		-6489 ob #			FO	RM L	J-1 MANUI	ACTURE	R'S DATA	A RE	PORT	FOR PRESS	URE	VESSE	LS					
					As Requir	ed by t	the Provisior	s of the ASN	ME Boiler a	and P	ressure	Vessel Code Ru	ules, S	ection V	III, Divi	sion 1				
1. N	1. Manufactured and certified by Mason Manufacturing, LLC., 1645 North Railroad Avenue, Decatur, Illinois, 62526, USA																			
2. N	1anufacture	d for	AMG,	1497	Shoup	Mill F	Rd, Dayto	n, Ohio, 4	5414, US		me and a	address of Manı	ufactu	rer)						
3. L	ocation of i	nstall	ation V	/irdia,	1319 H	wy 18	82, Racela	ınd, Louis			, USA	ss of Purchase	r)							
4. T	уре		Vertica	al					Heat Ex		nger	and address)					15-6489			
(Horizontal, vertical, or sphere)								(Tank, sepa	rator, jkt. v	esse	el, heat ex	xch., etc.)	(Manufacturer's serial number)							
	N/A (CRN)								15-6489 re rawing nun)		2269 (National Board number)					2015 (Year built)		
5.	ASME Cod	e, Se		II, Div.	1			13/ N/A	· ·	,			N/A	•		ŕ		N/A		
						-	ion and Add		•			(Code Ca		,				ce per UG-	(/2	
					ed for sir	igle w	all vessels				sels, sh	ell of heat exc	chang	ers, or	chamb	per of m	ulticham	ber vesse	ls.	
6. S	hell: (a) Nu	mbe	r of cour	se(s)	1			(b) Ove	rall length	۱ 			9' 9	875"				_		
	Со	urse(s				Materia	al	Thic	kness		Lo	ng. Joint (Cat. A	() Circu		um. Joint (Cat. A, E		B, & C) Heat		Treatment	
No.	Diamete	r	Leng				or Type	Nom.	Corr		7.	Full, Spot, None	Eff.	21	, ,	t, None	Eff.	Temp.	Tin	
1	36" ID		9' 9.8	75"	8	A516-	-70	.375	.062	5	1	none	70	1	nor	ne	70	N/A	N/	Α
	1			1				E	Body Flan			5				F	Bolting			
No.	Туре		ID		OD Flang Thk		lin Hub Thk	Mate	erial		How tached	Location	Num & Size		Rolling		Washer (OD, ID thk)		, Washer Material	
N/A	N/A		N/A	N/A	N/A	N/A	A	N/A		N/A		N/A	N/A		N/A		N/A	N	l/A	
7. I	Heads: (a)					N/A						(b)				N/A				
		<u> </u>				de or ty	ype) (H.T 1		' 					•			, , ,	- time and		
	Location (T Bottom, En		Min.	hicknes	Corr.		Radiu Crown	s Knuckle	Elliptica Ratio	I CC	onical Ape Angle	Apex Hemispherica le Radius		cal Flat Diameter		Side to Pressure Convex Concave				Eff.
(a)	N/A	,	N/A		N/A		N/A	N/A	N/A		N/A	N/A		N/A	CONTOX	Concavo	N/A	N		N/A
(b)	N/A		N/A		N/A		N/A	N/A	N/A		N/A	N/A		N/A			N/A	N/		N/A
	•							В	ody Flang	ies o	n Heads	<u>'</u>				'		•		
	1 4:		T	1			Classes This	Min Hub				How Attached Now 9 City Date: Add and William					_ ~	(00		
	Location		Туре	ID	OI		Flange Thk	Thk	Iviate	eriai	П	ow Attached	Nu	m & Size	Bol	ting Mate		er (OD, thk)	asher M	aterial
(a)	N/A	N/A		N/A	N/A	١	N/A	N/A	N/A		N/A				N/A	Ą	N/A	N/	A	
8. Ty	/pe of jacke	t					N/A				Jacke	et closure				N/	Ά			
											_			(D	escribe		& weld, b	, ,		
lf	bar, give di	mens	sions _							N/A							If bol	ted, descri	oe or sk	etch.
9. M	AWP	50 p			15 psi (Externa	1)	at max. tem). <u>20</u>	0 °F		200 (Extern	<u>) </u>	ı. des	ign met	al tem _l	p	-20 °F	at	50 ps	si
10. Ir	npact test				(Extorna	No,	exempt pe	r UHA-51(d), UCS-		;), and l	JG-20(f)				at	test tem	perature o	of <u>N</u>	/A
11. H	ydro., pneu.,	or cor	nb. test p	ressure	Hy		: 65 psi	Proof te	•	(0)	paot to			N	/A					
It	ems 12 and	1 13 t	to be cor	nplete	d for tub	e sect	tions.													
12. T	ubesheet_		[Statio		40-316/L naterial sp	00 00	\1		3.5" x 5" (subject to	nroc	ee \1	1.25 (Nominal thickr	10cc/		Orr all	OW)	Attack	weld		olted)
			[Statio	,		ec. 110.	-Л	[Dialiletel		pres	55.)]	,	1622)	((Corr. all	ow.)	Allacr	`		oiled)
	_		[Float		N/A aterial spe	c. no.))]		N/A Diameter)			N/A (Nominal thickr	ness)		N/A Corr. all	ow.)		N/A (Attachr		
13. T	ubes			•	•	- /.	-	(.75				,	,		,		,		
SA249-316/L (Material spec. no., grade or type)									(O. D.)								straic Type (Strai)]	

