

REPORT ON OIL ENGINE MACHINERY.

No. 86253
27 SEP 1930

Received at London Office
Newcastle-on-Tyne

Date of writing Report

When handed in at Local Office

25th Sept 1930 Port of

No. in Survey held at
Reg. Book

Newcastle-on-Tyne

Date, First Survey

27 Dec/29

Last Survey

21st Sept 1930

Number of Visits

77

81065. on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel

M.V. "PEIK"

Tons Gross 6099
Net 3592

Built at

Walker

By whom built

Thos. S. W. G. Armstrong Whitworth & Co. Ltd.

Yard No.

1057

When built

1930

Engines made at

Scotwood

By whom made

Thos. S. W. G. Armstrong Whitworth & Co. Ltd.

Engine No.

90

When made

1930

Donkey Boilers made at

Scotwood

By whom made

Thos. S. W. G. Armstrong Whitworth & Co. Ltd.

Boiler No.

90

When made

1930

Brake Horse Power

2250

Owners

J. W. SALVESEN.

Port belonging to

OSLO.

Nom. Horse Power as per Rule

583.

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes.

Trade for which vessel is intended

Ocean Going.

IL ENGINES, &c.—Type of Engines

Armstrong Sulzer.

2 or 4 stroke cycle

2. Single or double acting

Single

Maximum pressure in cylinders

500 lb/sq. in.

Diameter of cylinders

600 in.

Length of stroke

1060 in.

No. of cylinders

6

No. of cranks

6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

850 in.

Is there a bearing between each crank

Yes.

Revolutions per minute

114.

Flywheel dia.

2100 in.

Weight

8.25 tons

Means of ignition

Compression

Kind of fuel used

Crude oil.

Crank Shaft, dia. of journals

as per Rule

388 in.

Crank pin dia.

408 in.

Crank Webs

Mid. length breadth

550 in.

Mid. length thickness

226 in.

Thickness parallel to axis

shrunk

Thickness around eye-hole

Solid.

COMPRESSOR

Flywheel Shaft, diameter

as per Rule

as approved

Intermediate Shafts, diameter

as per Rule

as fitted

11 3/4 in.

Thrust Shaft, diameter at collars

as per Rule

as fitted

405 in.

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

12.75 in.

Is the { tube } shaft fitted with a continuous liner {

screw

Yes

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

6.87 in.

Thickness between bushes

as per rule

as fitted

5.15 in.

Is the after-end of the liner made watertight in the

propeller boss

Yes

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

Continuous

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

Yes.

Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft

No.

Length of Bearing in

Stern Bush next to and supporting propeller

4'-7"

Propeller, dia.

14'-0"

Pitch

11'-9"

No. of blades

4

Material

Bronze

whether Moveable

Solid

Total Developed Surface

72.5

sq. feet

Method of reversing Engines

Scotch Traction

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

Yes

Means of lubrication

Forced

Thickness of cylinder liners

20 in.

Are the cylinders fitted with safety valves

Yes.

Are the exhaust pipes and silencers water cooled or lagged with

Non-conducting material

Water

Coiled

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

in Tunnel.

Yes.

Cooling Water Pumps, No.

Three

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.

One

Diameter

150 in.

Stroke

300 in.

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

2 one @ 8" x 10" x 10"

How driven

Steam

Electric motor

Ballast Pumps, No. and size

One @ 8" x 10" x 10"

Lubricating Oil Pumps, including Spare Pump, No. and size

2 one @ 10 1/2" x 7 1/2" x 4 one @ 5 1/2"

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 @ 3" dia

2 @ 2 1/2" dia

one @ 4" dia

2 @ 4 1/2" dia

Independent Suctions.

In Holds, &c.

Fore Hold 2 @ 2 1/2" dia

For. Cofferdam 4" dia

Aft. Cofferdam 4" dia

Fore Peak 3" dia

Aft. Peak 3" dia

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

Two @ 4 1/2" dia

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes.

Are the Bilge Suctions in the Machinery Spaces

Yes.

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Yes.

Are they fitted with Valves or Cocks

Both.

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes.

Are the Overboard Discharges above or below the deep water line

Above.

What pipes pass through the bunkers

None

How are they protected

Yes.

What pipes pass through the deep tanks

Yes.

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

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

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

On 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

3.

Diameters

5 1/2" x 4 1/2" x 150"

Stroke

400 in.

Driven by

Main Engine.

Auxiliary Air Compressors, No.

One 150 c. ft.

No. of stages

3.

Diameters

13 1/4" x 7 1/4" x 3 1/2"

Stroke

9"

Driven by

Steam

Small Auxiliary Air Compressors, No.

One 50 c. ft.

No. of stages

3.

Diameters

7 1/4" x 6 3/8" x 2"

Stroke

5 1/2"

Driven by

Steam

Exhausting Air Pumps, No.

One

Diameter

1400 in.

Stroke

510 in.

Driven by

Main Engine.

ELECTRICAL GENERATORS.

as per Rule

as fitted

164 in.

165 in.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yes.

Are the internal surfaces of the receivers be examined

Yes.

What means are provided for cleaning their inner surfaces

Manhole.

Is there a drain arrangement fitted at the lowest part of each receiver

Yes.

High Pressure Air Receivers, No.

3 @ 1000 lb.

Cubic capacity of each

10 c. ft.

Internal diameter

28 c. ft.

Thickness

470 in.

22.5 in.

Are they made of Seamless, lap welded or riveted longitudinal joint

Seamless

Material

Steel

Range of tensile strength

28-32 tons

Working pressure by Rules

1360 lb/sq. in.

Are they made of Seamless, lap welded or riveted longitudinal joint

Seamless

Material

Steel

Range of tensile strength

28-32 tons

Working pressure by Rules

1360 lb/sq. in.

Are they made of Seamless, lap welded or riveted longitudinal joint

Riveted

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

PLANS. Are approved plans forwarded herewith for Shafting

19.2.30.

Receivers 19.12.29 & 17.4.30

Separate Tanks

14.4.30

Donkey Boilers

Yes.

General Pumping Arrangements

1.1.30

Oil Fuel Burning Arrangements

21.5.30.

SPARE GEAR 1 cyl cover complete with all valves etc & one complete set of valves for one cylinder strings etc
 fuel needle valves for half the number of cylinders, 1 piston complete with all piston rings, studs & nuts
 1 set of piston rings for 1 piston, 2 telescopic cooling tubes for one piston, 1 set of screw wheels for the
 Cam shaft drive, 1 set of studs & nuts for one cyl cover, 2 crosshead bearing bolts & nuts, 2 crank
 bearing bolts, 1 set of bolts for crank shaft coupling, 1 set of bolts for intermediate shaft coupling
 2 cyl liners, 1 piston head & rod, 1 set of main bearing brasses. Trans & Aux Compressors & Pump
 1 set of piston rings for each compressor piston, 1 half set of such & del valves for each
 2 bottom end bolts for main compressor, 1 set of such & del valves & 2 bottom end & 2 top
 end bolts for Scavenge air Pump, 1 set of piston rings, valves & seats etc for each stage
 of aux compressor, all working parts for one fuel pump. Auxiliary Pumps 1 such
 & one del valve for Oil Transfer Pump, 1 set of such & del valves for bilge pump, a quantity of assorted bolts & nuts
 a length of pipe for each ring used for the fuel del & injection air tubes & the air del from main
 compressor to receivers with unions & flange nutables for each. 1 screw shaft & hubbell & other spare
 parts.

The foregoing is a correct description,

FOR W. G. ARTHUR & COMPANY (ENGINEERS) LIMITED.

H. Dewney

Manufacturer.

Dates of Survey while building
 During progress of work in shops -- 1929 Dec. 27.31. 1930 Jan. 6.15.17.21.24.27. Feb. 26. Mar. 3.18.21.25.31. Apr. 5.8.10.14.22.23.25. May 2.12.20.28. Jun 5.6.10.11.12.13.16.17.18.19.20.23.24.30. July 1.2.3.4.5.7.9.10.11.15.16.17.18.21.25.24.25.28.29.30.
 During erection on board vessel -- 7.8.19.21.22.25.26.27.28. Sep. 1.2.3.4.8.15.17.22.
 Total No. of visits 77.

Dates of Examination of principal parts—Cylinders 3.7.30 Covers 3.4.30 Pistons 7.7.30 Rods 3.7.30 Connecting rods 3.7.30
 Crank shaft 13.6.30 COMPRESSOR 13.6.30 FLYWHEEL 6.6.30 Intermediate shafts 6.6.30 Tube shaft ✓
 Screw shaft 10.7.30 Thrust shaft 17.7.30 Stern tube 3.7.30 Engine seatings 23.7.30 Engines holding down bolts 25.8.30
 Completion of fitting sea connections 23.7.30 Completion of pumping arrangements 17.9.30 Engines tried under working conditions 22.9.30
 Crank shaft, Material Steel Identification Mark 3990 3995 FLYWHEEL 1318 Intermediate shafts, Material Steel Identification Marks 1602.
 Thrust shaft, Material Steel Identification Mark 3267.
 Tube shaft, Material ✓ Identification Mark 3240
 Is the flash point of the oil to be used over 150° F. Yes.

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

"Evina" (Main Engines only).

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

The machinery has been built under Special Survey and in accordance with the Society's Rules & approved plans.
 The materials & workmanship are sound and good. The machinery was efficiently installed on board, tested & manoeuvred on completion under working conditions & found satisfactory. The machinery of this vessel is eligible in our opinion to be classed and to have the notation of "Oil Engines" & records of + LMC 9, 30 and TS C.

It is submitted that this vessel is eligible for THE RECORD + LMC 9.30 C-L
 Oil Engines 25 C.S.A. 6cy. 23 5/8" - 41 3/4"
 2DB - 180 lb.

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for
 Special ... £ 104 : 3 : 0 26 SEP 1930
 Donkey Boiler Fee ... £ 13 : 13 : 0 When received
 AIR RECEIVERS ... £ 6 : 6 : 0 15.10.30
 Travelling Expenses (if any) ... £ 6 : 6 : 0
 JUL 30 SEP 1930

Committee's Minute

Assigned

L. Pickett & H. M. Carrick
 Engineer Surveyor to Lloyd's Register of Shipping.

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 Foundation

Rpt. 4b