

## REPORT ON OIL ENGINE MACHINERY.

No. 368626

Received at London Office

12 OCT 1953

Reporting Report 10. 1953 When handed in at Local Office

19 Port of Rotterdam

Survey held at Polna and Hiedrecht Date, First Survey 12 Nov 1951 Last Survey 8 March 1953

Number of Visits 14

Tons Gross 200.14  
Net 104.09Single  
on the Triple  
Quadruple

Screw vessel

motor tank barge "Passemul-Bahr"

Tons

Gross 200.14

Net 104.09

By whom built Hiedrecht By whom made Hiedrecht

Yard No. 10197 When built 1953

made at Polna By whom made Hiedrecht

Engine No. 1235 When made 1952

Boilers made at By whom made

Boiler No. 1 When made 1952

Horse Power { Maximum 150 Service 150 Owners Pakistan Government Port belonging to

per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

r which vessel is intended River service

GINES, &amp;c Type of Engines Heavy oil non reversible 2 or 4 stroke cycle 2 Single or double acting Single

n pressure in cylinders 55 kg/cm<sup>2</sup> Diameter of cylinders 190 Length of stroke 350 No. of cylinders 3 No. of cranks 3dicated Pressure 6.5 kg/cm<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in

crank) 270 mm Is there a bearing between each crank Yes (Revolutions per minute { Maximum 430 Service 430

dia. 1000 mm Weight 735 kg Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 450 kg cm<sup>2</sup> Means of ignition Compression kind of fuel used Gas oil

Solid forged Semi built All built as per Rule Appr. Crank pin dia. 140 mm Crank webs Mid. length breadth 210 mm Thickness parallel to axis 70 mm

dia. of journals as fitted 140 mm Crank webs Mid. length thickness 70 mm Thickness around eye hole 59 mm

el Shaft, diameter as per Rule Appr. Intermediate Shafts, diameter as fitted 110 mm Thrust Shaft, diameter as per Rule Appr. as fitted 100 mm

shaft, diameter as per Rule Appr. Screw Shaft, diameter as fitted 110 mm Is the screw shaft fitted with a continuous liner no

Liners, thickness in way of bushes as per Rule Appr. Thickness between bushes as fitted Is the after end of the liner made watertight in the

er boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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-

ve If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland fitted at the after

stern tube Yes If so, state type Hollow rubber ring Length of bearing in Stern Bush next to and supporting propeller 475 mm

ller, dia. 1300 mm Pitch 75 mm No. of blades 4 Material Cast iron whether moveable Total developed surface 46% sq. feet

t of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) Kind of damper, if fitted

od of reversing Engines Clutch coupling Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of

ation forged Thickness of cylinder liners 15 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

ged with non-conducting material Coiled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

o the engine 10 funnel Cooling Water Pumps, No. and how driven 2 29 ton/h from M.E. 1020/h Working F.W. 109 ton

109 ton Spare F.W. S.W. 1020 ton Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. and capacity 1 29 ton/h for emergency Can one be overhauled while the other is at work

s connected to the Main Bilge Line No. and capacity of each 1 10 ton/h 1 10 ton/h How driven Electric driven

cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

gements

st Pumps, No. and capacity 1 20 ton/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 5200 lb/h + 1 hand pump

two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions

nd size: In machinery spaces 1 64 mm 1 51 mm (emergency) 1 51 mm from hand pump In pump room 1 51 mm from hand pump

ds, &amp;c 2 51 mm from hand pump

t Bilge Suctions to the engine room bilges, No. and size 1 64 mm + 1 51 mm

all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction pipes in the machinery spaces led from easily

visible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

all Sea Connections fitted direct on the skin of the Ship on boxes Yes Are they fitted with valves or cocks Valves Are they fixed

iently 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

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

t pipes pass through the bunkers How are they protected

t pipes pass through the deep tanks Have they been tested as per Rule

all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

e 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

es, or from one compartment to another Yes Is the shaft tunnel watertight Is it fitted with a watertight door worked from

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

n Air Compressors, No. 1 No. of stages 2 diameters 10 1/2 inch stroke driven by main engine

liary Air Compressors, No. 1 No. of stages 1 diameters 10 1/2 inch stroke driven by

ll Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 75-85 mm stroke 70 mm driven by main engine

provision is made for first charging the air receivers Air engine hand started

enging Air Pumps or Blowers, No. 1 driven M.E.

liary Engines Have they been made under survey Yes Makers name Hiedrecht

Position of each in engine room 1st side + 1 in pump room

Report No. 17000 Rotterdam C15410

Engine Nos. 12747 + 12750

Foundation

012501-012507-0316



**AIR RECEIVERS:**—Have they been made under survey *Yes* ✓ State No. of report or certificate *Coy attached*  
State full details of safety devices *Reusable plugs in each vessel and spring loaded safety valve in delivery line from compressor*  
Can the internal surfaces of the receivers be examined and cleaned *Yes* ✓ Is a drain fitted at the lowest part of each receiver *Yes* ✓  
Injection Air Receivers, No. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*  
Seamless, welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*  
Starting Air Receivers, No. *2* ✓ Total cubic capacity *2 x 130 Hk* Internal diameter *290 Hk* thickness *10 mm Hk*  
Seamless, welded or riveted longitudinal joint *Seamless* Material *St Steel* Range of tensile strength *425 kg/cm<sup>2</sup>* Working pressure *30 kg/cm<sup>2</sup>*  
**IS A DONKEY BOILER FITTED** *no* If so, is a report now forwarded *✓*  
Is the donkey boiler intended to be used for domestic purposes only *✓*  
**PLANS.** Are approved plans forwarded herewith for shafting *Rankine & Co 1-52 Ref No 20* Receivers *1-52*  
(If not, state date of approval) *17-51* General pumping arrangements *15-51* Pumping arrangements in machinery space *17-52*  
Donkey boilers *✓* Separate fuel tanks *1-52*  
Oil fuel burning arrangements *✓*  
Have Torsional Vibration characteristics been approved *Yes* Date and particulars of approval *15-1-52*  
**SPARE GEAR.**  
Has the spare gear required by the Rules been supplied *Yes* State if for "short voyages" only *Yes*  
State the principal additional spare gear supplied *1 spare tailshaft*

The foregoing is a correct description of the above described vessel.

During progress of work in shops - - 1951 Nov. 11-29. 1952 Jan. 5-11-20 Feb. 19 April 21.

Dates of Survey while building During erection on board vessel - - 1952 Aug. 26. Sept. 2. Dec. 5. 1953 Jan. 27, Feb. 10-24 March 8.

Total No. of visits 7 + 7.

Dates of examination of principal parts—Cylinders 29-11-51. Covers 28-1-52 Pistons 29-11-51 Rods 29-11-51 Connecting rods 29-11-51.

Crank shaft 22-1-51 Flywheel shaft v Reverse coupling Thrust shaft 10-24/2-53 Intermediate shafts 29-11-51 10-12-52 10-12-53 Tube shaft 10-12-53.

Screw shaft 19-52 12-53 Propeller 5/12-53 Stern tube 19-10-53 Engine seatings 10-24/2-53 Engine holding down bolts 10-12-53.

Completion of fitting sea connections 5/12-53 Completion of pumping arrangements 24/2-53 Engines tried under working conditions 8/3-53.

Crank shaft, material *Forged mild steel* Identification mark *E.M.D. 22-1-52* Flywheel shaft, material v Identification mark *210405 P.250*.

Thrust shaft, material *S.H. steel* Identification mark *C.L. 12-2-52* Intermediate shafts, material *S.H. steel* Identification marks *A.H. 20-1-52* 210405 P.250.

Tube shaft, material v Identification mark v Screw shaft, material *S.H. steel* Identification mark *A.H. 5-11-52*.

Identification marks on air receivers 12-4/15-416 210405 TEST 6049 4.P.20-1 7.B.20-8-52.

Welded receivers, state Makers' Name *7. 8. 20. 8. 51.* *Thurs Helmsfabrik "Bolus"*

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 ✓

Full description of fire extinguishing apparatus fitted in machinery spaces: 2 pc. 2 gallon + 1 duckfoot hose in engine room + 2 pc. 2 gallon + 1 pc. 10  
Is the vessel (not being an oil tanker) fitted with: fireman.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo..... fireproof If so, have the requirements of the Rules been complied with in accordance with the Rules

What is the special notation desired.....

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..... If so, state name of vessel.....

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

The machinery of this vessel has been made and fitted in accordance with the approved plans. Secretary's Plans and Society's Rules. Materials tested as required and workmanship found good. Upon completion the machinery was tried under full working conditions on a trial trip on the river. However, when full was found to be in a good working and manoeuvring condition. No gear hammer did occur at all while the engine was running at various revolutions. Torsional vibration diagrams have been taken of the trial trip of which a copy is enclosed. With a view to the satisfactory results obtained I am of opinion that the machinery of this vessel merits the approval of the Committee to be recorded with the record of F.L.M.C. 3. Oil engine. P.G.

The amount of Entry Fee  $\pounds 200.00$  Account 20/6-52 - received 18/8-52

Special *de Klop fitting*  
 $\frac{1}{3} \times 1800 = \$100.00$

Donkey Boiler Fee... .. £

Travelling Expenses (if any) £ ~~1~~ 65.-

Committee's Minute

Assigned

When applied for 5.10. 1953

When received..... 19

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register  
Foundation