

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS
As required by the Provisions of the ASME Code Rules, Section VIII, Division I

106770

1. Manufactured by Slagle Mfg. Corporation 909 N. Wheeling Tulsa, Oklahoma 74110
(Name and address of Manufacturer)
2. Manufactured for Clark Oil & Refining Co. Blue Island, Illinois
(Name and address of Purchaser)
3. Type Heat Kind Exchanger Vessel No. 21070-2 (Illinois) Natl. Bd. No. _____ Yr. Built 1970
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfrs. Serial) (State & State No.)

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. SHELL: Material SA-240-304 T.S. 75,000 Nominal Thickness 1/4 Corrosion Allowance 0 In. Diam. 2 Ft. 4 In. Length 11 Ft. 9 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)
5. SEAMS: Long Double Butt H.T. No R.T. Spot Sectioned No Efficiency 85 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
Girth Double Butt H.T. No R.T. Spot Sectioned No No. of Courses 2
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
6. HEADS (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
(Top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

If riveted describe seams fully on reverse side of form.

7. STAYBOLTS: _____ If hollow _____ Attachment _____ Pitch _____ X _____ Diam. _____
(Material) (Size of Hole) (Threaded, Welded) (Horiz.) (Vert.) (Nominal)
8. JACKET CLOSURE: _____
(Describe as ogee & weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)
9. Constructed for max. allowable working press. ¹ 50 psi at max. temp. 300 °F. Min. temp. (when less than -20°) _____ °F. ² _____ Test 85 psi.
(Hydrostatic or Pneumatic)

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material SA-240-304 Diam. 28 3/8 In. Thickness 1 1/2 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)
Floating. Material _____ Diam. _____ In. Thickness _____ In. Attachment _____
(Kind & Spec. No.)
11. TUBES: Material SA-240-304 D.D. 3/4 In. Thickness 16 3/8 In. Gauge Number 582 Type Straight
(Kind & Spec. No.) (Straight or U)

Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

12. SHELL Material SA-515-70 T.S. 70,000 Nominal Thickness 3/8 In. Allowance 1/16 In. Diam. 2 Ft. 4 In. Length 1 Ft. 0 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)
13. SEAMS: Long Double Butt H.T. No R.T. Spot Sectioned No Efficiency 85 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
Girth Double Butt H.T. No R.T. Spot Sectioned No No. of courses 1
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
14. HEADS (a) Material SA-515-70 T.S. 70,000 (b) Material SA-515-70 T.S. 70,000 (c) Material _____ T.S. _____
(a) Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)
(Top, bottom, ends) 3/8 2:1 Concave
(b) Channel 3/8 2:1 Concave
(c) Floating _____
If removable, bolts used (a) SA-193-B7 125,000 3/4 28 (b) SA-193-B7 125,000 3/4 20
(Material, Spec. No., T.S., Size, Number)
(c) _____ Other fastening _____
(Describe or Attach Sketch)

If riveted describe seams fully on reverse side of form.

15. Constructed for max. allowable working press. ¹ 75 psi at max. temp. 150 °F. Min. temp. (when less than -20°) _____ °F. ² _____ Test 115 psi.
(Hydrostatic or Pneumatic)

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number _____ Size _____ Location _____

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Chan. In & Out	2	6"	Pipe	SA-53-B	Sch. 80	None	Welded
Shell In	1	12"	SAW Cyl.	SA-240-304	1/4"	None	Welded
Shell Out	1	8"	Pipe	SA-312-304	Sch. 10S	None	Welded
Shell-Out	1	2"	Pipe	SA-312-304	Sch. 80S	None	Welded

19-E-44R

¹ If postweld heat-treated.

² List under remarks other internal or external pressures with coincident temperature when applicable.

FORM U-1 (back)

18. INSPECTION Manholes, No. _____ Size _____ Location _____
OPENINGS: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____
19. SUPPORTS: Skirt no Lugs 0 Legs 0 Other 2 Saddles Attached Welded to
(Yes or No) (Number) (Number) (Describe) (Where & How)
Shell

20. REMARKS: _____

SS SERVICE: V-22 OXIDIZER CONDENSER
P.O.: 22875
ITEM: E-43
SIZE: 27-144
TYPE: BEM

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

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 I.

