

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

No. 12587

23 FEB 1926

Received at London Office

Date of writing Report 22-2-26 When handed in at Local Office 22-2-26 Port of MIDDLESBRO'

No. in Survey held at Middlesbro Date, First Survey 18-2-1926 Last Survey 18-2-1926

Reg. Book. 37962 on the T.S.M.V. "ATHEL PRINCE" Number of Visits 14

Tons { Gross 8875 Net 5225

Master Built at ON TEES By whom built FURNESS S.B. &amp; Co. Yard No. 85 When built 1926

Engines made at GREENOCK By whom made J.G. KINCAID &amp; Co. LTD Engine No. KB When made 1926

Donkey Boilers made at GREENOCK By whom made J.G. KINCAID &amp; Co. LTD Boiler No. KB When made 1926

Brake Horse Power 2895 Owners BRITISH MOLASSES CO. LTD Port belonging to LIVERPOOL

Nom. Horse Power as per Rule 709 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

OIL ENGINES, &c.—Type of Engines *See Greenock 18490* 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders ☒ No. of cylinders ☒ No. of cranks ☒ Diameter of cylinders ☒

Length of stroke ☒ Revolutions per minute ☒ Means of ignition ☒ Kind of fuel used ☒

Is there a bearing between each crank ☒ Span of bearings (Page 92, Section 2, par. 7 of Rules) ☒

Distance between centres of main bearings ☒ Is a flywheel fitted ☒ Diameter of crank shaft journals ☒ as per Rule ☒ as fitted ☒

Diameter of crank pins ☒ Breadth of crank webs ☒ as per Rule ☒ as fitted ☒ Thickness of ditto ☒ as per Rule ☒ as fitted ☒

Diameter of flywheel shaft ☒ as per Rule ☒ as fitted ☒ Diameter of tunnel shaft ☒ as per Rule ☒ as fitted ☒ Diameter of thrust shaft ☒ as per Rule ☒ as fitted ☒

Diameter of screw shaft ☒ as per Rule ☒ as fitted ☒ Is the screw shaft fitted with a continuous liner the whole length of the stern tube ☒

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 joints burned ☒

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 ☒ If without liners, is the shaft arranged to run in oil ☒

Type of outer gland fitted to stern tube *NONE* Length of stern bush ☒ Diameter of propeller ☒

Pitch of propeller ☒ No. of blades ☒ state whether moveable ☒ Total surface ☒ square feet

Method of reversing ☒ Is a governor or other arrangement fitted to prevent racing of the engine when declutched ☒ Thickness of cylinder liners ☒

Are the cylinders fitted with safety valves ☒ Means of lubrication ☒ Are the exhaust pipes and silencers water cooled or lagged with non-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 ☒

No. of cooling water pumps ☒ Is the sea suction provided with an efficient strainer which can be cleared within the vessel *YES* No. of bilge pumps fitted to the main engines ☒ Diameter of ditto ☒ Stroke ☒

Can one be overhauled while the other is at work ☒ No. of auxiliary pumps connected to the main bilge lines ☒ How driven ☒ *{ 4 - 3 1/2" DIA } { 2 - 2 1/2" DIA }*

Sizes of pumps ☒ No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room ☒

and in holds, etc. *(NO. 1. 2-2 1/2)* *TANKER* No. of ballast pumps *ONE* How driven *STEAM* Sizes of pumps ☒

Is the ballast pump fitted with a direct suction from the engine room bilges *YES* State size *6"* Is a separate auxiliary pump suction fitted in Engine Room and size *YES 2 - 3 1/2"* Are all the bilge suction pipes fitted with roses *YES* Are the roses in Engine Room always accessible *YES*

Are the sluices on Engine Room bulkheads always accessible *NONE* Are all connections with the sea direct on the skin of the ship *YES*

Are they valves or cocks *BOTH* Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates *YES*

Are the discharge pipes above or below the deep water line *YES* Are they each fitted with a discharge valve always accessible on the plating of the vessel *YES*

Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times *YES* Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges *YES* Is the screw shaft tunnel watertight *NONE* 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 ☒

No. of main air compressors ☒ No. of stages ☒ Diameters ☒ Stroke ☒ Driven by ☒

No. of auxiliary air compressors ☒ No. of stages ☒ Diameters ☒ Stroke ☒ Driven by ☒

No. of small auxiliary air compressors ☒ No. of stages ☒ Diameters ☒ Stroke ☒ Driven by ☒

