

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 10th SEPT 1949 When handed in at Local Office 10th SEPT 1949 Port of GREENOCK

No. in Survey held at PORT GLASGOW Date, First Survey 7th AUG. 1947 Last Survey 18th AUGUST 1949
 Reg. Book (Number of Visits 3)

on the TUG SC "MERSEY ENGINEER" Tons { Gross 749.46
 Net 287.26

Built at PORT GLASGOW By whom built FERGUSON BROS (P'GS) L^{td} Yard No. 388 When built 1949

Engines made at PORT GLASGOW By whom made FERGUSON BROS Engine No. 388 When made 1949

Boilers made at GLASGOW By whom made D. POWAN & CO L^{td} Boiler No. 8519 When made 1949

Registered Horse Power. 185 ✓ MN Owners MERSEY DOCKS & HARBOUR BOARD Port belonging to LIVERPOOL

Nom. Horse Power as per Rule 185 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended BUCKET LADDER DREDGER

ENGINES, &c. Description of Engines Triple expansion Revs. per minute 130

Dia. of Cylinders 13 1/2" - 22" - 36" Length of Stroke 24" No. of Cylinders 6 No. of Cranks 6

Crank shaft, dia. of journals as per Rule 6.91 Crank pin dia. 7 1/4" Crank webs Mid. length breadth 13 1/2" Thickness parallel to axis 4 1/2"
as fitted 7 1/4" Mid. length thickness 4 1/2" shrunk Thickness around eye-hole 3"

Intermediate Shafts, diameter as per Rule 6.58" Thrust shaft, diameter at collars as per Rule 6.91"
as fitted 7.25" as fitted 7.25"

Tube Shafts, diameter as per Rule 7.57" Screw Shaft, diameter as per Rule 7.625" Is the { tube } shaft fitted with a continuous liner { No ✓
as fitted as fitted screw

Bronze Liners, thickness in way of bushes as per Rule None Thickness between bushes as per Rule Is the after end of the liner made watertight in the
as fitted as fitted propeller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

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. ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube
at 4th If so, state type "NEWARK" Length of Bearing in Stern Bush next to and supporting propeller 2' 11 1/4" ✓

Propeller, dia. 8' 3" Pitch 10' 0" No. of Blades 3 Material CI. whether Moveable No Total Developed Surface 20.97 sq. feet

Feed Pumps worked from the Main Engines, No. None Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Bilge Pumps worked from the Main Engines, No. None Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Feed Pumps { Na. and size 6" - 8" - 15" 6" - 8" - 15" Pumps connected to the { No. and size Two 8" - 15"
 How driven Steam Steam Main Bilge Line { How driven Steam

Ballast Pumps, No. and size None Lubricating Oil Pumps, including Spare Pump, No. and size None

Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected both to Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room Two @ 2 1/2" ER Two @ 2 1/2" BR Two @ 2 1/2" CR ✓

In Pump Room ✓ In Holds, &c. One @ 2 1/2" Hoisting eng space. One 2 1/2" Workshop. One 2 1/2" Dry Bulk P.S.

Two @ 2 1/2" Buooyancy space

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 6" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,
 No. and size One @ 3" ER. One @ 3" BR ✓ 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 Yes 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 Yes ✓

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 ✓

What 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
 compartment to another Yes ✓ Is the Shaft Tunnel watertight None ✓ Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c. (Letter for record S) Total Heating Surface of Boilers 3500 ✓

Which Boilers are fitted with Forced Draft None ✓ Which Boilers are fitted with Superheaters None ✓

No. and Description of Boilers Two Single end return tube Working Pressure 180 lbs / sq. in. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓

IS A DONKEY BOILER FITTED? No ✓ If so, is a report now forwarded? ✓

Can the donkey boiler be used for other than domestic purposes ✓

PLANS. Are approved plans forwarded herewith for Shafting Yes ✓ Main Boilers 960 hp 73219 Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)

Superheaters None General Pumping Arrangements ER Yes Oil fuel Burning Piping Arrangements Yes ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓

State the principal additional spare gear supplied See separate list

The foregoing is a correct description.

FERGUSON BROTHERS (PORT-GLASGOW) LTD.

Manufacturers.

John Ferguson MANAGING DIRECTOR



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Foundation

005293-005300-0109

Dates
of Survey
while
building

During progress of work in shops - - (1947) AUG. 7. SEPT. 11. OCT. 27. (1948) JAN. 27. FEB. 6. JULY 1. OCT. 7. NOV. 2. DEC. 7. 9. 14. 22. 23.
(1949) JAN. 7. 10. 17. FEB. 3. 17. 22. 24. MAR. 15. 28. JUNE 7. 9. 16. 28. JULY 19. AUG. 3. 4. 16. 18.

During erection on board vessel - - -

Total No. of visits

31.

Dates of Examination of principal parts—Cylinders 27-10-47 Slides 27-10-47 Covers 27-10-47
Pistons 27-10-47 Piston Rods 6-2-48 Connecting rods 6-2-48
Crank shaft 6-2-48 Thrust shaft 17-1-49 Intermediate shafts None
Tube shaft ✓ Screw shaft 7-1-48 Propeller 17-2-49
Stern tube 23-12-48 Engine and boiler seatings 27-1-49 Engines holding down bolts 17-2-49
Completion of fitting sea connections 9/6/49
Completion of pumping arrangements 4-8-49 Boilers fixed 17-2-49 Engines tried under steam 4-8-49
Main boiler safety valves adjusted 28-6-49 Thickness of adjusting washers P. 1/2" 3/16" Start 3/8" 5/16"
Crank shaft material S75 Identification Mark P 1440. SM 1435 Thrust shaft material S75 Identification Mark P 1814 CMM S 1815 17/4/49
Intermediate shafts, material None Identification Marks ✓ Tube shaft, material ✓ Identification Mark 5404
Screw shaft, material S75 Identification Mark P 1814 CMM 5404 Steam Pipes, material Other SOC Test pressure 360 lb Date of Test 15/3/49
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 the use of oil as fuel 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 No
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.)

The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved plans. The materials & workmanship are sound and good. The engines & boilers have been efficiently installed in the vessel & tested during a sea trial under full working conditions with satisfactory results. The installation is eligible in my opinion to be Classed in the Society's Register Book with record.

+ LMC 8-49 & Notations. Screw shaft OG, 2 SBs 180 lb /" fitted for oil fuel FP above 150°F.

The amount of Entry Fee ... £ 53 : 5 :
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 10th SEPT 1949
When received, 19

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Date

GLASGOW

14 SEP 1949

JHC

(The Committee's Minute)

-1- CMC 8.49

Fitted for oil fuel 8.49 F.P. above 150°F



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