

## REPORT ON OIL ENGINE MACHINERY.

No. 332

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of writing Report 29.10.1954 When handed in at Local Office 19 Port of WINTERTHUR

Survey held at Winterthur Date, First Survey 30.4.54 Last Survey 11.8.1954

Book. Single on the Twin Triple Quadruple Screw vessel Motor Coaster, type P-03

at Split, Yugoslavia By whom built Brodogradiliste Split Yard No. 128 When built -

ines made at Winterthur By whom made Messrs. Sulzer Bros. Ltd. Engine No. 27492 When made 1954

key Boilers made at - By whom made - Boiler No. - When made -

te Horse Power { Maximum 495 Service 450 Owners Padranska Lijnia Yugoslavia Port belonging to -

as per Rule 90 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

le for which vessel is intended -

ENGINES, &c. —Type of Engines Sulzer Solid Injection 6TW24 2 or 4 stroke cycle 2 Single or double acting single

imum pressure in cylinders 850 lb/in.<sup>2</sup> Diameter of cylinders 240 mm Length of stroke 400 mm No. of cylinders 6 No. of cranks 6

Indicated Pressure 80 lbs/in.<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in of a crank) 290 mm Is there a bearing between each crank yes

Revolutions per minute { Maximum 413 Service 400

Compression Kind of fuel used Heavy oil

Mean of inertia of flywheel 1170.45 Means of ignition Compression

Wheel dia. 775 mm Weight 610 Kg. Moment of inertia of flywheel 1170.45

balance wts. ( " " " " " )

Solid forged dia. of journals as per Rule Appd. 155 mm Crank pin dia. 155 mm Crank webs Mid. length breadth 265 mm Thickness parallel to axis -

Semi-built as fitted 155 mm Mid. length thickness 75 mm shrunk Thickness around eyehole -

AH built as per Rule Appd. 140-128 mm Intermediate Shafts, diameter as fitted - Thrust Shaft, diameter at collars as fitted -

Shaft, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule - as fitted - Is the tube screw shaft fitted with a continuous liner {

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

eller boss. - If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner. -

e 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-

sive - If two liners are fitted, is the shaft lapped or protected between the liners. - Is an approved Oil Gland fitted at the after

of stern tube. - If so, state type. - Length of bearing in Stern Bush next to and supporting propeller. -

eller, dia. - Pitch. - No. of blades. - Material. - whether moveable. - Total developed surface - sq. feet

ent of inertia of propeller including entrained water 351-39 Kind of damper, if fitted -

od of reversing Engines by gears Is a governor or other arrangement fitted to prevent racing of the engine. yes Means of

ation forged Thickness of cylinder liners 17 mm Are the cylinders fitted with safety valves. yes Are the exhaust pipes and silencers water cooled

ged with non-conducting material. yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

to the engine - Cooling Water Pumps, No. and how driven 2 DA. on engine Working F.W. 14.4 m<sup>3</sup>/hr.

1-DA Spare F.W. Bilge P.S.W. Bilge P. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

Pumps worked from the Main Engines, No. and capacity 1.DA.80 dia. 90 Stroke Can one be overhauled while the other is at work.

s connected to the Main Bilge Line No. and capacity of each. - How driven. -

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

gements. -

st Pumps, No. and capacity. - Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 gear pump 8 m<sup>3</sup>/hr.

