

Rpt. 4.

# REPORT ON MACHINERY.

No. 11218

Date of writing Report 17 Oct 19 When handed in at Local Office 17 Oct 19 Port of Grimsby  
No. in Survey held at Grimsby Date, First Survey 5 March 1918 Last Survey 17 Oct 1919  
Reg. Book. on the Engine of H.M. Ship "WINDRISE." (Number of Visits 18)

Master                      Built at Holland By whom built N. H. Warren Tons                       
Engines made at Grimsby By whom made G. Central Loop Eng & L.R. Co. Ltd. when made 1919  
Boilers made at Stockton By whom made J. Sudron & Co. Ltd. No 75 (D 95) when made 1919  
Registered Horse Power                      Owners Admiralty Port belonging to                       
Nom. Horse Power as per Section 28 43 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Vertical No. of Cylinders Three No. of Cranks Three  
Dia. of Cylinders 9 1/2 - 15 1/2 - 26 Length of Stroke 18 Revs. per minute                      Dia. of Screw shaft as per rule 5.45 Material of not supplied  
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                      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  
liners are fitted, is the shaft lapped or protected between the liners                      Length of stern bush 24  
Dia. of Tunnel shaft as per rule 4.7 Dia. of Crank shaft journals as per rule 5.04 Dia. of Crank pin 5 1/2 Size of Crank webs 10 x 3 1/2 Dia. of thrust shaft under  
collars not supplied Dia. of screw not supplied Pitch of Screw                      No. of Blades                      State whether moveable no Total surface                       
No. of Feed pumps one Diameter of ditto 2 1/2 Stroke 9 Can one be overhauled while the other is at work ✓  
No. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 9 Can one be overhauled while the other is at work ✓  
No. of Donkey Engines not supplied Sizes of Pumps 5 1/4 x 3 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room two 2" dia. In Holds, &c. one 2" dia.  
all suction connected to ejector.  
No. of Bilge Injections 1 sizes 2 1/2 Connected to condenser, or to circulating pump                      Is a separate Donkey Suction fitted in Engine room & size 2 1/2" ejector  
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 Ford: suction How are they protected Wooden casings  
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 ✓ Is it fitted with a watertight door ✓ worked from                     

BOILERS, &c.—(Letter for record                     ) Manufacturers of Steel See separate report.  
Total Heating Surface of Boilers                      Is Forced Draft fitted                      No. and Description of Boilers                       
Working Pressure                      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                       
Per centages of strength of longitudinal joint                      Working pressure of shell by rules                      Size of manhole in shell                       
Size of compensating ring                      No. and Description of Furnaces in each boiler                      Material                      Outside diameter                       
Length of plain part                      Thickness of plates                      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                      Thickness                      Pitch of stays                      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                      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                       
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                      % of strength of joint                       
Diameter                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                       
Pitch of rivets                      Working pressure of shell by rules                      Crown plates                      Thickness                      How stayed                       
SUPERHEATER. Type                      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



IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— Two bolts & nuts each for top & bottom ends of main bearings, Set of Coupling bolts, Set of valves for Air, Circulating, feed & bilge pump, 6 Condenser tubes & 12 ferrules, 2 doz assorted bolts & nuts, 6 Cyl Cover studs & nuts, 6 junk ring bolts & nuts.

The foregoing is a correct description,

The Central Co. of Eng Co Ship Repairing Co Ltd  
110 Prince Manufacturer of Engines

Dates of Survey while building	{	During progress of work in shops --	1918 March 5 Apr 15 Oct 25	1919 Jan 24 Mar 8 Apr 14. 26 May 15. 24 June 4. 25 July 7. 14. 25 Sept 14 Oct 3. 17
		During erection on board vessel --	1918: Jan 29 to 1920: Aug 31. (Hull)	
		Total No. of visits	18 in Nov. (Hull) 62	

Is the approved plan of main boiler forwarded herewith ☒

" " " donkey " " " ☒

Dates of Examination of principal parts—Cylinders 14. 8. 19 Slides 28. 7. 19 Covers 28. 7. 19 Pistons 28. 7. 19 Rods 28. 7. 19

Connecting rods 28. 7. 19 Crank shaft 25. 8. 19 Thrust shaft <sup>not supplied</sup> Tunnel shafts ☒ Screw shaft <sup>not supplied</sup> Propeller ☒

Stern tube <sup>not supplied</sup> Steam pipes tested 4/6/20 Engine and boiler seatings 24/4/20 Engines holding down bolts 28/5/20

Completion of pumping arrangements 23/8/20 Boilers fixed 19/8/20 Engines tried under steam 20/8/20

Completion of fitting sea connections 20/8/20 Stern tube 4-10-19 Screw shaft and propeller 4-10-19

Main boiler safety valves adjusted 19/8/20 Thickness of adjusting washers Port 3/8" Stbd 1/2"

Material of Crank shaft <sup>not supplied</sup> Identification Mark on Do. E.S. Material of Thrust shaft <sup>finished but not reg'd</sup> Identification Mark on Do.

Material of Tunnel shafts <sup>not supplied</sup> Identification Marks on Do. Material of Screw shafts <sup>not reg'd for the engine</sup> Identification Marks on Do.

Material of Steam Pipes <sup>not supplied</sup> Test pressure 360 lbs

Is an installation fitted for burning oil fuel ☒ 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 ☒ If so, state name of vessel Standard Duffer Engine

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

This machinery has been built under special survey in accordance with the Rules, the approved plans & the specification & the workmanship & materials are good.

The Engine has been despatched by rail to the Shipbuilders

The machinery of this vessel has been properly fitted and secured on board the vessel. On completion, the machinery was tried under full working conditions with satisfactory results.

In my opinion the machinery is eligible for the record + LMC-9-20.

It is submitted that this vessel is eligible for THE RECORD + LMC. 8. 20.

Roll 16/9/20

J.R.S.

Herbert J. Sutherland

Engineer Surveyor to Lloyd's Register of Shipping.

Installing Fee	£ 4 10 0	When applied for, 17 Oct 19
The amount of Entry Fee ...	£ 9 - -	When received, 2/12/19
Special ...	£ :	
Donkey Boiler Fee ...	£ :	
Travelling Expenses (if any) £	:	

Committee's Minute

Assigned

+ LMC 8. 20

MAINTAINING GEAR WRITTEN



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