

REPORT ON OIL ENGINE MACHINERY.

No. 21,344

17 6 MAR 1948

Date of writing Report 5th Jan 1948

When handed in at Local Office

19

Port of

Received at London Office

SYDNEY N.S.W.

No. in Survey held at PORT KEMBLA & SYDNEY N.S.W.

Date, First Survey

19/9/46

Last Survey

12/1/

1948

Reg. Book.

Number of Visits 21

Single
on the Twin
Triple
Quadruple

Screw vessel

"CHELMER"

Tons

Gross 209.64
Net 112.05

Built at PORT KEMBLA

By whom built A.E. GOODWIN LTD.

Yard No. 76

When built 1947

Engines made at MELBOURNE

By whom made COMMONWEALTH ORDINANCE FACTORY

Engine No. M277

When made 1946

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 366

Owners THE ANGLO SAXON PETROLEUM CO. LTD.

Port belonging to

SYDNEY N.S.W.

Nom. Horse Power as per Rule 74.8

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES

Trade for which vessel is intended COASTING SERVICE EAST INDIAN ARCHIPELAGO.

OIL ENGINES, &c. — Type of Engines RUSTON & HORNSBY 6 V.C.B.M.

2 or 4 stroke cycle 4

Single or double acting SINGLE

Maximum pressure in cylinders 752 LBS/SQ. IN.

Diameter of cylinders 8"

Length of stroke 10.75"

No. of cylinders 6

No. of cranks 6

Mean Indicated Pressure

Span of bearings, adjacent to the crank, measured from inner edge to inner edge 9 1/8"

Is there a bearing between each crank YES

Revolutions per minute 600

Flywheel dia. 2'-10"

Weight 1388.8 LBS

Means of ignition COMPRESSION

Kind of fuel used POOL DISTILLATE

Crank Shaft, Solid forged

dia. of journals as per Rule

as fitted 6"

Crank pin dia. 4.75

Crank webs

Mid. length breadth 8"

Mid. length thickness 2 1/2"

shrunk

Thickness parallel to axis

Thickness around eye-hole

Flywheel Shaft, diameter

as per Rule

as fitted BOLTED TO 11" FLANGE ON CRANK SHAFT

Intermediate Shafts, diameter

as per Rule

as fitted 4.375

Thrust Shaft, diameter at collars

as fitted 4.25 TO 4.027

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted 4.25

Is the

tube screw

shaft fitted with a continuous liner

No

Bronze Liners, thickness in way of bushes

as per Rule

as fitted 3.75"

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the

propeller boss YES

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 2 LINERS

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 PAINTED

Is an approved Oil Gland or other appliance fitted at the after end of tube shaft No

If so, state type

Length of bearing in Stern Bush next to and supporting propeller BUSH 16 7/8"

Propeller, dia. 4'-8" Pitch 4'-3" No. of blades 3 Material BRONZE whether moveable No Total developed surface 8 sq. feet

Method of reversing Engines GEAR BOX Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES

Means of lubrication FORCED Thickness of cylinder liners 1/16 1/2" 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

Cooling Water Pumps, No. 3 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. 2 Diameter 3 1/2" Stroke 3 1/2" Can one be overhauled while the other is at work YES

Pumps connected to the Main Bilge Line No. and size TWO PUMPER PUMPS 3 1/2" x 3 1/2" ONE 2 1/2" VIKING INTERNAL GEAR PUMP, CAPACITY 90 GALS PER MIN

How driven ONE FROM EACH MAIN ENGINE BEAT DRIVEN BY AUXY DIESEL ENGINE

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

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

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 1-2" FROM BILGE LINE & 2 DIRECT SUCTIONS AS UNDER

In pump room

In holds, &c. TWO 2" IN HOLD, ONE 2" IN OFFERDAM, ONE 2" EACH SIDE IN AFTER PEAK SPACE

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-2" FROM VIKING PUMP & 1-2" FROM STARAD. M.E. BILGE PUMP

