FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

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

| | | | | | | | finance or | id addiess of mar | | | | 7571 | |
|--|--|--------------------------|----------------------|-------------------------------|---------------------------------------|---|---------------------|-----------------------|---|------------------|---|----------|--|
| 2. | Manufactured for M.W.KELLOGG / TENNECO OIL CO. P.O. BOX 1307 LAPORTE, TX 77572-1307 | | | | | | | | | | | | |
| 3. | Location | of installa | ition | TENNECO | OIL CO | . 1200 | | ADWAY LA | PORTE, TX | 77571 | | • | |
| 4. | Туре: НО | RIZ. HT | EXCH. | 28394 (mlr's, serial no |) | N/A 28394 (CRN) (drawing no.) | | | 162 1991 (Nat'l. 8d. no.) (year built) | | | - | |
| 5. | The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESS VESSEL CODE. The design, construction and workmanship conform to ASME Code, Section VIII, Division 1: 1989 | | | | | | | | | | | : | |
| | (year) | | | | | | | | | | (year) | Ē | |
| | | 1989A (addenda (Dat | e)) - | N/A | Case no.) | N/A (special service per UG-120(d)) | | | | | | | |
| Iter | Items 6-11 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers. | | | | | | | | | | | | |
| 6. | Shell: SA106B | | | .500 |)" | | .125" | | 1 - 7 11 (dia. 10 (ft. & in.)) | | 2' - 7 7/16" | | |
| | | | | | | (corr. allow. (in.)) N/A * N/A DBL-B (HT temp. (*F)) (time) (girth (db) | | | | | | | |
| 7. | Seams:_ | N/A (S | sngl.)) | N/A (AT (spot or full)) | (eff. (%) | (HT temp. | (*F)) (time) | (girth (dbl. | sngl.)) (RT(spot. partial, or full)) (no. of courses) | | | = | |
| 8. | Heads: | (a) SHE | LL COVE | R CYL: SA (mat'l. (spec. n | A106B o., grade)) | (b) SHELL | | | COVER HD.: SA516-70 (mat'l. (spec. no., grade)) | | | | |
| | | tion (top. om. 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 | 1/2" | 1/8" | | | 2:1 | | | | CONCAVE | | |
| | (b) | N/A | | | ļ | 2272741 | CA102 | ס מיווחכ | נודשט (2) כ | Λ104-2H | MIITS FACH | ļ | |
| 9 | If removable, bolts used (describe other fastenings): (32)3/4" SA193-B7 STUDS WITH (2) SA194-2H NUTS EACH. (mat1. spec. no. gr. size. no.) | | | | | | | | | | | | |
| 9. | 9. Type of jacket: N/A Proof test: | | | | | | | | | | | | |
| 9. Type of jacket: N/A Proof test: | | | | | | | | | | | | | |
| 11. MAWP: 395 at max. temp. 650° Min design metal temp.: 10° at 395 Hydro., pneut or comb. test pressure 593 (PSI) (PSI) | | | | | | | | | | | | | |
| Itei | Items 12 and 13 to be completed for tube sections. | | | | | | | | | | | | |
| 40 | T. L L. | 54 | 1350-1 F2 | i, | 18 7/8 | 11 | 1 7/ | 8" | 1/8" | | BOLTED | | |
| 12. | Tubesh | | | | | p pressure) 1 7/8 ^{f1} (nom. thickness (in.)) | | | | | chment (welded, boiled | | |
| | | SA | A350-LF2 | 70 O(1) | 18 3/4 | 11 | 1- 7/ | kness (in.l) | 1/8" ROL | | LED TO TUBE: | <u>S</u> | |
| 12 | Tubos | SA214 | ing mat i tapec | 100 | · · · · · · · · · · · · · · · · · · · | | | W) | | | RAIGHT | _ | |
| 13. | Tubes. | (mat'l. (s | pec. no., gr.)) | | OD (in.)) | | . thickness (in | | (no.) | (| lype (straight or U)) | | |
| Items 14-17 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers. | | | | | | | | | | | | | |
| 14. | Shell: _ | SA106 | 6B ec no.gr11 | .500 | nickness (in)) | | 1/8" | in.)) | 1' - 7" (dia. ID (ft. & in.)) | | - 7 15/16" gth (overall) (ft. & in.) | | |
| 15. Seams: N/A N/A N/A N/A DBL-BUTT SPOT 1 (long (ldb1, sngl)) (RT (spot or full)) (eff (%)) (HT temp (*F)) (time) (girth (dbl., sngl)) (RT (spot, partial, or full)) (no of courses) | | | | | | | | | | | | | |
| 16. Heads: (a) CHANNEL COVER: SA350-LF2 (b) N/A (mat1 (spec. no. grade)) (mat1 (spec. no. grade)) | | | | | | | | | | | | | |
| | | ation (top. om, ends) | Minimum Thickness | Corrosion Allowance | Crown Radius | Knuckle Radius | Elliotical Ratio | Conical Apex Angle | Hemispherical Radius | Flat Diameter | Side to Pressure (convex or concave) | | |
| | (a) | END | 1 7/8" | 1/8" | | | | | | 24 1/4' | FLAT | | |
| | (b) | N/A | | | | (2/.) 2// | 1 04102 | B7 CTIME | UITH (2) G | SA 19/-24 | NUTS FACH | J | |
| | If removable, bolts used (describe other fastenings): (24) 3/4" SA193-B7 STUDS WITH (2) SA194-2H NUTS EACH. | | | | | | | | | | | | |
| 17. MAWP: 260 at max. temp. 200° Min design metal temp.: 10° at 260 . Hydro., prieux or comb. test pressure 390 (psi) | | | | | | | | | | | | | |

