FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

HC-5155

Manufactured and control		Mard Ta	nk & Heat	Evchange	r Com	6670 Ea	of Harr	in Dhid Ch	arlatta	NO.	00045				
		CONTO TO	III W I ICUL	Lavilange	COIP	., 00/012	(Nan	ne and addres	s of M	anufact	urer)				
2. Manufactured for	KOSA, 4600) Highwa	y 421 Nort	h, Wilmino	gton, N		ome on	d address of I		1245	5				
3. Location of installat	ion KOSA	4600 Hid	nhway 421	North Wil	lminati			d address of i	Purcha	ser)					
	1100/1	1000 1119	gilliay 421	INOIGH, WVII	minge	011, 140 20		Name and ad	ldress)	i i					
4. Type: Hori		Heat Exchanger HC-5155					C-5155	E				W/3	3066 2003		
(Horiz., ver	(Tank	(Tank, separator, jkt. vessel, heat exh.,			xh., etc.)) (Mfg's serial No.) (CRI			(CRN)				(Nat'l. Bd. No.)		
ASME Code, Section	-	2001, A02 Edition and Addenda (date									-				
Harris C. 44 incl. 4- ba					13.	- 0	1 100 12001			se No.		Spe	cial Service	e per UG-12	(b)09
Items 6 - 11 incl. to be					cketed					hamber	of multi-	chamber vesse	els.		
6. Shell (a) No. of o	- 6	6 (SEE REMARKS)			(b) O	(b) Overall length (ft & in.):				19'-10					
No. Diameter, in. Length (ft & in.)) Spec	Material No.		Thickness om. Corr.		Long, Joint (C		Cat. A) C		Circu	Circum, Joint (Cat. A. B			
2 31" OD			SA-516-70		0.375" 0.06		1 Non				Type Full, Spot, None 1 None		12/03/03/03	70% N/A	
1 31" OD	1'-7.375"			0.3	0.375" (1	None		70%	1	None	70%	N/A	N/A N/A
1 31" OD	1'-3.25"	s	A-516-70	0.3	75"	0.0625"	1	None		70%	1	None	70%	N/A	N/A
7. Heads: (a)								(b)				-			
	(Mat'l Spe	ec. No., G	rade or Typ	e) H.T Tir	me & T	emp		(if	9	(Mat'l S	pec. No.,	Grade or Type	e) H.T Tin	ne & Temp	7
Location (Top, Bottom, Ends)	Thickn Min.	ess Corr.	Crown	ius Knuckle				lemispherical	57,65			Pressure	1000	Category A	
(a) -	-	-	- Clown	KIIUCKIB	Rat			Radius	Diam -		Convex	Concave	Type F	ull, Spot, No	one Eff.
(b) -	•	-	-	-					-		-	-	-		
If removable, bolts used	l (describe otl	ner fasten	ing)												
								(Mat'l Sp	ec. No.	, Grade	e, size, N	0.)			
Type of jacket								Jacket clos	ure _				-		
											(D	escribe as oge	e & weld, ba	ar, etc.)	
If bar, give dimension	is <u>-</u>												If boli	ted, describ	e or sketch
9. MAWP / 175	1711/7 TO 1811		psi at max. t	emp.	375	K.									
(interna		ernal)					-	-	Min. d	lesign n	netal tem	p20	°Fa	t17	5 psi
10. Impact test No pe		,,,,,,			(intern		- external)	-	Min. d	lesign n	netal tem	p. <u>-20</u>	*Fa	t17	5 psi
	er UG-20f		(Indicate		(intern	al) (e	external)		Min. d	esign n	netal tem	201 11			5 psi
44 15.4		100		yes or no a	(intern	al) (e	external)		Min. d	esign n	netal tem	201 11			
11. Hydro., #####, ####	test pres	ss	228	yes or no a	(intern	al) (e	external)					201 11			
Items 12 and 13 to be co	場構動, test presompleted for t	ss	228	yes or no a	(intern and the	al) (e	external)	act tested)				at test			
Items 12 and 13 to be of 12. Tubesheet:	buth, test presonable for to SA-240 S3	ssube section	228 ons.	yes or no a	(intern and the Pr	componen	external)	act tested)			0.00	at test	temperatur	e of	°F
Items 12 and 13 to be of 12. Tubesheet:	場構動, test presompleted for t	ssube section	228 ons.	yes or no a	(intern and the Pr	componen	external)	act tested)			0.00	at test	temperatur	e of	°F
