

REPORT ON MACHINERY

No. 43827

WED NOV 19 1924

Received at London Office

Writing Report

19

When handed in at Local Office

14. 7. 1924 Port of Glasgow.

Survey held at Coatbridge.

Date, First Survey 19th Oct 1923 Last Survey 1st July 1924

(Number of Visits 27)

on the

S/S No. 477.

Tons { Gross
Net

When built

Built at Kallthommel By whom built Messrs Meyer.

made at Coatbridge.

By whom made W^m Beardmore & Co. Ltd. No. 601 when made 1924.

made at Glasgow.

By whom made D. Rowan & Co. Ltd. when made 1924.

rated Horse Power

Owners James Dredging Co

Port belonging to

Horse Power as per Section 28 110

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes

INES, &c.—Description of Engines

Triple expansion.

No. of Cylinders 3 No. of Cranks 3

of Cylinders 15"-25"-40"

Length of Stroke 24" Revs. per minute

Dia. of Screw shaft 8.55" as per rule 8.44" Material of screw shaft Steel

screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight

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

are fitted, is the shaft lapped or protected between the liners Vickers steam gland fitted Length of stern bush 3'-0"

of Tunnel shaft as per rule 4.45" 7.35" New Rule as per rule 4.825" 7.71" Dia. of Crank pin 8" Size of Crank webs 5' x 15 1/2" Dia. of thrust shaft under

as fitted None Dia. of Crank shaft journals as fitted 8.0" Dia. of screw 10'-0" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable No Total surface 3907

of Feed pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes

of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room In Holds, &c.

of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

That pipes are carried through the bunkers

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 1980. Is Forced Draft fitted No. and Description of Boilers

Working Pressure 180 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 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

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

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

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

IS A DONKEY BOILER FITTED?

SPARE GEAR. State the articles supplied:—

If so, is a report now forwarded?

The foregoing is a correct description,

WILLIAM BEARDMORE & CO., LIMITED

Manufacturer.

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

1923 Oct 19, 24, 30 Nov 5, 9, 15, 27, 29 Dec 4, 1924 Jan 7, 30, 31 Feb 12, 19, 28 Mar 7, 13, 25 Apr 2, 9, 16, 29 May 2, 6, 29

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 12-2-24 Slides 19-2-24 Covers 12-2-24 Pistons 19-2-24 Rods 25-3-24
Connecting rods 19-2-24 Crank shaft 30-1-24 Thrust shaft 9-4-24 Tunnel shafts 9-4-24 Screw shaft 26-4-24 Propeller 26-4-24
Stern tube 26-4-24 Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. 143 JD Material of Thrust shaft Steel Identification Mark on Do. 143 JD
Material of Tunnel shafts Steel Identification Marks on Do. 143 JD Material of Screw shafts Steel Identification Marks on Do. 143 JD
Material of Steam Pipes Test pressure

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

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) The engine has been built under special survey in accordance with the Rules of this Society.

The materials and workmanship are good.

The engine has been made to the order of the James Dredging and Towing Co. of London and has been dispatched to the J. Meyers Shipbuilding Co. Zaltbommel, Holland.

The amount of Entry Fee ... £ 11 : 0 : 0

Special ... £ : : 1577/1924

Donkey Boiler Fee ... £ : : 1577/1924

Travelling Expenses (if any) £ : : 1577/1924

Committee's Minute

Assigned Deferred

Engineer Surveyor to Lloyd's Register of Shipping.

FRI 7 NOV 1924



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