

# REPORT ON OIL ENGINE MACHINERY.

No. 66.

13 MAY 1926

of writing Report 18<sup>th</sup> Jan 1926. When handed in at Local Office 18<sup>th</sup> Jan 1926 Port of Winterthur  
 in Survey held at Winterthur Date, First Survey 26<sup>th</sup> March, 25 Last Survey 18<sup>th</sup> Jan 1926  
 Book. Number of Visits

on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessels M.S. "THALIA"  
 Built at Kiel By whom built Messrs. Howaldtswerke Yard No. 673 When built 1926  
 Engines made at Winterthur By whom made Messrs. Sulzer Bros. Engine No. 5157 When made 1926  
 Key Boilers made at By whom made Boiler No. When made  
 Brake Horse Power 2700 (Two Eng.) Owners German American Petroleum Co. Port belonging to Hamburg.  
 m. Horse Power as per Rule 746 (Two Eng.) Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines Sulzer Diesel Engines 2 or 4 stroke cycle 2 Single or double acting Single  
 Minimum pressure in cylinders 38 at. No. of cylinders 4 (each eng) Diameter of cylinders 600 mm. No. of cranks 4 (each eng) Length of stroke 1060 mm.  
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 180 mm. Is there a bearing between each crank Yes.  
 Revolutions per minute 100 Flywheel dia. 2100 mm Weight 10170 Kgs. Means of ignition Compression Kind of fuel used Heavy fuel oil  
 Main Shaft, dia. of journals as per Rule 375.5 mm Crank pin dia. 340 mm Crank Webs Mid. length breadth 540 mm Thickness parallel to axis  
 as fitted 340 mm Mid. length thickness 220 mm shrunk Thickness around eye hole  
 Intermediate Shafts, diameter as per Rule 275.5 mm Thrust Shaft, diameter at collar as per Rule 289 mm.  
 as fitted 340 mm Is the tube screw shaft fitted with a continuous liner  
 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

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
 or 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  
 ers are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after  
 tube shaft Length of Bearing in Stern Bush next to and supporting propeller

r, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet  
 of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disconnected Yes. Means of lubrication  
 Thickness of cylinder liners 45 mm. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with  
 lagging material Yes. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No. 2 centrifugal pumps (1 being stand by) Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
 mps fitted to the Main Engines, No. 2 (double act) diameter 160 mm. Stroke 140 mm. Can one be overhauled while the other is at work Yes.  
 connected to the Main Bilge Line No. and Size How driven

Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 2 double acting 100 mm & 140 mm. slides  
 dependent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 o. and size:—In Engine and Boiler Room

lent Power Pump Direct Suctions to the Engine Room Bilges, No. and size  
 e Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Space  
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

a Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks  
 ed 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  
 h 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  
 pass through the bunkers How are they protected  
 pass through the deep tanks Have they been tested as per Rule

es, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
 agement 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  
 t to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

essel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
 Compressors, No. 1 No. of stages 3 Diameters 640/580/140 Stroke 560 mm Driven by Crank shaft.  
 Air Compressors, No. 1 No. of stages 3 Diameters 325/290/65 Stroke 180 Driven by Electric motor  
 Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 110/35 Stroke 120 Driven by Oil Eng. 2 type 1 R H 2  
 g Air Pumps, No. Two turbo scavenging blowers each having an intake volume of 400 cub. metres of free air per min. Driven by Electric motor.  
 Engines crank shafts, diameter as per Rule 150.9 mm  
 as fitted 160 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.  
 rnal surfaces of the receivers be examined Yes. What means are provided for cleaning their inner surfaces H.P. starting air receivers Holes 270 mm & at  
 train arrangement fitted at the lowest part of each receiver Yes. each end. Injection receivers hole 150 mm & at one  
 sure Air Receivers, No. Starting 8 Cubic capacity of each 800 litres Internal diameter 540 mm thickness 25 mm  
 Injection 2 150 " 28 To 35 Tons 300 " Working pressure by Rules 97.7 at.  
 o welded or riveted longitudinal joint seamless. Material S.M. Steel Range of tensile strength 50 To 60 Kg. mm<sup>2</sup> 102.8 at. @ 47 Kg. mm<sup>2</sup>  
 Air Receivers, No. Total cubic capacity Internal diameter Thickness Working pressure by Rules  
 o welded or riveted longitudinal joint Material Range of tensile strength



## IS A DONKEY BOILER FITTED?

## HYDRAULIC TESTS:-

If so, is a report now forwarded?

