

REPORT ON STEAM TURBINE MACHINERY. No. 19536

Date of writing Report 22-4-1954 When handed in at Local Office 22-4-1954 Port of West Hartlepool Received at London Office 23 APR 1954

No. in Survey held at Hartlepool Date, First Survey 11th Sept., 1952, Last Survey 21st April, 1954

Reg. Book. on the S.S. "MELIKA" (Number of Visits 190)

Built at Haverton Hill-on-Tees By whom built Furness Shipbuilding Co Yard No. 462 When built 1954

Engines made at Hartlepool By whom made Richardsons Westgarth (H²) Ltd Engine No. 2787 When made 1954

Boilers made at Hartlepool By whom made Richardsons Westgarth (H²) Ltd Boiler No. 2787 When made 1954

Shaft Horse Power at Full Power 13,750 HP Owners Afran Transport Co NY U.S.A Port belonging to

Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

Trade for which Vessel is intended

TEAM TURBINE ENGINES, &c.—Description of Engines Double Reduction geared Turbines

No. of Turbines 2 Direct coupled. single reduction geared double reduction geared to ONE propelling shafts. No. of primary pinions to each set of reduction gearing Two

direct coupled to Alternating Current Generator phase periods per second rated Kilowatts Volts at revolutions per minute

for supplying power for driving Propelling Motors, Type

manufactured Kilowatts Volts at revolutions per minute Direct coupled, single or double reduction geared to propelling shafts

H.P.				I.P.			L.P.			ASTERN.			
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	
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Shaft Horse Power at each turbine H.P. 6,250 I.P. — L.P. 6,250 Revolutions per minute, at full power, of each Turbine Shaft H.P. 4,350 I.P. — L.P. 3,009

Rotor Shaft diameter at journals H.P. 6" I.P. — L.P. 7.5" Pitch Circle Diameter 1st pinion L.P. 14.7525 1st reduction wheel 63.4159 2nd pinion L.P. 23.1305 main wheel 154.4605 Width of Face 1st reduction wheel 25.366 main wheel 46.366

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion L.P. 12 1st reduction wheel 12 9/16" 2nd pinion L.P. 11 3/4" main wheel 2'-0"

Flexible Pinion Shafts, diameter 1st 8 1/2" Pinion Shafts, diameter at bearings External 1st 10" Internal 1st 10" 2nd 10 1/4" diameter at bottom of pinion teeth 1st 4'-11 3/8" Generator Shaft, diameter at bearings main 2'-5 1/2" Propelling Motor Shaft, diameter at bearings

Wheel Shafts, diameter at bearings 1st 10" main 22 1/4" diameter at wheel shroud 1st 4'-11 3/8" Generator Shaft, diameter at bearings main 2'-5 1/2" Propelling Motor Shaft, diameter at bearings

Intermediate Shafts, diameter as per rule 20.12" as fitted 20 1/4" Thrust Shaft, diameter at collars as per rule 21.13" as fitted 21 3/8"

Tube Shaft, diameter as per rule as fitted Screw Shaft, diameter as per rule 21.89" as fitted 22 5/8" Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per rule as fitted 1 1/8" Thickness between bushes as per rule as fitted 1 1/16" 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

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 the tube

Length of Bearing in Stern Bush next to and supporting propeller 7'-6 5/8"

Propeller, diameter 21'-0" Pitch 16'-0" No. of Blades 4 State whether Moveable NO Total Developed Surface 205 square feet.

If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine YES Can the H.P. or L.P. Turbine exhaust direct to the

Condenser YES No. of Turbines fitted with astern wheels 2 Feed Pumps No. and size How driven

Pumps connected to the Main Bilge Line No. and size How driven

Ballast Pumps, No. and size

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 In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size

Independent Power Pump Direct Suctions to the Engine Room

Are the Bilge Suctions in the Machinery Space 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 stokehold 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

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

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