

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 12987

Received at London Office

21 JUN 1943

Date of writing Report

19

When handed in at Local Office

13.6.44 Port of Trieste

No. in Survey held at Trieste

Date, First Survey 2.2.1941

Last Survey 6.5.1943

1943

Reg. Book.

Number of Visits 123

Single
on the ~~Twin~~
Triple
Quadruple

Screw vessel

M/T

Carnaro

Tons { Gross 8257
Net 4913

Built at Trieste

By whom built CRDA Cantiere San Marco

Yard No. 1251 When built 1943

Engines made at Turin

By whom made FIAT Stab. G. M.

Engine No. 2806 When made 1943

Donkey Boilers made at Trieste

By whom made CRDA S. Andrea

Boiler No. 1866/7 When made 1943

Brake Horse Power 4800

Owners 'SIDARMA' Soc. It. d'armamento

Port belonging to

Nom. Horse Power as per Rule 1328

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

Trade for which vessel is intended Carrying Petroleum

L ENGINES, &c.—Type of Engines

FIAT DL 646 Solid inject.

2 or 4 stroke cycle 2 Single or double acting Double

Maximum pressure in cylinders 50 kg

Mean Indicated Pressure 5.4 kg/cm²

Diameter of cylinders 640 mm

Length of stroke 1160 mm

No. of cylinders 6

No. of cranks 6

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 933 mm

Is there a bearing between each crank yes

Revolutions per minute 115

Flywheel dia. 2 x

Weight 43100 kg

Means of ignition compressed

Kind of fuel used Boiler oil

Crank Shaft, dia. of journals as per Rule 433 mm

Crank pin dia. 450 mm

Crank Webs

Mid. length breadth 710 mm

Mid. length thickness 290 mm

Thickness parallel to axis 290 mm

Flywheel Shaft, diameter as per Rule

Intermediate Shafts, diameter as per Rule

360 mm

Thrust Shaft, diameter at collars as per Rule

378 mm

Tube Shaft, diameter as per Rule

Screw Shaft, diameter as per Rule

393 mm

364 mm

Is the tube screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 19.6 mm

as fitted 20.5 mm

Thickness between bushes as per Rule 14.7 mm

as fitted 17.5 mm

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 yes

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

aft no

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 1670 mm

Propeller, dia. 4670 mm

Pitch 4000 mm

No. of blades 4

Material Bronze

whether Moveable no

Total Developed Surface 9.416 sq. feet

Method of reversing Engines Direct

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

Forced

Thickness of cylinder liners 48 to 41

Are the cylinders fitted with safety valves yes

Are the exhaust pipes and silencers water cooled or lagged with

Non-conducting 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 in funnel

Boiling Water Pumps, No. 1 steam independ. 240

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. 1

Diameter 60 T/h

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size one 60 T/h one 40 T/h one 100 T/h

How driven 60 T by Main Eng. 40 T and 100 T Steam independent

If the cooling water led to the bilges overboard

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 100 T/h

M. Eng.

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 a 75 T each 150 T

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 4 a 3 3/8" + 3 a 3 3/8" in cofferdam

In Pump Room 2 a 2"

In each Main pump space 2 cargo P. a 210 T/h + 1 Bilge P. a 27 T/h In Fore P. space 1 Bilge P. one O.E.P. 1 Fire P. a 27 T/h

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 a 5" and 1 a 8 3/4"

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

Are the Bilge Suctions in the Machinery Spaces

Are all Sea Connections fitted direct on the skin of the ship on steel plate suit. casing

Are they fitted with Valves or Cocks valves & cocks

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 above

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 yes

How are they protected oil fuel bunker

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 compartment to another yes

Is the Shaft Tunnel watertight no Tunnel

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

Independent Main Air Compressors, No. 2

No. of stages 2

Diameters 310 x 278 mm

Stroke 350 mm

Driven by Steam Eng.

Auxiliary Air Compressors, No. 1

No. of stages 2

Diameters 140 x 40 mm

Stroke 100 mm

Driven by Int. Comb. Eng.

Small Auxiliary Air Compressors, No. —

No. of stages —

Diameters —

Stroke —

Driven by

Exhausting Air Pumps, No. 2

800 mm

Diameter 3 Bbl. Tandem

Stroke 850 mm

Driven by Main Eng.

