

REPORT ON OIL ENGINE MACHINERY.

No. 19124

12 OCT 1953

Date of writing Report 24-Sept. 1953 When handed in at Local Office 19 Port of Amsterdam
 Date, First Survey 11th February Last Survey 21th Sept. 1953
 Number of Visits 6

Survey held at Amsterdam
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Single ☒ on the Twin ☒ Triple ☒ Quadruple ☒ Screw vessel
 Name of vessel "IAM" "INTAN" Tons Gross Net
 Built at Waterhuizen By whom built Geb. van Diepen Yard No. 924 When built 1953
 Engines made at Amsterdam By whom made Werkspoor "Iv" Engine No. 1479 When made 1953
 Main Engines made at Amsterdam By whom made Werkspoor "Iv" Boiler No. When made
 Indicated Horse Power 500 Owners Indonesian Republic Port belonging to
 N. as per Rule 100 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Made for which vessel is intended Ocean going

L. ENGINES, &c. — Type of Engines T.M.A.S. 278 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 270 mm Length of stroke 500 mm No. of cylinders 8 No. of cranks 8
 Indicated Pressure 7.56 kg/cm² A.F.O. 1-4-7-6-8-5-2-3 Span of bearings (i.e., distance between inner edges of bearings in
 of a crank 318 mm Is there a bearing between each crank yes Revolutions per minute { Maximum Service 325
 Wheel dia. 1120 mm Weight 1250 kg Moment of inertia of flywheel (in² or Kg.m.²) 1030 Means of ignition Comp. Kind of fuel used Diesel
 " " " " balance wts. (" " " ")
 Solid forged as per Rule Appr. Mid. length breadth 340 mm Thickness parallel to axis
 Semi built as fitted 200 mm Crank pin dia. 200 mm Crank webs shrunk Thickness around eyehole
 Wheel Shaft, diameter as per Rule Appr. Intermediate Shafts, diameter 205 mm Thrust Shaft, diameter at collars 215 mm
 as fitted as fitted as fitted as fitted
 Propeller Shaft, diameter as per Rule Appr. Screw Shaft, diameter 200 mm Is the { tube } shaft fitted with a continuous liner {
 as fitted as fitted as fitted as fitted
 Liners, thickness in way of bushes as per Rule Appr. Thickness between bushes as per Rule Appr. Is the after end of the liner made watertight in the
 as fitted as fitted as fitted as fitted
 Propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 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-
 osive 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
 Propeller, dia. 1840 mm Pitch No. of blades 4 Material bronze whether moveable fixed Total developed surface sq. feet
 Moment of inertia of propeller including entrained water (in² or Kg.m.²) 259 Kind of damper, if fitted
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine yes Means of
 location fixed Thickness of cylinder liners 2 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
 lagged with non-conducting material cooled 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 1 - ME driven Working F.W.
 Cap. 26 T/h Spare F.W. S.W. 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 - cap 26 T/h Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line No. and capacity of each How driven
 Is 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
 arrangements
 Main Pumps, No. and capacity ME Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 - 10 T. cap 4.5 T/h
 Two independent means arranged for circulating water through the Oil Cooler Branch Bilge Suctions
 and size: — In machinery spaces In pump room
 Pumps, &c.
 At Bilge Suctions to the engine room bilges, No. and size
 All the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction 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
 Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed
 sufficiently 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
 Are they 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
 All 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
 Good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 Air Compressors, No. 1 No. of stages 2 diameters 100 x 120 mm stroke 90 mm driven by Main Eng.
 Main Air Compressors, No. 1 No. of stages 2 diameters stroke driven by
 Auxiliary Air Compressors, No. 1 No. of stages 2 diameters stroke driven by
 Provision is made for first charging the air receivers
 Charging Air Pumps or Blowers, No. How driven
 Main Engines Have they been made under survey Engine Nos.
 Makers name Position of each in engine room Report No.

008804-008811-0030

46. 19127

AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate D.R. 1485/4049

State full details of safety devices Spring loaded safety valves fitted

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 ft³ Internal diameter 502/499 mm thickness 9.5/11.5 mm

Seamless, welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 33.1-48 kg/cm² Working pressure 30 atm

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 29-12-52 Receivers 29-12-52 Separate fuel tanks ✓

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 8-1-53

SPARE GEAR.

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

State the principal additional spare gear supplied ✓

WERKSPLOOR N.V. is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - 11/2-13/3-16/3-27/3-16/4-21/4
During erection on board vessel - ✓
Total No. of visits 6

Dates of examination of principal parts—Cylinders 13-3-53 Covers 16-3-53 Pistons 16-3-53 Rods ✓ Connecting rods 16-3-53

Crank shaft 5-3-53 Flywheel shaft ✓ Thrust shaft 4-8-53 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 16-9-53

Crank shaft, material S.M. Steel Identification mark ✓ Flywheel shaft, material ✓ Identification mark ✓

Thrust shaft, material S.M. Steel Identification mark ✓ Intermediate shafts, material ✓ Identification marks ✓

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material ✓ Identification mark ✓

Identification marks on air receivers no/48/2. Ployas Test. T.P. 60 atm. W.P. 30 atm. W.S. 22/7-52. no/10/1. Ployas Test. T.P. 60 atm.

W.P. 30 atm. M.S.A. 11-7-51.

Welded receivers, state Makers' Name Mess. Rheinisch Röhrenwerk A.G. of Düsseldorf, Germany

Is the flash point of the oil to be used over 150°F ✓

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 "Behaka"-Belatik

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

This engine has been built under special survey in accordance with approved plan Rule requirements and Secretary's letters. All materials have been tested as required and the workmanship found good. The engine has been tried on makers test bed under full load conditions and found working satisfactorily. In my opinion the vessel for which this engine is intended will be eligible for the notation L.M.C. (with date) when the machinery has been satisfactorily fitted and tried on board. The engine has been shipped to Terschelling (Groningen district).

Copy certificates of crankshaft, Thrustshaft and starting air receivers attached here

The amount of Entry Fee fl. 374.-

Special ✓

Donkey Boiler Fee ✓

Travelling Expenses (if any) ✓

Committee's Minute ✓

Assigned + LMC 1.54 Oil Eng.

When applied for 8-10-1953

When received 19

FRIDAY 9 FEB 1954

Engineer Surveyor to Lloyd's Register of Shipping



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