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REPORT ON OIL ENGINE MACHINERY.

No. 59120

Received at London Office

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of writing Report 3/12/1937 When handed in at Local Office 3/12/1937 Port of Glasgow
in Survey held at Glasgow Date, First Survey 2nd April Last Survey 29th Nov. 1937
Book. Number of Visits 29

97 on the Single Triple Quadruple Screw vessel Ailsa S.B. Co. Ltd No. 424. "SAINT EUNAN" Tons { Gross 436 Net 190

uilt at TROON By whom built AILSA S.B. CO. LD. Yard No. 427 When built 1937
gines made at Glasgow By whom made British Auxiliaries Ltd Engine No. 267 When made 1934
nkey Boilers made at - By whom made - Boiler No. - When made -
ake Horse Power 640. Owners R. HARPER & SON Port belonging to TROON

m. Horse Power as per Rule 125. Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

de for which vessel is intended COASTING 133/4 227/6

ENGINES, &c. Type of Engines Heavy oil (M.A.M. type) 2 or 4 stroke cycle 2 Single or double acting Single

imum pressure in cylinders 782 lb. Diameter of cylinders 340 7/8 Length of stroke 54 7/8 No. of cylinders 4 No. of cranks 4
Indicated Pressure 99.5

of bearings, adjacent to the Crank, measured from inner edge to inner edge 48 1/2 Is there a bearing between each crank y/o
lutions per minute 250. Flywheel dia. 1455 7/8 Weight 4988 lb. Means of ignition Comp. Kind of fuel used Diesel oil

ank Shaft, dia. of journals as per Rule 211 7/8 Crank pin dia. 220 7/8 Crank Webs Mid. length breadth 308 7/8 Thickness parallel to axis
as fitted 220. Crank pin dia. 220 7/8 Mid. length thickness 122. Thickness around eye-hole

heel Shaft, diameter as per Rule 211 7/8 Intermediate Shafts, diameter as per Rule 5 5/8 Thrust Shaft, diameter at collars as per Rule 145 7/8
as fitted 260. Intermediate Shafts, diameter as fitted 5 9/4 as fitted 260.

ce Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 6 1/4 Is the tube screw shaft fitted with a continuous liner YES
as fitted - as fitted 6 1/2

ize Liners, thickness in way of bushes as per Rule 4 8/4 Thickness between bushes as per rule 3 6/8 Is the after end of the liner made watertight in the
as fitted 1/2 as fitted 3/8

eller boss YES If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -
he 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 -

wo 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
No If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 2'-2" ✓

PELLER, dia. 7'-3" Pitch 4'-10" No. of blades 4 Material Bronze whether Moveable NO Total Developed Surface 22 sq. feet

ethod of reversing Engines Direct. Is a governor or other arrangement fitted to prevent racing of the engine when detached y/o Means of lubrication
uced Thickness of cylinder liners 25.57 Are the cylinders fitted with safety valves y/o Are the exhaust pipes and silencers water cooled or lagged with
conducting material y/o If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine -

oling Water Pumps, No. 1 @ 120 7/8 x 140 7/8 D.A. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

ge Pumps worked from the Main Engines, No. 1 Diameter 90 7/8 D.A. Stroke 140 7/8 Can one be overhauled while the other is at work ✓

mps connected to the Main Bilge Line { No. and Size Ballast & Gen. Service 50 tons/hr. Gen. Service 30 tons/hr.
How driven Electric Motor Aux. Diesel Engine

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
ngements -

last Pumps, No. and size 1 @ 50 tons/hr. 1 @ 30 tons/hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 @ 1 1/2 tons/hr. driven by main
two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

mps, No. and size: - In Machinery Spaces 1-2" E.R. att 1-2" E.R. fwd. extd., In Pump Room -

Holds, &c. 1-2" Hold Bilge port: 1-2" Hold Bilge std.: 1-2" Hold Bilge Centre

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2" Gen. Service Pump fwd. port: 1-2 1/2" Ballast pump E.R. att

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES 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 YES

all Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks YES

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates YES Are the Overboard Discharges above or below the deep water line Both

they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate -

at pipes pass through the bunkers NONE How are they protected -
at pipes pass through the deep tanks none 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 YES

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
partment to another YES Is the Shaft Tunnel watertight - Is it fitted with a watertight door - worked from -

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. 1. No. of stages 2. Diameters 40 7/8 & 75 7/8 Stroke 350 7/8 Driven by Main Eng.

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

Small Auxiliary Air Compressors, No. See Man. R.H. 9027 stages - Diameters - Stroke - Driven by 2000

Scavenging Air Pumps, No. 1. Diameter 740 7/8 Stroke 350 7/8 Driven by do.

Auxiliary Engines crank shafts, diameter as per Rule See Manchester R.H. 9027 No. -
as fitted See London R.H. 104.629 Position -



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AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Y/2* ✓

Can the internal surfaces of the receivers be examined and cleaned *Y/0* ✓ Is a drain fitted at the lowest part of each receiver *Y/0* ✓
High Pressure Air Receivers, No. *1* Cubic capacity of each _____ Internal diameter _____ thickness _____
 Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____ by Rules _____ Actual _____

Starting Air Receivers, No. *2* Total cubic capacity *56 ft* Internal diameter *25 1/2* thickness *7/16*
 Seamless, lap welded or riveted longitudinal joint *Welded* Material *S* Range of tensile strength *28.3 Tons* Working pressure _____ by Rules *392* Actual *385*
IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *-*
 Is the donkey boiler intended to be used for domestic purposes only *-*

PLANS. Are approved plans forwarded herewith for Shafting *25.2.34* Receivers *25.6.34* Separate Fuel Tanks *5-5-37*
 (If not, state date of approval) General Pumping Arrangements *6-5-37* Pumping Arrangements in Machinery Space *2-9-37*
 Donkey Boilers *-* Oil Fuel Burning Arrangements *-*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Y/0* ✓
 State the principal additional spare gear supplied *See attached list*

The foregoing is a correct description,
BRITISH AUXILIARIES, LIMITED,
[Signature] Manufacturer.

Dates of Survey while building
 During progress of work in shops-- *1937 Apr: 12-27 May: 17-21 June: 2-4-9-11-15-23-25 July: 5-7-13 = 14*
 During erection on board vessel-- *1937 Apr: 2-13 May: 18 Aug: 28 Sep: 6 Oct: 14-27 Nov: 5-9-11-16-23-25-26-29 = 14*
 Total No. of visits *29*
Dates of Examination of principal parts—Cylinders *11.6.34* Covers *9.6.34* Pistons *15.6.34* Rods *-* Connecting rods *4.6.34*
 Crank shaft *8.4.34 (FR)* Flywheel shaft *and* Thrust shaft *2.6.34* Intermediate shafts *28/8/37* Tube shaft *✓*
 Screw shaft *28/8/37* Propeller *28/8/37* Stern tube *28/8/37* Engine seatings *14/11/37* Engines holding down bolts *5/11/37*
 Completion of fitting sea connections *14/11/37* Completion of pumping arrangements *29/11/37* Engines tried under working conditions *29/11/37*
 Crank shaft, Material *D. High Steel* Identification Mark *9429-PK.* Flywheel shaft, Material *and* Identification Mark _____
 Thrust shaft, Material *do.* Identification Mark *405-714-ERB-56* Intermediate shafts, Material *S.M. 14907 STEEL* Identification Marks *308.7 9.E.M.*
 Tube shaft, Material *do.* Identification Mark *9431-PK.* Screw shaft, Material *-do-* Identification Mark *30889.E.M.*

Is the flash point of the oil to be used over 150° F. *Y/0* ✓
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *YES* ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *NO* 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 *Y/0* If so, state name of vessel *Plumbrook Coast No Report 2054018*
General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery, main and auxiliary, has been properly fitted on board, tested under full working conditions and found satisfactory, and, in our opinion, is eligible for record + L.M.C. 11, 37 and T.S.C. 11, 37.*
This machinery has been built under special survey and in accordance with the Rules the materials & workmanship are good.
[Signature] 4/12/37

Glasgow

The amount of Entry Fee .. £ *3* : - :
 Special £ *31* : *5* :
 Donkey Boiler Fee £ _____ : _____ :
 Travelling Expenses (if any) £ *2* : *0* :
 Committee's Minute **GLASGOW 7-DEC-1937**
 Assigned *F.L.M.C. 11, 37.*

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.



Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)