

# REPORT ON MACHINERY.

Received at London Office

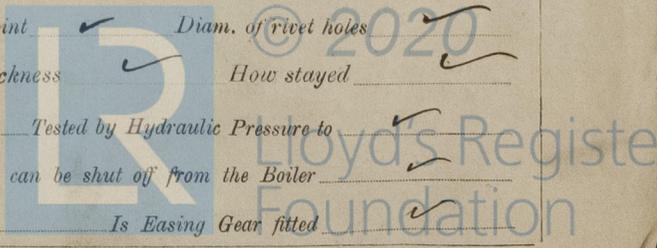
MON. AUG 16

Date of writing Report 14 Aug 1920 When handed in at Local Office 19 Port of Melvor  
 No. in Survey held at Melvor & Haver Date, First Survey 14 May Last Survey 20 June 1920  
 Reg. Book. on the Steam Trawler "John Cutting" (Number of Visits 16)  
 Master                      Built at Paisley By whom built Bow & Co Lachlan & Co Tons { Gross                      Net                      When built 1918  
 Engines made at Paisley By whom made Bow & Co Lachlan & Co L<sup>d</sup> when made 1918  
 Boilers made at Paisley By whom made Bow & Co Lachlan & Co L<sup>d</sup> when made 1918  
 Registered Horse Power                      Owners Jago Steam Towing Co L<sup>d</sup> Port belonging to                       
 Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12 1/2 x 21 x 35 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft as per rule 7.56 Material of screw shaft Iron  
 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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 34"  
 Dia. of Tunnel shaft as per rule 6.58 Dia. of Crank shaft journals as per rule 6.91 Dia. of Crank pin 7 3/8 Size of Crank webs 14 x 4 3/8 Dia. of thrust shaft under collars 7 3/8 Dia. of screw 9.6 Pitch of Screw 11.1 1/2 No. of Blades 4 State whether moveable No Total surface 35 1/2 sq  
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 12" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 2 Sizes of Pumps 6" x 3" x 6" + 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps                       
 In Engine Room One 2" from 12" aft + one 2" from 12" fore In Holds, &c. one 2" from fore hold and 1 2" from slush well also separate suction to slush well and, 7 bilges  
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump                      Is a separate Donkey Suction fitted in Engine room of size                       
 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 Forward Suction 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  
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from                     

OILERS, &c.—(Letter for record S) Manufacturers of Steel                       
 Total Heating Surface of Boilers 1619 sq Is Forced Draft fitted No No. and Description of Boilers 1 Single ended  
 Working Pressure 180 lb Tested by hydraulic pressure to 360 Date of test 15.3.18 No. of Certificate 2631  
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 50 sq No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 4.9 Pressure to which they are adjusted 180 Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 7 Mean dia. of boilers 13.6 Length 10.6 Material of shell plates S  
 Thickness 1 3/32 Range of tensile strength 28.32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double  
 Long. seams TRUSS Diameter of rivet holes in long. seams 1 5/32 Pitch of rivets 8 Lap of plates or width of butt straps 17"  
 Percentages of strength of longitudinal joint rivets 89.3 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"  
 Size of compensating ring 9 1/2 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 40 9/16  
 Length of plain part top 8 1/2 bottom 7.6 Thickness of plates crown 25 bottom 32 Description of longitudinal joint Welded No. of strengthening rings                       
 Working pressure of furnace by the rules 188 Combustion chamber plates: Material S Thickness: Sides 1/16 Back 2/32 Top 1/16 Bottom 2/8  
 Pitch of stays to ditto: Sides 9 1/2 x 9 3/4 Back 9 x 9 Top 9 1/2 x 9 1/4 If stays are fitted with nuts or riveted heads nut Working pressure by rules 181  
 Material of stays S Area at smallest part 2.07 Area supported by each stay 90.25 Working pressure by rules 206 End plates in steam space: Material S Thickness 1/16 Pitch of stays 17 x 17 How are stays secured DN+W Working pressure by rules 181 Material of stays S  
 Area at smallest part 6.10 Area supported by each stay 295 Working pressure by rules 215 Material of Front plates at bottom S  
 Thickness 3/32 Material of Lower back plate S Thickness 1/16 Greatest pitch of stays 14.9 Working pressure of plate by rules 219  
 Diameter of tubes 3 1/2 Pitch of tubes 5 x 4.75 Material of tube plates S Thickness: Front 3/32 Back 1/16 Mean pitch of stays 10"  
 Pitch across wide water spaces 14" Working pressures by rules 184 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2 x 1 3/4 Length as per rule 32" Distance apart 9 1/2 Number and pitch of stays in each 2.9 1/2 wing 3  
 Working pressure by rules 197 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?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

4 top end bolts, and nuts 2  
bottom end bolts, & nuts 1 Set of Air feed and  
pump valves 1 Set of piston studs 6 Condenser tubes  
and 3 boiler tubes a set of donkey suction, and  
delivery valves A quantity of assorted bolts, and nuts

The foregoing is a correct description.

Manufacturer.

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

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—		Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller	
Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts			
Completion of pumping arrangements		Boilers fixed	Engines tried under steam			
Completion of fitting sea connections		Stern tube	Screw shaft and propeller			
Main boiler safety valves adjusted	181	Thickness of adjusting washers	S 3/8" P 1/4"			
Material of Crank shaft	Iron	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.		
Material of Tunnel shafts		Identification Marks on Do.	Material of Screw shafts	Iron	Identification Marks on Do.	
Material of Steam Pipes	SD steel		Test pressure			
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	yes					
Is this machinery duplicate of a previous case			If so, state name of vessel			

General Remarks (State quality of workmanship, opinions as to class, &c.) The workmanship throughout appears to be good, The machinery was built to plans, and specification jointly approved by this Society, and the British Corporation

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	£ 10 : 10	When applied for,
Special	£ :	19
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	12-8 19-20

JW Johnston  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. AUG. 24 1920  
Assigned LMC 6.20

Surveyor's Signature

