

REPORT ON MACHINERY.

No.

Received at London Office

Date of writing Report July 10, 1922 When handed in at Local Office

19 Port of Tampico, Mexico.

No. in Survey held at Tampico, Mexico
Reg. Book.Date, First Survey Feb. 8, 1922 Last Survey July 8th, 19 22
(Number of Visits 2)

X on the Single Screw Motor Barge (1343) Now named "EL UNICO"

Tons } Gross
Net

Master XXX Built at Tampico By whom built Messrs. Rennie, Ritchie & Newport. When built May, 1922.

Engines made at Newbury By whom made Plenty & Son, Ltd. when made 1920.

Boilers made at None. By whom made when made

Brake ~~XXXXXX~~ Horse Power 90 H.P. Owners Cia. Naviera San Cristobal, S.A. Port belonging to Tampico, Mexico.

Nom. Horse Power as per Section 28 26 N.H. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Kromhout Motor - "M 314" No. of Cylinders 2 No. of Cranks 2
Dia. of Cylinders 335 m/m Length of Stroke 350 m/m Revs. per minute 265 Dia. of Screw shaft as per rule as fitted 4 15/16 Material of Steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No. Is the after end of the liner made water tight
in the propeller boss If the liner is in more than one length are the joints burned 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 Length of stern bush 8ft-8in approx.
Dia. of Tunnel shaft as per rule as fitted 5 1/2 in Dia. of Crank shaft journals as per rule as fitted 122.5 Dia. of Crank pin 122.5 Size of Crank webs 70x60 Dia. of thrust shaft under
collars 107 m/m Dia. of screw 46 in Pitch of Screw 51 in No. of Blades 4 State whether moveable No Total surface
No. of Feed pumps None Diameter of ditto Stroke Can one be overhauled while the other is at work
No. of Bilge pumps 3 Hand Diameter of ditto 1 1/4" Stroke 1 5/8" Can one be overhauled while the other is at work
No. of Donkey Engines 1 on Engine Sizes of Pumps No. and size of Suctions connected to both Bilge and ~~XXXX~~ pumps
In Engine Room Two 2 in. In Holds, &c. Two 2 in. in the Fore Peak, Cargo Hold
and After Peak - - Making total of Eight 2 inch Bilge Suctions.

No. of Bilge Injections 1 sizes 2" Connected to ~~XXXXXX~~, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size None.
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None.
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves.
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes 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
What pipes are carried through the bunkers None. How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes.

Is the Screw Shaft Tunnel watertight None. Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record) Manufacturers of Steel None.

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint rivets. Working pressure of shell by rules Size of manhole in shell
plate. No. and Description of Furnaces in each boiler Material Outside diameter
Size of compensating ring Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom. Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:
Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Steam dome: description of joint to shell % of strength of joint
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

013057-013062-0192

IS A DONKEY BOILER FITTED?

None.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 3-Big End Brasses; 2-Full Sets Piston Rings for Fitting; 1- Complete Piston ready for Fitting; 1- Gudgeon Pin for Fitting; 2- Leather Plungers for Bilge Pump; 2- Blow Lamp Heads; 1- Bolw Lamp Head for Winch; 3- Injection Pipes for Fuel Pumps; Various Springs for Fuel Check Valves; 1- Propeller; And necessary small Tools and Equipment for running repairs, comprising Hammer, Chisels, Saw, Drills, Taps, Bolts etc, etc.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - During erection on board vessel - - - Total No. of visits

February 8th, and July 8th, 1922.

Two.

Is the approved plan of main boiler forwarded herewith XX

“ “ “ donkey “ “ “ XX

Dates of Examination of principal parts—Cylinders 8/2/22 Slides 8/2/22 Covers 8/2/22 Pistons 8/2/22 Rods 8/2/22 Connecting rods 8/2/22 Crank shaft 8/2/22 Thrust shaft 8/2/22 Tunnel shafts Screw shaft 8/2/22 Propeller 8/2/22 Stern tube 8/2/22 Steam pipes tested X Engine and ~~water~~ seatings 8/2/22 Engines holding down bolts 8/2/22 Completion of pumping arrangements 8/7/22 ~~Boilers fixed~~ Engines tried ~~under steam~~ 8/7/22 Completion of fitting sea connections 8/7/22 Stern tube Screw shaft and propeller Main boiler safety valves adjusted X Thickness of adjusting washers X

Material of Crank shaft Steel Identification Mark on Do. H.P.C.L. Material of Thrust shaft Steel Identification Mark on Do. Lloyds 29.9.20 TRB. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. Material of Steam Pipes X Test pressure X

Is an installation fitted for burning oil fuel X Is the flash point of the oil to be used over 150°F. X

Have the requirements of Section 49 of the Rules been complied with Yes- so far as applicable.

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. This Main Engine (Kromhout - Type M.P. - Size 2.m.4. # 314 - 90 H.P.) when assembled on the test blocks in the local shops of the Mexican Eagle Oil Company was found to be in very unsatisfactory condition as regards shop workmanship. The Gudgeon Pins in the Pistons were a very poor fit; the Crank Pins were only rough turned; and the Journal Bearings of the Crank Shaft were out of line and not properly finished . New Gudgeon Pins have been properly fitted and all bearings throughout the engine have been thoroughly lined up and dressed and polished. During bench trials the engine gave a great deal of trouble through heating and in one instance the Pistons froze to the Cylinder Walls. The imperfections in the engine have been remedied and during the trial trip on the Panuco River on July 8th the engine performed in satisfactory manner.

The Winch Unit consists of a British Kromhout 12 B.H.P, Type M.O. # 5118 Motor connected by Friction Drive to Drums operating the Cargo Gear. This Engine being a single cylinder unit develops a very excessive amount of vibration and in consequence a set of stiffening beams are being placed immediately under the Winch Unit with a view to absorb a large part of the vibration and prevent the opening up of the deck seams.

The amount of Entry Fee ... £ : : When applied for, Special ... £ \$ 100.00 7/11 19 22 Mex : : When received, Donkey Boiler Fee ... £ : : 7/11 19 22 Travelling Expenses (if any) £ : : 7/11 19 22

Committee's Minute

Assigned

TUE. 30 JAN. 1923

+ L.M.B. 7.22 oil engines.

Vernon Dyer
Engineer Surveyor to Lloyd's Register of Shipping.



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