

For Co. requested 17/4/45

Rpt. 4b.
PR 4845

REPORT ON OIL ENGINE MACHINERY.

No 21386
12 APR 1945

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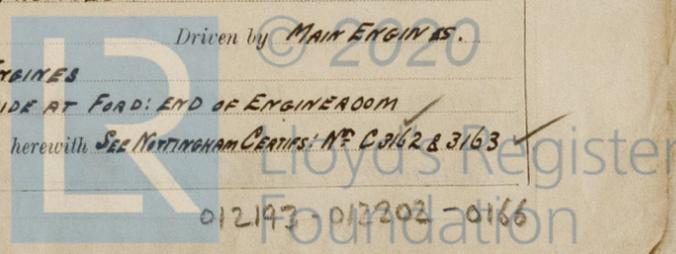
Date of writing Report 10-4-45 When handed in at Local Office 10-4-45 Port of LEITH
No. in Survey held at LEITH. Date, First Survey DECEMBER 26th 1944 Last Survey APRIL 4th 1945
Reg. Book. Number of Visits 18.

on the Single Screw motor vessel **"STORK"** Tons: Gross 493. Net 224.
Built at LEITH. By whom built MESSRS HENRY ROBB L^{TD} Yard No. 334. When built 1945
Engines made at GLASGOW. By whom made MESSRS BRITISH POLAR ENGINES L^{TD} Engine No. 510. When made 1944.
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 560. Owners GENERAL STEAM NAVIGATION CO L^{TD} Port belonging to LONDON
Nom. Horse Power as per Rule 101 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
Trade for which vessel is intended COASTING TRADE.

IL ENGINES, &c.—Type of Engines 6 CYL: 2 SCBA HEAVY OIL ENGINE. 2 or 4 stroke cycle 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, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank
Revolutions per minute Flywheel dia. SEE GLASGOW REPORT NO. 68905. Means of ignition Kind of fuel used
Crank Shaft, { Solid forged dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis
{ Semi built dia. of journals as fitted Crank Webs Mid. length thickness shrunk 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 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?
If so, state type NEWARK Length of Bearing in Stern Bush next to and supporting propeller 1'-11 1/2"
Propeller, dia. 5'-11" Pitch 3'-3" No. of blades 4 Material BRONZE whether Moveable No Total Developed Surface 11.8 sq. feet

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched? Means of lubrication
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? If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine?
Cooling Water Pumps, No. Two. 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 110 mm Stroke 60 mm. Can one be overhauled while the other is at work? YES
Pumps connected to the Main Bilge Line { No. and Size ONE "DAISDALE CENTREX" 40 TONS/H.R. G.S. PUMP (i) ONE CENTRIFUGAL AUXILIARY BILGE PUMP (2")
{ How driven (i) ELECTRIC MOTOR. (ii) AUXILIARY DIESEL ENGINE (PORT).
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 "DAISDALE CENTREX" 40 TONS/H.R. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size SEE GLASGOW RPT: N° 68905
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 ONE - 2" BORE AT AFTER END OF ENGINE ROOM. In COPPERDAM ONE - 2" SUCTION.
In Holds, &c. ONE - 2" BORE ON PORT SIDE AND ONE - 2 1/2" BORE ON STARBOARD SIDE, IN EACH OF YES 1 & 2 HOLDS.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE - 3" BORE TO G.S. PUMP AND ONE - 2" BORE TO AUXILIARY BILGE PUMP.
Are all the Bilge Suction pipes in Holds and APT Well fitted with strum-boxes? YES Are the Bilge Suctions 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? NONE FITTED.
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 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? No TUNNEL. 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. SEE GLASGOW RPT: 68905 No. of stages - Diameters - Stroke - Driven by MAIN ENGINES.
Auxiliary Air Compressors, No. ONE No. of stages 2 Diameters 1 5/8" x 4 1/2" Stroke 3 1/4" Driven by AUXILIARY OIL ENGINES
Small Auxiliary Air Compressors, No. ONE No. of stages ONE Diameters 3" Stroke 3 1/2" Driven by HAND.
What provision is made for first Charging the Air Receivers? HAND OPERATED AUXILIARY AIR COMPRESSOR ALSO PROVIDED
Scavenging Air Pumps, No. SEE GLASGOW REPORT 68905 Diameter - Stroke - Driven by MAIN ENGINES.
Auxiliary Engines crank shafts, diameter as per Rule APPROVED No. TWO OIL ENGINES Position ONE AT EACH SIDE AT FORWARD END OF ENGINE ROOM
Have the Auxiliary Engines been constructed under special survey? YES Is a report sent herewith? SEE NOTTINGHAM CERTS: N° C 262 & 3163



