

# REPORT ON OIL ENGINE MACHINERY.

No. 363096  
30 MAY 1953

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Date of writing Report 27<sup>th</sup> April 1953 When handed in at Local Office \_\_\_\_\_ 19\_\_ Port of Rosterdam  
Survey held at Bolnes Date, First Survey 24<sup>th</sup> Sept 1952 Last Survey 8<sup>th</sup> April 1953  
Number of Visits 13

5554 Single on the Twin Triple Quadruple Screw vessel M/V "MENGHARA" Tons Gross 1131.64 Net 501.68  
Built at Bolnes By whom built Messrs Gels Pot Yard No. 927 When built 1952  
Engines made at Amsterdam By whom made Messrs Werkspoor N.V. Engine No. P 1436 When made 1952  
Key Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
Indicated Horse Power { Maximum \_\_\_\_\_ Service 2 x 580 Owners Republik Indonesia Port belonging to Djakarta  
as per Rule 2 x 116 = 232 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Service for which vessel is intended Seagoing

ENGINES, &c. —Type of Engines See Amsterdam Rpt No 10563 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 \_\_\_\_\_ Span of bearings (i.e., distance between inner edges of bearings in \_\_\_\_\_  
of a crank) \_\_\_\_\_ Is there a bearing between each crank \_\_\_\_\_ Revolutions per minute { Maximum \_\_\_\_\_ Service \_\_\_\_\_  
Flywheel dia. \_\_\_\_\_ Weight \_\_\_\_\_ Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) \_\_\_\_\_ Means of ignition \_\_\_\_\_ Kind of fuel used \_\_\_\_\_  
" " " " balance wts. ( " " " " ) \_\_\_\_\_

Crank dia. \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Crank pin dia. \_\_\_\_\_ Crank webs \_\_\_\_\_ Mid. length breadth \_\_\_\_\_ Thickness parallel to axis \_\_\_\_\_  
All built \_\_\_\_\_ as fitted \_\_\_\_\_ Mid. length thickness \_\_\_\_\_ Thickness around eyehole \_\_\_\_\_  
Propeller Shaft, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ 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 shaft fitted with a continuous liner { Yes \_\_\_\_\_

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 \_\_\_\_\_  
peller boss Yes 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- \_\_\_\_\_  
ositive \_\_\_\_\_ 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 No If so, state type \_\_\_\_\_ Length of bearing in Stern Bush next to and supporting propeller \_\_\_\_\_  
Propeller, dia. 17.50 Pitch 12.65 No. of blades Three Material Brass whether moveable No Total developed surface 38.6 sq. feet  
Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) \_\_\_\_\_ Kind of damper, if fitted None

Method of reversing Engines \_\_\_\_\_ Is a governor or other arrangement fitted to prevent racing of the engine \_\_\_\_\_ Means of \_\_\_\_\_  
location \_\_\_\_\_ Thickness of cylinder liners \_\_\_\_\_ Are the cylinders fitted with safety valves \_\_\_\_\_ Are the exhaust pipes and silencers water cooled \_\_\_\_\_  
gged with non-conducting material \_\_\_\_\_ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned \_\_\_\_\_  
to the engine To funnel Cooling Water Pumps, No. and how driven 3 - 1 each main engine Working F.W. \_\_\_\_\_  
Spare F.W. \_\_\_\_\_ S.W. 1-835 ltr/min 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 \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
Pumps connected to the Main Bilge Line { No. and capacity of each Two a 835 ltr/min 7.9 H.P. - One a 835 ltr/min 9.8 H.P. - One each main eng  
How driven Three elect. driven and two main engine 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 \_\_\_\_\_  
Lubricating Pumps, No. and capacity One a 835 ltr/min Power Driven Lubricating Oil Pumps, including spare pump, No. and size One each main eng. 4.5 H/h  
two a 4900 ltr/h  
Two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions Sixteen  
and size:—In machinery spaces 7 a 70 mm (3 eng. room bilges - 2 eng. room coffered - 2 in funnel In pump room \_\_\_\_\_  
holds, &c. 2 a 70 mm (1 hld No 1 - 2 hld No 2 - 2 hld No 3 - 2 coffered spt. 56-69 - 1 coffered spt. 36-47 - 1 coffered spt. 55-56