Items 12 and 13 to be of 12. Tubesheet:	ompleted for t SA-240 S3 tionary (Mat'l	ssube section	228 ons.	yes or no a 3 31 a., in. (subje	(intern and the Pr	component coof test	external)	act tested) 1" Nom. thk., in.		-	0.00 Corr. A	at test	Attachm	Welded	- °F
Items 12 and 13 to be constant and 13 to be constant and 13 to be constant and 12. Tubesheet: Stantant Stantan	SA-240 S3 tionary (Mat'l	ube sections 1803 Spec. No.	228 ons.	yes or no a 3 31 a., in. (subje	(internant the Pr	component coof test	external)	1" Nom. thk., in.		-	0.00	at test	Attachm	Welded ent (welded	- °F
Items 12 and 13 to be of 12. Tubesheet: Sla Floating (Mat'l Sp 13. Tubes:	ompleted for t SA-240 S3 tionary (Mat'l	ube sections 1803 Spec. No.	228 ons. Dia., in.	yes or no a 3 31 a., in. (subjection)	(internant the Pr	component coof test	external)	act tested) 1" Nom. thk., in.		Corr.	0.00 Corr. A	at test	Attachm	Welded ent (welded - Attachment Straight	or bolted)
Items 12 and 13 to be or 12. Tubesheet: Sta Floating (Mat'l Sp 13. Tubes: Mat'l Sp	completed for the SA-240 S3 tionary (Mat'l ec. No.) SA-789 S318 tion., Grace No., Grace	ube section 1803 Spec, No.	Dia., in.	yes or no a 3 31 a., in. (subjection)	intern Pr ect to p 50" in.	component coof test ress.)	external)	1" Nom. thk., in. 0.065 Nom. thk., in.		Corr.	0.00 Corr. A	at test	Attachm	Welded ent (welded	or bolted)
Items 12 and 13 to be of 12. Tubesheet: Sla Floating (Mat'l Sp 13. Tubes:	pumb. test presonnel for the SA-240 S3 tionary (Mat'l ec. No.) SA-789 S318 pec. No., Grac completed for the same test and the same test an	ube section 1803 Spec, No.	Dia., in.	yes or no a 3 31 a., in. (subjection)	intern Pr ect to p 50" in.	component coof test	external)	1" Nom. thk., in. 0.065 Nom. thk., in.		Corr.	0.00 Corr. A	at test	Attachm	Welded ent (welded - Attachment Straight	or bolted)
Items 12 and 13 to be or 12. Tubesheet: Sta Floating (Mat'l Sp 13. Tubes: Mat'l Sp Items 14 - 18 incl. to be 14. Shell (a) No. of co	completed for the SA-240 S3 tionary (Mat'll ec. No.) SA-789 S318 tion., Grace completed for the course(s):	ube section 1803 Spec. No.	Dia., in.	yes or no a 31 a., in. (subjection of the content	ect to p 50" in. in. in.	component of test No.	external)	1" Nom. thk., in. 0.065 Nom. thk., in. cchangers.	or gau	Corr.	0.00 Corr. A	at test	Attachm Typ	Welded ent (welded - Attachment Straight pe (Straight	or bolted)
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Items 12 and 13 to be or 12. Tubesheet: Sta Floating (Mat'l Sp 13. Tubes: Mat'l Sp Items 14 - 18 incl. to be 14. Shell (a) No. of co Course(s) No. Diameter, in, Le	completed for the second of th	ss	Dia., in. ambers of ja 2 Material Grade or Ty	yes or no a 3 31 a., in. (subjection of the content of the cont	(international final fin	component of test	m. thk., f heat exerall leng	act tested) 1" Nom. thk., in. 0.065 Nom. thk., in. schangers. gth (ft & in.): Long. Joint (C	or gau	Corr.	O.O.Corr. Allow., ir	at test 625" low., in. 600 Number 2'-2.62 n. Joint (Cat. A. Full, Spot, Non	Attachm Typ 25" B & C) e Eff,	Weldedent (weldedent (weldedent Straight De (Straight Heat Tro	or bolted)
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If removable, bolts used (describe other fastening) (72) Studs, 1.125"-8 X 9.75" SA-193 B7;(144) Nuts, Hex, 1.125"-8 SA-194 2H

(Mat'l Spec. No., Grade, Size, No.)

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