

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

- Manufactured and certified by STEELTEK, INC. 4141 SOUTH JACKSON TULSA OKLAHOMA 74107 USA  
(Name and address of Manufacturer)
- Manufactured for KP ENGINEERING ; 5555 Old Jackson Hwy ; Tyler TX 75703  
(Name and address of Purchaser)
- Location of installation Unknown  
(Name and address)
- Type Horizontal Heat Exchanger 15S-3222  
(Horizontal, vertical, or sphere) (Tank, separator, jkt. vessel, heat exch., etc.) (Manufacturer's serial number)  
NONE 15S-3222-A 2985 2016  
(CRN) (Drawing number) (National Board number) (Year built)
- ASME Code, Section VIII, Div. 1 2013 Edition NONE NONE  
[Edition and Addenda, if applicable (date)] (Code Case number) [Special service per UG-120(d)]

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. Shell: (a) Number of course(s) 3 (b) Overall length 20' - 5-5/8"

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
2	26"ID	8'-0"	SA-516-70		.500"	.125"	1	Spot	.85	1	Spot	.85	NONE	NONE
1	26"ID	4'-5.625"	SA-516-70		.500"	.125"	1	Spot	.85	1	Spot	.85	NONE	NONE
-	-	-	-		-	-	-	-	-	-	-	-	-	-

Body Flanges on Shells													
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
1	RING	26"	27.3"	3.1875"	.500"	SA105N	WELDED	SH.	(24) 1"	SA-193-B7	NONE	NONE	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	

7. Heads: (a) SA-516-70 ; NONE (b) NONE  
(Material spec. number, grade or type)(H.T. - time and temp.) (Material spec. number, grade or type)(H.T. - time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	END	.4375"	.125"	NONE	NONE	2:1	NONE	NONE	NONE	X	X	-	Seamless	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Body Flanges on Heads													
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
(a)	-	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-	-

8. Type of jacket NONE Jacket closure NONE  
(Describe as ogee and weld, bar, etc.)  
If bar, give dimensions NONE If bolted, describe or sketch.

9. MAWP 401 PSI 15 PSI at max. temp. 325 F. 300 F. Min. design metal temp. -20 F. at 401 PSI  
(Internal) (External) (Internal) (External)

10. Impact test NO ; IMPACT EXEMPT PER UG-20(f) AND BOLTING PER UCS-66(e) at test temperature of NONE  
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test pressure 597 PSI Proof test NO

12. Tubesheet SA-516-70N 25.875" 2.750" .250" Bolted  
[Stationary (material spec. no.)] [Diameter (subject to press.)] (Nominal thickness) (Corr. allow.) [Attachment (welded or bolted)]  
NONE  
[Floating (material spec. no.)] (Diameter) (Nominal thickness) (Corr. allow.) (Attachment)

13. Tubes SA-214 1" .109"MW 120 U-TUBE  
(material spec. no., grade or type) (O. D.) (Nominal thickness) (Number) [Type (straight or U)]

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Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s) 1 (b) Overall length 1' - 0-3/4"

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time	
1	26"ID	1'-0.750"	SA-516-70	.500"	.125"	1	Spot	.85	1	Spot	.85	1175F.	1-HR	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Body Flanges on Shells												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
1	RING	26"	27.3"	3.187"	.500"	SA105N	WELDED	CH.	(24) 1"	SA-193-B7	NONE	NONE
1	RING	26"	27.8"	2.937"	.500"	SA105N	WELDED	CH.	(24) 1"	SA-193-B7	NONE	NONE
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

15. Heads: (a) SA-516-70N ; NONE (b) NONE  
(Material spec. number, grade or type)(H.T. - time and temp.) (Material spec. number, grade or type)(H.T. - time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	FRT. CH. CVR.	2.421"	.125"	NONE	NONE	NONE	NONE	NONE	27.1875"	-FLAT-	-FLAT-	-	Seamless	-
(b)		-	-	-	-	-	-	-	-	-	-	-	-	-

Body Flanges on Heads												
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-

16. MAWP 325 PSI 15 PSI at max. temp. 350 F. 300 F. Min. design metal temp. -20 F. at 325 PSI  
(Internal) (External) (Internal) (External)

17. Impact test NO ; IMPACT EX EMPT PER UG-20(f) AND BOLTING PER UCS-66(e) at test temperature of NONE  
[Indicate yes or no and the component(s) impact tested]

18. Hydro., pneu., or comb. test pressure 507 PSI Proof test NO

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
SH. IN / OUT	1/1	6"-300#	FLG	SA106B	SA105	.719"	.125"	NONE	E	1	N/A
CH. IN / OUT	1/1	6"-300#	FLG	SA106B	SA105	.432"	.125"	NONE	E	1	N/A
SH. AUX.	2	1"-300#	FLG	SA106B	SA105	.358"	.125"	NONE	E	1	N/A
CH. AUX.	2	1"- 300#	FLG	SA106B	SA105	.358"	.125"	NONE	E	1	N/A
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

20. Supports: Skirt NO Lugs NONE Legs NONE Others 2) SADDLES Attached SHELL - WELDED  
(Yes or no) (Number) (Number) (Describe) (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, Manufacturer's name, and identifying number):  
NONE

22. Remarks LN. 19 - SAFETY VALVES BY OTHERS.  
TYPE : AEU SIZE : 26-240.  
PO NO. : J1422-B-008 ITEM NO. : 004-E-500.  
SERVICE : UNIFINER STRIPPER BTMS / PENEX FEED PREHEAT.

**FORM U-1 (Cont'd)**

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**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization Number 25,595 Expires 05/16/2018  
 Date 4-21-16 Name STEELTEK, INC. Signed Carmen H. Bennett  
 (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 employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, Connecticut have inspected the pressure vessel described in this Manufacturer's Data Report on 4-21-2016, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 4-21-2016 Signed [Signature] Commissions NB 11448 A, B  
 (Authorized Inspector) [National Board (incl. endorsements)]

**CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE**

We certify that the statements in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number \_\_\_\_\_ Expires \_\_\_\_\_

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 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 the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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) [National Board (incl. endorsements)]