Diesel Generator Bremen Rep. No. 2266

as per Rule approved

No. 1 Diesel 40 kw

1 Steam 40 kw

Position E. R. Platform Port

Auxiliary Engines crank shafts, diameter as fitted 110 mm

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AIR RECEIVERS:—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*
High Pressure Air Receivers, No. *1* Cubic capacity of each *150 Ltr.* Internal diameter *377 mm* thickness *6 1/2 mm*
 Seamless, lap welded or riveted longitudinal joint *seamless* Material *SMS* Range of tensile strength *57 kg/mm²* Working pressure by Rules *36.7 kg*
Starting Air Receivers, No. *2* Total cubic capacity *24 000 Ltr.* Internal diameter *1536 x 1574 mm* thickness *29 mm*
 Seamless, lap welded or riveted longitudinal joint *rivet DBS* Material *SMS* Range of tensile strength *44-55 kg/mm²* Working pressure by Rules *30 kg*
 Actual *30*

IS A DONKEY BOILER FITTED? *yes* If so, is a report now forwarded? *yes*

Is the donkey boiler intended to be used for domestic purposes only *Power service*

PLANS. Are approved plans forwarded herewith for Shafting *appr. in Genoa* Receivers *yes* Separate Fuel Tanks *none*
 (If not, state date of approval)

Donkey Boilers *yes* General Pumping Arrangements *yes* Pumping Arrangements in Machinery Space *yes*

Oil Fuel Burning Arrangements *yes*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied *1 Propeller, 1 Propeller Shaft with Key & nut. Spare parts for each Pump on board. Spare armature for Generators and for Electric Motors. 40 Condenser tubes. Spare parts for oil Separators*

The foregoing is a correct description,

Albion

Manufacturer.

Dates of Examination of principal parts—
 Cylinders *18.3.43* Covers *18.3.43* Pistons *2.4.43* Rods *7.4.43* Connecting rods *7.4.43*
 Crank shaft *27.3.43* Flywheel shaft *—* Thrust shaft *29.7.41* Intermediate shafts *18.5.43* Tube shaft *—*
 Screw shaft *25.2.43* Propeller *29.4.43* Stern tube *25.2.43* Engine seatings *25.3.43* Engines holding down bolts *18.5.43*
 Completion of fitting sea connections *25.2.43* Completion of pumping arrangements *22.6.43* Engines tried under working conditions *10.8.43*
Dates of Survey while building
 During progress of work in shops: *1941. Feb. 2. Mar. 24. 27. 31. Apr. 1. Jun. 30. July 4. 7. 29. Aug. 14. Sept. 5. 11. 12. 18. 20. 23. 30. Nov. 24. 25. Dec. 1. 3. 10. 15. 1942. Feb. 12. 19. Mar. 3. 9. 13. 20. 22. Apr. 7. 8. 30. May 12. 16. Jun. 1. 8. 1. July 27. Aug. 1. 6. 11. 17. 24. 25. 27. Sep. 1. 3. 5. 9. 10. 15. 21. 23. 28. 29. 30. Oct. 2. 9. 10. 12. 13. 19. 23. 28. 29. Nov. 2. 5. 9. 10. 16. 23. 25. Dec. 1. 3. 4. 8. 10. 11. 14. 16. 17. 18. 19. 23. 24. 26. 28. 29. 30. 31. 1943. Jan. 2. 5. 7. 8. 12. 22. 26. 28. 29. 30. Feb. 1. 3. 4. 5. 6. 9. 10. 11. 12. 13. 15. 16. 18. 19. 20. 24. Mar. 4. 23. May 6.*
 During erection on board vessel: *—*
 Total No. of visits *123*

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 During erection on board vessel: *—*
 Total No. of visits *123*

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*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *oil Tanker* 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 *yes* If so, state name of vessel *all of 'Pietro Braccolo' type*

General Remarks (State quality of workmanship, opinions as to class, &c. *This engine was made at Turin*

S.G.M. under special survey and in accordance with the approved plans.

It has been fitted on board at Trieste under special survey and the

plans for the arrangements of pipes and auxiliaries have been examined

by the undersigned and found to be in accordance with the Rules (1939-)

The machinery has been tested under full working condition and found

satisfactory and in my opinion merits the notation of + LMC 8.43

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The amount of Entry Fee .. £	:	:	When applied for,
Special £	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

Committee's Minute

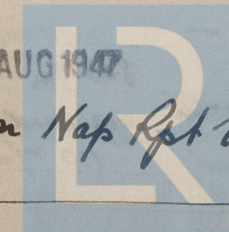
FRI. 1 NOV 1946

FRI. 29 AUG 1947

Assigned L.M.C. 5.43 Oil Eng.

C.L. 2 DB. 185 lb.

See minute on Nap Rpt No. 4235



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