

## REPORT ON OIL ENGINE MACHINERY.

No. 54614

Received at London Office

10 JAN 1948

Date of writing Report 19 When handed in at Local Office 7 JAN 1948 Port of HULL.

No. in Survey held at Hessle Date, First Survey 17. 4. 47. Last Survey 18. 12. 19 47.

Reg. Book. Number of Visits 14.

15902 on the ~~Bank~~ ~~Trunk~~ ~~Quadrant~~ Screw vessel "SNOWCELL". Tons {Gross 50 77  
Net 5

Built at Hessle By whom built Henry Scarr Ltd. Yard No. S. 510 When built 1947

Engines made at Glasgow By whom made British Polar Engines Ltd. Engine No. 658 When made -do-

Donkey Boilers made at - By whom made - Boiler No. - When made -

Brake Horse Power 465 Owners Associated Portland Cement Co. Port belonging to London

Nom. Horse Power as per Rule 102 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Towing purposes (Thames).

IL ENGINES, &c. —Type of Engines Heavy Oil 2 or 4 stroke cycle 2 Single or double acting S.A.

Maximum pressure in cylinders See Glasgow Report No. 71940.

Mean Indicated Pressure Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank

Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used Diesel

Crank Shaft {Solid forged as per Rule dia. of journals as fitted Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis  
Semi built as fitted Crank webs Mid. length thickness Thickness around eyehole  
All built

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 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 tube shaft Yes If so, state type Newark Length of bearing in Stern Bush next to and supporting propeller 2'3"

Propeller, dia. 73" Pitch No. of blades 4 Material C.I. whether moveable No Total developed surface sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes

Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. One Diameter 110mm/m Stroke 60mm/m Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line {No. and size 1 - 60 tons/hr.  
How driven Aux. engine.

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

Ballast Pumps, No. and size One 60 tons/hr. as above Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 - 2760 galls/hr.

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces 2 at 3" In pump room

In holds, &c. Fore cabin 1 at 3" Aft cabin 1 at 3"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 - 3"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction 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. No - to E.W. Are they fitted with valves or cocks valves 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 above

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

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks 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 Is it fitted with a watertight door worked from

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

Main Air Compressors, No. One No. of stages See Glasgow Report No. 71940 diameters stroke driven by M.E.

Auxiliary Air Compressors, No. No. of stages See Lon. Rpt. No. 114707 diameters stroke driven by

Small Auxiliary Air Compressors, No. one No. of stages See Lon. Rpt. No. 114707 diameters stroke driven by Aux. eng.

What provision is made for first charging the air receivers aux. engine

Scavenging Air Pumps, No. one diameter See Gls. Rpt. No. 71940 stroke driven by M.E.

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Two Position Engine room P.S.T. & S.S.T.

Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes



1 - under L.R. } see below  
2 - under B.C. } State No. of report or certificate.

AIR RECEIVERS:—Have they been made under survey. 2 - under B.C. State No. of report or certificate.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule.

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

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

Seamless, lap welded or riveted longitudinal joint. Material. Range of tensile strength. Working pressure by Rules. Actual.

Starting Air Receivers, No. 3 Total cubic capacity. 45 cu. ft. Internal diameter. 20.13/16" thickness. 1/2"

Seamless, lap welded or riveted longitudinal joint. riveted. Material. O.H.S. Range of tensile strength. Working pressure by Rules. Actual.

IS A DONKEY BOILER FITTED No If so, is a report now forwarded.

Is the donkey boiler intended to be used for domestic purposes only.

PLANS. Are approved plans forwarded herewith for shafting. approved 27.6.47 Receivers 19.12.46 Separate fuel tanks 24.1

Donkey boilers. General pumping arrangements. 3.2.47 Pumping arrangements in machinery space. 3.2.47

Oil fuel buring arrangements.

### SPARE GEAR.

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

State the principal additional spare gear supplied. Tailshaft and coupling bolts.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building During progress of work in shops - During erection on board vessel - 1942. Apr. 17. 29. May 28. 30. June 3. 11. 12. July 11. 29. Sept. 9. 11. Oct 7. 29. Nov. 15. Dec. 6. 17. 18. 8  
Total No. of visits. 17.

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

Crank shaft. Flywheel shaft. Thrust shaft. Intermediate shafts. 11.7.47 Tube shaft.

Screw shaft. 11.7.47 Propeller. 30.5.47 Stern tube. 30.5.47 Engine seatings. 11.7.47 Engine holding down bolts. 11.7.47

Completion of fitting sea connections. 30.5.47 Completion of pumping arrangements. 15.11.47 Engines tried under working conditions. 17.12.47

Crank shaft, material. Identification mark. Flywheel shaft, material. Identification mark. LLOYDS 9500 CP

Thrust shaft, material. Identification mark. Intermediate shafts, material. O.H.S. Identification marks. 7.10.46. back

Tube shaft, material. Identification mark. Screw shaft, material. do. Identification mark. LLOYD'S 8740 CP Bilge

Identification marks on air receivers. Top J.B.G. 7061 Middle J.B.G. 7061 LLOYDS 7067 JM 12.2.45. The top and middle receivers made under B.C. survey now examined,

scantlings checked, and hyd. tested to 555 lbs/sq.in. as instructed in Gls. letter dated 28.6.47.

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

Description of fire extinguishing apparatus fitted. Foam

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. not required.

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.)

The above machinery installed in this vessel at Hesse under Special Survey, in

accordance with the Rules, approved plans and the Secretary's letters.

The materials used and the workmanship are good.

The machinery tested under working conditions and found satisfactory. A notice

board has been fitted at the control station and further torsionograph records

taken as required by the Secretary's letter dated 8/1/47.

Eligible in our opinion to be classed +LMC 12.47 & O.G. and the Notations Oil

Engines 2 SC SA 6 cyl. 250 m/m. - 420 m/m. N.H.P. 102.

(Engines not to be run continuously between 160 & 190 R.P.M.)

180

The amount of Entry Fee ... £

Special 1/3 ... £ 11 : 12 A/C rendered by Gls. 29.7.47

Donkey Boiler Fee... £ When applied for. 19.

Travelling Expenses (if any) £ When received. 19.

Committee's Minute 19 MAR 1948

Assigned +LMC. 12.47 Oil Eng O.G.

Engine Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation