pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 15681A

Received at London Office JUN 8 1939

e of writing Report 2 June 1939 When handed in at Local Office ... 19 ... Port of Amsterdam

. in Survey held at Amsterdam Date, First Survey 10 Sept 1938 Last Survey 23 May 1939
. Book. Number of Visits 72

166 on the ~~Single~~ Twin ~~Triple~~ ~~Quadruple~~ Screw vessel M.V. SCOTTISH MAIDEN" Tons Gross 6993 Net 4036

lt at Barrow By whom built Vickers Ltd Yard No. ... When built 1921

ines made at Amsterdam By whom made N.V. Werkspoor Engine No 751/752 When made 1939

key Boilers made at Amsterdam By whom made N.V. Werkspoor Boiler No. 2857 When made 1939

ke Horse Power 2X1250. Owners Tankers Ltd Port belonging to London

n. Horse Power as per Rule 446 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

de for which vessel is intended Ocean trade

ENGINES, &c.—Type of Engines Supercharge Werkspoor 2 or 4 stroke cycle 4 Single or double acting Single

num pressure in cylinders 700 LBS Diameter of cylinders 19 11/16 500 mM Length of stroke 43 5/16 1100 mM No. of cylinders 6 No. of cranks 6

Indicated Pressure 1304 LBS

f bearings, adjacent to the Crank, measured from inner edge to inner edge 640 m M. Is there a bearing between each crank Yes

tions per minute 120 Flywheel dia. 1930 mM Weight 3500 mM Means of ignition Solid inj Kind of fuel used Diesel oil

ft, ~~Solid forged~~ ~~Semi built~~ All built dia. of journals as per Rule approved as fitted 350 mM Crank pin dia. 350 mM Crank Webs Mid. length breadth 660 Mid. length thickness 210 shrunk Thickness parallel to axis ~ Thickness around eyehole ~

eel Shaft, diameter as per Rule ... as fitted 300/350. Intermediate Shafts, diameter as per Rule approved as fitted 300 m M. Thrust Shaft, diameter at collars as per Rule approved as fitted 300 m M.

Shaft, diameter as per Rule ~ as fitted ~ Screw Shaft, diameter as per Rule ... as fitted 382 M/M Is the ~~tube~~ screw shaft fitted with a continuous liner no.

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

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

ner 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 ~

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 Cedervall. Length of Bearing in **Stern Bush** next to and supporting propeller existing

er, dia. 12'-3" Pitch 11-3" No. of blades 3 Material Bronze whether Moveable no Total Developed Surface 44.06 sq. feet

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

ced Thickness of cylinder liners 32.5/42.5 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

ucting 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 funnel

Water Pumps, No. One rotary each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

mps worked from the **Main Engines**, No. One rotary each engine ~~Diameter~~ ~~Stroke~~ 30 ton/hour Can one be overhauled while the other is at work Yes

connected to the **Main Bilge Line** { No. and Size ... How driven ...

ding 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

nts ~

Pumps, No. and size existing **Power Driven Lubricating Oil Pumps**, including Spare Pump, No. and size One each engine 60 ton/hour one existing steam pump.

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

o. and size:—In Machinery Spaces Existing In Pump Room

&c. do

lent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Existing

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

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

a Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Valves + cocks existing

ed sufficiently high on the ship's side to be seen without lifting the platform plates ~ Are the Overboard Discharges above or below the deep water line ~

h 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 ~

pass through the bunkers ~ How are they protected ~

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

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

gement 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

to another Yes Is the Shaft Tunnel watertight none Is it fitted with a watertight door ~ worked from ~

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

Compressors, No.	No. of stages	Diameters	Stroke	Driven by	
Air Compressors, No. existing	No. of stages ~	Diameters ~	Stroke ~	Driven by ~	
xiliary Air Compressors, No. ~	No. of stages ~	Diameters ~	Stroke ~	Driven by ~	

ision is made for first Charging the Air Receivers Compressors connected to steam engines

~~ng~~ **Air Pumps**, No. One each bottom of cyl Diameter 500 Stroke 1100 Driven by Main engine

Engines crank shafts, diameter as per Rule ... as fitted existing No. ... Position ...

Auxiliary Engines been constructed under special survey ~ Is a report sent herewith ~

Africa 27/6/39

AIR RECEIVERS:—*Have they been made under survey* existing *State No. of Report or Certificate* ~

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 ~ *Is a drain fitted at the lowest part of each receiver* ~

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.* existing *Total cubic capacity* ~ *Internal diameter* ~ *thickness* ~

Seamless, lap welded or riveted longitudinal joint ~ *Material* ~ *Range of tensile strength* ~ *Working pressure by Rules* ~ *Actual* ~

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 Yes.

PLANS. *Are approved plans forwarded herewith for Shafting* E 28-9-38 *Receivers* existing *Separate Fuel Tanks* ~
(If not, state date of approval) E 23-2-39 E 7-10-38.

Donkey Boilers E 9-12-38 *General Pumping Arrangements* existing *Pumping Arrangements in Machinery Space* existing

Oil Fuel Burning Arrangements ~

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,

WERKSPOOR N.V.

Manufacturer.

Dates of Survey while building

During progress of work in shops--- Sept 10-12-16-20-24-26-29 Oct 8-11-18-20-21-24-28 Nov 2-3-5-16-18-23-25 Dec 2-7-10-1
Jan 10-16-19-23-27. Jan 10-16-19-20 Feb 2-3-6-7-8-9-14-16-17-20-21-23-24-27. March 1-13
April 3-

During erection on board vessel--- April 4-11-12-17-19-22-29. May 3-5-8-10-12-13-15-17-23

Total No. of visits

Dates of Examination of principal parts—*Cylinders* Feb 8-9-20 March 1 *Covers* 10-16 Jan *Pistons* 16 Feb 13 March *Rods* Nov 16 Feb 16-17 *Connecting rods* Jan March

Crank shaft 28 Oct 2-5 January 19 January *Flywheel shaft* 18 Nov 3 Feb *Thrust shaft* 3-25 Nov 3 Feb *Intermediate shafts* 27 Dec 21-31 March 3 April *Tube shaft* ~

Screw shaft *Propeller* *Stern tube* *Engine seatings* 17 April *Engines holding down bolts* 3 May

Completion of fitting sea connections existing *Completion of pumping arrangements* ~ *Engines tried under working conditions* 23 May

Crank shaft, Material SMS *Identification Mark* as per list *Flywheel shaft, Material* SMS *Identification Mark* as per list

Thrust shaft, Material SMS *Identification Mark* do *Intermediate shafts, Material* SMS *Identification Marks* do

Tube shaft, Material ~ *Identification Mark* ~ *Screw shaft, Material* *Identification Mark*

Identification Marks on Air Receivers Existing

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 tanker *If so, have the requirements of the Rules been complied with* Yes

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 engines have been made under special survey to approved plans & Secretary's letters and the Society's rules
Material duly tested, workmanship throughout good
Properly secured on new engine seatings. Tested under full work
Condition whilst on a trial trip in the North Sea found work
good & manouvring as per rules. She is eligible in our opinion t
remain as classed, with notation of W. E fitted 5-39.

(Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £ 60.- :
Special ... .. £ 1102.80.0 :
Donkey Boiler Fee ... £ as pr : report
Travelling Expenses (if any) £ 25- :

When applied for, 7-6 19 39
When received, 19

FRI 7 JUL 1939

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipp