

REPORT ON OIL ENGINE MACHINERY.

No 23848

Received at London Office

21 APR 1949

Date of writing Report 5th APRIL 1949. When handed in at Local Office 7th APRIL 1949. Port of GREENOCKNo. in Survey held at
Reg. Book.

GREENOCK

Date, First Survey 19th MARCH 1948. Last Survey 30th MARCH 1949.

Number of Visits 72.

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

BRITISH PRUDENCE

Tons } Gross
 } Net

Built at GLASGOW

By whom built BLYTHSWOOD S/B CO LD

Yard No. 90 When built 1949

Engines made at GREENOCK

By whom made JOHN C KINCAID & CO LD

Engine No. K201 When made 1949

Donkey Boilers made at do

By whom made do

Boiler No. K201 When made 1949

Brake Horse Power 3200

Owners BRITISH TANKER CO LD

Port belonging to

Nom. Horse Power as per Rule 625 = ⁴⁸⁸ ₄₈₈

Is Refrigerating Machinery fitted for cargo purposes

No. Is Electric Light fitted YES

Trade for which vessel is intended

OPEN SEA SERVICE

Type of Engines DIESEL (under piston supply) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 650 lb

Diameter of cylinders 740

Length of stroke 1500

No. of cylinders 6

No. of cranks 6

Mean Indicated Pressure 115 lb

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 988

Is there a bearing between each crank YES

Revolutions per minute 115

Flywheel dia. 2489

Weight 2499 Kgs

Means of ignition Compression

Kind of fuel used Diesel Oil

Crank Shaft, Solid forged

dia. of journals as per Rule 44

Crank pin dia. 505

Crank Webs

Mid. length breadth 980

Thickness parallel to axis 310

Flywheel Shaft, diameter as per Rule 44

Intermediate Shafts, diameter as per Rule 44

Thrust Shaft, diameter at collars as per Rule 44

Screw Shaft, diameter as per Rule 44

Screw Shaft, diameter as per Rule 44

Is the shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 3/4

as fitted 13/16

Thickness between bushes as per Rule 9/16

as fitted 13/16

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

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

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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 5-4

Propeller, dia. 15'-9"

Pitch 10'-9"

No. of blades 4

Material M.B.

whether Moveable No

Total Developed Surface 88

sq. feet

Method of reversing Engines Air Servo Motor

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

Means of lubrication

Thickness of cylinder liners 53 top

41 bottom

Are the cylinders fitted with safety valves YES

Are the exhaust pipes and silencers water cooled or lagged with

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

Suction Water Pumps, No. 4

1-2 STEAM

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

Suction Pumps worked from the Main Engines, No. None

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

One 170 tons/hr

Two 100 tons/hr

How driven

STEAM

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

Fast Pumps, No. and size

One @ 170 tons/hr

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

1 Main Eng 100 tons/hr

STEAM 100 tons/hr

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

Three @ 3 1/2"

In Pump Room

Holds, &c.

Two @ 2 1/2"

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

Two @ 6"

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

YES

Are the Bilge Suctions in the Machinery Spaces

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 Both

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

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 YES

pipes pass through the bunkers

None

How are they protected

pipes pass through the deep tanks

YES

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

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

None

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

YES

Main Air Compressors, No.

Two

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

Two

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

Two

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

Steam compressor as above

Suctioning Air Pumps, No.

Two

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

No.

Position

Have the Auxiliary Engines been constructed under special survey

YES

Is a report sent herewith

Southampton Code N° D3220/1.

003800-003807-0105

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Foundation

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

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No. *None* Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No. *Two*

Total cubic capacity *900 cu ft.*

Internal diameter *6'-0" & 5'-10"*

Thickness

by Rules

Actual

Seamless, lap welded or riveted longitudinal joint

TRDBS

Material

SMS

Range of tensile strength

29/33 Tons

Working pressure

by Rules

Actual

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

Is the donkey boiler intended to be used for domestic purposes only

No

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

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

State the principal additional spare gear supplied

Spare Screw shaft 110405/6351 3-9-48 CNH.

The foregoing is a correct description.

For JOHN G. KINCAID & CO., LIMITED.

Manufacturer.

Dates of Survey while building

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

(1948) MAR. 19. 26. APRIL 2. MAY 13. 18. JUNE 10. 11. 15. 18. 24. 30. JULY 19. 23. AUG. 4. 6. 16. 17. 19. 25.

SEPT 3. 8. 10. 13. 15. 17. 20. 24. 27. 28. 30. OCT. 6. 11. 13. 18. 25. 28. NOV. 3. 10. 12. 17. 19. 23. 29. DEC. 1. 2. 9. 13. 14. 15. (1949) JAN. 10. 12. 13.

Dates of Examination of principal parts—Cylinders

28/9/48

28/9/48

Pistons

Rods

Connecting rods

Crank shaft

13-12-48

Flywheel shaft

✓

Thrust shaft

13-12-48

Intermediate shafts

10-11-48

Tube shaft

Screw shaft

3-9-48

Propeller

11-11-48

Stern tube

20-9-48

Engine seatings

13-1-49

Engines holding down bolts

Completion of fitting sea connections

20-12-48

Completion of pumping arrangements

30-3-49

Engines tried under working conditions

30-3-49

Crank shaft, Material

S

Identification Mark

4916423

Flywheel shaft, Material

✓

Identification Mark

✓

Thrust shaft, Material

S

Identification Mark

4916357

Intermediate shafts, Material

S

Identification Marks

4916384 10-11-48

Tube shaft, Material

✓

Identification Mark

✓

Screw shaft, Material

S

Identification Mark

4916351 3-9-48

Identification Marks on Air Receivers

2481- N° 2498 A & B

110405 TEST

584 11/16"

WP 356 11/16"

CNH 17-9-48

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

Steam under boiler and engine platform. 10-2 gal portable, 1-10 gal with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

tanker

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

No

Is this machinery duplicate of a previous case

Yes

If so, state name of vessel

BRITISH PROGRESS CRK. FE N° 23800

General Remarks (State quality of workmanship, opinions as to class, &c.)

This machinery has been constructed and

Special survey in accordance with the Rules & approved plans. The materials and workmanship are sound & good. The engine & boilers have been efficiently installed in the vessel & tested during a sea trial under full working conditions with satisfactory results.

This installation is eligible in my opinion to be Classed in the Society Register Book with Record + LMC 3-49 & Notation Screw Shaft CL. 2DBs 150lb/ft fitted for oil fuel FP above 150° F.

Forging certificates common to this engine and K189, K190, K200, & K202 already reported are now forwarded

The amount of Entry Fee .. £ 200 : 0 :
Special £ : :
Donkey Boiler Fee ... £ 59 : 10 :
Travelling Expenses (if any) £ 16 : 0 :
Air RECEIVERS

When applied for,

8 APRIL 1949

When received,

Committee's Minute

Assigned - 1/ June 3.49 air by 2 DBs 150 lb.

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation