

#101871

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

1. Manufactured and certified by FABSCO, INC., 200 NORTH MAIN, SAPULPA, OKLAHOMA
(Name and address of manufacturer)
2. Manufactured for Phillips Petroleum Company, Bartlesville, Oklahoma
(Name and address of purchaser)
3. Location of installation Phillips Petroleum Company, Pasadena, Texas
(Name and address)
4. Type Horizontal 86-3573-1 86-3573-1-1 1037 1987
(Type or form, tank) (Mfg's serial No.) (CRN) (Drawing) (Dist. Bd. No.) (Heat No.)
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 Rules, Section VIII, Division 1 1986
Year

- Shell includes (1) 25" I.D. x 3/8" thk. x 7-3/16" Lg. SA 240-304 Shell Cover
Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, or sheets of heat exchangers
6. Shell: SA 240-304 .375 .0625 2'-1" 19'-0-1/16"
Mat'l Spec No. Grade Nom. Thk. (in.) Cor. Allow. (in.) Diam. I.D. (in.) Length (Overall) (in.)
7. Seams: Dbt. Butt Spot 85 2
Long. (Dbt. Sngl.) R.T. (Spot or Full) Eff. (%) No. of Courses
- Dbt. Butt Spot
Trans. Girth (Dbt. Sngl.) R.T. (Spot, Pattern or Full)

8. Heads: (a) Mat'l. SA 240-304 (b) Mat'l. SA 240-304
(Spec No. Grade) (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 | .3125" | .0625" | | | 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 open & weld bar, etc.)
11. MAWP 169 psi at max. temp. 200 °F. Min. temp. (when less than -20° F.) --- °F.
 Hydro. ~~XXXXXX~~ test press. 270 psi

Items 12 and 13 to be completed for tube sections

12. Tubesheets: SA 240-304 26-15/16 1-5/8 .0625 Bolted
Stationary Mat'l (Spec No. Gr.) Diam. (in.) Subject to Pressure (in.) Cor. Allow. (in.) Attach. (Welded Bolted)
- SA 240-304 24-5/8 1-5/8 .0625 Bolted
Floating Mat'l (Spec No. Gr.) Diam. (in.) Nom. Thk. (in.) Cor. Allow. (in.) Attach.
13. Tubes: SA 249-TP304 .750 .065 402 Straight
Mat'l (Spec No. Gr.) O.D. (in.) Nom. Thk. (in. or Gauge) Number Type (Straight or U)

Channel includes (2) SA 182-F304 Girth Flanges

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

14. Shell: SA 240-304 .375 0 2'-1" 1'-3-15/16"
Mat'l Spec No. Grade Nom. Thk. (in.) Cor. Allow. (in.) Diam. I.D. (in.) Length (Overall) (in.)
15. Seams: Dbt. Butt Spot 85 1
Long. (Dbt. Sngl.) R.T. (Spot or Full) Eff. (%) No. of Courses
- Dbt. Butt Spot
Trans. Girth (Dbt. Sngl.) R.T. (Spot, Pattern or Full)
16. Heads: (a) Mat'l. SA 240-304 (b) Mat'l. SA 240-304
(Spec No. Grade) (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	2-1/4"	0"						130"	Flat
(b)	Fltg. Hd.	1/2"	.0625"					21-1/8"		Concave & Convex

If removable, bolts used (describe other fastenings)

(Mat'l Spec No. Gr. Size No.)

- SA 193-B8CL1 Studs with SA 194-8 Nuts (80) 3/4" SA 193-B7 Studs with SA 194-2H Nuts (16) 3/4"
17. MAWP 153 psi at max. temp. 200 °F. Min. temp. (when less than -20° F.) --- °F.
 Hydro. ~~XXXXXX~~ test press. 245 psi

Form U-1 (Back)

18 Nozzles, Inspection and Safety Valve Openings

Person (Print Name)	No.	Dim. or Size	Type	Mat.	Ham. Thk.	Reinforcement Mat.	How Attached	Location
In & Out	1 Ea.	8" 150#	RFWN	SA 312-TP304	.500		Welded	
In & Out	1 Ea.	6" 150#	RFWN	SA 312-TP304	.432		Welded	
V & D	1 Ea.	3/4" 6000#	CPLG.				Welded	
Aux.	6	3/4" 6000#	CPLG.				Welded	
Aux.	4	1" 6000#	CPLG.				Welded	
Flanges and Couplings are SA 182-F304								

19 Supports Skirt No. Lugs No. Legs No. Other Saddles Attached Shell-Welded
(Yes or no) (Yes or no) (Yes or no) (Describe) (Where and how)

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

P.O. No. 6-866462-BF Item No. 141-41-0001 Service: Pellet Water Cooler
Shell includes (3) Girth Flanges - SA 182-F304

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. 10,628 expires APRIL 14, 1989
Date 3-19-87 Co. name FABSCO, INC. Signed *Don Wilson*
(Manufacturer) (Inspector)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by FABSCO, INC. at SAPULPA, OKLAHOMA

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 OKLAHOMA and employed by COMMERCIAL UNION INSURANCE COMPANY of BOSTON, MA.

have inspected the pressure vessel described in this Manufacturer's Data Report on 3-19-87 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 the 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 4-15-87 Signed *W. J. Adcock* Commissions OKLAHOMA 258 NB NO. 5298
(Authorized Inspector) (National Board State Provinces 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. 10,628 expires APRIL 14, 1989
Date 3-19-87 Co. name FABSCO, INC. Signed *W. J. Adcock*
(Inspector) (Manufacturer) (Authorized Inspector)

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 OKLAHOMA and employed by COMMERCIAL UNION INSURANCE COMPANY of BOSTON, MA.

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 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 100 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 4-15-87 Signed *W. J. Adcock* Commissions OKLAHOMA 258 NB NO. 5298
(Inspector) (Manufacturer) (Authorized Inspector)