

REPORT ON BOILERS.

No. 23414

Received at London Office.

Date of writing Report 4th Nov 1946 When handed in at Local Office 8th Nov 1946 Port of GREENOCK

No. 350 Survey held at GREENOCK Date, First Survey 7th AUG 1945 Last Survey 26th OCTOBER 1946

on the Sing Sc "NERITOPSIS" OIL ENGINES (Number of Visits 1)

Master CLASGOW Built at CLASGOW By whom built BLYTHSWOOD SHIP CO. LTD Yard No. 83 When built 1946

Engines made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD Engine No. 15169 When made 1946

Boilers made at do By whom made do Boiler No. 15169 When made 1946

Nominal Horse Power 502 174754 Owners ANGLO SAXON PETROLEUM CO. LTD Port belonging to LONDON

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel Colvilles L^{td}

Total Heating Surface of Boilers 4192 (Letter for Record S)

No. and Description of Boilers Two cylindrical SE Is forced draught fitted Yes Fuel Oil fired or Gas

Tested by hydraulic pressure to 320 lb/sq in Date of test 28/7/46 No. of Certificate 2429 Working Pressure 150 lb

Area of Firegrate in each Boiler 6.71 No. and Description of safety valves to each boiler Two 2 1/2 double opening 1141

Area of each set of valves per boiler as fitted 7.96 Pressure to which they are adjusted 183 lb Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork Boilers on tween deck Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 12' 9 1/2" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12' 9 1/2" Length 12' 3" Shell plates: Material S Tensile strength 28/33 tons

Thickness 1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams DR

long. seams TR DBS Diameter of rivet holes in 1 1/32" Pitch of rivets 3.289"

Percentage of strength of circ. end seams 66.74 Percentage of strength of circ. intermediate seam 7"

Percentage of strength of longitudinal joint 85.27 Working pressure of shell by Rules 181.05 lb/sq in

Thickness of butt straps 3 1/2" No. and Description of Furnaces in each Boiler Two Dighton corrugated

Material S Tensile strength 26/30 tons Smallest outside diameter 3' 7 1/8"

Length of plain part top 9" Thickness of plates bottom 1 1/8" Description of longitudinal joint Weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material S Tensile strength 26/30 tons Thickness 1 1/32" Pitch of stays 20" x 21"

How are stays secured DR & loose washers Working pressure by Rules 15 1/2"

Tube plates: Material S Tensile strength 26/30 tons Thickness 1 1/8"

Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 13 1/2" Working pressure 28/33 tons

Girders to combustion chamber tops: Material S Tensile strength 28/33 tons Depth and thickness of girder front 10' x 1 1/2"

at centre 10' x 1 1/2" Length as per Rule 2' 11 1/2" Distance apart 10 1/2" No. and pitch of stays margin nuts

in each Three @ 8 1/4" Working pressure by Rules 26/30 tons Combustion chamber plates: Material S

Tensile strength 26/30 tons Thickness: Sides 1 1/8" Back 1 1/8" Top 1 1/8" Bottom 3 1/4"

Pitch of stays to ditto: Sides 8 1/4" x 7 1/4" Back 7 3/4" x 7 3/4" Top 10 1/2" x 8 1/4" Are stays fitted with nuts or riveted over margin nuts

Working pressure by Rules 15 1/2" Front plate at bottom: Material S Tensile strength 26/30 tons

Thickness 1 1/2" Lower back plate: Material S Tensile strength 26/30 tons Thickness 2 1/2"

Pitch of stays at wide water space 14' x 7 3/4" Are stays fitted with nuts or riveted over Nuts

Working pressure 3 1/2" Main stays: Material S Tensile strength 28/33 tons

Diameter At body of stay 3 1/2" No. of threads per inch 6 Area supported by each stay 26/30 tons

Working pressure by Rules 1 1/2" Screw stays: Material S Tensile strength 26/30 tons

Diameter At end off part 1 1/2" No. of threads per inch 9 Area supported by each stay 26/30 tons

Working pressure by Rules... Are the stays drilled at the outer ends... *No* Margin stays: Diameter { At turned off part, *1 7/8"* or Over threads... *1 7/8"*

No. of threads per inch *9* Area supported by each stay... Working pressure by Rules... No. of threads per inch *9*

Tubes: Material *Hot finished seamless* External diameter { Plain *2 1/2"* Stay *2 1/2"* Thickness { *7/16"* *9/32"* *1/32"* Manhole compensation: Size of opening in

Pitch of tubes *3 7/8" x 3 3/4"* Working pressure by Rules... No. of rivets and diameter of rivet holes *46 - 1 1/32"*

shell plate *16 1/2" x 20 1/2"* Section of compensating ring *32 3/4" x 28 3/4" x 1 1/8"* No. of rivets and diameter of rivet holes *46 - 1 1/32"*

Outer row rivet pitch at ends *7"* Depth of flange if manhole flanged... Steam Dome: Material

Tensile strength... Thickness of shell... Description of longitudinal joint... Plate... Rivets...

Diameter of rivet holes... Pitch of rivets... Percentage of strength of joint... Thickness of crown... No. and diameter of

Internal diameter... Working pressure by Rules... Working pressure by Rules... Diameter of rivet holes and pitch

stays... Inner radius of crown... Diameter of rivet holes and pitch

How connected to shell... Size of doubling plate under dome...

of rivets in outer row in dome connection to shell...

Type of Superheater... Manufacturers of { Tubes... Steel forgings... Steel castings... Internal diameter and thickness of tubes...

Number of elements... Material of tubes... Thickness... Can the superheater be shut off and

Material of headers... Tensile strength... the boiler be worked separately... Is a safety valve fitted to every part of the superheater which can be shut off from the boiler...

Area of each safety valve... Are the safety valves fitted with easing gear... Working pressure as per

Rules... Pressure to which the safety valves are adjusted... Hydraulic test pressure

tubes... forgings and castings... and after assembly in place... Are drain cocks

valves fitted to free the superheater from water where necessary...

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with... *Yes*

The foregoing is a correct description,
For JOHN G. KINGDAID & CO. LIMITED.
A. M. Gemmell Chief of Technical Staff

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - - } SEE MACHINERY REPORT.

Are the approved plans of boiler and superheater forwarded herewith... *Yes* (If not state date of approval.)

Total No. of visits...

Is this Boiler a duplicate of a previous case... *Yes* If so, state Vessel's name and Report No. *NEOTHUMA GRK FEAT N° 23337*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been constructed under special survey in accordance with the Rules and approved plans. The materials & workmanship are sound & good. Their safety valves have been adjusted under steam for a working pressure of 180 lbs/sq. in.

For recommendations please see machinery report.

Survey Fee ... £
Travelling Expenses (if any) £

When applied for... 19...
When received... 19...

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping

GLASGOW 12 NOV 1946

Committee's Minute...

Assigned... SEE ACCOMPANYING MACHINERY REPORT