

## REPORT ON OIL ENGINE MACHINERY

No. 16680

Received at London Office 1 FEB 1926

Date of writing Report 23. 1. 1926 When handed in at Local Office

Port of HAMBURG

No. in Survey held at HAMBURG

Date, First Survey 12. 2. 25 Last Survey 14. 1. 1926

Reg. Book. 39578 on the <sup>Single</sup> Twin <sup>Screw vessels</sup> Triple

## JAVANESE PRINCE

Tons. Gross 6376 Net 3574

Built at HAMBURG By whom built Deutsche Werft A. G. Yard No. 82 When built 1926

Engines made at BERLIN By whom made Allgemeine-Electricitäts-Gesellschaft Engine No. 182/53 When made 1926

Donkey Boilers made at HAMBURG By whom made Deutsche Werft A. G. Boiler No. 203 When made 1926

Brake Horse Power 5200 Owners RIO-CAPE-LINE Ltd. Port belonging to LONDON

Nom. Horse Power as per Rule 13/3 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

OIL ENGINES, &amp;c.—Type of Engines 2 Diesel Oil Engines of B &amp; W Type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kg No. of cylinders 2 x 8 Diameter of cylinders 740 mm No. of cranks 2 x 8 Length of stroke 1200 mm

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 980 mm Is there a bearing between each crank yes

Revolutions per minute 122 Flywheel dia. 2540 Weight 12800 kg Means of ignition Diesel principle Kind of fuel used Diesel Motor oil

Crank Shaft, dia. of journals as per Rule 455 mm as fitted 466 mm Crank pin dia. 466 mm Crank Webs Mid. length breadth 770 mm Mid. length thickness 300 mm Thickness parallel to axis 300 mm Thickness around eye hole 203/199

Flywheel Shafts, diameter as per Rule 312 mm as fitted 318 mm Intermediate Shafts, diameter as per Rule 341 mm as fitted 348 mm Thrust Shaft, diameter at collars as per Rule 328 mm as fitted 380 mm

Tube Shafts, diameter as per Rule 18 mm as fitted 19/20 mm Screw Shaft, diameter as per Rule 14 mm as fitted 15 mm Is the shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 18 mm as fitted 19/20 mm Thickness between bushes as per rule 14 mm as fitted 15 mm 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 yes

the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fit tightly

two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller 600 mm (forw.) 1450 mm (aft)

Propeller, dia. 4150 mm Pitch 4250 mm No. of blades 3 Material bronze whether Moveable no Total Developed Surface 5.69 m<sup>2</sup> sq feet

Method of reversing Engines B &amp; W. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

red lubr. Thickness of cylinder liners 53.5 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

insulating material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine led to funnel

Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Bilge Pumps fitted to the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size 2, 1 x 152 mm dia 152 mm stroke How driven by electric motor

Ballast Pumps, No. and size 1, 2 x 254 mm dia 254 mm stroke Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 2 can 25 tons p. hour

Are two independent means arranged for circulating water through the Oil Cooler no oil cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room 6 of 76 mm from engine room, one of 76 mm from thrust bearing room, one of 76 mm from tunnel well

Holds, &amp;c. 2 of 76 mm in No. I, II &amp; III holds; 3 of 76 mm in No. IV hold; one of 76 mm in No. V hold.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 of 76 mm

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Space

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 as a scupper direct as a scupper or as a double bottom

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are they fitted with Valves or Cocks valves &amp; cocks

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Overboard Discharges above or below the deep water line yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

How are they protected

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 upper engine room

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. 2 No. of stages 3 Diameters 850/760/170 mm Stroke 400 mm Driven by main engines

Auxiliary Air Compressors, No. 3 No. of stages 3 Diameters 320/265/80 mm Stroke 170 mm Driven by aux. fired engines

All Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 125/30 Stroke 75 Driven by steam engine

Sucking Air Pumps, No. 1 Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule 161.5 mm as fitted 162 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manholes or screwed covers

Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 8 Cubic capacity of each 20, 0.4, 2.0, 0.2, 10, 0.5, 3, 0.05 Internal diameter 450/360/360/246 thickness 25/21/20/12 mm

Material steel Range of tensile strength 35-44 kg Working pressure by Rules 66/69/67/92

Working Air Receivers, No. 3 Total cubic capacity 51 m<sup>3</sup> Internal diameter 1800/1850 mm thickness 24.6/25.4 mm

Material steel Range of tensile strength 45-51 kg Working pressure by Rules 25/29 kg

W182-0182

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IS A DONKEY BOILER FITTED? *yes and a exhaust gas fired one* If so, is a report now forwarded? *yes*  
HYDRAULIC TESTS:— *D.B. 200 lbs 7.11.25, Exhaust gas fired Boiler 86 lbs 17.12.25*

