

REPORT ON MACHINERY.

No. 47856.

Port of Newcastle or TyneNo. in Survey held at North Shields & Tynemouth
Reg. Book.Date, first Survey July 7

Received at London Office

Last Survey 1st Nov 1904(Number of Visits 26)on the Steel S. S. TRENTMaster C. TomlinsonBuilt at N ShieldsBy whom built Smith Dock Coy LtdTons { Gross 218
Net 64
When built 1904Engines made at N ShieldsBy whom made Shields Engineering Coy Ltd(64) when made 1904Boilers made at NewcastleBy whom made R. E. Stephenson & Co.when made 1904

Registered Horse Power

Owners Wye Steam Trawling Co. LtdPort belonging to FleetwoodNom. Horse Power as per Section 28 70 1/3Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted NoENGINES, &c.—Description of Engines Triple expansionNo. of Cylinders ThreeNo. of Cranks ThreeDia. of Cylinders 12 20 34Length of Stroke 24Revs. per minute 100

Dia. of Screw shaft

as per 7 1/8Material of W.TIs the screw shaft fitted with a continuous liner the whole length of the stern tube No

Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned Yes

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 Yes

If two

liners are fitted, is the shaft lapped or protected between the liners PaintedLength of stern bush 2' 9 1/2

Dia. of Tunnel shaft

as per rule 6 3/4

Dia. of Crank shaft journals

as per rule 6 1/2Dia. of Crank pin 6 3/4Size of Crank webs 12 1/2 x 4 1/8

Dia. of thrust shaft under

collars 6 3/4Dia. of screw 9' 3"Pitch of screw 11' 3"No. of blades 4State whether moveable NoTotal surface 30 sq ftNo. of Feed pumps 1Diameter of ditto 2 3/8Stroke 12"Can one be overhauled while the other is at work YesNo. of Bilge pumps 1Diameter of ditto 2 3/8Stroke 12"Can one be overhauled while the other is at work YesNo. of Donkey Engines 1Sizes of Pumps 4 1/2 x 2 3/4 x 4 Duplex

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

In Engine Room Two 7 1/2" dia & 2" diaIn Holds, &c. one of 2" dia to hold well

(Turbine driven centrifugal auxiliary circulating pump fitted to condenser discharge)

No. of bilge injections 1sizes 3Connected to condenser, or to circulating pump CRAre all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible YesAre all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks bothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the discharge pipes above or below the deep water line aboveAre they each fitted with a discharge valve always accessible on the plating of the vessel YesAre the blow off cocks fitted with a spigot and brass covering plate YesWhat pipes are carried through the bunkers hold suction through CamHow are they protected Ceiling boardsAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock Nov 1904Is the screw shaft tunnel watertight YesIs it fitted with a watertight door Yesworked from Yes

BOILERS, &c.—

(Letter for record S)Total Heating Surface of Boilers 1295 sq ftIs forced draft fitted NoNo. and Description of Boilers One Cyl. Single EndWorking Pressure 180Tested by hydraulic pressure to 360Date of test 13.9.04Can each boiler be worked separately YesArea of fire grate in each boiler 37 sq ft

No. and Description of safety valves to

each boiler Two direct springArea of each valve 3.97 sq inPressure to which they are adjusted 18.5 lbAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 2 ftMean dia. of boilers 12.0 1/8Length 10.0Material of shell plates SThickness 1 1/16Range of tensile strength 28Are they welded or flanged NoDescrip. of riveting: cir. seams d laplong. seams d strapDiameter of rivet holes in long. seams 1 1/16Pitch of rivets 7 1/4Lap of plates or width of butt straps 16

Per centages of strength of longitudinal joint

rivets 86plate 85.3Working pressure of shell by rules 192Size of manhole in shell 16 x 12Size of compensating ring 7 x 1 1/16No. and Description of Furnaces in each boiler Two plainMaterial SOutside diameter 42 1/2

