

## REPORT ON OIL ENGINE MACHINERY.

No. 29250

Received at London Office

10 MAY 1954

Date of writing Report 26-4-1954 When handed in at Local Office 28-4-1954 Port of ANTWERP

No. in Survey held at SERAING & ANTWERP Date, First Survey 31.7.52 Last Survey 19.  
Reg. Book. Number of Visits 69Single  
Triple  
Quadruple  
4080.9 on the Twin Screw vessel m/t "SALAMIS" Tons Gross 1282.6  
Net 743.5

Built at Hoboken By whom built P. A. J. M. Co. Antwerp Yard No. 764 When built 1954

Engines made at Reming By whom made do. do. Engine No. 6407 When made 1954

Monkey Boilers made at do. By whom made do. do. Boiler No. 7915/12 When made 1954

Broke Horse Power { Maximum 7700 Service 1540 MN Owners 1/2 P. A. J. M. Co. &amp; 1/2 P. A. J. M. Co. Port belonging to Oslo

N. as per Rule 1540 MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted 2

Grade for which vessel is intended unrestricted

ENGINES, etc. — Type of Engines Remington &amp; Tain 9, 74 VTF 140 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 50 kg/cm<sup>2</sup> Diameter of cylinders 740 Length of stroke 1400 No. of cylinders 9 No. of cranks 9Mean Indicated Pressure 6.5 kg/cm<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in

Way of a crank) 948 Is there a bearing between each crank 2 Revolutions per minute { Maximum 125 Service 115

Flywheel dia. 2420 Weight 2615 kg Moment of inertia of flywheel (lbs in<sup>2</sup> or Kg. cm<sup>2</sup>) 5750 Means of ignition Comp. Kind of fuel used Heavy fuel

Crank pin dia. 520 Crank webs Mid. length breadth 1120 Thickness parallel to axis 270

Crank pin dia. 520 Crank webs Mid. length thickness 120 Thickness around eyehole 395

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

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner 2

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted 2 Is the after end of the liner made watertight in the

Propeller boss 2 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 2

Corrosive 2 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland fitted at the after

End of stern tube no If so, state type Length of bearing in Stern Bush next to and supporting propeller 1890

Propeller, dia. 2220 Pitch 461 (0.72) No. of blades 4 Material Bronze whether moveable no Total developed surface 10,362 sq. feet

Moment of inertia of propeller including entrained water (lbs in<sup>2</sup> or Kg. cm<sup>2</sup>) 19050 Kind of damper, if fitted none

Method of reversing Engines camshaft Is a governor or other arrangement fitted to prevent racing of the engine 2 Means of

Lubrication 2 Thickness of cylinder liners 52 Are the cylinders fitted with safety valves 2 Are the exhaust pipes and silencers water cooled

Lagged with non-conducting material lapped 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. and how driven one steam 370 m<sup>3</sup>/h. Working F.W. one

W. one Spare F.W. one S.W. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel 2

Bilge Pumps worked from the Main Engines, No. and capacity none Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and capacity of each three; one 370 m<sup>3</sup>/h.; one 120 m<sup>3</sup>/h.; one 75 m<sup>3</sup>/h.

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 capacity one 370 m<sup>3</sup>/h. Power Driven Lubricating Oil Pumps, including spare pump, No. and size one attached to M.M. 450 m<sup>3</sup>/h.

Are two independent means arranged for circulating water through the Oil Cooler 2 Branch Bilge Suctions

No. and size:—In machinery spaces 100 m<sup>3</sup>/h. x 2 70 m<sup>3</sup>/h. x 2 Cofferdams 70 m<sup>3</sup>/h. x 2 In pump room 70 m<sup>3</sup>/h. x 1In holds, etc. 200 m<sup>3</sup>/h. x 2 70 m<sup>3</sup>/h. x 2 Cofferdams 70 m<sup>3</sup>/h. x 2 In pump room 70 m<sup>3</sup>/h. x 1Direct Bilge Suctions to the engine room bilges, No. and size 100 m<sup>3</sup>/h. x 2 70 m<sup>3</sup>/h. x 1

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes 2 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 2

Are all Sea Connections fitted direct on the skin of the Ship 2 Are they fitted with valves or cocks 2 Are they fixed

Sufficiently high on the ship's side to be seen without lifting the platform plates 2 Are the overboard discharges above or below the deep water line below

Are they each fitted with a discharge valve always accessible on the plating of the vessel 2 Are the blow off cocks fitted with a spigot and brass covering plate 2

What pipes pass through the bunkers 2 How are they protected 2 Are they tested as per Rule 2

What pipes pass through the deep tanks

Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times 2

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 2 Is the shaft tunnel watertight 2 Is it fitted with a watertight door 2

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. two No. of stages two diameters 135/205 stroke driven by steam engine

Auxiliary Air Compressors, No. — No. of stages — diameters — stroke driven by —

Small Auxiliary Air Compressors, No. one No. of stages two diameters 52/47 stroke 65 driven by Diesel motor

What provision is made for first charging the air receivers small hand air compressor driven by hand started Diesel motor

Scavenging Air Pumps or Blowers, No. two How driven from main motor (chain drive) Engine Nos. 200 &amp; 201

Auxiliary Engines Have they been made under survey 2 Makers name 2 Position of each in engine room 2

