

Port of Newcastle

SAI. 4 NOV 1905

Received at London Office 10

No. in Survey held at Reg. Book. Yarrow

Date, first Survey Apr 5

Last Survey Oct 23 1905

(Number of Visits 36)

on the S.S. King Bleddyn

Tons { Gross 4387
Net 2952

Master J. R. Kitch Built at Yarrow

By whom built Palmer's Co Ltd.

When built 1905

Engines made at Yarrow

By whom made Palmer's Co Ltd.

when made 1905

Boilers made at do

By whom made do

when made 1905

Registered Horse Power 356

Owners King Line Ltd. (Philippe Philippe & Co) Port belonging to London

Nom. Horse Power as per Section 28 356

Is Refrigerating Machinery fitted no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple expansion

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 26"-43"-70" Length of Stroke 45" Revs. per minute 70 Dia. of Screw shaft as per rule 14.5" Material of Steel
as fitted 14.2" 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 yes If two
liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 4"-10"

Dia. of Tunnel shaft as per rule 12.75" Dia. of Crank shaft journals as per rule 13.39" Dia. of Crank pin 13.2" Size of Crank webs 19"x8.75" Dia. of thrust shaft under
as fitted 12.3/4" as fitted 13.2" collars 13.2" Dia. of screw 18'-0" Pitch of screw 17'-0" No. of blades 4 State whether moveable no Total surface 86 sq

No. of Feed pumps 2 Diameter of ditto 4" Stroke 22.5" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 4.5" Stroke 22.5" Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 7.75"x9"x10" + 7.25"x4.25"x10" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Three 3.5" In Holds, &c. Fore hold 2-3.5" No. 2 hold 2-3.5"
No. 3 hold 2-3.5" No. 4 hold 2-3.5", after hold well 3.5", Tunnel well 3.5"

No. of bilge injections 1 sizes 5.5" Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes 3.5"

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

What pipes are carried through the bunkers Sections to fore holds 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock New vessel Is the screw shaft tunnel watertight yes

Is it fitted with a watertight door yes worked from Top platform

BOILERS, &c.—

(Letter for record S) Total Heating Surface of Boilers 5486 sq Is forced draft fitted no

No. and Description of Boilers Two, multitubular single ended Working Pressure 110 lbs Tested by hydraulic pressure to 360 lbs

Date of test 28/7/05 Can each boiler be worked separately yes Area of fire grate in each boiler 75 sq No. and Description of safety valves to
each boiler Two, spring Area of each valve 8.29 sq Pressure to which they are adjusted 195 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 16'-7.75" Length 11'-2" Material of shell plates Steel

Thickness 1.5/16" Range of tensile strength 29-32 Are they welded or flanged no Descrip. of riveting: cir. seams S. Lap long. seams S.B.S.T. Rivet

Diameter of rivet holes in long. seams 1.1/2" Pitch of rivets 8.75" Lap of plates or width of butt straps 19.3/4"

Per centages of strength of longitudinal joint rivets 90.3 Working pressure of shell by rules 183 lbs Size of manhole in shell end 16" x 12"
plate 85

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 - Morrison's Material Steel Outside diameter 4'-5.75"

Length of plain part top Thickness of plates orow 5/8" Description of longitudinal joint Welded No. of strengthening rings ✓
bottom

Working pressure of furnace by the rules 189 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"

Pitch of stays to ditto: Sides 9.25" x 9.25" Back 9.25" x 9.25" Top 9.25" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183 lbs

Material of stays Steel Diameter at smallest part 1.79" Area supported by each stay 73 sq Working pressure by rules 220 lbs End plates in steam space:
Material Steel Thickness 1.7/16" Pitch of stays 17.25" x 16" How are stays secured S.N.W. Working pressure by rules 190 lbs Material of stays Steel

Diameter at smallest part 1.527" Area supported by each stay 280 sq Working pressure by rules 185 lbs Material of Front plates at bottom Steel
Thickness 7/8" Material of Lower back plate Steel Thickness 1.5/16" Greatest pitch of stays 14.25" Working pressure of plate by rules 219 lbs

Diameter of tubes 3.25" Pitch of tubes 4.25" x 4.25" Material of tube plates Steel Thickness: Front 1" Back 1.3/16" Mean pitch of stays 11.25"

Pitch across wide water spaces 14.25" Working pressures by rules 182 lbs Girders' to Chamber tops: Material Steel Depth and
thickness of girder at centre 8.75" x 2" Length as per rule 34" Distance apart 9.5" Number and pitch of Stays in each 3- 8"

Working pressure by rules 200 lbs Superheater or Steam chest; how connected to boiler None 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 ✓

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship?



DONKEY BOILER— No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted 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 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

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

Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— 2 top-end, 2 bottom-end + 2 main-bearing, bolts + nuts, 1 set of coupling bolts, 1 set of feed + bilge pump valves, a quantity of assorted iron + bolts + nuts, a spare propeller shaft, a spare propeller, a set of H.P. piston rings

The foregoing is a correct description,
Palmer & Sons Co. Ltd.
 Manufacturer.

Engine Works Manager—1905 Apr 6 + 21 May 14 + 17 + 27 + 31 Jun 29 + 14 + 15 + 20 + 22 July 5 + 11 + 7 + 2

Dates of Survey while building { During progress work in shops - - }
 { During erection on board vessel - - } 28. Aug. 1. 8. 9. 20. 31. Sep. 1. 7. 15. 20. 29. Oct. 13. 16. 20. 29

Total No. of visits 36

Is the approved plan of main boiler forwarded herewith *yes*

" " " donkey " " " "

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

The engines + boilers of this vessel have been constructed under special survey + the materials + workmanship are found + good. The engines have been tried under steam + the safety valves of main + donkey boilers adjusted at their working pressures. The machinery is now in good + safe working condition + eligible in my opinion to have the notation of +L M.C. 10.05.

It is submitted that this vessel is eligible for THE RECORD +L M.C. 10.05

ms.
4.11.05

ms.
4.11.05

The amount of Entry Fee.. £ 3 : : :
 Special £ 37 : 16 : :
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : : :
 When applied for, - 3 NOV 1905
 When received, 13/11/05

Thomas Field
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES. 7 NOV 1905
 Assigned +L M.C. 10.05

MACHINERY CERTIFICATE WRITTEN.



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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.)