

REPORT ON OIL ENGINE MACHINERY.

No 19170

Date of writing Report 15-8-1950

When handed in at Local Office

15-8-1950 Port of

Received at London Office 16 AUG 1950

No. in Survey held at West Hartlepool

Date, First Survey 16th December, 1949, Last Survey 21st July, 1950.

Reg. Book.

Number of Visits 45.

Single
on the ~~Triple~~
Screw vessel

ALTAIR

Tons Gross 6410
Net 3749

Built at West Hartlepool

By whom built Wm. Gray & Co.

Yard No. 1236 When built 1950

Engines made at Angelo

By whom made Geo. Stork & Co.

Engine No. 5650 When made 1949

Donkey Boilers made at —

By whom made —

Boiler No. — When made —

Brake Horse Power 3200

Owners Mervelt Goudriaan

Port belonging to Rotterdam

Nom. Horse Power as per Rule 796

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

Coastal going

IL ENGINES, &c.—Type of Engines 2 S.C.S.A. Stork Hesselman.

2 or 4 stroke cycle

Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Means of ignition

Kind of fuel used

Crank Shaft, { Solid forged
Semi built dia. of journals
All built

as per Rule

Crank pin dia.

Crank Webs

Mid. length breadth

Thickened parallel to axis

shrink Thickness around eye hole

Flywheel Shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

12.3"

Thrust Shaft, diameter at collars

as per Rule

12.91"

Tube Shaft, diameter

as per Rule

Screw Shaft, diameter

as per Rule

13.55"

Is the shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule

.71"

Thickness between bushes

as per Rule

.5325

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

shaft No

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 4'-7.7"

Propeller, dia.

15'-0"

Pitch 12.3'

No. of blades 4

Material Bronze

whether Movable No

Total Developed Surface 80.5 sq. feet

Method of reversing Engines

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

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

Cooling Water Pumps, No.

Two - 1 working FW. also 2nd S.W.

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

(4) in (1 - Ballast / 140 T/Hr) (1 - Bilge 100 T/Hr) (1 - Aux. Bilge 25 T/Hr) (1 - SOS pump 3")

How driven

Electric

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 size

One - 140 T/Hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

Two - 1 working 96 T/Hr. each.

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size: In Machinery Spaces

3" - 1st floor

2 1/2" - 1st floor

In Holds, &c.

3" - 1st floor

2 1/2" - 1st floor

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

3" - 1st floor

2 1/2" - 1st floor

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

Yes

Are the Bilge Suctions in the Machinery Spaces

Yes

Are all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Yes

Are 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

below

Are 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

None fitted

That pipes pass through the bunkers

None

How are they protected

None

That pipes pass through the deep tanks

None

Have they been tested as per Rule

Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

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

Yes

Is it fitted with a watertight door

Yes

worked from

Upper deck

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Yes

Main Air Compressors, No.

Two

No. of stages

2

Diameters

10 1/2" - 4 3/4"

Stroke

8"

Driven by

blatib driven

Auxiliary Air Compressors, No.

One

No. of stages

2

Diameters

2 3/4" - 1 1/2"

Stroke

3"

Driven by

blatib driven

Small Auxiliary Air Compressors, No.

One

No. of stages

—

Diameters

—

Stroke

—

Driven by

blatib driven

That provision is made for first Charging the Air Receivers

Main compressors

Savenging Air Pumps, No.

Two

Diameter

Rotary type

Stroke

Driven by

Main engine

Auxiliary Engines crank shafts, diameter

as per Rule

See Amsterdam

No.

