

REPORT ON MACHINERY.

No. 7968

Writing Report 2nd June 1918 When handed in at Local Office

Port of Belfast

Survey held at Belfast

Date, First Survey 2nd March 1914 Last Survey 25 May 1918

on the T.S.S. ORCA

(Number of Visits 126)

Gross Tons Net

Built at Belfast

By whom built Harland & Wolff Ltd

when made

es made at Belfast

By whom made

when made

ered Horse Power

Owners Pacific Steam Navigation Co

part belonging to Liverpool

Horse Power at Full Power 3160

Is Refrigerating Machinery fitted for cargo purposes Yes

Is Electric Light fitted Yes

INE ENGINES, &c.—Description of Engines One Low Pressure Turbine

er of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft

er of Journals Distance between Centres of Bearings Diameter of Pitch Circle

er of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel

of Face Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule 10.12

Screw Shafts Diameter of same as per rule 10.82 as fitted 11.75 Diameter of Propeller 10'-0" Pitch of Propeller 8'-0"

Blades 4 State whether Moveable No Total Surface 4220 ft Diameter of Rotor Drum, H.P. L.P. 9'-2 1/2" Astern

ss at Bottom of Groove, H.P. L.P. 1" Astern Revs. per Minute at Full Power, Turbine 213 Propeller 213

ICULARS OF BLADING.

H.P.

L.P.

ASTERN.

	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
EXPANSION				5"	10'-0 1/2"	9			
"				6 1/2"	10'-3 1/2"	9			
"				8 1/2"	10'-7"	9			
"				10 1/2"	10'-11 1/2"	9			
"				10 1/2"	10'-11 1/2"	8			
"				10 1/2"	10'-11 1/2"	7			

nd size of Feed pumps

nd size of Bilge pumps

nd size of Bilge suction in Engine Room

In Holds, &c.

Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size

ll the bilge suction pipes fitted with roses Are the roses in Engine room always accessible

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

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

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

pipes are carried through the bunkers How are they protected

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

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

e Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

TERS, &c.—(Letter for record) Manufacturers of Steel

l Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

king Pressure Tested by hydraulic pressure to Date of test No. of Certificate

each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

lest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

kness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell

of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter

th of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

king pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

h of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

erial of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space

erial Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

meter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

ckness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

meter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

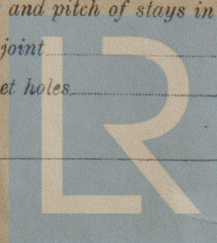
h across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

kness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

king pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter

ckness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets

king pressure of shell by rules Crown plates: Thickness How stayed



Lloyd's Register
623-0167

SUPERHEATER. Type

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?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
For HARLAND & WOLFF Ltd.

Manufacturer.

Submising.

Dates of Survey
while building

During progress of work in shops --
During erection on board vessel ---
Total No. of visits

126

2nd March 1914 to 25th June 1918

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Casings 13-11-17 Rotors 3-12-17 Blading 29-1-18 Gearing

Rotor shaft 25-8-17 Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fired Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Material and tensile strength of Rotor shaft S. Steel, 30.2 x 30.0 Lons 47 Identification Mark on Do. LLOYDS 3-

Material and tensile strength of Pinion shaft Identification Mark on Do.

Material of Wheel shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery a duplicate of a previous case Yes If so, state name of vessel Orduna - orbit

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

The amount of Entry Fee ... £
Special ... £
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for,

When received,

Committee's Minute

FRI 7 JUN 1918

Assigned

See other sheet attached

R. F. Beaumont

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation