

REPORT ON MACHINERY.

Received at London Office

TUE. 4 JUL 1911

Date of writing Report 10 When handed in at Local Office JUL 3 1911 Port of NEWCASTLE ON TYNE

No. in Survey held at NEWCASTLE ON TYNE Date, First Survey 16th Feb. 1911 Last Survey 19

Reg. Book. on the S/S No 313 Meijer & Co. Zaltbommel (Number of Visits) Tons Gross

Master Built at Zaltbommel By whom built Meijer & Co. (S.S. 313) When built Tons Net

Engines made at South Shields By whom made G. J. Grey (Eng. No 462) when made 1911

Boilers made at By whom made when made

Registered Horse Power Owners Port belonging to

Net Horse Power as per Section 28 86 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

GINES, &c.—Description of Engines Triple Expansion Surface Condens^g No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12" - 20" - 32" Length of Stroke 24" Revs. per minute Dia. of Screw shaft as per rule 7.08" as fitted 7.3/8" Material of screw shaft Iron

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

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

axles are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-6"

Dia. of Tunnel shaft as per rule 6.2" as fitted 6.1/4" Dia. of Crank shaft journals as per rule 6.5" as fitted 6.3/8" Dia. of Crank pin 6.7/8" Size of Crank webs 4 1/2" x 12 7/8" Dia. of thrust shaft under

axles 6.7/8" Dia. of screw 8'-0" Pitch of Screw 7'-7 1/2" No. of Blades 4 State whether moveable No Total surface 22 ft

No. of Feed pumps One Diameter of ditto 2 1/4" Stroke 13 1/2" Can one be overhauled while the other is at work —

No. of Bilge pumps One Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work —

No. of Donkey Engines One Sizes of Pumps 5 1/4" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 3-2" In Holds, &c. Fore Hold centre 1-2" Main

Hold 4-2" (To be examined on board when fitted)

No. of Bilge Injections One sizes 2 3/4" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size ?

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 Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

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

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

Dates of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

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

WELDERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 1764 ft² Is Forced Draft fitted No. and Description of Boilers

Working Pressure 180 lbs Tested by hydraulic pressure to Date of test No. of Certificate

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

each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

Long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Material of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crow Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Thickness across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

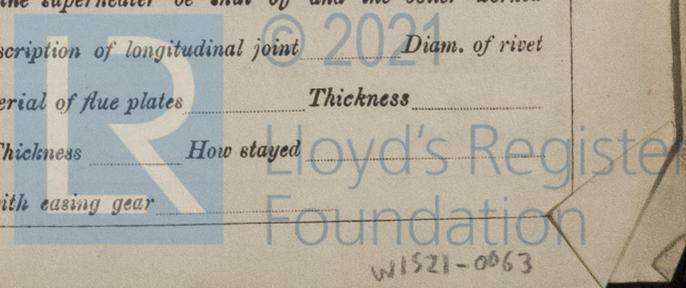
holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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

MEIJERS & Co.

Shipping



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 casing 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 _____ Radius of do. _____ Stayed by _____

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

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts; two bottom end bolts & nuts two main bearing bolts; one set coupling bolts; six junk ring bolts; one set of air, cut, feed & bilge pump valves; one propeller (to be examined)

The foregoing is a correct description,
Engine Manufacturer.

*Approved by F. Grey
 P. R. Zell.*

Dates of Survey while building: During progress of work in shops - - 1911 Feb. 16 20 23. Apr. 4 25. May 24 25. June 3 9 14.
 During erection on board vessel - -
 Total No. of visits 10+

Is the approved plan of main boiler forwarded herewith _____
 " " " donkey " " " "

Dates of Examination of principal parts—Cylinders 16/2/11 Slides 16/2/11 Covers 16/2/11 Pistons 23/2/11 Rods 23/2/11
 Connecting rods 23/2/11 Crank shaft 16/2/11 Thrust shaft 25/5/11 Tunnel shafts 25/5/11 Screw shaft 3/6/11 Propeller 3/6/11
 Stern tube 3/6/11 Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____
 Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____
 Main boiler safety valves adjusted _____ Thickness of adjusting washers _____
 Material of Crank shaft steel Identification Mark on Do. 2631 W.D.H. Material of Thrust shaft Iron Identification Mark on Do. 2631 W.D.H.
 Material of Tunnel shafts Steel Identification Marks on Do. 4140 M.R. Material of Screw shafts Iron Identification Marks on Do. 462 A.T.
 Material of Steam Pipes _____ Test pressure _____

General Remarks (State quality of workmanship, opinions as to class, &c. The engines of this vessel have been constructed under special survey, & the materials and workmanship are sound & good.

The engines have been forwarded to Zaltbommel to be fitted on board these

NEWCASTLE ON TYNE

Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ 1 : 0 : 0 When applied for, **JUL 8 1911**
 Special (Eng. only) £ 8 : 12 : 0
 Donkey Boiler Fee ... £ : : :
 Travelling Expenses (if any) £ : : : 31.7.11 7.8.11 5/9/11

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

Committee's Minute **FRI. SEP. 1 - 1911**
 Assigned *See Minute on Ann. Rpt*

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