Course(s)						Mate	rial	Thicl	Thickness		5' 5" Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C				& C) Heat Treatment		nt
No.	Diameter Length		gth			e or Type	Nom.	Nom. Corr.		Full, Spot,	Full, Spot, None		Туре	Full, Spo	ot, None	Eff.	Temp	. Tin	ne	
1	3" ID		3'	2"		SA240-316/L		.25	0	1	none	Э	70	1	no	ne	70	N/A	N/	Ά
1	3" ID		2'	3"		SA240-	316/L	.25	0	1	none	е	70	1	no	ne	70	N/A	N/	Ά
								В	ody Flang	s on She	lls									
No. Type		ID OD		Flange		T	•		How						Bolting					
No.	o. Type		ID		OD Thk	Min Hub Thk		Material		Attached	Location	Location		n & Size Boltin		aterial	Washer (OD, ID, thk)		Washer Material	
?	RFSO 36.6		36.625"	41.5"	2	2	SA105	w/ SA240-31	6/L Facer	velded	Ends 72 -		.75x6.	5x6.5 SA193-E		3-B7, SA194-2H		313, .177	77 F436 Wrough	
5. H	leads: (a)				5	SA240-	316/L				(b)				S	A240-31	6/L			
	_	(N	/laterial s	pec. nı	ımber,	grade o	type) (H.T	time and tem	p.)			(Ma	aterial s	spec. ni	ımber, (grade or t	ype) (H.T.	- time a	nd temp.)	
	Location (To Bottom, End			Thickne			Radii				Conical Apex Hemisp				Side to Pressure				, , , , , , , , , , , , , , , , , , , 	
		us)	Min.		Corr	·	Crown	Knuckle	Ratio	Angle						Concave	Туре		Spot, None	+-
(a)	TOP		.1875		0		3"	2.16	N/A	N/A		N/A		N/A	X	X	1	-	None	7
(b)	BOTTON	n	.1875)	0		3"	2.16	N/A	N/A		N/A		N/A	Х	X	1		None	7
								В	ody Flange	s on Hea	ds									
	Location		Type		,	OD	Flange Thk	Min Hub	Mater	al	How Attac	hed				В	olting Frial Wash	er (OD		
	Location		i ypc	"	′ l	OD	I lange mik	Thk	IVIALCI	ai	110W Attac	iicu	Nu	m & Siz	e Bo	lting Mate	rial	thk)	Washer M	ater
																	ID,	uik)		
	N/A	N/A		N/A		N/A	N/A	N/A	N/A	 	/A		N/A		N/	A	N/A	,	N/A	
6. N 7. I	1AWP	15 r (Inter	osi mal)	1(E	15 ps	i at	max. temp. lo, exempt icate yes or	200 (Internoted Per UHA-54) no and the	°F nal) 1(d), UCS componel	200 (Exteri	°Fl nal) G-20(f) act tested			metal	N/	at te		_ at _	15 ps	si_/A
6. N 7. I	npact test	15 r (Inter	osi nal) or comb		sterna	i at ll) • Ind sure _	max. temp. lo, exempt icate yes or Hydr	200 (Intern	°F nal) 1(d), UCS componel	200 (Exteri	°Fl nal) G-20(f) act tested			metal	N/	A 2	N/A	_ at _	15 ps	
16. N 17. II 18. I	npact test Hydro., pne	15 r (Inter	osi nal) or comb	(E	press	i at ll) • Ind sure _	max. temp. lo, exempt icate yes or Hydr	200 ° (Internormal	°F nal) 1(d), UCS componel	200 (Exterior 166(c), Unit(s) important	°F nal) G-20(f) act tested]	design		N/	-2 at to N/A	N/A 0 °F est temp	_ at _	15 ps	
