

## REPORT ON MACHINERY.

No. 27921

Date of writing Report

When handed in at Local Office

24-9-14 Port of Hull

Received at London Office

FRI. SEP. 25. 1914

No. in Survey held at Hull

Date, First Survey 15-1-14

Last Survey 12-9-1914

Reg. Book.

7 Supp on the Steel se K "Orianda" (AS 2502)

(Number of Vents 26)

Gross 273

Net 145

Master

Built at

By whom built

When built

Engines made at Hull

By whom made

Amos &amp; Smith Ltd

when made 1914.

Boilers made at Hull

By whom made

Amos &amp; Smith Ltd

when made 1914.

Registered Horse Power

Owners

Dolphin Steam Fishing Co

Port belonging to

Grimsby

Nom. Horse Power as per Section 28

79 78

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders 8

No. of Cranks 3

Dia. of Cylinders 12 1/2 x 21 1/2 x 35 1/4

Length of Stroke 24"

Revs. per minute

Dia. of Screw shaft

as per rule 7 1/2

Material of screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

yes

Is the after end of the liner made water tight

in the propeller boss

yes

If the liner is in more than one length are the joints burned

no

If 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

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush

Dia. of Tunnel shaft

as per rule 6 3/4

as fitted 6 7/8

Dia. of Crank shaft journals

as per rule 6 7/8

as fitted 7"

Dia. of Crank pin

7"

Size of Crank webs

13 1/4 x 4 1/2

of thrust shaft under

collars

7"

Dia. of screw

8 1/4"

Pitch of Screw

11-0"

No. of Blades

4

State whether moveable

no

Total surface

29 ft

No. of Feed pumps

1

Diameter of ditto

2 5/8"

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

1

Diameter of ditto

3"

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

One

Sizes of Pumps

6 1/2 x 4 1/4 x 6"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

2-2"

In Hold, &amp;c.

3-2"

Forepeak

slushwell

2" ejector from all bilges.

No. of Bilge Injections

1

size

3

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room &amp; size

2" ejector

Are 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

none

Are all connections with the sea direct on the skin of the ship

yes

Are they 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 Discharge Pipes above or below the deep water line

above

Are they 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

How are they protected

Wood casing

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

yes

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

yes

Dates of examination of completion of fitting of Sea Connections

9.7.14

of Stern Tube

9.7.14

Screw shaft and Propeller

9.7.14

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

worked from

OILERS, &amp;c.—(Letter for record S.)

Manufacturers of Steel

Phoenix Co of Horde

Total Heating Surface of Boilers

1400

Is Forced Draft fitted

no

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

18.8.14

No. of Certificate

3013

Can each boiler be worked separately

yes

Area of fire grate in each boiler

45 ft

No. and Description of Safety Valves to each boiler

2 Spring

Area of each valve

4-9"

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Mean dia. of boilers

13-0"

Length

10-2"

Material of shell plates

S

Thickness

1/32

Range of tensile strength

29-33

Are the shell plates welded or flanged

yes

Descrip. of riveting: cir. seams

DRL

long. seams

D.B.T.R.

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

7.63"

Lap of plates or width of butt straps

16 1/4"

Per centages of strength of longitudinal joint

rivets 94.0

plate 85.2

Working pressure of shell by rules

181

Size of manhole in shell

16 x 12"

Size of compensating ring

30 x 40 x 1/32

Length of plain part

top 78"

Thickness of plates

crown 3/4

bottom 3/4

Description of longitudinal joint

welded

No. of strengthening rings

3 1/2 x 3 1/2 x 1 1/2

Working pressure of furnace by the rules

146

Combustion chamber plates: Material

S

Thickness: Sides

11/16"

Back

11/16"

Pitch of stays to ditto: Sides

4 1/2 x 7

Back

8 1/2 x 4 1/2

Top

7 x 9

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

206

Material of stays

S

Diameter at smallest part

2.06

Area supported by each stay

79.15

Material of stays

S

Thickness

1/32

Pitch of stays

18 x 17 1/2

How are stays secured

Nuts &amp; Ws

Working pressure by rules

181

Material of stays

S

Diameter at smallest part

6 1/4"

Area supported by each stay

345.12

Thickness

3/32

Material of Lower back plate

S

Thickness

15/16"

Greatest pitch of stays

14 x 9

Working pressure of plate by rules

220

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2 x 4 1/2

Material of tube plates

S

Pitch across wide water spaces

14"

Working pressures by rules

184

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

9 x 11.75

Length as per rule

2-9"

Distance apart

9"

Number and pitch of stays in each

3 &amp; 7"

Working pressure by rules

194

Superheater or Steam chest, how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivets

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

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Lloyd's Register

Foundation

W806-0056



IS A DONKEY BOILER FITTED? no If so, is a report now forwarded?  
SPARE GEAR. State the articles supplied: - Two each top and bottom end con-  
necting rod bolts & nuts, two main bearing bolts & nuts,  
one set of Coupling bolts and nuts One set each  
feed & bilge pump valves Iron of various sizes A  
quantity of assorted bolts, nuts.

The foregoing is a correct description,  
FOR AMOS & SMITH LTD.  
*[Signature]* Manufacturer.  
Secretary.

Dates of Survey while building { During progress of work in shops - 1914 Jan 15 23 Apr 1 27 May 21 28 Jun 12 23 Jul 2 3 9 15 23 28 31 Aug 10 13 18  
During erection on board vessel - 20 24 31 Sep 14 7 8 12  
Total No. of visits 26  
Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts - Cylinders 28.7.14 Slides 28.7.14 Covers 23.7.14 Pistons 23.7.14 Rods 10.8.14  
Connecting rods 10.8.14 Crank shaft 13.8.14 Thrust shaft 2.7.14 Tunnel shafts ✓ Screw shaft 2.7.14 Propeller 2.7.14  
Stern tube 2.7.14 Steam pipes tested 31.8.14 Engine and boiler seatings 9.7.14 Engines holding down bolts 7.9.14  
Completion of pumping arrangements 12.9.14 Boilers fixed 7.9.14 Engines tried under steam 8.9.14  
Main boiler safety valves adjusted 8.9.14 Thickness of adjusting washers PV 5/32" SV 5/32"  
Material of Crank shaft S Identification Mark on Do. 1243 Material of Thrust shaft S Identification Mark on Do. 1243  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts S Identification Marks on Do. 1243  
Material of Steam Pipes Copper solid drawn Test pressure 360 lbs hyd. 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 duplicate of a previous case no If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boiler of  
this vessel have been constructed under special survey  
in accordance with the rules. The materials and  
workmanship are sound and good. The boiler tested  
by hydraulic pressure and with the engines secured  
on board & tested under steam they are now in good  
order and safe working condition and respectfully  
submitted as being eligible in my opinion to be  
classed with the notation of +hmc 9.14 in the  
Register book.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 9.14.

The amount of Entry Fee ... £ 1 : :  
Special ... £ 11 : 14 :  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : : :  
When applied for, 24.9.14  
When received, 30.9.14

Committee's Minute TUE. SEP. 29. 1914  
Assigned + Lmb 9.14

*[Signature]* J. G. Mackillop  
25/9/14  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.