

REPORT ON MACHINERY.

No. 1313A

Received at London Office

10 JAN. 1922

Date of writing Report 5/Novr 1921 When handed in at Local Office

Port of BRISBANE

Survey held at Maryborough, Queensland

Date, First Survey 12th June '18 Last Survey 5th Novr 1921

on the steel screw steamer "BOHUCA"

(Number of Visits 59

Gross 3361.57
Tons Net 1924.05
When built 1921

Master Built at Maryborough Q By whom built Walkers Limited

Engines made at Maryborough, Qld By whom made Walkers Limited when made 1921

Boilers made at Melbourne, Victoria By whom made Chas. Ruwolt & Walkers (B & W type) when made 1921

Registered Horse Power Owners Commonwealth Government Line Port belonging to Melbourne

Net Horse Power as per Section 28 520 513 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Vertical Triple Expansion

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25" - 41" - 68" Length of Stroke 45" Revs. per minute 80 Dia. of Screw shaft as per rule 13.74" as fitted 14.5" Material of screw shaft steel

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

the propeller boss Yes If the liner is in more than one length are the joints burned caulked 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 Fits tightly If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5' 0"

Dia. of Tunnel shaft as per rule 12.14" as fitted 12.5" Dia. of Crank shaft journals as per rule 13.02" as fitted 13.25" Dia. of Crank pin 13.25" Size of Crank webs 8-3/16" x 2' 0 1/2" x 2' 3 1/2" x 4' 0 1/2"

Blades 13.25" Dia. of screw 16' 6" Pitch of Screw 16' 6" No. of Blades 4 State whether moveable No Total surface 85 sq. ft

No. of Feed pumps 2 Diameter of ditto 7" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 7" x 21" & 12 1/2" x 21" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 - 3 1/2" In Holds, &c. No. 1; 2-3 1/2"; No. 2, 2-3 1/2"; No. 3, 4-3 1/2"

Tunnel well 1-3 1/2" No. of Bilge Injections 1 sizes 7" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes, 3 1/2"

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 Yes

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves except Boiler blow down

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates No Are the Discharge Pipes above or below the deep water line Above except main discharge

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 No. 1 & No. 2 hold bilges How are they protected Under limber boards

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 Yes Is it fitted with a watertight door Yes worked from Main deck level

OILERS, &c.—(Letter for record S) Manufacturers of Steel (See Glasgow report No. 40379 B&W boilers)

Total Heating Surface of Boilers 8289 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers 3-Babcock & Wilcox Water tube

Working Pressure 190 Tested by hydraulic pressure to 380 lbs Date of test 6.8.21 No. of Certificate

Can each boiler be worked separately Yes Area of fire grate in each boiler 84.5 sq. ft No. and Description of Safety Valves to

each boiler 2, Spring loaded Area of each valve 9.6 sq. in Pressure to which they are adjusted 190 lbs. sq. in. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or coalsacks 5' 6" Int steam drums 4' 0" Length 13' 3 1/2" Material of shell plates Steel

Thickness 3/32 & 1/8 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR Lap.

long. seams TR & SBS Diameter of rivet holes in long. seams 27/32" Pitch of rivets 3 3/4" Lap of plates 5" width of butt straps 7"

Per centages of strength of longitudinal joint rivets 75.5 plate 75.8 Working pressure of shell by rules 210 Size of manhole in shell 11" x 15"

Size of compensating ring 22"x28 1/2"x3 1/2" No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown bottom 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 Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Steel Thickness 13/16" Pitch of stays none How are stays secured Working pressure by rules Material of stays

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

Thickness Material of lower back plate steel Thickness 3/32 Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes 1-13/16" Pitch of tubes 2 1/8", 2 1/4" Material of tube plates steel Thickness: Front 1" Back Mean pitch of stays

Pitch 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 Steam dome: description of joint to shell none % of strength of joint

Diameter Thickness of shell plates 1" Material steel Description of longitudinal joint weld Diam. of rivet holes

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

SUPERHEATER. Type None 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

W11148-0065

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— For MAIN ENGINES - Two (2) connecting rod top bolts and nuts, 2 connecting rod bottom end bolts and nuts, 3 crank shaft coupling bolts and nuts, 3 tunnel shaft coupling bolts and nuts, 2 main bearing bolts and nuts, 1 bilge pump suction valve, 1 bilge pump discharge valve, 6 cylinder cover studs and nuts, 6 steam chest cover studs and nuts, 12 junk ring studs and nuts, 1 propeller, 1 h.p. piston valve - solid. For AUXILIARIES - One set feed pump and delivery valves, piston rings and bucket rings, one set ballast pump suction and delivery valves; piston rings and bucket rings. For BOILERS: 42 boiler tubes (assorted) 16 handhole fittings, 2 safety valve springs, 1 set firebars, special bricks, cellinsulate blocks, feed water regulator valve liner, float lever, balls for bearing

The foregoing is a correct description.

WALKERS LIMITED.

W. Goldsmith Manufacturer.
General Manager.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

During latter part of 1920 till June 1921

From June 21 till 5th Novr. 1921

59

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2-3-21 Slides 2-3-21 Covers 2-3-21 Pistons 2-3-21 Rods 2-3-21

Connecting rods 11-3-21 Crank shaft 27-5-21 Thrust shaft 2-9-21 Tunnel shafts 2-9-21 Screw shaft 2-9-21 Propeller 28-6-21

Stern tube 11-3-21 Steam pipes tested 16-8-21 Engine and boiler seatings 24-8-21 Engines holding down bolts 24-8-21

Completion of pumping arrangements 14-10-21 Boilers fixed 24-8-21 Engines tried under steam 14-10-21

Completion of fitting sea connections 31-5-21 Stern tube 23-3-21 Screw shaft and propeller 6-5-21

Main boiler safety valves adjusted 21-10-21 Thickness of adjusting washers

Material of Crank shaft steel Identification Mark on Do. Material of Thrust shaft steel Identification Mark on Do. 155

Material of Tunnel shafts steel Identification Marks on Do. 1, 2, 3, 4 Material of Screw shafts steel Identification Marks on Do. 104

Material of Steam Pipes steel Test pressure 540 lbs. 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 "Ermita" and other sister ships

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines and boilers have been constructed under special survey of good materials and workmanship, and have been seen running satisfactorily under a full head of steam and are now eligible in my opinion for L.M.C. 11, 21 noted in Register Book.

It is submitted that

this vessel is eligible for

THE RECORD.

L.M.C. - 11. 21.

F.D. C.L.

subject to the screw shaft being examined in way of joints of liner before the end of November 1923. and Subject to the Water Tube Boiler being surveyed annually.

MACHINERY CERT
WRITTEN

Ans. L.Y.
18/1/22.

The amount of Entry Fee ... £ 6 : 0 :
Special 513 NHP ... £ 100 13 :
Electric L. Installation 12 0 :
Donkey Boiler Fee ... £ 29 13 :
Plus 25% ... £ 149 : 0 :
Travelling Expenses (if any) £ 149 : 0 :
When applied for, 23/Nov 19 21
When received, 31.12.19 21

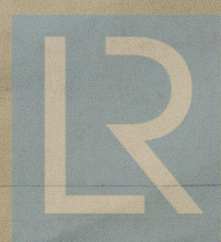
R. P. L. A. S. J.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 21 MAR. 1922

Assigned

TUE. 23 MAY. 1922

+ L.M.C. 11. 21
F.D. C.L. subject.
water tube boilers



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Foundation