16. N 17. II 18. I	npact test Hydro., pne lozzles, ins	15 r (Inter	osi nal) or comb	test safety Diame	press y valv	i at ll) • Ind sure _	max. temp. lo, exempt icate yes or Hydr ngs:	200 ° (Internomental	°F lal) 1(d), UCS componer	200 (Exterior 166(c), Unit(s) important (s)	°F] ess	design	orceme	temp.	at te	N/A 0 °F est temp	at _	15 ps	/A
17. li 18. li 19. li	npact test lydro., pne lozzles, ins ose (Inlet, Oud	15 r (Inter	osi nal) or comb	o. test Signature	press y valveter or	i at lill at l	max. temp. lo, exempt icate yes or Hydr ngs:	200 (Interno per UHA-5) no and the o. at 20 ps	°F nal) 1(d), UCS componer i	200 (Exterior 166(c), Unit(s) imported test	°F nal) G-20(f) act tested	ess rr.	design		temp.	at te	N/A O °F est temp ent Details	at erature	15 ps	/ A o. Op
16. M 17. I 18. I 19. M	npact test Hydro., pne lozzles, ins	15 r (Inter	or combion, and	test safety Diame	press y valveter or ze	i at IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	max. temp. lo, exempt icate yes or Hydrangs: Nozzle 6A240-316/L	200 ° (Internomental	°F nal) 1(d), UCS componer i	200 (Externance), Unit(s) imported Proof test	°F hal) G-20(f) act tested zzle Thicknom. Co	ess rr.	design	orceme	temp.	at te	N/A 0 °F est temp	at erature	15 ps	o. Op
16. M 17. I 18. I 19. M	mpact test Hydro., pne lozzles, ins ose (Inlet, Oudrain, etc.) Steam Inlet	15 r (Inter	or combion, and	o. test safet	press y valveter or ze 6	i at IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	max. temp. lo, exempt icate yes or Hydrangs: Nozzle 6A240-316/L	200 °(Internormal per UHA-52 no and the o. at 20 ps: Material FI SA105 w/SA2 SA105 w/SA2	°F nal) 1(d), UCS componer i	200 (Exterior 10 (°F nal) G-20(f) act tested zzle Thicknom. Com. Com. 25 0	ess rr.	design	orceme	temp.	at te N/A Attachme Nozzle welded	N/A 0 °F est temp ent Details Flang weled	at erature	of N. ation (Insp	o. Op
7. III	mpact test Hydro., pne lozzles, ins ose (Inlet, Ou Drain, etc.) Steam Inlet densate Ou	15 (Inter	or combon, and	o. test safety Diame Si 2	press press press press press 4 y valv celefor or celefor of 6 6 6 2	i at lill at l	max. temp. lo, exempt icate yes or Hydr ngs: Nozzle 6A240-316/L 6A312-316/L	200 °(Internormal per UHA-57 no and the o. at 20 ps: Material FI SA105 w/SA2 SA105 w/SA2	°F 1(d), UCS componer i lange 240-316/L F	200 (Exterior 10 to 10 t	°F nal) G-20(f) act tested zzle Thicknom. Coo 25 0 88 0	ess rr.	design	orceme	temp.	at to N/A Attachme Nozzle welded welded	N/A O °F est temp ent Details Flang weled welde	at _ erature	of Notes that the state of the). O