012147 012202 0166

AIR RECEIVERS: - Have they been made under survey 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

Injection Air Receivers, No. Cubic capacity of each Is a drain fitted to each receiver
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material 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 Receivers Separate Fuel Tanks
The approved plans for this vessel were forwarded to London with the Fuel Entry Report on m/v "KINGFISHER"

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space
Oil Fuel Burning Arrangements

SPARE GEAR.

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

State the principal additional spare gear supplied ADDITIONAL SPARE GEAR HAS BEEN SUPPLIED IN ACCORDANCE WITH THE STANDARD LISTS OF SPARE GEAR OF THE BUILDERS OF THE MAIN & AUXILIARY MACHINERY.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building During progress of work in shops - - 1944. Dec: 26th
During erection on board vessel - - 1945. Jan: 5th, 8th, 26th, 30th Feb: 18th, 12th, 20th, March: 6th, 7th, 8th, 12th, 16th, 20th, 25th April: 2nd, 3rd, 4th
Total No. of visits 18.

Dates of Examination of principal parts - Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of filling sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material SEE GLASGOW REPORT NO. 68905. Flywheel shaft, Material Identification Mark
Thrust shaft, Material SEE GLASGOW REPORT NO. 68905. Intermediate shafts, Material S.M. 11607 STEEL. Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material S.M. 11607 STEEL. Identification Mark

Identification Marks on Air Receivers FORD: 53197 LLOYDS TEST 555 (W.P. 355 LB P.W. 28.6.44)
AET: 53198 LLOYDS TEST 555 (W.P. 355 LB P.W. 28.6.44)

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 PORTABLE FOAM TYPE 'FOAMITE' EXTINGUISHERS. SAND IN STEEL BINS.

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 vessel YES. If so, state name of vessel m/v "KINGFISHER" (SEE LEITH RPT. NO 2133)

General Remarks (State quality of workmanship, opinions as to class, &c.) THIS MACHINERY (GLASGOW RPT. NO. 68905 FOR THE MAIN ENGINE NOTTINGHAM CERTIFS: C.3162 & C.3163, GLASGOW CERTS: C.64247 FOR THE AUXILIARY MACHINERY) HAS BEEN EFFICIENTLY FITTED TO THE VESSEL. THE WORKMANSHIP BEING GOOD & THE MATERIALS USED, SOUND. THE MAIN & AUXILIARY MACHINERY WAS TRIED OUT UNDER FULL LOAD CONDITIONS; THE FORMER DURING FULL POWER TRIALS AT SEA; THE PUMPS & PUMPING ARRANGEMENTS WERE TESTED & ALL WAS FOUND TO BE SATISFACTORY. THE MAXIMUM R.P.M. OBTAINED DURING THE SEA TRIAL WAS; THE SLOWEST SPEED AT WHICH THE MAIN ENGINES WOULD RUN WAS 79 R.P.M. ASTERN TRIALS & MANOEUVRING TRIALS WERE ALSO CARRIED OUT WITH SATISFACTORY RESULTS; THE CAPACITY OF THE AIR RECEIVERS FOR MANOEUVRING PURPOSES WAS TESTED & FOUND TO BE ABOVE RULE REQUIREMENTS.

IN MY OPINION THE MACHINERY OF THIS VESSEL IS ELIGIBLE TO BE CLASSED IN THE REGISTER BOOK WITH THE NOTATIONS OF LMC 4.45, OIL ENGINE, TS (OG).

The amount of Entry Fee .. £ 8 : 8 :
Special ... £ : :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) .. £ : :

F. C. J. Owen.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 27 APR 1945
Assigned + LMC 4.45 Oil Eng. O.G. Machinery

