

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office 18 AUG 1942)

Date of writing Report 10 May 1942 When handed in at Local Office 19 Port of Curacao, N.W.S.
No. in Survey held at Curacao, N.W.S. Date, First Survey 7 Oct. 1940 Last Survey 7 May 1942
B. Book 5103 on the Machinery of the Wood, Iron or Steel m.v. "Bonaire" ex "Huy Nien" (No. of Visits 64)

Gross 3164 Vessel built at Hamburg By whom Richard Schiffers, Hamburg When 1926
Net 1857 Engines made at Wintertur By whom Julius Bros. When 1922
Nominal 390 Boilers, when made (Main) (Donkey) 1926
Power of Main Boilers ✓ Owners Government of Curacao, N.W.S. Owners' Address Curacao, N.W.S.
of Donkey Boilers ✓ Managers Engel Rethelands & Schmitz B.V. (if not already recorded in Appendix to Register Book.)
Main Pressure ✓ Port Willemstad Voyage
in Main Boilers ✓ If Surveyed Afloat or in Dry Dock ✓ Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).
in Donkey Boilers 85 Lp (State name of Dock.)

Last Report No. Port Curacao, N.W.S. 1st Entry to M.C. DBS.

Particulars of Examination and Repairs (if any) During & T.S.

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and initials of any letters respecting this case.

damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined. ✓

as a damage report made by anyone else? If so, by whom? ✓

did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? ✓

" " the Donkey " " yes

his was not done, state for what reasons? ✓

what parts of the Boilers could not be thus thoroughly examined? ✓

what special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? ✓

the latest date of internal examination of each boiler 17 Feb. 1942 Present condition of funnel Good

the Surveyor examine the Safety Valves of the Main Boiler? ✓ To what pressure were they afterwards adjusted under steam? ✓

the Surveyor examine the Safety Valves of Donkey Boiler? yes To what pressure were they afterwards adjusted under steam? 85 Lp

the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? ✓ and of the Donkey Boilers? yes

the Surveyor examine the drain plugs of the Main Boilers? ✓ and of the Donkey Boilers? none

the Surveyor examine all the mountings of the Main Boilers? ✓ and of the Donkey Boilers? yes

screw shaft now been drawn and examined? yes Is it fitted with continuous liner? yes Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? no

shaft now been changed? no If so, state reasons ✓

the shaft now fitted been previously used? ✓ Has it a continuous liner? ✓ Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? ✓

date of examination of Screw Shaft 2 Feb. 1942 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft 3/16 ins.

Engine parts, when referred to by numbers, should be counted from forward. Is electric light and power fitted? yes

did the Surveyor examine the generators, motors, switchgear, cables and fuses? yes

the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? yes

the Survey is not complete, state what arrangements have been made for its completion and what remains to be done To complete the machinery survey

emergency engine starting air vessel and the main injection air vessels require to be loaded by hand pump. This will be done at the first opportunity.

done:- Vessel placed in dry dock, propeller, tail shaft, stern bushes, air connections & air pipes examined & placed in satisfactory condition. The main engine cylinders, jackets, valves, covers, valves & gear, pistons, rods, top & bottom end frames, crossheads, gaskets, pumps, timing gear, crank, thrust & intermediate shafts with bearings, engine frame, bed plate and lining down bolts, all auxiliary engines, pumps with valves, cocks, pipes & drainers of the machinery arrangements examined throughout and placed in satisfactory condition.

main and auxiliary air compressors throughout, starting and injection air receivers (small), air pipes & connections examined and main starting air receiver tested and all placed.

General Observations, Opinion, and Recommendation:- The machinery of this vessel, is

(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9.11, B.E.M.S. 9.11, L.M.C. 9.11, or CS. 3.34, 140 lb., F.D., &c.)

is in my opinion to be classed with this Society and have the records of B.S. 2.42, T.S. (Ch) 2.42, and notation of L.M.C. with date when the machinery survey has been completed.

Survey Fee (per Section 29) Machinery 24. 318.75 Fees applied for 87.51.1942

Repair Fee (if any) 24. 150.00

(per Section 29.) 2nd 24. 57.50

Wellington expenses (if chargeable) DBS 24. 55.00

T.S. 24. 30.00

Committee's Minute FRI 16 OCT 1942

Assigned See Co. Rpt. 2182

Signature W. Chayman

Engineer Surveyor to Lloyd's Register of Shipping.

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m.v. "Bonaire"

in satisfactory condition except for the emergency engine starting air receiver and the main injection air receivers which are somewhat worn internally and require to be bored by hydraulic pressure. Nos. 1 & 5 injection air receivers, being deeply worn at the bottom are out of commission until bored, the remaining air vessels are efficient. The separate fuel service tanks with valves, connections & etc. examined throughout & found satisfactory. The electric generators, all motors including steering gear & winchless motors opened up and examined as far as practicable with fittings, fuses, switchboards, cables & etc. placed in good condition and satisfactory insulation resistance tests made throughout. The main engine, auxiliary machinery & all electrical equipment tested under working conditions and found satisfactory.

Lagging partly removed from donkey boiler, boiler examined throughout with mountings, main steam pipes, doors & packings & placed in satisfactory condition, tested by hydraulic pressure to 11 Kg. C.M. & found in order. Appurtenances examined under steam & the safety valves adjusted to 85 Lb. C.M. The oil burning installation tested throughout under working conditions, the steam smothering arrangements examined and all found satisfactory.

Main Engine Repairs:-

Nos. 1, 2 & 4 jackets renewed.

Nos. 1 liner renewed, Nos. 2, 3 & 4 liners machined.

All pistons (4) renewed with rings, cooling pipe connections flushed.

Nos. 1 crosshead pin renewed, Nos. 2, 3 & 4 crosshead pins machined, bottom shells of Nos. 1, 2 & 3 crosshead bearings E.W. where fractured, all bottom shells machined, reinstalled, added in connecting rod tops, bearings fixed, keys & all nuts renewed.

All connecting rod top & bottom bearing faces machined.

All top halves of bottom end bearings reinstalled.

Spare pads fitted in thrust block. Used pads repaired & placed on board.

Fuel pump plungers ground flat and valves renewed.

Governor sliding bush with connections renewed.

Approx. 40% of cylinder lubricating oil pipes renewed.

Lubricating oil pump gear/pin & bush renewed, rod machined, neck & gland bushes renewed, suction & delivery valve seats machined.

Bilge pump rod machined, neck & gland bushes renewed, suction & delivery valves renewed. Small hole in suction chest fitted with an efficient belted patch. Change over cock renewed.

Other minor repairs effected.

Main Engine Compressor Repairs:-

H.P. piston rings & distance pieces renewed, valves, seats, caps & springs renewed.

M.P. and L.P. valves, caps & springs renewed, seats part renewed.

All intercooler casings & tubes cleaned, minor repairs effected & tested.

Port side of compressor frame fitted with heavy plate & supporting bars where fractured in way of intercooler supports. (Permanent repair).

Please see 2nd Continuation Sheet.

m. v. "Bonair".

Port Auxiliary Engine Repair:-

5 cylinder covers with cooling pipes, fuel sprayers & indicator cocks renewed.

5 cylinder liners with pistons & rings renewed.

5 overhead pins & bushes with cotter renewed.

No 3 bottom end bushes renewed.

Crank shaft forward extension machined true, lubricating oil pump driving wheel with follower, starting cam, fuel pump eccentric, governor springs, pins, regulator bush & thrust bearing renewed and end bearing reinstalled.

Fuel pump plungers & sleeves with suction & delivery valves renewed.

Compressor H.P. piston head with bolts & rings, suction & delivery valves, intercooler casing with tubes renewed.

Compressor M.P. & L.P. piston grooves machined, piston rings, suction & delivery valves, intercooler casings & tubes renewed.

Sthd. Auxiliary Engine Repair:-

5 cylinder covers with cooling pipes, fuel sprayers & indicator cocks renewed.

5 cylinder liners with pistons & rings renewed.

5 overhead bushes & pins renewed, 2 with guides.

All bottom end bolts renewed.

Crank case renewed, shaft with bearings bedded in.

Governor springs, pins, bushes & key renewed.

Fuel pump plungers, sleeves, suction & delivery valves renewed.

Compressor H.P. piston head with bolts & rings, suction & delivery valves, intercooler casing with tubes renewed.

Compressor M.P. & L.P. piston grooves machined, piston rings, suction and delivery valves, intercooler casing & tubes renewed.

Auxiliary Repairs:-

2 sets of main piston & cylinder cooling water pumps renewed.

Bilge pump plungers machined, liners renewed, suction & delivery valves mach.

General service pump shaft bushes renewed.

Ballast pump shaft, bushes & thrust bearing renewed.

Scavenge blower shaft bearings reinstalled.

Approx 80% of E. R. oil well & cofferdam piping renewed.

3 in direct bilge connections with valves & mud boxes fitted. Bilge pump to port & stbd. sides of engine room.

Main engine cooling water pipes part renewed.

2 lengths of oil fuel filling pipe line renewed.

Darcy both combustion chamber guides with stays renewed.

Sharples lubricating oil separator fitted.

Port generator armature part renewed, field coil connection insulation renewed, commutator machined, brush shaft bearing renewed.

Sthd. generator armature completely renewed, commutator machined, field connections renewed. (Spare armature renewed).

2 cooling water pump motors with starters completely renewed.

Sth 3rd Continuation Sheet.

