

REPORT ON OIL ENGINE MACHINERY.

No. 4640

18 FEB 1931

Received at London Office

Survey held at Yokohama Date, First Survey 16th July 1930 Last Survey 23rd Jan 1931
 Number of Visits 31

Single Triple Screw vessel "SOYO MARU"
 Tons Gross 6081.46 Net 3680.66
 By whom built Asano S. B. Co., Ltd Yard No. 270 When built 1930-31
 By whom made Kobe Steel Works. Engine No. 104 When made 1930
 By whom made Asano S. B. Co., Ltd Boiler No. 270 When made 1930-31
 Owners Soyo Kisen Kabushiki Kaisha Port belonging to Yokohama
 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Pressure in cylinders _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____
 Rings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank _____
 per minute _____ Flywheel dia. _____ Weight _____ Means of ignition _____ Kind of fuel used _____
 as per Rule _____ Crank pin dia. _____ Crank Webs _____ Mid. length breadth _____ Thickness parallel to axis _____
 as fitted _____ Mid. length thickness _____ shrunk _____ Thickness around eyehole _____
 Shaft, diameter _____ Intermediate Shafts, diameter _____ Thrust Shaft, diameter at collars _____
 as fitted _____ as fitted _____ as fitted _____
 as per Rule _____ Screw Shaft, diameter _____ Is the tube shaft fitted with a continuous liner _____
 as fitted _____ as fitted _____ as fitted _____
 Liners, thickness in way of bushes _____ Thickness between bushes _____ Is the after end of the liner made watertight in the _____
 as per Rule _____ as fitted _____ as fitted _____

If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 _____
 Is an approved Oil Gland or other appliance fitted at the after end of the tube _____
 Length of Bearing in Stern Bush next to and supporting propeller 5'-6 1/4"

If so, state type _____ No. of blades 4 Material Brass whether Moveable yes Total Developed Surface 40 sq. feet
 of reversing Engines _____ Is a governor or other arrangement fitted to prevent racing of the engine when declutched _____ Means of lubrication _____
 Thickness of cylinder liners _____ Are the cylinders fitted with safety valves _____ Are the exhaust pipes and silencers water cooled or lagged with _____

ting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
 Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 mps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____

connected to the Main Bilge Line { No. and Size 1-200 Tons/hr. 1-100 T/hr. 1-50 T/hr.
 How driven Electric motor
 Pumps, No. and size One - 200 T/hr. Lubricating Oil Pumps, including Spare Pump, No. and size 2-25 T/hr.

Independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____
 to. and size:—In Machinery Spaces 4-3 1/2", 1-8", Cofferdam suction 1-3 1/2", 1-2 1/2", Tunnel well 1-2 1/2" In Pump Room
 &c. nos 1, 2 & 3 holds each 2-3 1/2" dia. nos 5 & 6 holds each 2-3" dia.

dent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 5 inch dia.
 he Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces _____
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes

ea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Both
 fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above
 ach fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

es pass through the bunkers _____ How are they protected _____
 es pass through the deep tanks _____ Have they been tested as per Rule _____
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

angement 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 _____
 vent to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top of engine room

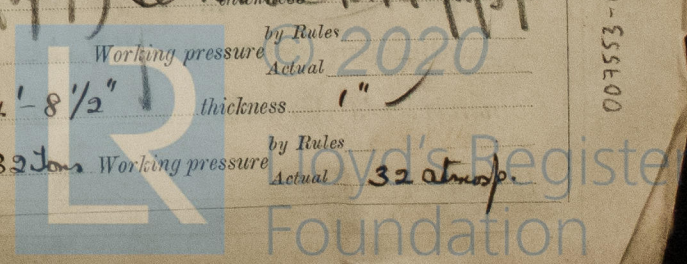
d vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork _____
 ir Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 ry Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____

Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by Electric motors
 ging Air Pumps, No. One Turbo Blower Diameter _____ Stroke _____
 ry Engines crank shafts, diameter _____ as per Rule _____ as fitted _____

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
 Pressure Air Receivers, No. 11 (one at main engine, 1 at bilge, 9 at other parts) See notes 11/1/31

s, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____
 g Air Receivers, No. One Total cubic capacity 7 cumetres Internal diameter 4'-8 1/2" thickness 1"
 s, lap welded or riveted longitudinal joint riveted Material steel Range of tensile strength 28-32 tons Working pressure 32 atm.

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IS A DONKEY BOILER FITTED?

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 23/4/30, 10/6/30 (Kobe) Receivers 25-6-30 Kobe Separate Tanks 14/9/30
Donkey Boilers 18-6-30 (Kobe) General Pumping Arrangements 25/7, 15/9/30 (Kobe) Oil Fuel Burning Arrangements 15/9/30 (Kobe)

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied spare gear checked on board by Kobe List.

The foregoing is a correct description,

Yoshio Kamioka Manufacturer.

Dates of Survey while building { During progress of work in shops - - 16/7, 14/8, 22/8, 28/8, 3/9, 10/9, 22/9, 23/9, 18/11, 27/11, 17/12/30.
During erection on board vessel - - 23/9, 29/9, 3/10, 4/10, 24/10, 28/10, 5/11, 17/11, 18/11, 21/11, 27/11, 5/12, 17/12, 22/12, 24/12/30, 4/1, 13/1
Total No. of visits 31.

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft 22, 29/9/30 Propeller 10, 22, 29/9, 3/10, 31/12/30 Stern tube 22/9, 28/9, 2/10, 23/10, 31/12/30 Engine seatings 23, 29/9, 16, 24/10/30 Engines holding down bolts 5/11, 17/11

Completion of fitting sea connections 3-10-30 Completion of pumping arrangements 24-12-30 Engines tried under working conditions 7-1-31

Crank shaft, Material Identification Mark 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. yes

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo yes If so, have the requirements of the Rules been complied with yes

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. The machinery and auxiliaries of this vessel have been fitted on board under special survey. Materials & workmanship good. On completion of fitting out all tried under full working conditions with satisfactory results.

The machinery of this vessel is eligible in my opinion to have the record of 80 h 1-31, in the Register Book.

Certificate (if required) to be sent to
(The Surveyors are requested to write on or below the space for Committee's Minute.)

The amount of Entry Fee YEN 12 100 : When applied for, 23-1-1931
Special 1/5 ... YEN 2384 100 :
Donkey Boiler Fee YEN 63 100 : When received, 30-4-1931
Travelling Expenses (if any) YEN 47 100 :

Committee's Minute

Assigned

CERTIFICATE WRITTEN:

J. M. L. L. S.
Engineer Surveyor to Lloyd's Register of Shipping

TUE 10 NOV 1931

TUE 17 NOV 1931

TUE 6 DEC 1931

TUE 1 MAR 1932

FRI 16 SEP 1932

FRI 28 JUL 1933

TUE 25 APR 1933