

REPORT ON BOILERS.

No. FE-6496

AUG 1959

Received at London Office.....

KOBE

Report 23rd June, 1959 When handed in at Local Office.....19..... Port of

Survey held at Osaka, Nagoya, Japan Date, First Survey 8th November, 1958 Last Survey 25th June, 1959

(Number of Visits.....23.....) Tons { Gross 13,682.52
Net 8,297.83

on the M.V. "NIKKO MARU"

Nagoya By whom built Nagoya Shipbuilding Co., Ltd. Yard No. 146 When built 1959.7

ide at Tamashima By whom made Uraga Tamachima Diesel Kogyo K.K. Engine No. 323 When made 1959-3

de at Osaka By whom made Hirano Iron Works Co., Ltd. Boiler No. H752 When made 1959-2

Rule Owners Nissan Kisen Co., Ltd. Port belonging to Tokyo

TUBULAR BOILERS ~~MADE, AUXILIARY, OR DONKEY.~~

The Japan Steel Works Ltd., Muroran Works.

Plates:- Amagasaki Steel Works, Ltd.

Tubes:- Nippon Tokushu Steel Tube Co., Ltd.

ating Surface of Boilers 255.4 M² Of Superheaters -

Register Book - Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers 1-Dry Combustion Multitubular Boiler Working Pressure 10 Kg/cm²

hydraulic pressure to 18.5 Kg/cm² Date of test 8-11-59 No. of Certificate I-55898 Can each boiler be worked separately -

Firegrate in each Boiler - No. and Description of safety valves to each boiler 1-120mm double ordinary spring loaded.

ach set of valves per boiler { per Rule. As approved Pressure to which they are adjusted 10.3 Kg/cm² Are they fitted with easing gear Yes

donkey boilers, state whether steam from main boilers can enter the donkey boiler -

istance between boilers or uptakes and bunkers or woodwork Clear of bunkers Is oil fuel carried in the double bottom under boilerx No

istance between boilers or uptakes and bunkers or woodwork Clear of bunkers Is the bottom of the boiler insulated Yes

nternal dia. of boilers 4,600 mm Length 2,644 mm Shell plates: Material Boiler Steel Tensile strength 53.9-55 Kg/mm²

welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels

ied with Thickness Are the shell plates welded or flanged Reveted Description of riveting: circ. seams { end Doublers zigzag

Triple rivet double butt Diameter of rivet holes in { circ. seams 31.5 mm ✓ Pitch of rivets { 90.85 mm ✓

Percentage of strength of circ. end seams { plate 65.32 % rivets 51.95 % Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 85.75 % rivets 96.55 % combined 89.95 %

of butt straps { outer 22 mm inner 25 mm

No. and Description of Furnaces in each Boiler 3-Morison's Type

Boiler Steel Tensile strength 43.2 - 46.6 Kg/mm² Smallest outside diameter 1126 mm

Front 245 mm Thickness of plates 13 mm Description of longitudinal joint Welded

of plain part Back 147 mm None

ns of stiffening rings on furnace or c.c. bottom

es in steam space: Material Boiler Steel Tensile strength 46.8-46.9 kg/cm² Thickness 27 mm Pitch of stays 400 x 400 mm

stays secured Screwed and Nuts

ates: Material { front Boiler Steel Tensile strength { 44.8-46.9 kg/mm² Thickness { 27mm, 22mm

back Boiler Steel Tensile strength { 44.8-46.9 kg/cm² Thickness { 27mm, 22mm

ch of stay tubes in nests 260 mm Pitch across wide water spaces 325mm x 196mm

to combustion chamber tops: Material Tensile strength Depth and thickness of girder

