

REPORT ON MACHINERY.

No. 7528

Report 29th May 1915 When handed in at Local Office 29th May 1915 Port of Belfast
Survey held at Belfast Date, First Survey 30th Nov 1914 Last Survey 26th May 1915
on the Twin Screw Monitor "Admiral Farragut" (Number of Visits) Great 1000 Tons
Built at Belfast By whom built Harland & Wolff Ltd. Net Displacement
Engines made at Belfast By whom made Bybrock & Wilson Ltd. when made
Boilers made at Glasgow By whom made when made
Registered Horse Power Owners The Admiralty when made
Horse Power as per Section 28 437 Is Refrigerating Machinery fitted for cargo purposes Port belonging to

GINES, &c.—Description of Engines Twin Screw Quadruple Expansion Cylinders 8 No. of Cranks 8
a. of Cylinders 13½-19½-28-40 Length of Stroke 28 Revs. per minute 170 Dia. of Screw shaft as per rule 8.13 Material of screw shaft I. Steel
the screw shaft fitted with a continuous liner the whole length of the stern tube No liners Is the after end of the liner made water tight
the propeller boss If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part
in 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 4'-0"
of Tunnel shaft as per rule 7.24 Dia. of Crank shaft journals as per rule 7.6 with 2" hole 8½ Size of Crank webs 12 x 5½ Dia. of thrust shaft under
as fitted 7.75 Dia. of screw 7'-6" Pitch of Screw 8'-6" No. of Blades 3 State whether moveable No Total surface 22 sq. ft.
of Feed pumps None Diameter of Main Engines one be overhauled while the other is at work
of Bilge pumps 2 Feed + 2 Bilge Stroke Can one be overhauled while the other is at work
of Donkey Engines 2 Feed + 2 Bilge Sizes of Pumps Feed 13½ x 9 x 21 Bilge 10 x 8 x 18 No. and size of Suctions connected to both Bilge and Donkey pumps
Engine Room 2-2, 1-3½, 4-3 In Holds, &c. 14-6 and 1-4
of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump Pumps Is a separate Donkey Suction fitted in Engine room & size 1-3½
all 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
all connections with the sea direct on the skin of the ship Fitted to cr. steel tubes Yes Are the Discharge Pipes above or below the deep water line Below
they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Blow Off Cocks fitted with a spigot and brass Yes & Fitted
they each fitted with a Discharge Valve always accessible on the plating of the vessel Tank top Yes Are the Blow Off Cocks fitted with a spigot and brass Yes & Fitted
pipes are carried through the bunkers How are they protected
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges No-Bilges can be flooded for tactical purposes
of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller
Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ERS, &c.—(Letter for record) Manufacturers of Steel
Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
ing 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
pilot Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
at distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
ess Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting; cir. seams
rams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
stages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
compensating ring plate No. and Description of Furnaces in each boiler Material Outside diameter
of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom Thickness of plates bottom Working pressure of shell by rules Working pressure by rules
g pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:
l of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays
l Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
eter at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
ness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
ter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
hipping. across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
ckness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
orking pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
rately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
s Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
orking pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

VERTICAL DONKEY BOILER—

No. _____ Description _____ Manufacturers of Steel _____

Made at _____ By whom made _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ When made _____ Where fixed _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____ Length _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— See sheet appended. ✓

The foregoing is a correct description, J. H. Harland & Wolff Ltd. Manufacturer.

Dates of Survey: During progress of work in shops — 1914: Nov 30, Dec 1, 3, 7, 8, 9, 10, 11, 17, 17, 18, 23, 30, 1915: Jan 1, 11, 15, 18, 19
During erection on board vessel — 21, 22, 25, 27, 29, Feb 2, 4, 5, 10, 11, 12, 13, Aug 5, 26 May 1915
Total No. of visits 76

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts—Cylinders 30—Sheds 15 " " " donkey " " " "

Connecting 24-2-15 Crank shaft 23-1-15 Tunnel shafts 20-1-15 Steam pipes tested 23-3-15 Engine and boiler seatings 29-3-15 Engines holding down bolts 29-3-15

Stern tube 20-1-15 Main boiler safety valves adjusted 17-4-15 Boilers fixed 29-3-15 Engines tried under steam 17-4-15

Completion of pumping arrangements 19-5-15 Thickness of adjusting washers 7-12-15

Material of Crank shafts J. Steel Identification Mark on Do. 7-7-15 Material of Thrust shaft Do Identification Mark on Do. 7-7-15

Material of Tunnel shafts Do Identification Marks on Do. 7-7-15 Material of Screw shafts Do Identification Marks on Do. 7-7-15

Material of Steam Pipes Steel ✓ Test pressure 600 lb + 8 ✓

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

The machinery of this vessel has been constructed under Special Survey, and in accordance with the Rules. The workmanship and the materials are of good description throughout. It has been checked with the Builders' Specification enclosed with Secretary's Letter of 27th February 1915, and found to comply with it.

