

REPORT ON BOILERS.

No. 30007

Received at London Office

2 AUG 1947

of writing Report... 22-7-1949 When handed in at Local Office... 19... Port of... Rotterdam

Survey held at... Flushing Date, First Survey... 17-7-46 Last Survey... 23-6-1947

on the... S/S Komsmolsk (Number of Visits... 5) Tons { Gross... Net...

Built at... Harston Hill in Essex By whom built... Furness S.P.C. Ltd. Yard No. 251 When built... 1936

Lines made at... Newcastle By whom made... N.E. Marine Eng. Co. Ltd. Engine No. ... When made... 1936

Boilers made at... By whom made... 50 Boiler No. ... When made... 1936

Original Horse Power... Owners... U.S.S.R. Port belonging to... Vladivostok

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel... (Letter for Record...)

Heating Surface of Boilers... 5160 sq ft for 26 hrs. Is forced draught fitted... Yes Coal or Oil fired... Coal

Description of Boilers... 2 multitubular Working Pressure... 220 lb

Tested by hydraulic pressure to... 330 lb Date of test... No. of Certificate... Can each boiler be worked separately... Yes

Area of Firegrate in each Boiler... 56.5 sq ft No. and Description of safety valves to each boiler... 2 spring loaded

No. of each set of valves per boiler... 2 per Rule... Pressure to which they are adjusted... 220 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... Is oil fuel carried in the double bottom under boilers... No

Smallest distance between shell of boiler and tank top plating... over 12" Is the bottom of the boiler insulated... Yes

Largest internal dia. of boilers... 15'-10" Length... 11'-6" Shell plates: Material... S.M. steel Tensile strength... 29-33 lb

Thickness... 1 7/16" Are the shell plates welded or flanged... no Description of riveting: circ. seams { end... double riveted inter... 1 1/4" Pitch of rivets { 10 3/16"

Seams... double butt 3x riv Diameter of rivet holes in { circ. seams... 1 5/32" long. seams... 1 15/32" Percentage of strength of circ. end seams { plate... 100% rivets... 100%

Percentage of strength of longitudinal joint { plate... 100% rivets... 100% Working pressure of shell by Rules... 220 lb

Thickness of butt straps { outer... 1 3/32" inner... 1 7/32" No. and Description of Furnaces in each Boiler... 3 Morrison's

Material... S.M. steel Tensile strength... 26-30 lb Smallest outside diameter... 3'-8 1/2" 3'-5 1/2"

Length of plain part { top... 1 1/2" bottom... 1 1/2" Thickness of plates { crown... 2 1/32" bottom... 2 1/32" Description of longitudinal joint... welded

Dimensions of stiffening rings on furnace or c.c. bottom... Working pressure of furnace by Rules... 220 lb

End plates in steam space: Material... S.M. steel Tensile strength... 26-30 lb Thickness... 1 7/16" Pitch of stays... 1'-9" x 1'-9"

Are stays secured... screwed with washers & nuts Working pressure by Rules... 220 lb

End plates: Material { front... S.M. steel Tensile strength... 26-30 lb Thickness... 2 1/32" back... 2 1/32"

Pitch of stay tubes in nests... 8 1/2" x 8 1/2" Pitch across wide water spaces... 1'-2 3/4" Working pressure { front... 220 lb back... 220 lb

Ends to combustion chamber tops: Material... S.M. steel Tensile strength... 26-30 lb Depth and thickness of girder

Centre... 9 1/2" x 1 1/2" x 1 1/2" Length as per Rule... 3'-1 1/2" 3'-0 1/2" Distance apart... 8 1/2" No. and pitch of stays

Each... 2 x 11" Working pressure by Rules... 220 lb Combustion chamber plates: Material... S.M. steel

Tensile strength... 26-30 lb Thickness: Sides... 2 1/32" Back... 2 1/32" Top... 2 1/32" Bottom... 2 1/32"

