

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 15761

Date of writing Report 26 Oct 1926 When handed in at Local Office

Received at London Office 2 - NOV 1926

No. in Survey held at Reg. Book.

Port of Rotterdam

Date, First Survey 16-7-20 Last Survey 10-10-1926 (Number of Visits 33)

on the S.S. "Kian Gran"

Built at Schiedam By whom built

Wilton's Eng & Ship Comp Yard No. 311

Tons } Gross  
Net

Engines made at Rotterdam

By whom made Wilton's Eng & Ship Comp Engine No. 425

When built 1926

Boilers made at Rotterdam

By whom made Wilton's Eng & Ship Comp Boiler No. 713-714

when made 1926

Registered Horse Power

Owners Ca Feon Steam Sugar Works Port belonging to Singapore

Nom. Horse Power as per Rule 202

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended

## ENGINES, &c.—Description of Engines

Vertical Single Expansion

Dia. of Cylinders 19 x 38 x 51 Length of Stroke 36 No. of Cylinders 3 Revs. per minute 90

Crank shaft, dia. of journals as per Rule 10 1/4 - 9.95 Rule as fitted 10 1/4 Crank pin dia. 10 1/4 Crank webs Mid. length breadth 15 Thickness parallel to axis 6 3/8

Intermediate Shafts, diameter as per Rule 9 1/4 - 9.48 Rule as fitted 9 1/4 Thrust shaft, diameter at collars as per Rule 10 1/4 - 9.95 Rule as fitted 10 1/4 Thickness around eye-hole 4 3/8

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 11 1/16 - 11 1/16 as fitted 11 1/16 Is the tube shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 20 as fitted 20 Thickness between bushes as per Rule 20 as fitted 20 Is the after end of the liner made watertight in the propeller boss Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length

If two liners are fitted, is the shaft lapped or protected between the liners Yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft

Propeller, dia. 13 9/16 Pitch 13 9/16 No. of Blades 4 Material Fastenon whether Moveable No Total Developed Surface 61 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3 1/2 Stroke 12 1/2 Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2 Stroke 12 1/2 Can one be overhauled while the other is at work Yes

Feed Pumps No. and size 1: 6 x 4 1/2 x 6 How driven Steam Pumps connected to the Main Bilge Line No. and size 2: 6 x 4 1/2 x 6 3: 7 1/2 x 9 x 7 1/2 How driven Steam

Ballast Pumps, No. and size 1: 7 1/2 x 9 x 7 1/2 Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Bilge Pumps;—In Engine and Boiler Room 4 a 2 3/4 Suctions, connected to both Main Bilge Pumps and Auxiliary

In Holds, &c. 2 a 2 1/4 in no 1 hold 2 a 2 3/4 in dry tank 2 a 2 1/4 in no 2 hold, 1 a 2 1/4 in tunnel

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 a 5 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 a 3 1/2

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with 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 Overboard Discharges 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

What Pipes pass through the bunkers Bilge pipes How are they protected Lumberboards

What pipes pass through the deep tanks Have they been tested as per Rule

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

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes

Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Cap platform

## MAIN BOILERS, &c.—(Letter for record)

Total Heating Surface of Boilers 3570

Is Forced Draft fitted No No. and Description of Boilers 2 Single Ended Multitubular Working Pressure 100 lb

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting No 15-2 Main Boilers No 1-6-10 Auxiliary Boilers Donkey Boilers

Superheaters General Pumping Arrangements 20 19-4-26 Oil fuel Burning Piping Arrangements

## SPARE GEAR. State the articles supplied:—

- 1 set of coupling bolts (6)
- 2 main bearing bolts
- 2 Piston rod top end bolts
- 2 Connecting rod bottom end bolts
- 1 set of feed and bilge pump valves
- 1 set of springs for the H.P. and M.P. cylinder
- 50 assorted bolts and nuts for the Engines and Boilers
- 1 Propeller, 1 screw shaft, 1 complete set of top end and bottom end bushes
- 1 Piston rod for air pump, 1 piston rod for circulating pump
- 2 Springs for Safety valves

The foregoing is a correct description,

WILTON'S ENGINEERING & SHIPWAY

TUES. 9 NOV 1926

Manufacturer.



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W1233-0034

July 16; October 1-15-25; November 2-14-20; February 2  
 During progress of work in shops -- May 31 October 20 November 16-19-21; Jan 10; Feb 17  
 Dates of Survey while building } During erection on board vessel -- March 13-15-22; April 3-17 June 5-23 July 27-29-30  
 August 6 September 1-10-17-20-23-24 October 2-14-15-19-20  
 Total No. of visits 33

Dates of Examination of principal parts--Cylinders 15-10-20 Slides 2-2-21 Covers 15-10-20  
 Pistons 20-0-26 Piston Rods 13/3-24/3-26 Connecting rods 13/3-24/3-26  
 Crank shaft 20-0-26 Thrust shaft 20-0-26 Intermediate shafts 20-0-26  
 Tube shaft ✓ Screw shaft 20-0-26 Propeller 6-0-26  
 Stern tube 6-0-26 Engine and boiler seatings 10-9-26 Engines holding down bolts 20-9-26  
 Completion of fitting sea connections 20-9-26  
 Completion of pumping arrangements 14-10-26 Boilers fixed 2-10-26 Engines tried under steam 20-10-26  
 Main boiler safety valves adjusted Yes Thickness of adjusting washers Port 1/2" - 15/32" Harbour 1/16" - 1/8"  
 Crank shaft material S.M. Steel Identification Mark LLOYD'S NO 53 Thrust shaft material S.M. Steel Identification Mark LLOYD'S NO 54  
 Intermediate shafts, material S.M. Steel Identification Marks LLOYD'S NO 54 Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material S.M. Steel Identification Mark LLOYD'S NO 55 Steam Pipes, material Copper Test pressure 400 lbs Date of Test 23-2/10  
 Is an installation fitted for burning oil fuel No ✓ Is the flash point of the oil to be used over 150°F. ✓  
 Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓  
 Is this machinery duplicate of a previous case No ✓ If so, state name of vessel ✓

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

The machinery of this vessel has been constructed under Special Survey. The materials and workmanship are of good quality. It has been securely fitted on board and tried under steam and found satisfactory.  
 The vessel is in my opinion eligible to be classed in the Register book with the record of + L.M.C. 10-26.

It is submitted that  
 this vessel is eligible for  
**THE RECORD. + L.M.C. 10.26. CL.**

~~Subject to a 3 1/2" dia" separate donkey suction being fitted at an early date. See Special endorsement dated 8/11/26.~~

The amount of Entry Fee ... £ 440.00 When applied for, 1/11 1926  
 Special ... £ 600.00  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ 110.00 When received, 8.11.26

J.W.D. 3/11/26  
 Y. Young  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 9 NOV 1926

Assigned

+ L.M.C. 10:26 C.L.

CERTIFICATE WRITTEN



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Certificate to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minute.