Length as per Rule Distance apart No. and pitch of stays

Combustion chamber plates: Material

Strength Thickness: Sides Back Top Bottom

stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

ate at bottom: Material Boiler Steel Tensile strength 44.8 - 45.4 kg/mm²

22 mm Lower back plate: Material Boiler Steel Tensile strength 44.8-45.4 kg/mm² Thickness 22mm

stays at wide water space - Are stays fitted with nuts or riveted over

ays: Material Boiler Steel Tensile strength 47.5 kg/mm²

At body of stay 70 mm No. of threads per inch 6

Over threads 70 mm Tensile strength

stays: Material Tensile strength

At turned off part No. of threads per inch

Over threads

013664 - 013670 - 0302

© 2021

Lloyd's Register Foundation

Are the stays drilled at the outer ends..... Margin stays: Diameter { At turned off part..... or Over threads.....
No. of threads per inch.....
Tubes: Material O.H. Steel External diameter { Plain 70 mm Stay 70 mm Thickness { 3.5 mm 8 mm No. of threads per inch.....
Pitch of tubes 100 x 98mm Manhole compensation: Size of Ship.....
shell plate 400 x 580 mm Section of compensating ring 8734.5mm² x 2 No. of rivets and diameter of rivet holes 44 - 31.5 mm
Outer row rivet pitch at ends 95 mm Depth of flange if manhole flanged 100 mm Steam Dome: Material.....
Tensile strength..... Thickness of shell..... Description of longitudinal joint.....
Diameter of rivet holes..... Pitch of rivets..... Percentage of strength of joint { Plate..... Rivets.....
Internal diameter..... Thickness of crown..... No. and d.....
stays..... Inner radius of crown.....
How connected to shell..... Size of doubling plate under dome..... Diameter of rivet holes.....
of rivets in outer row in dome connection to shell.....

Type of Superheater.....

Manufacturers of Tubes.....
Number of elements..... Material of tubes..... Internal diameter and thickness of tubes.....
Material of headers..... Tensile strength..... Thickness..... Can the superheater be sh.....
the boiler be worked separately..... Is a safety valve fitted to every part of the superheater which can be shut off from the boiler.....
Area of each safety valve..... Are the safety valves fitted with easing gear.....
Pressure to which the safety valves are adjusted..... Hydraulic test.....
tubes..... forgings and castings..... and after assembly in place..... Are dra.....
valves fitted to free the superheater from water where necessary.....
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with.....

S. Kamaya
NAGOYA SHIPBUILDING CO., LTD.

The foregoing is a correct description, and No. of C.....

H. Hirano
HIRANO IRON WORKS CO., LTD.

Dates of Survey while building { During progress of work in shops - - 1958: Nov., 8, 13, 20, 27, Dec., 2, 6, 12, 20, 26, 27, 29
During erection on board vessel - - 1959: Jan., 12, 14, 16, 17, 21, 22, 26 Feb., 4
Are the approved plans of boiler and superheater forwarded herewith.....
Total No. of visits..... 23

Is this Boiler a duplicate of a previous case..... No..... If so, state Vessel's name and Report No.....

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)..... The Donkey Boiler has been constructed under No. of free

Special Survey in accordance with the Rules, approved plans and Secretary's letters.
The workmanship and materials are sound and good.
The Donkey Boiler has been examined under steam and safety valves adjusted to 10 kg/cm² and accumulation test carried out with satisfactory results.

UPPER SHELL PL	27 x 2450 x 7350	IP 33E1319	2/3 1
LOWER SHELL PL	27 x 2450 x 7350	IP 33E1319	1/3 1
INNER & OUTER BUTT STRAP	25 x 2100 x 8000	IP 3202329	1/9 2
FRONT TOP END PL	27 x 2400 x 5200	IP H9659 D6680A	
FRONT BOT. END PL	22 x 2950 x 5200	IP 330270	1/10 2
BACK TOP, END PL	27 x 2400 x 5200	IP H9659 D6680B	
BACK BOT, END PL	22 x 2950 x 5200	IP 330270	1/10 1
FURNACES PL	16 x 2800 x 8000	IP 3102095	12/12 1
"	16 x 2800 x 8000	IP 3101822	12/12 1

Survey Fee ... £ : : } When applied for.....19.....
Travelling Expenses (if any) £ : : } When received.....19.....

M. Hayashibara, Y. Kojima.
Engineer Surveyor to Lloyd's Register of Shipping, when a.....

FRIDAY 11 SEP 1959

Committee's Minute.....

Assigned..... See Rpt. 1.



Lloyd's Register Foundation