Driven by

Main engine

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Yes

Lloyd's Register
Foundation

002051-002061-0053

AIR RECEIVERS: — Have they been made under survey *Yes* ✓ State No. of Report or Certificate *Amsterdam Cert. No. C.21*
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes* ✓
Can the internal surfaces of the receivers be examined and cleaned *Yes* ✓ Is a drain fitted at the lowest part of each receiver *Yes - two*
Injection Air Receivers, No. — Cubic capacity of each — Internal diameter — thickness —
Seamless, lap welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure by Rules —
Starting Air Receivers, No. *Two* ✓ Total cubic capacity *14 cub. metres* Internal diameter *1346 mm.* thickness *27 mm.*
Seamless, lap welded or riveted longitudinal joint *Butt welded* Material *Steel* Range of tensile strength *26-30 T.* Working pressure by Rules —
Actual *30 KG./cm².*

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 *yes* Receivers — Separate Fuel Tanks *yes*
(If not, state date of approval) —
Donkey Boilers — General Pumping Arrangements *yes* Pumping Arrangements in Machinery Space *yes*
Oil Fuel Burning Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes* ✓

State the principal additional spare gear supplied *Spare screw hoist*

*T.V.C. app^d 23/2/49 for 115 hp
provided engine not run continuously
below 33 rpm.*

The foregoing is a correct description.

FOR THE CENTRAL MARINE ENGINE WORKS,

(R. G. & Co. 30)

Manufacturer.

Dates of Survey while building
During progress of work in shops —
During erection on board vessel —
Total No. of visits *45*

Dr. Simlop
GENERAL MANAGER

1949. Dec. 16. 19. 22. 28. 1950. Jan. 4. 6. 10. 12. 13. 18. 20. 24. 25. Feb. 1. 3.

*8. 13. 21. 24. 27. March 6. 8. 17. 20. 22. 23. 27. 28. April 12. 18.
May 1. 2. 9. 12. 17. 25. June 1. 21. 22. July 5. 10. 11. 12. 13. 21.*

Dates of Examination of principal parts—Cylinders — Covers — Pistons — Rods — Connecting rods —
Crank shaft *21-2-50* Flywheel shaft — Thrust shaft — Intermediate shafts *6-3-50* Tube shaft —
Screw shaft *8-3-50* Propeller *27-3-50* Stern tube *17-3-50* Engine seatings *18-4-50* Engines holding down bolts *22-6-50*
Completion of fitting sea connections *1-2-50* Completion of pumping arrangements *13-7-50* Engines tried under working conditions *10-7-50*
Crank shaft, Material — Identification Mark — Flywheel shaft, Material — Identification Mark *2526-31*
Thrust shaft, Material *SM. Steel* Identification Mark *355* *PPW. 6-8-48* Intermediate shafts, Material *SM. Steel* Identification Marks *C.P. 1, 5, 6, 22-9-*
Tube shaft, Material — Identification Mark — Screw shaft, Material *SM. Steel* Identification Mark *2524 C.P. 5-8-*
Identification Marks on Air Receivers *No. 5104* *No. 5105*
LLOYDS TEST. *LLOYDS TEST.*
49 KGs./cm². *49 KGs./cm².*
WP. 30 KGs./cm². *WP. 30 KGs./cm².*
KK. 21-8-47 *KK. 21-8-47*

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes* ✓

Description of fire extinguishing apparatus fitted *Foam, tetrochloride, hose connectors in engine room + 302. Fire extinguisher*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Yes - 1000 tons*

If so, have the requirements of the Rules been complied with *Yes* ✓

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, &c.)

The machinery of this vessel has now been satisfactorily installed and secured. Pumping arrangements tested and found satisfactory. Machinery tried under normal working conditions alongside and at sea with satisfactory results. Stopping and starting trials satisfactorily carried out.

*This machinery is in our opinion eligible for notation * LMC. 616 engine 7-50.*

The amount of Entry Fee .. £ *78* : 1 -
Special £ : :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : :
When applied for, *15-8-1950*
When received, *19*

Committee's Minute *FRI. 1 SEP 1950*

Assigned *+ LMC 7.50 Oil Eng.*

C.L. (with endorsement)

John Linday + *Whig* *Engineer/Surveyor to Lloyd's Register of Shipping.*



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