

REPORT ON OIL ENGINE MACHINERY.

No. 83848

Date of writing Report

19

When handed in at Local Office 30 DEC 1920

Received at London Office 130 DEC 1920

Port of (Ipswich) London

No. in Survey held at
Reg. Book.

Date, First Survey

Last Survey 8-12-

1920.

Number of Visits

on the ~~Single~~
TripleAuxiliary Electric
Generating Engine for

"Seminola"

Tons
Gross
Net

Master Built at

By whom built

Yard No.

When built

Engines made at Ipswich

By whom made

The Rev. Peter Ltd

S. Engine No. 272

When made 1920.

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 38

Owners

Port belonging to

Nom. Horse Power as per Rule 10 85

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

IL ENGINES, &c.—Type of Engines Vickers-Petters Semi Diesel V.E. 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 280 lbs per sq in

No. of cylinders 1

No. of cranks 1

Diameter of cylinder 12"

Length of stroke 14"

Revolutions per minute 300

Means of ignition Hot Surface

Kind of fuel used Crude oil

Is there a bearing between each crank

Span of bearings (Page 92, Section 2, par. 7 of Rules) 14"

Distance between centres of main bearings 23 1/2"

Is a flywheel fitted Yes

Diameter of crank shaft journals as per Rule as fitted

Diameter of crank pins 5 1/4"

Breadth of crank webs as per Rule as fitted

7 3/4"

Thickness of ditto as per Rule as fitted 3"

Diameter of flywheel shaft as per Rule as fitted 5 1/2"

Diameter of tunnel shaft as per Rule as fitted

Diameter of thrust shaft as per Rule as fitted

Diameter of screw shaft as per Rule as fitted

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made watertight in the 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 liners are fitted, is the shaft lapped or protected between the liners

If without liners, is the shaft arranged to run in oil

Type of outer gland fitted to stern tube

Length of stern bush

Diameter of propeller

Pitch of propeller

No. of blades

state whether moveable

Total surface square feet

Method of reversing

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

Thickness of cylinder liners 1"

Are the cylinders fitted with safety valves No

Means of lubrication

main bearings ring oiled
other mechanical

Are the exhaust pipes and silencers water cooled or lagged with

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

No. of cooling water pumps 1

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

within the vessel

No. of bilge pumps fitted to the main engines

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

How driven

Sizes of pumps

No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room

Sizes of pumps

and in holds, etc.

No. of ballast pumps

How driven

Is a separate auxiliary pump suction fitted in

Is the ballast pump fitted with a direct suction from the engine room bilges

State size

Are the roses in Engine Room always accessible

Engine Room and size

Are all the bilge suction pipes fitted with roses

Are all connections with the sea direct on the skin of the ship

Are the sluices on Engine Room bulkheads always accessible

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

Are they valves or cocks

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the discharge pipes above or below the deep water line

Are the bilge suction pipes, cocks and valves arranged so as to prevent any

Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times

Is it fitted with a watertight door

Communication between the sea and the bilges

Is the screw shaft tunnel watertight

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

worked from

No. of main air compressors

No. of stages

Diameters

Stroke

Driven by

No. of auxiliary air compressors

No. of stages

Diameters

Stroke

Driven by

No. of small auxiliary air compressors

No. of stages

Diameters

Stroke

Driven by

No. of scavenging air pumps

Diameter

Stroke

Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted

Are the air compressors and their coolers made so as to be easy of access

R RECEIVERS:—No of high pressure air receivers

Internal diameter

Cubic capacity of each

Material

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

Thickness

working pressure by Rules

No. of starting air receivers 1

Internal diameter 11 1/2"

Total cubic capacity 2.75 cub ft

Material Steel

Seamless, lap welded or riveted longitudinal joint as approx

Is each receiver, which can be isolated,

Range of tensile strength 28/32 tons

thickness 1/4"

