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REPORT ON OIL ENGINE MACHINERY.

No. 9751

28 OCT 1935

18th October 1935 When handed in at Local Office

Received at London Office

Survey held at Copenhagen & Taksoor

Port of Copenhagen

Date, First Survey 11th February Last Survey 9th October 1935

Number of Visits 71.

1260 on the Twin Screw vessel "TASMANIA"

Gross 4460.30
Net 2683.98

till at Taksoor

By whom built Øs Taksoor Skiloværft

Engines made at Copenhagen

By whom made Ap. Bunnister & Wain's

monkey Boilers made at Taksoor

By whom made Øs Taksoor Skiloværft

ake Horse Power 2 x 1500

Owners 7/5 0/5 "Orius"

n. Horse Power as per Rule 676

Is Refrigerating Machinery fitted for cargo purposes yes

ade for which vessel is intended

General cargo

Yard No. 67 When built 1935

Engine No. 2390 When made 1935

Boiler No. 21 When made 1935

Port belonging to Copenhagen

no Is Electric Light fitted yes

ENGINES, &c.—Type of Engines Vertical Diesel engines Single or double acting single

imum pressure in cylinders 49 kg/cm² Diameter of cylinders 500 mm Length of stroke 900 mm No. of cylinders 2 x 5 No. of cranks 2 x 5n Indicated Pressure 6.9 kg/cm² Total G.D. 2200 kg/m² 35° 3/6 Is there a bearing between each crank yesof bearings, adjacent to the Crank, measured from inner edge to inner edge TOTAL G.D. 2200 kg/m² 776 mm Means of ignition compression Kind of fuel used crude oil

olutions per minute 140 Flywheel dia. 1652 mm Weight 900 kg Mid. length breadth 800 mm Crank Webs shrunk Thickness parallel to axis 208 mm

nk Shaft, dia. of journals as per Rule 324 mm Crank pin dia. 340 mm Crank Webs Mid. length thickness 188 mm Crank Webshrank Thickness around eye hole 165 mm

wheel Shaft, diameter as per Rule 243 mm Thrust Shaft, diameter at collars as per Rule 255 mm

e Shaft, diameter as per Rule 268 mm as fitted 274 mm Thrust Shaft, diameter at collars as per Rule 300 mm

size Liners, thickness in way of bushes as per Rule 15.7 mm Thickness between bushes as per rule 11.8 mm Is the screw shaft fitted with a continuous liner yes

eller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes

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-corrosive yes

wo 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 the tube if so, state type

speller, dia. 3540 mm Pitch 3020 mm No. of blades 3 Material bronze whether Moveable no Total Developed Surface 8,366 sq. m

ethod of reversing Engines direct reversing a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

fored Thickness of cylinder liners 36 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being siphoned back to the engine to prevent 10 off Saltwater, centrif. 1850 hours each

ooling Water Pumps, No. off Freshwater -- 80 hours Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

ge Pumps worked from the Main Engines, No. 2 of Diameter 150 mm Stroke 175 mm Can one be overhauled while the other is at work yes

mps connected to the Main Bilge Line No. and Size One Ball valve pump 150 h.p./min., One bilge pump 20 h.p. The two engines bilge pumps

How driven electrically

the cooling water led to the bilges overboard If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

last Pumps, No. and size 1 off 150 h.p./min. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 off 90 h.p./min. each

two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

mps, No. and size:—In Machinery Spaces 6 of 3", In the tunnel 1 off 2 1/2" from top deck 2 1/2" on fuel oil line In Pump room

Holds, etc. Hold No. 1: 2 off 3", Hold No. 2: 2 off 3 1/2", Hold No. 3: 3 off 3" Hold No. 4: 3 off 3" 1/2" hand pump suction

dependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 off 5", 1 off 3", 2 off 2 1/2"

