

REPORT ON OIL ENGINE MACHINERY.

No. 1437

Received at London Office

of writing Report 18th July 1951 When handed in at Local Office 19 Port of HAMBURG 7 AUG 1951
in Survey held at HAMBURG Date, First Survey 30th March 1950 Last Survey 21st Dec. 1950
Book. Number of Visits 55
on the Single Screw vessel Motor Tanker "IRLAND" Gross 10000
Tons Net 3000
at Hamburg By whom built Deutsche Werft A.G. Yard No. 235 When built 1950
Lines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. 681760/39986-993 When made 1943
Key Boilers made at Hamburg By whom made Deutsche Werft A.G. Boiler No. 361/2/9 When made 1950
Horse Power 5100 Owners A/S Det Danske Franske Dampskibsselskab Port belonging to Copenhagen
Power as per Rule 1170 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
for which vessel is intended International

ENGINES, &c. —Type of Engines - 2 or 4 stroke cycle - Single or double acting -
Maximum pressure in cylinders - Diameter of cylinders - Length of stroke - No. of cylinders - No. of cranks -
Indicated Pressure - Ahead Firing Order in Cylinders Port 1.8.2.6.4.5.3.7 Span of bearings, adjacent to the crank, measured
inner edge to inner edge - Is there a bearing between each crank - Revolutions per minute -
Wheel dia. - Weight - Moment of inertia of flywheel (lbs. in² or Kg. cm.²) - Means of ignition Comp. Kind of fuel used -
Solid forged dia. of journals - as per Rule - Crank pin dia. - Crank webs - Mid. length breadth - Thickness parallel to axis -
Semi built dia. of journals - as fitted - Mid. length thickness - shrunk Thickness around eyehole -
All built - as per Rule - as fitted -
Main Shaft, diameter - Intermediate Shafts, diameter - Thrust Shaft, diameter at collars -
as fitted - as per Rule 255 mm as fitted 260 mm as per Rule 330 mm
Screw Shaft, diameter - as per Rule 282 mm as fitted 298 mm Are the shaft shafts fitted with a continuous liner yes
as fitted - as per Rule 16.1 mm as fitted 21 x 22 mm Thickness between bushes - as per Rule 15 mm Is the after end of the liner made watertight in the
eller boss yes 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 or other appliance fitted at the after
tube shaft no If so, state type - Length of bearing in Stern Bush next to and supporting propeller 1500 mm
ellers dia. 3800 mm Pitch 2660 mm No. of blades 3 Material Bronze whether moveable solid Total developed surface 4.413 sq. feet
ent of inertia of propeller (lbs. in² or Kg. cm.²) as approved Kind of damper, if fitted -
od of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of
cation forced Thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
ged with non-conducting material lagged 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. 5 SW Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Pumps worked from the Main Engines, No. 2 Diameter 165/120 mm Stroke 150 Can one be overhauled while the other is at work yes
ps connected to the Main Bilge Line (No. and size 2 - 10 TPH - 1 at 50 TPH - 1 at 85 TPH
How driven M.E. attached Steam Steam
cooling water led to the bilges no 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 size 1, 210x210x350 (85 TPH) Main engine One each engine
two independent means arranged for circulating water through the Oil Cooler yes Driven Lubricating Oil Pumps, including spare pump, No. and size 90 cb. m. per hour 4.15 RPM.
pumps, No. and size:—In machinery spaces 5 at 80 mm Suctions, connected to both main bilge pumps and auxiliary
lds, &c. 2 at 80 mm In pump room Forw. 1, a 65 mm bore
Aft 5, a 80 mm bore
pendent Power Pump Direct Suctions to the engine room bilges, No. and size 1x125 (ballast P.) 1x125 (bilge P.) 1x180 (Cooling W.P.)
all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction in the machinery spaces led from easily
sible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
all Sea Connections fitted direct on the skin of the Ship yes Are they fitted with valves or cocks Both Are they fixed
iently 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
hey each 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
pipes pass through the bunkers - How are they protected -
pipes pass through the deep tanks - Have they been tested as per Rule -
all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times yes
e 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
es, or from one compartment to another yes Is the shaft tunnel watertight none Is it fitted with a watertight door - worked from -
wood 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 -
liary Air Compressors, No. 2 No. of stages 2 diameters 250 / 100 stroke 200 driven by 1 steam
all Auxiliary Air Compressors, No. none No. of stages - diameters - stroke - driven by 1 diesel engine
at provision is made for first charging the air receivers Steam driven compressor
enging Air Pumps, No. One each engine Rotary Type 707 R.P.M. Output 434 cub. m. p. hour driven by main engines
liary Engines crank shafts, diameter as per Rule approved 130 mm No. one Position Port side of E.R. forward
e the auxiliary engines been constructed under special survey yes Is a report sent herewith yes

