

REPORT ON MACHINERY

No. 17635
WED. MAY 5 1920

Received at London Office

Date of writing Report 24 April 1920 When handed in at Local Office 28 April 1920 Port of Greenock

No. in Survey held at Greenock - Port Glasgow Date, First Survey 18th March 1919, Last Survey 27th April 1920.
Reg. Book. (Number of Visits 102...)

on the Well known "Moto"

Tons { Gross 2693.37.
Net 1361.68.
When built 1920

Master G. H. Woodfield. Built at Port Glasgow By whom built Murdoch Murray

Engines made at Greenock By whom made John S Kincaid & Co when made 1920

Boilers made at Greenock By whom made John S Kincaid & Co when made 1920

Registered Horse Power Owners The Pelton Steamship Co., Ltd. Port belonging to Newcastle-on-Tyne.

Nom. Horse Power as per Section 28 431 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 25" - 41" - 68" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 13.91 Material of Steel
as fitted 14.12 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 no 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 no If two
liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 58"

Dia. of Tunnel shaft as per rule 12.69 Dia. of Crank shaft journals as per rule 13.32
as fitted 12.76 as fitted 13.54 Dia. of Crank pin 13.76 Size of Crank webs 21" x 4" Dia. of thrust shaft under
collars 13.76 Dia. of screw 16.6" Pitch of Screw 19.0" No. of Blades 4 State whether moceable no Total surface 90 sq ft

No. of Feed pumps Two Diameter of ditto 3 1/2" Stroke 27" Can one be overhauled while the other is at work yes

No. of Bilge pumps Two Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work yes

No. of Donkey Engines Two Sizes of Pumps 9" x 8" - 6" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Three 3" In Holds, &c. Two 3" - One 2 1/4" - Tunnel - 2 1/4"

No. of Bilge Injections two sizes 8" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 3"

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 no

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 no How are they protected no

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 Top of Stair

BOILERS, &c.—(Letter for record S) Manufacturers of Steel White Iron Steam Engine Works

Total Heating Surface of Boilers 7780 sq ft Is Forced Draft fitted no No. and Description of Boilers Four single ended

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 27/2/20 No. of Certificate 1430

Can each boiler be worked separately yes Area of fire grate in each boiler 57 1/2 sq ft No. and Description of Safety Valves to
each boiler Two Spring Area of each valve 5.94 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15" Mean dia. of boilers 14.6" Length 10.6" Material of shell plates Steel

Thickness 1 3/16" Range of tensile strength 20/32 Are the shell plates welded or flanged no Descrip. of riveting: no seams all with
long. seams all with Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/4" Lap of plates or width of butt straps 1 1/2" (1 1/2")

Per centages of strength of longitudinal joint 87.7 Working pressure of shell by rules 183 lb Size of manhole in shell 16" x 12"
rivets 87.7 plate 85.7

Size of compensating ring 13 1/16" No. and Description of Furnaces in each boiler 3 Dighton Material Steel Outside diameter 46 1/4"

Length of plain part top Thickness of plates crown Description of longitudinal joint welded No. of strengthening rings One
bottom bottom 9 1/16"

Working pressure of furnace by the rules 190 lb Combustion chamber plates: Material Steel Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 9 1/4" x 8 1/2" Back 9 1/4" x 8 1/4" Top 9 1/4" x 8 1/4" If stays are fitted with nuts or riveted heads both Working pressure by rules 180 lb

Material of stays Steel Area at smallest part 1.79 sq in Area supported by each stay 82" Working pressure by rules 196 lb End plates in steam space:

Material Steel Thickness 1 3/16" Pitch of stays 19 1/4" How are stays secured all with Working pressure by rules 180 lb Material of stays Steel

Area at smallest part 6.9 sq in Area supported by each stay 380 sq in Working pressure by rules 196 lb Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 1 3/16" Greatest pitch of stays 15" Working pressure of plate by rules 182 lb

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" - 4 9/16" Material of tube plates Steel Thickness: Front 1" Back 1 1/16" Mean pitch of stays 9 1/4"

