

## REPORT ON MACHINERY.

No. 29349

Date of writing Report 30-5-1916 When handed in at Local Office 2/6/1916 Port of Hull Received at London Office TUE-6 JUN. 1916

No. in Survey held at Hull Date, First Survey 26/4/15 Last Survey 18-5-1916  
Reg. Book. 20 on the Steam Trawler "NOVELLI" (Number of Visits 67 Gross 226 Tons Net 109 Tons When built 1916)

Master Built at Beverley By whom built Cook, Nelson & Emmell  
Engines made at Hull By whom made Amos & Smith & Co (2728) when made 1916  
Boilers made at Hull By whom made Amos & Smith & Co when made 1916  
Registered Horse Power Owners A. L. Black Port belonging to Grimsby.  
Nom. 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 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 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 Yes Length of stern bush 34"  
Dia. of Tunnel shaft as per rule 6.48" Dia. of Crank shaft journals as per rule 6.80" Dia. of Crank pin 7" Size of Crank webs 13 1/2" x 4 1/2" 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 Yes  
No. of Bilge pumps 1 Diameter of ditto 2 5/8" Stroke 12" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines 1 Sizes of Pumps 6 1/4" x 4 1/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
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 Is a separate Donkey Suction fitted in Engine room & 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 Yes  
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both Yes  
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  
That 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 26-11-15 of Stern Tube 26-11-15 Screw shaft and Propeller 26-11-15  
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

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 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 3-4-16 No. of Certificate 3134  
Can each boiler be worked separately Yes 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 204 lbs. Are they fitted with easing gear Yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 6ft 7" Mean dia. of boilers 12' 9 1/2" Length 10' 0" Material of shell plates S  
Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR  
g. seams TRDBS Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 16 3/4"  
Percentages 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"  
Length 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' 15 1/8"  
Length of plain part top 81 1/2" Thickness of plates crown 13" bottom 16" Description of longitudinal joint welded No. of strengthening rings 1  
Working pressure of furnace by the rules 214 Combustion chamber plates: Material S Thickness: Sides 3/4" Back 3/32" Top 11" Bottom 3/4"  
Pitch of stays to ditto: Sides 8 3/8" x 9 1/2" Back 8" x 9 1/2" Top 8 1/2" x 9 1/2" Are stays 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 1/8" Pitch of stays 16 1/2" x 15 1/2" How are stays secured N x W Working pressure by rules 206 Material of stays S  
Diameter at smallest part 6 1/4" Area supported by each stay 260 sq in Working pressure by rules 244 Material of Front plates at bottom S  
Thickness 1 1/8" Material of Lower back plate S Thickness 1 5/16" 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 3/8" x 5" Material of tube plates S Thickness: Front 1 1/8" Back 7/8" Mean pitch of stays 10.8"  
Pitch across wide water spaces 14 1/2" Working pressures by rules 206 lbs. 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 Yes Can the superheater be shut off and the boiler worked  
separately Yes 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  
Fitted 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?

No

SPARE GEAR. State the articles supplied:-

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

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

J. Blackebury Manufacturer.

Dates of Survey while building { During progress of work in shops - 1915: - Apr 26, May 4, 12, 19, 21, 21, 27, Jun 4, 10, 17, 22, 26, Jul 2, 9, 14, 30, Aug 6, 13, 20, 27, Sep 3, 13  
During erection on board vessel - 20, 25 Oct 5, 12, 19, 29, Nov 5, 12, 19, 20, 26, 29, Dec 3, 7, 10, 17, 21, 30, 1916: Jan 7, 13, 20, 28 Feb 4, 18, 24, 25 Mar 2, 8, 9, 15, 17, 23, 30, 31, Apr 3, 6, 7, 11, 13, 14, 18, May 8, 10, 13, 18.  
Total No. of visits 67

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " "

Dates of Examination of principal parts - Cylinders 13-1-16 Slides 14-4-16 Covers 13-1-16 Pistons 4-2-16 Rods 18-4-16  
Connecting rods 4-2-16 Crank shaft 13-4-16 Thrust shaft 13-4-16 Tunnel shafts ✓ Screw shaft 20-11-15 Propellers 20-11-15  
Stern tube 20-11-15 Steam pipes tested 8-5-16 Engine and boiler seatings 26-11-15 Engines holding down bolts 8-5-16  
Completion of pumping arrangements 18-5-16 Boilers fixed 8-5-16 Engines tried under steam 13-5-16  
Main boiler safety valves adjusted 13-5-16 Thickness of adjusting washers  $P \frac{3}{8}$  S  $\frac{11}{32}$  1637 PF.  
Material of Crank shaft Steel Identification Mark on Do. 13-4-16 Material of Thrust shaft Iron Identification Mark on Do. 13-4-16 1615 PF.  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 20-11-15  
Material of Steam Pipes S.D. Copper ✓ Test pressure 400 lbs per sq. inch ✓  
Is an installation fitted for burning oil fuel no ✓ 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 & 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 5.16

It is submitted that this vessel is eligible for THE RECORD + LMC 5.16

J. P. G. L.

J. W. D. 6/6/16

The amount of Entry Fee ... £ 1 : - : - When applied for, 2/6/16  
Special ... £ 11 : 5 : -  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ 2 : 30/8/16

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

Committee's Minute FRI. 9 JUN. 1916  
Assigned + LMC 5.16