

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 JUL 1931

Date of writing Report 11/7/31 When handed in at Local Office 11/7/31 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Reg. Book. on the *Wallsend-on-Tyne* Date, First Survey 11 Nov 1930 Last Survey 8-4-1931 (Number of Visits 67.)

Built at *Wallsend* By whom built *Swan Hunter Wigham R. Ltd* Yard No. 1465 Tons Gross 9320 Net 5718

Engines made at *Wallsend* By whom made *Wallsend Slipways & Co. Ltd* Engine No. 906 When built 1931

Boilers made at *Wallsend* By whom made *Wallsend Slipways & Co. Ltd* Boiler No. 906 when made 1931

Registered Horse Power 550 Owners *Pan American Petroleum Transport Co. Ltd.* Port belonging to *Los Angeles.*

Nom. Horse Power as per Rule 113. Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes.*

Trade for which Vessel is intended *Carrying petroleum in bulk. Ocean going.*

ENGINES, &c.—Description of Engines *Triple expansion with L. P. Yulbine* Revs. per minute *112.*

Dia. of Cylinders *24 1/2" + 46 1/2" + 76"* Length of Stroke *51"* No. of Cylinders *3* No. of Cranks *3*

Crank shaft, dia. of journals as per Rule *15 3/4"* Crank pin dia. *15 3/4"* Mid. length breadth *2-1 1/2"* Thickness parallel to axis *10"*

Intermediate Shafts, diameter as per Rule *14.675"* Thrust shaft, diameter at collars as per Rule *15.356"* as fitted *18 5/8"* as fitted *16"*

Tube Shafts, diameter as per Rule *16.29"* Screw Shaft, diameter as per Rule *18 1/2"* Is the *screw* shaft fitted with a continuous liner *yes.*

Bronze Liners, thickness in way of bushes as per Rule *1/8"* Thickness between bushes as per Rule *5/8"* 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 *6-5"*

Propeller, dia. *20'-0"* Pitch *14-6 mean* No. of Blades *4* Material *bronze* whether Movable *yes* Total Developed Surface *120* sq. feet

Feed Pumps worked from the Main Engines, No. *2* Diameter *9"* Stroke *12"* Can one be overhauled while the other is at work *yes.*

Bilge Pumps worked from the Main Engines, No. *2* Diameter *9"* Stroke *12"* Can one be overhauled while the other is at work *yes.*

Feed Pumps No. and size *Two 9" x 12" x 24"* Pumps connected to the Main Bilge Line No. and size *Two 7" x 6" x 10" duplex, 1 @ 14" x 9 1/2" x 12" duplex*

How driven *Steam* How driven *How driven*

Ballast Pumps, No. and size *1 @ 14" x 9 1/2" x 12" dup.* Lubricating Oil Pumps, including Spare Pump, No. and size *2 @ 9" x 8" x 18"*

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 *3 @ 3 1/2" dia., 1 @ 2 1/2" copper dam, 2 @ 2 1/2" dia oil bilge, 1 @ 1 1/2" aft copper dam.*

In Holds, &c. *1st Pump room hold 2 @ 2 1/2" copper dam fwd 1 @ 4"*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1 @ 11"* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *2 @ 5 1/2"*

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.*

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 *"* 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 *none* Is it fitted with a watertight door *yes* worked from *yes*

MAIN BOILERS, &c.—(Letter for record *S.*) Total Heating Surface of Boilers *8640.*

Is Forced Draft fitted *yes* No. and Description of Boilers *Three Single Ended.* Working Pressure *220 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 *no.* Main Boilers *yes* Auxiliary Boilers *yes* Donkey Boilers *yes*

(If not state date of approval)

Superheaters *H.E.M.E. Standard* General Pumping Arrangements *yes.* Oil fuel Burning Piping Arrangements *yes.*

SPARE GEAR. State the articles supplied:— *Two each bolts & nuts for top & bottom ends and main bearings, Propeller shaft complete, 9 coupling bolts & nuts, 1 set top & bottom end bushes, 1 set strap complete, 1 set valve rod, Link block complete. Studs & nuts for cyl & valve chests, Piston & valve rods, 4 junk rings. Set of Piston rings, set of relief valve springs, 50 main & 94 aux condenser tubes. with 1 ferules. Set of heads bilge pump valves. Spare parts for all independent pumps. Quantity of assorted bolts nuts & iron.*

The foregoing is a correct description,
FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

J. M. Pherson.

Manufacturer.

GENERAL MANAGER



1930

1931

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Nov. 11, 17, 27, 28, Dec. 3, 11, 15, 17, 24, Jan. 5, 6, 13, 23, 30, Feb. 2, 4, 6, 10, 13, 16, 17, 20, 24, 27, Mar. 2, 3, 5, 6, 9, 10, 11, 12, 16, 17, 18, 23, 24, 25, 26, 27, 30, Apr. 1, 8, 9, 10, 12, 14, 15, 16, 20, 29, May 1, 5, 18, 20, 21, 28, 29, June 2, 4, 5, 8, 9, 10, 19, July 1, 8.

67.

Dates of Examination of principal parts - Cylinders 14-3-31 Slides 23-3-31 Covers 12-3-31
Pistons 12-3-31 Piston Rods 14-2-31 Connecting rods 13-3-31
Crank shaft 13-2-31 Thrust shaft 25-3-31 Intermediate shafts 29-4-31
Tube shaft 20-4-31 Screw shaft 11-4-31 Propeller 14-4-31
Stern tube 20-4-31 Engine and boiler seatings 18-5-31 Engines holding down bolts 4-6-31
Completion of fitting sea connections 13-4-31
Completion of pumping arrangements 10-6-31 Boilers fixed 4-6-31 Engines tried under steam
Main boiler safety valves adjusted 19-6-31 Thickness of adjusting washers F.B. P 3/8, P.B. P 3/8 5/32 sup 1/32, S.B. P 3/8 5/16, S.B. P 3/8 5/16, S.B. P 3/8 5/16
Crank shaft material O.H. Steel Identification Mark K016 W.B. Thrust shaft material O.H. Steel Identification Mark 8905 W.B.
Intermediate shafts, material O.H. Steel Identification Marks 8910 E.J.S. Tube shaft, material O.H. Steel Identification Mark 8911 W.B. + 8915 W.B. spare Steam Pipes, material S.D. Steel Test pressure 7 1/2 lbs Date of Test 10-6-31
Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150°F. yes
Have the requirements of the Rules for carrying and burning oil fuel been complied with yes
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.)
This Machinery has been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. It has been efficiently installed & fixed in the vessel & was tried under steam under full working conditions & found to be in good & safe working condition & eligible in our opinion to be classed & have records. ✠ L.M.C. 7-31. "Fitted for oil fuel 7-31 flash point over 150°F." Tail shaft C.L. and "Turbine with D.R. Gearing and hydraulic coupling" in the Register Books.

Newcastle-on-Tyne

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for, 14 JUL 1931
Special ... £ 110 : 13 : 0
Donkey Boiler Fee ... £ ✓ :
Travelling Expenses (if any) £ ✓ : 19-8-31

Signature of William Rutter & E. J. Stoddart, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 21 JUL 1931

Assigned + L.M.C. 7.31 Fitted for oil fuel 7.31 F.P. above 150°F. CERTIFICATE WRITTEN. C.L. F.D.

