

## REPORT ON WATER TUBE BOILERS.

No. 23962.

Received at London Office.

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Date of writing Report. 6/3 19 58. When handed in at Local Office 22/3 19 58. Port of. GOTHENBURG.

No. in Survey held at. GOTHENBURG. Date, First Survey. 17.4.57. Last Survey. 11/3 19 58.

Reg. Book. 6/42573 on the S/T "MELINE" (Number of Visits 32) Gross. 13,405 Tons. Net. 7,898

Built at. GOTHENBURG. By whom built. A.-B. Götaverken Yard No. 716 When built. 1958.

Engines made at. Stockholm, Gothenburg. By whom made. A.-B. De-Lavals Ångturbin & A.-B. Götaverken. Engine No. 44412 When made. 1958.

Boilers made at. Gothenburg. By whom made. A.-B. Götaverken Boiler No. 777/9 When made. 1957.

HS for Register Book. 11,480 sq.ft. Owners. A/S Tanktransport Port belonging to. Tönsberg.

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel. Degerfors Järnverks A.-B., Degerfors.

Date of Approval of plan. 12.7. and 11.10.56; 15/2, 12/3 and 10/4-1957. No. and Description or Type of Boilers. 2 Babcock & Wilcox Working Pressure 500 lbs. Tested by Hydraulic Pressure to 823 lbs. Date of Test. 5 & 9.8.57.

No. of Certificate. 21600 Can each boiler be worked separately. Yes. Total Heating Surface of Boilers. 11480 sq.ft. Superheaters. 936 sq.ft.

Half Economisers. 3370 sq.ft. forced draught fitted. Yes. Area of Fire Grate (coal) in each Boiler. ---

No. and type of burners (oil) in each boiler. 3 Babcock & Wilcox Ltd. Inst. 48.0636 No. and description of safety valves on each boiler. 2x2 1/2" Dewrance, Improved high lift. Area of each set of valves per boiler { per rule 9,4 sq" as fitted 9,8 sq" Pressure to which they are adjusted. 500 lbs/sq" Are they fitted with easing gear. Yes. In case of donkey boilers state whether steam from main boilers can enter the donkey boiler. No Donkey Blr. Smallest distance between boilers or uptakes and bunkers or woodwork. 3 metres. Height of boiler. 5710 mm.

Width and length. 4846 and 3951 mm. Steam Drums:—Number in each boiler. One. Inside diameter. 627 + 598,5 = 1225,5 mm.

Thickness of plates. 23 and 80 mm. Range of tensile strength. 48-56 kg/mm<sup>2</sup> Are drum shell plates welded or flanged. Welded. If fusion welded, state name of welding firm. Degerfors Järnverks A.-B. Have all the requirements of the Rules for Class I vessels been complied with. Yes. Description of riveting:—Circ. seams. --- long. seams. ---

Diameter of rivet holes in long. seams. --- Pitch of rivets. --- Thickness of straps. 32,15; 51,20; 82,95 Percentage strength of long. joint:—Plate. --- Rivet. --- Diameter of tube holes in drum. 102,40 mm. Pitch of tube holes. 305 and 175 mm.

Percentage strength of shell in way of tubes. 27% Steam Drum Heads or Ends:—Range of tensile strength. 48-56 kg/mm<sup>2</sup> Thickness of plates. 35 mm. Radius or how stayed. 200 & 1040 mm. Size of manhole or handhole. 406x305 mm. Water Drums:—Number in each boiler. 1 Inside diameter. 748,5 mm. Thickness of plates. 16 & 55 mm. Range of tensile strength. 44-50 kg/mm<sup>2</sup> Are drum shell plates welded or flanged. Welded. If fusion welded, state name of welding firm. Degerfors Järnverks A.-B. Have all the requirements of the Rules for Class I vessels been complied with. Yes. Description of riveting:—Circ. seams. --- long. seams. ---

Diameter of rivet holes in long. seams. --- Pitch of rivets. --- Thickness of straps. 32,15; 51,20; 82,95 Percentage strength of long. joint:—Plate. --- Rivet. --- Diameter of tube holes in drum. 102,40 mm. Pitch of tube holes. 305 & 175 mm.

Percentage strength of drum shell in way of tubes. 27% Water Drum Heads or Ends:—Range of tensile strength. 44-50 kg/mm<sup>2</sup> Thickness of plates. 23 mm. Radius or how stayed. 125 & 640 mm. Size of manhole or handhole. 406x305 mm.

Headers or Sections:—Number. 3 Material. Mild Steel Thickness. 1" Tested by hydraulic pressure to. 823 lbs/sq"

Tubes:—Diameter. 2" Thickness. 13 v.g. 2.34 mm. Number. 55 Steam Dome or Collector:—Description of joint to shell. --- Inside diameter. --- Thickness of shell plates. --- Range of tensile strength. --- Description of longitudinal joint. --- If fusion welded, state name of welding firm. --- Have all the requirements for the Rules for Class I vessels been complied with. --- Diameter of rivet holes. ---

Pitch of rivets. --- Thickness of straps. --- Percentage strength of long. joint. --- plate. --- rivet. ---

Crown or End Plates:—Range of tensile strength. --- Thickness. --- Radius or how stayed. ---

**SUPERHEATER.** Headers:—Number in each boiler. 2 Inside diameter. 6" square Thickness. 1.1/8" Material. Mild Steel Range of tensile strength. 29.5-30.0 tons/sq" Are drum shell plates welded or flanged. --- If fusion welded, state name of welding firm. Solid drawn. Have all the requirements of the Rules for Class I vessels been complied with. Yes. Description of riveting:—Circ. seams. --- long. seams. ---

Diameter of rivet holes in long. seams. --- Pitch of rivets. --- Thickness of straps. --- Percentage strength of long. joint:—Plate. --- Rivet. --- Diameter of tube holes in drum. --- Pitch of tube holes. --- Percentage strength of drum shell in way of tubes. --- Drum Heads or Ends:—Thickness. --- Range of tensile strength. ---

The Radius or how stayed. --- Size of manhole or handhole. --- Number, diameter, and thickness of tubes. ---

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. --- No. and description of safety valves. 1 Dewrance improved high lift Area of each set of valves. 4,9 sq" Pressure to which they are adjusted. 475 lbs. 750° Is easing gear fitted. Yes.

Spare Gear. Has the spare gear required by the Rules been supplied. Yes.

The foregoing is a correct description,

AKTIEBOLAGET GÖTAVERKEN / J. K. J. Manufacturer.

Dates of Survey. During progress of work in shops. 17.4.57 - 17.10.57. Is the approved plan of boiler forwarded herewith. No.

while building. During erection on board vessel. 7.11.57 - 11.3.58. Total No. of visits. 32.

Is this boiler a duplicate of a previous case. No. If so, state vessel's name and report No. ---

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c. These boilers have been constructed under SS in acc. with the Rules and approved plans. The workmanship and material used are good. The boilers have been securely fitted aboard under my inspection and to my satisfaction. The safety valves found to work satisfactorily and accumulation test carried out with satisfactory result. Certificates in respect of drums, headers and tubes are attached.

Survey Fee ... Kr. : 3.580:— When applied for 22/3 19 58.

Travelling Expenses (if any) f : : When received 19

Date

TUESDAY - 6 MAY 1958

Committee's Minute

See Rpt. 1.

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation