

REPORT ON OIL ENGINE MACHINERY.

No. 15109

Received at London Office 19 JAN 1951

of writing Report 1st January 1951 When handed in at Local Office 17/1/1951 Port of BELFAST
 in Survey held at BELFAST Date, First Survey 9 May 1949 Last Survey 29 Dec 1950
 g. Book. Number of Visits

Single on the Twin Triple Quadruple Screw vessel M.V. "LAGANFIELD" Tons Gross 8196.22 Net 4735.35
 Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1418 When built 1950
 Engines made at -do- By whom made -do- Engine No. 1418 When made 1950
 Monkey Boilers made at -do- By whom made -do- Boiler No. 1467 When made 1950
 Brake Horse Power 3200 Owners Hunting & Sons Ltd Port belonging to Newcastle on Tyne
 V. Power as per Rule 695 697 NHP = 489 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted yes
 Use for which vessel is intended Carrying Petroleum in Bulk

ENGINES, &c. — Type of Engines H.V. Heavy Oil Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 650 lbs./sq. in. Diameter of cylinders 29 1/2" Length of stroke 15 1/2" No. of cylinders 6 No. of cranks 6
 Indicated Pressure 128 lbs./sq. in. Ahead Firing Order in Cylinders 1.5.3.6.2.4 Span of bearings, adjacent to the crank, measured
 inner edge to inner edge 972 mm 980 Is there a bearing between each crank yes Revolutions per minute 115
 Wheel dia. 2489 mm Weight 2590 kg Moment of inertia of flywheel (lbs. in² or Kg. cm.²) 2252.10 Means of ignition Comp. Kind of fuel used Heavy oil
 dia. of journals as per Rule 505 mm Crank pin dia. 505 mm Crank webs Mid. length breadth 840 mm Thickness parallel to axis 310 mm
 All built as fitted 115 mm Crank webs Mid. length thickness 510 mm shrunk Thickness around eye hole 227.5 mm
 Wheel Shaft, diameter as per Rule 17" Intermediate Shafts, diameter as per Rule 17" Thrust Shaft, diameter at collars as fitted 454 mm
 e Shaft, diameter as per Rule 16" Is the shaft fitted with a continuous liner yes

Size Liners, thickness in way of bushes as per Rule 15/16 Thickness between bushes as per Rule 2/32 Is the after end of the liner made watertight in the
 peller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner —
 he 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-
 osive — 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
 of tube shaft. If so, state type — Length of bearing in Stern Bush next to and supporting propeller 5' 0"

Propeller, dia. 15' 6" Pitch 12' 0" No. of blades 4 Material Gun Bronze whether moveable Solid Total developed surface 75 sq. feet
 ent of inertia of propeller (lbs. in² or Kg. cm.²) — Kind of damper, if fitted —
 Method of reversing Engines Compound Air Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of
 igation 7 need Thickness of cylinder liners 53 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
 gged with non-conducting material Ragged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 to the engine — Cooling Water Pumps, No. 2 FWG Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

e Pumps worked from the Main Engines, No. none Diameter — Stroke — Can one be overhauled while the other is at work —
 aps connected to the Main Bilge Line (No. and size 1/2 170 mm/6 1/2 120 mm/6 1/2 100 mm/6
 How driven Steam Steam Steam
 he cooling water led to the bilges. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 ngements —

ast Pumps, No. and size 1/2 170 mm/6 Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 M. 6 in. 100 mm/6
 two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary
 e pumps, No. and size: — In machinery spaces 3 3 1/2" 6/8 in. 1 2 3" In pump room 2 2 4" 1 2 1/2" 7/8 in.
 olds, &c. 2 2 1/2" 7/8 in. 2 2 1/2" 7/8 in. 7/8 in. 7/8 in.

ependent Power Pump Direct Suctions to the engine room bilges, No. and size 2 2 1/2"
 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
 ssible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. yes
 all Sea Connections fitted direct on the skin of the Ship. yes Are they fitted with valves or cocks. Brass Are they fixed

ciently 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. yes
 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
 at pipes pass through the bunkers. none How are they protected. —
 at pipes pass through the deep tanks. none Have they been tested as per Rule. —

all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. yes
 he 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
 es, or from one compartment to another. yes Is the shaft tunnel watertight. — Is it fitted with a watertight door. — worked from. —
 wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. —

n Air Compressors, No. — No. of stages — diameters — stroke — driven by —
 iliary Air Compressors, No. 2 No. of stages 2 diameters 280/24 in. stroke 130 mm driven by Steam Engine
 all Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 2 1/4 - 1 1/2 stroke 3" driven by Electric Motor
 at provision is made for first charging the air receivers. Steam Driven Compressors
 venging Air Pumps, No. Underpiston Supercharge diameter — stroke — driven by —

iliary Engines crank shafts, diameter as per Rule — No. 2 1 Diesel 1 Steam
 as fitted. — Position G.R. Bottom Platform Stand
 he auxiliary engines been constructed under special survey. yes Is a report sent herewith. yes
 012370-012376-0222

