

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

as required by the provisions of the ASME Code rules, Section VIII, Division 1

103354

1. Manufactured and certified by HEAT TRANSFER EQUIPMENT COMPANY 1515 No. 93rd E. Ave Tulsa, OK 74115
(name and address of manufacturer)

2. Manufactured for H.W. KELLOGG P.O. BOX 4557 HOUSTON, TX 77210-4557
(name and address of purchaser)

3. Location of installation TENNECO NGL CORP. LA PORTE, TX
(name and address)

4. Type: HORIZ. BXU 91-2173-C 91-2173-C-1 1357 1991
(horiz or vert tank) (mfr's serial no) (CRN) (drawing no) (Nat'l Bd no) (year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction and workmanship conform to ASME Code, Section VIII, Division 1: 1989
(year)

1989 UG-20(f)
(addenda (Date)) (Code Case no) (special service per UG-120(d))

Items 6-11 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: SA-516-70 5/8" 1/8" 3'-5" 16'-4 7/8"
(mat'l (spec. no., grade)) (nom thickness (in.)) (corr allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

7. Seams: DBL. BUTT SPOT 85 NONE DBL. BUTT SPOT 2
(long (dbl., singl.)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time) (girth (dbl., singl.)) (RT (spot, partial, or full)) (no. of courses)

8. Heads: (a) SA-516-70 (b) _____
(mat'l (spec. no., grade)) (mat'l (spec. no., grade))

	Location (top, bottom, ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	END	7/16"	1/8"			2:1				CONCAVE
(b)										

If removable, bolts used (describe other fastenings): _____

(mat'l, spec. no., gr., size, no)

9. Type of jacket: _____ Proof test: _____

10. Jacket closure: _____ If bar, give dimensions: _____ If bolted, describe or sketch.
(describe as ogee & weld, bar, etc.)

11. MAWP: 163 at max. temp. 500 Min design metal temp. 10 at 163 Hydro. ~~press. or comb.~~ test pressure 309
(psi) (°F) (°F) (psi)

Items 12 and 13 to be completed for tube sections.

12. Tubesheets: SA-516-70 42 3/4" 3 1/8" 5/16" BOLTED
(stationary mat'l (spec. no., gr.)) (dia. (in.) (subject to pressure)) (nom thickness (in.)) (corr. allow. (in.)) (attachment (welded, bolted))

SA-214 1" 12 BWG MIN 310 "U"
(floating mat'l (spec. no., gr.)) (dia. (in.)) (nom. thickness (in.)) (corr. allow. (in.)) (attachment)

13. Tubes: SA-214 1" 12 BWG MIN 310 "U"
(mat'l (spec. no., gr.)) (OD (in.)) (nom thickness (in. or gauge)) (no) (type (straight or U))

Items 14-17 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: SA-516-70 1/2" 1/8" 3'-5" 2'-1 3/16"
(mat'l (spec. no., gr.)) (nom thickness (in.)) (corr allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

15. Seams: DBL. BUTT SPOT 85 NONE DBL. BUTT SPOT 1
(long (dbl., singl.)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time) (girth (dbl., singl.)) (RT (spot, partial, or full)) (no. of courses)

16. Heads: (a) SA-516-70 (b) _____
(mat'l (spec. no., grade)) (mat'l (spec. no., grade))

	Location (top, bottom, ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	END	7/16"	1/8"			2:1				CONCAVE
(b)										

If removable, bolts used (describe other fastenings): a) SA-193-B7 3/4" - 48

(mat'l, spec. no., gr., size, no)

17. MAWP: 125* at max. temp. 650 Min design metal temp. 10 at 125 Hydro. ~~press. or comb.~~ test pressure 287
(psi) (°F) (°F) (psi)

FORM U-1 (back)

18 Nozzles, inspection and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	Number	Dia. or Size	Type	Mat'l	Nom. Thickness	Reinforcement Material	How Attached	Location
INLET	1	14"-150#	RFWN	SA-106-B	.500"	WELD	WELDED	CHAN
OUTLET	1	6"-150#	RFWN	SA-106-B	.432"	WELD	WELDED	CHAN
INLET	2	18"-150#	RFWN	SA-106-B	.500"	WELD	WELDED	SHELL
OUTLET	2	24"-150#	RFWN	SA-106-B	.500"	WELD	WELDED	SHELL
VENT	1	3/4"	CPLG	SA-105	6000#	WELD	WELDED	CHAN

19 Supports Skirt **NO** Lugs Legs Other **2-SADDLES** Attached **WELDED TO SHELL**
(type or describe) (where and how)

20 Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report

P.O. NO.: 6636-02D1-C210-01
 ITEM NO.: 08E-105

* ALSO DESIGNED FOR 15 PSI EXT. PRESSURE

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. 12,197 expires JULY 15, 1992

Date 9-26-91 Name **HEAT TRANSFER EQUIPMENT COMPANY**
(Manufacturer)

Signed Billy A. Walker
(Representative)

CERTIFICATE OF SHOP INSPECTION

1515 N. 93 E. AVE.

Vessel constructed by **HEAT TRANSFER EQUIPMENT COMPANY**

at **TULSA, OK 74115**

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of **OKLAHOMA** and employed by **COMMERCIAL UNION INSURANCE COMPANY**

of **BOSTON, MA**

have inspected the pressure vessel described in this Manufacturers' Data Report on 9-27 19 91 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, either the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in the Manufacturers' 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 9-27-91 Signed [Signature]
(Authorized Inspector)

Commissions 0823 0264
(Natl. Bd. cert. endorsements: state, prov. and no.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME BOILER AND PRESSURE VESSEL CODE

"U" Certificate of Authorization no. expires 19

Date Name

(Inspector that certified and constructed field assembly)

Signed

(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 the state or province of and employed by

of

have compared the statements in this Manufacturers' 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 that 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 the Manufacturers' 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
(Authorized Inspector)

Commissions

(Natl. Bd. cert. endorsements: state, prov. and no.)