

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

(Received at London Office 31 AUG 1942)

Date of writing Report Aug. 6, 19 42. When handed in at Local Office Aug. 6, 19 42. Port of Newport News, Va.
No. in Survey held at Newport News, Va. Date, First Survey Mar. 23, Last Survey June 27, 1942.
eg. Book 18680. on the Machinery of the Wood, Iron or Steel s/s "ACME" (No. of Visits 28.)

Tonnage { Gross 6878. Vessel built at San Francisco. By whom Union Iron Works Co. Year. Month. 1916 6.
Net 4304 Engines made at Toledo, Ohio. By whom Toledo Shipbuilding Co. When 1942 - 6.
Nominal Horse Power 552. Boilers, when made (Main) 1916 - 6. (Donkey)
No. of Main Boilers 3 Owners Socony-Vacuum Oil Co., Inc. Owners' Address
No. of Donkey Boilers 1 Managers Port New York, N.Y. Voyage
Steam Pressure in Main Boilers 215. If Surveyed Afloat or in Dry Dock Yes. Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).
in Donkey Boilers Yes. (State name of Dock.) N. N. S. B. & D. Co.

Last Report No. Port
Particulars of Examination and Repairs (if any) New engines & Boiler survey.

Periodical Surveys, when held, must be reported in detail and seriatim 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.

In 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 Yes. Not required

Was a damage report made by anyone else? If so, by whom? Surveyor to U.S. Salv. Asso.

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Yes.

" " " " " "

Did this was not done, state for what reasons?

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

Also 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?

State latest date of internal examination of each boiler May 8th 1942. Present condition of funnel(s) Good.

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes. To what pressure were they afterwards adjusted under steam? 215-Lbs. per sq. inch.

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

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? Yes. and of the Donkey Boilers?

Did the Surveyor examine the drain plugs of the Main Boilers? Not fitted. and of the Donkey Boilers?

Did the Surveyor examine all the mountings of the Main Boilers? Yes. and of the Donkey Boilers?

Was screw shaft now been ~~examined~~ 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.

Was shaft now been changed? If so, state reasons Old shaft blown away.

Was the shaft now fitted been previously used? No. Has it a continuous liner? Yes. Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? No.

State date of examination of Screw Shaft State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft Relined

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

Also, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Now new

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

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

Damage stated to be due to enemy action which took place at about 4:50 P.M., March 17, 1942, when proceeding from New York to Corpus Christi.

Now Done:-

Main Boilers:- The main boilers opened up and examined throughout. Condition good.

All mountings removed from the boiler shell and all studs securing mountings to shell and end plates renewed. All lagging removed from boiler shells and shells scaled, recoated and new insulating material fitted. All boiler mountings thoroughly overhauled, ground in, repacked and refitted to boiler shells and end plates. Main steam and auxiliary pipes removed and tested by hydraulic pressure to 645 Lbs. per square inch and found tight and sound and refitted in place.

In consequence of the fitting of new engines, one short additional length of pipe now fitted and

General Observations, Opinion, and Recommendation:- The boilers and machinery of this vessel are (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 *LMC 140 lb., F.D., &c.)

how in good and safe working condition, eligible in my opinion for the record of LMC., B.S. 6.42,

new engines fitted 6.42 and propeller shaft new 6.42 in the Register Book.

Survey Fee (per Section 29) Inst. of Mchry \$168.00 Fees applied for 5/8/ 1942.

Special Damage or Repair Fee (if any) B.S. £ 45.00 Received by me,

(per Section 29.) Elect. Light. 140.00 Travelling expenses (if chargeable) £ : : 19

Committee's Minute NEW YORK AUG 12 1942

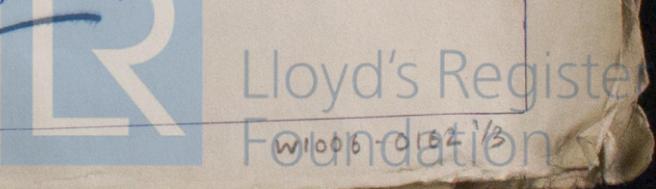
Assigned N. E. G. 42 - LMC 6, 42.
T. S. N. 6, 42.

CHARACTER for Special Survey Date of last Survey and of Periodical Surveys.	Years assigned now expired.	Machinery and Boiler Surveys (including date of M.B., if any)
*100-A-1 10.41		*LMC. 4.37
ss. N. Yk. No. 3-12. 28		B.S. 10.41
ss. Bal. No. 2-37		T.S. (CL) 10.39
Examined 10.41		
Carrying Pet. in bulk; fitted for oil fuel 6.16 F.P. above 150° F.		