AIR RECEIVERS:—Have they been made under survey. yes ✓ State No. of report or certificate 2 Main X 309

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

Can the internal surfaces of the receivers be examined and cleaned. yes ✓

Is a drain fitted at the lowest part of each receiver. yes ✓

Aux Injection Air Receivers, No. 1 ✓

Cubic capacity of each 120 litres

Internal diameter 1' 5 1/4"

thickness 3/8"

Seamless, welded or riveted longitudinal joint Welded

Material Steel

Range of tensile strength 28/32 ton/in²

Working pressure 3.5

Starting Air Receivers, No. 2 ✓

Total cubic capacity 800 cu. ft.

Internal diameter 5 ft 8 1/4"

thickness 1 1/2"

Seamless, welded or riveted longitudinal joint Welded

Material Steel

Range of tensile strength 29/32 ton/in²

Working pressure 3.5

IS A DONKEY BOILER FITTED yes (2) ✓

If 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. yes ✓

(If not, state date of approval)

Receivers. yes

Separate fuel tanks. yes

Donkey boilers. yes

General pumping arrangements. yes

Pumping arrangements in machinery space. yes

Oil fuel burning arrangements. yes

Have Torsional Vibration characteristics been approved. yes ✓

Date of approval 14-6-48

SPARE GEAR.

Has the spare gear required by the Rules been supplied. yes ✓

State the principal additional spare gear supplied. See Attached List

Spare Screw Shaft

blayds

SG 712

11935 A1

ROB 15-8-50

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1949 May 9 June 9 July 29 Aug 30 Nov. 15. 17. Dec. 16. 20. 22. 23 29 1950 Jan 6. 12. 16. 17. 31 Feb. 24
During erection on board vessel - May 2. 6. 9. 10. 13. 15. May 10. 11. 12. 16. 18. 22. 25. 26. 27. 28 July 4. 5. 6. 17. 19. 20. 21. 24. 25. 31 Aug 1. 2. 3. 4
Total No. of visits 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 18. 19. 20. 21. 22. 28. 29 = 141

Dates of examination of principal parts—Cylinders. 27-2-50 Covers. 31-7-50 Pistons. 4-7-50 Rods. 4-7-50 Connecting rods. 25-8-50

Crank shaft. 3-8-50 Flywheel shaft. 3-8-50 Thrust shaft. 3-8-50 Intermediate shafts. 19-9-50 Tube shaft. -

Screw shaft. 16-8-50 Propeller. 16-1-50 Stern tube. 11-5-50 Engine seatings. 25-9-50 Engine holding down bolts. 20-11-50

Completion of fitting sea connections. 25-9-50 Completion of pumping arrangements. 22-12-50 Engines tried under working conditions. 18-12-50

Crank shaft, material. S.M. Steel Identification mark. 10 1260 Flywheel shaft, material. - Identification mark. -

Thrust shaft, material. S.M. Steel Identification mark. 3-8-50 AD Intermediate shafts, material. S.M. Steel Identification marks. 5674

Tube shaft, material. - Identification mark. - Screw shaft, material. S.M. Steel Identification mark. 16-8-50

Identification marks on air receivers. 2 Main Nos 500, 501, 11, 10, 50 ROB Aux No 497 17, 10, 50 ROB

Welded receivers, state Makers' Name. Harland & Wolff Ltd Belfast

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. Steam Smothering below Boilers. 1-10 gall 100 2 gall Veg. foam container

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. Tanker ✓ 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. MS Kurdistan New York No. 1408

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery has been constructed and installed under Special Survey in accordance with the Society's Rules Approved Plans and Secretary's Letters. The materials and workmanship are good. The Machinery was examined under full working conditions with satisfactory results.

The Machinery of this vessel is eligible in our opinion to be classed in the Register Book with the records of + LMC 12.50. C.L. Oil Engine 2 DB 150/b

The amount of Entry Fee ... £214-0-0
Welded Structure ... £26-9-0
Special ... £

When applied for. 17/11 1951

When received. 19

Donkey Boiler Fee
Air Reservoir (2) 16-0-0
Travelling Expenses (if any) £ 4-0-0

Committee's Minute FRI. 9 FEB 1951

Assigned + LMC 12.50 C.L. Eng.
C.L. 2 DB 150/b



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