

① 560 916
66128827

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

1. Manufactured and certified by Cimco Division of Toromont Industries Ltd. 65 Villiers St. Toronto, Ontario M5A 3S1
(Name and address of Manufacturer)
2. Manufactured for TOROMONT ENERGY SYSTEMS 10121 BARLOW TRAIL N CALGARY, ALBERTA T3J 3C6 CANADA
(Name and address of purchaser)
3. Location of installation AS ABOVE
(Name and address)
4. Type: HORIZONTAL HEAT EXCHANGER 8004382
(Work, vessel, or system) (Tank, reactor, etc.) (Height serial No.)
T4238.213 975D1003R0 2967 2006
(CRN) (Drawing No.) (Shift No.) (Year Built)
5. ASME Code, Section VIII, Div. 1 2004 A05 N/A N/A
(Edition and Addenda Code) (Code Case No.) (Special Service per UCS-130(g))

Items 6 - 11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multi-chamber vessels.

6. Shell: (a) No. of course(s): 1 (b) Overall length (ft. & in): 29'-8-1/8"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, In.	Length, (ft. & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	EF.	Type	Full, Spot, None	EF.	Temp.	Time
1	12 3/4"OD	29'-8-1/8"	SA-106-B	0.688"	0.0625"	SMLS	NONE	1	2	NONE	0.65	-	-

7. Heads: (a) N/A (b) N/A
(Shift Spec. No., Grade or Type) (T.T. - Time & Temp.) (Shift Spec. No., Grade or Type) (T.T. - Time & Temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	EF.
(a)	/	/	/	/	/	/	/	/	/	/	/	/	/	/
(b)	/	/	/	/	/	/	/	/	/	/	/	/	/	/

If removable, bolts used (describe other fastenings)

N/A

8. Type of Jacket N/A Jacket Closure N/A
(Shift Spec. No., Grade, Size, No.) (Describe as type & weld, bar, etc.)

If bar, give dimensions N/A
9. MAWP 1415 N/A psi at max. temp. 150 N/A °F Min. design metal temp. -20 If bolted, describe or sketch
(Internal) (External) (Internal) (External) °F at 1415 psi.

10. Impact test Impact test exempt per Para. UCS-66(a) and UG-20(f).
(Indicate year or use and the component(s) Impact test(s))

11. Hydro., pneu., or comb. test pressure 1840 Proof test N/A

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA-516-70N 11 3/8" 2" 0.0625" WELDED
(Shift Spec. No.) (Dn., in. (indicated in process)) (Nom. Dn., in.) (Corr. Allow., in.) (Attachment (welded or bolted))
N/A N/A N/A N/A N/A
(Flange (Shift Spec. No.)) (Dn., in.) (Nom. Dn., in.) (Corr. Allow., in.) (Attachment)
13. Tubes: SA-179 3/4" 0.063" 104 STRAIGHT
(Shift Spec. No., Grade or Type) (O.D., in.) (Nom. Dn., in.) (Number) (Type (straight or U))

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s): 2 (b) Overall length (ft. & in.): 2' - 9 5/8"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, In.	Length, (ft. & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	ER	Type	Full, Spot, None	ER	Temp.	Time
2	12 3/4"OD	1' - 4 13/16"	SA-106-B	0.688"	0.0625"	SMLS	NONE	1	1	SPOT	0.85	-	-

15. Heads: (a) SA-516-70N (b) -
(Shift Spec. No., Grade or Type) (T.T. - Time & Temp.) (Shift Spec. No., Grade or Type) (T.T. - Time & Temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	EF.
(a)	ENDS	2.5679"	0.0625"	/	/	/	/	/	17 13/16"	/	/	/	/	/
(b)														

If removable, bolts used (describe other fastenings)

48 PCS - 7/8" BLACK STUDS BOLTS X 7" LONG SA-193-B7 C/W 96 PCS - 7/8" - 9 UNC HEX NUTS SA-194-ZH

(Shift Spec. No., Grade, Size, No.)

16. MAWP 1415 1415 psi at max. temp. 150 150 °F Min. design metal temp. -20 °F at S1415/T1415 psi

17. Impact test Impact test exempt per Para. UCS-66(a) and UG-20(f).

18. Hydro, Pneu., or comb. test pressure	1840 psi	Proof test	N/A
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[illegible]

20. Support: Skirt No. Lugs 2 Lugs NO Others 2 SADDLES Attached WELDED / SHELL
(If any) (If any) (If any) (If any and last)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
(List the name of part, item number, mfr's name and identifying number)

22. Remarks: AS BUILT DWG# 8004382-300-GA R0

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.

10637

Expires September 16 / 2009

Date: 18-Oct-06

Nation

Cimco Division of Toromont Industries Ltd.

Signed

Nancy Wang
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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 Ontario and employed by TSEB of Ontario have inspected the pressure vessel described in this Manufacturer's Data Report on 06/19/2006, 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 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 OCT 19, 2006 Signed _____

Abstract

Commissions

NB 13106 A, ONT 915

State Board of Education, Health, Phys. and No.

We certify that the statements made in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate of Authorization No.

Expires

Date _____

Name _____

Signed

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 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 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 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 _____ Signed _____

Abstract

Commissions

Joint Board Ind. Government, State, Prov. and Na.



VESSEL (A): 0560916
DATE OF INSPECTION: 2006 Jul 27



Certificate of Inspection Permit

TOROMONT PROCESS SYSTEMS
DIV TOROMONT INDUSTRIES LTD
10121 BARLOW TRAIL NE
CALGARY, AB
T3J 3C6

PREFERRED RE-INSPECTION INTERVAL: 4.00 Yr

YEAR BUILT: 2006

CRN: T4238.2

SERIAL #: 8004382

VOLUME: 0.67 M3

HEATING SURFACE: 56 M2

SURFACE AREA:

COMPANY CODE: SKID# 12191

DESCRIPTION: HORIZONTAL HEAT EXCHANGER

LOCATION: STOCK, CALGARY

MANUFACTURER: CIMCO DIV OF TOROMONT INDUSTRIES LTD

Safety Valves

PART	MAX. AUTHORIZED WORKING PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
SHELL	9756 KPA	66 C	-29 C	SV1	9576 KPA	88 M3/MIN PIPING	
TUBE A	9756 KPA	66 C	-29 C	SV1	9576 KPA	88 M3/MIN PIPING	

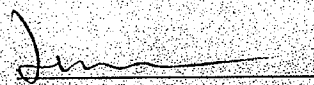
OWNER INSTRUCTIONS/REMARKS:

Contact the ABSA Safety Codes Officer before placing the vessel/boiler in service.

Vessel/Boiler to be installed in accordance with the Safety Codes Act and Regulations.

Verify that vessel/boiler is protected by an acceptable ASME Code pressure relief device, of adequate capacity, set at no more than maximum pressure authorized and installed in accordance with the Safety Codes Act & Regulations.

Safety Codes Officer: SHI, HUBERT

Signature: 

NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:

Owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.

ABSA: ☒ Tower 3, Suite 590 1212-31 Ave, Calgary, AB, T2E 7S8

(403) 291-7070