

REPORT ON OIL ENGINE MACHINERY.

Received at London Office 14 JUN 1947

Date of writing Report

19

When handed in at Local Office

13 June 1947

Port of

Sunderland

No. in Survey held at Reg. Book.

Date, First Survey

21 Oct 1946

Last Survey

3 June 1947

Number of Visits

49

Single on the TWIN Triple Screw vessel

"BRITISH ISLES"

Tons Gross 3738 Net 4984

Built at **Haverhill**

By whom built

JAMES S.B. CO. LTD.

Yard No

394

When built

1944

Engines made at

Sunderland

By whom made

W. SAFFORD & SONS LTD.

Engine No.

259

When made

1944

Donkey Boilers made at

Wallsend

By whom made

N.E. MARINE ENGRS (1937) LTD.

Boiler No.

2769

When made

1947

Brake Horse Power

3100

Owners

British Tanker Co. Ltd.

Port belonging to

London

Nom. Horse Power as per Rule

684

Is Refrigerating Machinery fitted for cargo purposes

de

Is Electric Light fitted

yes

Trade for which vessel is intended

Tanker

OIL ENGINES, &c.

Type of Engines **Approved piston airless injection or 4 stroke cycle 2** Single or double acting **Single**

Maximum pressure in cylinders

640 lbs/sq. in.

Diameter of cylinders

600 mm

Length of stroke

Upper 980 mm Lower 1340 mm

No. of cylinders

4

No. of cranks **4 (3 throw)**

Mean Indicated Pressure

85 lbs/sq. in.

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

886 mm

Is there a bearing between each crank

Between each 3 throw

Revolutions per minute

2450 rpm

Weight

3.26 tons

Means of ignition

Compression

Kind of fuel used

Crank Shaft

Solid forged

dia. of journals

431 mm

as per Rule

Crank pin dia.

450 mm

Mid. length breadth

650 mm

Thickness parallel to axis

255 mm

Flywheel Shaft, diameter

431 mm

as per Rule

Intermediate Shafts, diameter

450 mm

as per Rule

Thrust Shaft, diameter at collars

450 mm

as per Rule

450 mm

Tube Shaft, diameter

450 mm

as per Rule

Screw Shaft, diameter

450 mm

as per Rule

Is the tube shaft fitted with a continuous liner

Yes

as fitted

Yes

Bronze Liners, thickness in way of bushes

as per Rule

Thickness between bushes

as per Rule

Is the after end of the liner made watertight in the propeller boss

Yes

as fitted

Is the after end of the liner made watertight in the propeller boss

Yes

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

Is the space charged with a plastic material insoluble in water and non-corrosive

Yes

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

Yes

Length of Bearing in Stern Bush next to and supporting propeller

110 mm

Method of reversing Engines

Hand lever

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

Yes

Means of lubrication

Water cooled

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

Yes

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

one engine driven

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

Yes

Can one be overhauled while the other is at work

Yes

No. and Size

one engine driven 110 mm x 510 mm

How driven

one engine driven

Is the cooling water led to the bilges

Yes

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

one engine driven

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

one engine driven 110 mm x 510 mm

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

one engine driven

In Holds, &c.

one engine driven

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

one engine driven

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

Yes

Are the Bilge Suctions 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

Yes

Are the Overboard Discharges above or below the deep water line

Yes

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

Yes

How are they protected

Yes

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

Yes

worked from

Yes

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Yes

Main Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

one engine driven

Auxiliary Air Compressors, No.

one engine driven

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

one engine driven

Is provision made for first Charging the Air Receivers

Yes

Reversing Air Pumps, No.

one engine driven

Diameter

1510 mm

Stroke

510 mm

Driven by

one engine driven

Auxiliary Engines crank shafts, diameter

as per Rule

No.

one engine driven

Position

one engine driven

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Yes

one engine driven

one engine driven

one engine driven

one engine driven

Revised from main subject



Lloyd's Register

002583-002591-0019

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

Is a drain fitted at the lowest part of each receiver

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

Thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

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

by Rules

Actual

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 the Ship (If not, state date of approval)

4/3/45

Case. 1803
20/1/45

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes (Engines only)

State the principal additional spare gear supplied

1 Cylinder liner & packet Complete, 1 upper & lower piston skirt, 4 Scrapers on
1 main piston head, 4 main piston rings, 4 fuel valves Complete, 8 Spray Flaps, 1 Centre Cam. rod ball
bearings (sph.), 2 Side Cam rod ball end sph. bearings, 1 main bearing, 2 main bearing slides & nuts
4 Centre & Side (each) top & ball end bearing balls & nuts, 2 Side rod ball & nuts, 1 Set. Crankpin ball & nuts
2 N.R. Starting valves, 2 Cyl. relief valves, 1 fuel pump & fuel chamber, 2 fuel pump bodies Complete with
valves, 1 Sew. pump del. valve, ditto for suction, 1 Set. Pads for thrust, 8 rubber hoses for piston cooling
1 roller chain for camshaft drive.
For further description is a correct description.

WILLIAM DOXFORD & SONS, LIMITED.

Manufacturer.

Director		1946 - Oct 21, 25, 29, 30, 31. Nov 12, 19, 21, 22. Dec 2.	
Dates of Survey while building	work in shops - -	1947 - Jan 7, 20, 22, 23, 24, 29, 30. Feb 17, 19, 24, 27, 28. Mar 17, 18, 19, 20, 21, 24, 26. Apr 2, 9, 14, 22, 23, 25, 29, 30. May 1, 6, 7, 13, 15, 16, 19, 21, 27, 29. Jun 2, 3.	
	board vessel - -		
Total No. of visits		49	
Dates of Examination of principal parts -		Cylinders 20/1/47, 22/1/47	
Crank shaft		29/4/47	
Flywheel shaft		as crank	
Thrust shaft		as crank	
Intermediate shafts		-	
Tube shaft		-	
Screw shaft		-	
Propeller		-	
Stern tube		-	
Engine seatings		-	
Engines holding down bolts		-	
Engines tried under working conditions		2nd 13th June 47	
Completion of fitting sea connections		-	
Completion of pumping arrangements		-	
Crank shaft, Material	Ingot Steel	Identification Mark	No 259 WHF. 29/4/47.
Flywheel shaft, Material	as crank	Identification Mark	as crank.
Thrust shaft, Material	as crank	Identification Mark	as crank
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. -

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

Description of fire extinguishing apparatus fitted -

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 -

Is 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 **"BRITISH ENSIGN"**.

General Remarks (State quality of workmanship, opinions as to class, &c.) **This machinery has been built under Special Survey in accordance with the approved plans & the rules of the Society. The materials & workmanship are good. On completion it has been tried under full load conditions on test with satisfactory results. It has now been despatched to Harston Mill for installation on board the vessel & on this being completed satisfactorily the machinery will be eligible, in my opinion, to have notation of LMC (with date) oil**

The amount of Entry Fee	£ 6	When applied for,	JUN 13 1947
2/3 Special	£ 42	18	
Donkey Boiler Fee	£ 12	12	
Traveling Expenses (if any)	£		19

Committee's Minute **FR, 10 OCT 1947**

Assigned **See F.E. mch. rpt.**

J. St. Kasev.
Engineer Surveyor to Lloyd's Register of Shipping.

