

* Includes 3/8" Tk. X 32 3/8" Dia. SA-240, 304 Facing.

Form U-1 (Back)

16. MAWP 440 (internal) --- (external) psi at max. temp. 300 (internal) --- (external) °F. Min. design metal temp. 20 °F at 440 psi.

17. Impact test: No, UHA-51. (Indicate yes or no and component(s) impact tested)

18. Hydro. pneu. test press. 660 Proof test N/A

19. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Resp. Open)
				Nozzle	Flange	Noz.	Corr.		Nozzle Fig. U-1-16.1	Flange Fig.	
Inlet/Outlet	2	16"	300#-W.N.	SA-312W TP304	SA-182.F304	.375"	0"	SA-240. 304	(C)	(6)	
T.W Conn.	1	1 1/2"	300#-LWN	SA-182.F304	-----	.625"	0"		(C)	--	
Inlet/Outlet	2	16"	150#-W.N.	SA-106-B	SA-105	.375"	1/8"		(C)	(6)	
PSE	1	8"	150#-W.N.	SA-106-B	SA-105	.322"	1/8"		(C)	(6)	
Chem. Clean.	2	2"	150#-W.N.	SA-106-B	SA-105	.344"	1/8"		(C)	(6)	
Vent/Drain	2	3/4"	H.C.	SA-182.F304	-----	6000#	0		(C)	--	
Instrument	3	3/4"	H.C.	SA-182.F304	-----	6000#	0		(C)	--	
Instrument	4	3/4"	H.C.	SA-105	-----	6000#	1/8"		(C)	--	

20. Supports: Skirt No (Yes or no) Lugs No (No.) Legs 2 (No.) Others N/A (Describe) Attached Shell, Welded (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: (List the name of part, item number, mfg's. name and identifying number)

Expansion Joint, Item No. 6, Badger Industries, Serial No. 16143-A001.

22. Remarks: #29-192 Gas Cooler, Tema Type N-E-N.
Cylec Industries, PO # SW120263, Item # E-13
Atlas Job # 10197
'UG-46 (a)'

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate of Authorization No. 5027 Expires APRIL 30 19 99

Date 3 23 98 Name ATLAS INDUSTRIAL MANUFACTURING CO. Signed Ramsay Maloolan (Manufacturer) (Representative)

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 NEW JERSEY and employed by KEMPER INSURANCE COMPANIES of LONG GROVE, IL. have inspected

the pressure vessel described in this Manufacturer's Data Report on 3 23 19 98 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's 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 3 23 98 Signed [Signature] Commissions NB8245A NJ 619 (Authorized Inspector) (NBT Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1.

U Certificate of Authorization No. _____ Expires _____ 19 _____

Date _____ Name _____ Signed _____ (Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY 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 _____ and employed by _____ of _____ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items

_____ not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's 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 _____ Signed _____ Commissions _____ (Authorized Inspector) (NBT Board incl. endorsement, State, Province and No.)

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

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1. Manufactured and certified by Badger Industries 100 Badger Drive, Zelienople, PA 16063
(Name and address of Manufacturer)

2. Manufactured for Atlas Industrial Mfg. Co.; 81 Somerset Place; Clifton, NJ 07012
(Name and address of Purchaser)

3. Location of installation Atlas Industrial Mfg. Co.; 81 Somerset Place; Clifton, NJ 07012
(Name and address)

4. Type: Model 30-5LP-W5 16143-A001 None
(Description of vessel part (shell, two-piece head, tube bundle)) (Mfg's serial No.) (CRN)

None 16143-1.1 Badger Industries 1998
(Nat'l. Bd. No.) (Drawing No.) (Drawing prepared by) (Year built)

5. ASME Code, Section VIII, Div. 1 1995 - A96 None None
Edition and Addenda (date) Code Case No. Special Service per UG-120(d)

6. Shell (a) No. of course(s): 3 (b) Overall length (ft & in.): 1'-3 3/4"

Course(s)		Material	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter, in.	Length (ft. & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp. Time
1	30 ID	3 3/4"	SA240-304	.050	---	1	None	100%	***	---	---	---
1	29 1/4 ID	6"	SA516-Gr.70	.375	---	1	None	70%	***	---	---	---

7. Heads: (a) --- (b) ---
(Mat'l Spec. No., Grade or Type) H.T.-Time & Temp (Mat'l Spec. No., Grade or Type) H.T.-Time & Temp

Location (Top, Bottom, Ends)	Thickness	Radius	Elliptical	Conical	Hemispherical	Flat	Side to Pressure	Category A
	Min. Corr.	Crown	Knuckle	Ratio	Apex Angle	Radius	Diameter	Convex Concave Type Full, Spot, None Eff.

(a) ---
 (b) ---

If removable, bolts used (describe other fastening) --- (Mat'l Spec. No., Grade, Size, No.)

8. MAWP F.V./104 --- psi at max. temp. 175 --- °F Min. design metal temp. -20 °F at F.V./104
(internal) (external) (internal) (external)

9. Impact test No per UHA51(d) & UG20(f)
(Indicate yes or no and the component(s) impact tested)

10. Hydro. ~~test~~ or ~~comb.~~ test press. 160 Proof test none

11. Nozzles, inspection, and safety valve openings:

Purpose (inlet, Outlet, Drain, etc.)	Diameter	Flange	Material	Nozzle Thickness	Reinforcement	How Attached	Location
No. or Size	Type	Nozzle	Flange	Nom. Corr.	Material	Nozzle Flange	(Insp. Op)

12. Supports: Skirt --- Lugs --- Legs --- Others --- Attached ---
(Yes or No) (No) (No.) (Describe) (Where and How)

13. Remarks SEE U4 FORM FOR REMARKS

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate of Authorization No. 14,146 Expires January 2, 2001
 Date 2/21/98 Name Badger Industries Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PA and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the

pressure vessel described in this Manufacturer's Data Report on 2-25, 19 98, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's 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 2-25-98 Signed [Signature] Commissions PA2560
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)

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[illegible]

RR 1067.4