

Rpt. 4.

REPORT ON MACHINERY.

No. 36664

-5 JAN 1926

Date of writing Report 19 When handed in at Local Office 28/12/25 Port of Hull
No. in Survey held at Hull Date First Survey 7. 7. 25 Last Survey 21-12-1925.
Reg. Book. on the steam trawler "TERVANI" (Number of Visits 29) Gross Tons 394
Master Built at Beverley By whom built Cook, Wilton & Gemmell (473) When built 1925
Engines made at Hull By whom made Ames Smith Ltd. (No. 3636) when made 1925.
Boilers made at Hull By whom made Ames & Smith Ltd. (No. 3636) when made 1925
Registered Horse Power Owners Captain Hennrichsen Port belonging to Hull.
Nom. Horse Power as per Section 28 104 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.

ENGINES, &c.—Description of Engines

Triple. ✓

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 14" x 24" x 40" Length of Stroke 27" Revs. per minute 8.197 as per rule 8.26 Material of screw shaft as fitted 8 3/4 screw shaft

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

in 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 3-4

Dia. of Tunnel shaft as per rule 7.34 Dia. of Crank shaft journals as per rule 7.72 Dia. of Crank pin 8" Size of Crank webs 15 1/2 x 5" Dia. of thrust shaft under

collars 8" Dia. of screw 10-3 Pitch of Screw 11-0 No. of Blades 4 State whether moveable no Total surface 39 sq. ft.

No. of Feed pumps 2 Diameter of ditto 2 5/8 Stroke 18" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 2 5/8 Stroke 18" Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 6 1/4 x 4 3/4 x 6, 7 1/2 x 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2 1/2", one forward & one aft. In Holds, &c. One 2 1/2" from each of following.

Port bilge, starboard bilge, fore hold, main fish room & the 3 stush wells.

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 2 1/2"

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 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 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

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

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Phoenix & Co. Ltd. Horden, Durham

Total Heating Surface of Boilers 1716 Is Forced Draft fitted no No. and Description of Boilers one S.E. main

Working Pressure 200 lb. Tested by hydraulic pressure to 350 lb. Date of test 14-11-25 No. of Certificate 3577

Can each boiler be worked separately Area of fire grate in each boiler 54 sq. ft. No. and Description of Safety Valves to

each boiler 2 spring loaded Area of each valve 5.30 Pressure to which they are adjusted 200 lb. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 14-0" Length 10-9" Material of shell plates S

Thickness 1 1/4" Range of tensile strength 29/33 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.

long. seams TRDBS Diameter of rivet holes in long. seams 1 3/32 Pitch of rivets 8 1/2 Lap of plates on width of butt straps 18 3/4

Per centages of strength of longitudinal joint rivets 84.2 Working pressure of shell by rules 200 Size of manhole in shell 16 x 12

Size of compensating ring 36 x 40 x 1 1/4 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 41 5/8

Length of plain part top 79 1/2 Thickness of plates crown 13 1/2 Description of longitudinal joint welded No. of strengthening rings

bottom 74 bottom 16 Working pressure of furnace by the rules 204 Combustion chamber plates: Material S Thickness: Sides 23/32 Back 11/16 Top 11/16 Bottom 23/32

Pitch of stays to ditto: Sides 9 1/2 x 8 Back 9 x 8 1/2 Top 8 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 215

Material of stays S Area at smallest part 1 3/4 dia. Area supported by each stay 760 Working pressure by rules 238 End plates in steam space:

Material S Thickness 1 1/16 Pitch of stays 15 x 18 1/2 How are stays secured DN & W Working pressure by rules 207 Material of stays S

Area at smallest part 3 dia. Area supported by each stay 277.50 Working pressure by rules 242 Material of Front plates at bottom S

Thickness 1" Material of Lower back plate S Thickness 7/8 Greatest pitch of stays 14 x 8 1/2 Working pressure of plate by rules 233

Diameter of tubes 3 1/2 Pitch of tubes 4 7/8 Material of tube plates S Thickness: Front 1" Back 27/32 Mean pitch of stays 9 3/4

Pitch across wide water spaces 14 Working pressures by rules 237 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 9 x 1 3/4 Length as per rule 2-11 Distance apart 8 1/2 Number and pitch of stays in each 3 @ 7 1/2

Working pressure by rules 205 Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W61-0133

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts; 1 set coupling bolts & nuts; set of feed & bilge pump valves; set of air pump valves; 1 set of valves for each donkey pump. 12 piston studs & nuts; one valve & seat for main & donkey check valves; one set of fire bars; one safety valve spring. Impeller shaft.

The foregoing is a correct description,

For AMOS & SMITH LTD.

S. J. Robinson

Manufacturer.

DIRECTOR.

Dates of Survey while building { During progress of work in shops -- 1925:- Jul 7. 9. Aug 5, 10. 18. 24. 28. Sep 23. 23. 28. Oct 3. 8. 19. 23. 28. 29
During erection on board vessel -- Nov 3, 5, 13, 14. 23. Dec 2, 4. 8. 11. 14. 16. 21 --
Total No. of visits 29

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 28-9-25 Slides 8-10-25 Covers 28-9-25. Pistons 8-10-25. Rods 19-10-25
Connecting rods 19-10-25 Crank shaft 3-10-25 Thrust shaft 7-7-25 Tunnel shafts 9-7-25 Screw shaft 3-9-25. Propeller 23-10-25
Stern tube 23-10-25. Steam pipes tested 8-12-25 Engine and boiler seatings 28-10-25 Engines holding down bolts 11-12-25.
Completion of pumping arrangements 16-12-25 Boilers fixed 8-12-25 Engines tried under steam 14-12-25.
Completion of fitting sea connections 28-10-25 Stern tube 28-10-25 Screw shaft and propeller 28-10-25.
Main boiler safety valves adjusted 14-12-25 Thickness of adjusting washers P $\frac{9}{32}$ S $\frac{5}{16}$

Material of Crank shaft Steel Identification Mark on Do. 168 P.F. Material of Thrust shaft Steel Identification Mark on Do. 168 P.F.

Material of Tunnel shafts Steel Identification Marks on Do. 168 P.F. Material of Screw shafts Steel Identification Marks on Do. 168 P.F.

Material of Steam Pipes S.D. Copper. $4\frac{1}{4}$ dia x 4 S.W.G. Test pressure 400 lbs per sq in.

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 PICT (Hull Rpt No. 36541)

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

have been constructed under special survey & in accordance with the approved plans & the Rules of this Society. The materials & workmanship are good. The machinery has been satisfactorily fitted on board, tried under working conditions, & found good. The steam & feed pipes have been tested by hydraulic pressure as required by the Rules. The safety valves have been adjusted under steam & tried for accumulation. The machinery is eligible in my opinion to have the record of LMC 12.2 C.L. in the Register Book.

The approved boiler plan was forwarded with Rpt No 36541 on duplicate engines 3635.

The steel invoices & pricing reports enclosed relate also to duplicate machinery nos. 3631-2-3-4 & 5.

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.25. CL.

The amount of Entry Fee ... £ 3 :-

Special ... £ 26 :-

Donkey Boiler Fee ... £ :-

Travelling Expenses (if any) £ :-

When applied for,

4/1/26

When received,

7.1.26

P. Fitzgerald

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 19 MAR 1926

Committee's Minute

Assigned

FRI. 8 JAN 1926

L.M.C. 12.25 C.L.

CERTIFICATE WRITTEN



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