

3 JAN. 1961

DISCLOSED  
SECTION

DISCLOSED  
SECTION 3496

Rpt. 9

Date of writing report 2nd Dec. 1960

Survey held at Yokohama

No.

Received

No. of visits 1

Port Yokohama

First date &

Last date 1st Dec. 1960

# REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 64308 S.S. HIKOSAN MARU Gross tons 6363 Date of build 11-1951  
 Owners Nakano Kisen K.K. Managers - Port of Registry Tokyo  
 Engines made Tokyo By Ishikawajima Jukogyo Type 2 st. turbines DR geared to sc. shaft  
 No. of Main Engines 1 No. of Screws 1  
 No. of Main Boilers 2 WT W.P. 285 Lb Spt.  
 No. of Aux./Donkey Boilers - W.P. -  
 Surveyed Afloat or in Dry Dock Afloat  
 Nature of Survey Mchy. Damage & Repair  
 Was Damage Report issued? No Int. Cert.? Yes  
 Last Report (For Head Office only)

| Hull                        | Machinery        |
|-----------------------------|------------------|
| + 100 AL                    | + LMC            |
| DTs - Oil F.P. above 150° F | ES 1/60          |
| SS 1/60 Dkg 1/60            | MBS 1/60 CL 1/60 |
|                             | SPS 1/60         |

The condition of any of the following items is to be described as "good" only when the part has been examined, found or placed in good condition, and is considered to be acceptable until the due date of the next Periodical Examination. Where it is considered that re-examination or repairs should be effected before the due date of the next Periodical Examination a distinguishing mark thus † should be inserted against the item and the circumstances and action recommended described fully under "defects and repairs". At part or complete overhaul surveys those items which are not applicable to the ship should be cancelled with a black line; this need not be done when the machinery is on a continuous survey basis. When any part has been subjected to pressure test this should be stated. Engine parts when referred to by numbers should be counted from forward.

DOCKING Propellers Wear Down of Stern Bushes Oil Glands Sea Connections  
 Fastenings Has Screwshaft Tubeshaft been drawn? Date of Examination Has Shaft been changed?  
 Has Shaft now fitted been previously used? Has Shaft now examined/fitted a continuous liner? Approved oil gland?  
 MAIN ENGINES (Recip. Steam or I.C.) PORT STARBOARD

- 1 Cyls., Covers, Pistons & Rods
- 2 Valves & Gears
- 3 Connecting Rods, Top Ends & Guides
  - Side
  - Centre
- 4 Crankpins & Bearings
  - Side
  - Centre
- 5 Journals & Bearings

## MAIN ENGINE DRIVEN AIR COMPRESSORS

- 6 Cyls., Covers, Pistons & Rods
- 7 Connecting Rods & Top Ends
- 8 Crankpins & Bearings
- 9 Journals & Bearings
- 10 Coolers & Safety Devices

## MAIN ENGINE DRIVEN SCAVENGE PUMPS

- 11 Cyls., Covers, Pistons & Rods
- 12 Connecting Rods & Top Ends
- 13 Crankpins & Bearings
- 14 Journals & Bearings
- 15 Levers

## SCAVENGE BLOWERS

## SUPERCHARGERS

## MAIN TURBINES

- 18 Casings, Rotors, Blading, Bearings & Thrusts

## EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)

- 20 STEAM COMPRESSORS
- 21 CLUTCHES & HYDRAULIC COUPLINGS
- 22 REDUCTION GEARING HP 1st wheel †
- 23 THRUST BLOCKS, SHAFTS & BEARINGS
- 24 INTERMEDIATE SHAFTS & BEARINGS
- 25 HOLDING DOWN BOLTS & CHOCKS
- 26 CONDENSERS (MAIN & AUX.)
- 27 STEAM RE-HEATERS
- 28 DE-SUPERHEATERS
- 29 STOP & MANOEUVRING VALVES
- 30 MAIN ENGINE DRIVEN PUMPS
- 31 CRANKCASE DOORS & EXPLOSION RELIEF DEVICES

Have Main Engines been tested working and manoeuvring?  
 The machinery of this vessel, so far as now surveyed, is eligible in my opinion to remain as now classed without fresh record of survey, subject to the HP 1st reduction gear wheel being specially examined and dealt with as necessary before the end of May 1961 (6 months limit), and to propeller shaft revolution not to be exceeded 105 r.p.m. until the HP 1st reduction gear wheel be renewed.

Date of Committee

Decision

40m, 3.58 T. (MADE AND PRINTED IN ENGLAND.)

/km

FRIDAY - 6 JAN 1961

Class with drawn at Owners request.

