

# REPORT ON OIL ENGINE MACHINERY.

No. 10050

Received at London Office 21 MAY 1953

Report 13<sup>th</sup> May 1953 When handed in at Local Office 19 Port of Amsterdam  
Survey held at Amsterdam Date, First Survey 2<sup>nd</sup> May 1952 Last Survey 2<sup>nd</sup> March 1953  
Number of Visits 10

pressure Single  
Twin  
Triple  
Screw vessel "BELATIK"  
Tons Gross  
Net  
By whom built Scheepwerf Janzen Yard No. 7129 When built 1953  
By whom made Werkspoor N.V. Engine No. 1463 When made 1953  
By whom made Boiler No. When made  
Owners Republic Indonesia Port belonging to  
Is Refrigerating Machinery fitted for cargo purposes. Is Electric Light fitted.

Type of Engines T.M.A.S. 276 2 or 4 stroke cycle 4 Single or double acting Single  
Pressure in cylinders 50 kg/cm<sup>2</sup> Diameter of cylinders 270 mm Length of stroke 500 mm No. of cylinders 6 No. of cranks 6  
Maximum Pressure 75 kg/cm<sup>2</sup> A.F.O. 1-3-5-6-4-2 Span of bearings (i.e., distance between inner edges of bearings in mm) 320 mm  
Is there a bearing between each crank Yes Revolutions per minute { Maximum Service 375

Weight 1250 kg Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) Means of ignition Comp. Kind of fuel used Diesel  
" " " " balance wts. ( " " " )  
dis. of journals as per Rule as fitted 200 mm Crank pin dia. 200 mm Crank webs Mid. length breadth 340 mm Thickness parallel to axis  
Mid. length thickness 82 mm shrunk Thickness around eyehole

Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted  
Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner  
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  
If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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-

If two liners are fitted, is the shaft lapped or protected between the liners. Is an approved Oil Gland fitted at the after  
If so, state type Length of bearing in Stern Bush next to and supporting propeller  
Pitch No. of blades Material whether moveable Total developed surface sq. feet  
Inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) Kind of damper, if fitted  
Reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine yes Means of  
Thickness of cylinder liners 21 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled  
non-conducting material cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
Cooling Water Pumps, No. and how driven 11 am Type Cap. 18 T/h Working # by Main Eng.

Spare F.W. S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.  
worked from the Main Engines, No. and capacity 11 am Type Cap. 18 T/h Can one be overhauled while the other is at work.  
ected to the Main Bilge Line (No. and capacity of each How driven  
y 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

ps, No. and capacity M.E. Power Driven Lubricating Oil Pump, including spare pump, No. and size 110 T Type Cap. 4.8 T/h  
pendent means arranged for circulating water through the Oil Cooler Branch Bilge Suctions  
In machinery spaces In pump room  
Suctions to the engine room bilges, No. and size  
ilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction in the machinery spaces led from easily  
id-boxes, placed above the level of the working floor, with straight tail pipes to the bilges.

Connections fitted direct on the skin of the Ship. Are they fitted with valves or cocks. Are they fixed  
weigh on the ship's side to be seen without lifting the platform plates. Are the overboard discharges above or below the deep water line.  
h 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.  
pass through the bunkers. How are they protected.  
pass through the deep tanks. Have they been tested as per Rule.

s, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times.  
gement 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  
om one compartment to another. Is the shaft tunnel watertight Is it fitted with a watertight door worked from  
essel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.  
ompressors, No. 1 No. of stages 2 diameters 100/120 mm stroke 90 mm driven by Main Eng.  
Air Compressors, No. No. of stages diameters stroke driven by  
er of liary Air Compressors, No. No. of stages diameters stroke driven by  
ion is made for first charging the air receivers.  
Air Pumps or Blowers, No. How driven Engine Nos.  
Have they been made under survey. Makers name Position of each in engine room Report No.

009888-009895-0126

JM  
10/6/53



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**AIR RECEIVERS:**—Have they been made under survey yes State No. of report or certificate D.P. 248  
 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.....  
 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 1240h Internal diameter 502mm thickness 9.5  
 Seamless, welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 35.1-48.2 kg/cm<sup>2</sup> Working pressure 36.-50.8 kg/cm<sup>2</sup>

**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 13-3-53 Receivers 13-3-53 Separate for.....  
 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 12-11-52

**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.....  
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 \_\_\_\_\_  
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**WORKSPOON N.V.**

The foregoing is a correct description,

*[Signature]*

Manufacturer.

Dates of Survey while building  
 During progress of work in shops - 1952: 2/5-9/5-12/5-7/6-16/6-20/6-23/6-9/8-1953: 26/1-2/3  
 During erection on board vessel - ..  
 Total No. of visits 10

Dates of examination of principal parts—Cylinders 9/5-52 Covers 7/6-52 Pistons 16/6-52 Rods ✓ Connecting rods ✓  
 Crank shaft 16/6-52 Flywheel shaft 12/5-52 Thrust shaft 13/7-48 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.....  
 Crank shaft, material S.M. Steel Identification mark KK 16-6-52 Flywheel shaft, material..... Identification mark.....  
 Thrust shaft, material S.M. Steel Identification mark KK 13-7-48 Intermediate shafts, material..... Identification marks.....  
 Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....  
 Identification marks on air receivers Ployas nos. 6/3-13/2. T.P. beam. W.P. 300mm. J.B. 23-2-52 - MSA. 26-3-52

Welded receivers, state Makers' Name Messa Rheinisch Röhrenwerke AG of Düsseldorf, Pierenfeld  
 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..... If so, state name of vessel.....

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

This engine has been built under special survey in accordance with plans, Society Rules and Secretary's letters. All materials have been tested workmanship found good. The engine has been tried on makers test bed under load conditions and found working satisfactorily.  
 In my opinion the vessel for which this engine is intended will be for the notation L.M.C. (with date) when the machinery is fitted and trialed on board. The engine has been shipped to Druten (Rotterdam district).  
 Copy certificates of crankshaft, thrust shaft and air receivers attached.

The amount of Entry Fee £ 541  
 Special £  
 Donkey Boiler Fee £  
 Travelling Expenses (if any) £ 6  
 When applied for 19-5 1953  
 When received 19

*[Signature]*  
 Engineer Surveyor to Lloyd's Register of



Lloyd's Register Foundation

Committee's Minute THURSDAY 19 NOV 1953

Assigned See p 46

(The Surveyors are required to be sent to the space for Committee's Minute.)  
 The amount of Entry Fee...  
 Special...  
 Donkey Boiler Fee...  
 Travelling Expenses (if any)...  
 Committee's Minute...  
 Assigned...