Direct Bilge Suctions to the engine room bilges, No. and size 2 a 80 mm (1 Port fwd and 1 Starb. fwd engine room)  
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction pipes 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 Yes 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 Above  
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 \_\_\_\_\_  
Do all pipes pass through the bunkers None (pipe tunnel) How are they protected \_\_\_\_\_  
Do all 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 Yes Is it fitted with a watertight door Yes worked from deck  
If the vessel is a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork \_\_\_\_\_  
Auxiliary Air Compressors, No. One each engine No. of stages \_\_\_\_\_ diameters \_\_\_\_\_ stroke \_\_\_\_\_ driven by \_\_\_\_\_  
Auxiliary Air Compressors, No. Two No. of stages 2 Capacity 37 m<sup>3</sup>/h diameters 95-110 mm stroke 2.5 m/m driven by Elect. motor  
Auxiliary Air Compressors, No. One No. of stages 2 Cap. 15 m<sup>3</sup>/h diameters 75-85 mm stroke 7.0 m/m driven by Emergency eng.  
Is provision made for first charging the air receivers Aux. air compe. driven by emergency hand started diesel eng. No 12604

Engines, No. \_\_\_\_\_ How driven \_\_\_\_\_  
Auxiliary Engines Have they been made under survey Yes Engine Nos. 12625-12626 and 12627  
Makers name N.V. Motorenfabriek Kromhout Position of each in engine room Port - Starb. fwd. and Starb. aft.  
Report No. 18497-18498-18499 Amsterdam  
Emergency eng. Rpt. 18575 A'dam.

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AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate Sheffield C 973b.  
 State full details of safety devices One spring loaded safety valve on each  
 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. Three Total cubic capacity 1000 lbs Internal diameter                      thickness                       
 Seamless, welded or riveted longitudinal joint                      Material                      Range of tensile strength                      Working pressure                     

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                      Receivers                      Separate fuel tanks                       
 (If not, state date of approval)  
 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 28-7-52

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                     

The foregoing is a correct description,                      Manufacturer.

Dates of Survey while building  
 During progress of work in shops - -                       
 During erection on board vessel - - 1952 24/9-27/9-6/11-24/11-19/12 1953 22/1-23/1-9/2-21/2-4/3-16/3-17/3-8/4  
 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                      Tube shaft                       
 Screw shaft                      Propeller                      Stern tube 27/9-'52 Engine seatings 27/9-'52 Engine holding down bolts 6/11-24/11  
 Completion of fitting sea connections 24/11-'52 Completion of pumping arrangements 8/4-'53 Engines tried under working conditions 16/3-17/3  
 Crank shaft, material                      Identification mark                      Flywheel shaft, material                      Identification mark                       
 Thrust shaft, material                      Identification mark                      Intermediate shafts, material                      Identification marks                       
 Tube shaft, material                      Identification mark                      Screw shaft, material                      Identification mark                       
 Identification marks on air receivers see certificate  
 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 One 45 lbs portable foam ext - one foam hand ext - two CO<sub>2</sub> han a 6 kg and two valves with 10 mtr hoses  
 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                      If so, state name of vessel                     

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) The machinery of this vessel has been fitted under Special Survey in accordance with the approved plans, Society's and Secretary's letters. It has been satisfactorily fitted in the vessel and is under full working and manouwing conditions and merits in our opinion the approval of the committee to be assigned in the Society's Register Book with the of + LMC 4-53 and notation of T.S. 4-53 C.L. "Oil Engines" when a satisfactory report of survey upon arrival in Indonesia will have reached the Committee of Lloyd's Register of Shipping, London.

The amount of Entry Fee ... 520.-  
 Special ... £  
 Donkey Boiler Fee... £  
 Travelling Expenses (if any) £ 50.-  
 When applied for 21-5-1953  
 When received 19  
 Engineer Surveyor to Lloyd's Register of Shipping A Jacobs  
 Committee's Minute FRI. 19 JUN 1953  
 Assigned + LMC 4,53 Oil Eng. CL.



Certificate to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.