

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

AUG 11 1938

Date of writing Report

19

When handed in at Local Office

6-8-1038 Port of *Middlesbrough*

No. in Survey held at

South Bank

Date, First Survey

11 Mar/38

Last Survey

3 August 1938

Reg. Book.

on the

T.S.S. 'AVILA'(Number of Visits *18*)

Tons

Gross

Net

Built at *South Bank*

By whom built

*Smith's Dock Co Ltd.*Yard No. *1038*

When built

1938.8

Engines made at

By whom made

Engine No. *503*

when made

1938

Boilers made at

H. Hartlepool

By whom made

*Richardson Westgarth*Boiler No. *D 503*

when made

1938

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Rule

231

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines *Twin Triple Expansion Reciprocating* Revs. per minute

Dia. of Cylinders *13½" 23" 37"* Length of Stroke *27"* No. of Cylinders *6* No. of Cranks *6*

Crank shaft, dia. of journals as per Rule *7.22"* Crank pin dia. *7½"* Crank webs Mid. length breadth *10½"* Thickness parallel to axis *4½"*

as fitted *7½"* Mid. length thickness *4½"* shrunk Thickness around eye-hole *3.9½"*

Intermediate Shafts, diameter as per Rule *6.88"* Thrust shaft, diameter at collars as per Rule *7.22"*

as fitted *7"* as fitted *7½"*

Tube Shafts, diameter as per Rule *7.702"* Is the tube shaft fitted with a continuous liner *yes*

as fitted *8"* as fitted *8"* Is the screw shaft fitted with a continuous liner *yes*

Bronze Liners, thickness in way of bushes as per Rule *.53"* Thickness between bushes as per Rule *.397"*

as fitted *9/16"* as fitted *7/16"* 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 *yes*

If two liners are fitted, is the shaft lapped or protected between the liners *yes* Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft *yes*

If so, state type *Newark* Length of Bearing in Stern Bush next to and supporting propeller *3'-1"*

Propeller, dia. *10'-0"* Pitch *10'-6"* No. of Blades *4* Material *Bronze* whether Moveable *fixed* Total Developed Surface *39* sq. feet

Feed Pumps worked from the Main Engines, No. *none* Diameter *3"* Stroke *13½"* Can one be overhauled while the other is at work *yes*

Bilge Pumps worked from the Main Engines, No. *2 each engine* Diameter *3"* Stroke *13½"* Can one be overhauled while the other is at work *yes*

Feed Pumps { No. and size *2 6" x 8½" x 13"* Pumps connected to the { No. and size *1 14" x 10½" x 15"* *1 4" x 4" x 5"* Engine Bilge Pumps

{ How driven *Steam* Main Bilge Line { How driven *Steam*

Ballast Pumps, No. and size *1 14" x 10½" x 15"* Lubricating Oil Pumps, including Spare Pump, No. and size *1*

Are two independent means arranged for circulating water through the Oil Cooler *yes* Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room *2 2" F. well 1 2" centre drain well 1 2" after drain well 2 2" side bilges*

In Holds, &c. *1 2" F. peak 1 2" chain locker 2 2" F. deep tank 1 2" F. Pump Room 1 2" F. off dam*

2 2" pump room 1 2" after peak

Main Water Circulating Pump Direct Bilge Suctions, No. and size *2 2 5½"* Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size *1 2 3½"* Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *yes*

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *yes*

Are all Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with Valves or Cocks *both* main disch. below

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold 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*

What Pipes pass through the bunkers *none* How are they protected *yes*

What 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 compartment to another *yes* Is the Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *yes*

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers *3700 sq. ft.*

Is Forced Draft fitted *yes* No. and Description of Boilers *2 S.B.* Working Pressure *180 lbs.*

IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*

IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? *yes*

PLANS. Are approved plans forwarded herewith for Shafting *yes* Main Boilers *yes* Auxiliary Boilers *yes* Donkey Boilers *yes*

(If not state date of approval)

