

REPORT ON OIL ENGINE MACHINERY.

Received at London Office. 2 FEB 1950

3rd January, 49.

28th January, 50.

MANCHESTER.

Date of writing Report

When handed in at Local Office

Port of

HAZEL GROVE, STOCKPORT.

Date, First Survey

9th August, 1949.

Last Survey

23rd December, 1949.

g. Book.

Number of Visits 11.

Single
on the ~~Deck~~
~~Engine~~
~~Quadrant~~

Screw vessel

Classed Vessel.

M.V. "SLANEY"

Tons

Gross

Net

Built at Wallsend.

By whom built Clelands (Successors) Ltd.

Yard No. 147. When built

Engines made at Hazel Grove.

By whom made Mirrlees, Bickerton & Day Ltd.

Engine No. 33521. When made 1949.

Key Boilers made at 729 aff

By whom made

Boiler No. When made

Horse Power 810 (12 hr. rating)

Boilers

Port belonging to

V. Power as per Rule 177.

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Use for which vessel is intended

Mirrlees Type HFRS.6 Heavy Oil.

ENGINES, &c. — Type of Engines

2 or 4 stroke cycle

4. Single or double acting

Single.

750 lbs per sq. inch.

Diameter of cylinders

13.75"

Length of stroke

21"

No. of cylinders

6.

No. of cranks

6.

Maximum pressure in cylinders

Indicated Pressure 125 aff 145 lbs/sq. inch.

Ahead Firing Order in Cylinders 1,3,5,6,4,2.

Span of bearings, adjacent to the crank, measured

Inner edge to inner edge

15.25"

Is there a bearing between each crank

Yes.

Revolutions per minute

300.

Flywheel dia.

4' - 6"

Weight 2460 lbs

Moment of inertia of flywheel (xxix)

2800 lbs in sec²

Means of ignition

Compression

Kind of fuel used Diesel.

Crank pin dia.

8 3/4"

Crank webs

Mid. length breadth

11 1/2"

Thickness parallel to axis

Crank pin dia.

9 1/4"

Crank webs

Mid. length thickness

4 3/8"

shrink

Thickness around eye hole

-

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AIR RECEIVERS:—Have they been made under survey..... Yes. State No. of report or certificate..... C.10779.
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..... 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. Two..... Total cubic capacity 46 cu. ft. Internal diameter 2' - 5" thickness 1/2".....
Seamless, welded or riveted longitudinal joint Welded. Material M.S. Range of tensile strength 26/30. Working pressure 300 lb.

IS A DONKEY BOILER FITTED..... If so, is a report now forwarded.....
Is the donkey boiler intended to be used for domestic purposes only..... Crankshaft Screw & Intermed. Approved Drg.
PLANS. Are approved plans forwarded herewith for shafting 13.10.49. 22.7.49. Receivers No. HFR.535. Separate fuel tanks.
Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved Yes - for 300 R.P.M. ✓ Date of approval 13th October, 1949.

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, and the particulars of the installation as fitted are as approved.....
CHIEF DRAUGHTSMAN Manufacturer. Torsional vibration Characteristics.
During progress of 1949. Aug. 9. Oct. 4. Nov. 12, 13, 17, 18, 29. Dec. 15, 21, 22, 23.

Dates of Survey while building.....
Total No. of visits.....
Dates of examination of principal parts.....
Crank shaft 17.11.49. Flywheel shaft..... Thrust shaft 21.12.49. 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.....
Crank shaft, material S.M.O.H. Steel Identification mark 17.11.49. W.J.L. Flywheel shaft, material..... Identification mark.....
Thrust shaft, material Steel. Identification mark 21.12.49. W.J.L. Intermediate shafts, material..... Identification marks.....
Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....
Identification marks on air receivers..... A.J.R.B. W.P. 300 lbs. T.P. 600 lbs. Lloyd's 24.11.49. E.R.H. M.B. & D. 4 the 23.12.49. W.J.L. there 23.12.49. W.J.L.

Welded receivers, state Makers' Name A.J. Riley & Sons.
Is the flash point of the oil to be used over 150°F.....
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.....
Description of fire extinguishing apparatus fitted.....
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.....
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..... If so, state name of vessel.....

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been constructed under Special Survey of tested materials and in accordance with the Secretary's letters, approved plans and Rules requirements. The materials and workmanship are good. The engine, direct coupled to an Heenan & Froude Hydraulic Dynamometer, was tested at the Builders Works under the following conditions of loading and found satisfactory: 6 Hours 100% Load, 1 Hour 110% Load, 1/2 Hour Astern running light Starting and manoeuvring tests Ahead and Astern.
Torsional vibration characteristics of the shafting installation of this main machinery have been examined and approved for a service speed of 300 R.P.M. In the opinion of the undersigned machinery is suitable for installation in a vessel classed with the Society for the purpose intended.
Copies of the following Certificates attached herewith:-

Air Receiver Certificate Nos. C.10779, Birmingham Forging Rpt. C.7821 & Mch. Forging Rpt. F.60
The amount of Entry Fee ... £ 47 4 0
Special ... £ : : When applied for 12.50.19
Donkey Boiler Fee... £ : : When received 19
Travelling Expenses (if any) £ 4 0 0.

Assigned See F.E. mch. rpt.
SURVEY OF MACHINERY.
NEWCASTLE-ON-TYNE
Lloyd's Register
SURVEYOR TO LLOYD'S REGISTER
FOUR MACHINES HAS BEEN EFFICIENTLY INSTALLED
BOARD BELLEFLEUR N°1472 EXAMINED DURING SEA
WITH SATISFACTORY RESULTS.