

REPORT ON OIL ENGINE MACHINERY.

No. 53199.

pt. 4b.

Received at London Office

23 NOV 1945

21 NOV 1945

Port of

HULL

Date of writing Report

When handed in at Local Office

No. in Survey held at

Goole

Date, First Survey

11.4.45.

Last Survey

6.11.

1945.

Reg. Book.

Number of Visits

16.

Single }
Triple }
Quadruple }
Screw vessel

"ACTUALITY"

Tons { Gross 944.59
Net 498.89

built at

Goole

By whom built

Goole Shipbuilding & Eng. Co. Ltd. Yard No. 426

When built 1945

engines made at

hambury

By whom made

Newbury Diesel Co. Ltd. Engine No. 806

When made

monkey Boilers made at

By whom made

Boiler No. — When made —

Indicated Horse Power

600 ✓

Owners

P. J. Edward & Son Ltd.

Port belonging to London

nominal Horse Power as per Rule

168 ✓

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Coastal

ENGINES, &c. — Type of Engines *Compression Ignition Airless Injection 2 or 4 stroke cycle 25C* Single or double acting *SA* ✓

Maximum pressure in cylinders *700 lb* Diameter of cylinders *320 mm* ✓ Length of stroke *426 mm* ✓ No. of cylinders *6* ✓ No. of cranks *6* ✓

Mean Indicated Pressure *80 lb* Diameter of cylinders *12 5/8"* Length of stroke *16 3/4"*

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge *452 mm* ✓ Is there a bearing between each crank *Yes*

Revolutions per minute *300* ✓ Flywheel dia. *900 mm* ✓ Weight *500 lbs* ✓ Means of ignition *Compn.* ✓ Kind of fuel used *Low Gas Oil* ✓

Crankshaft, { Solid forged } dia. of journals *as per Rule App.* Crank pin dia. *195 mm* ✓ Crank Webs Mid. length breadth *260 mm* ✓ Thickness parallel to axis *shrunk*

Wheel Shaft, diameter *as per Rule App.* Intermediate Shafts, diameter *as per Rule App.* Thrust Shaft, diameter at collars *as per Rule App.*

Propeller Shaft, diameter *as per Rule App.* Screw Shaft, diameter *as per Rule App.* Is the tube shaft fitted with a continuous liner *no* ✓

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

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

Does the liner do 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 ✓

Do 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

Yes If so, state type *Newark* ✓ Length of Bearing in Stern Bush next to and supporting propeller *2'-7"*

Propeller, dia. *6'-6"* Pitch *3'-9 1/2"* No. of blades *4* Material *M.B.* whether Moveable *Solid* Total Developed Surface *16.72* sq. feet

Method of reversing Engines *Direct air* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubrication

Direct Thickness of cylinder liners *32 mm* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with

conducting 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 ✓

Working Water Pumps, No. *One ME, One ind.* ✓ Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes* ✓

Other Pumps worked from the Main Engines, No. *Two* Diameter *110 mm* Stroke *120 mm* Can one be overhauled while the other is at work *Yes* ✓

Pumps connected to the Main Bilge Line { No. and Size *Two 110 mm x 120 mm* ✓ One 70 tons/hr ✓
How driven *ME* ✓ Ind. Aux. Eng. ✓

Is cooling water led to the bilges *no* ✓ If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements ✓

Fast Pumps, No. and size *One 100 tons/hr One 70 tons/hr* Power Driven Lubricating Oil Pumps, including Spare Pump, No. *and size Two 8.75 tons/hr*

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

pumps, No. and size:—In Machinery Spaces *Seven 2 1/2" in E.R.* In Pump Room ✓

Direct Suctions, &c. *One P One S in each hold - 2 1/2" N°1 - 3" N°2 HOLD.*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One 3"*

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Yes* Are the Bilge Suctions in the Machinery Spaces

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 or on robust EW steel boxes* ✓ Are they fitted with Valves or Cocks *Valves* ✓

Are they 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* ✓

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 ✓

How are they protected ✓

Are all pipes pass through the deep tanks *none* ✓ Have they been tested as per Rule ✓

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

department to another *Yes* Is the Shaft Tunnel watertight *Part of E.R.* Is it fitted with a watertight door ✓ worked from ✓

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

Auxiliary Air Compressors, No. *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *4 ENG.*

Auxiliary Air Compressors, No. *One* No. of stages *One* Diameters *110* Stroke *110 mm* Driven by *M. ENG.* ✓

