

REPORT ON OIL ENGINE MACHINERY.

No. 110,623

Date of writing Report

21. Aug 42

When handed in at Local Office

3 SEP 1942

Port of

London

Date, First Survey

17. July 1942

Last Survey

18 Aug 1942

Number of Visits

5

in Survey held at

Bedford.

Book.

136 on the

Single

Triple

Quadruple

Screw vessel

M.V. "GOLDFINDER."

Tons { Gross 294
Net 166

Built at

Harburg

By whom built

G. Renck jun K.G.

Yard No.

When built 1938.6

Engines made at

Bedford

By whom made

W.H. Allen Sons & Co Ltd

Engine No.

When made 1942.

Boilers made at

By whom made

Boiler No.

When made

Indicated Horse Power

250

Owners

J. J. Wilson

Port belonging to

London

Nominal Horse Power as per Rule

48

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

L. ENGINES, &c.

Type of Engines

Heavy Oil

2 or 4 stroke cycle

Single or double acting

Maximum pressure in cylinders

750 lb/sq. in.

Diameter of cylinders

230 Z

Length of stroke

300 Z

No. of cylinders

6

No. of cranks

6

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

282 Z

Is there a bearing between each crank

Yes

Revolutions per minute

600

Flywheel dia.

1040 Z

Weight

1400 lb

Means of ignition

Compression

Kind of fuel used

Diesel Oil

Crank Shaft, dia. of journals

as per Rule

270

as fitted

139 Z

Crank pin dia.

150 Z

Crank Webs

Mid. length breadth

70 Z

shrink

Thickness parallel to axis

-

Crank Shaft, dia. of journals

as fitted

140 Z

as per Rule

as fitted

as per Rule

as fitted

as per Rule

as fitted

as per Rule

as fitted

as per Rule

as fitted

Flywheel Shaft, diameter

as per Rule

as fitted

crank shaft

Intermediate Shafts, diameter

as per Rule

as fitted

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule

as fitted

150 Z

in way of collar

Main Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

tube

screw

shaft fitted with a continuous liner

-

Is the after end of the liner made watertight in the

-

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

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

-

If so, state type

-

Length of Bearing in Stern Bush next to and supporting propeller

-

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

Clutch

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

Yes

Means of lubrication

-

Thickness of cylinder liners

17 Z

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

-

Non-conducting material

-

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.

one

90 Z x 80 Z

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

-

Bilge Pumps worked from the Main Engines, No.

one

Diameter

90 Z

Stroke

80 Z

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

(one 90 Z x 80 Z)

How driven

Main engine

Ballast Pumps, No. and size

-

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

-

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

-

Pumps, No. and size:—In Machinery Spaces

-

In Holds, &c.

-

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

-

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

-

Are they fitted with Valves or Cocks

-

Are all Sea Connections fitted direct on the skin of the ship

-

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

-

Are the Overboard Discharges above or below the deep water line

-

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

-

Are the Blow Off Cocks fitted with a spigot and brass covering plate

-

How are they protected

-

Have they been tested as per Rule

-

What pipes pass through the bunkers

-

What pipes pass through the deep tanks

-

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

-

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

-

Is the Shaft Tunnel watertight

-

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.

-

No. of stages

-

Diameters

-

Stroke

-

Driven by

-

Auxiliary Air Compressors, No.

-

No. of stages

-

Diameters

-

Stroke

-

Driven by

-

Small Auxiliary Air Compressors, No.

-

No. of stages

-

Diameters

-

Stroke

-

Driven by

-

Scavenging Air Pumps, No.

-

Diameter

-

Stroke

-

Driven by

-

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

-

Can the internal surfaces of the receivers be examined and cleaned

-

Is a drain fitted at the lowest part of each receiver

-

High Pressure Air Receivers, No.

-

Cubic capacity of each

-

Internal diameter

-

Thickness

-

Seamless, lap welded or riveted longitudinal joint

-

Material

-

Range of tensile strength

-

Working pressure

-

Actual

-

Starting Air Receivers, No.

-

Total cubic capacity

-

Internal diameter

-

Thickness

-

Seamless, lap welded or riveted longitudinal joint

-

Material

-

Range of tensile strength

-

Working pressure

-

Actual

-

Rpt. to Dub. 16.9.42

063838-063845-063846

IS A DONKEY BOILER FITTED?

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
(If not, state date of approval)

23.5.39

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

3 supplies: one set of piston rings; 1 set of cylinder head studs and nuts; 1 set of rubber joint rings; 1 gudgeon pin & bush; 1 bottom end bearing with bolts and nuts; 2 main bearing bolts & nuts; 1 set of coupling bolts; 3 links for cam shaft chain; 1 fuel pump complete; 1 injection pipe

The foregoing is a correct description,

W.H. ALLEN, SONS & Co., Ltd. Manufacturer.

H.A. Clarke. 28/8/42.

Dates of Survey while building

During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

1942. July 17, 21, 24 Aug 11 18

5

Dates of Examination of principal parts—Cylinders 17.7.42 Covers 24.7.42 Pistons 17.7.42 Rods 21.7.42 Connecting rods 21.7.42

Crank shaft 17.7.42 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 11.8.42

Crank shaft, Material Steel Identification Mark 18.5.88 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

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) This engine was originally not constructed under Special Survey, but on completion was tested upon the bench and afterwards placed in stock. see correspondence

The engine was dismantled, engine frame examined & tested by hydraulic pressure, liner tested to 1000 lb. cylinder heads renewed; all forgings examined & the steel found to have been made at approved works & tested in accordance with the requirements of the Rules. The engine was reconstructed under Special Survey, the workmanship is good and on completion was tested upon the bench under full & overload condition ahead & astern and found satisfactory & is eligible in my opinion to have the record of T.H.C. (with date) when fitted on board the vessel. The engine has now been dispatched to Dublin for fitting on board.

The amount of Entry Fee .. £ : : When applied for,

Special 2/3 of £15 .. £ 10 : 0 : 0 3 SEP 1942

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ 1 : 17 : 6

Committee's Minute TUE 15 DEC 1942

Assigned See Sub. 5793

A.H. Barnett
Engineer Surveyor to Lloyd's Register of Shipping.



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