

FORM P-4 MANUFACTURERS' PARTIAL DATA REPORT
As Required by the Provisions of the ASME Code Rules

NB 44

21/46

P.O. #911034

491-007

1. Manufactured by Advance Boiler & Tank Co. 1711 South Carferry Drive Milwaukee WI 53207

2. Manufactured for Kansas City Heater Mission Kansas

(Name and address of purchaser)

3. Identification of Part(s) Deaerator

Name of Part	Quantity	Line No.	Mfg's Identifying Numbers	Manufacturer's Drawing No.	CRN	National Board No.	Year Built
Storage	1	--	491-007	SD10340	--	--	1991

4. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The construction and workmanship conform to ASME Rules, Section I
1989 and Addenda to A89
(Year) (Date)

6(a) Drums

No.	O.D. diameter, in.	Length		Shell plates			Tube sheets		Tube hole ligament efficiency	
		Ft	In.	Mat'l. Spec. No., Grade	Thickness in.	Inside radius in.	Thickness in.	Inside radius in.	Longitudinal	Circumferential
1	90"	16'	3"	SA516-70	.50"	44.5"				
2										
3										
4										

No.	Longitudinal joints		Circum. joints		Heads					Hydrostatic test, psi
	No. & type*	Efficiency	No. & type	Efficiency	Mat'l. Spec. No., Grade	Thickness, in.	Type**	Radius of dish	Manholes No. Size	
1	2-2	100%	3-2	100%	SA516-70	.375"	3	2:1	2-14"x18"	150
2										
3										
4										

*Indicate if (1) Seamless; (2) Fusion welded.

**Indicate if (1) Flat; (2) Dished; (3) Ellipsoidal; (4) Hemispherical.

6(b) Boiler Tubes

Diameter	Thickness	Mat'l. Spec. No., Grade

6(c) Headers No. _____

or

(Box or sinuous or round; Mat. spec. no.; Thickness)

Heads or Ends _____ Hydro. Test, psi _____

(Shape; Mat. spec. no.; Thickness)

6(d) Staybolts _____

(Mat. spec. no.; Diameter; Size telltale; Net area)

Pitch _____ in. Net Area _____ in.² Max. A.W.P. _____ psi
(Supported by one bolt)

6(e) Mud Drum _____ or _____ Heads or Ends _____ Hydro. Test, psi _____
(For sect. header boilers. State Size; Shape; Mat. spec. no.; Thickness) (Shape; Mat. spec. no.; Thickness)

7(a) Waterwall Headers

No.	Size and shape	Material spec. no.	Thickness in.	Heads or Ends			Hydro. test, psi	7(b) Waterwall Tubes		
				Shape	Thickness in.	Material spec. no.		Diameter in.	Thickness in.	Material spec. no.

Form P-4 (Back)

8(a) Economizer Headers

				Heads or Ends			8(b) Economizer Tubes			
No.	Size and shape	Material spec. no.	Thickness in.	Shape	Thickness in.	Material spec. no.	Hydro. test, psi.	Diameter in.	Thickness in.	Material spec. no.

9(a) Superheater Headers

9(b) Superheater Tubes

10(a) Other Parts (1) _____ (2) _____ (3) _____ 10(b) Tubes for Other Parts

1										
2										
3										

11 Openings (1) Steam _____ (No., size, and type of nozzles or outlets) (2) Safety Valve (2) 4" 300# flgd w/.337" pipe (No., size, and type of nozzles or outlets)
 (3) Blowoff _____ (No., size, and type of nozzles or outlets) (4) Feed _____ (No., size, type, and location of connections)

12		Maximum Allowable Working Pressure	Code Par. and/or Formula on which AWP is Based	Shop hydro. test psi	Heating Surface sq. ft.	13 Field hydro. test psi
a	Shell	100 psi	PG-27.2.2	150		
b	Headers	100 psi	PG-27.2.2	150		
c	Economizer					
d	Superheater					
e	Other parts					

Heating surface to be stamped on drum heads. This heating surface not to be used for determining minimum safety valve capacity.

Remarks: Nozzles: (4) 14" x .50"; (1) 10" x .5"; (2) 8" x .322"; (1) 4" x .438"; (1) 2.5" x .276"; (3) 2" x .343" Cplg: (7) 1-1/2"; (12) 1"; (1) 3/4"

CERTIFICATE OF COMPLIANCE

We certify the statements in this Manufacturer's Partial Data Report to be correct and that all details of material, construction, and workmanship of this boiler part conform to the ASME Boiler and Pressure Vessel Code.

Date 8/23/91 Signed Advance Boiler & Tank (Manufacturer) Clifford Bear (Authorized Representative)
 Our Certificate of Authorization No. 1570 to use the (PP) or (S) S Symbol expires January 31 19 93

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Wisconsin and employed by Arkwright Mutual Ins. Co. of Massachusetts - Factory Mutual System

have inspected the part of a boiler described in this Manufacturer's Partial Data Report on AUGUST 20, 19 91, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date AUGUST 23, 1991
Joseph A. Kallay Inspector Commissions NB 11126 Wisc 217
 Nat'l Board, State, Province and No.

