

Newcastle-on-Tyne

94780

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY

No. 32004

16 JAN 1937

Received at London Office

Date of writing Report

19

When handed in at Local Office

15 JAN 1937

Port of

Sunderland

No. in Survey held at
Reg. Book.

Date, First Survey

21st Sep.

Last Survey

12th Jan 1937

Number of Visits

40

Single
on the ~~Twin~~ Screw vessel
Triple
Quadruple

M. V. "ABBEYDALE"

Tons { Gross 8299
Net 4936

Built at

Newcastle

By whom built

Lwan Hunter & Whigham Richardson Ltd

Yard No.

1506

When built

1934

Engines made at

Sunderland

By whom made

Wm. Daxford & Sons Ltd

Engine No.

195

When made

1934

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

2850

Owners

British Tanker Co Ltd

Port belonging to

Nom. Horse Power as per Rule

684

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.

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

Maximum pressure in cylinders

540 lbf/sq in

Diameter of cylinders

600 in

Length of stroke

Upper 980 in

No. of cylinders

4

No. of cranks

4 Three throw

Mean Indicated Pressure

84 lbf/sq in

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

FOR 2050 in

940 in

Is there a bearing between each crank

Revolutions per minute

94

Flywheel dia.

AFT 2450 in

Weight

88 cwt

Means of ignition

Compression

Kind of fuel used

Crank Shaft, dia. of journals

as per Rule 425 in

as fitted 450 in

Crank pin dia.

450 in

Crank Webs

Mid. length breadth 650 in

shrink

Thickness parallel to axis

255 in

Flywheel Shaft, diameter

as per Rule 425 in

as fitted 450 in

Intermediate Shafts, diameter

as per Rule 450 in

as fitted

Thrust Shaft, diameter at collars

as per Rule 425 in

as fitted 450 in

Tube Shaft, diameter

as per Rule

Screw Shaft, diameter

as per Rule

Is the

tube

screw

shaft fitted with a continuous liner

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

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

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

shaft

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

Hand lever

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

Yes

Means of lubrication

Land & forced

Thickness of cylinder liners

25 in

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

Cooling Water Pumps, No.

one main engine driven

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

Bilge Pumps worked from the Main Engines, No.

none

Diameter

Stroke

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

How driven

Is the cooling water led to the bilges

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

Ballast Pumps, No. and size

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

one main engine driven 100 in x 610 in

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 Pump Room

In Holds, &c.

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

Are the Bilge Suctions in the Machinery Spaces

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

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

Are they fitted with Valves or Cocks

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

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks

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

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.

one

Diameter

1960 in

Stroke

610 in

Driven by

Revers from main engine

Auxiliary Engines crank shafts, diameter

as per Rule

No.

Position

as fitted

002352-002361-0073

AIR 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 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 Shafting 20/11/35. Receivers Separate Fuel Tanks
(If not, state date of approval)

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.

State the principal additional spare gear supplied One cylinder liner & pack. Complete, one starting air non-return valve complete, one cyl. relief valve complete, 4 Scavenge pump Suct. & del. valve discs (halves), two fuel pump bodies complete with Suct. & del. valves, one intermediate crosshead with 2 pins & nuts, 1 bell crank lever & suction tappet for fuel pump, four fuel valves complete, 1 roller chain for Camshaft drive.

The foregoing is a correct description,

WILLIAM DOXFORD & SONS, Limited. Manufacturer.

Dates of Survey while building During progress of work in shops - 1936. Sep. 21, 25, 29. Oct. 21, 22, 29. Nov. 5, 11, 12, 13, 16, 17, 18, 19, 23, 24, 25, 26, 27, 30. Dec. 2, 4, 7, 9, 11, 14, 15. During erection on board vessel - 16, 21, 22, 23, 24, 29, 31. 37/ Jan. 4, 5, 6, 8, 11, 12. Sld 40 visits. Total No. of visits 21/9/36 25/9/36 21/12/36 31/12/36 23/12/36 23/12/36 14/12/36

Dates of Examination of principal parts—Cylinders 11/11/36 11/12/36 Covers ✓ Pistons 23/12/36 Rods 23/12/36 Connecting rods 14/12/36
Crank shaft 20/11/36 (G.L.S.) Flywheel shaft as crank Thrust shaft as crank 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 High Steel Identification Mark S.O. 4185 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

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 Yes. If so, state name of vessel M/V "BRITISH FAME".

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under Special Survey in accordance with the Rules of the Society & the Secretary's letter E 25/4/34.

The materials & workmanship are good.
The engine has been tried under full load conditions on the test bed with satisfactory results & has been despatched to Messrs Swan Hunter & Wigham Richardson & Co. Ltd. Wallsend for installation on board the vessel, after which it will be, in my opinion, eligible to have notation LMC (with date) oil & gas.
These engines have been satisfactorily installed on the ship and tried under working conditions. A. Watt Newcastle on Tyne

The amount of Entry Fee .. £ 6 : : When applied for, 15 JAN 1937
4/5 Special .. £ 84 : 10 :
Welded Const? .. £ 12 : 12 :
Donkey Boiler Fee .. £ : :
1/5 Travelling Expenses (if any) £ : :
1/5 to be charged at Nwc.
Committee's Minute

Assigned

See Nwc. J.E. 947 80

D. St. Fraser.

Engineer Surveyor to Lloyd's Register of Shipping.



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