

REPORT ON OIL ENGINE MACHINERY.

No. 109294

2 - APR 1952

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Date of writing Report 31.3 1952 When handed in at Local Office 31.3 1952 Port of NEWCASTLE-ON-TYNE

No. in Survey held at WALSSEND & SUNDERLAND Date, First Survey 13.3.50 Last Survey 28.8 1952

Reg. Book. 40546 on the Single Screw vessel M.V. "SANDALWOOD" Number of Visits III

SUPPLEMENT Gross Tons 10061.23
Net Tons 5925.05

Built at SUNDERLAND By whom built J. L. THOMPSON & SONS LTD Yard No. 672 When built 1952

Engines made at WALSSEND-ON-TYNE By whom made NORTH EASTERN MARINE ENG. CO (1938) LTD Engine No. 3206 When made 1952

Donkey Boilers made at WALSSEND-ON-TYNE By whom made NORTH EASTERN MARINE ENG. CO (1938) LTD Boiler No. 3206 When made 1952

Brake Horse Power SERVICE & MAX: 4250 Owners JOHN. I. JACOBS & CO. LTD Port belonging to LONDON

M.N. Power as per Rule Old 911 New 4250 = 850 V Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended OPEN SERVICE

OIL ENGINES, &c. — Type of Engines NORTH EASTERN MARINE - DOXFORD ADAPTED 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 640 lbs/sq Diameter of cylinders 670 mm Length of stroke 2320 mm No. of cylinders 4 No. of cranks 4 (THREE THROW)

Mean Indicated Pressure 90 lbs/sq Ahead Firing Order in Cylinders 1-3-4-2 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 2020 mm Is there a bearing between each crank THREE THROW Revolutions per minute 110

Flywheel dia 2493 mm Weight 0.85 TONS Moment of inertia of flywheel (lbs. in² or Kg. cm²) 0.435 TONS FT² SEC² Means of ignition COMPRESSOR Kind of fuel used HEAVY OIL

Crank Shaft, Semi built dia. of journals as per Rule 471 mm as fitted 500 mm Crank pin dia 500 mm Crank webs Mid. length breadth 710 mm Thickness parallel to axis 285 mm shrunk Thickness around eye hole 220 mm

Flywheel Shaft, diameter as per Rule 14.05 as fitted 21 1/4 Thrust Shaft, diameter at collars as per Rule 18 as fitted 18

Tube Shaft, diameter as per Rule 15.43 as fitted 21 1/4 Is the tube shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 15/16 as fitted 3/4 Thickness between bushes as per Rule 18.56/32 as fitted 3/4 Is the after end of the liner made watertight in the propeller boss YES

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 YES If two liners are fitted, is the shaft lapped or protected between the liners YES Is an approved Oil Gland or other appliance fitted at the after end of tube shaft NO If so, state type NO Length of bearing in Stern Bush next to and supporting propeller 6'-1"

Propeller, dia 16'-6" Pitch 13'-4 1/2" / 11'-1/2" No. of blades 4 Material BRONZE whether moveable NO Total developed surface 103.4 sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm²) 5.400 TONS FT² SEC² Kind of damper, if fitted NO

Method of reversing Engines HAND LEVEL Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Means of lubrication FORCED Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or 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 ONE MAIN ENG. DRIVEN 190 TONS/H.C.

Cooling Water Pumps, No. ONE INDEPENDANT 10 X 12 X 12 190 TONS/H.C. 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. NONE Diameter 10 X 12 X 12 Stroke 10 X 12 X 12 Can one be overhauled while the other is at work NO

Pumps connected to the Main Bilge Line No. and size ONE BALLAST 10 X 12 X 12 260 TONS/H.C. ONE BILGE & SANITARY 75 TONS/H.C. ONE GENERAL SERVICE 75 TONS/H.C. How driven STEAM STEAM STEAM

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 NO

Ballast Pumps, No. and size ONE 10 X 12 X 12 260 TONS/H.C. Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE ME DRIVEN 4 1/2 TONS/H.C. ONE (NO. 8 X 8 X 10) 75 TONS/H.C.

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 1-3/2" FUR² STAR 1-3/2" AFT 1-2" COFFORDAN, OILY BILGE 1-2" 5" PUMP In pump room MAIN 1-4" 5" FUR² 1-4"

In holds, &c. FORE HOLD 1-2" PORT FUR² STAR FUR² STAR 1-2" FUR² COFFORDAN 1-4" STAR

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-3/2" FUR² STAR 1-5" AFT 1-9" EMERGENCY PORT.

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 NO Are they fitted with valves or cocks BOTH 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 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 YES

What pipes pass through the bunkers 1-4" AFTEL COFFORDAN SUCTION How are they protected HEAVY GAUGE PIPE

What pipes pass through the deep tanks 6" DIA: FORE PEAK SUCTION Have they been tested as per Rule YES

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 YES Is it fitted with a watertight door NO worked from NO

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork NO

Main Air Compressors, No. NONE No. of stages 1 diameters 125 mm stroke 548 mm driven by STEAM ENGINE

Auxiliary Air Compressors, No. 2 No. of stages 3 diameters EACH 125 mm stroke FREE AIR / MIN driven by STEAM ENGINE

Small Auxiliary Air Compressors, No. 1 No. of stages 1 diameters 125 mm stroke 548 mm driven by STEAM ENGINE

What provision is made for first charging the air receivers DONKEY BOILERS & STEAM DRIVEN AIR COMPRESSORS

Scavenging Air Pumps, No. 2 diameter 1700 mm stroke 548 mm driven by SIDE LEVER 17 102 CYLINDERS

Auxiliary Engines crank shafts, diameter as per Rule DIESEL APPROVED as fitted 85 mm No. 2-45KW 110V STEAM GENERATORIS Position ENG. ROOM FLAT MID. BATHROOM 1-25KW DIESEL (AN. SET) STEERING FLAT

Have the auxiliary engines been constructed under special survey DIESEL YES Is a report sent herewith DIESEL YES LEADS REF. 560.

JM
15/4/52

