

66128865
(A) 560919

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 PROCESS SYSTEMS, 10121 BARLOW TRAIL N. CALGARY, ALBERTA, T2J 3C6
(Name and address of purchaser)

3. Location of installation SAME AS ABOVE
(Name and address)

4. Type: HORIZONTAL PROPANE SUBCOOLER 8004384
(Shell, vent, or sphere) (Tank, separator, etc. vessel, heat exch., etc.) (Pkg's serial No.)
T5017.21 975D1114R1 2969
(CRN) (Drawing No.) (Part Id. No.) (Pwr. Bulb)
5. ASME Code, Section VIII, Div. 1 2004 A05 N/A N/A
(Edition and Addenda Date) (Code Case No.) (Special Services per UG-120(c))

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.): 13' - 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	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	6-5/8" O.D.	13' - 9 5/8"	SA-53-B	0.28	0.0625"	ERW	NONE	0.85	2	NONE	0.65	-	-
												-	-
												-	-

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

If removable, bolts used (describe other fastenings) N/A

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

If bar, give dimensions N/A
9. MAWP 300 N/A psi at max. temp. 250 N/A °F Min. design metal temp. -20 °F at 300 psi.
(Internal) (External) (Internal) (External)

10. Impact test Impact test exempt per Para. UCS-68(b) and UG-20(f)
(Indicate job or no and the component(s) impact tested)

11. Hydro, pneu., or comb. test pressure 390 psi Proof test N/A

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA-516-70 8.065" 1-1/4" 0.0625" WELDED
(Material (Part Spec. No.)) (Dia., in. (subject to pressure)) (Nom. dia., in. or gauge) (Corr. Allow., in.) (Attachment (welded or bolted))
N/A N/A N/A N/A N/A
(Flanging (Part Spec. No.)) (Dia., in.) (Nom. dia., in.) (Corr. Allow., in.) (Attachment)

13. Tubes: SA-214 5/8" 0.065" 31 STRAIGHT
(Part Spec. No., Grade or Type) (O.D., in.) (Nom. dia., in. or gauge) (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.): 1' - 6 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
1	6-5/8" O.D.	10 13/16"	SA-106-B	0.432"	0.0625"	SMLS	NONE	0.85	2	NONE	0.65	-	-
1	6-5/8" O.D.	7 13/16"	SA-106-B	0.432"	0.0625"	SMLS	NONE	0.85	2	NONE	0.65	-	-

15. Heads: (a) SA-516-70N (b) -
(Part Spec. No., Grade or Type) H.T. - Time & Temp. (Part Spec. No., Grade or Type) H.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	Eff.
(a)	ENDS	1.7899"	0.0625"	/	/	/	/	/	12.125"	/	/	/	/	/
(b)														

If removable, bolts used (describe other fastenings)

32 PCS 3/4" - 11 UNC X 6" LONG STUDS SA-193-B7 CAV 64 PCS 3/4"-11 UNC HEX NUTS SA-194-2H

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

FORM U-1 (Back)

16. MAWP 1415 300 psi at max. temp. 150 250 °F Min. design metal temp. -20 °F at S300/T1415 psi

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

18. Hydro, Pneum., or comb. test pressure 1840 Proof test N/A

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
DRAIN [TS]	1	3/4"	N/A	SA-105	N/A	6000 LB	0.0625"	N/A	WELDED	N/A	CHANNEL
DRAIN [SS]	1	3/4"	N/A	SA-105	N/A	3000 LB	0.0625"	N/A	WELDED	N/A	SHELL
VENT [TS]	1	3/4"	N/A	SA-105	N/A	6000 LB	0.0625"	N/A	WELDED	N/A	CHANNEL
DRAIN [SS]	1	3/4"	N/A	SA-105	N/A	3000 LB	0.0625"	N/A	WELDED	N/A	SHELL
HC LIQUID OUTLET [TS]	1	1"	R.F.S.O.	SA-105-B	SA-105	SCH-160	0.0625"	N/A	WELDED	WELDED	CHANNEL
HC LIQUID INLET [TS]	1	1"	R.F.W.N.	SA-105-B	SA-105	SCH-160	0.0625"	N/A	WELDED	WELDED	CHANNEL
PSV	1	4"	R.F.S.O.	SA-105-B	SA-105	SCH-40	0.0625"	N/A	WELDED	WELDED	SHELL
PROPANE OUTLET [SS]	1	2"	R.F.W.N.	SA-105-B	SA-105	SCH-40	0.0625"	N/A	WELDED	WELDED	SHELL
PROPANE INLET [SS]	1	2"	R.F.S.O.	SA-105-B	SA-105	SCH-40	0.0625"	N/A	WELDED	WELDED	SHELL

20. Supports: Skirt No Lugs NO Legs NO Others 2 SADDLES Attached SHELL / WELDED

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, mfg's. name and identifying number)

N/A

22. Remarks: VESSEL INTENDED FOR NON-CORROSIVE SERVICE.
AS BUILT DWG# 8004384-500-GA.

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

U Certificate of Authorization No. 10637 Expires September / 16 / 2009

Date Oct. 18, 2006 Name Cimco Division of Toromont Industries Ltd. Signed Nancy Wang

CERTIFICATE OF SHOP 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 Ontario and employed by Toromont of Ontario have inspected the pressure vessel described in this Manufacturer's Data Report on Oct 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 [Signature] Commissions W3 13106 A, ONT 915

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

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

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 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 Commissions

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

GRN: T5017.2

SERIAL #: 8004384

VOLUME: 0.08 M3

HEATING SURFACE: 6.5 M2

SURFACE AREA:

COMPANY CODE: SKID# 12191

DESCRIPTION: HORIZONTAL PROPANE SUBCOOLER

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	2068 KPA	121 C	-29 C	SV1	2068 KPA	225 M3/MIN PIPING	
TUBE A	9756 KPA	66 C	-29 C	SV1	9756 KPA	88 M3/MIN PIPING	

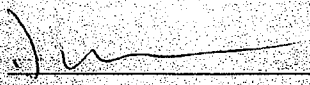
OWNER INSTRUCTIONS/REMARKS:

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

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

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.