Insert Character of Ship and Machinery precisely as in the Register Book

Is a Certificate required? If so, to be sent to

G. Hudson
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register of Shipping
Foundation

S/S "ACME"

tested to 645 Lbs. per square inch. Seamless steel pipe 1/2" thick made by the National Tube Co., Boilers now tested by hydraulic pressure to 323 Lbs. per square inch and found tight and sound. The safety valves were adjusted to blow at 215 Lbs. per square inch. Government Surveyors attending the survey.

In view of the nature of the damage to the vessel, the boiler seatings and boiler fastenings were examined and found in good order.

Main and auxiliary feed pipes and boiler blow down pipes removed, annealed, tested, repaired as found necessary and refitted in place.

All steam and exhaust piping in stokehold now recovered.

Fuel oil pumps opened up and examined. Valve gear overhauled and adjusted. New pins and bushes fitted as necessary. Fuel oil heaters and coils cleaned, annealed, tested and refitted in place. Fuel oil strainer boxes good. Piping and furnace fittings examined and found in good order, tested by hydraulic pressure and found tight. Fuel oil transfer pump examined and found in good condition.

Owing to the badly damaged condition of the main engines and auxiliary machinery, the Owners decided to remove the old engine and fit on board a new set of triple, expansion, surface condensing engine as per first entry report attached.

The propeller, stern tube and shaft was blown away and thrust block and thrust shaft damaged. L.P. cylinder and M.P. cylinder broken beyond repair - all columns broken and main engine bedplate - cracked in several places. Valve gear badly bent.

Auxiliary condenser totally broken up, including attached pumps, auxiliary pumps and electric light engines, dynamos, switchboard, wiring and all engine room platforms broken up.

Now Done:-

Main engines with attached pumps, all auxiliary machinery and metal debris removed from vessel. Engine room tank top cleaned, examined and found in good order.

In order to suit the bedplate of the new engine, a new seating of welded construction and in accordance with the approved plan, has been built in place, and as far as can be seen is a good efficient job. The new engines now securely fastened to same on cast iron chocks and holding down bolts, cylinders, cylinder covers, slide and piston valves, piston and valve rods, valve gear, connecting rods, top and bottom end pins and brasses, crank shafting, thrust shaft, intermediate and tail shafting examined.

Air pump, attached bilge pumps and main circulating pump and engine for same (new) examined. Condenser examined and tested. New fire and bilge pump, general service pump, fresh water and sanitary pumps fitted. New auxiliary condenser and attached air and circulating pump fitted. Rado jet and condensate pump fitted to the main condenser. Evaporator renewed with all connections. Feed water heater opened up, cleaned, tested and found in good order. All broken overboard discharge valves renewed. Two sea valves renewed. Pumping arrangements examined and all damaged piping renewed. New bronze propeller of approved design and tested material now fitted. Four bladed, solid, manganese bronze.

A new thrust bearing foundation as per approved plan built up and welded throughout.

A new steady bearing made and fitted in place for the intermediate shaft.

Old feed pumps (2) removed from vessel, thoroughly overhauled in shop, refitted in

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place, connected up and tested and found to be in good, working order.

All engine room platforms and gratings renewed. New hotwell with all connections made, fitted in place and connected up. All steam and exhaust piping in engine room together with valves and connections removed, tested, repaired as found necessary and refitted in place and recovered. All water and oil piping in engine removed, tested, repaired as found necessary and refitted in place.

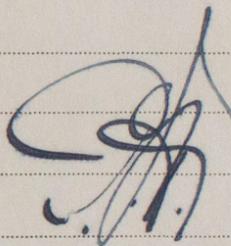
Lubricating oil tanks repaired with part new material. A new steering engine complete with necessary bearings and carrier ring now installed and connected up. Windlass engine opened up and all working parts examined and overhauled - condition good.

Electric light engines and dynamos (2) with switch-board and fittings completely demolished and wiring in machinery space and crews quarters aft partly blown away. Three new engines and dynamos of 20 K.W. capacity now installed. Two of these are for ships use and one is for the De-Gaussing installation.

New switchboards with all necessary instruments and switches now made, fitted in place and connected up. All defective wiring in engine and fire room and in the after quarters now renewed.

All circuits tested out, renewed and repaired as found necessary.

On completion of fitting the new engines, new auxiliary machinery and new electrical units, the engines, all auxiliary machinery and pumps, electric light installation and new steering gear were tested out and found to be in good, safe working condition. Spare gear for the new engines checked and found to be in accordance with the Rules.



Noted

LMC 642 NE 6.42

SN 642

Delete typew particulars & make name & for special buy

present Tcy 242, 37, 70-48

NHP 519

Isleds 286, Isleds.

[Signature]
8/9/42

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