

REPORT ON WATER TUBE BOILERS.

No. 49593

Date of writing Report 191 When handed in at Local Office 9.9.1929 Port of Glasgow Received at London Office 11 SEP 1929

No. in Survey held at Glasgow Date, First Survey 8.1.29 Last Survey 30.7.29 1929

Reg. Bk. 40752 on the Steel Linn Locomotive "Shwin" Number of Visits 40 Tons Gross 970.11 Net 377.39

Master Built at Glasgow By whom built Dr. W. Henderson When built 1929

Engines made at Glasgow By whom made Jarvis & Co Ltd When made 1929

Boilers made at Glasgow By whom made Jarvis & Co Ltd When made 1929

Registered Horse Power Owners South Indian Railway Co. Ltd Port belonging to Glasgow

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Steel Company of Scotland

(Letter for Record 5) Date of Approval of plan 21.12.29 Number and Description or Type of Boilers 2 Jarvis Working Pressure 225 lbs Tested by Hydraulic Pressure to 388 Date of Test 22.4.29

No. of Certificate 18262/3 Can each boiler be worked separately No. Total Heating Surface of Boilers 5000 sq ft

Is forced draught fitted Yes Area of fire grate (coal) in each Boiler 58 1/2 sq ft Total grate area of boilers in vessel including Main and Auxiliary 117 1/2 No. and type of burners (oil) in each boiler 3 Welland No. and description of safety valves on each boiler 2 Improved High Lift Area of each valve 3.98 Pressure to which they are adjusted 225 lbs

Are they fitted with casing 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 Well clear Height of Boiler 10.8 Width and Length 15.7:10.3

Steam Drums:—Number in each boiler One Inside diameter 50" Material of plates S Thickness 3/8

Range of Tensile Strength 26-30 tons Are drum shell plates welded or flanged No. Description of riveting:—

Cir. seams DR. overlap long. seams DR. DR. 27 1/2 pitch Diameter of rivet holes in long. seams 13/16 Pitch of Rivets 3 3/4

Lap of plates or width of butt straps 8" (1.0 1/2) Thickness of straps 1/2 Percentage strength of long. joint:—Plate 77 Rivet 85.5

Diameter of tube holes in drum 1 3/4 Pitch of tube holes 2 1/2 Percentage strength of shell in way of tubes 33.3

If Drum has a flat side state method of staying Yes Depth and thickness of girders at centre (if fitted) Yes Distance apart Yes Number and pitch of stays in each Yes Working pressure by rules 233

Steam Drum Heads or Ends:—Material S Thickness 1 1/8 Radius or how stayed 50"

Size of Manhole or Handhole 16 x 12 **Water Drums:**—Number in each boiler Two Inside Diameter 30

Material of plates S Thickness 3/8 Range of tensile strength 26-30 tons Are drum shell plates welded or flanged No. Description of riveting:—Cir. seams DR. overlap long. seams DR. DR. 27 1/2 pitch Diameter of Rivet Holes in long. seams 1 1/8 Pitch of rivets 3 3/8 Lap of plates or width of butt straps 7 1/2 (1.0 1/2) Thickness of straps 3/8

Percentage strength of long. joint:—Plate 75.8 Rivet 88.0 Diameter of tube holes in drum 1 3/4 Pitch of tube holes 2 1/2

Percentage strength of drum shell in way of tubes 33.3 **Water Drum Heads or Ends:**—Material S Thickness 3/4

Radius or how stayed 30" Size of manhole or handhole 16 x 12 **Headers or Sections:**—Number Yes Material Yes Thickness Yes Tested by Hydraulic Pressure to Yes Material of Stays Yes

Area at smallest part Yes Area supported by each stay Yes Working Pressure by Rules Yes **Tubes:**—Diameter Yes Thickness Yes Number Yes **Steam Dome or Collector:**—Description of Joint to Shell Yes Percentage strength of Joint Yes Diameter Yes Thickness of shell plates Yes Material Yes

Description of longitudinal joint Yes Diameter of Rivet Holes Yes Pitch of Rivets Yes Working Pressure of shell by Rules Yes **Crown or End Plates:**—Material Yes Thickness Yes How stayed Yes

SUPERHEATER.

Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes

Date of Test Yes Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is casing gear fitted Yes

Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes Yes

Spare Gear. Tubes Yes Gaskets or joints:—Manhole Yes Handhole Yes Handhole plates Yes



The foregoing is a correct description, Manufacturer.

Dates of Survey: During progress of work in shops - - - while building: During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith Total No. of visits

GENERAL REMARKS

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

These Boilers have been built under special Survey and in accordance with the Rules. The Materials & workmanship are good. On completion the boilers have been tested by hydraulic pressure and found tight and afterwards efficiently secured in position on board.

Survey Fee ... £ : : When applied for, 191
 Travelling Expenses (if any) £ : : When received, 101

George Munn
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 SEP 1929

Assigned See accompanying machinery report.

