

REPORT ON OIL ENGINE MACHINERY.

No. 18620

Date of writing Report 3rd Oct. 1933, When handed in at Local Office H. 10. 1933, Port of Grimsey, Received at London Office 5 OCT 1933

No. in Survey held at Lincoln, Date, First Survey 31st March, Last Survey 2nd Oct. 1933, Number of Visits 52

on the Single Screw vessel M/V "ISIPINGO", Tons Gross 7069.15
Triple
Quadruple Net 4311.63

built at Belfast, By whom built Wakman Clark (1928) Ltd., Yard No. 530, When built 1933

engines made at do., By whom made do do do, Engine No. 530, When made 1933

Two Engines made at Lincoln, By whom made Ruston & Hornsby, Ltd. Eng. No. 169213, 14, 15 & 16, When made 1933

Indicated Horse Power 150 each, Owners Messrs Andrew Weir & Co., Port belonging to Belfast

nom. Horse Power as per Rule 31 each, Is Refrigerating Machinery fitted for cargo purposes yes, Is Electric Light fitted yes

made for which vessel is intended [Four Aux. engines, Type 5 V.C.R.Z.]

2 ENGINES, &c.—Type of Engines Airless injection, cold starting, 2 or 4 stroke cycle 4, Single or double acting single

Maximum pressure in cylinders 650 lbs., Diameter of cylinders 8", Length of stroke 10 3/4", No. of cylinders 5, No. of cranks 5

Mean Indicated Pressure 70 lbs., Flywheel dia. 3'-4", Weight 17 1/2 cwt, Means of ignition Compression, Kind of fuel used crude oil

Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 9 3/8", Is there a bearing between each crank yes

Revolutions per minute 600, Crank pin dia. 4 3/4", Crank Webs Mid. length breadth 8", Thickness parallel to axis shrunk

Crank Shaft, dia. of journals as approved, Crank pin dia. 4 3/4", Crank Webs Mid. length thickness 2 1/2", Thickness around eye-hole shrunk

Propeller Shaft, diameter as per Rule, Intermediate Shafts, diameter as per Rule, Thrust Shaft, diameter at collars as per Rule

Propeller Shaft, diameter as fitted, Screw Shaft, diameter as per Rule, Is the tube shrunk, shaft fitted with a continuous liner shrunk

Propeller Liners, thickness in way of bushes as per Rule, Thickness between bushes as per Rule, Is the after end of the liner made watertight in the

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

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 shrunk

If two liners are fitted, is the shaft lapped or protected between the liners shrunk, Is an approved Oil Gland or other appliance fitted at the after end of the tube shrunk

If so, state type shrunk, Length of Bearing in Stern Bush next to and supporting propeller shrunk

Propeller, dia. shrunk, Pitch shrunk, No. of blades shrunk, Material shrunk, whether Moveable shrunk, Total Developed Surface shrunk sq. feet

Method of reversing Engines none, Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes, Means of lubrication shrunk

Thickness of cylinder liners 3/4", Are the cylinders fitted with safety valves yes, Are the exhaust pipes and silencers water cooled or lagged with

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

Drinking Water Pumps, No. 1, Bronze centrifugal, Is the sea suction provided with an efficient strainer which can be cleared within the vessel shrunk

Other Pumps worked from the Main Engines, No. shrunk, Diameter shrunk, Stroke shrunk, Can one be overhauled while the other is at work shrunk

Pumps connected to the Main Bilge Line { No. and Size shrunk, How driven shrunk

Is cooling water led to the bilges shrunk, If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping shrunk

Fast Pumps, No. and size shrunk, Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one geared

Are two independent means arranged for circulating water through the Oil Cooler shrunk, Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

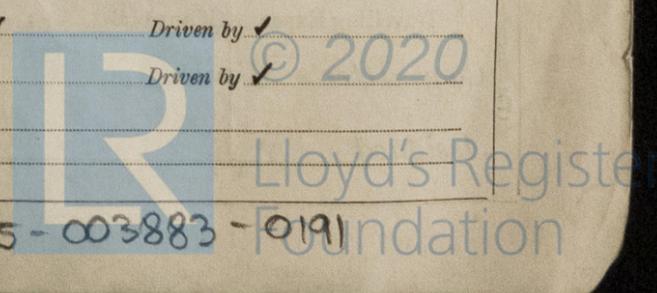
pumps, No. and size:—In Machinery Spaces shrunk, In Pump Room shrunk

Are independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size shrunk

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes shrunk, Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges shrunk

Are all Sea Connections fitted direct on the skin of the ship shrunk, Are they fitted with Valves or Cocks shrunk



AIR RECEIVERS:—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.*
High Pressure Air Receivers, No. *1* Cubic capacity of each *11.2 Cubic feet* Internal diameter *2'-0"* thickness *7/16"*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *steel* Range of tensile strength *26/30* Working pressure *325 lbs.*
Starting Air Receivers, No. *one* Total cubic capacity *11.2 Cubic feet* Internal diameter *2'-0"* thickness *7/16"*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *steel* Range of tensile strength *26/30* Working pressure *300 lbs.*

IS A DONKEY BOILER FITTED? *None.* 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 *11.11.32.* Receivers *15.2.33* Separate Tanks
 Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes.*
 State the principal additional spare gear supplied *one cylinder cover complete with studs, joints + pipe connections, 2 pairs of both end brasses, 1 cylinder liner, 2 sets of springs of each kind fitted, + etc.*

KUSTON & Hornsby, Limited,

The foregoing is a correct description,
R. Oudous 2/10/33 Manufacturer.

Dates of Survey while building: During progress of work in shops - *1933 Mar 31, Apr 3, 5, 7, 10, 13, 18, 20, 24, 27, May 1, 2, 4, 8, 11, 15, 18, 22, 25, 29, Jun 1, 6, 7, 12, 15, 19, 22, 26, 30, Jul 3, 6, 10, 13, 17, 20, 24, 27, Aug 3, 10, 14, 17, 29, 31*
 During erection on board vessel - *Apr 11, 14, 18, 21, 25, 28, Oct 2*
 Total No. of visits *52.*
 Dates of Examination of principal parts—Cylinders *20.4.33, 20.7.33* Covers *7.8.33* Pistons *8.5.33* Rods Connecting rods *20.4.33, 26.6.33*
 Crank shaft *26.6.33, 15.6.33, 6.7.33, 17.7.33* Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions *14.9.33*
 Crank shaft, Material *sm. steel* Identification Mark *3162C, D, E + F* Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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?
 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? *No.* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *The workmanship + materials are good.*
The engines have been built under Special Survey in accordance with the Rules Approved plans.
Running trials were carried out at the maker's works + all found satisfactory.
The engines have been despatched to Belfast where they will be fitted on board by Messrs Workman Clark + Co.

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

The amount of Entry Fee .. £ : : When applied for, *4.10.33*
 Special £ *21* : - :
 Donkey Boiler Fee £ : : When received, *2.8.34*
 Travelling Expenses (if any) £ : :
 Committee's Minute *FRI. 18 FEB 1934*
 Assigned *See Bel S.E. 11226*
 A.L. Silditch *
 Engineer Surveyor to Lloyd's Register of Shipping

