

## REPORT ON OIL ENGINE MACHINERY.

No. 83144

Received at London Office

5 JUN 1920

Writing Report 5-6-20 When handed in at Local Office 5 JUN 1920 Port of London  
 Date, First Survey 5th June '20 Last Survey 15th May 1920  
 Survey held at London  
 on the Single Barge "Evelyn - Hope" <sup>175</sup> Tons Gross  
 Triple Screw vessel <sup>175</sup> Tons Net  
 Built at Newcastle By whom built Wm Dobson Yard No. When built 1915  
 Engines made at Stockholm By whom made J. C. S. Bolinders Engine No. When made  
 Key Boilers made at By whom made Boiler No. When made  
 Horse Power 40 Owners Hope Lighterage Co. Ltd Port belonging to London  
 Horse Power as per Rule 11 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Type of Engines Bolinders (2" 10281/2) 2 or 4 stroke cycle 2 Single or double acting Single  
 Minimum pressure in cylinders No. of cylinders 2 No. of cranks 2 Diameter of cylinders 9 7/8"  
 Length of stroke 9 7/8" Revolutions per minute 425 Means of ignition Hot Bull Kind of fuel used Heavy oil  
 Is there a bearing between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules)  
 Distance between centres of main bearings Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 3.42  
 as fitted 3 1/2"  
 Diameter of crank pins 3 1/2" Breadth of crank webs as per Rule 2 7/8"  
 as fitted 2 7/8" Thickness of ditto as per Rule 8 3/4"  
 as fitted 8 3/4"  
 Diameter of flywheel shaft as per Rule 2 9/16"  
 as fitted 2 9/16" Diameter of thrust shaft as per Rule 3 9/16"  
 as fitted 3 9/16"  
 Diameter of screw shaft as per Rule 4 3/4"  
 as fitted 4 3/4" Is the screw shaft fitted with a continuous liner the whole length of the stern tube no  
 Is the after end of the liner made watertight in the propeller boss yes If the liner is in more than one length are the joints burned  
 Is 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  
 Are two liners fitted, is the shaft lapped or protected between the liners yes If without liners, is the shaft arranged to run in oil  
 Type of outer gland fitted to stern tube Length of stern bush 16 3/4" Diameter of propeller about 35"  
 Pitch of propeller No. of blades 3 state whether moveable no Total surface square feet  
 Method of reversing Rev. Eng. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners  
 Are the cylinders fitted with safety valves Means of lubrication Forced Are the exhaust pipes and silencers water cooled or lagged with  
 Non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Above W.L.  
 No. of cooling water pumps 1 Is the sea suction provided with an efficient strainer which can be cleared  
 within the vessel yes No. of bilge pumps fitted to the main engines 1 Diameter of ditto 2 1/2" Stroke 7/8"  
 Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines not yet fitted.  
 Sizes of pumps No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room One - 2"  
 and in holds, etc. 2 - 2" No. of ballast pumps How driven Sizes of pumps  
 Is the ballast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in  
 Engine Room and size yes 2" Pump shut & set 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 Are all connections with the sea direct on the skin of the ship yes  
 Are they valves or cocks valves Are they sized sufficiently high on the ship's side to be seen without lifting the floor 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 all pipes, cocks, valves and pumps in connection with the machinery 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 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
 No. of main air compressors 1 No. of stages Diameters Stroke Driven by Main Eng.  
 No. of auxiliary air compressors No. of stages Diameters Stroke Driven by  
 No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by  
 No. of scavenging air pumps Diameter Stroke Driven by  
 Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access yes  
 AIR RECEIVERS:—No. of high pressure air receivers 1 Internal diameter 8" Cubic capacity of each Length 4' 6"  
 material steel Seamless, lap welded or riveted longitudinal joint welded Range of tensile strength  
 thickness working pressure by Rules No. of starting air receivers Internal diameter  
 Total cubic capacity Material Seamless, lap welded or riveted longitudinal joint  
 Range of tensile strength thickness Working pressure by rules Is each receiver, which can be isolated,  
 fitted with a safety valve as per Rule Can the internal surfaces of the receivers be examined no What means are provided for cleaning their  
 inner surfaces Is there a drain arrangement fitted at the lowest part of each receiver



Two

1

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....					
" " COVERS .....					
" " JACKETS.....					
" PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
" 2nd " .....					
" 3rd " .....					
AIR RECEIVERS—STARTING .....		4 Atm.	8 Atm.		As fitted when new
" INJECTION .....					
AIR PIPES .....					
FUEL PIPES .....					
FUEL PUMPS .....					
SILENCER .....					
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					App. 6/4/20

App: 9/6/20  
Receivers

Separate Tanks *App.*

SPARE GEAR Two crank pin bolts, 2 main bearing bolts, set of piston rings circulating & bilge pump valves, bolts, etc.

*The foregoing is a correct description.*

*Manufacturer.*

Dates of Survey while building	During progress of work in shops--	
	During erection on board vessel--	1920: Mar 5. 16. 22. 23. 27. Apr 21. May 7. 15
	Total No. of visits	8.

Dates of Examination of principal parts—Cylinders 24/3/20 Covers 24/3/20 Pistons 24/3/20 Rods — Connecting rods 24/3/20  
Crank shaft 22/3/20 Thrust shaft 22/3/20 Tunnel shafts — Screw shaft 5/3/20 Propeller 5/3/20 Stern tube 5/3/20 Engine seatings 22/3/20  
Engines holding down bolts 22/3/20 Completion of pumping arrangements 21/4/20 Engines tried under working conditions 25/5/20  
Completion of fitting sea connections 5/3/20 Stern tube 5/3/20 Screw shaft and propeller 5/3/20

Material of crank shaft Steel Identification Mark on Do. 2474  
2474 Material of thrust shaft Steel Identification Mark on Do. 2474

Material of tunnel shafts	Identification Marks on Do.	Material of screw shafts	Identification Marks on Do.
			21-4-15

*Is the flash point of the oil to be used over 150° F.*

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 machinery of this vessel (Admiralty Barge X <sup>145</sup> ~~144~~) was not constructed under Special Survey but the working parts have now been opened up & carefully examined & found in good condition.

Tail shaft drawn, stern tube examined, used of lignum vitae  $\frac{1}{10}$

The machinery has been tried under working conditions & found efficient. The auxiliary pump has not yet been fitted (letter 9/11/20)

This vessel is in my opinion eligible to have notation  
L.M.C. 3, 20, Tail shaft 5, 20. in the Register Book subject to a suitable  
to a suitable power driven ledge pump being fitted at the first convenient  
opportunity.

The amount of Entry Fee	..	£	:	:	When applied for,
Special	...	£	:	:	19
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	19

H Gardner-Smith,  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

*Assigned*