Working pressure by Rules 150 lbs per sq in

What means are provided for cleaning the

fitted with a safety valve as per Rule No

Can the internal surfaces of the receivers be examined No

Is there a drain arrangement fitted at the lowest part of each receiver Drain cock on lowest part of air system

inner surfaces None

Lloyd's Register

W488-0067

IS A DONKEY BOILER FITTED? ☒If so, is a report now forwarded? ☒

HYDRAULIC TESTS.—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	16-11-20	280 lbs per sq in	560 lbs per sq in	SE 272	LLOYD'S TEST 560 lbs abs.
" " COVERS HEADS...	16-11-20 8-12-20	"	"	SE 272	LLOYD'S TEST 560 lbs abs. One spare
" " JACKET.....	16-11-20	56 10 lbs per sq in	50 lbs per sq in	SE 272	LLOYD'S TEST 50 lbs abs.
" " CYL HEAD	16-11-20 8-12-20	56 10 lbs per sq in	50 lbs per sq in	SE 272	LLOYD'S TEST 50 lbs abs.
MAIN COMPRESSORS—1st Stage.....					
" 2nd "					
" 3rd "					
AIR RECEIVER—STARTING	8-12-20	150 lbs per sq in	400 lbs per sq in	SE 272	LLOYD'S TEST 400 WPI 150 abs.
OIL CONTAINER	8-12-20	150 lbs per sq in	300 lbs per sq in	SE 272	LLOYD'S TEST 300 lbs abs.
AIR PIPES (Starting).....	9-12-20	150 lbs per sq in	300 lbs per sq in	SE 272	LLOYD'S TEST 300 lbs abs.
FUEL PIPES F.L.P. Bypass Valve	17-11-20 8-12-20	600 lbs per sq in	1200 lbs per sq in	SE 272	LLOYD'S TEST 1200 lbs abs.
FUEL PUMPS (2)	17-11-20 8-12-20	600 lbs per sq in	1200 lbs per sq in	SE 272	LLOYD'S TEST 1200 lbs abs. 1 Pump Spare
SILENCER	17-11-20	nil	20 lbs per sq in	SE 272	LLOYD'S TEST 20 lbs abs.
" WATER JACKET	7-11-20	nil	20 lbs per sq in	"	"
SEPARATE FUEL TANKS	8-12-20	"	7 1/2 lbs per sq in	SE 272	LLOYD'S TEST 7 1/2 lbs abs.

PLANS. Are approved plans forwarded herewith for shuffling *Sep 1919*
(If not, state date of approval)Receivers *Standard*Separate Tanks *Standard*

SPARE GEAR 2 bottom half main bearing brasses. Con rod small end top & bottom brass. 1 main bearing along ring 2 crank washers. 2 con rod bottom end brasses complete with 4 bolts & nuts 5 Piston rings. 1 fuel sprayer body & 2 nozzles. 1 oil lubricator glasses. 12 air valves. 3 vapour joints. 3 cyl head joints. 1 cylinder head & vapour. 3 ignition tubes. 1 burner nipple & 1 strainer, & 1 flame tube, 1 starting valve complete. 1 fuel pump complete. 1 fuel pump safety valve. 3 water tube joints, 1 water outlet flange joint 2 pump joints. 1 piston pin spring. 1 sprayer spring. 1 clacking valve spring. 1 fuel pump suction spring & 1 delivery. 2 governor spring & 2 crank washer spring

The foregoing is a correct description,

Vickers Pedlar Ltd Manufacturer.

Dates of Survey while building
During progress of work in shops - 1920 Nov. 16, 17, 23 Dec 2, 8
During erection on board vessel - 5
Total No. of visits

Dates of Examination of principal parts—Cylinders 16-11-20 8-12-20 HEADS 16-11-20 Covers 8-12-20 Pistons 16-11-20 8-12-20 Rods Connecting rods 16-11-20 8-12-20

Crank shaft 8-12-20. Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Engine seatings

Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions

Completion of fitting sea connections Stern tube Screw shaft and propeller

Material of crank shaft *Steel* Identification Mark on Do. *484 DYC.* Material of thrust shaft Identification Mark on Do.

Material of tunnel shafts Identification Marks on Do. Material of screw shafts Identification Marks on Do.

Is the flash point of the oil to be used over 150° F.

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

General Remarks (State quality of workmanship, opinions as to class, &c.) This engine has been built under Special Survey, in accordance with approved plan & Society's Rules. The materials & workmanship are sound & good. After erection the engine, coupled to the generator, was tried under full load working conditions and found satisfactory, afterwards dismantled and working parts examined. This plant has been despatched to Barrow for installing in vessel.

This engine has been efficiently fitted on board, & when coupled to a Metropolitan-Vickers Generator was examined under full load & found satisfactory (Barr Rpt No 1904). The Governor was found to be very efficient, & special attention was given to the working of the generator as instructed in the Secretary's letter of 30th December 1920.

The amount of Entry Fee ... £ 5 : 5 :
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 30/11/20
When received, 18/12/20

John Houston
Robert Rao
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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