

Rpt. 4.

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 16 FEB 1945

15 FEB 1945 Port of Sunderland

Date of writing Report 19 Sunderland When handed in at Local Office  
 No. in Survey held at J. 14042 Reg. Book  
 Date, First Survey 19 Nov 43 Last Survey 17 Aug 1944  
 (Number of Visits 37)  
 Built at Sunderland By whom built Wm. Pickershill & Sons Ld. Yard No. 245 When built 1945  
 Engines made at Sunderland By whom made G. Clark (1938) Ld. Engine No. 1318+1319 When made  
 Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made  
 Registered Horse Power \_\_\_\_\_ Owners The Admiralty Port belonging to \_\_\_\_\_  
 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_  
 Nom. Horse Power as per Rule \_\_\_\_\_  
 Trade for which vessel is intended Government Service

ENGINES, &c.—Description of Engines Triple Expansion (Invert Screw) Revs. per minute 8  
 Dia. of Cylinders 18 1/2 - 31 - 38 1/2 (2) Length of Stroke 30" No. of Cylinders 8 No. of Cranks 8  
 Crank shaft, dia. of journals 10.039" as per Rule 10 1/2" Crank pin dia. 10 1/2" Crank webs Mid. length breadth 16 3/4" Thickness parallel to axis 6 1/2"  
 as fitted \_\_\_\_\_ Mid. length thickness 6 1/2" shrunk Thickness around eye Journal 4 3/4"  
 as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Pin 4 1/8"  
 Intermediate Shafts, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Tube Shafts, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Screw Shaft, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Is the { tube / screw } shaft fitted with a continuous liner { \_\_\_\_\_ / \_\_\_\_\_ }  
 Bronze Liners, thickness in way of bushes \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Thickness between bushes \_\_\_\_\_ as fitted \_\_\_\_\_  
 Is the after end of the liner made watertight in the propeller boss \_\_\_\_\_  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner \_\_\_\_\_  
 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 \_\_\_\_\_  
 Is an approved Oil Gland or other appliance fitted at the after end of the tube \_\_\_\_\_  
 If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_  
 Length of Bearing in Stern Bush next to and supporting propeller \_\_\_\_\_  
 at \_\_\_\_\_ If so, state type \_\_\_\_\_ whether Moveable \_\_\_\_\_ Total Developed Surface \_\_\_\_\_ sq. feet  
 Propeller, dia. \_\_\_\_\_ Pitch \_\_\_\_\_ No. of Blades four Material \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 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 \_\_\_\_\_  
 Feed Pumps { No. and size \_\_\_\_\_ How driven \_\_\_\_\_ } Pumps connected to the Main Bilge Line { No. and size \_\_\_\_\_ How driven \_\_\_\_\_ }  
 Ballast Pumps, No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_  
 Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary \_\_\_\_\_  
 Engine Pumps:—In Engine and Boiler Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_  
 Pump Room \_\_\_\_\_

Main Water Circulating Pump Direct Bilge Suctions, No. and size \_\_\_\_\_ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_  
 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 they fitted with Valves or Cocks \_\_\_\_\_  
 Are all Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are the Overboard Discharges above or below the deep water line \_\_\_\_\_  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ How are they protected \_\_\_\_\_  
 What Pipes pass through the bunkers \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_  
 What pipes pass through the deep tanks \_\_\_\_\_  
 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 Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

MAIN BOILERS, &c.—(Letter for record \_\_\_\_\_) Total Heating Surface of Boilers \_\_\_\_\_  
 Which Boilers are fitted with Forced Draft \_\_\_\_\_ Which Boilers are fitted with Superheaters \_\_\_\_\_  
 No. and Description of Boilers \_\_\_\_\_ Working Pressure \_\_\_\_\_

IS A REPORT ON MAIN BOILERS NOW FORWARDED? \_\_\_\_\_ If so, is a report now forwarded? \_\_\_\_\_  
 IS A DONKEY BOILER FITTED? \_\_\_\_\_  
 Can the donkey boiler be used for domestic purposes only \_\_\_\_\_ Main Boilers \_\_\_\_\_ Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_

PLANS. Are approved plans forwarded herewith for Shafting \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_  
 (If not state date of approval) \_\_\_\_\_  
 Superheaters \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_

SPARE GEAR.  
 Has the spare gear required by the Rules been supplied As per Admiralty Specification (Engine only).  
 State the principal additional spare gear supplied \_\_\_\_\_

The foregoing is a correct description.

GEORGE CLARK (1938) LTD.

Archd. J. Berry  
DIRECTOR & GENERAL MANAGER.

Manufacturer.



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Lloyd's Register Foundation

003245-003251-0182

NOTE.—THIS FORM IS VALID IN ENGLAND.

Dates of Survey while building

During progress of work in shops - - - 1943 Nov. 17, 19, 21, Jan 12, 14, 22, 24, 25, 27 Feb. 4, 10, 28, March 2, 4, 7, 13, 14, 17, 20, 22, 31, April 12, 25, 26, May 4, 9, 15, 26, 31, June 1, 6, 9, 15, 22, 27, July 12, 18, Aug 2, 7

During erection on board vessel - - -

Total No. of visits 37

Dates of Examination of principal parts - Cylinders

	H.P.	M.P.	L.P.	L.P.	1318	1319	Covers	As Cyls.
	1318. 12/4/44	13/3/44	13/3/44	20/3/44	9/5/44	9/6/44		
	1319. 26/4/44	4/5/44	15/5/44	9/6/44				

Pistons 1318. 7/3/44 1319. 22/3/44 Piston Rods 1318. 20/3/44 1319. 31/3/44 Connecting rods 1318. 14/3/44 1319. 31/3/44

Crank shaft 1318. 28/2/44 Thrust shaft 14/3/44. (Pool order) Intermediate shafts

Tube shaft 1319. 6/3/44 Screw shaft 14/8/44. (Pool order) Propeller

Stern tube Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted

Thickness of adjusting washers

Crank shaft material Ingot Steel Identification Mark 1318. N° 1318 WNF. 28/2/44 Thrust shaft material Ingot Steel Identification Mark S.8019 + S.4428 WNF. 17/3/44

Intermediate shafts, material Identification Marks 1319. N° 1319 WNF. 6/3/44 Tube shaft, material Identification Mark

Screw shaft, material Ingot Steel Identification Mark N° 2543 + 2544 W.N.F. 14/8/44. Pipes, material Test pressure Date of Test

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 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 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. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery (Engine only) has been built under Special Survey in accordance with the approved Plans, Specification & the rules of the Society. The materials & workmanship are good.

This machinery will be installed under the Survey of the British Corporation of Shipping & Aircraft.

Certificate 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 ... £

Special Specification ... £ 45 -

Donkey Boiler Fee ... £ 45 -

Travelling Expenses (if any) £

When applied for, 5 FEB 1945

When received, London

*J. H. Kason*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned Not for classing committee