Auxiliary Air Compressors, No. *One* No. of stages *Two* Diameters *120 mm x 52 mm* Stroke *102 mm.* Driven by *an Eng.* ✓

Auxiliary Air Compressors, No. *One* No. of stages *Two* Diameters *110 mm, 44"* Stroke *82 mm* Driven by *El. Motor* ✓

Is provision made for first Charging the Air Receivers *Hand starting auxy. engine* ✓

Charging Air Pumps, No. *One* Diameter *670 mm (DA)* Stroke *426 mm.* Driven by *M. ENG.* ✓

Auxiliary Engines crank shafts, diameter *as per Rule as fitted 85 mm.* No. *Two* Position *✓*

Have the Auxiliary Engines been constructed under special survey *Yes* ✓ Is a report sent herewith *Yes* ✓

00401-004106-0101

Lloyd's Register Foundation

"ACTUALITY."

AIR RECEIVERS:—Have they been made under survey? Yes ✓ State No. of Report or Certificate C 3990/1/2/3.
Is each receiver, which can be isolated, fitted with a safety valve as per Rule? Yes ✓
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. NONE Cubic capacity of each / Internal diameter / thickness
Seamless, lap welded or riveted longitudinal joint / Material / Range of tensile strength / Working pressure
Starting Air Receivers, No. Four ✓ Total cubic capacity 52 cubft. Internal diameter 19" ✓ thickness 1/2" ✓
Seamless, lap welded or riveted longitudinal joint long seam ✓ Material Mild steel Range of tensile strength 24/30 ✓ Working pressure by Rules 400 # ✓ Actual 400 #

IS A DONKEY BOILER FITTED? NONE If so, is a report now forwarded? ✓
Is the donkey boiler intended to be used for domestic purposes only? ✓ Sew shaft 10.1.46
PLANS. Are approved plans forwarded herewith for Shafting 6.4.44 ✓ Receivers 12.6.42 Separate Fuel Tanks 6.10.42
Donkey Boilers ✓ General Pumping Arrangements 1.10.42 Pumping Arrangements in Machinery Space 30.11.44
Oil Fuel Burning Arrangements 30.11.44

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes ✓
State the principal additional spare gear supplied? These are attached list.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Su London Rpt. No. 113,082.
During erection on board vessel --- 1945 Apr 11, 17, 20 July 21, 28 Aug 25 SEP 26, 27, 29 OCT 1, 16, 17, 25, 29, 30 Nov 6.
Total No. of visits 16.

Dates of Examination of principal parts—Cylinders Rpt Covers No. 11308 Pistons Rods Connecting rods
Crank shaft Su Flywheel shaft London Thrust shaft No. 11308 Intermediate shafts 25.8.45 Tube shaft
Screw shaft 21.7.45 Propeller 21.7.45 Stern tube 21.7.45 Engine seatings 25.8.45 Engines holding down bolts 26.9.4
Completion of fitting sea connections 21.7.45 Completion of pumping arrangements 6.11.45 Engines tried under working conditions 6.11.4

Crank shaft, Material Su London Identification Mark Rpt No Flywheel shaft, Material Identification Mark E. 4505 CP
Thrust shaft, Material Identification Mark 113082 Intermediate shafts, Material FISTL Identification Marks HYB.
Tube shaft, Material NONE Identification Mark ✓ Screw shaft, Material FISTL Identification Mark B 4503, CP, HYB.

Identification Marks on Air Receivers 30840 } 30839 } 30841 } 30838
LLOYDS No & TEST PRESS. 3992. 600 lbs } 3991. 600 # } 3993. 600 lb } 3990. 600 lb
W.PRESS & DATE 400# 27/6/45 } 400# 27/6/45 } 400# 27/6/45 } 400# 25/6/45.
HMD HMD HMD HMD.

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 ✓
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo? NO ✓ 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. "ADAPTITY" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been installed on board the motor coaster "ACTUALITY" at Gooli under Special Survey in accordance with the Rules, the Secretary's letters and approved plans. The workmanship and material are good.
The machinery has been tried under working conditions found satisfactory and is eligible to be recorded in the Register Book * LMC 11,45 O.G.
Oil Engines 2SCSA 6 cylinders 12 5/8" - 16 3/4"

The amount of Entry Fee .. £ : : When applied for,
Special FITT.:OUT.M. £ 13-18/4 12 NOV 1946
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19.

W.S. Shields
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 18 JAN 1946 FRI 4 JUL 1947
Assigned Defered + LMC 11,45 Oil Eng. S.N. 6,47 O.G.