

254pt. 4b.  
RECEIVED

# REPORT ON OIL ENGINE MACHINERY.

No 12,020.

13 NOV 1944

Received at London Office

NOV 1944

When handed in at Local Office 30. 10. 44 Port of MANCHESTER.

Survey held at MANCHESTER. Date, First Survey 30. 5. 44 Last Survey 24. 10. 19 44. Number of Visits 13.

Single on the Twin Triple Screw vessel Joao Alvares Fagundes Tons Gross Net

By whom built Cia Uniao Fabril. Yard No. 117 When built  
By whom made Mirrlees Bickerton & Day. Engine No. 5881/42 When made 1944  
By whom made - Boiler No. - When made -  
Owners Soc. dos Armadores de Bucalhau Port belonging to LISBON.  
Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -  
Horse Power 950 ✓  
Horse Power as per Rule 146.5  
Trade for which vessel is intended

ENGINES, &c. Type of Engines Airless Injection. Direct Reversing Supercharged. 2 or 4 stroke cycle 4 Single or double acting Single.

Maximum pressure in cylinders 750 lbs/sq" ✓ Diameter of cylinders 13 3/4" ✓ Length of stroke 21" ✓ No. of cylinders 8 ✓ No. of cranks 8 ✓  
Indicated Pressure 140 lbs/sq" ✓

Is there a bearing between each crank Yes. ✓  
Revolutions per minute 250 ✓ Flywheel dia. 4' 6" ✓ Weight 1500 lbs ✓ Means of ignition Compression and of fuel used Heavy Oil.

Crank Shaft, Solid forged dia. of journals as per Rule 8 3/4" ✓ as fitted 9 1/4" ✓ Crank pin dia. 8 3/4" ✓ Crank Webs Mid. length breadth 11 1/4" ✓ Mid. length thickness 4 5/8" ✓ Thickness parallel to axis - Solid ✓ Thickness around eyehole -

Wheel Shaft, diameter as per Rule Flywheel mounted on crankshaft coupling. Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule 6.9" as fitted 9 1/4" ✓

Propeller Shaft, diameter as per Rule - as fitted - Is the screw shaft fitted with a continuous liner -

Propeller Liners, thickness in way of bushes as per Rule - as fitted - Thickness between bushes as per Rule - as fitted - 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

6-3-4 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

6-45 If so, state type Length of Bearing in Stern Bush next to and supporting propeller

7-45 Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines Direct compressed air. Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Exhaust pipes Thickness of cylinder liners 3/4" Mean 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 -

Engines driven Bilge pump can circulate C.W. system if required. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Engines worked from the Main Engines, No. One Diameter 4 5/4" Stroke 5 1/2" 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 -

last Pumps, No. and size - Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Two 3" Bore x 3 5/8" stroke.

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 In Pump Room

olds, &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

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

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

How are they protected 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

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

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Crank extension

Air Compressors, No. One No. of stages Two Diameters 5" & 5 5/8" Stroke 5 1/2" Driven by on main engine.

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

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

Shipping. provision is made for first Charging the Air Receivers

Engines Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule No. Position

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

**AIR RECEIVERS:**—Have they been made under survey ☒ Yes. ☐ No. State No. of Report or Certificate **U.2541, 2542, 2543**

Is each receiver, which can be isolated, fitted with a safety valve as per Rule ☒ Yes. ☐ No. **Safety valve fitted on compressor. Fusible plug in airt. receivers**

Can the internal surfaces of the receivers be examined and cleaned ☒ Yes. ☐ No. Is a drain fitted at the lowest part of each receiver ☒ Yes. ☐ No.

**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  Actual  No. in

*The foregoing is a correct description,*

phrononlos

*Manufacturer.*

Dates of Survey while building	During progress of work in shops - - }	1944. May 30, 31. June 6, 7, 9, 23, 30. July 5, Sept. 26, 11, Oct. 13, 17									
	During erection on board vessel - - }										
	Total No. of visits										
Dates of Examination of principal parts—Cylinders		30.5.44.	31.5.44.								
		31.5.44.	Covers	6.6.44.	Pistons	13.10.44.	Rods	-	Connecting rods	13.10.	
Crank shaft	13.1.44.	17.10.44.									
	13.10.44.	Flywheel shaft	-	Thrust shaft	11.9.44.	Intermediate shafts	-	Tube shaft			
Screw shaft				17.10.44.							
	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	O.H. Steel.	Identification Mark	13.1.44.	Flywheel shaft, Material	-	Identification Mark	-				
Thrust shaft, Material	O.H. Steel.	Identification Mark	17.10.44.	Intermediate shafts, Material		Identification Marks					
Tube shaft, Material		Identification Mark		Screw shaft, Material		Identification Mark					
Identification Marks on Air Receivers.		B.3089.	B.3090.	B.3091.							
		LLOYD'S TEST.	LLOYD'S TEST.	LLOYD'S TEST.							
		600 lbs.	600 lbs.	600 lbs.							
		W.P. 300 lbs.	W.P. 300 lbs.	W.P. 300 lbs.							
		JNB. 12.5.44.	JNB. 12.5.44.	JNB. 12.5.44.							

*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


*Description of fire extinguishing apparatus fitted.*

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. 1 If so, state name of vessel

*General Remarks* (State quality of workmanship, opinions as to class, &c. THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPEC SURVEY OF TESTED MATERIALS AND IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE GOOD AND THE ENGINE, WHEN TESTED IN THE SHOP FULL LOAD CONDITIONS GAVE SATISFACTORY RESULTS. THIS ENGINE IS SUITABLE, IN MY OPINION, FOR ITS INTENDED SERVICE AND WHEN SATISFACTORILY INSTALLED AND REPORTED ON WILL BE ELIGIBLE TO RECEIVE NOTATION OF  IMC (WITH DATE).

See special correspondence re torsional vibrations \*

The amount of Entry Fee ..	£	3	:	0	:	0	When applied for,
Special ... ..	£	36	:	10	:	0	9.11.44
Doukey Boiler Fee ...	£		:		:		When received,
Travelling Expenses (if any) £	3	:	0	:	0		19.....

Committee's Minute

Assigned Sir F.E. Machy. opt.

Enthorne Delaney Esq.  
Engineer Surveyor to Lloyd's Register of Shipping

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Lloyd's Register  
Foundation