

REPORT ON OIL ENGINE MACHINERY.

No. 97941

Received at London Office 10/07/39

6/10/39 Port of

NEWCASTLE-ON-TYNE

of writing Report

19

When handed in at Local Office

Newcastle-on-Tyne.

Date, First Survey 22 April 1938 Last Survey 3/10/1939.

Number of Visits 105.

in Survey held at

Book.

032 on the

Single

Twin

Triple

Quadruple

Screw vessel

M.V. "THIARA"

Tons Gross 10364. Net 6178.

Wallsend.

By whom built Swan Hunter & Wigham Richardson Yard No. 1563 When built 1939.

Lines made at Newcastle (S.P.) By whom made R.W. Hawthorn Leslie & Co Ltd Engine No. 3957 When made 1939.

Key Boilers made at Newcastle (S.P.) By whom made R.W. Hawthorn Leslie & Co Ltd Boiler No. 3957 When made 1939.

be Horse Power 4660 Owners Anglo Saxon Petroleum Co Ltd Port belonging to London.

Horse Power as per Rule 628 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

le for which vessel is intended Ocean Going.

ENGINES, &c. Type of Engines Hawthorn Workshop airless injection Supercharged 2 or 4 stroke cycle 4 Single or double acting Single.

um pressure in cylinders 700 lbf/sq in Diameter of cylinders 25 1/2 650 1/2 Length of stroke 55 1/2 1400 1/2 No. of cylinders 10 No. of cranks 10.

Indicated Pressure 135 lbf/sq in Is there a bearing between each crank Yes.

of bearings, adjacent to the Crank, measured from inner edge to inner edge 855 1/2

tions per minute 120 Flywheel dia. None Weight Means of ignition Compression Kind of fuel used Diesel oil.

k Shaft, dia. of journals as per Rule 464 1/2 as fitted 475 1/2 Crank pin dia. 475 1/2 Crank Webs Mid. length breadth 900 1/2 Mid. length thickness 285 1/2 Thickness parallel to axis 273 1/2 in. Thickness around eyehole 210 1/2 in.

heel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 351 1/2 as fitted 440 1/2 Thrust Shaft, diameter at collars as per Rule 369 1/2 as fitted 460 1/2.

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 385 1/2 as fitted 440 1/2 Is the screw shaft fitted with a continuous liner Yes.

ze Liners, thickness in way of bushes as per Rule 19.4 1/2 as fitted 21 1/2 Thickness between bushes as per rule 14.5 1/2 as fitted 16 1/2 Is the after end of the liner made watertight in the

ler boss Yes. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Continuous

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 Light felt length.

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 1547 1/2

eller, dia. 15-9 1/4 Pitch 6.36 1/2 No. of blades 4 Material M. Bronze whether Moveable Solid Total Developed Surface 109 sq. feet

od of reversing Engines Servomotor Is a governor or other arrangement fitted to prevent racing of the engine when started Yes Means of lubrication

red. Thickness of cylinder liners 55 1/2 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

ducting 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 led to tank

ng Water Pumps, No. off one Rotary on Main Engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

Pumps worked from the Main Engines, No. Two Diameter Rotary Stroke Can one be overhauled while the other is at work Yes.

s connected to the Main Bilge Line No. and Size Two off 35 tons/hr } one 8 1/2 pump 8" x 8" x 10" about 10 tons/hr. How driven Main Engine Steam

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

ements. one - 8 1/2 x 8 1/2 x 10" one Rotary 50 tons/hr.

st Pumps, No. and size General Service Pump. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one 8 1/2 x 8 1/2 x 10" Duplex Steam Driven.

no independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

s, No. and size:—In Machinery Spaces { one aft well 4" dia, one 1 tone S Ford 2nd 4" dia each In Pump Room aft 3" dia

lds, &c. Ford 1000 3 @ 2 1/2" dia, Ford Peak 2 @ 2" dia

endent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 5 1/2" 6 Q Pump, one 7" 1 tone Bilge to I.C.W. Pump.

ll the Bilge Suction pipes in Hold and Tunnel Well fitted with strum-boxes Yes. Are the Bilge Suctions in the Machinery Spaces

om easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.

l Sea Connections fitted direct on the skin of the ship Yes. Are they fitted with Valves or Cocks Both.

ey 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.

ey 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.

pipes pass through the bunkers None. How are they protected

pipes pass through the deep tanks None. Have they been tested as per Rule

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

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

rtment to another Yes Is the Shaft Tunnel watertight Inclined Aft Is it fitted with a watertight door worked from

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

Air Compressors, No. 1 No. of stages 2 Diameters 120 cu ft per min against 350 lbf/sq in Stroke Driven by Diesel

ary Air Compressors, No. 1 No. of stages 2 Diameters 184-206 1/2 Stroke 160 1/2 Driven by Steam.

Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 184-206 1/2 Stroke 160 1/2 Driven by Steam.

nging Air Pumps, No. none Diameter Stroke Driven by

ary Engines crank shafts, diameter as per Rule Grindy Rpt 21008. as fitted Amsterdam Rpt 15600. one 3 eyes Oil Eng an Compressor set and one 2 eyes Kromhout Oil Eng 20kW dynamo Position Both on Starboard Side in Engine Room

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

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. *None* 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 *1000 Cu ft* Internal diameter *5' - 3"* thickness *1/8"*
Seamless, lap welded or riveted longitudinal joint *T.R.D.B.S.* Material *Steel* Range of tensile strength *Shell 285 325* Working pressure *by Rules 358 lb*
Actual 350 lb

IS A DONKEY BOILER FITTED?

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

PLANS. Are approved plans forwarded herewith for Shafing

Donkey Boilers

Oil Fuel Burning Arrangements

General Pumping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description.

R.B. Johnson Manufacturer.

1938 1939
Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits *105*
Dates of Examination of principal parts—Cylinders *15-2-39* Covers *15-2-39* Pistons *8-2-39* Rods *14-2-39* Connecting rods *28-1-39*
Crank shaft *1-6-39* Flywheel shaft *✓* Thrust shaft *3-8-39* Intermediate shafts *22-5-39* Tube shaft *✓*
Screw shaft *15-5-39* Propeller *15-5-39* Stern tube *12-6-39* Engine seatings *14/6/39* Engines holding down bolts *1/9/39*
Completion of fitting sea connections *28/7/39* Completion of pumping arrangements *22-9-39* Engines tried under working conditions *2-10-*
Crank shaft, Material *Steel* Identification Mark *14289 14288* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material *Steel* Identification Mark *14634* Intermediate shafts, Material *Steel* Identification Marks *5925*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *5924*
Is the flash point of the oil to be used over 150° F. *Yes.* Spare *5940*
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 *✓*
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 *M.V. TORINIA. Nwe Reg No 97701.*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery has been constructed under Special Survey in accordance with the Society's Rules and approved plans. The materials & workmanship are sound and good. The machinery was efficiently installed on board, tested and manoeuvred on completion under working conditions and found satisfactory. The machinery of this vessel is, in our opinion, to be classed and to have the notation "oil engine" and records of T.L.M.C 10,39 and T.S. C.L.

The amount of Entry Fee .. £ 6 : - : When applied for, *9 OCT 1939*
Special .. £ 106 : 8 :
2 Starting Air Receivers .. £ 8 : 8 :
2 Donkey Boilers Fee .. £ 17 : 16 :
Travelling Expenses (if any) £ : :
When received, *16/10/39 REGD 16/10*

Committee's Minute

Assigned

L. Pecked + A. Watt

Engine Surveyors to Lloyd's Register of Shipping



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