Length of plain part

top 76

Thickness of plates

crown 49/64Description of longitudinal joint d strapNo. of strengthening rings halfWorking pressure of furnace by the rules 182Combustion chamber plates: Material SThickness: Sides 5/8Back 1 1/8Top 5/8Bottom 13/16Pitch of stays to ditto: Sides 8 1/2 x 8 1/2Back 9 x 9 3/4Top 8 1/2 x 8 1/2If stays are fitted with nuts or riveted heads YesWorking pressure by rules 182Material of stays SDiameter at smallest part 2-1Area supported by each stay 87.75Working pressure by rules 215

End plates in steam space:

Material SThickness 1 1/32Pitch of stays 16 1/2 x 16 1/2How are stays secured d 1/2 x 1/2Working pressure by rules 185Material of stays SDiameter at smallest part 5.05Area supported by each stay 272.25Working pressure by rules 185Material of Front plates at bottom SThickness 1Material of Lower back plate SThickness 7/8Greatest pitch of stays per planWorking pressure of plate by rules 44' 180Diameter of tubes 3 1/2Pitch of tubes 4 3/4 x 4 3/4Material of tube plates SThickness: Front 1Back 13/16Mean pitch of stays 10 1/16Pitch across wide water spaces 14Working pressures by rules 183Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 8 1/2 x 1 3/8Length as per rule 27 1/2Distance apart 8 1/2Number and pitch of Stays in each 2- 8 1/2Working pressure by rules 192Superheater or Steam chest; how connected to boiler Yes

Can the superheater be shut off and the boiler worked

separately YesDiameter YesLength YesThickness of shell plates YesMaterial YesDescription of longitudinal joint Yes

Diam. of rivet

holes YesPitch of rivets YesWorking pressure of shell by rules YesDiameter of flue YesMaterial of flue plates YesThickness YesIf stiffened with rings YesDistance between rings YesWorking pressure of end plates YesArea of safety valves to superheater YesAre they fitted with easing gear YesWorking pressure of end plates YesArea of safety valves to superheater YesAre they fitted with easing gear YesWorking pressure of end plates YesArea of safety valves to superheater YesAre they fitted with easing gear Yes

W1212-0274

DONKEY BOILER— No. Description *None fitted*

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 rivet 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

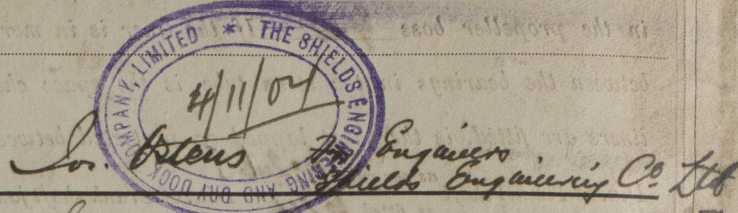
joint Thickness of furnace crown plates Stayed by Working pressure of shell by rules

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

SPARE GEAR. State the articles supplied:— *Spare Propeller. Two top end bolts and nuts. Two bottom end bolts and nuts. Two main bearing bolts and nuts. Spare coupling bolts and nuts. Spare Feed & Belp pump Valves, assorted iron bolts and nuts.*

The foregoing is a correct description,

H. Thompson Manufacturer of *Boilers*



Dates of Survey while building During progress of work in shops - - - During erection on board vessel - - - Total No. of visits *26*

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

" " " donkey " " "

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

The machinery built under Special Survey. The material and workmanship found good and efficient.

In our opinion this vessel is worthy of the Record of R.M.C. 11.04 to be made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

R.M.C. 11.04.

9.11.04

9.11.04

The amount of Entry Fee. £ *1* : : : When applied for, *8 NOV 1904*
Special £ *10* : *10* : : :
Donkey Boiler Fee £ : : : : When received, *24/11/04*
Travelling Expenses (if any) £ : : : :

Committee's Minute

FRI. 11 NOV 1904

Assigned

+ L.M.C. 11.04

Leonard Challers
John H. Heck
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

MACHINERY CERTIFICATE WRITTEN.



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