Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 40220 B

Received at London Office E 6 OCT 1955

Date of writing Report 23 - 8 - 1955 When handed in at Local Office 19 Port of Rotterdam

No. in Reg. Book. Survey held at Zaltbommel Date, First Survey 1 - 6 - 1954 Last Survey 18 - 8 - 1955 Number of Visits 43

33585 on the Single ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel MV "Gili Genting" Tons Gross 1012 Net 450

Built at Zaltbommel By whom built "Bodewes de Waal" Yard No. 651 When built 1955

Engines made at Amsterdam By whom made " "Werkspoor NV" Engine No. 1796 When made 1955

Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Brake Horse Power { Maximum 1300 Service } Owners Indonesian Government Port belonging to Kaliangel

M.N. as per Rule 176 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes

Trade for which vessel is intended Ocean going service

OIL ENGINES, &c.—Type of Engines Heavy oil TMAS/3910 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

Mean Indicated Pressure Span of bearings (i.e., distance between inner edges of bearings in way of a crank) Is there a bearing between each crank Revolutions per minute { Maximum Service

Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg.cm.²) Means of ignition Kind of fuel used
" " " " balance wts. (" " " " ")

Crank Shaft, Solid forged Semi built All built dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Mid. length thickness shrunk Thickness parallel to axis Thickness around eyehole

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule / Appr. as fitted 370 m/m Thrust Shaft, diameter at collars as per Rule / Appr. as fitted 395 m/m

Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule / Appr. as fitted 323 m/m [illegible] Is the {tube screw} shaft fitted with a continuous liner ✓ no

Bronze Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per Rule ✓ as fitted ✓ Is the after end of the liner made watertight in the propeller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland fitted at the after end of stern tube / Yes If so, state type " Dam Patent Length of bearing in Stern Bush next to and supporting propeller 1000 m/m

Propeller, dia. 1420 m/m Pitch 1555 m/m No. of blades 4 Material Bronze whether moveable ✓ Total developed surface 40 % ~~sq. feet~~

Moment of inertia of propeller including entrained water (lbs. in² or Kg.cm²) 1369 KGM² Kind of damper, if fitted ✓

Method of reversing Engines by air Is a governor or other arrangement fitted to prevent racing of the engine / Yes Means of lubrication Forced Thickness of cylinder liners 30 m/m Are the cylinders fitted with safety valves / Yes Are the exhaust pipes and silencers water cooled ~~or lagged with non-conducting 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 to funnel Cooling Water Pumps, No. and how driven 3 for main eng. 4 for aux. eng. Electric driven Working F.W. 1 a 60 t/h S.W. 1 a 60 t/h Spare F.W. 1 a 60 t/h S.W. 1 a 50 t/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel / Yes

Bilge Pumps worked from the Main Engines, No. and capacity ✓ Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and capacity of each 2 a 50 ton/h How driven / Electric driven

Is the 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 arrangements ✓

Ballast Pumps, No. and capacity 1 a 50 t/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 a 14 M³/h + one spare a 15 M³/h

Are two independent means arranged for circulating water through the Oil Cooler / Yes Branch Bilge Suctions

No. and size:—In machinery spaces 1 a 4" 1 a 3½" 2 a 2½" In pump room ✓

In holds, &c. 2 a 2½" + 2 a 2¾" in holds 2 a 2" in steering engine room 1 a 2" in chainlocker, 1 a 2½" in cofferdam

Direct Bilge Suctions to the engine room bilges, No. and size 1 a 4" + 1 a 3½"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes / Yes Are the bilge suctions in the machinery spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges / Yes

Are all Sea Connections fitted direct on the skin of the Ship on boxes Are they fitted with valves or cocks Valves Are they 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 Below

Are they 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 ✓

What pipes pass through the bunkers ✓ How are they protected ✓

What pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Is the 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 spaces, or from one compartment to another Yes Is the shaft tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓

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

Auxiliary Air Compressors, No. / 2 No. of stages / 2 diameters / 60 - 130 m/m stroke / 90 m/m driven by Electric motors

Small Auxiliary Air Compressors, No. / 1 No. of stages / 2 diameters / 75 - 85 m/m stroke / 70 m/m driven by Kromhout aux. engine

What provision is made for first charging the air receivers Kromhout aux. engine hand started

Scavenging Air Pumps or Blowers, No. ✓ How driven

Auxiliary Engines { Have they been made under survey Yes including all pumps Engine Nos. 307920 - 921 - 922 Ruston 1 - 13906 Kromhout
Makers name 3 Ruston Hornsby, 1 Kromhout Position of each in engine room Aft. floor, starb. & port; Special room on top engine room aft.

Report No. Cert. Rotterdam 19660 - 19661 - 19742
4 days enclosed

Düsseldorf 1:8089.

AIR RECEIVERS:—*Have they been made under survey* Yes *State No. of report or certificate* Kathmann 1:1919H. pt. 4

State full details of safety devices Spring loaded safety valves

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 + 1 bottle *Total cubic capacity* 5000 + 140 Ltrs *Internal diameter* 760 m/m *thickness* 16 m/m

Seamless, welded or riveted longitudinal joint Welded *Material* S.H. steel *Range of tensile strength* ✓ *Working pressure* 30 KG/cm² 300 P.S.I.

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* 17-5-54 *Receivers* ✓ *Separate fuel tanks* 16-7

(*If not, state date of approval*)

Donkey boilers ✓ *General pumping arrangements* 10-12-53 *Pumping arrangements in machinery space* 10-12-53

Oil fuel burning arrangements ✓

Have Torsional Vibration characteristics been approved Yes *Date and particulars of approval* 4-6-54

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes *State if for "short voyages" only* ✓

State the principal additional spare gear supplied Spare tailshaft + cast iron propeller.

The foregoing is a correct description,

Manufacturer.

SCHEEPSWERF "DE BIESBOSCH" N.V. ZALTBOMMEL

Dates of Survey while building

During progress of work in shops - - ✓

During erection on board vessel - - - 1-6-1954. 20/12- 15/3- 21/4- 20-25/5- 7-23/6- 6-18-20/7- 16-17-18/8-1955

Total No. of visits 13

Dates of examination of principal parts—*Cylinders* ✓ *Covers* ✓ *Pistons* ✓ *Rods* ✓ *Connecting rods* ✓

Crank shaft ✓ *Flywheel shaft* ✓ *Thrust shaft* *Intermediate shafts* 7-23/6-55 *Tube shaft* ✓

Screw shaft 20/5-55 *Propeller* 20/5-55 *Stern tube* 21/4-55 *Engine seatings* 7-23/6-55 *Engine holding down bolts* 7-23/6-55

Completion of fitting sea connections 20/5-55 *Completion of pumping arrangements* 20-7-55 *Engines tried under working conditions* 17-10/8-5

Crank shaft, material ✓ *Identification mark* ✓ LLOYDS AMS 1:1890 *Flywheel shaft, material,* ✓ *Identification mark* ✓ LLOYDS AMS 1:6331

Thrust shaft, material S.H. steel *Identification mark* 7 F.V. 1-2-54 *Intermediate shafts, material* S.H. steel *Identification marks* A.B. 11-5-54 LLOYDS ROTT 1:3960

Tube shaft, material ✓ *Identification mark* ✓ *Screw shaft, material* S.H. steel *Identification mark* HA ENDG 3-54 Spare tailshaft LLOYDS AMS 1:3243 A.B 23-9-54

Identification marks on air receivers 1/0215/2/06 LLOYDS TEST CO.LG WP 30 KG K.B. 10-5-53 ✓ 1:0215/10/03 ✓ Bottle 1:2929H LLOYDS TEST 1600 P.S.I. WP 300 P.S.I. T.D.S. 22-9-54.

Welded receivers, state Makers' Name ✓

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

Full description of fire extinguishing apparatus fitted in machinery spaces 2 hand with nozzles to deckwash line, 2 portable 10 gall. + 4 pr. 2 gall. fire foam extinguishing apparatus

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* 1 Prime fuel

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* M.V. Gids Yang

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

The machinery of this vessel has been made and fitted in accordance with the approved plans, Secretary's letters and Society's Rules. Materials tested as required and workmanship found good. Explosion relief safety devices are fitted on main engines.

Upon completion the machinery has been tried under full working conditions during a 2 day's trial trip to the North Sea when all was found to be in a good working and manoeuvring condition and in my opinion this installation merits the approval of the Committee to be recorded with the record of ✠ LMC 8.55 O.G. Oil engines in the Society's Register Book.

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

The amount of Entry Fee ... fitting £72.00 :

Special ... ... £ : :

Donkey Boiler Fee... ... £ : :

Travelling Expenses (if any) £ 12.00 :

When applied for 3.10. 1955

When received 19

Committee's Minute FRIDAY 25 NOV 1955

Assigned ✠ LMC 8.55 OG.

Engineer Surveyor to Lloyd's Register of Shipping.