

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

1. Manufactured by Expert Industries, Inc., 80-19th St, Brooklyn, New York 11232
(Name and address of manufacturer)
2. Manufactured for General Machine Co., 55 Evergreen Avenue, Newark, New Jersey 07114
(Name and address of purchaser)
3. Location of installation Lafayette Hill, Pa.
(Name and address)
4. Type Vertical Vessel No. 4844 NA 82366-0100D 395 Year Built 1982
(Horiz. or vert. tank) (Mfr's Serial No.) (CRN) (Drawing) (Nat'l Bd 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 1980 (Year) and Addenda to S-82 (Date) and Code Case No. NA Special service per UG-120(d) NA
- Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
NA

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, or sheets of heat exchangers (Name of part, item number, mfr's name and identifying stamp)

6. Shell: A-36 .1875 NA 2' 8" 4' 0"
Matl. (Spec. No., Grade) Nom. Thk (in) Corr Allow (in) Diam (ft & in) Length (overall) (ft & in)
7. Seams: Double Bevel Butt Weld NA 70 NA
Long (Wid. Dbl. Sngl. Lap. Butt) RT (Spot or Full) Eff (%) H T Temp (°F)
- NA Double Bevel Butt Weld NA 1
Time (hr) Girth (Wid. Dbl. Sngl. Lap. Butt) RT (Spot, Partial, or Full) No of Courses
8. Heads: (a) Matl. SA 414 GR C (b) Matl. SA 414 GR C
(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)	Top	.1875	NA	32"	.192"	-	-	-	-	Concave
(b)	Bottom	.1875	NA	32"	.192"	-	-	-	-	Concave

If removable, bolts used (describe other fastenings) NA (Matl. Spec No. Gr. Size No.)

9. Type of Jacket Conventional Type "2" Proof Test NA
10. Jacket Closure Head weld to jacket shell If bar, give dimensions _____ If bolted, describe or sketch. (Describe as ogee & weld, bar, etc.)
11. Constr. for max. allow. working press. 15 psi at max. temp 250 °F. Min. temp. (when less than -20° F) NA °F. Hydro., pneu., or comb. test press. 50 psi.

- Items 12 and 13 to be completed for tube sections
12. Tubesheets: NA NA NA NA
Stationary Matl. (Spec No., Gr) Diam (in) (Subject to pressure) Nom. Thk (in) Corr Allow (in) Attach (Welded, Bolted)
- NA NA NA NA
Floating Matl. (Spec No., Gr) Diam (in) Nom. Thk (in) Corr Allow (in) Attach
13. Tubes: NA NA NA NA
Matl. (Spec No., Gr) O.D. (in) Nom. Thk (in or Gauge) Number Type (Straight or U)

- Items 14-17 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers
14. Shell: SA240T304 .1875 NA 2' 6" 3' 10 1/2"
Matl. (Spec No., Grade) Nom. Thk (in) Corr Allow (in) Diam (ft & in) Length (ft & in)
15. Seams: Double Bevel Butt Weld NA 70 NA
Long (Wid. Dbl. Sngl. Lap. Butt) RT (Spot or Full) Eff (%) H T Temp (°F)
- NA Double Bevel Butt Weld NA 1
Time (hr) Girth (Wid. Dbl. Sngl. Lap. Butt) RT (Spot, Partial, or Full) No of Courses
16. Heads: (a) Matl. SA240T304 (b) Matl. SA240T304
(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)	Top	.1875	-	30"	1.8	-	-	-	-	Concave
(b)	Bottom	.1875	-	30"	1.8	-	-	-	-	Concave

If removable, bolts used (describe other fastenings) NA (Matl. Spec No. Gr. Size No.)

17. Max. allow. working press. FV/15 psi at max. temp 250 °F. Min. temp. (when less than -20° F) NA °F. Hydro., pneu., or comb. test press. See Note #2 psi.

Form U-1 (Back)

Items below to be completed for all vessels where applicable

18. Safety Valve Outlets: Number NA Size NA Location NA

19. Nozzles:

Purpose (Inlet, Outlet, Drain)	No.	Diam or Size	Type	Matl	Nom Thk	Reinforcement Matl	How Attached
Misc.	6	3/4"	NIPPLE	SA312T304	Sch 40	-	Welded
	1	6	Flange	SA240T304	.625	-	"

20. Inspection Openings
 Manholes No. 2 (A1 & A2) Size 18" Location Top Heads
 Handholes No. - Size - Location -
 Threaded No. - Size - Location -

21. Supports: Skirt NO Lugs NO Legs NO Other - Attached -
(Yes or no) (No) (No) (Describe) (Where and how)

22. Remarks: 1) Vessel tested in vertical position
2) Jacket code stamped and parts of vessel enclosed by jacket area only.

CERTIFICATE OF 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 Code for Pressure Vessels, Section VIII, Division 1.

Date 12/28/82 Signed Expert Industries, Inc. (Manufacturer) by E. Sauter 1/P (Representative)

"U" Certificate of Authorization No. 11153 expires May 26, 1983

CERTIFICATE OF SHOP INSPECTION

Vessel made by Expert Industries, Inc. at Brooklyn, New York 11232

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 New York and employed by Commercial Union Insurance Co.

of Commercial Union Insurance Co. have inspected the pressure vessel described in this Manufacturers' Data Report on 12-28-82, 1982 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 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 12-28-82 Signed Donald Stoye (Authorized Inspector) Commissions NB 605P (Nat'l Board, State, Province and No.)

CERTIFICATE OF COMPLIANCE FOR FIELD WORK

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.

Date 12/28/82 Signed EXPERT INDUSTRIES, INC. (Manufacturer) by E. Sauter 1/P (Representative)

"U" Certificate of Authorization No. 11,158 expires May, 1983

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 _____ 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 this 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 _____ (Nat'l Board, State, Province, and No.)