

**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS** ① 62405  
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by **EXCHANGER INDUSTRIES LIMITED 5505 - 52 Street S.E., Calgary, AB T2C 2W8**  
(Name and address of manufacturer)  
2. Manufactured for **Hatch Ltd., 840 - 7<sup>th</sup> Avenue, S.W., Calgary, AB T2P 3G2**  
(Name and address of purchaser)  
3. Location of installation **N-Solv Corporation, Dover Demonstration Facility, AB LSD# 7-18-93-12 W4M**  
(Name and address)  
4. Type **Horizontal** **11-5029** **V8509.2** **11-5029 Rev.3** **-** **2012**  
(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing No.) (Nat'l Bd. No.) (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 **-** **-** **-**  
Addenda (Date) Code Case Nos. Special Service per UG-120(d)  
6. Shell: **SA516-70NIT** **As Below** **3mm** **N/A** **As Below**  
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (mm) Diam. I.D. (mm) Length (overall) (mm)  
7. Seams: **Mig root & Corner welds** **-** **1.0** **621°C** **1 Hr.** **Mig root & Corner welds** **-** **1.0** **2**  
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) (Eff., %) H.T. Temp. (°C) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Full) (Eff., %) No. of Courses

8. Heads: (a) Mat'l. **-** (b) Mat'l. **-**  
(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)										
(b)										

If removable, bolts used (describe other fastenings) **-**  
(Mat'l., Spec. No., Gr., Size, No.)  
9. MAWP **2300** **103** kPa at max. temp. **110** **149** °C.  
(internal) (external) (Internal) (external)  
Min. design metal temp. **-45** °C at **2300** kPa Hydro., pneu., or comb. test pressure **2990** kPa.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.		Nozzle thickness (mm)		Reinforcement Mat'l.	How Attached		Location
				Nozzle	Flange	Nom.	Cor.		Nozzle	Flange	
Inlet	1	3" CI.300	RFWN	SA333-6	SA350-LF2 CI.1	11.12	3	None	UW16.1a	Type 1	Top Front
Outlet	1	3" CI.300	RFWN	SA333-6	SA350-LF2 CI.1	11.12	3	None	UW16.1a	Type 1	Bottom Front
Vents	2	1" CI.6000	CPLG	SA350-LF2 CI.1	-	14.1	3	None	UW16.1a	-	Top Front/Rear
Drains	2	1" CI.6000	CPLG	SA350-LF2 CI.1	-	14.1	3	None	UW16.1a	-	Bott. Front/Rear

11. Supports: Skirt **No** Lugs **N/A** Legs **N/A** Other **Sideframes** Attached **Bolted**  
(Yes or No) (No.) (No.) (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: **-**

(Name of part, item number, Mfr's. name and identifying stamp)

P.S.V.: **\*\*\*** Impact Testing: **Yes, required on plate @ -45°C. Fittings & flanges exempt per UCS-66(g). Tubes exempt per UCS-66(d).**

T/S & P/S Thk.: **25.4mm** End Plate Thk.: **12.7mm** Box Sizes: **2 @ 152mm x 240mm x 2114mm**

Wrapper Thk.: **12.7mm** Pass/Stay Plate Thk.: **12.7mm** Box Sizes: **-**

Description: **De-Methanizer Condenser** Capacity: **.09 cu.m.** Box Sizes: **-**

Item No.: **100-HX-110** Tubes: **25.4mm OD x 14 BWG M/W x 6096mm lg., SA 179 (122 pcs.)**

**Spot UT** **Constructed to Drawing # 11-5029 Rev.3**

**\*\*\* P.S.V. on piping per UG - 125 (g) to be installed by owners.**

**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

**5,983** expires **March 30**, 20 **14**

Date **JUL 27 2012** Co. name **Exchanger Industries Limited**

(Manufacturer)

Signed

(Representative)

**CERTIFICATE OF SHOP / FIELD INSPECTION**

Vessel constructed **EXCHANGER INDUSTRIES LIMITED** at **Calgary, Alberta, Canada**

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 **ALBERTA** and employed by **ABSA**

have inspected the component described in this Manufacturer's Data Report on **July 27**, 20 **12**, 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 **JUL 27 2012**

Signed

(Authorized Inspector)

Commissions

**AB 249 NB 12900 A**

(Nat'l Board (incl. endorsements), State, Prov., and No.)