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....	<i>24.8.25</i>	<i>35 kgs</i>	<i>60 kgs</i>	<i>A.C.</i>	
" " COVERS .....	<i>24/8.25, 11/9.25</i>	<i>35 "</i>	<i>60 "</i>	<i>A.C.</i>	
" " JACKETS .....	<i>24/8.25, 30/10.25</i>	<i>2 "</i>	<i>5 "</i>	<i>A.C.</i>	
" PISTON WATER PASSAGES .....	<i>13/8.25, 24/8.25</i>	<i>2 "</i>	<i>5 "</i>	<i>A.C.</i>	
MAIN COMPRESSORS—1st STAGE .....	<i>27.8.25</i>	<i>65 "</i>	<i>130 "</i>	<i>A.C.</i>	
" 2nd " .....	<i>27.8.25</i>	<i>15 "</i>	<i>30 "</i>	<i>A.C.</i>	
" 3rd " .....	<i>27.8.25</i>	<i>10 "</i>	<i>10 "</i>	<i>A.C.</i>	
AIR RECEIVERS—STARTING .....	<i>12.10.25</i>	<i>356 lbs</i>	<i>580 lbs</i>	<i>A.C.</i>	
" INJECTION .....	<i>12/5.25, 15/5.25, 22/8.25, 16/9.25</i>	<i>945 lbs</i>	<i>1850 lbs</i>	<i>F.L.</i>	<i>500/501 F.L. 12.5.25 512/513 F.L. 12.5.25 125 F.L. 22.8.25 134/35/36 F.L. 16.9.25</i>
AIR PIPES .....	<i>16/12.25, 23/12.25</i>	<i>65 kgs</i>	<i>130 kgs</i>	<i>A.C.</i>	
FUEL PIPES .....	<i>29.12.25</i>	<i>65 kgs</i>	<i>130 kgs</i>	<i>A.C.</i>	
FUEL PUMPS .....	<i>11.1.26</i>	<i>65 "</i>	<i>130 "</i>	<i>A.C.</i>	
SILENCER .....	<i>29.12.25</i>	<i>0.5 "</i>	<i>3 "</i>	<i>A.C.</i>	
" WATER JACKET .....	<i>29.12.25</i>	<i>2 kgs</i>	<i>4 kgs</i>	<i>A.C.</i>	
SEPARATE FUEL TANKS .....	<i>4.11.25</i>	<i>0.3 kgs</i>	<i>0.6 kgs</i>	<i>A.C.</i>	

PLANS. Are approved plans forwarded herewith for Shafting *no 10/2.25, 3/2.25, 23/2.25, 9/2.25* Receivers *no 23/2.25, 25/6.25* Separate Tanks *no 17/7.25*  
(If not, state date of approval)  
Donkey Boilers *no 29/6.25 15/10.25* General Pumping Arrangements *no 27/2.25* Oil Fuel Burning Arrangements *no 27/2.25*

SPARE GEAR All spare articles as required per Section 6 of the Rules for construction  
survey of Diesel engines and their auxiliaries page 115 of the Rules (1925-26) has  
been supplied with

The foregoing is a correct description,

**DEUTSCHE WERFT**  
**AKTIENGESELLSCHAFT.**

Manufacturer.

Dates of Survey while building	During progress of work in shops--	<i>12/1, 30/4, 20/5, 11/6, 12/6, 17/7, 27/7, 9/7, 13/7, 24/7, 30/7, 3/8, 6/8, 10/8, 13/8, 15/8, 19/8, 24/8, 27/8, 3/9, 11/9, 17/9, 12/9, 23/9, 24/9, 29/9, 30/9, 5/10, 7/10</i>
	During erection on board vessel--	<i>8/10, 12/10, 17/10, 20/10, 29/10, 30/10, 4/11, 7/11, 10/11, 25.</i>
		<i>14/11, 20/11, 24/11, 26/11, 7/12, 12/12, 15/12, 16/12, 17/12, 23/12, 24/12, 28/12, 29/12.25, 4/1, 5/1, 8/1, 11/1, 14/1.1926.</i>
	Total No. of visits	<i>56</i>

Dates of Examination of principal parts—Cylinders *30.10.25* Covers *30.10.25* Pistons *13.8.25* Rods *13.8.25* Connecting rods *13.8.25*  
Crank shaft *27.8.25* Flywheel shaft *✓* Thrust shaft *23.9.25* Intermediate shafts *23.9.25* Tube shaft *✓*  
Screw shaft *23.9.25* Propeller *12.1.26* Stern tube *29.10.25* Engine seatings *7.12.25* Engines holding down bolts *7.12.25*  
Completion of fitting sea connections *7.11.25* Completion of pumping arrangements *8.1.26* Engines tried under working conditions *11.1.26*  
Crank shaft, Material *steel* Identification Mark *1208/9/10 F.A. 23.4.25* Flywheel shaft, Material *✓* Identification Mark *✓*  
Thrust shaft, Material *steel* Identification Mark *198 X.3. 15.8.25* Intermediate shafts, Material *steel* Identification Mark *6587/90 H.K. 15.6.25*  
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *steel* Identification Mark *133/39 EF 28.5.25*  
Is the flash point of the oil to be used over 150° F. *yes* *✓* Identification Mark *6628 H.K. 25.6.25*  
*spare = 137 EF 28.5.25*

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. *Material and workmanship of this machinery are of good quality and the outfit is ample. The material used in the construction are made at works recognised by the Committee and tested in accordance with the Rules. The machinery has been built under Special Survey in accordance with the approved plans the Secretary's letters and otherwise in conformity with the requirements of the Rules. It has given full satisfaction under full working and manœuvring conditions during two trial trips of together about 24 hours, and is eligible in our opinion for Classification of " \* L.M.C. - 1.26 " Oil engines. Tail shaft C.H.*

The amount of Entry Fee ... £ *6 : 0 - 0* When applied for, *25.1.1926*  
Special ... £ *132 : 16 - 6*  
3 starting air receivers Donkey Boiler Fee ... £ *12 : 12 - 0* When received, *9.3.26*  
Travelling Expenses (if any) £ *51 : 3 - 6*

Committee's Minute

Assigned

*+ Lmb. 1.26 C.F.  
Oil Engines D.B. 100 lbs*

*Friedrich W. A. Carstensen*  
Engineer Surveyor to Lloyd's Register of Shipping.



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FRI. 26 MAR 1926