

REPORT ON OIL ENGINE MACHINERY.

No. 54501.

Date of writing Report 10 When handed in at Local Office 12 NOV 1947 Port of HULL
 No. in Survey held a HULL. Date, First Survey 19. 5. 47 Last Survey 31. 10. 1947.
 Reg. Book. on the Single Fixed Engine Quadruple Screw vessel Fishing Vessel "KRISTIN" (ex Admiralty Fire Float 1516) Tons { Gross Net
 Built at By whom built Yard No. 132207 When built
 Engines made at Manchester By whom made Crossley Bros. Ltd. Engine No. When made 1943
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 240 Owners Oddsson & Co. Ltd. Port belonging to Hull
 Nom. Horse Power as per Rule 35 M.H. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended Fishing.

OIL ENGINES, &c.—Type of Engines Diesel (Crossley Size H).

2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 950 lbs/sq. in.

Mean Indicated Pressure 92 lbs/sq. in.

Diameter of cylinders 10 1/2"

Length of stroke 13 1/2"

No. of cylinders 4

No. of cranks 4

Span of bearings, adjacent to the Crank/measured from inner edge to inner edge 14.11/16"

Revolutions per minute 340

Flywheel dia. 37 1/2"

Weight 1750 lbs.

Means of ignition compression

Kind of fuel used Light diesel.

Crank Shaft,

{ Solid forged

{ Semi built dia. of journals

{ All built

as per Rule as approved

as fitted 7 1/2"

Crank pin dia. 7 1/4"

Crank Webs

Mid. length breadth 9 1/4"

Mid. length thickness 3.23/32"

Thickness parallel to axis

Thickness around eyehole

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

as approved

4 3/4"

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

as approved

5"

Is the

{ screw } shaft fitted with a continuous liner

as per Rule

as fitted

as approved

4 3/4"

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

shaft Yes If so, state type Rubber ring between brass rubbing rings.

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Propeller, dia. 5'0"

Pitch 3'8"

No. of blades 3

Material Bronze

whether Moveable No

Total Developed Surface 7 sq. feet

Method of reversing Engines Direct

Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched

Yes

Means of lubrication

pumps

Thickness of cylinder liners 1"

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material W.C. 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. 1 - 4 1/4" dia. x 3" Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 1 Diameter 4 1/2" Stroke 3" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size 2 - main engine pump and a centrifugal pump

{ How driven clutch connected to the 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 none Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size attached to main engine 1 3/4" x 2" st.

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 3 - 2 1/2" In Pump Room -

In Holds, &c. 1 - 2 1/2" in fish hold. 1 - 2 1/2" in fore peak space.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 2 1/2" (through valve chest)

Are all the Bilge Suction pipes in Holds, and Tunnel 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 fixed sufficiently high on the ship's side to be seen without lifting the platform plates P. Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel S. No.

Are the Blow Off Cocks fitted with a spigot and brass covering plate below

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks

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 watertight

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Drip trays under tank connect-

Main Air Compressors, No. 1 No. of stages 2 Diameters 2 1/2" 5 3/4" Stroke 4" Driven by main engine

Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 1 1/8" 3 1/4" Stroke HP 3 3/4" Driven by aux. engine

Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

What provision is made for first Charging the Air Receivers Aux. engine can be started by hand.

Scavenging Air Pumps, No. 1 Diameter - Stroke - Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule approved No. One

as fitted Journals 2 1/2", Pins 2.3/8" Position Starboard side main engine

Have the Auxiliary Engines been constructed under special survey crankshaft only Is a report sent herewith Yes

008186-008200-0190

AIR RECEIVERS:—Have they been made under survey No State No. of Report or Certificate —
Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug fitted to each receiver and S.V. on each
Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver
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. 2 Total cubic capacity 30 cu.ft. Internal diameter 24.1/8" thickness 3 1/8" & 15/32"
Seamless, lap welded or riveted longitudinal joint Yes Material stated LR tested stl. Range of tensile strength Working pressure by Rules approved WP
Actual of 350lbs/sq
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?— Sec.1tr.14.10

Is the donkey boiler intended to be used for domestic purposes only main propelling 4.9.47.
PLANS. Are approved plans forwarded herewith for Shafting aux.14.10.47. Receivers 14.10.47. Separate Fuel Tanks No plans yet
(If not, state date of approval) available.
Donkey Boilers — General Pumping Arrangements 24.7.47. Pumping Arrangements in Machinery Space 24.7.47.
Oil Fuel Pumping Arrangements 14.10.47.

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
State the principal additional spare gear supplied Extra bottom end bearing.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders	Covers	Pistons	Rods	Connecting rods
Crank shaft	Flywheel shaft	Thrust shaft	Intermediate shafts	Tube shaft
Screw shaft 2-6-47	Propeller	Stern tube	Engine seatings	Engines holding down bolts
Completion of fitting sea connections	Completion of pumping arrangements	Engines tried under working conditions		
Crank shaft, Material O.H.Stl.	Identification Mark DAT 25.3.43.	Flywheel shaft, Material	Identification Mark	
Scavenge pump	-do-	Identification Mark LLOYD'S 2028	Identification Marks	
Thrust shaft, Material	Identification Mark DAT 1.4.43.	Intermediate shafts, Material	Identification Marks	
Tube shaft, Material	Identification Mark	Screw shaft, Material	Identification Mark	
Identification Marks on Air Receivers				

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 - excepting Tanks to examine internally and part tank to repair.
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 No If so, state name of vessel -

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

The vessel has been placed on a slipway, propeller, all sea suctions and overboard discharges examined & found or placed in order. The screw shaft was drawn outboard, examined & found in good condition. Main engine cylinders, covers, pistons, conn. rod bearings, crankshaft, thrust & intermediate shaft clutch attached pumps & air compressor, aux. engine, auxiliary compressor, general service pump, boiler air receivers (internally) examined & found or placed in satisfactory condition. Air receivers also examined under hyd. test of 700 lbs/sq.in. & found tight. Pumping arrangements checked. Pumping arrangements examined under working conditions together with main & aux. machinery & found in order. Oil fuel storage tanks examined under head of oil & found tight excepting the port tank which had a slight leak at a welded bracket attached to the top of the tank. This leakage has been temporarily stopped with cement and will be permanently repaired when the tank is examined internally. It has been agreed with the Owners to defer internal examination of the O.F. storage & settling tank until the oil has been used up in service. The machinery is eligible in our opinion to have the records T.S.-O.G.6,47 and LMC 10,47 (without distinguishing mark +) when O.F. tanks have been examined internally and the port storage tank has been permanently repaired, and the plans of the Oil Fuel tanks have been approved.

CLASSIFICATION			
The amount of Entry Fee	£ 20 :-	When applied for,	12 NOV 1947
Special	£ :	When received,	
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ :		

Committee's Minute

FRI, 16 JAN 1948

Assigned

* Lmc 10.47 subject

N. Chambers, for J. Dobbie & Self.
Engineer Surveyor to Lloyd's Register of Shipping.



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