

REPORT ON OIL ENGINE MACHINERY

No. 32469

SEP 13 1938

Received at London Office

pt. 4b.

Date of writing Report

Date in Survey held at

eg. Book.

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~

uilt at

Engines made at

Monkey Boilers made at

ake Horse Power

m. Horse Power as per Rule

ide for which vessel is intended

When handed in at Local Office 12.9.1938 Port of Sunderland

Date, First Survey 13.12.37 Last Survey 31st August 1938

Number of Visits

" " " "

Tons Gross 27155 Net 15813

By whom built Swan Hunter & Latham Yard No. 1547 When built 1938By whom made Wm. Beard & Sons Ltd. Engine No. 204 When made 1938

By whom made Boiler No. When made

Owners Shaw Savill & Albion Ltd. Port belonging to

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

2 x 8000 2 x 1264

287 887

Type of Engines Opposed piston airless injection 2 or 4 stroke cycle 2 Single or double acting SingleMinimum pressure in cylinders 540 lb/sq. in. Diameter of cylinders 425 in. Length of stroke Upper 950 in. 2 x 5 No. of cranks TripleIndicated Pressure 95 lb/sq. in. 1080 in. Is there a bearing between each crank between each 3rd crankof bearings, adjacent to the Crank, measured from inner edge to inner edge 2355 in. 23 cwt. Means of ignition Compression Kind of fuel usedolutions per minute 133 Flywheel dia. 1410 in. Weight 50 cwt. Mid. length breadth 820 in. Thickness parallel to axis 315 in.ank Shaft, dia. of journals 560 in. Crank pin dia. 560 in. Crank Webs 315 in. Thickness around eye-hole 242.5 in.as per Rule 560 in. as fitted Intermediate Shafts, diameter 560 in. as fitted Thrust Shaft, diameter at collars 560 in. as fittedas per Rule 560 in. as fitted Screw Shaft, diameter 560 in. as fitted Is the tube screw shaft fitted with a continuous lineronze Liners, thickness in way of bushes 25 in. Thickness between bushes 25 in. Is the after end of the liner made watertight in the

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

he 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

wo 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

opeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

thod of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes. Means of lubricationThickness of cylinder liners 25 in. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged withconducting 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

oling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

ge Pumps worked from the Main Engines, No. none Diameter 1 Stroke 1 Can one be overhauled while the other is at work

pumps connected to the Main Bilge Line No. and Size How driven

he 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

ngements

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

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

Holds, &c.

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

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

all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

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

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

at pipes pass through the bunkers How are they protected

at pipes pass through the deep tanks 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

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

f 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 (each engine) Diameter 1480 in. Stroke 1480 in. Driven by Main Crank Shaft

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

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

(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

The foregoing is a correct description, Limited.

J. M. Keller

Director.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- (1937) Dec. 15. 16. 17. 20. 22. 23. 24. 30. 31 (1938) Jan. 7. 10. 11. 14. 19. 25. 26. 28. Feb. 9. 17. 18. 21. 28. Mar. 3. 7. 9. 11. 14. 17. 18. 21. 22. 23. 25. 28. 30. 31. Apr. 4. 5. 6. 8. 11. 12. 15. 22. 29. May 2. 4. 5. 6. 11. 13. 16. 17. 18. 20. 23. 24. 25. 26. 27. 30. June 1. 2. 3. 8. 9. 10. 13. 15. 16. 17. 20. 21. 23. 24. 27. 28. 29. 30. July 1. 4. 5. 6. 7. 8. 11. 12. 13. 16. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Aug. 2. 3. 10. 11. 12. 13. 17. 18. 22. 24. 25. 26. 27. 28. 29. 30. Sept. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Oct. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Nov. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Dec. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31.

Dates of Examination of principal parts—Cylinders
Flywheel shaft (G.S.) as crank. Thrust shaft as crank. Intermediate shafts
Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
Completion of fitting sea connections
Crank shaft, Material S.M. Infot. Hub Identification Mark as crank
Thrust shaft, Material S.M. Infot. Hub Identification Mark as crank
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 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. These engines have been tried under full load on the test-bed here. Satisfactory results & have been despatched to Messrs Swan Hunter & Thigham Richardson & Co. Ld. of Wallsend-on-Tyne for installation on board the vessel after which the machinery will be eligible in my opinion to have notation S.O. L.M.C. (with date) oil eng.

Note: These engines will be Starb? Outers & Port Outers. These engines have been satisfactorily put on board the vessel. Admitt Newcastle-on-Tyne

The amount of Entry Fee .. £ 38 : - : When applied for,
(Sec. 1 Letter 24/1/38) Special ... £ 130 : 12 : 19.
Donkey Boiler Fee ... £ 18 : 18 : When received,
Travelling Expenses (if any) £ : : 11. 10. 19. 38
Committee's Minute
Assigned

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