

REPORT ON OIL ENGINE MACHINERY.

No. 23304.

Date of writing Report SEPTEMBER, 1953 When handed in at Local Office SEPTEMBER, 1953 Port of LEITH Received at London Office 23 SEP 1953

No. in Survey held at BURNTISLAND Date, First Survey 16TH JUNE, 1953 Last Survey 1TH SEPTEMBER, 1953

Reg. Book. SUPPLEMENT on the Single Motor "TEESWOOD" Number of Visits TEN

Built at BURNTISLAND By whom built THE BURNTISLAND SHIPBUILDING CO., LD. Yard No. 359 When built 1953

Engines made at GOVAN, GLASGOW By whom made BRITISH POLAR ENGINES LTD. Engine No. E882 When made 1952

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

Brake Horse Power { Maximum 800 Owners CONSTANTINE SHIPPING CO. LTD. Port belonging to MIDDLESBROUGH
Service 740

M.N. as per Rule 160 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended OPEN SEA SERVICE.

OIL ENGINES, &c. — Type of Engines.

Maximum pressure in cylinders 2 or 4 stroke cycle Single or double acting Single or double acting

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

Span of bearings (i.e. distance between inner edges of bearings in way of a crank) ✓ Is there a bearing between each crank ✓ Revolutions per minute { Maximum ✓
Service ✓

Flywheel dia. ✓ Weight ✓ Moment of inertia of flywheel ✓ (lbs. in² or Kg. cm.²) ✓ Means of ignition ✓ Kind of fuel used ✓

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

Flywheel Shaft, diameter ✓ Intermediate Shafts, diameter ✓ Thrust Shaft, diameter at collars ✓

Tube Shaft, diameter ✓ Screw Shaft, diameter ✓ Is the { tube ✓
screw ✓ shaft fitted with a continuous liner { No

Bronze Liners, thickness in way of bushes ✓ Thickness between bushes ✓ 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 fitted at the after end of stern tube YES If so, state type VICKERS VISTA

Propeller, dia. 7'-10" Pitch 4'-8" No. of blades 4 Material BRONZE whether moveable SOLID Total developed surface 21.5 sq. feet

Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm.²) ✓ Kind of damper, if fitted ✓

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine ✓

lubrication Thickens of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled

or lagged with non-conducting material GLS. RPT. N° 80096 Are 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. and how driven 3-OFF 1-OFF MAIN ENG. 2-OFF ELECT. MOTORS Working F.W. ONE (MAIN ENG)

S.W. ONE Spare F.W. NIL S.W. ONE 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. and capacity GLS. RPT. Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and capacity of each TWO AT 60 T.P.H.
How driven ELECTRIC MOTORS

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 capacity ONE 60 T.P.H. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 3-OFF 1-OFF MAIN ENG. 2-OFF STAND. BY AT 20 T.P.H.

Are two independent means arranged for circulating water through the Oil Cooler YES Branch Bilge Suctions ✓

No. and size: In machinery spaces TWO 2 1/2" In pump room ✓

In holds, &c. N° 1 & 2 Holds: ONE 2" P.S. N° 3 Hold: ONE 3 1/2" P.S.

Direct Bilge Suctions to the engine room bilges, No. and size ONE 3 1/2" & ONE 4"

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 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 NO 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 NIL

What pipes pass through the bunkers NONE How are they protected ✓

What pipes pass through the deep tanks NO DEEP TANK 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 NONE 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. GLS. RPT. No. of stages ✓ diameters ✓ stroke ✓ driven by ✓

Auxiliary Air Compressors, No. TWO No. of stages TWO diameters 4 1/2" & 2" stroke 4 1/4" driven by ELECT. MOTORS

Small Auxiliary Air Compressors, No. ONE No. of stages ✓ diameters 6-C. FT/MIN. stroke ✓ driven by DIESEL ENG.

What provision is made for first charging the air receivers HAND STARTING DIESEL DRIVEN AIR COMPRESSOR

Scavenging Air Pumps or Blowers, No. GLS. RPT. How driven ✓

Auxiliary Engines Have they been made under survey YES Engine Nos. 1-OFF 60 KW SET ENG. N° 323538 (L.E.S.) 2-OFF 35 KW SETS ENG. N° 349012-3

Makers name ENGINES: RUSTON & HORNSBY LTD. GENERATORS: CAMPBELL & SHAWWOOD LTD. POSITION OF EACH IN ENGINE ROOM 60 KW SET ON E.P. FLAT FORD STAR

ONE 35 KW SET ON E.P. FLAT AFTER STAR & ONE 35 KW SET ON E.P. FLAT AFTER PORT Report No. 35 KW SETS NOT RPT. N° C. 16794

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
State full details of safety devices.....
Can the internal surfaces of the receivers be examined and cleaned..... Is a drain fitted at the lowest part of each receiver.....
Injection Air Receivers, No..... Cubic capacity of each..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No..... GLASGOW..... Total cubic capacity..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

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..... YES Receivers 24-4-52 Separate fuel tanks YES
(If not, state date of approval)
Donkey boilers NONE General pumping arrangements 16-12-50 Pumping arrangements in machinery space YES
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved GLS RPT. Date and particulars of approval GLS RPT.

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES State if for "short voyages" only.....
State the principal additional spare gear supplied SCREW SHAFT - C.I. PROPELLER.

For THE BURNTISLAND SHIPBUILDING CO., LTD

The foregoing is a correct description of the machinery of the vessel Southwate
Assistant Machinery Engineer Manufacturer.

Dates of Survey while building During progress of work in shops - - - - -
During erection on board vessel - - - - -
Total No. of visits 10.
Dates of examination of principal parts—Cylinders..... Covers..... Pistons..... Rods..... Connecting rods.....
Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts 3-7-53 Tube shaft.....
Screw shaft 31-3-53 Propeller 17-6-53 Stern tube 16-6-53 Engine seatings 19-6-53 Engine holding down bolts 15-7-53
Completion of fitting sea connections 17-6-53 Completion of pumping arrangements 27-8-53 Engines tried under working conditions 4-9-53
Crank shaft, material..... Identification mark..... Flywheel shaft, material..... Identification mark 7391.
Thrust shaft, material..... Identification mark..... Intermediate shafts, material SM/NGOT STEEL Identification marks G.H. 3-7-53
Tube shaft, material..... Identification mark..... Screw shaft, material SM/NGOT STEEL Identification mark G.H. 31-3-53
Identification marks on air receivers GLS RPT.

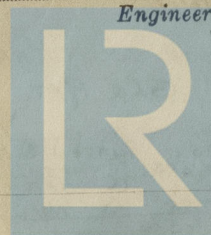
Welded receivers, state Makers' Name.....
Is the flash point of the oil to be used over 150°F YES
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES
Full description of fire extinguishing apparatus fitted in machinery spaces 2-OFF 10 GALL. & 2-OFF 2 GALL. FOAM TYPE EXTINGUISHERS.
2-OFF HYDRANTS WITH HOSE & NOZZLES. 2-OFF SAND BINS WITH 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.....
What is the special notation desired.....
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, Speed restrictions, &c.) The machinery of this vessel has been built under special survey and in accordance with the Rules and approved Plans and has been efficiently installed on board the vessel. The workmanship and materials have been found good. Upon completion, the machinery was examined under full working conditions and found satisfactory.
It is recommended that the machinery of this vessel be classed in the Register Book LMC 9, 53. T.S.O.G. Oil ENGINE.

The amount of Entry Fee ... £ 32 : 0
Special ... £ : : When applied for 11/9/ 19 53.
Donkey Boiler Fee... £ : : When received 19
Travelling Expenses (if any) £ 4 : 10

Committee's Minute

Assigned + L.M.C. 9. 53 Oil Engine



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