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Part 4b.

RECEIVED

# REPORT ON OIL ENGINE MACHINERY.

35304

No 106762

Received at London Office 29 NOV 1949

Date of writing Report 19 When handed in at Local Office 25 NOV 1949 19 Port of NEWCASTLE-ON-TYN

No. in Survey held at NEWCASTLE ON TYNE Date, First Survey 14.5.49. Last Survey 14.11.1949. Reg. Book. Number of Visits 45

on the <sup>Single</sup>  
~~Twin~~  
<sup>Triple</sup>  
~~Quadruple~~ Screw vessel

"FELIPES"

Tons <sup>Gross</sup> 2992  
<sup>Net</sup> 1544

Built at SUNDERLAND By whom built JOHN CROWN & SONS Yard No. 230 When built 1949

Engines made at NEWCASTLE By whom made R & W. HAWTHORN LESLIE & CO. LD. Engine No. 4064 When made 1949

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 1500 Owners ANGLO-SAXON PETROLEUM CO. LD. Port belonging to

Nom. Horse Power as per Rule 321 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c. Type of Engines HAWTHORN - WERKSPOR SUPERCHARGED stroke cycle 4. Single or double acting SINGLE

Maximum pressure in cylinders 700 LBS/SQ. IN. Diameter of cylinders 500 mm Length of stroke 1100 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 130 LBS/SQ. IN. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 640 mm Is there a bearing between each crank YES

Revolutions per minute 140 Flywheel dia. 1930 mm Weight 4.03 TNS Means of ignition COMPRESSION Kind of fuel used DIESEL OIL

Crank Shaft, <sup>Solid forged</sup>  
<sup>Semi-built</sup>  
<sup>All built</sup> dia. of journals as per Rule APPROVED Crank pin dia. 350 mm Crank Webs Mid. length breadth 660 mm Thickness parallel to axis 200 mm  
Mid. length thickness 200 mm shrunk Thickness around eyehole 154 mm

Flywheel Shaft, diameter as per Rule 300 mm Intermediate Shafts, diameter as per Rule 300 mm Thrust Shaft, diameter at collars as per Rule 300 mm

Tube Shaft, diameter as per Rule 300 mm Screw Shaft, diameter as per Rule 300 mm Is the <sup>tube</sup>  
<sup>screw</sup> shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 18.5 mm Thickness between bushes as per Rule 15 mm 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 IN ONE LENGTH

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

shaft NO If so, state type Length of Bearing in Stern Bush next to and supporting propeller 3'-11 1/2"

Propeller, dia. 11'-8" Pitch 9'-0" MEAN No. of blades 4 Material BRONZE whether Moveable NO Total Developed Surface 51 sq. feet

Method of reversing Engines COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication

FORCED Thickness of cylinder liners 32.5 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with

non-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

Cooling Water Pumps, No. 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 ROTARY Stroke 28 TNS/HR Can one be overhauled while the other is at work

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

arrangements

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

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 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

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

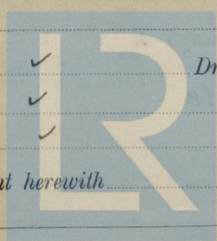
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No. NONE Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule Position

Have the Auxiliary Engines been constructed under special survey Is a report sent herewith



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AIR RECEIVERS:—Have they been made under survey. YES ✓ State No. of Report or Certificate ✓  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES ✓  
Can the internal surfaces of the receivers be examined and cleaned YES ✓ Is a drain fitted at the lowest part of each receiver YES ✓  
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 ✓  
Starting Air Receivers, No. ONE Total cubic capacity 300 cu. ft. Internal diameter 5'-3" thickness 1" No Cert. No Reg.  
Seamless, lap welded or riveted longitudinal joint ELECT WELD Material STEEL Range of tensile strength SHELL 28/32 ENDS 26/30 Working pressure by Rules Actual 350 LBS.

IS A DONKEY BOILER FITTED?

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

PLANS. Are approved plans forwarded herewith for Shafting YES ✓ (If not, state date of approval.)

Receivers APPROVED 28.6.49? 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 ✓

State the principal additional spare gear supplied AS PER ATTACHED LIST.

TORSIONAL VIBRATION CHARACTERISTICS APPROVED 27-10-48 30.9.48 for speeds of 140 R.P.M.

The foregoing is a correct description, and the Particulars of the Installation as fitted are as Approved for Torsional Vibration Characteristics.

Manufacturer.

Dates of Survey while building { During progress of work in shops-- (1949) May 14, Jun. 14, 21, 23, 24, 30, Jul. 11, 13, 15, 19, 21, 25, 24, Aug. 3, 9, 15, 17, 19, 23, 25, 29, 31, SEPT. 4, 5, 14, 20, 22, 23.  
During erection on board vessel-- 27.29. OCT. 5, 11, 13, 14, 18, 20, 24, 25, 28, Nov. 1, 3, 9, 11, 15, 17.  
Total No. of visits 45.

Dates of Examination of principal parts—Cylinder LINERS 27.6.49 etc. Covers 27.6.49 etc. Pistons 15.8.49 etc. Rods 25.7.49 etc. Connecting rods 19.7.49 etc.  
Crank shaft 29.8.49 Flywheel shaft 2.9.49 Thrust shaft 3.8.49 Intermediate shafts 20.10.49 Tube shaft ✓  
Screw shaft 20.9.49 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 F.O.H.I.S. Identification Mark HAI. 25.5.49. Flywheel shaft, Material F.O.H.I.S. Identification Mark 14561 Y.L. No. 18303  
Thrust shaft, Material F.O.H.I.S. Identification Mark 14560 Y.L. No. 18303 HAI. 23.12.48. AB. 29.9.79. LL. No. 18235  
Tube shaft, Material ✓ Identification Mark TAO. 3.8.49. Intermediate shafts, Material F.O.H.I.S. Identification Marks HAI. 22.11.48. AB. 20.10.4. 980. LL. No. 18235  
Screw shaft, Material F.O.H.I.S. Identification Mark HAI. 25.11.48. AB. 20.9.4.

Identification Marks on Air Receivers

" LLOYDS TEST : TP. 575 LBS : WP. 350 LBS : 26.10.49 : A.B."

(Constructed by R.W. HAWTHORN LESLIE & CO. LD. NEWCASTLE.)

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 NO. If so, state name of vessel ✓

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

THE MACHINERY REFERRED TO HEREIN HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY AND IN ACCORDANCE WITH THE RULES AND SECRETARY'S LETTERS, THE MATERIAL AND WORKMANSHIP ARE GOOD, AND IS IN MY OPINION ELIGIBLE FOR INSTALLATION IN A CLASSED VESSEL.

THE MACHINERY HAS BEEN FORWARDED TO SUNDERLAND FOR INSTALLATION IN MESSRS JOHN CROWN AND SONS. LD. SHIP NO 230.

The amount of Entry Fee 2/3 J. STENTRY £ 80 : 17 : 0  
Special ELECT. WELD. CONST. 5 : 10 : 0  
AIR VESSEL 6 : 0 : 0  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 28 NOV 1949  
When received, 19.

Committee's Minute

Assigned

Su F.E. mchly rpt.

Engineer Surveyor to Lloyd's Register of Shipping.



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