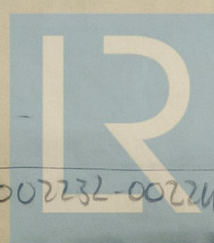
Superheaters *yes* General Pumping Arrangements *yes* Oil fuel Burning Piping Arrangements *yes*

SPARE GEAR. State the articles supplied:—*as per rule and 1 screw shaft. 2 C.I. propellers. 2 sets of thrust pads. 1 set of piston rings for H.P. 18" & L.P. cylinders. 24 Junk Ring Studs & nuts. 2 Eccentric Straps complete. Pump lever link braces 4 sets of wearing segments for piston & valve rod packing. 1 air pump bucket & rod. 2 sets air pump & bilge pump valves. 1 circulating pump impeller shaft. 2 sets circulating pump top & bottom end braces, bolts & nuts & main bearing braces bolts & nuts. 2 sets of piston rings. 1 steam valve chest. 2 sets of valves, 1 water end liner. 2 sets piston & bucket rings for feed pumps. 1 set piston & bucket rings & suction & delivery valves for Ballast & oil fuel pressure pumps. & spare parts for oil fuel burners, atomisers & filters.*

The foregoing is a correct description,

FOR SMITH'S DOCK CO. LTD.

Manufacturer.



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002232-002240-0017

Dates of Survey while building
During progress of work in shops - - 1938 Mar 11. 28 Apr 5. 21. 30 May 3. 5. 31 June 9. 14
During erection on board vessel - - 20. 27 July 4. 7. 18. 22. 27 Aug 3.
Total No. of visits 18

Dates of Examination of principal parts—Cylinders 21. 4. 28 26. 6. 38. Slides 21. 4. 28 26. 6. 38 Covers 21. 4. 28 26. 6. 38
Pistons 21. 4. 28 Piston Rods 21. 4. 28 Connecting rods 21. 4. 28
Crank shaft 11. 3. 38. 3. 5. 38. Thrust shaft 11. 3. 38 Intermediate shafts 11. 3. 38
Tube shaft ✓ Screw shaft 11. 3. 38 Propeller 14. 6. 38
Stern tube 14. 6. 38 Engine and boiler seatings 14. 6. 38 Engines holding down bolts 11. 7. 38
Completion of fitting sea connections 14. 6. 38
Completion of pumping arrangements 27. 7. 38. Boilers fixed 11. 7. 38 Engines tried under steam 27. 7. 38
Main boiler safety valves adjusted 27. 7. 38 Thickness of adjusting washers P 13/32 S 7/8
Crank shaft material Steel Identification Mark 3597 } JFC Thrust shaft material 3699 } JFC Identification Mark 3701 } JFC
Intermediate shafts, material Steel Identification Marks 3697 } JFC Tube shaft, material ✓ Identification Mark 3701 } JFC
Screw shaft, material Steel Identification Mark 3700 } JFC Steam Pipes, material Steel Test pressure 675 lbs. Date of Test 22/7/38
Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓
Have the requirements of the Rules for the use of oil as fuel been complied with ✓
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓ If so, have the requirements of the Rules been complied with ✓
Is this machinery duplicate of a previous case. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans & the Requirements of the Rules. The materials & workmanship are good. The machinery has been surveyed during installing on board & found satisfactory on full power trials at Sea.

The machinery is eligible in my opinion to have the Record + LMC 8. 38 (Class) fitted for oil fuel 8. 38 F.P. above 150°F.
S. 2 SB. F.D. 60f. H.S. 3700.

The amount of Entry Fee ... £ 4. 0 10 When applied for, 10. 8. 1938
Special Less Blis ... £ 33-1-0
Donkey Boiler Fee ... £ : : When received, 3/10 1938
Travelling Expenses (if any) £ : :
TUE. 23. AUG 1938

Committee's Minute

Assigned

+ LMC 8. 38
Fitted for oil fuel 8. 38 F.P. above 150°F.
F.D. C.L.

P. C. Moffitt
Engineer Surveyor to Lloyd's Register of Shipping.



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