

REPORT ON MACHINERY.

Port of Glasgow.No. in Survey held at
Reg. Book.Glasgow.Date, first Survey 30th AprilReceived at London Office 10th SEP 1902Last Survey 26th Aug. 1902(Number of Visits 11)

on the

Boiler for S/S "Eagle"

Master

Built at

Glenrock

By whom built

G. Brown & Co.Tons } Gross
NetWhen built 1902

Engines made at

By whom made

when made

Boilers made at

Glasgow.

By whom made

Fewing & Lawsonwhen made 1902

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Dia. of Cylinders	Length of Stroke	Revs. per minute	No. of Cylinders	No. of Cranks
Dia. of Tunnel shaft as per rule	Dia. of Crank shaft journals as per rule	Dia. of Crank pin	Dia. of Screw shaft as per rule	Length of stern bush
as fitted	as fitted	Size of Crank webs	as fitted	Dia. of thrust shaft under collars
Dia. of screw	Pitch of screw	No. of blades	State whether moveable	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 the discharge pipes above or below the deep water line		
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates	Are the blow off cocks fitted with a spigot and brass covering plate	How are they protected		
Are they each fitted with a discharge valve always accessible on the plating of the vessel				
What pipes are carried through the bunkers				
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				
When were stern tube, propeller, screw shaft, and all connections examined in dry dock				
Is it fitted with a watertight door	worked from	Is the screw shaft tunnel watertight		

BOILERS, &c.—

(Letter for record (S))

Total Heating Surface of Boilers

785.25 Is forced draft fitted No

No. and Description of Boilers

1 S.E. multitubularWorking Pressure 130 lbsTested by hydraulic pressure to 260 lbsDate of test 26/8/02 Can each boiler be worked separately ☒Area of fire grate in each boiler 33

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 10'-0"Length 9'-6" Material of shell plates SteelThickness 11/16"Range of tensile strength 27/32Are they welded or flanged NoDescrip. of riveting: cir. seams DR laplong. seams DB strapsDiameter of rivet holes in long. seams 11/16"Pitch of rivets 5"Lap of plates or width of butt straps 11 3/4"

Per centages of strength of longitudinal joint

rivets 90.9plate 89.5Working pressure of shell by rules 131 lbsSize of manhole in shell 16" X 12"Size of compensating ring 6" X 11/16"No. and Description of Furnaces in each boiler 2 plainMaterial Steel Outside diameter 36"

Length of plain part

top 6'-4"bottom 6'-6"

Thickness of plates

crown 3 1/2"bottom 3 1/2"Description of longitudinal joint weldNo. of strengthening rings partialWorking pressure of furnace by the rules 140 lbsCombustion chamber plates: Material SteelThickness: Sides 1/2"Back 1/2"Top 1 1/2"Bottom 1 1/2"Pitch of stays to ditto: Sides 8" X 7"Back 8" X 7 1/2"Top 7" X 7"If stays are fitted with nuts or riveted heads nutsWorking pressure by rules 130 lbsMaterial of stays SteelDiameter at smallest part 1 1/4"Area supported by each stay 1.59Working pressure by rules 162

End plates in steam space:

Material SteelThickness 3/4"Pitch of stays 14 X 13How are stays secured double nutsWorking pressure by rules 138 lbsMaterial of stays SteelDiameter at smallest part 2.51Area supported by each stay 1.82Working pressure by rules 137Material of Front plates at bottom SteelThickness 7/8"Material of Lower back plate SteelThickness 9/16"Greatest pitch of stays 14"Working pressure of plate by rules 135Diameter of tubes 3 1/2"Pitch of tubes 4 1/8"Material of tube plates SteelThickness: Front 7/8"Back 7/8"Mean pitch of stays 11 1/2"Pitch across wide water spaces 14"Working pressures by rules 140, 210Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 2 (6 1/4 X 1 1/2)Length as per rule 27"Distance apart 7"Number and pitch of Stays in each 2 - 7"Working pressure by rules 137Superheater or Steam chest; how connected to boiler None

Can the superheater be shut off and the boiler worked

separately ☒Diameter ☒Length ☒Thickness of shell plates ☒Material ☒Description of longitudinal joint ☒

Diam. of rivet

holes ☒Pitch of rivets ☒If stiffened with rings ☒Distance between rings ☒Working pressure of shell by rules ☒Diameter of flue ☒Material of flue plates ☒Thickness ☒End plates: Thickness ☒How stayed ☒Working pressure of end plates ☒Area of safety valves to superheater ☒Are they fitted with easing gear ☒

DONKEY BOILER— No. _____ Description _____

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 _____ Pressure to which they are adjusted _____ If fitted with easing 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 ribet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied :— _____

The foregoing is a correct description,

Manufacturer.

Ewing Lawson, Currier

Dates { During progress of work in shops - - } 1902. April 30. May 8. 14. 17. 23. June 6. 9. July 3. 15. 21.
 of Survey { During erection on board vessel - - } August 26.
 while building { Total No. of visits } //

Is the approved plan of main boiler forwarded herewith _____

" " " donkey " " "

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

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 in the propeller boss _____ 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 _____

This boiler has been built under Special Survey. The materials & workmanship are of good description. When completed it was tested by hydraulic press to double the working press. & was found tight & sound in every respect. It is intended for the S/P "Eagle" building at Greenock, & in my opinion will be eligible for record when it has been fitted on board in accordance with the Rules.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.02

CM 10.90.02

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

Special £ : : _____

Donkey Boiler Fee . . . £ 1/3 : : When received, _____

Travelling Expenses (if any) £ : : _____

Committee's Minute *Glasgow. 1- SEP. 1902*

Assigned *Deferred for completion*

Jos. M. Buchanan,
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

& A. McEland



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Certificate (if required) to be sent to _____