vo independent means arranged for circulating water through the Oil Cooler. - Branch Bilge Suctions. -

nd size:—In machinery spaces. - In pump room. -

lds, &c. -

t Bilge Suctions to the engine room bilges, No. and size. -

l the bilge suction pipes in holds and tunnel well fitted with strum-boxes. - Are the bilge suction in the machinery spaces led from easily

ible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. -

l Sea Connections fitted direct on the skin of the Ship. - Are they fitted with valves or cocks. - Are they fixed

ntly high on the ship's side to be seen without lifting the platform plates. - Are the overboard discharges above or below the deep water line. -

ey each fitted with a discharge valve always accessible on the plating of the vessel. - Are the blow off cocks fitted with a spigot and brass covering plate. -

pipes pass through the bunkers. - How are they protected. -

pipes pass through the deep tanks. - Have they been tested as per Rule. -

l pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. -

arrangement 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

or from one compartment to another. - Is the shaft tunnel watertight. - Is it fitted with a watertight door. - worked from. -

od vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. -

Air Compressors, No. - No. of stages. - diameters. - stroke. - driven by Main Engine

ary Air Compressors, No. one No. of stages. one diameters 55 mm stroke 170.5 mm driven by Levers

Auxiliary Air Compressors, No. - No. of stages. - diameters. - stroke. - driven by

provision is made for first charging the air receivers. -

ging Air Pumps or Blowers, No. 6 D.A. How driven Engine Levers - 310 mm dia., 170.5 mm Stroke

Have they been made under survey. - Engine Nos. -

ary Engines Makers name. - Position of each in engine room. -

Report No. -

009924-009933-0136



AIR RECEIVERS:—Have they been made under survey...yes... State No. of report or certificate Genoa No. 93/3  
State full details of safety devices...Safety valve as per Rule  
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. 2 Total cubic capacity 500 litres Internal diameter 401 mm thickness 9 mm  
Seamless, welded or riveted longitudinal joint seamless Material SM-Steel Range of tensile strength 65.2 Kg/mm<sup>2</sup> Working pressure 40 Kg

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 21.8.1954 Receivers — Separate fuel tanks —  
(If not, state date of approval)  
Donkey boilers — General pumping arrangements — Pumping arrangements in machinery space —  
Oil fuel burning arrangements —  
Have Torsional Vibration characteristics been approved yes Date and particulars of approval 21.8.1954 for service speed of 400 R.P.M.

### SPARE GEAR.

Has the spare gear required by the Rules been supplied yes State if for "short voyages" only yes  
State the principal additional spare gear supplied —

### Sulzer Brothers

The foregoing is a correct description, *Kildemann* *Steiger* Manufacturer.

Dates of Survey while building  
During progress of work in shops 30.4.1954 to 11.8.1954  
During erection on board vessel —  
Total No. of visits 12  
Dates of examination of principal parts—Cylinders 21.6.54 Covers 18.6.54 Pistons 21.6.54 Rods — Connecting rods 28.6.54  
Crank shaft 25.6.54 Reversing Gear 7.7.54 Thrust shaft — 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 30.6.54  
Crank shaft, material SM-Steel Identification mark LLOYD'S No. 2527 Flywheel shaft, material SM-Steel Identification mark LLOYD'S No. 7614  
Thrust shaft, material — Identification mark — Intermediate shafts, material — Identification marks —  
Tube shaft, material — Identification mark — Screw shaft, material — Identification mark —  
Identification marks on air receivers 2 - 6995 and 2 - 7003  
LLOYD'S TEST  
T.P. 80 Kg. per square cm.  
Welded receivers, state Makers' Name W.P. 40 " " " " C.M. Dalmine 10.12.1951  
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 —  
Full description of fire extinguishing apparatus fitted in machinery spaces —  
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 —  
What is the special notation desired —  
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 yes If so, state name of vessel Sulzer Eng. Nos. -27711 and

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

This main engine has been built under special survey in accordance with the requirements of Rules, the Secretary's letters and the approved plans.

The materials and workmanship are good.

Full power trials have been satisfactorily carried out at the Maker's Works with brake load

Torsional vibration characteristics calculations approved 10.5.1954

The amount of Entry Fee ... Frs. 1'240.-

Special ... £ C.4139

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ :

When applied for Monthly Ap/C.

When received 19

For J.G.Heads and self:

Engineer Surveyor to Lloyd's Register of S

Committee's Minute TUESDAY 12 JUL 1955

Assigned

*Su Rpt. 4 C*



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