure *12 3/4*

Diameter of Screw shaft *6 1/2* Diam. of Tunnel shaft *6 1/4* Diam. of Crank shaft journals *6 3/4* Diam. of Crank pin *6 3/4* size of Crank webs *4 1/2 x 8*

Diameter of screw *8" 0* Pitch of screw *11" 6* No. of blades *4* state whether moveable *No* total surface *24 sq ft*

No. of Feed pumps *One* diameter of ditto *2 1/2* Stroke *16* Can one be overhauled while the other is at work *✓*

No. of Bilge pumps *One* diameter of ditto *2 1/2* Stroke *16* Can one be overhauled while the other is at work *✓*

Where do they pump from *Bilges of each compartment*

No. of Donkey Engines *One* Size of Pumps *3 cyl 5" stroke 6"* Where do they pump from *Sea hotwell and*

Bilges of 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 *Yes*

No. of bilge injections *One* and sizes *13 dia* Are they connected to condenser, or to circulating pump *Cir pump*

How are the pumps worked *By levers on L.P. 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 *awash*

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 *✓* 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 *previous to launching*

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

BOILERS, &c.—

Number of Boilers *One*

Description *cylindrical Multitubular*

Whether Steel or Iron *Steel's*

Working Pressure *100 lb*

Tested by hydraulic pressure to *200 lb*

Date of test *July 7. 1890*

Description of superheating apparatus or steam chest *✓*

Can each boiler be worked separately *✓* Can the superheater be shut off and the boiler worked separately *✓*

No. of square feet of fire grate surface in each boiler *27 1/2 sq ft* Description of safety valves *direct spring* No. to each boiler *two*

Area of each valve *4 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 *4"* Diameter of boilers *10" 3*

Length of boilers *9' 6"* description of riveting of shell long. seams *D. riv butt* circum. seams *D. riv lap* Thickness of shell plates *1/2"*

Diameter of rivet holes *15/16* whether punched or drilled *drilled* pitch of rivets *3 3/4* Lap of plating *Straps 10 x 2*

Per centage of strength of longitudinal joint *75%* working pressure of shell by rules *104 lb* size of manholes in shell *12 x 16*

Size of compensating rings *3/4" thick Dbl riv* No. of Furnaces in each boiler *two*

Outside diameter *34* length, top *6" 6* bottom *8" 11* thickness of plates *15/32* description of joint *D. riv butt* if rings are fitted *Yes*

Greatest length between rings *6" 6* working pressure of furnace by the rules *105 lb* combustion chamber plating, thickness, sides *1/2* back *1/2* top *1/2*

Pitch of stays to ditto, sides *8 1/4 x 8 1/2* back *8 1/2 x 8 1/2* top *radial* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by

rules *101 lb* Diameter of stays at smallest part *1 1/4" 12 screw* working pressure of ditto by rules *106 lb* end plates in steam space, thickness *13/16*

Pitch of stays to ditto *15 x 15* how stays are secured *dbl nuts* working pressure by rules *105 lb* diameter of stays at

smallest part *2 1/2" screw* working pressure by rules *118 lb* Front plates at bottom, thickness *3/4* Back plates, thickness *3/4 x 23/32*

Greatest pitch of stays *8 1/4 x 12 1/2* working pressure by rules *102 lb* Diameter of tubes *3 1/2* pitch of tubes *4 3/4* thickness of tube

plates, front *3/4* back *3/4* how stayed *stay tubes* pitch of stays *9 1/2 x 1 1/4* width of water spaces *1 1/4* diam. of rivet holes *✓*

Diameter of Superheater or Steam chest *✓* length *✓* thickness of plates *✓* 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 *✓*

Description of furnaces

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ABN10-0056

4111. Alm

DONKEY BOILER— Description *None*

Made at _____ by whom made _____ when made _____ where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ fire grate area _____ description of safety
valves _____ No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boilers can
enter the donkey boiler _____ diameter of donkey boiler _____ length _____ description of riveting _____
Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____
per centage of strength of joint _____ thickness of crown plates _____ stayed by _____
Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of plates _____ description of joint _____
Thickness of furnace crown plates _____ stayed by _____ working pressure of shell _____ rules _____
Working pressure of furnace by rules _____ diameter of uptake _____ thickness of plates _____ thickness of water _____

SPARE GEAR. State the articles supplied:— *Two con rod top end bolts and nuts 2" diameter
ditto 2 main bearing bolts. 1 set of coupling bolts 1 set of feed and pump
valves assorted bolts and nuts and iron of various sizes*

The foregoing is a correct description,

Hall Russell

Manufacturers

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

*The Engines and boiler of this vessel have been constructed
under special survey in accordance with the Rules and the approved tracing
they are of good material and workmanship; they are now in good
working condition and eligible in my opinion to receive the notification
of *L.M.C. 8-90* in the Register book*

*It is submitted that this vessel is eligible
to have + L.M.C. 8-90 recorded.*

*(note) The surveyor's attention should be called
to the diameters of the propeller and tunnel
shafts, which are very slightly under
the size required by the rules for 100 lb.
working pressure*

Machinery Certificate
Written.

M.A.

7-8-90

The amount of Entry Fee .. £ / : : received by me,

Special .. £ 8 : :

Donkey Boiler Fee .. £ ✓ : :

Certificate (if required) .. £ ✓ : :

To be sent as per margin.

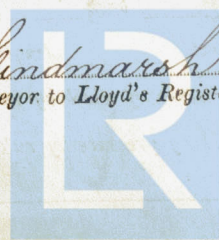
(Travelling Expenses, if any, £ ✓)

Committee's Minute

FRI 8 AUGUST 1890

+ L.M.C. 8-90

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



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