FORM U-1 (back) NOTE 39 PER UG 125 How Reinforcement 18. Nozzles, inspection and safety valve openings: Location Nom. Material Thickness Mat'l. SHELL WELDED Type INTEGRAL Purpose (inlet, outlet, drain, etc.) Dia. or Size 1.0625" Number RFLWN SA350-LF2 SHELL WELDED INTEGRAL 6" 300LB 1.0625" CHANNEL RFLWN SA350-LF2 WELDED INTEGRAL 6" 300LB .432" INLET CHANNEL SA106B WELDED RFLWN INTEGRAL OUTLET 6" 150LB .432" SHELL SA106B WELDED INTEGRAL RFLWN 6" 150LB TNLET SA105 CPLG 1"6000LB OUTLET EA. VENT. DRAIN __Other(2)HORIZ.SUPPORTSAttached_WELDED TO SHELL 6 Legs NO (no.) 20. Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

* PWHT OF FLOATING HEAD COVER ONLY PER UCS-56. 19. Supports: Skirt NO MINIMUM DESIGN METAL TEMPERATURE PER UG20. CUSTOMER ITEM # 06E-116. 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. OHMSTEDE, INC. - LAPORTE PLANT

Date 9-30-91 Name _at__LAPORTE, TX CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or prov-TEXAS __and employed by HARTFORD, CT have inspected the pressure vessel described in this Manufacturers' Data ___of HARTFORD, CT have inspected the pressure vessel described in this Manufacturer has constructed this $\frac{1991}{1}$, and state that, to the best of my knowledge and belief, the manufacturer has constructed this 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 9-30-91 Signed (Authorized Inspector)

Commissions N/3 (Nat'l. 8d. Commissions NB 9743 (Nat'l. 8d. (incl. endorsements) state, prov. and no.) 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. expires. "U" Certificate of Authorization no.____ (assembler that certified and constructed field assembly) I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or prov _have compared the statements in this Manufacturers' Dat _and employed by__ certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief, the manufacturer has co

structed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspecti

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vess

described in the Manufacturers' Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any p

(Nat'l. Bd. (incl. endorsements) state, prov. and no.)

sonal injury or property damage or a loss of any kind arising from or connected with this inspection.

(Authorized Inspector)

and subjected to a hydrostatic test of _____psi.

_____Signed____