

REPORT ON MACHINERY.

No. 29142.

Date of writing Report 15-2-16 Which handed in at Local Office 15-2-16 Port of Hull Received at London Office 17-2-16

To. in Survey held at Hull Date, First Survey Dec 11/14 Last Survey 7-2-1916

Subj. on the Steam Trawler "GELSINA"

Master Built at Beverley By whom built Cook, Welton & Gemmell When built 1916-2

Engines made at Hull By whom made Amos & Smith Ltd. (No 2658) when made 1916

Boilers made at Hull By whom made Amos & Smith Ltd. when made 1916

Registered Horse Power Owners A. L. Black. Port belonging to Grimsby

Com. Horse Power as per Section 28 75 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple expansion. No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12", 21" & 34" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft as per rule 7.23" Material of screw shaft as fitted 7 1/2" Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight

Is the propeller boss yes 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 34"

Dia. of Tunnel shaft as per rule 6.48" Dia. of Crank shaft journals as per rule 6.8" Dia. of Crank pin 7" Size of Crank webs 13 3/4" x 4 3/8" Dia. of thrust shaft under

collars 7" Dia. of screw 8-9" Pitch of Screw 11-0" No. of Blades 4 State whether moveable no Total surface 29 sq. ft.

No. of Feed pumps 1 Diameter of ditto 2 5/8" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2 5/8" Stroke 12" Can one be overhauled while the other is at work

No. of Donkey Engines 1 Sizes of Pumps 6 1/4" x 4 3/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room two 2"; one forward & one aft. In Holds, &c. two 2"; fore hold & slushwell

2" ejector from all bilges.

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room of size 2 1/2" ejector.

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible

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 above

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 Forward hold suction How are they protected wood casings.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

Dates of examination of completion of fitting of Sea Connections 29-4-15 of Stern Tube 29-4-15 Screw shaft and Propeller 29-4-15

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Steel Co. of Scotland

Total Heating Surface of Boilers 1268 sq. ft. Is Forced Draft fitted no No. and Description of Boilers one single ended

Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 13-12-15 No. of Certificate 3121

Can each boiler be worked separately Area of fire grate in each boiler 31.5 sq. ft. No. and Description of Safety Valves to

each boiler 2 spring loaded Area of each valve 3.97 sq. ft. Pressure to which they are adjusted 205 lb. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork abt 7" Mean dia. of boilers 12-9 1/16" Length 10-0" Material of shell plates S

Thickness 1 5/32" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR

Long. seams TRDBS Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 16 3/4"

Per centages of strength of longitudinal joint rivets 91.4 plate 84.67 Working pressure of shell by rules 200 Size of manhole in shell 16" x 12"

Size of compensating ring 40" x 30" x 1 1/8" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 3-1 5/8"

Length of plain part top 81 3/4" Thickness of plates crown 13" bottom 16" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 214 Combustion chamber plates: Material S Thickness: Sides 3/4" Back 23/32" Top 11/16" Bottom 3/4"

Pitch of stays to ditto: Sides 8 3/8" x 9 1/2" Back 8" x 9 1/4" Top 8 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202

Material of stays S Diameter at smallest part 2.066" Area supported by each stay 79.5 sq. in Working pressure by rules 234 End plates in steam space

Material S Thickness 1 1/16" Pitch of stays 16 1/2" x 15 3/4" How are stays secured screwed Working pressure by rules 206 Material of stays S

Diameter at smallest part 6.1" Area supported by each stay 260 sq. in Working pressure by rules 244 Material of Front plates at bottom S

Thickness 1 1/16" Material of Lower back plate S Thickness 15/16" Greatest pitch of stays 14 1/2" x 8" Working pressure of plate by rules 222

Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" x 5" Material of tube plates S Thickness: Front 1 1/16" Back 2/8" Mean pitch of stays 10-8"

Pitch across wide water spaces 14 1/2" Working pressures by rules 206 lb Girders to Chamber tops: Material S Depth and

thickness of girder at centre 8" x 2" Length as per rule 2-8 3/4" Distance apart 8 1/2" Number and pitch of stays in each two 9 1/2"

Working pressure by rules 211 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

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

✓

SPARE GEAR.

State the articles supplied :-

Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge, & air pump valves, one main & one donkey check valve, & a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD,

St. Trachenburg

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914: - Dec 11. 1915: - Feb 18, 23. Mar 1, 5, 9, 18, 22, 26, 29, 30. Apr 15, 16, 19, 20, 22, 23, 26. May 4, 12, 19, 21. During erection on board vessel - - 27. Jun 4, 10, 17, 22, 26. Jul 2, 9, 14, 21, 27, 31. Aug 6, 13, 20, 27. Sep 3, 13, 20, 25, Oct 5, 11, 12, 20, 26, 29. Nov 5, 12. Total No. of visits 67. Is the approved plan of main boiler forwarded herewith yes ✓

" " " donkey " " " ✓

Dates of Examination of principal parts - Cylinders 11-10-15 Slides 30-12-15 Covers 11-10-15 Pistons 26-10-15 Rods 21-12-15 Connecting rods 30-12-15 Crank shaft 6-1-16 Thrust shaft 6-1-16 Tunnel shafts ✓ Screw shaft 19-4-15 Propeller 19-4-15 Stern tube 19-4-15 Steam pipes tested 20-1-16 Engine and boiler seatings 22-4-15 Engines holding down bolts 20-1-16 Completion of pumping arrangements 7-2-16 Boilers fixed 20-1-16 Engines tried under steam 26-1-16. Main boiler safety valves adjusted 26-1-16 Thickness of adjusting washers 5/16" P & S. 1623 PF. 1624 PF. Material of Crank shaft steel Identification Mark on Do. 6-1-16 Material of Thrust shaft steel Identification Mark on Do. 6-1-16 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 30 PF. 19-4-15. Material of Steam Pipes S.D. Copper ✓ Test pressure 400 lbs per sq. inch. ✓ Is an installation fitted for burning oil fuel. ✓ Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with. ✓

Is this machinery duplicate of a previous case yes ✓ If so, state name of vessel "Carilon" ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel

has been constructed under special survey in accordance with the approved plans & the rules of this Society. The materials and workmanship are good; the boiler & steam pipes have been tested as above by hydraulic pressure, & found sound & good.

The machinery has been properly fitted & secured on board, & on completion tried under steam & found satisfactory.

The safety valves have been adjusted under steam, & tested for accumulation, which did not exceed 210 lbs per sq. inch.

In my opinion the vessel is eligible for the record & LMC 2, 16.

It is submitted that
this vessel is eligible for
THE RECORD & LMC 2, 16.

The amount of Entry Fee ... £ 1 : - : - When applied for, 16-2-16
Special ... £ 11 : 5 : -
Donkey Boiler Fee ... £ : : : - When received, 1/3/16
Travelling Expenses (if any) £ : 2 : -

FRI. 18 FEB. 1916

Committee's Minute

Assigned

P. Fitzgerald.

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

MACHINERY CERTIFICATES
WRITTEN.



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Foundation