

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

SEP 16 1940

Date of writing Report 10/18/40 When handed in at Local Office Newcastle on Tyne Port of Newcastle on Tyne  
 No. in Survey held at Newcastle on Tyne Date, First Survey 19 Jan Last Survey 6 Aug 1940  
 Reg. Book. on the S/S ERDEK (Number of Visits 70) Tons { Gross 691 Net 265  
 Built at Newcastle By whom built Messrs Swan Hunter & Wigham Richardson Yard No. 1664 When built 1940  
 Engines made at ditto By whom made ditto Engine No. 1664 When made 1940  
 Boilers made at ditto By whom made ditto Boiler No. 1664 When made 1940  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
 Nom. Horse Power as per Rule 132 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Ferry Service

**ENGINES, &c.**—Description of Engines 3 Cylr Triple Exp Recip. Revs. per minute 225  
 Dia. of Cylinders 12" + 19" + 31" Length of Stroke 21" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 6.09" Crank pin dia. 7 1/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 4 5/16"  
 as fitted 6 7/8" Mid. length thickness ✓ shrunk Thickness around eye-hole 3 3/4" at journals  
 Intermediate Shafts, diameter as per Rule 5.8" Thrust shaft, diameter at collars as per Rule 6.09" 3 1/2" at pins.  
 as fitted 7 1/8" as fitted 7.125"  
 Tube Shafts, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 6.425" Is the tube shaft fitted with a continuous liner Yes  
 as fitted \_\_\_\_\_ as fitted 6 3/4" as fitted \_\_\_\_\_  
 Bronze Liners, thickness in way of bushes as per Rule 16/32" Thickness between bushes as per Rule 13/32" Is the after end of the liner made watertight in the  
 as fitted 17/32" as fitted 15/32" propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner In one piece,  
 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 tight fit.  
 If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft No If so, state type \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller 33 1/2"  
 Propeller, dia. 7'6" Pitch 5'6" No. of Blades 4 Material M. Bronze whether Moveable No Total Developed Surface 20 sq. feet  
 Feed Pumps worked from the Main Engines, No. None Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 Bilge Pumps worked from the Main Engines, No. None Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 INDEPENDENT Feed Pumps No. and size Two 8 1/2" x 6" x 13" Simplex Pumps connected to the Main Bilge Line { No. and size Two: one Ball. 6" x 7" x 9" duplex; one GSP 6" x 6" duplex  
 How driven Steam Main Bilge Line { How driven all Steam driven 75 tons/hr. 47 tons/hr  
 Ballast Pumps, No. and size one 6" x 7" x 9" duplex. Lubricating Oil Pumps, including Spare Pump, No. and size None  
 Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room Two of 3" dia & 2 of 2" dia In Holds, &c. Three 3" dia & 1 of 2" dia & 1 of 1" dia  
 In Pump Room also one 3" ejector Suction worked by Ballast Pump discharge.

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size one 3" dia Are all the Bilge Suction Pipes in holds \_\_\_\_\_ fitted with strum-boxes Yes  
 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 Yes  
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with 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 Overboard Discharges above or below the deep water line both  
 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 pass through the bunkers None How are they protected ✓  
 What pipes pass through the deep tanks None Have they been tested as per Rule ✓  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 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 Yes Is the Shaft Tunnel watertight None (machinery) Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 2554 sq ft.  
 Is Forced Draft fitted Yes No. and Description of Boilers 2. Single ended Working Pressure 180 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? None If so, is a report now forwarded? ✓

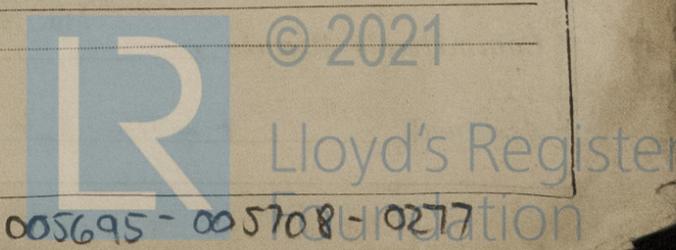
PLANS. Are approved plans forwarded herewith for Shafting 22/12/39 Main Boilers 15/12/39 Auxiliary Boilers \_\_\_\_\_ Donkey Boilers ✓  
 (If not state date of approval) Superheaters ✓ General Pumping Arrangements 22/12/40 + 15/3/40 Oil fuel Burning Piping Arrangements ✓  
Pumping Arrangements in E.R. 3-1-40.  
**SPARE GEAR.**

Has the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied 20 Condenser tubes, 40 condenser tube ferrules + packings.

The foregoing is a correct description,  
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

G. J. Duncanson  
DIRECTOR

Manufacturer.



1940. Jan. 19. Feb. 23-28. Mar. 5-6-7-11-12-13-15-18-19-20-27-29. Apr. 2-3-4-5-8-10-16-18-19-22-24-29-30.

Dates of Survey while building: During progress of work in shops -- May 1-2-3-6-7-8-10-15-16-17-22-24-31. Jun. 4-6-7-10-11-12-13-14-15-17-19-20-21-24-25-28. July 2-4-5-8-11-15-18-19-23-30-31. Aug. 2-6. Total No. of visits 70.

Dates of Examination of principal parts - Cylinders 8-4-40 Slides 25-6-40 Covers 8-4-40
Pistons 25-6-40 Piston Rods 25-6-40 Connecting rods 25-6-40
Crank shaft 21-6-40 Thrust shaft 1-5-40 Intermediate shafts 19-6-40
Tube shaft --- Screw shaft 19-6-40 Propeller 17-6-40
Stern tube 15-6-40 Engine and boiler seatings 25-6-40 Engines holding down bolts 4-7-40
Completion of fitting sea connections 12-6-40
Completion of pumping arrangements 20-6-40 Boilers fixed 25-6-40 Engines tried under steam 23-7-40
Main boiler safety valves adjusted 23-7-40 Thickness of adjusting washers 21-6-40
Crank shaft material OH Mild Steel Identification Mark 8615AW Thrust shaft material OH F Steel Identification Mark 979 T.T.
Intermediate shaft material OH F Steel Identification Marks 1317 HDB Tube shaft material S.D. Steel Identification Mark ---
Screw shaft material OH F Steel Identification Mark 1320 HDB Steam Pipes material Steel Test pressure 540 lbs Date of Test 15-7-40
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 the use of oil as fuel been complied with
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with
Is this machinery duplicate of a previous case Yes If so, state name of vessel 1662. Ss ECEBAT.

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

The Machinery of this vessel has been built under Special Survey in accordance with the Society's Rules and approved plans, satisfactorily installed on board and tried under Steam under working conditions.

The materials and workmanship are good

The Machinery of this vessel is eligible, in my opinion, to be classed with this Society and to have record LMC 40 and the notations 2 SB. 180 lbs. FD. T.S. Cl.

NEWCASTLE-ON-TYNE

The amount of Entry Fee ... £ 3 : - : When applied for 11 SEP 1940
Special ... £ 33 : - :
Donkey Boiler Fee ... £ - : :
Travelling Expenses (if any) £ - : : When received, 14-9-1940

A. Watt. Engineer Surveyor to Lloyd's Register of Shipping.

FRI: 20 SEP 1940

Committee's Minute Assigned + LMC 8.40. FD. CL.

