Rpt. 4.

No. 52554.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report ..... 19 .... When handed in at Local Office 4 AUG 1944 19 .... Received at London Office 21 SEP 1944

Port of HULL

No. in Reg. Book ..... Survey held at HULL ..... Date, First Survey 11. 1. 44 Last Survey 27. 8. 19 44

(Number of Visits 33)

on the H.M. DANLATER HERMETRAY J. 2692. Tons Gross 458.6 Net 143.9

Built at SELBY. By whom built Cochrane Sons Ld Yard No. 1284. When built 1944

Engines made at HULL By whom made Amos & Smith Ld Engine No. 740. When made "

Boilers made at W. HARTLEPOOL By whom made CENTRAL MARINE ENG. WORKS. Boiler No. R 365 When made "

Registered Horse Power ..... Owners THE ADMIRALTY Port belonging to .....

Nom. Horse Power as per Rule 156 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended GOVERNMENT SERVICE.

ENGINES, &c.—Description of Engines Triple Expansion Contract Revs. per minute 150 ✓

Dia. of Cylinders 13½" 23" 38" ✓ Length of Stroke 27" ✓ No. of Cylinders 3 ✓ No. of Cranks 3 ✓

Crank shaft, dia. of journals as per Rule 7.5" ✓ as fitted 7 7/8" ✓ Crank pin dia. 7 7/8" ✓ Crank webs Mid. length breadth ✓ Mid. length thickness ✓ Thickness parallel to axis 4 13/16" ✓ shrunk Thickness around eye-hole 3 15/16" ✓

Intermediate Shafts, diameter as per Rule 7.15" ✓ as fitted 7 1/4" ✓ —

Thrust shaft, diameter at collars as per Rule 7.5" ✓ as fitted 7 1/8" ✓

Tube Shafts, diameter as per Rule — as fitted —

Screw Shaft, diameter as per Rule 8.2" as fitted 8 1/4" ✓

Is the {tube / screw} shaft fitted with a continuous liner — No ✓

Bronze Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per Rule ✓ 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 —

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 Yes ✓ If so, state type NEWARK ✓

Propeller, dia. 102" 6 Pitch 11'-0" No. of Blades 3 ✓ Material C.I. ✓ Length of Bearing in **Stern Bush** next to and supporting propeller 36½" ✓ whether Moveable solid Total Developed Surface 24 sq. feet

Feed Pumps *worked from the* **Main Engines,** No. 2 Diameter 2½ Stroke 15" Can one be overhauled while the other is at work Yes

Bilge Pumps *worked from the* **Main Engines,** No. 2 Diameter 2½ Stroke 15" Can one be overhauled while the other is at work Yes

Feed Pumps {No. and size One 4"x6"x12" Weirs ✓ / How driven Independent Steam ✓} **Pumps** *connected to the* **Main Bilge Line** {No. and size One 6"x5½"x15" Weirs ✓ / How driven Independent Steam ✓ ALSO Downton}

Ballast Pumps, No. and size None. ✓ **Lubricating Oil Pumps,** *including Spare Pump, No. and size* None

Are two independent means arranged for circulating water through the **Oil Cooler** None **Suctions,** *connected to both Main Bilge Pumps and Auxiliary*

Bilge Pumps:—In Engine and Boiler Room Eng. room 2 @ 2" dia ✓ One @ 3½" dia stokehold 2 @ 2" dia. ✓

In Pump Room None ✓ *In Holds, &c.* One @ 2" dia in each of the following:- fore peak, chain locker, store below accomodation, magazine, spirit room, bunker, shaft space, & aft peak.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 5" ✓ **Independent Power Pump Direct Suctions** *to the Engine Room Bilges,* No. and size One @ 3½" (included above) ✓ *Are all the Bilge Suction Pipes in holds and tunnel well 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* Yes ✓

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* at WL. ✓

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* No. ✓

What Pipes pass through the bunkers Feed water suctions *How are they protected* Wood casing

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~~ Space watertight* Yes ✓ *Is it fitted with a watertight door* access ~~worked~~ from Flat above ✓

MAIN BOILERS, &c.—(Letter for record S.) *Total Heating Surface of Boilers* 2650 ft ✓