FORM P-4 MANUFACTURERS' PARTIAL DATA REPORT

NB 44

22/46

P.O. #911034

As Required by the Provisions of the ASME Code Rules

491-006

1. Manufactured by Advance Boiler & Tank Co., 1711 S. Carferry Dr., Milwaukee WI 53207

2. Manufactured for Kansas City Heater Shawnee Mission, Kansas 66207

3. Identification of Part(s) Deaerator

Name of Part	Quantity	Line No.	Mfg's Identifying Numbers	Manufacturer's Drawing No.	CRN	National Board No.	Year Built
Heater	1	--	491-006	HD10340	--	--	1991

4. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The construction and workmanship conform to ASME Rules, Section I
1989 (Year) and Addenda to A89 (Date)

6(a) Drums

No.	O.D. XXXXX diameter, in.	XXXXX Length Ft In.	Shell plates			Tube sheets		Tube hole ligament efficiency	
			Mat'l. Spec. No., Grade	Thickness in.	Inside radius in.	Thickness in.	Inside radius in.	Longitudinal	Circumferential
1	78"	4' 6"	SA516-70	.375"	38.625"				
2									
3									
4									

No.	Longitudinal joints		Circum. joints		Heads					Hydrostatic test, psi
	No. & type*	Efficiency	No. & type	Efficiency	Mat'l. Spec. No., Grade	Thickness, in.	Type**	Radius of dish	Manholes No. Size	
1	1-2	100%	2-2	100%	SA516-70	.500"	2	72"	1-18"	150#
2										
3										
4										

*Indicate if (1) Seamless; (2) Fusion welded.

**Indicate if (1) Flat; (2) Dished; (3) Ellipsoidal; (4) Hemispherical.

6(b) Boiler Tubes

Diameter	Thickness	Mat'l. Spec. No., Grade

6(c) Headers No. _____

or
(Box or sinuous or round; Mat. spec. no.; Thickness)

Heads or Ends _____ Hydro. Test, psi _____
 (Shape; Mat. spec. no.; Thickness)

6(d) Staybolts _____

(Mat. spec. no.; Diameter; Size telltale; Net area)

Pitch _____ in. Net Area _____ in.² Max. A.W.P. _____ psi
 (Supported by one bolt)

6(e) Mud Drum _____

or Heads or Ends _____ Hydro. Test, psi _____
 (For sect. header boilers. State Size; Shape; Mat. spec. no.; Thickness) (Shape; Mat. spec. no.; Thickness)

7(a) Waterwall Headers

7(a) Waterwall Headers				Heads or Ends			7(b) Waterwall Tubes			
No.	Size and shape	Material spec. no.	Thickness in.	Shape	Thickness in.	Material spec. no.	Hydro. test, psi.	Diameter in.	Thickness in.	Material spec. no.
			or							

Form P-4 (Back)

8(a) Economizer Headers

				Heads or Ends			8(b) Economizer Tubes			
No.	Size and shape	Material spec. no.	Thickness in.	Shape	Thickness in.	Material spec. no.	Hydro. test, psi.	Diameter in.	Thickness in.	Material spec. no.

9(a) Superheater Headers

				9(b) Superheater Tubes						

10(a) Other Parts (1)

				10(b) Tubes for Other Parts						
1										
2										
3										

11 Openings (1) Steam

(No., size, and type of nozzles or outlets) _____ (2) Safety Valve _____
 (3) Blowoff _____ (4) Feed _____
 (No., size, and type of nozzles or outlets) _____ (No., size, type, and location of connections) _____

12		Maximum Allowable Working Pressure	Code Par. and/or Formula on which AWP is Based	Shop hydro. test psi	Heating Surface sq. ft.	13 Field hydro. test psi
a	XXXX Hds	100 psi	PG-29.1	150#		
b	XXXXXX Shl	100 psi	PG-27.2.2	150#		
c	Economizer					
d	Superheater					
e	Other parts					

Heating surface to be stamped on drum heads. This heating surface not to be used for determining minimum safety valve capacity.

Remarks: Nozzles: (2) 14" x .375"; (1) 10" x .365"; (1) 8" x 1.0"; (2) 4" x .337"
 (1) 6" x .432". Coils: (1) 2"; (3) 1".

CERTIFICATE OF COMPLIANCE

We certify the statements in this Manufacturer's Partial Data Report to be correct and that all details of material, construction, and workmanship of this boiler part conform to the ASME Boiler and Pressure Vessel Code.

Date 8/22/91 Signed AB&T CO. by Clifford Brown
 (Manufacturer) (Authorized Representative)
 Our Certificate of Authorization No. 1570 to use the (PP) or (S) S Symbol expires January 31 19 93

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Wisconsin and employed by Arkwright Mutual Ins. Co. of Massachusetts Factory Mutual System have inspected the part of a boiler described in this Manufacturer's Partial Data Report on AUGUST 20, 19 91, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date AUGUST 22, 1991
Joseph P. Kallay Commissions NB 11126 WISC 217
 Inspector Nat'l Board, State, Province and No.