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

from easily accessible 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 valves

they fixed sufficiently 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

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

hat pipes pass through the bunkers none How are they protected

hat 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

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 yes worked from top of tunnel

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. — No. of stages — Diameters — Stroke — Driven by —

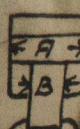
Auxiliary Air Compressors, No. 3 No. of stages 2 Diameters 280 - 250 mm Stroke 190 mm Driven by our engines

Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 106 - 34 mm Stroke 80 mm Driven by Steam

Seawelling Air Pumps, No. one each engine Diameter 144 m³/min. stroke each Driven by alternating engines

Auxiliary Engines crank shafts, diameter as per Rule 130 mm Position 3 engine none

as fitted 150 mm



W1179-0105 V2

Lloyd's Register
Foundation

AIR RECEIVERS:—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*

EMERGENCY STARTING HIGH PRESSURE Air Receivers, No. *one* Cubic capacity of each *100 litres* Internal diameter *305 mm* thickness *6.5 mm*

Seamless, lap welded or riveted longitudinal joint *Solid drawn* Material *Salt. Steel* Range of tensile strength *31.25/0°* Working pressure by Rules *39 kg/cm²* Actual *25 atm*

Starting Air Receivers, No. *one* Total cubic capacity *8 m³* Internal diameter *6' 0"* thickness *SHELL 1"-ENR*

Seamless, lap welded or riveted longitudinal joint *drawn* Material *Salt. Steel* Range of tensile strength *28.5/0°* Working pressure by Rules *25.7 kg/cm²* Actual *25 atm*

IS A DONKEY BOILER FITTED? *yes*

Is the donkey boiler intended to be used for domestic purposes only *yes*

PLANS. Are approved plans forwarded herewith for Shafting (if not, state date of approval) *(yes)* *1/2.35* Rennivers *(yes)* *1/2.35* Separate Fuel Tanks *(yes)* *1/2*

Donkey Boilers *(yes)* *18/3.35* General Pumping Arrangements *(yes)* *21/3.35* Pumping Arrangements in Machinery Space *(yes)* *27/3.35*

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied *one spare propeller shaft - one cast iron spare propell*

The foregoing is a correct description.

AKTIESELSKABET
NAKSKOV SKIBSVÆRFT

Manufacturer.

AKTIESELSKABET
D. BURMEISTER & SØNS MÅSKIN-OG SKIBSBYGGERI

Dates of Survey while building During progress of work in shops - *Feb 11/18-27/28 March 12/18-21-22-25-29-30 April 2-4-6-8-9-10-11 May 14-15-27-29, May 3-4-6-7-8-9-10-11-13-14-16-21-22-23-24-25-26 June 6-7-12-13-17-24-27 July 4-10-11-27-30 August 1-2-8-24 1935*

During erection on board vessel - *July 10-27 Aug 15-23-27 Sept 4-12-13-14-20-24 October 2-3-4-9 1935*

Total No. of visits *71*

Dates of Examination of principal parts—Cylinders *76-176* Covers *28-29-15-16* Pistons *75-85-10-20* Rods *29-182-183* Connecting rods *27-94-45*

Crank shaft *21/2-4-10-5-21/2* Flywheel shaft *21/3-6-10-5-21/2* Thrust shaft *14/4-27/4-10-5-21/2* Intermediate shafts *14/4-27/4-10-5-21/2* Tube shaft *-*

Screw shaft *14/4-27/4-10-5-19/4* Propeller *19/2-19/4* Stern tube *19/2-19/4* Engine seatings *15/8-28* Engines holding down bolts *49-13/4-10/9*

Completion of fitting sea connections *10/9* Completion of pumping arrangements *4/10-9/10* Engines tried under working conditions *27/6-4/7-10-3/4*

Crank shaft, Material *Salt. Steel* Identification Mark *B/N 2/1-5-35* Port: *LLOYDS 79-2627-28 STRAB: LLOYDS 79 2607-2633* Intermediate shaft, Material *B/N 10-5-35*