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....	4-8-25, 5-8-25, 23-9-25.	38 at 5	80 at 5.	R	Test satisfactory
" " COVERS .....	" " "	" "	" "	R	" "
" " JACKETS .....	7-8-25, 8-8-25, 23-9-25	1 "	6 "	R	" "
" " PISTON WATER PASSAGES .....	23-10-25	2 "	" "	R	" "
MAIN COMPRESSORS—1st STAGE .....	9-10-25	3 "	50 "	R	" "
" " 2nd " .....	" "	17.5 "	" "	R	" "
" " 3rd " .....	" "	75 "	150 "	R	" "
AIR RECEIVERS—STARTING .....	23-12-24, 26-11-25, 27-11-25	" "	" "	J.L. & R	" "
" " INJECTION .....	30-10-25	" "	" "	R	" "
AIR PIPES .....	19-11-25, 23-11-25, 27-11-25.	" "	" "	R	" "
FUEL PIPES .....	19-11-25 27-11-25.	" "	" "	R	" "
FUEL PUMPS & VALVES .....	4-8-25 7-9-25.	" "	" "	R	" "
SILENCER .....	" "	" "	" "	R	" "
" " WATER JACKET .....	" "	" "	" "	"	" "
SEPARATE FUEL TANKS .....	" "	" "	" "	"	" "

PLANS. Are approved plans forwarded herewith for Shafting 4-6-25

Donkey Boilers

General Pumping Arrangements

Receivers

Injection 7-6-20  
Starting 1-5-24

Separate Tanks

Oil Fuel Burning Arrangements

## SPARE GEAR

The foregoing is a correct description.

Sutton Brothers  
Limited

Manufacturer.

Dates of Survey while building	During progress of work in shops--	26-3-25, 3-4-25, 14-5-25, 30-6-25, 7-7-25, 22-7-25, 24-7-25, 28-7-25, 4-8-25, 5-8-25, 7-8-25, 8-8-25, 12-8-25, 19-8-25, 26-8-25, 1-9-25, 10-9-25, 11-9-25, 15-9-25, 23-9-25, 1-10-25, 9-10-25, 15-10-25, 16-10-25, 19-10-25, 20-10-25, 23-10-25, 27-10-25, 30-10-25, 4-11-25, 6-11-25, 10-11-25, 13-11-25, 18-11-25, 19-11-25, 20-11-25, 23-11-25, 24-11-25, 26-11-25, 27-11-25, 28-11-25, 1-12-25, 4-12-25, 9-12-25, 15-12-25, 22-12-25, 5-1-26, 18-1-26
	During erection on board vessel--	
	Total No. of visits	

Dates of Examination of principal parts—Cylinders 19-11-25, 23-11-25 Covers 19-11-25, 23-11-25 Pistons 19-11-25 Rods 19-11-25 Connecting rods 19-11-25, 23-11-25

Crank shaft 20-11-25 Flywheel shaft 20-11-25 Thrust shaft 20-11-25 Intermediate shafts

Screw shaft 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 Ann. S.M. Eng. Steel Identification Mark Eng. N° 5157, Lloyd's, K.H. 11460/12-21, R. 7-25.

Thrust shaft, Material Ann. S.M. Eng. Steel Identification Mark Eng. N° 5161, Lloyd's, K.H. 11462/2-21, J.Q. 46, 5-21, R. 7-25.

Tube shaft, Material Identification Mark Same as flywheel shaft Intermediate shafts, Material Identification Marks

Is the flash point of the oil to be used over 150° F. Yes.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Messrs. Howaldtswerke's N° 663 M.S. "PENELOPE"

General Remarks (State quality of workmanship, opinions as to class, &amp;c.) This machinery is, together with two auxiliary

engines N° 14421 and 14427 Type GRKH30, one auxiliary engine N° 14343 Type 2RH20, one

auxiliary engine N° 14369 Type 1RH20, one Compressor N° 193 Type C100, and one Compressor N° 133

Type C8, have been constructed under Special Survey in accordance with the requirements

of the Rules, the Secretary's letters, and the approved plans. Materials and workmanship

good. The main engines have not been tested in the shop, but all auxiliary machinery

has been tested under full power and found to work satisfactorily.

The amount of Entry Fee ... £ 6 - 0 - 0

Special ... £ 113 - 16 - 0

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

29<sup>th</sup> Jan, 1926

When received,

1<sup>st</sup> Feb, 1926£ 23-19-0 to be credited  
to the Hamburg Office.

W.G. Hallis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 18 MAY 1926

Assigned

See Ham. J. 1016818



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Foundation