

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 56513.

12 MAY 1950

Received at London Office

Date of writing Report 10 MAY 1950 Port of **HULL**

No. in Survey held at Hessle Date, First Survey 29. 4. 49 Last Survey 9. 3. 1950
Reg. Book. Number of Visits 16

35267 on the ~~Triple~~ ^{Single} Screw vessel **S.Sc. Motor Trawler "BONNYBRIDGE"** Tons ^{Gross} 289 _{Net} 98

Built at Hessle By whom built Henry Scarr, Ltd. Yard No. S.629 When built 1950

Engines made at Hazelgrove, Stockport By whom made Mirrlees, Bickerton & Day, Engine No. 33401 When made 1949

PROBABLY Donkey Boilers made at Johannesburg By whom made Boag & Co., Ltd. Boiler No. - When made -

Brake Horse Power 630 (567 cont. rating). Owners Great Western Fishing Co., Ltd. Port belonging to Fleetwood

Nom. Horse Power as per Rule 178 ¹²⁹ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Trawler

OIL ENGINES, &c.—Type of Engines Airless injection heavy oil 2 or 4 stroke cycle Single or double acting

SEE MANCHESTER REPORT NO. 13751.

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank

Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used

Crank Shaft, ^{Solid forged} ^{as per Rule} ^{as fitted} Crank pin dia. Crank Webs ^{Mid. length breadth} ^{shrunk} ^{Thickens parallel to axis}
^{Semi built} ^{dia. of journals} ^{as fitted} ^{Mid. length thickness} ^{Thickens around eyehole}
^{All built}

Flywheel Shaft, diameter ^{as per Rule} ^{as fitted} **Intermediate Shafts,** diameter ^{as per Rule} ^{as fitted} **Thrust Shaft,** diameter at collars ^{as per Rule} ^{as fitted}

Tube Shaft, diameter ^{as per Rule} ^{as fitted} **Screw Shaft,** diameter ^{as per Rule} ^{as fitted} ^{Is the} ^{shaft fitted with a continuous liner} ^{No}

Bronze Liners, thickness in way of bushes ^{as per Rule} ^{as fitted} Thickness between bushes ^{as per Rule} ^{as fitted} Is the after end of the liner made watertight in the

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

shaft Yes If so, state type Newark No. 3 Length of Bearing in Stern Bush next to and supporting propeller 3' 2"

Propeller, dia. 8' 0" Pitch No. of blades 4 Material C.I. whether Moveable solid Total Developed Surface sq. feet

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

forced Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel exhaust

Cooling Water Pumps, No. 1 S.W. 1 F.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. 1 Diameter 4 3/4" Stroke 5 1/2" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size 1-4 3/4" x 5 1/2" G.S. 50 tons/hr. Port forward aux. engine.

How driven M.E.

Is the 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

Ballast Pumps, No. and size G.S. only Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2-3"x3 1/4". 880 galls/hr.

Are 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 2-2", (also 1-2 1/2" to M.E. only) In Pump Room

In Holds, &c. 1-2" to for'd store., 1-2" to fishroom, 1-2" to slushwell.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2" from G.S. pump. 4 @ 2 1/2" M.E. bilge pump

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

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, or to welded boxes. Are they fitted with Valves or Cocks Yes

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 single cock

What pipes pass through the bunkers How are they protected

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

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 Is it fitted with a watertight door worked from

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

Main Air Compressors, No. 1 No. of stages 2 Diameters 5" & 2 5/8" Stroke 5" Driven by M.E.

Auxiliary Air Compressors, No. 1 No. of stages Diameters Stroke Driven by port aft aux. engine.

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers aux. engine can be started by hand.

Scavenging Air Pumps, No. Diameter Stroke Driven by 2020

Auxiliary Engines crank shafts, diameter ^{as per Rule} ^{as fitted} ^{approd.} No. 2-McLaren MR2 Mark II Nos. 21229/30. Position port side of E.R.

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Leeds No. 387.

Also 1-Mirrlees Type TLA5 Eng. No. 33402 fitted on starboard side of E.R. for driving winch only.

002471-002476-071

Marks 9238 A.J.B. 16.3.49:
W.J.I. 8.8.49:

AIR RECEIVERS:—Have they been made under survey

Yes ✓

Are reports or certificates now forwarded

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. -

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No. 2 ✓

Total cubic capacity

See Manchester Report No. 13751.

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

300lb.

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded?

Yes

Is the donkey boiler intended to be used for domestic purposes only

To be forwarded with report on Yard No. S.630

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers gen. approval

Separate Fuel Tanks

15.7.49

Donkey Boilers 4.5.49

General Pumping Arrangements 21.2.49

Pumping Arrangements in Machinery Space

21.2.49

Oil Fuel Burning Arrangements

15.7.49

12.4.49

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes ✓

State the principal additional spare gear supplied

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

1949. Apr. 29; May 12, 20; June 21; July 7; Aug 4, 17; Sept 1, 10; Oct 12, 13, 18; Feb. 1, 1950; Mar. 4, 8.

16.

SEE MANCHESTER REPORT NO. 13751.

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

21.6.49

Stern tube

21.6.49

Engine seatings

21.6.49

Engines holding down bolts

10.9.49

Completion of fitting sea connections

21.6.49

Completion of pumping arrangements

18.10.49

Engines tried under working conditions

8.3.50

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

3230 W.J.I.

Intermediate shafts, Material

Identification Marks

4779 G.P.S.

Tube shaft, Material

Identification Mark

8.6.49

Screw shaft, Material

Identification Mark

4776 T.D.S.

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

No

If so, state name of vessel

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

This machinery has been installed under Special Survey in accordance with the Rules, approved plans and the Secretary's letters.

On completion the main and auxiliary machinery was tried under working conditions during a river trial with satisfactory results.

The machinery is eligible in my opinion to have the Notation +L.M.C. 3,50

O.E. 4 S.C.S.A. 7 cyls. 13 $\frac{3}{4}$ ", 21". 178 M.N.

Note:— The trawl winch has not yet been fitted to this vessel due to delay in delivery.

The vessel is at present time fishing.

1/3 of 53:8:0d.

The amount of Entry Fee

£ 17

When applied for,

Special

£

8 MAY 1950

Donkey Boiler Fee

£ 6

When received,

Travelling Expenses (if any) £

FRI. 2 JUN 1950

Committee's Minute

Assigned + LMC 3.50 Oil Eng.

NDB made about 1945, fitted 1950

O.G. DB 80lb.

H. Chambers,

Engineer Surveyor to Lloyd's Register of Shipping.



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