

REPORT ON MACHINERY.

No. 4819.

Port of Grimshy
No. in Survey held at Grimshy
eg. Book. on the Machinery of the Herring Difter VINE
Master J. Nicol Built at Selby By whom built Cochran & Sons
Engines made at Grimshy By whom made J. B. Cantal Co-op & Co. Ltd
Boilers made at Selby By whom made Selby
Registered Horse Power 40 Owners Thomas Murray & Co Port belonging to Gardenveston
Horse Power as per Section 28 40 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

TUES. 25 JUN 1907
Received at London Office
Date, first Survey Jan 18 1907 Last Survey June 12 1907
(Number of Visits 37)
Tons { Gross 95
Net 21
When built 1907
when made 1907
when made 1907

ENGINES, &c.—Description of Engines Comp: Im. G: Surf. Condensing No. of Cylinders 2 No. of Cranks 2
Dia. of Cylinders 13" x 28" Length of Stroke 18 Revs. per minute 120 Dia. of Screw shaft 6" Material of screw shaft Sp. Iron
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
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
shafts are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 2'-3"
Dia. of Tunnel shaft 5 7/8" Dia. of Crank shaft journals 5 1/2" Dia. of Crank pin 5 1/2" Size of Crank webs 10 1/2" x 5 1/2" Dia. of thrust shaft under
flange 5 7/8" Dia. of screw 7'-0" Pitch of Screw 8'-6" No. of Blades 4 State whether moveable no Total surface 14.5 sq. ft.
No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Donkey Engines one Size of Pumps 4 1/2" x 4" x 1 1/2" x 1 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps
Engine Room Sea, bilge & hotwell 2" one In Holds, &c. Fishroom 2" one
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2"
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 none
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
How are they protected wood casing
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 18/3/07 of Stern Tube 18/3/07 Screw shaft and Propeller 18/3/07
Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record 8) Manufacturers of Steel Steel Co of Scotland Furnaces Leadridge
Total Heating Surface of Boilers 797 sq. ft. Is Forced Draft fitted no No. and Description of Boilers one Single Vaped Marine
Working Pressure 120 lbs. Tested by hydraulic pressure to 260 lbs. Date of test 29th May 07 No. of Certificate 57
Can each boiler be worked separately Yes Area of fire grate in each boiler 25.47 sq. ft. No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 3 1/4 sq. in. Pressure to which they are adjusted 130 lbs. Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 9'-6" Length 9'-0" Material of shell plates Steel
Thickness 3/16" Range of tensile strength 27,320 lbs. Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Lap on
Long. seams Double TR Diameter of rivet holes in long seams 7/8" Pitch of rivets 5 1/4" Lap of plates or width of butt straps 12 1/4"
Percentage of strength of longitudinal joint 84.7% Working pressure of shell by rules 140 lbs. Size of manhole in shell 16" x 12"
Size of compensating ring 2'-8" x 2'-4" x 7/8" No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 2'-10"
Length of plain part 5'-4 1/2" Thickness of plates 3/8" Description of longitudinal joint Weld No. of strengthening rings none
Working pressure of furnace by the rules 180 lbs. Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 3/8"
Pitch of stays to ditto: Sides 8" x 8" Back 8 1/2" x 8 1/2" Top 7 1/2" x 8" If stays are fitted with nuts or riveted heads auto Working pressure by rules 150 lbs.
Material of stays Steel Diameter at smallest part 1 1/8" Area supported by each stay 700" Working pressure by rules 170 lbs. End plates in steam space:
Material Steel Thickness 3/16" x 3/4" Pitch of stays 14" x 14" How are stays secured Double Nuts Working pressure by rules 135 lbs. Material of stays Steel
Diameter at smallest part 1.9" Area supported by each stay 1820" Working pressure by rules 154 lbs. Material of Front plates at bottom Steel
Thickness 3/16" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 20 lbs.
Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 13/16" Back 3/4" Mean pitch of stays 11 1/4"
Pitch across wide water spaces 14" Working pressures by rules 138 lbs. Girders to Chamber tops: Material Steel Depth and
Thickness of girder at centre 6" x 14" Length as per rule 2'-1 1/8" Distance apart 2'-7 1/2" Number and pitch of stays in each 2'-8"
Working pressure by rules 130 lbs. Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
separately no 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

Supp 74
Dolls 75

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

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 _____ Plates _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *Two each of top & bottom end & main bearing bolts, a set of coupling bolts, feed check valves, feed & bkg. and circulating pump valves, condenser & boiler tubes bottom to stud iron etc.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - *Engines. 1907. Jan 18. 26. Mar 5. 12. 14. 20. 27. Apr 6. 12. 17. 24. May 3. 10. 15. 22. 27. Boilers. 1907. Mar. 14. 15. 20. 27. Apr. 3. 10. 17. 24. May 3. 10. 17. 24. Jun. 1. 8. 15. 22. 29. Jul. 6. 13. 20. 27. Aug. 3. 10. 17. 24. Sep. 7. 14. 21. 28. Oct. 5. 12. 19. 26. Nov. 2. 9. 16. 23. Dec. 7. 14. 21. 28.*
During erection on board vessel - *Engines. Jan. 4. 6. 12. 19. 26. Mar. 5. 12. 19. 26. May 3. 10. 17. 24. Jun. 1. 8. 15. 22. 29. Jul. 6. 13. 20. 27. Aug. 3. 10. 17. 24. Sep. 7. 14. 21. 28. Oct. 5. 12. 19. 26. Nov. 2. 9. 16. 23. Dec. 7. 14. 21. 28.*
Total No. of visits *37.*

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

Dates of Examination of principal parts—Cylinders *17.20.24/4/07.* Slides *24/4/07.* Covers *24/4/07.* Pistons *24/4/07.* Rods *3/5/07.*
Connecting rods *3/5/07.* Crank shaft *22/5/07.* Thrust shaft *24/4/07.* Tunnel shafts _____ Screw shaft *12/4/07.* Propeller *14/3/07.*
Stern tube *14/3/07.* Steam pipes tested *4/6/07.* Engine and boiler seatings *4/6/07.* Engines holding down bolts *4/6/07.*
Completion of pumping arrangements *4/6/07.* Boilers fixed *4/6/07.* Engines tried under steam *12/6/07.*
Main boiler safety valves adjusted *12/6/07.* Thickness of adjusting washers *3/16.*
Material of Crank shaft *Eng. Iron* Identification Mark on Do. *N° 537.* Material of Thrust shaft *Eng. Iron* Identification Mark on Do. *4913 N.*
Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *Eng. Iron* Identification Marks on Do. *N° 529.*
Material of Steam Pipes *Solid drawn copper 3 1/2 dia 8 ft. pressure 280 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *This boiler and engines have been constructed under special survey; the materials and workmanship are good. The boiler has been tested to 260 lbs hydraulic pressure and found tight & satisfactory. The case is in my opinion eligible for the notation + L.M.C. 6.07 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. *L.M.C. 6.07.*

26.6.07

The amount of Entry Fee. £ *1 : 5 : 0* When applied for, _____
Special _____ £ *8 : 0 : 0* 15 June 1907
Donkey Boiler Fee _____ £ *9 : 0 : 0* When received, _____
Traveling Expenses (if any) £ _____ 3.07.8/10

Committee's Minute

Assigned

FRI. 28 JUN 1907

+ L.M.C. 6.07

L. Ritchie

Engineer Surveyor



Lloyd's Register Foundation

MACHINERY CERTIFICATE WRITTEN.

Gunsby

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)