Engineer Surveyor to Lloyd's Register of Shipping  
 H. TERASHIMA

Lloyd's Register  
 Foundation

If certificate is required state where to be sent



- 32 Essential Independent Pumps (Identify by position).....
- 33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls.....
- 34 Have the remaining Piping Arrangements & Fittings in the machinery space been examined as considered necessary?.....
- 35 Fresh Water Coolers..... 36 Lub. Oil Coolers..... 37 Heaters (state service).....
- 38 Independent Air Compressors, Coolers & Safety Devices.....
- 39 Air Receivers & Safety devices—Main..... 40 Auxiliary.....
- 41 Oil Fuel Tanks (Not forming part of hull structure).....
- 42 Evaporators..... 43 Have Evaporator Safety Valves been tested under steam?.....
- 44 Steering Machinery..... 45 Windlass..... 46 Fire Extinguishing Arrangements.....

AUXILIARY ENGINES (Identify by position).....

| PROPULSION                       | PORT | ELECTRICAL EQUIPMENT |  |
|----------------------------------|------|----------------------|--|
|                                  |      | STARBOARD            | AUXILIARY EQUIPMENT                        |
| a Generators.....                |      |                      | 1 Generators & Governors.....              |
| b Exciters.....                  |      |                      | m Motors.....                              |
| c Air Coolers.....               |      |                      | n Switchboards & Fittings.....             |
| d Motors.....                    |      |                      | o Circuit Breakers.....                    |
| e Air Coolers.....               |      |                      | p Cables.....                              |
| f Control Gear, Cables, etc..... |      |                      | q Insulation Resistance.....               |
| g Insulation Resistance.....     |      |                      | r Steering Gear Generators and Motors..... |
| h Insulating Oil Test.....       |      |                      | s Navigation Light Indicators.....         |
| i Overspeed Governors.....       |      |                      |  |
| j Magnetic Couplings.....        |      |                      |  |
| k Air Gap.....                   |      |                      |  |

BOILERS OPENED UP & EXAMINED (Identify by position and state latest date of internal examination of each boiler)

| MAIN  | AUXILIARY, DONKEY or PRESS                     |
|---|--|
| Superheaters.....   |  |
| Safety Valves.....  |  |
| Mountings, Doors & Fastenings.....  |  |
| Safety Valves Adjusted to Sat.....  |  |
| Spt.....  |  |
| Boiler Securing Arrangements.....   |  |
| Main Economisers.....   | Exhaust Gas Heated Economisers.....            |
| Steam Heated Steam Generators.....  | Steam Generator Safety Valves Adjusted to..... |
| Were Oil Burning System & Remote Controls examined working in accordance with Rules?.....             | Forced Circulating Pumps.....                  |
| Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules?..... | Funnel.....                                    |

EXAMINATION & TESTING OF STEAM PIPES (State material)

|                                  |  |
|----------------------------------|--|
| Main.....                        | Auxiliary (over 3 in. bore).....   |
| Were Copper Pipes annealed?..... | Have Saturated Pipes in cylindrical boiler smoke boxes been tested?..... |

PARTICULARS OF DEFECTS & REPAIRS, ETC. (Damage repairs should be detailed separate from wear and tear repairs; state what action has been taken regarding items which are subjects of class)

DAMAGE & TEMPORARY REPAIRS TO MAIN ENGINE HP 1ST REDUCTION WHEEL

(Cause unknown)

Chief Engineer stated that whilst on loaded voyage to Japan, with main engines operating at service speed, abnormal noise emission had been experienced in way of HP 1st Reduction Gearing.

Now Done HP pinion removed to facilitate examination of 1st Reduction Wheel.

Examination of 1st Reduction Wheel showed two teeth (almost diametrically opposite) of after helix to be broken, one at mid-length for approximately 75 mm; the other for approximately 20 mm at a distance of 33 mm from forward end (Please see accompanying photographs).

Both teeth examined under dye penetrate test and found satisfactory; broken edges dressed and extremes of teeth relieved.

It was stated by the Owners' Representative that it is the Company's intention to convert the main machinery to diesel in January 1962 (YOKOHAMA - M.A.N.) and consequently would prefer not to renew the 1st reduction wheel.

Cont'd Sheet No

Survey fees ... £ 10,000.-

Damage fee ...

Expenses... £ 500.-

Date when A/c rendered.....

Rpt. 9

Port of

Continuation of Report No. 3496

dated

Sheet No.2

on the

In the circumstances, it is submitted that the machinery of this vessel be retained as Classed, subject to Main Engine HP 1st reduction wheel being specially examined by May 1961 (6 months limit), propeller revolutions not to exceed 105 per minute. (Estimated power at 105 shaft rpm being approximately 3600) Appropriate Entry to be made in the Conditions of Class List.

GENERAL COMMITTEE

26 Jan 1961  
Classing Committee  
decision confirmed.

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Foundation

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