

t. 4b.

# REPORT ON OIL ENGINE MACHINERY

No 4004

Received at London Office 30 JUN 1941

of writing Report 19 When handed in at Local Office 19 Port of Galveston

in Survey held at Hamburg Date, First Survey 25/11 Last Survey 1940

Book Gen Exam at Galveston Number of Visits 1

306 on the Twin Screw vessel "NUEVA ANDALUCIA" Tons Gross 10044 Net 5786

at Hamburg By whom built Deutsche Werke - a.g. Yard No. 232 When built 1940

ines made at Augsburg By whom made H. A. H. Engine No. - When made 1939

key Boilers made at Hamburg By whom made Deutsche Werke - a.g. Boiler No. - When made 1939-11

ke Horse Power 5100 Owners The Tescas Co. (Norway) a.s. Port belonging to Oslo

n. Horse Power as per Rule 1167 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

de for which vessel is intended Carrying Petroleum in bulk.

ENGINES, &c. — Type of Engines Heavy Oil Engines 2 or 4 stroke cycle 2 Single or double acting S

imum pressure in cylinders 4.5 Kg./cm<sup>2</sup> Diameter of cylinders 520 mm Length of stroke 900 mm No. of cylinders 8 x 2 No. of cranks 8 x 2

n Indicated Pressure 5.5 Kg./cm<sup>2</sup> Flywheel dia. 1932 mm Weight 980 Kg. Means of ignition Compression Kind of fuel used -

a of bearings, adjacent to the Crank, measured from inner edge to inner edge 680 mm Is there a bearing between each crank Yes

utions per minute 166 Crank pin dia. 350 mm Crank Webs Mid. length breadth 530 Thickness parallel to axis -

nk shaft, Solid forged dia. of journals as per Rule Crank pin dia. 350 mm Crank Webs Mid. length thickness 160 Thickness around eye-hole -

Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

Shaft, diameter as fitted 260 mm Thrust Shaft, diameter at collars as fitted 330 mm

Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the shaft shaft fitted with a continuous liner Yes

Shaft, diameter as fitted 282 mm Is the screw shaft fitted with a continuous liner Yes

ize Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the

ller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -

e 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 -

o 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

No If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 1500 mm

opeller, dia. 3800 mm Pitch 2660 mm No. of blades 3 Material Brass whether Moveable No Total Developed Surface 4413 sq. feet

hod of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

eed Thickness of cylinder liners 49 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

onducting 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.

ling Water Pumps, No. 4 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

e Pumps worked from the Main Engines, No. 2 Diameter 250 mm Stroke 200 mm Can one be overhauled while the other is at work Yes

ps connected to the Main Bilge Line 2 @ 50 m<sup>3</sup>/hr. 1 @ 50 m<sup>3</sup>/hr. 1 (Ballast) @ 70 m<sup>3</sup>/hr.

ow driven Main Engine Steam - duplex Steam - duplex

e cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

gements -

ast Pumps, No. and size 1 @ 70 m<sup>3</sup>/hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One on each main eng. 90 m<sup>3</sup>/hr. One steam 75 m<sup>3</sup>/hr.

wo independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size: — In Machinery Spaces 3 @ 90 mm. 2 @ 90 mm in Copper lined. In Pump Rooms 6 @ 90 mm.

olds, &c. (Lumber)

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 to Bilge @ 110 mm; 1 to Ballast @ 125 mm; 1 to S.W. Circ @ 125 mm.

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

rom easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

il Sea Connections fitted direct on the skin of the ship on chaps welded to Are they fitted with Valves or Cocks both

hey fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above

hey 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

pipes pass through the bunkers of copperdam suction (frame 53/54) are they protected Steel tube 6.5 mm thick.

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

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

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

rtment to another yes Is the Shaft Tunnel watertight mach. aft Is it fitted with a watertight door - worked from -

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

1 Air Compressors, No. none No. of stages - Diameters - Stroke - Driven by -

liary Air Compressors, No. 2 No. of stages 2 Diameters 100/250 Stroke 250 mm Driven by Steam Engine

ll Auxiliary Air Compressors, No. none No. of stages - Diameters - Stroke - Driven by -

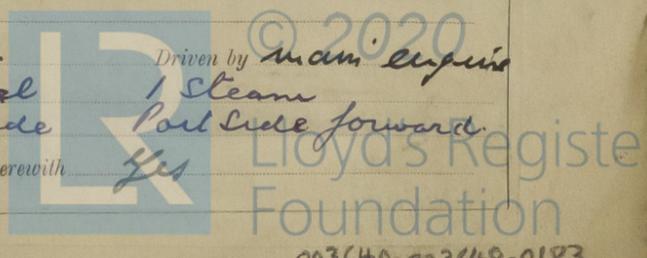
provision is made for first Charging the Air Receivers Steam driven compressors

enging Air Pumps, No. 2 rotary blowers on Diameter 350 m<sup>3</sup>/hr. Driven by Main Engine

liary Engines crank shafts, diameter as per Rule Approved No. 1 Diesel 1 Steam

as fitted 130 mm. Position Port Side Port Side forward.

the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes



Rep 40

AIR RECEIVERS: - Have they been made under survey Yes State No. of Report or Certificate Cert No. 1431, 1, 5

Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes  
Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes  
~~Injection Air~~ Receivers, No. 0-u Cubic capacity of each 0.5 m<sup>3</sup> Internal diameter 700 mm, thickness 8 mm  
Seamless, lap welded or riveted longitudinal joint S.R. lap Material O.H. Steel Range of tensile strength 41-47 Kg. Working pressure 8 Kg.  
Starting Air Receivers, No. 2 Total cubic capacity 20 m<sup>3</sup> Internal diameter 1750 mm, thickness 24.5 mm  
Seamless, lap welded or riveted longitudinal joint T.R. ~~lap~~ Material O.H. Steel Range of tensile strength 44-50 Kg. Working pressure 25 Kg.

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes  
Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for Shafting 26-7-39 Receivers 9-8-39 Separate Fuel Tanks 17-8-39  
(If not, state date of approval)  
Donkey Boilers 29-10-38 General Pumping Arrangements 3-7-39 Pumping Arrangements in Machinery Space 20-7-39  
Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes  
State the principal additional spare gear supplied  
2 screw shafts, 1 propeller for port & starb.  
2 connecting rods, 3 tops & 3 bottom liners, 3 cylinder heads.  
Aux Generator - 2 cylinder heads, 2 pistons.  
also spares for all pumps in excess of rules.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
(During progress of work in shops - - )  
(During erection on board vessel - - )  
Total No. of visits

Dates of Examination of principal parts -	Cylinders	Covers	Pistons	Rods	Connecting rods
Crank shaft	Flywheel shaft	Thrust shaft	Intermediate shafts	Tube shaft	
Screw shaft	Propeller	Stern tube	Engine seatings	Engines holding down bolts	
Completion of filling sea connections	Completion of pumping arrangements	Engines tried under working conditions			
Crank shaft, Material	<u>Steel</u>	<u>marked could not be seen</u>	Flywheel shaft, Material <u>Steel</u>	Identification Mark <u>*</u>	
Thrust shaft, Material	<u>Steel</u>	Identification Mark <u>PORT G.H.H. S 232. 90060. 758/1759</u>	Intermediate shafts, Material <u>Steel</u>	Identification Marks <u>HR. 28-4-39</u>	
Tube shaft, Material	-	Identification Mark <u>STARB S 232. 90.060. 486 LLOYD'S. NB 14516, 30-9-39.HR.</u>	Screw shaft, Material <u>Steel</u>	Identification Mark <u>PORT-G.H.H. 607/608</u>	
Identification Marks on Air Receivers	<u>AFT. - No 1432, Lloyd's test 39 atmos. WP 25 atmos, 9-10-39</u> <u>FORD - No 1431, " " 39 " " WP 25 " " 9-10-39</u>				

\* Flywheel is on coupling between crank & thrust shafting. (SPARE T.S. Port-Lloyd's 347)  
INTER-SHAFTS - PORT, FORD G.H.H. S 232. 90060. 607/608, Lloyd's NB 14514, 30-9-39. AFT 531, NB 14510, 30-9-39.  
STARB FORD S 232. 90060. 609/610, 486 Lloyd's. NB 14511, 30-9-39. HR. 9-12-39, AFT 486, NB 14512

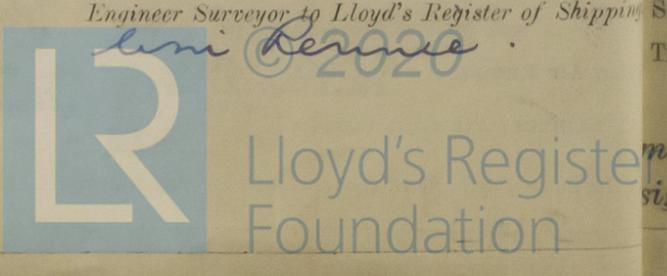
Is the flash point of the oil to be used over 150° F. Yes  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes  
Description of fire extinguishing apparatus fitted 8 minimum patent fire extinguishers.  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Steam smothering lines to tanks.  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with No  
Is this machinery duplicate of a previous case Yes If so, state name of vessel "Nueva Granada" Ham. 21

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

Galveston, Nov. 40 - Machinery now generally examined (See Gal. Rpt No 14004) and found to be essentially installed & securely fitted in the vessel. Particular arrangements verified & so far as seen found in accordance with the particulars shown on these forms and in general conformity with the Society's Rules. Machinery tried and tested under working conditions and found to be in a good & safe working condition

The amount of Entry Fee .. £	:	:	When applied for,
Special ... .. £	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

Committee's Minute TUE. 29 JUL 1941  
200-11-40  
200-W.T. 1707  
oil sup.  
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The Shipowner is requested not to write on or below the space for Committee's Minute.