No. of scavenging air pumps ☒ Diameter ☒ Stroke ☒ Driven by ☒

Diameter of auxiliary Diesel Engine crank shafts ☒ as per Rule ☒ as fitted ☒ Are the air compressors and their coolers made so as to be easy of access ☒

*Submerging Oil Pumps NO. 2.*

AIR RECEIVERS:—No. of high pressure air receivers ☒ Internal diameter ☒ Cubic capacity of each ☒

material ☒ Seamless, lap welded or riveted longitudinal joint ☒ Range of tensile strength ☒

thickness ☒ working pressure by Rules ☒ No. of starting air receivers ☒ Internal diameter ☒

Total cubic capacity ☒ Material ☒ Seamless, lap welded or riveted longitudinal joint ☒

Range of tensile strength ☒ thickness ☒ Working pressure by rules ☒ Is each receiver which can be isolated, ☒

fitted with a safety valve as per Rule ☒ Can the internal surfaces of the receivers be examined ☒ What means are provided for cleaning their inner surfaces ☒

Is there a drain arrangement fitted at the lowest part of each receiver ☒

new chain driven  
cylinders pumps  
to drive  
off main shafts  
fitted 7.24  
By 709



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *✓*

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....	<i>Trial Trip Results</i>				
" " COVERS .....	<i>Vessel loaded to her marks</i>				
" " JACKETS .....					
" PISTON WATER PASSAGES .....					
MAIN COMPRESSORS—1st STAGE .....	<i>Mean speed 11.3 knots on measured</i>				
" 2nd " .....	<i>Revs Per Min 111</i>				
" 3rd " .....					
AIR RECEIVERS—STARTING .....	<i>MANOEUVRING TRIAL</i>				
" INJECTION .....					
AIR PIPES .....	<i>Full power Revs ahead 111 per min</i>				
FUEL PIPES .....	<i>" Astern 111 "</i>				
FUEL PUMPS .....	<i>Lowest number of Revs maintained</i>				
SILENCER .....	<i>by both engines 33.</i>				
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for shafting  
(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

*See attached list*

*Note:—Cylinders cast in groups of three.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops— During erection on board vessel— Total No. of visits <i>28</i>		<i>1925</i> <i>July 8-20 Sep. 14-16 Nov. 5-9-11-17-20 Dec. 9-17-24 Jan. 6-13-18-22-25-27-29 Feb. 1-2-4-8-9-10-11-15-18</i>									
Dates of Examination of principal parts—Cylinders	✓	Covers	✓	Pistons	✓	Rods	✓	Connecting rods	✓			
Crank shaft	✓	Thrust shaft	✓	Tunnel shafts	✓	Screw shaft	✓	Propeller	✓	Stern tube	✓	Engine seatings <i>11-11-2</i>
Engines holding down bolts	<i>25-1-26</i>	Completion of pumping arrangements	<i>11/2/26</i>	Engines tried under working conditions	<i>9/2/26</i>							
Completion of fitting sea connections	<i>28-10-25</i>	Stern tube	<i>28-10-25</i>	Screw shaft and propeller	<i>30-10-25</i>							
Material of crank shaft	✓	Identification Mark on Do.	✓	Material of thrust shaft	✓	Identification Mark on Do.	✓					
Material of tunnel shafts	✓	Identification Marks on Do.	✓	Material of screw shafts	✓	Identification Marks on Do.	✓					

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

*T/S/MV "Athelchief" Gek Rpt No. 1041*

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*The engines and auxiliaries placed on board at this port, efficiently secured in position, pipe connections and mountings fitted, steam, feed and air pipes tested as required by the Rules, afterwards all machinery tried under working condition and found satisfactory. Valves & cocks controlled from above as required. The donkey boilers placed in tween deck fore of engine room, efficiently secured in position and their safety valves adjusted under steam and tried for accumulation. Basing gear fitted. Pipes, heaters and fittings tested after pointing to twice the W.P. Heating coils in double bottom tanks and oil fuel bunkers tested to 360 lb. This vessels machinery now appears to be eligible for record of +LMC 2-26.*

The amount of Entry Fee ... £	:	:	When applied for,
Charged on			
Special Grk. rpt.	<i>27</i>	<i>16</i>	<i>at 19</i>
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	<i>3</i>	<i>2</i>	<i>19</i>

Committee's Minute

Assigned

*+ L.M.C. 2:26 C.L.*  
*Oil engines*



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Foundation