

REPORT ON MACHINERY.

No. 26453

Port of Glasgow

IUES. 14 APL 1908

Received at London Office

No. in Survey held at GlasgowDate, first Survey 12th May 1907 Last Survey 11th April 1907

Reg. Book.

on the

Alba S R Co S/S No 184(Number of Visits 19)

Master

Built at

Troon

By whom built

Alba S R CoTons ^{Gross}
_{Net}When built 1908

Engines made at

Troon

By whom made

Alba S R Cowhen made 1908

Boilers made at

Glasgow

By whom made

Wm Dunsmuir & Jackson (Ld)when made 1907

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

as fitted

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

Length of stern bush

Dia. of Tunnel shaft

as per rule

as fitted

Dia. of Crank shaft journals

as per rule

as fitted

Dia. of Crank pin

Size of Crank webs

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 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

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

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record 8)Manufacturers of Steel Steel Co. of Scotland & ClydebridgeTotal Heating Surface of Boilers 5320 Is Forced Draft fittedNo. and Description of Boilers 2 Single EndedWorking Pressure 170Tested by hydraulic pressure to 340Date of test 11-9-07No. of Certificate 9141

Can each boiler be worked separately

Area of fire grate in each boiler 80

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 16.7 1/2Length 11-6 Material of shell plates SThickness 7 1/2Range of tensile strength 28-32

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams DRlong. seams TRDBSDiameter of rivet holes in long. seams 1 1/4Pitch of rivets 10Gap of plates or width of butt straps 1-8 1/4

Per centages of strength of longitudinal joint

rivets 90 1/2Working pressure of shell by rules 173Size of manhole in shell 16 x 12Size of compensating ring McNeilNo. and Description of Furnaces in each boiler 4 MorrisonMaterial SOutside diameter 3.8 1/2

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint weld

No. of strengthening rings

Working pressure of furnace by the rules 171Combustion chamber plates: Material SThickness: Sides 5/8Back 5/8Top 5/8Bottom 7/8Pitch of stays to ditto: Sides 8 x 9 3/8Back 8 x 8 7/8Top 7 1/2 x 9 1/2If stays are fitted with nuts or riveted heads YufWorking pressure by rules 180Material of stays SDiameter at smallest part 1 1/2Area supported by each stay 75Working pressure by rules 186

End plates in steam space:

Material SThickness 1 3/32Pitch of stays 1 7/16 x 1 3/8How are stays secured DNWorking pressure by rules 176Material of stays SMaterial SThickness 1 3/32Pitch of stays 1 7/16 x 1 3/8How are stays secured DNWorking pressure by rules 178Material of Front plates at bottom SDiameter at smallest part 5.26Area supported by each stay 305Working pressure by rules 178Material of Front plates at bottom SThickness 1 1/32Material of Lower back plate SThickness 1 1/32Greatest pitch of stays 12 1/2

Working pressure of plate by rules

Diameter of tubes 3 3/4Pitch of tubes 6Material of tube plates SThickness: Front 1 1/32Back 2 1/32Mean pitch of stays 12 1/2Pitch across wide water spaces 14 3/4Working pressures by rules 191Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 9 1/2 x 1 1/2(2) Length as per rule 34-5Distance apart 9 1/2Number and pitch of stays in each 3 at 7 7/8Working pressure by rules 183

Superheater or Steam chest; how connected to boiler

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

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If 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

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w948-845

VERTICAL DONKEY BOILER—Manufacturers of Steel

No.	Description					
Made at	By whom made		When made		Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety	
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted		Date of adjustment	
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 rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint		Rivets Plates
Working pressure of shell by rules	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		
Working pressure of furnace by rules	Thickness of furnace crown plates		Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey			

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,
James Fletcher Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	1907. May 1-8 27. June 7-11 15 19. July 23-25. Aug 1. 5. 9-10. 14. 26. Sep. 3. 5. 9. 11.
		During erection on board vessel - -	
		Total No. of visits	19.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—		Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller	
Stern tube	Steam pipes tested	Engine and boiler seatings		Engines holding down bolts		
Completion of pumping arrangements		Boilers fixed		Engines tried under steam		
Main boiler safety valves adjusted		Thickness of adjusting washers				
Material of Crank shaft	Identification Mark on Do.		Material of Thrust shaft	Identification Mark on Do.		
Material of Tunnel shafts	Identification Marks on Do.		Material of Screw shafts	Identification Marks on Do.		
Material of Steam Pipes		Test pressure				

General Remarks (State quality of workmanship, opinions as to class, &c. *These Boilers have been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality. These Boilers are to be fitted on board at Troon.*

The amount of Entry Fee.	£	When applied for,
Special	£	When received,
Donkey Boiler Fee	£	
Travelling Expenses (if any) £		

Committee's Minute *Classed* 13 APR 1908

Assigned *See attached report.*

Wm Gordon-Munck
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRI 11 SEP 1907

FRI 30 OCT 1908

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