No. 20,422

ORT OF SURVEY FOR REPAIRS, &c., OF ENGINES AND BOILERS

(Received at London Office 17 APR 1946)

writing Report 20/ 2/ 1946 *When handed in at Local Office* 20/ 2/ 1946 *Port of* SYDNEY. N.S.W.

Survey held at SYDNEY. N.S.W. *Date. First Survey* 5/2/46 *Last Survey* 19/2/ 1946 (No. of Visits 9)

on the Machinery of the ~~Wood, Iron or~~ Steel T.S.M.S. "TANDJONG OEBAN"

Gross 195
Net 98
er)
n Boilers --
key Boilers --
ssure— Boilers --
y Boilers --

Vessel built at Rhodes, N.S.W. *By whom* Commonwealth Govt. Shipbuilding Estab. No.4 *When* Year. 1946 Month. 2

Engines made at Glasgow *By whom* British Auxiliaries Ltd *When* 1944

Boilers, when made (Main) -- *(Donkey)* --

Owners Nederlandsche Koloniale Petroleum Maatsshappij. *Owners' Address* (if not already recorded in Appendix to Register Book.)

Managers *Port* The Hague *Voyage* Singapore.

If Surveyed Afloat or in Dry Dock (State name of Dock.) Both. Mort's Slipway.

Report No. *Port*

culars of Examination and Repairs (if any) General Examination

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

Particulars of Classification *(which must be inserted precisely as in Register Book & Supplements).*

CHARACTER. ✠ for Special Survey Date of last Survey and of Periodical Surveys.	Years assigned now expired.	Machinery and Boiler Surveys (including date of N.B., if any).
Class Contemplated		

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

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

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

amage report made by anyone else? If so, by whom? ✓

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

,, Donkey ,, ,, ,, ✓

s not done, state for what reasons ✓

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

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

st date of internal examination of each boiler ✓ Present condition of funnel(s) ✓

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

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

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

rveyor examine the drain plugs of the Main Boilers? ✓, and of the Donkey Boilers? ✓

rveyor examine all the mountings of the Main Boilers? ✓, and of the Donkey Boilers? ✓

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

now been changed? ✓ If so, state reasons ✓

haft 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? ✓

e of examination of Screw Shaft ✓ State the distance between lignum vitæ or bearing metal of stern bush and top of after bearing of screw shaft Close working fit.

gine parts, when referred to by numbers, should be counted from forward. Is electric light ~~or Power~~ fitted Yes

the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

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

rvey is not complete, state what arrangements have been made for its completion and what remains to be done as hereunder

Vessel on slipway - Propellers outer end of stern bushes and sea connections with their enings examined.

propellers removed, taper of shaft examined and propellers refitted, as too heavy a bearing showing on the after end of the taper.

main engines examined generally without opening up for survey.

cylinder covers had been removed after vessel completed acceptance trials and liners were ined by Representatives of the Government and the Purchasers.

starboard cylinder cover now removed, dimensions of the bore and stroke checked with particulars lied by the Builders; other particulars verified as detailed in Rpt. 4b

machinery and electrical installation examined generally and seen under full load working

P.TO.

eral Observations, Opinion, and Recommendation:—

ate 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.&M.S. 9,11, ✠ L.M.C. 9,11, or ✠LMC 140 lb., F.D., &c.)

CS 3,44,

Machinery of this vessel, as far as now seen, appears in good and efficient condition and will ligible for classification with record of L.M.C. 2,46 when the survey is completed and Rule irements complied with.

Fee *(per Section 29)* £ : :
Damage or Repair Fee (if any) *(per Section 29.)* £ : : See Syd letter 20/2/46
ling expenses (if chargeable) £ : :

Fees applied for ..... 19.....
Received by me, ... 19.....

Engineer Surveyor to Lloyd's Register of Shipping.

mittee's Minute FRI. 31 MAY 1946

gned Lee

conditions whilst vessel was on speed trials on the 19th instant.

The electrical installation megger tested and particulars of survey given in Rpt 13.

A general examination made of the pumping arrangements, piping, oil fuel fittings etc.

Now Done:- Bilge suction in Engine room now connected to mud-box above platform level, with straight tail pipe. Additional direct bilge suction also fitted to auxiliary pump. Drip trays fitted under main and auxiliary daily service tanks and 1¼" diameter air pipes fitted to these tanks, with their outlets above poop deck and their ends fitted with gauge wire diaphragms.

Other items of installation which do not comply with Rule requirements are given in letter now forwarded with this report.

Spare Gear:- Two three bladed bronze propellers and one tail shaft are supplied as spares, in addition to main and auxiliary engine spares on board in sealed boxes, the contents of which could not be checked, but are stated to be as per attached lists.

Auxiliary Engine:- Two-cylinder Heavy oil engine made by Kelly & Lewis, Melbourne, Dimensions stated to be 3½" dia bore, 4¾" stroke, R.P.M.1000, Diameter of crankshaft forward bearing 2-9/16", bearing between cranks 2.873", bearing at flywheel end 2.873" dia. Span of bearings between forward and centre bearing 6-31/32", between centre and flywheel end bearing 7-7/16 . No other particulars obtainable.

This engine drives a 4 K.W. generator by means of 3 "V" belts from flywheel, a two stage air compressor by means of clutch on end of engine shaft and a rotary bilge pump by means of a clutch from the generator shaft:- all of which have now been tested under working conditions and found satisfactory.

Air Receivers:- Two port and two starboard, each approximately 17¼" outside dia. and are stated to be 150 litres capacity and tested to 720 lbs. They were supplied by the Makers of the Engines, British Auxiliaries Ltd., Glasgow.

Main Engines:- Two 5 cylinder Atlas Polar Heavy oil Engines 180 m.m. bore by 300 m.m. stroke 200 B.H.P. at 450 R.P.M.

No plans were available for these engines other than print M.U. 165 now forwarded

Makers Agents state that compressor pressure is 554 lbs per sq. inch. Mean indicated pressur 5.23 Kgm / sq c.m., weight of engine without flywheel 5820 Kgm, weight of flywheel 280 Kgm, crankshaft journals dia 125 m.m. crankpin dia. 120 m.m. Further particulars could be obtain from the Makers.

To complete the Survey - All Rule requirements regarding opening up of machinery remain to be carried out.

Electrical installation survey now complete.