

# REPORT ON OIL ENGINE MACHINERY

No. 391

21 JAN 1928

Received at London Office

4b

Writing Report

When handed in at Local Office

Port of

Cleveland, Ohio

Survey held at

Hamilton Ohio

Date, First Survey

Aug 24-25

Last Survey

June 23 1927

Number of Visits

on the   
 Single }   
 Twin }   
 Triple }   
 Screw vessels

"J. A. MOFFETT JR."

Tons { Gross 9565   
 Net 5948

Built at

Hamilton, Ohio

By whom built

Hooven Owens Pentecost

Yard No.

5401

When built

1927-6

Boilers made at

By whom made

Boiler No.

When made

Indicated Power

3300 Total

Owners

Standard Oil Coy.

Port belonging to

New Jersey

Indicated Power as per Rule

1053 Total

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

GINES, &c. - Type of Engines

Diesel Port & Starb.

2 or 4 stroke cycle

2 Single or double acting

Pressure in cylinders

500

No. of cylinders

4 each

No. of cranks

4 each

Diameter of cylinders

24 1/2"

Stroke

47 1/4"

Revolutions per minute

90

Means of ignition

Compression

Kind of fuel used

Diesel oil

Clearance between each crank

Yes

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

40 5/8"

Clearance between centres of main bearings

4'-11"

Is a flywheel fitted

Yes

Diameter of crank shaft journals

17.32"

Diameter of crank pins

17 3/4"

Breadth of crank webs

4.58"

Thickness of ditto

10.82"

Diameter of flywheel shaft

17.32"

Diameter of tunnel shaft

17 3/4"

Diameter of thrust shaft

14 3/8"

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

Yes

Does the end of the liner made watertight in the propeller boss

If the liner is in more than one length are the joints burned

Does the end of the liner 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

Are the bearings fitted, is the shaft lapped or protected between the liners

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

Is the propeller gland fitted to stern tube

Length of stern bush

Diameter of propeller

Number of blades

No. of blades

state whether moveable

Total surface square feet

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

Yes

Thickness of cylinder liners

2"

Are the exhaust pipes fitted with safety valves

Yes

Means of lubrication

Forced feed

Are the exhaust pipes and silencers water cooled or lagged with

insulating material 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

2

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

No. of bilge pumps fitted to the main engines

Diameter of ditto

Stroke

Are the bilge pumps overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

How driven

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

Ballast pumps, etc.

No. of ballast pumps

How driven

Sizes of pumps

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

State size

Is a separate auxiliary pump suction fitted in

Are all the bilge suction pipes fitted with roses

Are all the bilge suction pipes fitted with roses

Are the roses in Engine Room always accessible

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

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

Are the valves or cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the floor 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 valves, cocks, valves and pumps in connection with the machinery accessible at all times

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

leakage between the sea and the bilges

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

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

No. of main air compressors

1 each

No. of stages

3

Diameters

4 1/2, 29 1/2, 30 1/2"

Stroke

23 1/2"

Driven by Main engine

No. of auxiliary air compressors

2

No. of stages

3

Diameters

4 1/2, 30-340-380"

Stroke

250"

Driven by Aux. engines

No. of main auxiliary air compressors

1 each

No. of stages

3

Diameters

45"

Stroke

55"

Driven by Main engine

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

Yes

Booster Co. Engines 80001-2

6.40" at 500

No. of auxiliary Diesel Engine crank shafts

4 1/2"

RECEIVERS:—No. of high pressure air receivers

Internal diameter

Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

Working pressure by Rules

No. of starting air receivers

Internal diameter

Cubic capacity

Material

Seamless, lap welded or riveted longitudinal joint

Tensile strength

Thickness

Working pressure by rules

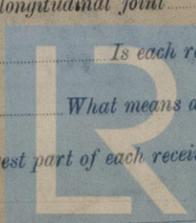
Is each receiver, which can be isolated,

Is a safety valve as per Rule

Can the internal surfaces of the receivers be examined

What means are provided for cleaning their

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



Lloyd's Register Foundation

W181-0147

IS A DONKEY BOILER FITTED?  
HYDRAULIC TESTS:-

If so, is a report now forwarded?

Rpt. 4b

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....	Oct 24 - 1925	500	850	✓	Owing to the distance of the engine etc from this office arrangements to witness these tests could not be made by the undersigned; but they were made in the presence of the owners representative
" " COVERS .....	Dec 21 - 1926	500	1000		
" " JACKETS .....		35	100		
" " PISTON WATER PASSAGES .....		42	100		
MAIN COMPRESSORS—1st STAGE .....		100	525		
" 2nd " .....		1100	1500		
" 3rd " .....					
AIR RECEIVERS—STARTING .....					
" INJECTION .....		1100	2000		
AIR PIPES .....		400	800		
FUEL PIPES .....		1450	2000		
FUEL PUMPS .....		1250	2000		
SILENCER .....					
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for shafting (If not, state date of approval)

Receivers Separate Tanks

SPARE GEAR See attached list

The foregoing is a correct description

*Harven Owens Reuschler Co.* Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1925 Aug 24. Oct 12. 1926 Feb 11. June 23.	1926 Mar 3. May 18. July 19. Dec 21
Dates of Examination of principal parts	Cylinders	Mar 3/26. Dec 21/26	Covers
Crank shafts	Thrust shaft	Oct 12/25. Dec 21/26	Tunnel shafts
Engines holding down bolts	Completion of pumping arrangements	Mar 3/26. Dec 21/26	Pistons
Completion of fitting sea connections	Stern tube	Mar 3/26. Dec 21/26	Rods
Material of crank shaft	Off. Steel	Identification Mark on Do	477 (etc.)
Material of tunnel shafts	Identification Marks on Do.	Material of screw shafts	Off. Steel

Is the flash point of the oil to be used over 150° F. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)  
The above engines, comprising two main units, & three - 100 H.P. auxiliary engines, were built under special survey, & on completion were tested under full load in the shops. The workmanship & materials were found to be sound & efficient. When the engines have been tried out under working conditions to the satisfaction of the Society's Surveyors, the vessel in which they are fitted will be eligible, in my opinion, for record of 4: NE (with date).

The amount of Entry Fee	\$30.00	When applied for,	July 28, 27
Special	\$637.45		
Donkey Boiler Fee	£	When received,	24/9/27
Travelling Expenses (if any)	\$283.00		
	<u>950.45</u>		

*G. Drummond*  
Engineer Surveyor to Lloyd's Register of Shipping.  
B & S. Cooper & Co. #164.50  
Special Effs 44.50  
\$245.00 - Pd 21/9/27

Assigned See N.Y.K. Rpt. 28452

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