On the official trial in Belfast Lough, the propelling machinery worked satisfactorily, and in my opinion it merits the approval of the Committee for L.M.C. 5-15.

The auxiliary machinery was found to work well generally, but in regard to the Electric generating plant, which vessels lighting tests were satisfactory, the full load on dynamo was not applied, owing to the gun turret not being ready for testing. The steam steering engine was found to work satisfactorily at the full speed of the vessel, up to about 15° to 20° angle of the rudders, but beyond that angle the engine power seemed to be insufficient.

The amount of Entry Fee £ 50. 0. 0
Special Donkey Boiler Fee £ 50. 0. 0
Travelling Expenses (if any) £
When applied for, 29-5-15
When received, 19/6/15

Committee's Minute
Assigned See Lsk. 470
FIN. 24 FEB 1933

R. F. Beveridge
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Rpt. 9a.

Port of Belfast Continuation of Report No. 7528 dated 29th May 1915 on the T.S.S. Admiral Farragut

The stops on the Bridge and Conning Tower steering standards have been altered to 20° maximum angle of rudder, and alterations have been made to the steam supply pipes to the steering engine, but an opportunity for observing the effect of these alterations has not been given.

R. F. Beveridge

Belfast

Continuation of Report No. 7528 dated 29th May

on the

U.S. Monitor Admiral Farragut

Main Engines:-

- 1 Set connecting rod braces
- 2 Main bearing bolts + nuts
- 4 Connecting rod - - - top end ✓
- 2 - - - - - bottom - ✓
- 8 Screw shaft bolts + nuts
- 6 Studs, piston rod glands ✓
- 6 - value spindle -
- 15 - - casing
- 15 - cylinder covers
- 24 Bolts + nuts assorted for pipes ✓
- 1 H.P. + I.L.P. valve spindle
- 1 Pair braces, for valve spindle head
- 1 Set eccentric rod top end braced for one rod
- 1 Eccentric Strap complete
- 1 Set rings + springs for each size piston
- 1 Escape valve spring each cylinder of one engine
- 12 Junk ring bolts with brass bush nuts
- 100 assorted bolts + nuts ✓
- 1 Set blocks, rings + springs of each type for piston rod ^{ing} pack
- 1 - - - - - valve
- 2 - piston packing rings, steam cylinder reversing engine
- 2 - leathers
- 2 spare dies for Stop valve
- Main + Aux. Circulating Pumps. Three in number.
- 1 Set main bearing braces for one engine
- 1 Pair crank pin
- 1 - crosshead
- 1 Set piston rings
- 1 Set connecting rod bolts + nuts, one engine
- Main + Aux. Feed Pumps. Two in number.
- 1 Set steam piston rings each pump.
- 1 - bucket packing
- 1 - suction + discharge valve seats, valves + guards, one pump
- 1 Piston rod + pump rod with nuts, one pump.
- Main + Aux. Bio Pumps. Three in number.
- 2 Set steam piston rings one pump.
- 2 - pump bucket
- 1 Piston rod + one pump rod with nuts + crosshead
- 1 Set valves + guards one pump.
- Fore + Aft Pumps. Two in number
- 1 Set steam piston rings for each pump
- 1 - water
- 1 - Suction + delivery valve seats, valves + guards one pump
- 1 Piston rod + pump rod with crosshead

Belfast

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Evaporator & Distilling plant.

1 complete set of tubes for Evaporator

1 - - - - - Distiller

1 Packing ring for each steam piston

1 - - - - - water -

Forced Draft Fans.

1 set main bearing brasses one engine

1 - crank pin

1 - crosshead

1 - piston rings

1 - bolts & nuts for connecting rod - -

Additional Spare Gear between

No. 472 - 3 (Admiral Farragut & General Grant)

2 Half Crank Shafts

1 Propeller shaft

2 Cast Iron Propeller

2 outer & inner bushes

2 Circulating pump spindles

4 Cylinder escape valves

2 Sets Condenser tubes, ferrules, packing tools
for one condenser.