

REPORT ON OIL ENGINE MACHINERY.

No. 368676

Received at London Office

12 OCT 1953

Reporting Report 10. 1953 When handed in at Local Office 19 Port of Rotterdam

Survey held at Polina and Hiedrecht Date, First Survey 12 Nov 1951 Last Survey 0 March 1953
Number of Visits 7

on the Single Screw vessel motor tanker "Gaseemul-Bahr" Tons Gross 200.14
Triple Net 104.09
Quadruple

made at Hiedrecht By whom built Hess de Klap Yard No. 2197 When built 1953

Boilers made at Polina By whom made Hess Maschinenfabrik Polina Engine No. 1255 When made 1952

Boiler No. ✓ When made ✓

orse Power { Maximum 150 Owners Pakistan Government Port belonging to ✓
Service ✓

per Rule ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes

for which vessel is intended River service

GINES, &c - Type of Engines Heavy oil non reversible 2 or 4 stroke cycle 2 Single or double acting Single

Pressure in cylinders 5.5 Kg/cm² Diameter of cylinders 190 Length of stroke 350 No. of cylinders 3 No. of cranks 3

Indicated Pressure 6.5 Kg/cm² Span of bearings (i.e., distance between inner edges of bearings in crank) 270 mm

Is there a bearing between each crank Yes (Revolutions per minute { Maximum 430
Service 430

dia. 1000 mm Weight 735 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) 430 Kg. m² Means of ignition Compression Kind of fuel used Gas oil

Cranks balance wts. 2 x 12.44 kg. m²

dia. of journals 140 mm Crank pin dia. 140 mm Crank webs Mid. length breadth 210 mm Thickness parallel to axis 70 mm

Intermediate Shafts, diameter 110 mm Reverse gear Thrust Shaft, diameter 100 mm Thickness around eye-hole 59 mm

Screw Shaft, diameter 110 mm Is the tubo shaft fitted with a continuous liner no

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 stern tube Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

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-volatile Yes

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 the propeller Yes

Length of bearing in Stern Bush next to and supporting propeller 475 mm

Number of blades 4 Material Cast iron whether moveable ✓ Total developed surface 46% sq. feet

Kind of damper, if fitted ✓

Means of reversing Engines Clutch coupling Is a governor or other arrangement fitted to prevent racing of the engine Yes

Thickness of cylinder liners 15 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled Yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned to the engine No funnel

Cooling Water Pumps, No. and how driven 2 2.9 ton/h from M.E. 1. 2. 2.0 ton/h electric driven Working F.W. 1.09 ton

Spare F.W. ✓ S.W. 1.20 ton 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 2 2.9 ton/h for emergency Can one be overhauled while the other is at work ✓

No. and capacity of each 1.0 2.0 ton/h How driven Electric driven

How driven Electric driven

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements ✓

Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1. 2. 500 lb/h + 1 hand pump

Two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions

In machinery spaces 1. 64 mm + 1. 51 mm (emergency) + 1. 51 mm from hand pump In pump room 1. 51 mm from hand pump

Bilge Suctions to the engine room bilges, No. and size 1. 64 mm + 1. 51 mm

Are 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 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 the blow off cocks fitted with a spigot and brass covering plate ✓

How are they protected ✓

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 Yes

Is the shaft tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

Are the arrangements 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

Are the arrangements 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 Cap 10 1/2 inch stroke ✓ driven by main engine

Auxiliary Air Compressors, No. 1 No. of stages ✓ diameters ✓ stroke ✓ driven by ✓

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

Is provision made for first charging the air receivers Yes Aux engine hand started

How driven M.E.