22. Remarks

<u>Length of tubes: 9' 11.875"</u>
Safety devices designed and installed by others. Not for lethal service. Lugs consist of two trunions and one tail lug.

Form U-5 Attached....

We cer ASME	tify that the statem BOILER AND PRE	nents in this report	CERTIFICATE OF SHOP COMPL are correct and that all details of design, material, CODE, Section VIII, Division 1. U Certificate of A	al, construction, and workmanship of this vessel conform to the	
Date	09/17/2015	Name	Mason Manufacturing, LLC.	Signed 4 1 1	
			(Manufacturer)	(Representative)	
			CERTIFICATE OF SHOP INSPEC	CTION	
	ndersigned, hold	•	ssion issued by the National Board of Boiler ar	and Pressure Vessel Inspectors and employed by	
have in	spected the press	ure vessel describ	ed in this Manufacturer's Data Report on	ptember 17, 2015 , and state that,	
VESSE concern	L CODE, Section ning the pressure	VIII, Division 1. By vessel described in	Manufacturer has constructed this pressure vessers is signing this certificate neither the Inspector nor I	sel in accordance with ASME BOILER AND PRESSURE his/her employer makes any warranty, expressed or implied, neither the Inspector nor his/her employer shall be liable in any	
Dat	te <u>09/17/2018</u>	Signed <u></u>	(Authorized Inspector) Commiss	[National Board (incl. endorsements)]	
			CERTIFICATE OF FIELD ASSEMBLY Coport are correct and that the field assembly const. CODE, Section VIII, Division 1. U Certificate of A	struction of all parts of this vessel conforms with the requirements	
Date		Name		Signed	
_			(Assembler)	(Representative)	
			CERTIFICATE OF FIELD ASSEMBLY IN	NSPECTION	_
I, the un	dersigned, holdir	ng a valid commis		nd Pressure Vessel Inspectors and employed by	
belief, th Section 'the Insper	e Manufacturer ha VIII, Division 1. Th ector nor his/her e	, not inc as constructed and ne described vesse mployer makes an aspector nor his/he	cluded in the certificate of shop inspection, have be assembled this pressure vessel in accordance well was inspected and subjected to a hydrostatic te by warranty, expressed or implied, concerning the	re vessel and state that parts referred to as data items been inspected by me and to the best of my knowledge and with the ASME BOILER AND PRESSURE VESSEL CODE, est of By signing this certificate neither pressure vessel described in this Manufacturer's Data Report. personal injury or property damage or a loss of any kind arising	
Dat	e	Signed	(Authorized Inspector)	ission[National Board (incl. endorsements)]	
			(AdditionZed mapeotor)	[Mational Board (Inol. Chaolochichts)]	

2356274

exe: v6.3.130

U1-14

FORM U-5 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

SHELL-AND-TUBE HEAT EXCHANGERS

								les, Section VIII		
1. Manufactu	ured and certi	fied by Ma	ason Manı	ıfacturing,	LLC., 1645 N	Name and	Avenue, Decat address of Manufactu	ur, Illinois, 625	26, USA	
2. Manufactu	ured for AM	G, 1497 Sh	noup Mill F	Rd, Dayton	, Ohio, 45414	I, USA (Name and addres	ss of Purchaser)			
3. Location o	of Installation				Virdia, 1319	9 Hwy 182, Rac	celand, Louisia	na, 70395, USA	ı	
						(Name	and address)			
4. Type	(F	Vertion Horizontal, vertic	cal			15 (Manufacture	5-6489 er's serial number)		N/A	
	,		,			,	,		•	•
		-6489 rev 1 drawing no.)				2269 (National Board n	number)		201 (Year b	
				FIXE	D TUBESHE	ET HEAT EXC	HANGERS			
	Docio	gn/Operating I	Droccuro Dor		D TOBLOTIL		g Metal Temperatu	ro		
-						Design/Operatin	g Metar Temperatu	T T	Allowable Axial Di Expansion	
Name of	Shell	1		Side	Shell	Channel	Tubes	Tubesheet		<u> </u>
Condition	Min.	Max.	Min.	Max.					Min.	Max.
	units:	units:	units:	units:	units:	units:	units:	units:	units:	units:
Design	-15	50	-15	15	200	200	200	200	0	N/A
Operating	N/A	N/A	N/A	N/A	100	N/A	123	N/A	0	0.031
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	ntial Therma erating mear				ans the unit	Remarks will be experie	ncing tensile			
ate <u>09/17/2</u>		Name		No. <u>2571</u> <u>Mason</u>	3 Manufacturing, (Manufacturer)		pires January	10, 2017 Signed	A (Repues britanis	
oate 09/17/2	. 015 S	Signed	Tema	(Auth rized ins	pector)	See Co	mmissions:	142 National Board Authori	69A, IL2222 zed Inspector Commissi	on number)