Date 11-20 19 70 Signed Slagle Mfg. Corporation By Ronald A. Heck
(Manufacturer)

Certificate of Authorization Expires December, 1972

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Slagle Mfg. Corporation at Tulsa, 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 NB and employed by Employers commercial Union Insurance co. of America

have inspected the pressure vessel described in this manufacturer's data report on 8-25 19 70, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

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 11-24 19 70

C.L. Coatsney
Inspector's Signature
D. C.L. Coatsney

Commissions N.B. # 605
Nat'l Board, State, or Province and No.

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 _____ 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 that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME

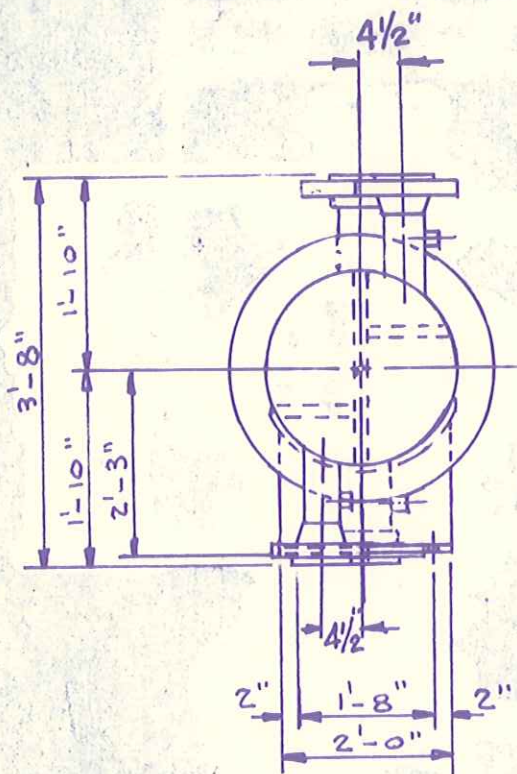
Boiler and Pressure Vessel Code. The described vessel was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in 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.

