

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 19334

Received at London Office

T1 MAR 1954

Date of writing Report 2 Mar 1954 When handed in at Local Office 19

Port of Amsterdam

No. in
Reg. Book.

Survey held at

Amsterdam

Date, First Survey

24-8-53

Last Survey

18-1

1954

Number of Visits 10

Single
on the Twin
Triple
Quadruple

Screw vessel

Eibergen

Tons

Gross

Net

Built at

Groningen

By whom built

van Diepen

Yard No. 928

When built

1908

Engines made at

Amsterdam

By whom made

h.v. Werkspoor

Engine No. 1682

When made

1954

Donkey Boilers made at

By whom made

Boiler No. -

When made -

Brake Horse Power

Maximum

650

Owners

Furness

Port belonging to

M.N. as per Rule

Is Refrigerating Machinery fitted for cargo purposes -

Is Electric Light fitted

Trade for which vessel is intended

Ocean going

OIL ENGINES, &c. - Type of Engines TMA 5-336

2 or 4 stroke cycle

Single or double acting Single

Maximum pressure in cylinders

50 kg/cm²

Diameter of cylinders

330 mm

Length of stroke

600 mm

No. of cylinders

6

No. of cranks

6

Mean Indicated Pressure

7.29 kg/cm²

Span of bearings (i.e., distance between inner edges of bearings in

way of a crank)

394 mm

Is there a bearing between each crank

Yes

Revolutions per minute

Maximum

320

Service

Flywheel dia.

1400 mm

Weight

11400 kg

Moment of inertia of flywheel (lbs. in² or Kg. cm²)3.753 x 10⁵

Means of ignition

Comps

Kind of fuel used

Diesel

Crank

Solid forged

dia. of journals

as per Rule

245 mm

as fitted

Crank pin dia.

central

245 mm

Crank webs

Mid. length breadth

420 mm

Mid. length thickness

125 mm

Thickened parallel to axis

shrunk

Thickened around eyehole

Flywheel Shaft, diameter

as per Rule

230 mm

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

tube

screw

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 fitted at the after

end of stern tube

If so, state type

Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia.

1900 mm

Pitch

No. of blades

Material

whether moveable

Total developed surface

sq. feet

Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²)

Kind of damper, if fitted

Method of reversing Engines

Air

Is a governor or other arrangement fitted to prevent racing of the engine

Yes

Means of

lubrication

greases

Thickness of cylinder liners

10 mm

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled

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

Cooling Water Pumps, No. and how driven

Two h.p.

Working F.W.

S.W. One rotating Spare F.W.

S.W.

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. and capacity

One rotating 30 t/h

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and capacity of each

How driven

Is the cooling water led to the bilges

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 capacity

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

One gear driven 126 lpm

Are two independent means arranged for circulating water through the Oil Cooler

Branch Bilge Suctions

No. and size:—In machinery spaces

In pump room

In holds, &c.

Direct Bilge Suctions to the engine room bilges, No. and size

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes

Are the bilge suction 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

Are all Sea Connections fitted direct on the skin of the Ship

Are they fitted with valves or cocks

Are they fixed

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

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

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks

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

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

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.

One

No. of stages

Two

diameters

180/50 mm

stroke

100 mm

driven by

M.E.

Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

Small Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

What provision is made for first charging the air receivers

Scavenging Air Pumps or Blowers, No.

How driven

Auxiliary Engines

Have they been made under survey

Engine Nos.

Position of each in engine room

Report No.

002543-002549-0055

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Lloyd's Register
Foundation

4B. 19334.

AIR RECEIVERS:—Have they been made under survey Yes ✓ State No. of report or certificate Dusseldorf 8457
State full details of safety devices Spring loaded valves ✓
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, welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure —
Starting Air Receivers, No. 2 ✓ Total cubic capacity 1900 L Internal diameter 600 mm thickness 11 mm
Seamless, welded or riveted longitudinal joint Seamless Material 1/2 in Steel Range of tensile strength 40 kg/cm² Working pressure 30 kg/cm²

IS A DONKEY BOILER FITTED — If so, is a report now forwarded —
Is the donkey boiler intended to be used for domestic purposes only —
PLANS. Are approved plans forwarded herewith for shafting 1-1-54 Receivers 13/54 Separate fuel tanks —
Donkey boilers — General pumping arrangements — Pumping arrangements in machinery space —
Oil fuel burning arrangements —

Have Torsional Vibration characteristics been approved Yes ✓ Date and particulars of approval 8-3-54 13254

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓ State if for "short voyages" only Short voyages
State the principal additional spare gear supplied —

The foregoing is a correct description,
WERKSPOR N.V. Q. 2022 Manufacturer.

Dates of Survey while building —
During progress of work in shops — 24/8, 21/9, 28/9, 19/10, 30/11, 10/12 '53; 6/1, 13/1 '54
During erection on board vessel — —
Total No. of visits 9

Dates of examination of principal parts — Cylinders 24/8 19/10 Covers 2/9 28/9 Pistons 18/12 Rods — Connecting rods 30/11
Crank shaft 2/9 6/1 Flywheel shaft — Thrust shaft — Intermediate shafts — Tube shaft —
Screw shaft — Propeller — Stern tube — Engine seatings — Engine holding down bolts —
Completion of fitting sea connections — Completion of pumping arrangements — Engines tried under working conditions 15/1 '54

Crank shaft, material 1/2 in Steel Identification mark Clayton 18375 Flywheel shaft, material, — Identification mark —
Thrust shaft, material 1/2 in Steel Identification mark HA 10-9-53 Intermediate shafts, material — Identification marks —
Tube shaft, material — Identification mark KK-AVH 5-11-53 Screw shaft, material — Identification mark —
Identification marks on air receivers Clayton Test 7760 atm WP 30 atm 457-8-53 and Clayton Test 7760 atm WP 30 atm 457-8-53

Welded receivers, state Makers' Name —
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 —
Full description of fire extinguishing apparatus fitted in machinery spaces —
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo — If so, have the requirements of the Rules been complied with —
What is the special notation desired —
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 Jan H'gel van Dispen

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)
The engine has been built under Special Survey in accordance with the approved plans, Secretarial letters and the Society's Rules. Materials have been tested as required and workmanship found good. The engine has been tried under full working conditions on maker's testbed and found satisfactory and merits in my opinion the approval of the Committee to grant the vessel where the engine is intended for a record + LMC with date when installed and tried on board. The engine has been shipped to Waterhuizen.
Copy cert. of crankshaft, thrustshaft and air receivers attached

The amount of Entry Fee ... £ 473.- When applied for ... 19
Special ... £ : : When received ... 19
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ : :
Engineer Surveyor to Lloyd's Register of Shipping. J. H. H. H. H.

Committee's Minute FRIDAY 14 MAY 1954
Assigned See Geo. F.E. Rpt.

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