

REPORT ON MACHINERY.

Port of GlasgowReceived at London Office SEP 10 1901Survey held at DumbartonDate, first Survey 15 March Last Survey 21 May 1901.(Number of Visits 19)

Gross

Net

on the Ss N° 66 by Lloyd Austrians, Societa di Navigazione a Vapore delBuilt at TriesteBy whom built above named Company When builtwhen made 1901when made 1901

Horse Power

Owners

Port belonging to

Horse Power as per Section 28

348

Is Refrigerating Machinery fitted

Is Electric Light fitted

LINES, &c.—Description of Engines Triple ExpansionNo. of Cylinders ThreeNo. of Cranks Threeof Cylinders 23 - 38 - 63 Length of Stroke 48 Revs. per minute

Dia. of Screw shaft as per rule

Lgth. of stern bush

of Tunnel shaft as per rule

Dia. of Crank shaft journals as per rule

Dia. of Crank pin 13 1/8Size of Crank webs 16 1/2 x 8 1/2 Dia. of thrust shaft unders 13 1/8 Dia. of screw

Pitch of screw

No. of blades

State whether moveable

Total surface

of Feed pumps 2Diameter of ditto 3 1/2Stroke 23

Can one be overhauled while the other is at work

of Bilge pumps 1Diameter of ditto 5 1/2Stroke 23

Can one be overhauled while the other is at work

of Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room

In Holds, &c.

of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size

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

all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

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

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

at pipes are carried through the bunkers

How are they protected

all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

on were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

fitted with a watertight door

worked from

LERS, &c.—

(Letter for record R)Total Heating Surface of Boilers 463489 ft. Is forced draft fitted Yesand Description of Boilers 2: bylund: hull: Single End Working Pressure 200 lb Tested by hydraulic pressure to 400 lbCan each boiler be worked separately ✓Area of fire grate in each boiler 564

No. and Description of safety valves to

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

allest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers 14' 9" Length 11' 8" Material of shell plates Steelickness 1 1/8" Range of tensile strength 29-32 tons Are they welded or flanged No.Descrip. of riveting: cir. seams Double Rivet long. seams Double Rivetimeter of rivet holes in long. seams 1 1/8"Pitch of rivets 9"Lap of plates or width of butt straps 21 1/2"

centages of strength of longitudinal joint

rivets 93Working pressure of shell by rules 227 lbSize of manhole in shell 16" x 12"e of compensating ring 8 1/4" x 13 1/8"No. and Description of Furnaces in each boiler 3: Deighton'sMaterial Steel Outside diameter 47 1/4"

ngth of plain part

top 3' 5"

Thickness of plates

crown 5/8"Description of longitudinal joint WeldNo. of strengthening rings NoneWorking pressure of furnace by the rules 218 lbCombustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 7/8" Bottom 5/8"ch of stays to ditto: Sides 1/2" x 8"Back 1/2" x 7 1/2"Top 1/2" x 7 1/2"If stays are fitted with nuts or riveted heads NutsWorking pressure by rules 218 lbaterial of stays IronDiameter at smallest part 1 1/2"Area supported by each stay 63"Working pressure by rules 241 lb End plates in steam space:aterial Steel Thickness 1 1/2"Pitch of stays 13 1/2" x 13 1/2"How are stays secured Double NutsWorking pressure by rules 208 lbMaterial of stays Steeliameter at smallest part 2 1/8"Area supported by each stay 241"Working pressure by rules 233 lbMaterial of Front plates at bottom Steelickness 5/8"Material of Lower back plate SteelThickness 5/8"Greatest pitch of stays 13 1/2"Working pressure of plate by rules 252 lbiameter of tubes 2 1/2"Pitch of tubes 3 1/8" x 3 1/4"Material of tube plates SteelThickness: Front 3/2"Back 3/4"Mean pitch of stays 4 1/4"itch across wide water spaces 13 1/2"Working pressures by rules 218 lbGirders to Chamber tops: Material Steel

Depth and

ickness of girder at centre 9 1/4"Length as per rule 32 1/2"Distance apart 4 5/8"Number and pitch of Stays in each 3: 4 1/2"Working pressure by rules 227 lbSuperheater 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

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

DONKEY BOILER— No. One Description *Cylindrical multi with one Deighton's furn*
Made at *Dumbarton* By whom made *Denny 1601* When made *1901* Where fixed
Working pressure *165 lbs* 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 boiler
enter the donkey boiler Dia. of donkey boiler *8' 11 1/8"* Length *8' 6 5/16"* Material of shell plates *Steel* Thickness *3/32"* Range of
strength *28-32 tons* Descrip. of riveting long. seams *Double Butt Straps* Dia. of rivet holes *1"* Whether punched or drilled *Drilled* Pitch of rivets
1 1/2" Rivets *116* Thickness of shell *3/32"* Radius of do. *pitch* No. of Stays to do. *14* CROSS
Lap of plating *13 1/2"* Per centage of strength of joint Plates *87.8* Thickness of shell *3/32"* Stays by *1 1/2"* Stay *1 1/2"* Working pressure of shell by rules *2*
Dia. of stays *2 1/2"* Diameter of furnace Top *48 1/4"* Bottom Length of furnace *6 feet* Thickness of furnace plates *3/16"* Descrip
joint *Weld.* Thickness of *Corner Cus* plates *3/16"* Stayed by *1 1/2"* Stay *1 1/2"* Working pressure of shell by rules *2*
Working pressure of furnace by rules *183 lbs* Diameter of *tube* *3 1/4"* Thickness of *tube* *1/4"* Thickness of *plate* *1/16"*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Denny 1601

Dates { During progress of work in shops - 1901. Mar. 15. 21. 27. Apr. 9. 18. 26. 30. May. 3. 8. 15. 24. 31. Jun. 11. 1.
of Survey { During erection on board vessel - 21. 27. Jul. 2. Aug. 2.
while building { Total No. of visits 19.

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
non-corrosive If two liners are fitted, is the shaft lapped or protected between the liners

The Boilers of this vessel have been partly constructed at *Dumbarton* and the various pieces forwarded to *Treestie* where they will be riveted & caulked, and all stays and tubes be fitted. The main engines have been fitted and practically finished. *Denny* supplied the crank & thrust shafts, but the other shafts and necessary fittings will be supplied at *Treestie*.

The workmanship throughout is good and when complete the machinery will be eligible in my opinion to the new record; provided, it is finished to the satisfaction of the Society's surveyors at *Treestie*.

The amount of Entry Fee, £ : : When applied for, Special £ 20 7/9/01
Donkey Boiler Fee To be collected at *Treestie* and credited to this port
Travelling Expenses (if any) £ : : When received, 1901

Committee's Minute *Glasgow. 9-SEP.1901*

Assigned *Deferred for completion.*

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

TUES. MAR 25 1902

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