Which Boilers are fitted with Forced Draft ..... *Which Boilers are fitted with Superheaters* NONE ✓

No. and Description of Boilers One S.E. *Working Pressure* 200 lbs/in ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓

IS A DONKEY BOILER FITTED? No ✓ *If so, is a report now forwarded?* ✓

Can the donkey boiler be used for domestic purposes only —

PLANS. *Are approved plans forwarded herewith for Shafting* 14-4-39 *Main Boilers* 14-4-39 *Auxiliary Boilers* NONE *Donkey Boilers* NONE

(If not state date of approval)

Superheaters NONE *General Pumping Arrangements* 14-10-39 *Oil fuel Burning Piping Arrangements* NONE

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓

State the principal additional spare gear supplied See attached list

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The foregoing is a correct description.

FOR AMOS & SMITH LTD.

W. E. Brown *Manufacturer.*

HERMETRAY.

Dates of Survey while building
- During progress of work in shops: 1944. Jan. 11.21. Mar. 13. Apr. 1.15. 17.21.22.26. May. 11.13. June 20.
- During erection on board vessel: 1944 MAR 15. APR 4, 11, 18. JUN 26. JLY 9, 18, 20, 22, 24, 25, 26, 27, 28. Aug. 1.10.14.16.17.22. Aug. 24.
- Total No. of visits: 33.

Dates of Examination of principal parts—Cylinders 22/4/44. 21/4/44. 26/4/44. Slides 13/5/44. Covers 22/4/44. 21/4/44. 13/5/44.

Pistons 13/5/44. Piston Rods 1/4/44. Connecting rods 13/5/44.

Crank shaft 22/4/44. Thrust shaft 21/1/44. Intermediate shafts 11/1/44.

Tube shaft ✓. Screw shaft 13/3/44. Propeller 9/7/44.

Stern tube 15/3/44. Engine and boiler seatings 26/6/44. Engines holding down bolts 22/7/44. 27/8/44.

Completion of fitting sea connections 4/4/44.

Completion of pumping arrangements 27/7/44. Boilers fixed 22/7/44. Engines tried under steam 27/7/44. 22/8/44.

Main boiler safety valves adjusted 27/7/44. Thickness of adjusting washers P & S 3/8".

Crank shaft material F.I. STL. Identification Mark 13 FW 5-7-43. Thrust shaft material F.I. STL. Identification Mark ✓ 2414, TWB 26-11-43.

Intermediate shafts, material D°. Identification Marks { FOR^D ✓ 2414, TWB, 22-11-43; AFT ✓ 2414, TWB, 26-11-43. Tube shaft, material —. Identification Mark —.

Screw shaft, material D°. Identification Mark ✓ 2414, TWB, 26-11-43. Steam Pipes, material STEEL. Test pressure 600 lbs ✓. Date of Test ✓ 25/7/44.

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 Hellisay.

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

The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans, Admiralty specification and Secretary's letters, of tested materials & good workmanship. The vessel's machinery installed on board, tried under working conditions in dock and on the river and found satisfactory in every respect. Eligible in our opinion to be classed in the Register Book ✠ LMC 8,44 OG and notation T. 3 Cy. 13½", 23", 38" – 27". 156 NHP, 200 lbs. 1SB, 3Cf, 63 GS, 2650 H.S. F.D.

Agreed fees – { Class. £39; Spec. £36 } = £75.

Hull office fee for M.E & Fitting-out = £23-8
D° Specification = £21-12 } = £45

Balance to West Hartlepool = £12-6-0.

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	Class (ME & F.O)	£ ~~23 - 8~~ 21 - 6 - Sat 6	When applied for, 31 AUG 1944 19
Special	D° SPECIF^N	21 - 12	
Donkey Boiler Fee	Balance to W. HART.	~~12 - 6~~ 14 - 8	When received, 19
Travelling Expenses (if any)		£	

W. L. Shields & J. [illegible]
Engineer Surveyor to Lloyd's Register of Shipping.

ADMIRALTY A/c rendered from London 20 OCT 1944

TUES. 12 SEP 1944

Committee's Minute

Assigned +LMC 8.44 FD. OG.

Rpt. [illegible] RECEIVED 1 JUN 1[illegible]