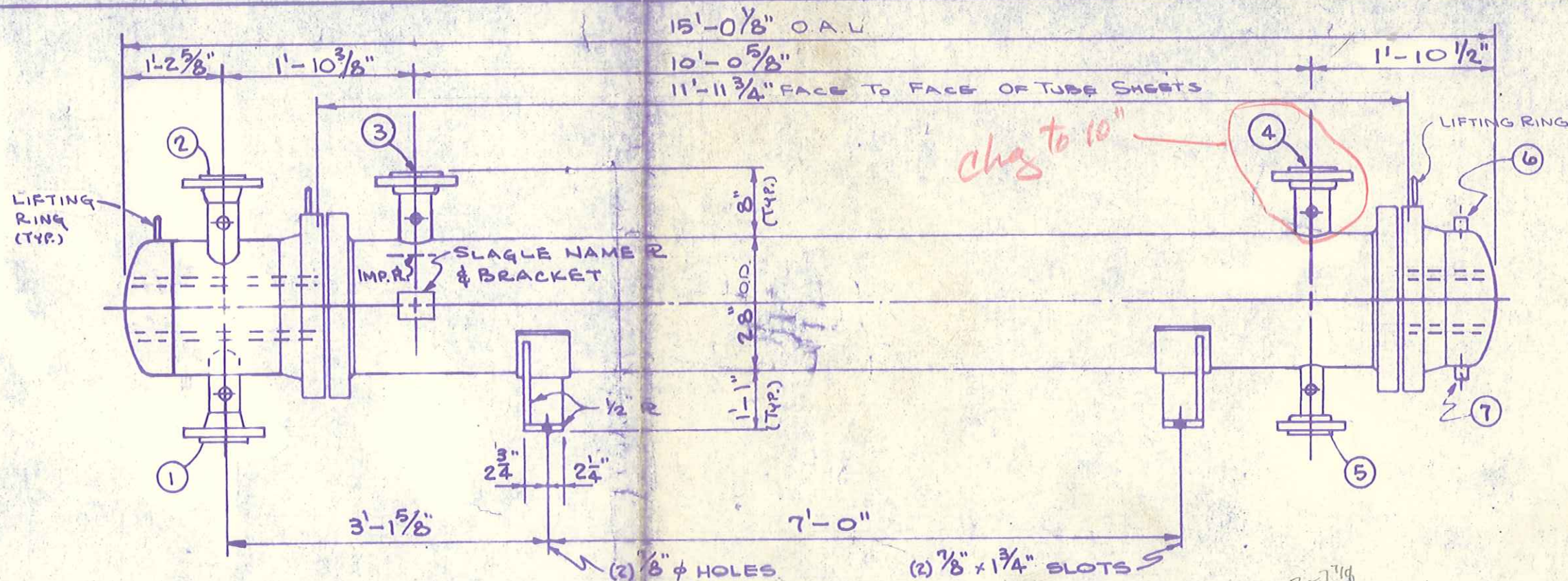
Date _____ 19 _____

[Signature]
Inspector's Signature

Commissions _____
Nat'l Board, State, or Province and No.



END VIEW

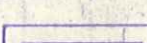


ELEVATION VIEW

SPECIFICATIONS		NOZZLE DATA		GENERAL NOTES
ITEM <u>E-44</u>	Nº REQ'D: <u>ONE</u>	Nº	SIZE & RATING	1. DESIGNED & CONSTRUCTED IN ACCORDANCE w/ TEMA "C" & ASME CODE & SO STAMPED. 2. ALL BOLT HOLES TO STRADDLE C's 3. EACH NOZZLE TO HAVE <u>1-3/4"-3000# CPLG. (N.S.)</u> 4. ALL CPLGS. PLUGGED 5. RADIOGRAPH TECHNIQUE <u>SPOT</u> 6. HEAT TREATMENT <u>NONE</u> 7. PAINT ONE COAT PRIMER <u>ON CARBON STL.</u>
SIZE <u>27-144</u>	TYPE: <u>BEM</u>	(1)	6"-150# RF	
DESIGN PRESS: SHELL <u>50</u> PSI TUBES <u>75</u> PSI		(2)	6"-150# RF	
TEST PRESS: SHELL <u>85</u> PSI TUBES <u>115</u> PSI		(3)	12"-150# LAP JOINT	
DESIGN TEMP: SHELL <u>300</u> °F TUBES <u>150</u> °F		(4)	8"-150# LAP JOINT	
CORR ALLOW: SHELL <u>0"</u> TUBES <u>1/16"</u>		(5)	2"-150# LAP JOINT	
Nº PASSES: SHELL <u>ONE</u> TUBES <u>6</u>		(6)	3/4"-3000# CPLG. VENT	
TUBES <u>582</u> - 3/4" OD x 16 BWG. (AVE) x 12'-0" LG.		(7)	3/4"-3000# CPLG. DRAIN	
TUBE SURFACE <u>1,370</u> SQ. FT. TUBE PITCH <u>15"</u> TRI RLT				
MAT'L TUBES <u>SA-249-Tp304</u> CHAN <u>SA-515-70</u>				
SHELL <u>SA-240-304</u> GASKETS <u>A.I. J. A. F.</u>				
EST. WT. DRY <u>6,800#</u> WET <u>9,800#</u>				

CUSTOMER: CLARK OIL & REFINING CORP.
 CUSTOMER PO: 22875 DEST: BLUE ISLAND, ILLINOIS
 SERVICE: V-29 OXIDIZER CONDENSER

Nº	REVISION	DATE
(1)	GEN. REV. / CUST.	7-23-70

	SLAGLE MFG. CORP.	
	DIMENSIONAL OUTLINE	
	DRAWN BY JERRY	21070-2-A
	CHECKED BY MK	

106770
 EXIST'G 19-E-43 TO BECOME 19-E-44/2