

REPORT ON MACHINERY.

Received at London Office - 8 MAR 1926

Date of writing Report Jan. 23rd. 26. When handed in at Local Office Jan. 26th. 1926. Port of Hong Kong

No. in Survey held at Hong Kong Date, First Survey Aug. 8th. 1924. Last Survey Jan. 19th. 1926.

Reg. Book. S. S. "TAIPING", Hull No. 619, Engine No. 365 (Number of Visits 69)

Master Hong Kong Built at Hong Kong By whom built Hongkong & Whampoa Dock Co. Ltd. When built 1926.

Engines made at Hong Kong By whom made Hongkong & Whampoa Dock Co. Ltd. when made 1926.

Boilers made at Hong Kong By whom made Hongkong & Whampoa Dock Co. Ltd. when made 1926.

Registered Horse Power 638 Owners G.S. Yuill & Co. Ltd. Sydney. Port belonging to Hong Kong

Nom. Horse Power as per Section 28 638 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion, surface condensing No. of Cylinders 3 No. of Cranks 3

Cylinders 27"- 46"- 77" Length of Stroke 48" Revs. per minute 90 Dia. of Screw shaft 15.19" Material of screw shaft Steel

Screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight Yes

Propeller boss Yes If the liner is in more than one length are the joints burned - If the liner does not fit tightly at the part the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive - If two are fitted, is the shaft lapped or protected between the liners - Length of stern bush 5'- 6"

Tunnel shaft 13.77" Dia. of Crank shaft journals 14.46" Dia. of Crank pin 15.1" Size of Crank webs 34 1/2 x 6 1/2 Dia. of thrust shaft under 15"

Dia. of screw 17 ft. Pitch of Screw 17 to 19 ft. No. of Blades 4 State whether moveable Yes Total surface 90

Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes

Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes

Donkey Engines 16 Sizes of Pumps See note No. and size of Suctions connected to both Bilge and Donkey pumps 2-3"

In Holds, &c. 2-2 1/2" in No. 1 Fore hold, 2-2 1/2" in No. 1 aft hold, 1-2 1/2" in cofferdam 120-121, 2-2 1/2" No. 2 hold, 1-2 1/2" in cofferdam 54-55, 2-2 1/2" in No. 3 hold, 2-2 1/2" in hold, 1-2 1/2" in Tunnel well.

Bilge Injections one sizes 10" Connected to condenser, or to circulating pump Cir. pp. Is a separate Donkey Suction fitted in Engine room & size 2-3 1/2"

Are the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible -

Are connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

How are they protected oil fuel Forward bilge & tank suction

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

BOILERS, &c.—(Letter for record Kobe 22/8/24 (S) 19/9/24) Manufacturers of Steel Wm. Beardmore & Co. Ltd.

Total Heating Surface of Boilers 9633 Is Forced Draft fitted Yes No. and Description of Boilers 3 cylindrical multitubular

Working Pressure 200 lbs. Tested by hydraulic pressure to 350 lbs. Date of test 13.4.25 No. of Certificate 154 - 5 - 6.

Can each boiler be worked separately Yes Area of fire grate in each boiler 72 No. and Description of Safety Valves to each boiler 2 - 4" Cock burn high lift. Area of each valve 12.56 Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 16 ft. Length 12 ft. Material of shell plates Steel

Thickness 1 13/32" Range of tensile strength 29 to 33 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double lap

g. seams Triple butt Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 10" Lap of plates or width of butt straps 1'-9 3/16"

Percentages of strength of longitudinal joint rivets 85.6% Working pressure of shell by rules 202 lbs. Size of manhole in shell 16" x 12"

Area of compensating ring 39" x 35" x 1 13/32" No. and Description of Furnaces in each boiler 3 Fox Material Steel Outside diameter 49 3/8"

Length of plain part top - bottom - Thickness of plates crown 11" bottom 16" Description of longitudinal joint Welded No. of strengthening rings None

Working pressure of furnace by the rules 204 lbs. Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 7/8"

Pitch of stays to ditto: Sides 8 1/2 x 9 1/4" Back 8 x 9 1/4" Top 8 1/2 x 9 1/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules S-209 lbs

Material of stays Steel Area supported by each stay 16 Working pressure by rules S-78.625 plates in steam space: B-82.6 S-271 lbs T-209 lbs

Dia. at smallest part 2 1/2" Area supported by each stay 259 Working pressure by rules inside & outside 206 lbs. Material of Front plates at bottom Steel

Thickness 31/32" Material of Lower back plate Steel Thickness 31/32" Greatest pitch of stays 1 3/4" x 9 5/16" Working pressure of plate by rules 280 lbs

Diameter of tubes 2 1/2" Pitch of tubes 4" x 3 3/8" Material of tube plates Steel Thickness: Front 31/32" Back 13/16" Mean pitch of stays 8" x 11 1/8"

Pitch across wide water spaces 13 1/4" Working pressures by rules Back nest 246 lbs. W.W. space 229 lbs. to Chamber tops: Material Steel Depth and thickness of girder at centre 10" x 1 1/2" Length as per rule 2'-10 1/2" Distance apart 9 1/4" Number and pitch of stays in each 3 at 8 1/2"

Working pressure by rules 204 lbs. Steam dome: description of joint to shell None % of strength of joint -

Diameter - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet holes -

Pitch of rivets - Working pressure of shell by rules - Crown plates - Thickness - How stayed -

SUPERHEATER. Type None Date of Approval of Plan - Tested by Hydraulic Pressure to -

Date of Test - Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler -

Diameter of Safety Valve - Pressure to which each is adjusted - Is Easing Gear fitted -

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

See list attached.