15-6489 Job #

FORM R-1 REPORT OF REPAIR

in accordance with the provisions of the National Board Inspection Code

_	in decordance with the provisions of the Mattonat Board Inspection	
1.	Work performed by Mason Manufacturing, LLC.	82
	(name of repair organization) 1645 North Railroad Avenue, Decatur, Illinois, 62526, USA	(Form Registration No.)
	(address)	(Po No.,Job No.,etc.)
2.	Owner AMG, Inc	
	(name)	
	1497 Shoup Mill Rd, Dayton, Ohio, 45414, USA (address)	
3.	Location of installation Virdia	
٥.	(name)	
	1319 Hwy 182, Raceland, Louisiana, 70394, USA (address)	
4.	Item identification Heat Exchanger Name of original manufacturer Mason	Mfa II C
т.	(boiler, pressure vessel or piping)	mig, LLO
5.	Identifying nos.: 15-6489 2269 N/A	N/A 2015
	(mfg. serial no.) (National Board No.) (Jurisdiction No.)	(other) (year built)
6.	NBIC Edition / Addenda: 2013 N/A	
	(edition) (addenda)	UNKNOWN
	Original Code of Construction for Item: ASME Sect. VIII, Div. 1 (name/ section/ division)	(edition/ addenda)
	Construction Code Used for Repair Performed: ASME Sect. VIII, Div. 1	2013/
	(name/ section/ division)	(edition/ addenda)
7.	Repair Type: Welded Graphite Pressure Equipment FRI	P Pressure Equipment
8.	Description of work: Form R4 Supplemental Sheet is attached FFSA Form (NB-4	·03) is attached
	Attach name plate bracket to shell. WPS FC8-1.	
	N/A Pressure Test, if applied psi MAWP	50 psi
0		·
9.	Replacement Parts. Attached are Manufacturer's Partial Data Reports or Form R-3s properly complete	d for the following items of this report:
	N/A (name of part, item number, data report type or Certificate of Compliance, mfg. name, and identifying stamp)	
10.	Remarks: ** REPAIR OF ROUTINE NATUREDOES NOT REQUIRE INSPECTION BY AUTHORIZ Routine Repair, PT Repair. WPS S8-1	ED INSPECTOR **
	Rodanie Repail, 1 1 Repail. W 0 00-1	
	CERTIFICATE OF COMPLIANCE	
	I,, certify that to the best of my know	
	report are correct and that all material, construction, and workmanship on this Repair conforms to National Board "R" Certificate of Authorization No. 2458	•
	National Board "R" Certificate of Authorization No. 2458 e	expires on January 10, 2017
	Date 09/03/2015 , Mason Manufacturing, LLC. Signed	11.14.11
	(name of repair organization)	(authorized representative)
	CERTIFICATE OF INSPECTION	
	I, Timothy McBee , holding a valid Commission issued by The Na	ational Board of Boiler and Pressure
	Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of	IL and
	employed by of	Brecksville, OH have
	inspected the work described in this report on September 3, 2015 and state that to the best	of my knowledge and belief this work
	complies with the applicable requirements of the <i>National Board Inspection Code</i> . By signing this certificate, neither the undersigned nor my employer makes any warranty, express	ed or implied concerning the work
	described in this report. Furthermore, neither the undersigned nor my employer shall be liable in	
	property damage or loss of any kind arising from or connected with this inspection.	J 1 3 - J 7
	Date September 3, 2015 Signed (inspector) Commissions (National Commissions)	14269, IL2222
1	(inspector) (Nation	onal Board and Jurisdiction No.)

2356283 exe: v6.3.130 NB-66 R1-12