Main 352.353
Whistle 375

AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate 375

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. none Cubic capacity of each - Internal diameter - thickness - by Rules - Actual -

Seamless, welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -

Starting Air Receivers, No. 352 & 353 Total cubic capacity 20 cb.m Internal diameter 1750 mm thickness Shell 24, 5 Ends 33

Seamless, welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength Ends 42, Working pressure 25 k

IS A DONKEY BOILER FITTED yes If so, is a report now forwarded yes

Is the donkey boiler intended to be used for domestic purposes only no

PLANS. Are approved plans forwarded herewith for shafting yes (If not, state date of approval) Receivers - Separate fuel tanks -

Donkey boilers yes General pumping arrangements yes Pumping arrangements in machinery space yes

Oil fuel burning arrangements yes

Have Torsional Vibration characteristics been approved yes Date of approval 14-2-51

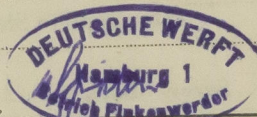
SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied Two Bronze 3 bladed propellers
two screw shafts having continuous liners.

The foregoing is a correct description,

Manufacturer.



Dates of Survey while building

During progress of work in shops - Mar. 30, Apr. 4, May 22, Jun. 21, Jul. 3, 11, Aug. 3, 23, 25, 28, 30, Sep. 1, 2, 8, 13, 14, 15, 22, 23, 28, Oct. 3, 4, 7, 9, 12, 18, 20, 25, 27, 31, Nov. 1, 7, 9, 20, 21, 30, Dec. 1, 12

During erection on board vessel - Sep. 28, Oct. 4, 6, 7, 24, 27, Nov. 10, 16, 13, 14, 30, Dec. 5, 8, 12, 13, 18, 19, 20, 21

Total No. of visits 55

Dates of examination of principal parts—Cylinders 1943 + 10.50 Covers 1943 + 10.50 Pistons 1943 + 10.50 Rods 1943 + 10.50 Connecting rods 1943

Crank shaft 31.10.41 Flywheel shaft - Thrust shaft 31.8.50/28.9.50 Intermediate shafts 16.8.50-15.9.50 Tube shaft -

Screw shaft 18.8.50+15.9.50 Propeller S) 14-9-50 Stern tube 23-8-50 Engine seatings 17.10.50 Engine holding down bolts 7.11.50

Completion of fitting sea connections 7.10.50 Completion of pumping arrangements 12.12.50 Engines tried under working conditions 19.12

Crank shaft, material S.M. Steel Identification mark PK 10602 Flywheel shaft, material - Identification mark -

Thrust shaft, material S.M. Steel Identification mark P+S HB 266 Intermediate shafts, material S.M. Steel Identification marks F.S. 2

Tube shaft, material - Identification mark - Screw shaft, material S.M. Steel Identification mark S.F.S. 285

Identification marks on air receivers 352 + 353 9-10-50 W.F.C.

Welded receivers, state Makers' Name none

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

Description of fire extinguishing apparatus fitted Two foam extinguishing plants, Steam smothering

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo oil tanker 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 no

Is this machinery duplicate of a previous case stated yes If so, state name of vessel "GALLIA"

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

These heavy oil engines were constructed during 1943 under Special Survey in conformity with the Society's Rules as reported in the Augsburg Report 4b dated 26th May 1950. Materials and workmanship are good.

They have been properly installed in the above vessel, examined under working conditions and found good.

The machinery is eligible to be classed with record + LMC 12,50. Oil Engines 2 SC SA (made 1943 fitted 1950).

16 Cy. 20 1/2" - 35 7/16". 1140 MN. 2 DB 141 lbs. and 2 DB(WT) 171 bls., TS.CL.

The amount of Entry Fee ... £ 200.0.0

Special 1/3 F.E. ... £ 120.0.0

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ 12 : 10

When applied for 14-9-51

When received 19

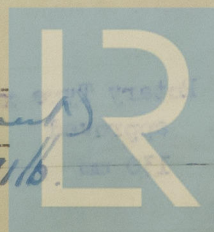
Committee's Minute

Assigned

TUES. 14 AUG 1951

+ LMC 12.50 Oil Eng

(with endorsement)
C.L. 2 DB 171 lb



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Lloyd's Register
Foundation

Blundell & F.F. Borden
Engineer Surveyors to Lloyd's Register of Shipping