

REPORT ON OIL ENGINE MACHINERY.

No. 19898.

6 MAY 1953

Date of writing Report 22nd Apr. 1953. When handed in at Local Office 4th May 1953 Port of MIDDLESBROUGH.

No. in Survey held at Middlesbrough. Date, First Survey 6th Nov. 1952. Last Survey 24th Apr. 1953.

Reg. Book. Single on the Tank Screw vessel m.v. "SILVERBROOK". Tons Gross 11276.1 Net 6610.91

Built at South Bank-on-Tees. By whom built Smith's Dock Co. Ltd.. Yard No. 1225. When built 1953

Engines made at Newcastle-on-Tyne. By whom made R & W Hawthorn Leslie & Co. Ltd.. Engine No. 4100 When made 1953

Donkey Boilers made at West Hartlepool By whom made Central Marine Engine Works. Boiler No. R.416 When made 1953

Brake Horse Power { Maximum 5900 ✓ Service 5000 ✓ Owners Silver Line Ltd.. Port belonging to London.

C.N. as per Rule 1180. Is Refrigerating Machinery fitted for cargo purposes. No. Is Electric Light fitted Yes.

Trade for which vessel is intended Tanker (open sea service).

MAIN ENGINES, &c. —Type of Engines. 2 or 4 stroke cycle. Single or double acting Single or double acting

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Span of bearings (i.e., distance between inner edges of bearings in line of a crank) Is there a bearing between each crank Revolutions per minute { Maximum Service

Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm²) Means of ignition Kind of fuel used

Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis

Intermediate Shafts, diameter Thrust Shaft, diameter at collars

Screw Shaft, diameter Is the tube shaft fitted with a continuous liner {

Brass Liners, thickness in way of bushes Thickness between bushes Is the after end of the liner made watertight in the stern tube

Propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 fitted at the after end of stern tube If so, state type

Propeller, dia. Pitch No. of blades Material whether moveable Total developed surface sq. feet

Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²) Kind of damper, if fitted

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine Means of lubrication Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled

Lagged with non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

2 M.E. Driven. 1 Steam Driven. 1 Cooling Water Pumps, No. and how driven 6:4 M.E. Driven. Working F.W. 2 M.E. Driven.

V. Driven. Spare F.W. Driven. S.W. Driven. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Ge Pumps worked from the Main Engines, No. and capacity None. Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and capacity of each 2 - 8" x 8" x 10" (each 100 tons/hr. capacity). How driven Steam.

Is the cooling water led to the bilges No. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Fast Pumps, No. and capacity 1-100 tons/hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 3 - 1 Steam 10"x9"x24"

Are two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions

and size: In machinery spaces 3-3 1/2", 3-2" Coff. 2-2" oily bilge 1-2" Purifier Sludge pump room Ford: 1-2 1/2"

holds, etc. 7" forepeak, 7" D.T. P&S; 7" Coff. P & S; 2 1/2" chain locker, 2 1/2" lower flat P & S; 3 1/2" Aft Peak.

Direct Bilge Suctions to the engine room bilges, No. and size 1-9" & 2-6"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction pipes in the machinery spaces 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 platform plates Yes Are the overboard discharges above or below the deep water line Below.

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

Do any pipes pass through the bunkers None. How are they protected

Do any pipes pass through the deep tanks Suction to Fore Peak. Have they been tested as per Rule Yes

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 Is it fitted with a watertight door worked from

Is the vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. None No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. 2 No. of stages 2 diameters 4 1/2" & 10 1/2" stroke 8" driven by steam.

Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

Is provision is made for first charging the air receivers Steam Driven Compressor.

Enging Air Pumps or Blowers, No. One. How driven Main Engine Driven.

Have they been made under survey Yes Engine Nos R2/92944/2 & R2/92944/4.

Makers name W.H. Allen & Sons & Co. Ltd.. Position of each in engine room Eng. Room Flat Ford.

Report No. 125987.

004206-004212-0095

AIR RECEIVERS:—Have they been made under survey.....State No. of report or certificate.....

State full details of safety devices.....

Can the internal surfaces of the receivers be examined and cleaned.....Is a drain fitted at the lowest part of each receiver.....

Injection Air Receivers, No.....Cubic capacity of each.....Internal diameter.....thickness.....

Seamless, welded or riveted longitudinal joint.....Material.....Range of tensile strength.....Working pressure.....

Starting Air Receivers, No.....Total cubic capacity.....Internal diameter.....thickness.....

Seamless, welded or riveted longitudinal joint.....Material.....Range of tensile strength.....Working pressure.....

IS A DONKEY BOILER FITTED Yes - 2 SEE so, is a report now forwarded Yes

Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for shafting No Receivers No Separate fuel tanks No

Donkey boilers No General pumping arrangements Yes Pumping arrangements in machinery space Yes

Oil fuel burning arrangements Yes

Have Torsional Vibration characteristics been approved Yes Date and particulars of approval 26.10.51

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes State if for "short voyages" only

State the principal additional spare gear supplied Tail End Shaft & Propeller.

FOR SMITH'S DOCK CO., LTD.

The foregoing is a correct description.

ENGINE WORKS MANAGER

Manufacturer.

1952. During progress of work in shops - Nov. 6, 27, Dec. 6, 12, 16, 18, 19, 22, 23, 29, 30, (1953) Jan. 2, 6, 9, 13, 14, 20, 23, 27, 28, 29, Feb. 3, 5, 6, 9, 10, 16, 19, 23, 25, Mar. 5, 6, 11, 13, 20, 23, 24, 25, 26, 27, 30, 31, Apr. 7, 8, 9, 10, 17, 18, 20, 21, 22, 23, 24, During erection on board vessel - - -

Dates of Survey while building Total No. of visits 55

Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -

Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts 31.3.53 Tube shaft -

Screw shaft 13.1.53 Propeller 13.1.53 Stern tube 9.1.53 Engine seatings 31.3.53 Engine holding down bolts 31.3.53

Completion of fitting sea connections 14.1.53 Completion of pumping arrangements 22.4.53 Engines tried under working conditions 20.23.

Crank shaft, material - Identification mark - Flywheel shaft, material, - Identification mark 22557.

Thrust shaft, material - Identification mark 22557 Intermediate shafts, material O.H. Steel, Identification marks HAI 10.1, TM 13.8, HAI 28.1, TM 12.9.

Identification marks on air receivers See Newcastle Report No. 110096.

" " " Propeller - No. 29672 Lloyd's 19.3.52 D.B.S.

Welded receivers, state Makers' Name See Newcastle Report No. 110096.

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes

Full description of fire extinguishing apparatus fitted in machinery spaces steam smothering.

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 -

What is the special rotation desired -

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with not desired.

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, Speed restrictions, &c.) These engines and boilers have

been fitted aboard this vessel in accordance with the approved plans and Rule requirements and

on completion the machinery was tried under working conditions and found satisfactory. In our

opinion this vessel is eligible for a record of LMC 4.53 and Notation TS (CL). 4.53

Installation

The amount of Survey Fee £ 129 -

Special ... 2 When applied for 5th May, 19 53.

Donkey Boiler Fee ... 2 When received 19

Travelling Expenses (any) £

(Committee's Minute) FRI. 22 MAY 1953

Assigned + LMC 4.53 Oil Eng. (with torsional endorsement)

CL 2031806

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register Foundation