HONGKONG & WHARF DOCK CO. LTD. The foregoing is a correct description,

R. M. Dyer Chief Manager.

Manufacturer.

1924. Dates of Survey while building: During progress of work in shops - - Aug. 8, 12, 18, 26, 28, Dec. 1, 9, 15, 29, 1925; During erection on board vessel - - May 6, 8, 15, 20, Jun. 5, 11, 17, 18, 1925; Jun. 30, Aug. 4, 16, Nov. 6, 9, 12, 16, 18, 20, 21, 26, Dec. 1, 4, 11, 14, 19, 1926; Jan. 5, 1927. Total No. of visits 69. Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts - Cylinders 17/3/25 Slides 5/6/25 Covers 8/5/25 Pistons 5/6/25 Rods 3/4/25 Connecting rods 3/4/25 Crank shaft 3/4/25 Thrust shaft 28/1/25 Tunnel shafts 3/4/25 Screw shaft 3/4/25 Propeller 3/4/25 Stern tube 3/4/25 Steam pipes tested 21/11/25 Engine and boiler seatings 5/6/25 Engines holding down bolts 30/6/25 Completion of pumping arrangements 5/6/25 Boilers fixed 30/6/25 Engines tried under steam 5/1/26 Completion of fitting sea connections 5/6/25 Stern tube 6/5/25 Screw shaft and propeller 5/6/25 Main boiler safety valves adjusted 19/12/25 Thickness of adjusting washers Both forward 5/16, Both Port 5/16, Starboard P. 3/8, S. 5/16. Material of Crank shaft Steel Identification Mark on Do. Lloyd's No. 705 Material of Thrust shaft Steel Identification Mark on Do. Lloyd's No. 756 Material of Tunnel shafts Steel Identification Marks on Do. Lloyd's No. 705 Material of Screw shafts Steel Identification Marks on Do. Lloyd's No. 705 Material of Steam Pipes S. D. Steel Test pressure 600 lbs. Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150° F. Yes Have the requirements of Section 35 of the Rules been complied with Yes Is this machinery duplicate of a previous case Yes If so, state name of vessel S. S. "CHANGTE"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials have been tested by the Surveyors to this Society and constructed as shown and amended on approved plans now in London Office.

The workmanship is good and it is recommended that the vessel be classed with Lloyd's Machinery Certificate and the record of L.M.C.1, 1926 be made in the Register Book.

IDENTIFICATION MARKS ON BOILERS

Table with 3 columns: No. 154 HKg. Lloyd's Test 350 lbs. W.P. 200 lbs. T.S.M. 5.3.25; No. 155 HKg. Lloyd's Test 350 lbs. W.P. 200 lbs. T.S.M. 13.4.25; No. 156 HKg. Lloyd's Test 350 lbs. W.P. 200 lbs. T.S.M. 13.4.25

Identification marks on spare crank & spare Tail Shaft:- LLOYD'S No. 906.

NOTE:- Two sets oil fuel pumps 4"x 8" with heaters complete (Wall send Howden); Two Weirs feed pumps 9"x 12"x 24"; One Weirs General Service pump 6"x 8 1/2"x 13"; One 14" centrifugal circulating pump; One Auxiliary centrifugal circulating pump 6"; Two Weirs O.F. Transfer pumps 8"x 7"x 18"; One Vertical duplex ballast pump 10"x 12"x 10"; One Vertical duplex sanitary pump 6"x 6"x 6"; One Vertical duplex Fresh water pump 6"x 6"x 6"; One Vertical duplex Fire pump 7"x 4 1/2"x 8"; One 75" Forced draught fan, 2 engines 8"x 6"; 1-20 K.W. dynamos & one Emergency 5 K.W. dynamo.

The amount of Entry Fee ... \$ 102. 00. Special ... \$ 1825. 00. Donkey-Boiler-Fee ... £ Travelling Expenses (if any) \$ 200. 00. Electric Light ... \$ 486. 00.

K. Morrison & J. Young Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUES. 9 MAR 1926

Assigned

Handwritten notes: + L.M.C. 1:26 F.D.C.L. Fitted for Oil Fuel 1:26 CERTIFICATE WRITTEN Above 150°F

FRI. 16 APR 1926

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