Pitch of stays to ditto: Sides... 11 x 8 1/2" Back... 9 1/2 x 10" Top... 9 1/2 x 11" Are stays fitted with nuts or riveted over... nuts

Working pressure by Rules... 220 lb Front plate at bottom: Material... S.M. steel Tensile strength... 26-30 lb

Thickness... 1" Lower back plate: Material... S.M. steel Tensile strength... 26-30 lb Thickness... 6 3/4"

Pitch of stays at wide water space... 1'-4" Are stays fitted with nuts or riveted over... nuts

Working pressure... 220 lb Main stays: Material... S.M. steel Tensile strength... 20-32 lb

At body of stay... 3 3/4" No. of threads per inch... 6 Area supported by each stay... 220 lb

Over threads... 3 3/4" Screw stays: Material... S.M. steel Tensile strength... 26-30 lb

Working pressure by Rules... 220 lb At turned off part... 2 1/2" x 1 1/2" No. of threads per inch... 9 Area supported by each stay... 220 lb

Over threads... 2 1/2" x 1 1/2"

Working pressure by Rules *aff* Are the stays drilled at the outer ends *no* ✓ Margin stays: Diameter { At turned off part. or Over threads *2 1/2"* ✓
No. of threads per inch *9* ✓ Area supported by each stay *4 1/6* Working pressure by Rules *2* ✓
Tubes: Material *SM steel* ✓ External diameter { Plain *2 1/2"* ✓ Stay *2 1/2"* ✓ Thickness { *3/16"* ✓ No. of threads per inch *9* ✓
Pitch of tubes *12* Working pressure by Rules *2* Manhole compensation: Size of opening
shell plate *1/2"* Section of compensating ring *1/2"* No. of rivets and diameter of rivet holes *4 1/4"* ✓
Outer row rivet pitch at ends *4 1/4"* Depth of flange if manhole flanged *4 1/4"* ✓ Steam Dome: Material *SM steel* ✓
Tensile strength *35,000* Thickness of shell *1/2"* Description of longitudinal joint *Butt* ✓
Diameter of rivet holes *1/4"* Pitch of rivets *2 1/2"* Percentage of strength of joint { Plate *100* ✓ Rivets *100* ✓
Internal diameter *2 1/2"* Working pressure by Rules *2* Thickness of crown *1/8"* No. and diameter
stays *4* Inner radius of crown *12* Working pressure by Rules *2*
How connected to shell *Butt* Size of doubling plate under dome *1/2"* Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell *1/4"*
Type of Superheater *Schmidt* Manufacturers of { Tubes *2* ✓ Steel forgings *2* ✓ Steel castings *2* ✓
Number of elements *12* Material of tubes *SM steel* Internal diameter and thickness of tubes *2 1/2" - 1/8"*
Material of headers *SM steel* Tensile strength *35,000* Thickness *1/2"* Can the superheater be shut off a
the boiler be worked separately *Yes* ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes* ✓
Area of each safety valve *35 sq in* Are the safety valves fitted with easing gear *Yes* ✓ Working pressure as per
Rules *2* Pressure to which the safety valves are adjusted *230 lb* ✓ Hydraulic test pressure
tubes *SM steel* forgings and castings *SM steel* and after assembly in place *440 lb* ✓ Are drain cocks
valves fitted to free the superheater from water where necessary *Yes* ✓
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes* ✓
The foregoing is a correct description,
Manufactured by *Smith*

Dates of Survey while building { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
During erection on board vessel - - - Total No. of visits *1*

Is this Boiler a duplicate of a previous case *no* If so, state Vessel's name and Report No. *no*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been examined and verified with the approved plan, Secretary's letters. Tested and found sound & tight.*

Survey Fee ... £ : : } When applied for... 19...
Travelling Expenses (if any) £ : : } When received... 19...

C.H. Bounce
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI, 26 SEP 1917*
Assigned *Sir F.E. Mchey. rpt.*