

## REPORT ON OIL ENGINE MACHINERY.

No. 35304

Received at London Office

Date of writing Report 19 When handed in at Local Office 10 March 1950 Port of Sunderland  
No. in Survey held at Newcastle & Sunderland Date, First Survey 5 October 1949 Last Survey 2 March 1950  
Reg. Book. Number of Visits 30  
Single on the Triple Screw vessel M.V. FELIPES Tons Gross 2992 Net 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 Ltd Engine No. 4064 When made 1949  
Donkey Boilers made at Wallsend-on-Tyne By whom made Wallsend Shipway & Eng Co Ltd Boiler No. 429B When made 1949  
Brake Horse Power 1500 Owners Anglo Saxon Petroleum Co Ltd Port belonging to London  
Nom. Horse Power as per Rule 321 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
Trade for which vessel is intended

OIL ENGINES, &c. — Type of Engines See Newcastle Report 106762 2 or 4 stroke cycle Single or double acting  
Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks  
Mean Indicated Pressure Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank  
Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used  
Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis  
Semi built as fitted Crank webs Mid. length thickness shrunk Thickness around eyehole  
All built  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted  
as fitted as fitted as fitted  
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner  
as fitted as fitted as fitted  
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 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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication  
Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with non-conducting material  
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, F.W. → M.E. Rotary 80 tons per hr. (S.W. 1 Ind. 4000) F.W. Cooling  
No. 1-8" x 8" x 10" the sea suction provided with an efficient strainer which can be cleared within the vessel  
Bilge Pumps worked from the Main Engines, No. 1 Rotary 28 tons per hr. Diameter Stroke Can one be overhauled while the other is at work  
Pumps connected to the Main Bilge Line No. and size 1-8" x 8" x 10" & 1-6" x 6" x 6" How driven Steam  
Is 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  
Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size M.E. Rotary 60 tons per hr. 1-8" x 8" x 10"  
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 1-PA 3", 1-PE 2", 15-F 2", 2-E.R. Cofferdams 2" each, Cofferdam for deep tank 3". In pump room amid. 2-4" Fore 1-2"  
In holds, &c. Tanker  
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-SA 4" & 1-P.F. 4"  
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction 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 Both  
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 above  
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 yes  
What pipes pass through the bunkers How are they protected  
What pipes pass through the deep tanks 1 suction to cofferdam 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 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. 1 No. of stages 2 diameters stroke driven by steam  
Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters stroke driven by elect motor  
What provision is made for first charging the air receivers  
Scavenging Air Pumps, No. diameter stroke driven by  
Auxiliary Engines crank shafts, diameter as per Rule as fitted Position  
Have the auxiliary engines been constructed under special survey Is a report sent herewith

004263-004274-0241



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.....✓.....Is a drain fitted at the lowest part of each receiver.....✓  
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.....✓.....Total cubic capacity.....✓.....Internal diameter.....✓.....thickness.....✓  
Seamless, lap welded or riveted longitudinal joint.....✓.....Material.....✓.....Range of tensile strength.....✓.....Working pressure.....by Rules.....✓

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.....✓.....Receivers.....✓.....Separate fuel tanks.....✓  
(If not, state date of approval)  
Donkey boilers.....✓.....General pumping arrangements.....✓.....Pumping arrangements in machinery space.....12-8-48  
Oil fuel burning arrangements.....12-8-48

#### 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,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } ✓  
During erection on board vessel - - } 1949 Oct 13, 14, 18 Nov 1, 7, 17, 22 Dec 15 1950 Jan 3, 5, 11, 23, 24, 26 Feb 2, 4, 9, 15, 17, 18, 21, 24, 27;  
Total No. of visits.....2530

Dates of examination of principal parts—Cylinders.....✓.....Covers.....✓.....Pistons.....✓.....Rods.....✓.....Connecting rods.....✓  
Crank shaft.....✓.....Flywheel shaft.....✓.....Thrust shaft.....✓.....Intermediate shafts.....✓.....Tube shaft.....✓  
Screw shaft.....✓.....Propeller.....18-10-49 Stern tube.....14-10-49 Engine seatings.....1-11-49 Engine holding down bolts.....11-1-50  
Completion of fitting sea connections.....13-10-49 Completion of pumping arrangements.....9-2-50 Engines tried under working conditions.....15-2-50  
Crank shaft, material.....✓.....Identification mark.....✓.....Flywheel shaft, material.....✓.....Identification mark.....✓  
Thrust shaft, material.....✓.....Identification mark.....✓.....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.....*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 smothering and Foamite - 1-10 galls and 6-2 galls containers*  
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.....*Not desired* ✓  
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.) This machinery (for particulars see Newcastle report N° 106762) has been securely fitted on board the vessel and tried under full working conditions with satisfactory results. The donkey boiler has also been securely fixed on board the vessel. Fitted to burn oil fuel (F.P. above 150°F) and safety valves adjusted under steam to working pressure. Section 20 of the rules has been complied with. This machinery is now eligible in my opinion to have notation +LMC 3.50 (oil eng.), T.S.C.L., 1DB 180 lbs D".

The amount of Entry Fee ... £ 40:9:0:  
Special ... £ ✓ :  
Donkey Boiler Fee... £ ✓ :  
Travelling Expenses (if any) £ ✓  
When applied for.....MAR 10 1950  
When received.....19

C. Booker  
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register  
Foundation

Certificate (if required) to be sent to  
The Surveyors are requested not to write on or below the space for Committee's Minute.

(The Committee's Minute

Assigned +LMC 3.50 Oil Eng

C.L. DB 180 lb