Pitch across wide water spaces 14" Working pressures by rules 180 lb Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 8 1/2" x 14 1/2" Length as per rule 31.59" Distance apart 8 1/2" Number and pitch of stays in each two 9 1/4"

Working pressure by rules 180 lb Steam dome: description of joint to shell no % of strength of joint no

Diameter no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet holes no

Pitch of rivets no Working pressure of shell by rules no Crown plates no Thickness no How stayed no

SUPERHEATER. Type no Date of Approval of Plan no Tested by Hydraulic Pressure to no

Date of Test no Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler no

Diameter of Safety Valve no Pressure to which each is adjusted no Is Easing Gear fitted no

006601-006613-0246

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? -

SPARE GEAR. State the articles supplied:— The top end bolts. The bottom end bolts. The main bearing bolts. One set crushing bolts. One set Dead Pump valves. One set Bridge Pump valves. One escape valve spring lock ring. The Safety valve spring bolts nuts & caps.

The foregoing is a correct description,
FOR JOHN G. KINCAID & COY., LIMITED.

Robert Green. Secretary Manufacturer.

Dates of Survey while building { During progress of work in shops -- } (1919) Mar 18. Apr 8. 10. 25. 30. May 12. 14. 28. June 9. 12. 16. 20. 23. July 17. 22. 25. Aug 4. 7. 8. 13. 15. 20. 26. 29. Sept 13. 14. 15. 18. 19. 22. 26. Oct 1. 6. 9. 13. 15. 17. 20. 23. 27. 29. Nov. 4. 6. 10. 12. 14. 17. 18. 20. 21. 24. 27. 28. Dec. 1. 2. 4. 5. 9. 12. 14. 19. 23. 24. 26. 29. (1920) Jan 9. 12. 15. 19. 22. 26. 29. Feb 2. 6. 9. 16. 18. 20. 23. 26. 27. Mar 2. 5. 9. 11. 15. 17. 18. 29. 21. Apr 2. 5. 6. 9. 13. 14. 15. 16. 20. 23. 26. 27. Total No. of visits 102. Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 16/2/20 Slides 5/3/20 Covers 16/2/20 Pistons 5/3/20 Rods 5/3/20
Connecting rods 9/1/20 Crank shaft 1/12/19 Thrust shaft 1/12/19 Tunnel shafts 20/2/20 Screw shaft 12/12/19 Propeller 17/12/19
Stern tube 2/12/19 Steam pipes tested 14-16/4/20 Engine and boiler seatings 19/2/20 Engines holding down bolts 29/2/20
Completion of pumping arrangements 20/4/20 Boilers fixed 2/4/20 Engines tried under steam 27/4/20
Completion of fitting sea connections 18/2/20 Stern tube 19/2/20 Screw shaft and propeller 18/2/20
Main boiler safety valves adjusted 20/4/20 Thickness of adjusting washers Per P 9/16 S 9/16 UNC P 9/16 S 9/16 Per P 1/4 S 9/32 S 20 P 1/4 S 9/16
Material of Crank shaft Steel Identification Mark on Do. 354 Material of Thrust shaft Steel Identification Mark on Do. 354
Material of Tunnel shafts Steel Identification Marks on Do. 354 Material of Screw shafts Steel Identification Marks on Do. 354
Material of Steam Pipes Copper Test pressure 400 lb
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes
Have the requirements of Section 49 of the Rules been complied with Yes
Is this machinery duplicate of a previous case Yes If so, state name of vessel Greenock

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

The Engines and Boilers of the Steamer have been constructed under Special Survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the certification + L.M.C 4.20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 4.20

JHG 7/5/20
GRK

The amount of Entry Fee ... £ 3 : 0 : When applied for,
Special ... £ 41 : 11 : 28th April, 1920.
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, 8/5/19 20 APR 10

James Jones
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASCOW 4 - MAY. 1920
Assigned + L.M.C 4.20

MACHINERY DEPT.
WRITTEN 5.5.20



Greenock

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