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 VALVES

Are 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

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

What pipes pass through the bunkers NONE

How are they protected

What pipes pass through the deep tanks NONE

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 YES

Is it fitted with a watertight door

worked from

If 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. TWO

No. of stages TWO

diameters 2 1/2" & 4" stroke 3" driven by MAIN ENGINES

Auxiliary Air Compressors, No. ONE

No. of stages TWO

diameters 2 1/2" & 4" stroke 3" driven by AUXY ENGINE

Small Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

What provision is made for first charging the air receivers AUXY COMPRESSOR DRIVEN BY HAND STARTED AUXY ENGINE

Scavenging Air Pumps, No.

diameter

stroke

driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted 2 3/8"

No. ONE

Position FORWARD END OF ENGINE ROOM

Have the auxiliary engines been constructed under special survey No

Is a report sent herewith YES

5700-21810-508110

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AIR RECEIVERS:—Have they been made under survey.....No. ✓ 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. NONE ✓ Cubic capacity of each..... Internal diameter..... thickness.....
Seamless, lap welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure..... by Rules.....
Starting Air Receivers, No. 4 ✓ Total cubic capacity 44.8 CUB. FT. Internal diameter 23 7/8" thickness 5/16" Actual.....
Seamless, lap welded or riveted longitudinal joint No LONG. JOINT. Material M.S. Range of tensile strength..... Working pressure..... by Rules.....
ONE CIRCUMFERENTIAL JOINT BUTT WELDED. Actual 300 LBS./sq.

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.....* Receivers.....* Separate fuel tanks.....
(If not, state date of approval)
Donkey boilers..... General pumping arrangements.....* Pumping arrangements in machinery space.....*
Oil fuel buring arrangements..... * These are duplicates of those fitted in M.S. "BUCKIE" Syd. Rpt. 20830 for which plans were forwarded.

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....YES.
State the principal additional spare gear supplied. Same spare gear as for M.S. BUCKIE. Syd. Rpt. 20830

The foregoing is a correct description,

Surveyor to Lloyd's Register of Shipping

Manufacturer.

Dates of Survey
a/c building
During progress of work in shops - 1946 19 Sept., 25 Oct., 14.26 Nov., 12 Dec.
During erection on board vessel - 1947 13 Jan., 5.14 Feb., 24 April, 19 May, 10 July
1948 15.17 Sept., 1 Oct., 16.22.28 Oct., 5.27 Nov.
Total No. of visits 21.

Dates of examination of principal parts—Cylinders 26/11/46 Covers 26/11/46 Pistons 26/11/46 Rods 26/11/46 Connecting rods 26/11/46
Crank shaft 26/11/46 12/12/46 Flywheel shaft..... Thrust shaft 12/12/46 Intermediate shafts 14/2/47 Tube shaft.....
Screw shaft 14/2/47 Propeller 19/5/47 Stern tube 14/2/47 Engine seatings 25/10/46 Engine holding down bolts 12/12/46.
Completion of fitting sea connections 10/9/47 Completion of pumping arrangements 16/10/47 Engines tried under working conditions 16/10/47.
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. FORD PORT AFT PORT FORD STARP AFT STARP
↑ 411 ↑ 116 ↑ 422 ↑ 279

(ALL) "TESTED TO 600 LBS. 38B-346"

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 Eight 2-gallon hand chemical extinguishers and four water hoses.
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.....Yes. If so, state name of vessel M.S. BUCKIE. Syd Rpt. 20830.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery is new and unused.
This machinery was not built under the Society's Special Survey but under Army inspection as in the case of the sister vessel "BUCKIE". The machinery has been installed in the vessel under our survey, opened up and examined in accordance with Rule requirements for "Special Survey", found in good condition properly installed and has been tested under working conditions with satisfactory results. The materials and workmanship throughout are good.
The machinery is, in our opinion, eligible to be classed with record of L.M.C. 1'48 to be made in the Register Book.

The amount of Entry Fee ... £ :
Special ... £ 33 :
Donkey Boiler Fee... £ :
Travelling Expenses (if any) £ :
When applied for 13/10/1947
When received 19

FRL 9 APR 1948

Committee's Minute

Assigned

L.M.C. 1'48

with endorsement

A. Seward & B.P. Fiedler
Engineer Surveyors to Lloyd's Register of Shipping.

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