

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by NORTHERN DESIGN SERVICES, INC.-SHOP 424 E. DRESDEN ST. KALKASKA, MI 49646
(Name and address of Manufacturer)
2. Manufactured for NATURAL GAS COMPRESSION SERVICES, INC 2480 AEROPARK DR. TRAVERSE CITY, MI 49686
(Name and address of Purchaser)
3. Location of installation UNKNOWN
(Name and address)
4. Type VERT. FUEL BOTTLE 11473 6FB2AC380 2011
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (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 Rules, Section VIII, Division 1 2010
Year
- to NO
(Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(d))
6. Shell SA-106B .280" 6.065" 52"
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))
7. Seams SMLS 85 WELDED, SINGLE BUTT 70 1
(Long. (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (H.T. temp.) (Time, hr) (Girth (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (No. of courses)
8. Heads: (a) Material SA-105 (b) Material SA-234 WPB
(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	ANSI	-	-	-	-	-	-	6"-150#	FLAT
(b)	BOTTOM	.218"	-	-	-	2:1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) 6"-150# SA-105 BLIND IS ATTACHED W/(8) 3/4" X 4-1/2" SA-193 B7 STUDS AND (16) SA-194 2H NUTS
(Material spec. number, grade, size, number)

9. MAWP 150 N/A at max. temp. 150 N/A
(Internal) (External) (Internal) (External)
- Min. design metal temp. -20 at 150 Hydro. XXXXXX test pressure 195

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
PI	1	1/4" FNPT	TOL	SA-105	-	6000#	-	INHERENT	UW-16.1(a)	-	TOP HEAD
DRAIN	1	1/2" FNPT	CPL	SA-105	-	3000#	-	INHERENT	UW-16.1(c)	-	SHELL
RELIEF	1	1" FNPT	TOL	SA-105	-	3000#	-	INHERENT	UW-16.1(a)	-	SHELL
FUEL OUT	1	2" FNPT	CPL	SA-105	-	3000#	-	INHERENT	UW-16.1(c)	-	SHELL
FUEL IN	1	2" FNPT	HLF CP	SA-105	-	6000#	-	INHERENT	UW-16.1(c)	-	SHELL

11. Supports: Skirt YES Lugs 0 Legs - Other - Attached BOTTOM HEAD, WELDED
(Yes or no) (Number) (Number) (Describe) (Where and how)
12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: FOR NON-LETHAL/NON-CORROSIVE SERVICE. EXEMPT FROM IMPACT TESTING PER UG-20(f) AND UCS-66(c)
(Name of part, item number, Manufacturer's name and identifying stamp)

CERTIFICATE OF SHOP/FIELD 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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 33.792

expires 02/05/12

Date 9/21/11 Co. name NORTHERN DESIGN SERVICES, INC. Signed P. KALTENBACH Q.C.
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by NORTHERN DESIGN SERVICES, INC. at 424 E. DRESDEN ST. KALKASKA, MI 49646

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 MICHIGAN and employed by HSB CT

have inspected the component described in this Manufacturer's Data Report on 9/21/11, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 9/21/11 Signed John Palt Commissions NB 14299 A MI 300611
(Authorized Inspector) (National Board (incl. endorsements), State, Province, and number)