Thrust shaft, Material *Salt. Steel* Identification Mark *B/N 10-5-35* LLOYDS 79-2608-2629 & LLOYDS 79-2634-2635

Intermediate shafts, Material *Salt. Steel* Identification Marks *4/10-7-35* Screw shaft, Material *Salt. Steel* Identification Mark *4/10-7-35* LLOYDS 79-2620

Tube shaft, Material *-* Identification Mark *-* Screw shaft, Material *Salt. Steel* Identification Mark *4/10-7-35*

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*

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, etc.) The above machinery has been constructed and fitted onboard under special survey in accordance with the Rule the approved plans and the requirements contained in the Secretary's Letters E dat. 14/1-14/2-22/2-15/3-22/3-25/4-26/4 1935.

The material used in construction has been tested as per Rules either by us or as per certificates now produced and the workmanship is good.

On completion the whole machinery was tested under full power working conditions and the manoeuvring of the main engines were tested and found satisfactory.

A speed of 14.7 knots was arrived at a total IHP of 4400

Recommence the vessel's machinery to have violations in the Register Book of *80 LMC-10.35- OIL ENGINES - CL. 2 DB-100 tons*

The amount of Entry Fee .. *£ 134.40*: When applied for, *25/10/35* *1/1/35*
Special *£ 243.7.12*: *25/10/35*
One Starting air receiver *£ 70.50*
Donkey Boiler Fee *£ 50.00*: When received, *17/2-05 pd 11-11-35* *1/1/35*
Travelling Expenses (if any) *£ 457.75*: *25/2-27-78 pd 16-12-35* *1/1/35*

Committee's Minute FRI. 1 NOV 1935

Assigned + *LMC 10.35 Obergrau*

O.S. *5.B. 100lb.*

* includes Kr 150 on Boiler Report.

Rpt. 9a.

Port of Copenhagen

Continuation of Report No. 979 dated 18th October 1935 on the

Twin Screw Motor Vessel TASMANIA

List of the Auxiliary Machinery.

2 centrifugal saltwater cooling pumps, 135 lts/hour each.

1 " " fresh water " " 80 lts/hour

2 cog wheel lubricating oil pumps, 90 lts/hour each

1 " " daily service oil fuel pump 15 lts/hour

1 bilge & sanitary pump (2 plungers) 20 lts/hour each

1 rotary "Tom" ballast pump 150 lts/hour

Electrically

driven

Three 2 cylinder 2 S.C.S.F. Diesel engines with solid injection 220 mm cylinder diameter x 370 mm stroke x 320 R.P.M. each direct coupled to 66 K.W. compound wound dynamo supplying current at 220 volts pressure for the following purposes:-

2 off 45HP shunt wound electromotors for cont. lubr. oil & cooling W. pumps

1 " 15 " " " fresh water cooling pumps

1 " 10 " " " daily servc. oil fuel pumps

1 " 9 " " " bilge & sanitary pump

1 " 15 " " " ballast pump

2 " 8 " series " " " turning engines

1 " 52 " compound " " " windlass

1 " 33 " " " " cargo & warping winches

1 " 13 " series " " " steering engine

1 " 3 " shunt " " " refrigerating compressor

1 " 175 " " " " cooling water pump for same

1 " 2 " " " " oil fuel circulating pump

2 " 15 KW oil heaters

Furnaces for the electric light and a number of smaller electric motors for the winches, fans, purifiers etc.

A 4 K.W. compound wound emergency light generator, rated 220 volts x 18.2 amper x 100 R.P.M. units by a 2 cylinder 4 S.O.S.F. "Penta" petrol engine has been placed on a platform in the top of the engine room and connected to the switchboard for light and wireless by a change over switch.

The above is a correct description.

AKTIESELSKABET
NAKSKOV SKIBSVÆRFT

Magnus Reilly