

REPORT ON OIL ENGINE MACHINERY.

No. 369516

Received at London Office

Writing Report 2/10 1953 When handed in at Local Office 19 Port of Rotterdam 52 NOV 1953
Survey held at Druten Date, First Survey 20/4 '53 Last Survey 21/10 1953
Number of Visits 8

Single on the Twin Triple Quadruple Screw vessel "BAJAN" Tons Gross 122.87 Net 74.63

Druten By whom built Scheepswerk Jansen N.V. Yard No. J129 When built 1953
Amsterdam By whom made Werkspoor N.V. Engine No. 1463 When made 1953

Boilers made at - By whom made - Boiler No. - When made -
Horse Power { Maximum - Owners Indonesian Government Port belonging to Djakarta
Service 430

Boiler Rule 86 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
which vessel is intended Indonesian Archipelago [Dimensions in m]

GINES, &c. - Type of Engines T.M.A.S. 276 2 or 4 stroke cycle 4 Single or double acting single
pressure in cylinders 50 kg/cm² Diameter of cylinders 270 Length of stroke 500 No. of cylinders 6 No. of cranks 6

Indicated Pressure 7.5 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in
crank) 320 Is there a bearing between each crank yes Revolutions per minute { Maximum - Service 375

dia. 112.0 Weight 1250 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) - Means of ignition Compr. Kind of fuel used Diesel
" " " " balance wts. (" " " ")

Solid forged as per Rule - dia. of journals as fitted 200 Crank pin dia 200 Crank webs Mid. length breadth 340 Thickness parallel to axis -
All built as fitted 200 Crank webs Mid. length thickness 82 shrunk Thickness around eye-hole -

Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule -
as fitted - as fitted 190 as fitted 145

ft, diameter as per Rule - Screw Shaft, diameter as per Rule - Is the (tube screw) shaft fitted with a continuous liner { yes ✓
as fitted - as fitted 177.5

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
boss yes ✓ as fitted 147 as fitted 117

er 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-
- If two liners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland fitted at the, after
ern tube. If so, state type - Length of bearing in Stern Bush next to and supporting propeller 790

r, dia 151.5 Pitch 119.5 No. of blades 4 Material Bronze whether moveable solid Total developed surface 63.1 sq. feet
of inertia of propeller including entrained water (lbs. in² or Kg. cm²) 122 kg m² Kind of damper, if fitted -

of reversing Engines Direct ✓ Is a governor or other arrangement fitted to prevent racing of the engine yes ✓ Means of
nforced Thickness of cylinder liners 21 Are the cylinders fitted with safety valves yes ✓ Are the exhaust pipes and silencers water cooled

with non-conducting material yes ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
the engine funnel ✓ Cooling Water Pumps, No. and how driven one @ 16 T/h, one @ 30 T/h Working F.W. -
T/h Spare F.W. - S.W. 30 T/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

pumps worked from the Main Engines, No. and capacity one @ 16 T/h Can one be overhauled while the other is at work -
connected to the Main Bilge Line (No. and capacity of each one @ 16 T/h, one @ 30 T/h ✓
How driven m.e. electr.

oling 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
nents -

pumps, No. and capacity one @ 30 T/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size one @ 4.5 T/h, one @ 4.8 T/h
independent means arranged for circulating water through the Oil Cooler yes ✓ Branch Bilge Suctions -

size: - In machinery spaces one @ 3 1/4", one @ 2 1/2", two @ 2" ✓ In pump room -
&c. 5 @ 2" ✓

ilge Suctions to the engine room bilges, No. and size one @ 3 1/4" ✓, one @ 2 1/2" ✓
be bilge suction pipes in holds and tunnel well fitted with strum-boxes yes ✓ Are the bilge suction in the machinery spaces led from easily

mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes ✓
sea Connections fitted direct on the skin of the Ship -welded ✓ Are they fitted with valves or cocks yes ✓ Are they fixed

by 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 ✓
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 -

pes pass through the bunkers - How are they protected -
pes 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 ✓
rangement 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

r from one compartment to another yes ✓ Is the shaft tunnel watertight tunnel no ✓ 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. one ✓ No. of stages two diameters 120/100 stroke 90 driven by m.e.
ary Air Compressors, No. one ✓ No. of stages two diameters 110/95 stroke 85 driven by aux. engine

Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
provision is made for first charging the air receivers aux. engine hand started

ing Air Pumps or Blowers, No. - How driven -
ary Engines Have they been made under survey yes ✓ Engine Nos. 13031 ✓
Makers name Kranhardt Position of each in engine room 11b.

Report No. Rotterdam 10924
Lloyd's Register Foundation

009888-009895-0125

AIR RECEIVERS:—Have they been made under survey. yes State No. of report or certificate 8/C
 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 Total cubic capacity 1240 Lbs Internal diameter 502 thickness 9.5
 Seamless, welded or riveted longitudinal joint seamless Material S17 Range of tensile strength 33.1-40.2 Working pressure 4 1/2

IS A DONKEY BOILER FITTED no 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 13-3-53 Receivers 13-3-53 Separate for
 (If not, state date of approval)
 Donkey boilers - General pumping arrangements 23-4-52 Pumping arrangements in machinery space 23-
 Oil fuel burning arrangements -
 Have Torsional Vibration characteristics been approved yes Date and particulars of approval 25-3-52
12-11-52

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes State if for "short voyages" only none
 State the principal additional spare gear supplied yes

N.V. SCHEEPSWERF JANSSEN

The foregoing is a correct description, [Signature] Manufacturer.

Dates of Survey while building
 During progress of work in shops -
 During erection on board vessel 20/4, 29/4, 27/5, 16/6, 2/7, 7/8, 12/8, 29/8 53
 Total No. of visits 8

Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -
 Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts 2/7 Tube shaft -
 Screw shaft 20/4 Propeller 20/4 Stern tube 29/4 Engine seatings 2/7 Engine holding down bolts -
 Completion of fitting sea connections 29/4 Completion of pumping arrangements 2/8 Engines tried under working conditions -
 Crank shaft, material - Identification mark - Flywheel shaft, material - Identification mark -
 Thrust shaft, material - Identification mark - Intermediate shafts, material S17 steel Identification marks L.R. N^o 2
 Tube shaft, material - Identification mark - Screw shaft, material S17 steel Identification mark WB
 Identification marks on air receivers LLOYDS nos 43, 40 1/2 T.P. 60 at W.P. 20 at J.L. 23-2-52

Welded receivers, state Makers' Name Rheinisch Rohrmaschinen A.G. Dusseldorf
 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 3 1/2 gallons foam, Pymys, one "horn"
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no 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 m.v. "Bango" etc.

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 Rules, approved plans and Secretary's letters and the ship is good. The Machinery was tested under full working conditions and all found to be in good working order. In my opinion the Machinery of this vessel merits the approval of the Committee and be recorded in the Society's Register Book + L.M.C. 0-53 Oil Engines C.L.

The amount of Entry Fee ... £
 Special ... £ 220.- When applied for 28.10. 1953
 Donkey Boiler Fee... £
 Travelling Expenses (if any) £ 113.- When received 19
 Engineer Surveyor to Lloyd's Register of Shipping [Signature]

Committee's Minute THURSDAY 19 NOV 1953

Assigned Deputed for Examination

FRIDAY 18 DEC 1953

See Dia. Rpt 9
 N^o 3929

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