

REPORT ON OIL ENGINE MACHINERY.

No. 22248

Received at London Office

26 MAR 1949

Date of writing Report 21st MARCH 1949 When handed in at Local Office 24th MARCH 1949 Port of LEITH

No. in Survey held at BURNTISLAND Date, First Survey 8th October 1948 Last Survey 18th March 1949

Reg. Book. 91046 on the Triple Screw vessel "ADAMS BECK" Tons Gross 1773 Net 1189

Built at BURNTISLAND By whom built BURNTISLAND S.B.C. LTD Yard No. 328 When built 1949

Engines made at GLASGOW By whom made BRITISH POLAR ENGINES LTD Engine No. 718 When made 1948

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

Brake Horse Power 1180 Owners THE GAS LIGHT & COKE CO LTD Port belonging to LONDON

M.N. Power as per Rule 295 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended COLLIER (OPEN SEA)

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

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

Mean Indicated Pressure ✓ Ahead Firing Order in Cylinders ✓ 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 ✓ Moment of inertia of flywheel (16lbs. in² or Kg. cm.²) ✓ Means of ignition ✓ Kind of fuel used ✓

Crankshaft, Solid forged as per Rule ✓ dia. of journals ✓ Crank pin dia. ✓ Crank webs ✓ Mid. length breadth ✓ Thickness parallel to axis ✓

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 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 projected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after end of tube shaft YES If so, state type CEDERVALL Length of bearing in Stern Bush next to and supporting propeller 3'-2 1/2" ✓

Propeller, dia. 9'-0" Pitch 5.66ft No. of blades 4 Material BRONZE whether moveable NO Total developed surface 29 sq. feet ✓

Moment of inertia of propeller (16lbs. in² or Kg. cm.²) 18.85 x 10⁶ Kind of damper, if fitted NONE

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 ✓

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 ✓ Cooling Water Pumps, No. ONE ALSO G.S.P.P. & S.W.C.R.P.P. 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 ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and size { ONE, 7,900 G/H.R. } { ONE, 200 TONS/H.R. } { 2, 60 TONS/H.R. }
How driven { M.E. } { ELEC. MOTOR } { ELEC. MOTOR }

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, 200 TONS/H.R. Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE, 4,500 G/H.R. 2, 5500 G/H.R.

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 1/2" PORT AFT ONE, 2 1/2" STARBOARD In pump room ✓

Holds, &c. 3" N^o 1 HOLD WELL 3 1/2" N^o 3 HOLD WELL P&S

Independent Power Pump Direct Suctions to the engine room bilges, No. and size ONE, 4" STARBOARD AFT ONE, 6" PORT FORWARD

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 VALVES Are they fixed efficiently 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 ✓

That pipes pass through the bunkers ✓ How are they protected ✓

That 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

Is 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 ✓ diameters ✓ stroke ✓ driven by ME

Auxiliary Air Compressors, No. ONE No. of stages TWO diameters ✓ stroke ✓ driven by ELEC. MOTOR

Small Auxiliary Air Compressors, No. ONE No. of stages TWO diameters ✓ stroke ✓ driven by AUX. DIESEL

What provision is made for first charging the air receivers ABOVE AUX. DIESEL HAND STARTING

Scavenging Air Pumps, No. ✓ diameter ✓ stroke ✓ driven by ✓

Auxiliary Engines crank shafts, diameter ✓ as per Rule ✓ as fitted ✓ Position ✓

Have the auxiliary engines been constructed under special survey YES Is a report sent herewith YES NOTTINGHAM 422 & 418

011988-011994-0206

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

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

Injection Air Receivers, No. 2 Cubic capacity of each SEE GLS. RPT. Internal diameter SEE GLS. RPT. thickness SEE GLS. RPT.

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

Starting Air Receivers, No. 2 Total cubic capacity SEE GLS. RPT. Internal diameter SEE GLS. RPT. thickness SEE GLS. RPT.

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

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

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

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 SEE GLS. RPT.

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES

State the principal additional spare gear supplied ONE SCREW SHAFT

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 11

Dates of examination of principal parts—Cylinders 1948. 8/10 14/10 5/11 8/12 10/12 29/12 30/12 1949. JAN. 24 FEB 10 MARCH 14, 18 Covers 10/12/48 Pistons 10/12/48 Rods 10/12/48 Connecting rods 10/12/48

Crank shaft 14/10/48 Flywheel shaft 14/10/48 Thrust shaft 14/10/48 Intermediate shafts 14/10/48 Tube shaft 14/10/48

Screw shaft 14/10/48 Propeller 14/10/48 Stern tube 14/10/48 Engine seatings 14/10/48 Engine holding down bolts 14/10/48

Completion of fitting sea connections 14/10/48 Completion of pumping arrangements 30/12/48 Engines tried under working conditions SEA 18/3

Crank shaft, material Identification mark Flywheel shaft, material Identification mark Identification marks 2407 JB

Thrust shaft, material Identification mark Intermediate shafts, material SM INGOT STEEL Identification marks 2406 JB

Tube shaft, material Identification mark Screw shaft, material SM INGOT STEEL Identification marks 2408 JB

Identification marks on air receivers.

Welded receivers, state Makers' Name.

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 ONE 10gal. 4-2gal. FOAM EXTRACTORS 2-20ft length rubber hose with nozzles. 2 SAND BOXES & SCOOPS

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 YES

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with YES

Is this machinery duplicate of a previous case NO If so, state name of vessel YES

General Remarks (State quality of workmanship, opinions as to class, &c.) This Machinery has been efficiently

fitted on board, the materials and workmanship being sound and good. On

completion the main and auxiliary machinery was tried under working condition

and found satisfactory.

A notice board has been fitted at the control station "Main Engine not

to be run continuously between 125 & 148 RPM."

In my opinion the machinery, being in good condition, is eligible to

be classed with records + LMC 3.49 OIL ENG TS. OG

The amount of Entry Fee ... £ 37 : 16 : 0

Special ... £ : : CHARGED BY GLS. PAID. 5 JAN 1949

Donkey Boiler Fee ... £ : : When applied for 36-3 19 49

Travelling Expenses (if any) £ 2 : 9 : 6

Committee's Minute FRI. 22 APR 1949

Assigned + LMC 3.49 Oil Eng.

O.G.

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register Foundation