

REPORT ON OIL ENGINE MACHINERY.

No. 20422

17 APR 1946

Received at London Office

t. 4b.

1946

of writing Report 20th Feb 46 When handed in at Local Office

Port of SYDNEY. - N.S.W.

in Survey held at Rhodes, Sydney, N.S.W.,

Date, First Survey 5th Feb

Last Survey 19th Feb 19 46

Book.

Number of Visits

on the ^{Single} Twin ^{Triples} Screw vessel

"TANDJONG OEBAN"

Tons { Gross 195
Net 98

lt at Rhodes, N.S.W.,

By whom built Commonwealth Government Shipbuilding Estab. No. 4

Yard No. 65 When built 1946

ines made at Glasgow

By whom made British Auxiliaries Ltd.,

Engine No. E519 When made 1944

key Boilers made at ---

By whom made ---

Boiler No. -- When made --

ke Horse Power 200 (each)

Owners Nederlandsche Koloniale Petroleum Maat Schappij (M.K.P.M.)

Port belonging to The Hague

n. Horse Power as per Rule 88

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

de for which vessel is intended Coastal Service Malay Peninsular & Nederlands East Indies.

ENGINES, &c. Type of Engines Atlas Polar Heavy Oil Engines 2 or 4 stroke cycle 2 Single or double acting single

imum pressure in cylinders

Indicated Pressure 5.23 Kilos per sq. cm.

Diameter of cylinders 180 m.m.

Length of stroke 300 m.m

No. of cylinders 5

No. of cranks 5

a of bearings, adjacent to the Crank, measured from inner edge to inner edge

8-1/16"

Is there a bearing between each crank Yes

utions per minute 450

Flywheel dia.

Weight

Means of ignition Compression

Kind of fuel used Light Diesoleum

nk shaft, { Solid forged
Semi built
All built

dia. of journals as per Rule 120 m.m.
as fitted 120 m.m.

Crank pin dia.

Crank Webs

Mid. length breadth

Thickness parallel to axis

wheel Shaft, diameter as per Rule
as fitted

Intermediate Shafts, diameter as per Rule
as fitted

Thrust Shaft, diameter at collars as per Rule
as fitted

Shaft, diameter as per Rule
as fitted

Screw Shaft, diameter as per Rule
as fitted 4 1/4"

Is the { tube
screw } shaft fitted with a continuous liner { No.

ize Liners, thickness in way of bushes as per Rule
as fitted 3/8"

Thickness between bushes as per Rule
as fitted

Is the after end of the liner made watertight in the

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

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

wo liners are fitted, is the shaft lapped or protected between the liners No

Is an approved Oil Gland or other appliance fitted at the after end of the tube

No If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 1' - 8"

eller, dia. 47"

Pitch 37 1/2"

No. of blades 3

Material Bronze

whether Moveable No

Total Developed Surface 5.2 sq. feet

hod of reversing Engines Direct

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes

Means of lubrication

Thickness of cylinder liners Asbestos

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with

conducting material Yes/ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Overhead

ling Water Pumps, No. Two

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. Two

Diameter

Stroke

Can one be overhauled while the other is at work

Yes

aps connected to the Main Bilge Line { No. and Size two 2 3/4" x 1-11/16" & one 2 1/2" Auxiliary (Rotary Type)

How driven 2 off Main Engines and 1 from Auxiliary Engine by V belt countershaft

he 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

last Pumps, No. and size

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 off each engine

two independent means arranged for circulating water through the Oil Cooler Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size:—In Machinery Spaces One 2" dia.

In Pump Room

olds, &c. Eight 2" dia.

One 2" dia

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Yes

Are the Bilge Suctions in the Machinery Spaces

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes

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 No

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

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

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

partment 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. Two

No. of stages Two

Diameters

Stroke

Driven by Main Engines

liary Air Compressors, No. One

No. of stages Two

Diameters

Stroke

Driven by Aux. Engine.

ll Auxiliary Air Compressors, No. ---

No. of stages Two

Diameters

Stroke

Driven by

provision is made for first Charging the Air Receivers

venting Air Pumps, No. One (each Main eng)

Stroke

Driven by Main Engine

liary Engines crank shafts, diameter as per Rule

No.

One two-cylinder

Position

after end of engine room

the Auxiliary Engines been constructed under special survey

Is a report sent herewith

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015338-015347-0243

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

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. **333** Cubic capacity of each **---** Internal diameter **---** thickness **---**
 Seamless, lap welded or riveted longitudinal joint **Yes** Material **---** Range of tensile strength **---** Working pressure **---**
 by Rules **---** Actual **---**

Starting Air Receivers, No. **Four** Total cubic capacity **600 litres** **External** dia **438 m.m.** thickness **---**
 Seamless, lap welded or riveted longitudinal joint **Yes** Material **Steel** Range of tensile strength **---** Working pressure **---**
 by Rules **---** Actual **350 lb**

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 **(Plans as hereunder forwarded)** Separate Fuel Tanks **---**
 (If not, state date of approval)

Donkey Boilers **---** General Pumping Arrangements **---** Pumping Arrangements in Machinery Space **Yes**

Oil Fuel Burning Arrangements **---**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **2 spare propellers and one spare tail shaft**

State the principal additional spare gear supplied **Box of spares for main & auxiliary engines as per List forwarded**

Plans forwarded under separate cover :

1002/191B Arrangement & details of Sterntube and Tailshaft

2-866A Propeller

1002/205 Sheet I & Sheet 2, Arrangement of Bilge & Ballast piping.

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

Dates of Examination of principal parts—Cylinders	Covers	Pistons	Rods	Connecting rods
Crank shaft	Flywheel shaft	Thrust shaft	Intermediate shafts	Tube shaft
Screw shaft	Propeller	Stern tube	Engine seatings	Engines holding down bolts
Completion of fitting sea connections	Completion of pumping arrangements	Engines tried under working conditions		
Crank shaft, Material	Identification Mark	Flywheel shaft, Material	Identification Mark	
Thrust shaft, Material	Identification Mark	Intermediate shafts, Material	Identification Marks	
Tube shaft, Material	Identification Mark	Screw shaft, Material	Identification Mark	
Identification Marks on Air Receivers				

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 **- as per Rpt & Letter herewith**

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, &c. **An examination made of the machinery already installed and nearing completion at the Builders Yard, subsequently when vessel on slipway and afterwards under working conditions on full power trials.**

The machinery appears to be properly installed and in good condition throughout, and in my opinion will be eligible for record of L.M.C. 2,46 when the Special Survey is completed and Rules requirements complied with (See also Rpt. 9 and letters dated 20/2/46 regarding the case).

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee **£** : : When applied for, **19**
 Special **£** : : :
 Donkey Boiler Fee **£** : : When received, **19**
 Travelling Expenses (if any) **£** : : :

Committee's Minute

Assigned

FRI. 31 MAY 1946

Engineer Surveyor to Lloyd's Register of Shipping



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