Report No. 012108-012112-0237



AIR RECEIVERS:—Have they been made under survey In ✓ State No. of report or certificate Rpt. 10. N° 15437  
State full details of safety devices one safety valve ✓  
Can the internal surfaces of the receivers be examined and cleaned In ✓ Is a drain fitted at the lowest part of each receiver In ✓  
Injection Air Receivers, No. none Cubic capacity of each - Internal diameter - thickness -  
Seamless, welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -  
Starting Air Receivers, No. two Total cubic capacity 22 m³ Internal diameter 18.5 ✓ thickness ✓ 3.0  
Seamless, welded or riveted longitudinal joint welded Material S.M. steel Range of tensile strength 47,47 Working pressure 25 ✓

IS A DONKEY BOILER FITTED In If so, is a report now forwarded In  
Is the donkey boiler intended to be used for domestic purposes only no

PLANS. Are approved plans forwarded herewith for shafting 9-1-53/17-4-53/17-4-53 Receivers 16-6-53 Separate fuel tanks 22-6-53  
(If not, state date of approval)  
Donkey boilers 2-11-53/13-1-53 General pumping arrangements 16-4-53 Pumping arrangements in machinery space 26-5-53  
Exhaust gas economiser 5-11-53/20-1-53  
Oil fuel burning arrangements 26-5-53

Have Torsional Vibration characteristics been approved In Date and particulars of approval 20-5-53

### SPARE GEAR.

Has the spare gear required by the Rules been supplied In State if for "short voyages" only -  
State the principal additional spare gear supplied -

The foregoing is a correct description,

G. L. Smith Manufacturer.  
Dates of Survey while building  
During progress of work in shops 1952. July 31. 1953. March 26, June 5, 9, May 22, June 12, 16, 23, 30, July 3, 7, 14, 17, Aug 3, 11, 14  
During erection on board vessel Jan. 25, 27, 29, 18, 21, 28, 31, Sept. 8, 23, Oct. 20, 22, 29, Nov. 3, 6, 13, 17, 20, 24, 27, Dec. 1, 4, 11, 15, 18, 22, 24, 28, 31, 1953  
Total No. of visits 69

Dates of examination of principal parts—Cylinders 9-53 Cover 10/11/17-12-53 Pistons 5/10/11-12-53 Rods 13-11-53 Connecting rods 27-10-53  
Crank shaft 22-9-53 Flywheel shaft ✓ Thrust shaft 29-9-53 Intermediate shafts 18-1-54 Tube shaft ✓  
Screw shaft 17-11-53 Propeller 14-12-53 Stern tube 28-8-54 Engine seatings 2-54 Engine holding down bolts 2-54  
Completion of fitting sea connections 12-53 Completion of pumping arrangements 2-54 Engines tried under working conditions 22-2-54  
Crank shaft, material S.M. steel Identification marks ANT. 11-53 Flywheel shaft, material ✓ Identification mark ✓  
Thrust shaft, material S.M. steel Identification mark ANT. 16-53 Intermediate shafts, material S.M. steel Identification marks Rpt. 6 N° 15446  
Tube shaft, material ✓ Identification mark ✓ Screw shaft, material S.M. steel Identification mark Rpt. 6 N° 15324  
Identification marks on air receivers ANT. 23-53 ✓ ANT. 24-11 ✓ ANT. 27-11-53 ✓  
CCOYD'S TEST ✓ CCOYD'S TEST ✓  
T.A. 4146 ✓ W.P. 1546 ✓

Welded receivers, state Makers' Name D. A. John. Cockeniff (Durand) ✓  
Is the flash point of the oil to be used over 150°F In

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with In ✓  
Full description of fire extinguishing apparatus fitted in machinery spaces Steam smothering for B.R. & E.R. & a CO2 fire extinguisher installed  
Two fire hydrants with hoses 1/2" nozzle. In B.R. one fire hydrant. In E.R. 6 both upper and lower of 2 gal. and 2 of 10 gal.  
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 ✓

What is the special notation desired -  
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, Speed restrictions, &c.) The machinery of this vessel has been built and installed under the special survey of the Society's surveyors in accordance with the Rules, the approved plans and the Secretary's letter. The materials and workmanship are good. Satisfactory  
batten and verticals were witnessed and the machinery is eligible, in our opinion, for record of  
+LMC 2.54 and notation of oil engine; T.S. ch.; DB 185 lbs. and one economiser 185 lbs.  
subject to the safety valves of both donkey boilers being renewed and the pumping arrangements  
of the dry cargo hold being placed in order before the end of the guarantee period in September 1954.  
NOTE:—The oil engine generator set N° 5389 and the two steam engine generators set N° 26813/14  
have been installed under survey and full load running trials witnessed.

NOTE:—For pumping arrangements in forward dry cargo hold see our letter. Enq. N° 22743 of the 6th April 54  
The amount of Survey Fee (approximate) £ 5,000.-  
£ 5,040.-  
£ 66,665.-  
Special ...  
2 Donkey Boilers Fee ... £ 33 930.-  
ECONOMISER ... £ 10,170.-  
Travelling Expenses (if any) ... £ 19,050.-  
Installation of ... £ 27,105.-  
Committee's Minute FRIDAY 9-JUL 1954  
Assigned +LMC 3.54 Gil Eng.  
2 DB 185 lb. (Spt.)  
Ch.

Engineer Surveyor for Lloyd's Register of Shipping.

Lloyd's Register Foundation