

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 10E JUL 8 1924

Date of writing Report July 5th 1924 When handed in at Local Office July 7th 1924 Port of Aberdeen
 No. in Survey held at Aberdeen Date, First Survey March 30th 1921 Last Survey June 24th 1924
 Reg. Book. on the ENGINE No. 287 Ex J. Abernethy & Co's E 940 (Number of Visits 8)
 Built at _____ By whom built Bow McLachlan Yard No. 414 Tons } Gross
 Engines made at Aberdeen By whom made A. Hall & Co Ltd Engine No. 287 when made 1924 } Net
 Boilers made at _____ By whom made _____ Boiler No. _____ when made _____
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Rule 67 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple expansion
 Dia. of Cylinders 11", 18", 30" Length of Stroke 22" Revs. per minute _____ No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 5.87 new Rule Dia. of Crank pin 6" Crank webs Mid. length breadth 8 3/4" Thickness parallel to axis 3 3/4"
 as fitted 6" Mid. length thickness 3 3/4" If shrunk Thickness around eye-hole 2 3/8"
 Diameter of Thrust shaft under collars as per rule 5.6 5.87 Diameter of Tunnel shaft as per rule 5.59 Diameter of Screw shaft as per rule 6.25 Is the Screw shaft
 as fitted 5 3/4" as fitted _____ as fitted 6 1/2"
 fitted with a continuous liner the whole length of the stern tube yes 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 1 length 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 space
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated Length of Stern Bush 2'-4" Diameter of Propeller 8'-0"
 Pitch of Propeller 8' 3" No. of Blades 4 State whether Moveable no Total Surface 25.7 sq square feet.
 No. of Feed Pumps fitted to the Main Engines one Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work
 No. of Bilge Pumps fitted to the Main Engines one Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work
 Total number and size of power driven Feed and Bilge Auxiliary Pumps
 No. and size of Pumps connected to the Main Bilge Line
 No. and size of Ballast Pumps _____ No. and size of Lubricating Oil Pumps, including Spare Pump _____
 Are two independent means arranged for circulating water through the Oil Cooler _____ No. and size of suction connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room _____ and in Holds, &c. _____

No. and size of Main Water Circulating Pump Bilge Suctions _____ No. and size of Donkey Pump Direct Suctions _____
 to the Engine Room Bilges _____ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes _____
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges _____
 Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the Discharge Pipes above or below the deep water line _____
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate _____
 What Pipes are carried through the bunkers _____ How are they protected _____
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 compartment to another _____ Is the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

MAIN BOILERS, &c.—(Letter for record _____) Total Heating Surface of Boilers 1315 sq
 Is Forced Draft fitted _____ No. and Description of Boilers _____ Working Pressure 180 lbs.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? _____
IS A DONKEY BOILER FITTED? _____ If so, is a report now forwarded? _____
PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval) _____
 General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts. two bottom end bolts & nuts.
2 Main bearing & 1 set of Coupling bolts & nuts. One set each Air & circulating pump
Valves. one set each feed & bilge pump valves.

The foregoing is a correct description
 FOR ALEXANDER HALL & CO., L^{td}
 SECRETARY.

Manufacturers of Main Engines.



Dates of Survey while building
 During progress of work in shops -- Mar 30-1921, ¹⁹²³ June 6, 25 Aug 28, 30, 1924 Jan 28, June 6, 24
 During erection on board vessel ---
 Total No. of visits 8

Dates of Examination of principal parts - Cylinders 6-6-1923 Slides 6-6-1923
 Covers 6-6-1923 Pistons 6-6-1923 Rods 6-6-1923
 Connecting rods 25-6-1923 Crank shaft 25-6-1923 Thrust shaft 25-8-23
 Tunnel shafts ✓ Screw shaft 30-8-1923 Propeller 24-6-1924
 Stern tube 6-6-1924 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 Thickness of adjusting washers
 Material of Crank shaft Steel Identification Mark on Do.
 Material of Thrust shaft O.H. Steel Identification Mark on Do. 1415A RF
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓
 Material of Screw shafts H.S. Iron Identification Marks on Do. 1416A RF
 Material of Steam Pipes Test pressure Date of Test
 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 the Rules for carrying and burning oil fuel been complied with
 Is this machinery duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These Engines have been constructed under Special Survey and generally in accordance with the requirements of the Rules.
 The Materials and workmanship are good, and when they have been properly fitted on board the vessel, and tried under steam with satisfactory results will, in my opinion, be eligible for record LMC with date (in Red) in the Society's Register Book.
 These Engines have been forwarded by rail to Paisley.

Certificate to be sent to
 The Surveyors are requested not to write on or below the space for Committee's Minutes.

The amount of Entry Fee ... £ 2 : - : When applied for,
 Special ... 2/5 £ 6 : 12 : 5-7-1924
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ ✓ : : 15-10-24

C. E. Milks
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW
 Assigned L.M.C. 9.24 on
 1/2 Report 42999.