Engines Air Pumps or Blowers, No. ✓ Have they been made under survey Yes Engine Nos. 1. 13747 + 13750

Position of each in engine room St. side + 1 in pump room

Makers name Hess Polina Report No. 17000 Rotterdam C15410

AIR RECEIVERS:—Have they been made under survey. *Yes* ✓ State No. of report or certificate *copy attached*
 State full details of safety devices. *Removable plugs in each vessel and spring loaded safety valve in delivery line from compressor*
 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 *2 x 130 kts* Internal diameter *290 mm* thickness *10 mm*
 Seamless, welded or riveted longitudinal joint *Seamless* Material *S.H. steel* Range of tensile strength *42.5 kg/cm²* Working pressure *30 kg/cm²*
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. *Blank shaft 20/52 Hoisting 20/52 Receivers 20/52*
 Donkey boilers *✓* General pumping arrangements *12-52* Pumping arrangements in machinery space *17-52* Separate fuel tanks *17-52*
 Oil fuel burning arrangements *✓*
 Have Torsional Vibration characteristics been approved. *Yes* Date and particulars of approval *15-1-52*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes* State if for "short voyages" only *Yes*
 State the principal additional spare gear supplied *1 spare tailshaft*

The foregoing is a correct description of the machinery of the vessel "DE KLOP" Manufacturer. *N.V. SCHEEPSBOUW WERK. DE KLOP*

Dates of Survey while building
 During progress of work in shops - *1951 Nov. 12-29 1952 Jan. 5-11-20 Feb. 19 April 21*
 During erection on board vessel - *1952 Aug. 26 Sept. 2 Dec. 5 1953 Jan. 27 Feb. 10-24 March 8*
 Total No. of visits *7 + 7*
 Dates of examination of principal parts—Cylinders *29-11-51* Covers *20-1-52* Pistons *29-11-51* Rods *29-11-51* Connecting rods *29-11-51*
 Crank shaft *22-1-52* Flywheel shaft *✓* Reverse coupling *✓* Thrust shaft *10-24/2-53* Intermediate shafts *29/11-52 18/12-52* Tube shaft *10/12-52*
 Screw shaft *19-52 12-52* Propeller *5/12-53* Stern tube *19-12-53* Engine seatings *18-24/2-53* Engine holding down bolts *11-52*
 Completion of fitting sea connections *5/12-53* Completion of pumping arrangements *24/5-53* Engines tried under working conditions *8/5-53*
 Crank shaft, material *Yamaguchi S.H. steel* Identification mark *E.H.D. 22-1-52* Flywheel shaft, material *✓* Identification mark *✓*
 Thrust shaft, material *S.H. steel* Identification mark *C.L. 12-2-52* Intermediate shafts, material *S.H. steel* Identification marks *AuH 20-1-52 20905 2540*
 Tube shaft, material *✓* Identification mark *✓* Screw shaft, material *S.H. steel* Identification mark *AuH 5-12-52*
 Identification marks on air receivers *12415-416 20905 TEST 60X9 4.P. 20 " 2. B. 20-6-52*

Welded receivers, state Makers' Name *Steen Rotterdam-fabriek "Polous"*
 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 x 2 gallon + 1 discharge hose in engine room + 2 x 2 gallon + 1 discharge hose in forepeak*
 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 *in forepeak*
 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 *no* 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 made and fitted in accordance with the approved plans. Secretary's Rules and Society's Rules. Materials tested as required and workmanship found good. Upon completion the machinery was tried under full working conditions on a trial trip on the river Herwede, when fall was found to be in a good working and manouring condition. No gear hammer did occur at all while the engine was running at various revolutions. Torsional vibration diagrams have been taken of the trial trip of which a copy is enclosed. With a view to the satisfactory results obtained I am of opinion that the machinery of this vessel merits the approval of the Committee to be recorded with the record of the M.C.S.

The amount of Entry Fee *Polous 2 1/2 x 100 = £200.00* Account *20/6-52* Received *18/8-52*
 Special *de Klop fitting 1/3 x 100 = £100.00* When applied for *5.10 1953*
 Donkey Boiler Fee... £ Travelling Expenses (if any) £ *65.-* When received *19*
 Committee's Minute *THURSDAY 5 NOV 1953* *11.50 (incl. job. Polous, acc. 20/6-52, rec. 18/8-52)*
 Assigned *Def. for Examination* See Rpt. 1

H. Hassell *E. M. P. Dudoob*
 Engineer Surveyor to Lloyd's Register of Shipping

