

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

(Received at London Office.

Date of writing Report, 17th Oct, 1953 When handed in at Local Office, 1953 Port of ALEXANDRIA.

No in
eg. Book. Survey held at ALEXANDRIA. Date. First Survey 3rd October, last Survey 13th Oct, 19 53
(No. of Visits seven.)

on the Machinery of the ~~Wood, Dredge~~ Steel Screw m/v "SHAKTI" 1 P/P1 Launched 6/4/90

nnage { Gross 2788 Vessel built at Naples By whom Capt. Wm. S. 590 When 53 9
Net Engines made at INFORMATION NOT AVAILABLE. When

<i>Boilers, when made (Main)</i>	<i>(Donkey)</i>
<i>Owners</i>	<i>Owners' Address</i>

of Main Boilers (if not already recorded in Appendix to Register Book.)
 Managers Port Voyage

of Donkey Boilers If Surveyed Afloat or in Dry Dock..... Afloat.....
 am Pressure—.....
 n Main Boilers (State name of Dock.)
 Particulars of Classification (which must be inserted
 precisely as in Register Book & Supplements).

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)
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Information not

available.

st Report No. Port

Particulars of Examination and Repairs (if any) Machinery defect,

ritical Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly the
e of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on
unt of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides
g detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and
als 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.

a damage report made by anyone else? If so, by whom? Italian Underwriter's Surveyor.

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

" " Donkey "

It, state for what reasons..... What parts of the Boilers could not be thus thoro

at 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?

3 latest date of internal examination of each boiler.....

the Surveyor examine the Safety Valves of the Main Boilers?.....To what pressure were they a

the Surveyor examine the Safety Valves of the Donkey Boilers? To what pressure were they

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

the Surveyor examine the drain plugs of the Main Boilers?

he Surveyor examine all the mountings of the Main Boilers?

the screw shaft now been drawn and examined?.....Has it a continuous liner?.....Is an approve

shaft now been changed?.....If so, state reasons.....Has the shaft now fitted been previous

approved oil retaining appliance fitted at the after end?.....State date of examination of Screw

ern bush Is electric light and/or power fitted? If so, did the Surveyor examine the g

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

ne parts, when referred to by numbers, should be counted from forward. Auxiliary machinery should be referred to by

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

Attended on board at the request of the Owners Representative. It was stated the vessel left the builder's yard at Castelmari at noon on 28th September, 1953 bound for India via Port-Said, and all proceeded normally until at 9.00 a.m. on the 1st of October, 1953 when the port engine was stopped in order to change Nos. 1 and 2 atomisers, and at 9.15 a.m. the starboard engine was stopped to change Nos. 1, 3 and 6 atomisers. Whilst the engines were stopped lub oil, piston cooling oil, and water cooling circulation was maintained with the auxiliary pumps. At 9.50 a.m. both engines were re-started, and continued normally until 11.30 a.m. when a slight increase in temperature and pressure of the piston cooling oil was noticed and at 11.35 a.m. the piston cooling oil collecting chamber on No.3 starboard unit cracked, and both engines were then stopped for examination.

It was found that the return oil valves of the piston cooling system were partially choked with carboniferous scale, and the return oil valve of No.3 piston unit was completely choked.

P.T.O.

eral Observations, Opinion, and Recommendation:— The machinery of this vessel, as now seen, is in
(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, BS 9,11, B&MS 9,11, XLMC 9,11 or
XLMC 140 lb., FD, &c.)

CS 3,34
and safeworking condition, and eligible in my opinion, to remain as classed without fresh
ford of survey.

Fee (per Section 23).....
attendance
LR/RI slip
attached.
Fees applied for,
16.10.1953
Received by me,
19

ing expenses (if chargeable).....**FRIDAY 30 JUL 1954**

Committee's Minute

red

See FE. Rpt.

Robert W. Johnson
Engineer Surveyor to Lloyd's Register of Shipping.

Engineer Surveyor to Lloyd's Register of Shipping.

LR Lloyd's Register Foundation

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The pipes were disconnected and cleaned on both engines, and the port engine re-started, but owing to poor piston cooling circulation was repeatedly stopped for cleaning of pipes etc.

Subsequently the starboard engine was restarted on five cylinders, No.3 being cut-out., and the vessel proceeded at reduced speed, arriving at Alexandria anchorage at 7.45 a.m. on 3rd October, 1953.

It was also stated the construction of these engines was completed in 1947, ship tests having been held on 23rd May, 1947, and were installed on board in 1949. Apart from periodical running for one or two hours for freeing purposes, the engines had not been operated until finally taken over by the present Owners, the Indian Navy, when satisfactory trials were held, but it is understood the engines had not been opened up for examination by the new Owners.

NOW DONE:

Port & Starboard main motors:- (Piston cooling oil system)

All cylinder covers and pistons removed and examined. On all pistons, to greater or less extent on cooling side of head, a carboniferous scale found varying from 1/16" to 1/8" thick covering crowns. This scale now removed, all piston cooling pipes disconnected and removed, cleaned and blown through with air and replaced. All piston cooling discharge valves opened up, several found partially choked with scale and No.3 starboard completely choked. All now cleaned and replaced. Filters examined and found clean. All piston cooling telescopic pipes and collecting chambers examined, cleaned and blown through with air. No.3 collecting chambers found cracked full length, now replaced by new fabricated mild steel chamber, hydraulically tested to 150 lbs per square inch.

On completion of repairs both engines run under working conditions, pressure and temperature normal and piston cooling oil flow in all cases satisfactory.

The log books for the voyage from Castelmari to Alexandria examined and show temperatures and pressures normal.

It is considered the cooling side of the piston head was possibly scaled before the vessel left Italy, and when the engines were stopped for changing of atomisers on 1st October the consequent cooling of the piston heads caused partial cracking and loosening of the scale, which subsequently circulated with the oil and choked the discharge valves.

From the few records available on board, at no time is there any indication of overheating or abnormal temperatures or pressure.

The oil used for the piston cooling is "ESSOMAR 65" " the same being used for lubricating oil.



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