

Entered
R04/19/05

SERIAL NUMBER CHECKLIST

JOB NO: 11726

CUSTOMER: STOCK

DATE: April 12, 2005

COMPLETED BY: Sean Colwell

90 HP Wellhead Booster

ITEM	MANUFACTURER	SERIAL #	CRN #	A #
Suction Scrubber V1	Chil-con	C250062A-1	L9760.213	530617
Primary Oil Separator V2	Chil-con	C250062B-1	L9758.213	530618
Secondary Oil Separator V3	Chil-Con	C250062C-1	L9799.213	530619
Blowcase V4	Toromont	N/A		
Air Cooler J15B	ACE Air-X-Hemphill	0502606-1	N/C	
		0502606-2	T1101.231	
Oil Cooler	Viex	270751.13	L9315.123	NA
			Model	Arrangement
Compressor	Frick	0858NZ	XJF 151N ✓	NA
Compressor Engine	Caterpillar	N4F01229	G3304NA	222-9043
Control Panel	Murphy	M01-062-229	50-30-3503	NA
PSV-103 Relief Valve	Hydroseal	1004-2	060736.2C	245 ✓ PSI
				327 SCFM
PSV-113 Relief Valve	Hydroseal	909-2	060736.2C	375 ✓ PSI
				491 SCFM

11726
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 Code Rules, Section VIII, Division 1

A 530617

1. Manufactured and certified by HENRY TECHNOLOGIES LIMITED, 36 CRAIG STREET BRANTFORD, ONTARIO, CANADA N3T 5T6
(Name and address of manufacturer)
2. Manufactured for TOROMONT PROCESS SYSTEMS, 10121 Barlow Trail N.E., Calgary, AB T1Y-6Z8
(Name and address of purchaser)
3. Location of installation UNKNOWN
(Name and address)
4. Type: VERTICAL C250062A(1-5) L9760.213 R200183A / 0 N/A 2005
(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
2004 Edition
Year

DUPLICATE

6. Shell: SA-106B 3/8" 1/16" 16" OD 48"
Addenda (Date) Code Case Nos. Special Service per UG 120(d)
7. Seams: SMLS PIPE NONE 100% - - SNGL BUTT SPOT 1
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses
8. Heads: (a) Matl. SA-234 WPB (b) Matl. 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	0.3281"	1/16"	-	-	2 : 1	-	-	-	CONCAVE
(b)	BOTTOM	0.3281"	1/16"	-	-	2 : 1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) -

9. MAWP 400 psi at max. temp. 250 °F
Min. design metal temp. -20 °F at 400 psi. Hydro, pneu., vacuum test pressure 440 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
CONN	1	3"	W.E	SA-106 GR B	SCH.80	-	WELDED	SIDE
CONN	1	3"	W.E	SA-234 WPB	SCH.80	-	WELDED	TOP
CONN	1	2"	CPLG	SA 105	6000 LB	-	WELDED	SIDE
CONN	2	1-1/2"	CPLG	SA 105	6000 LB	-	WELDED	SIDE
CONN	2	1"	CPLG	SA 105	6000 LB	-	WELDED	SIDE/BTM
CONN	1	1"	CPLG	SA 105	6000 LB	-	WELDED	TOP
CONN	1	3/4"	CPLG	SA 105	6000 LB	-	WELDED	SIDE

11. Supports: Skirt YES Lugs - Legs - Other - Attached BOTTOM/WELDED
(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)

FOR CORROSIVE SERVICE

NO IMPACT TEST REQUIRED AS PER UCS-66

VESSEL MEETS RT3 REQUIREMENTS

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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 29646 expires Jun-05-2006

Date Feb. 25/05 Co. Name HENRY TECHNOLOGIES LIMITED Signed Ornithel Dmetrius
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by HENRY TECHNOLOGIES LIMITED at 36 CRAIG STREET BRANTFORD, ONTARIO CANADA N3R 7J1

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of ONTARIO and employed by T.S.S.A. have inspected the component described in this Manufacturer's Data Report on Feb. 23, 2005, 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 Feb. 25, 05 Signed Mingmei Commissions ON 33
(Authorized Inspector) (Nat'l Board, (incl. endorsements) State, Prov. and No.)

PSV 245psi @ 327 SCFM

11726

(A) 530618

mm

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 Code Rules, Section VIII, Division 1

1. Manufactured and certified by HENRY TECHNOLOGIES LIMITED, 36 CRAIG STREET, BRANTFORD, ONTARIO, CANADA N3T 5T6
(Name and address of manufacturer)

2. Manufactured for TOROMONT PROCESS SYSTEMS, 10121 BARLOW TRAIL N.E., CALGARY, ALBERTA T1Y 6Z8
(Name and address of purchaser)

DUPLICATE

3. Location of installation UNKNOWN
(Name and address)

4. Type: VERTICAL C250062B(1-5) L9758.213 R200183B / 0 N/A 2005
(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 2004 EDITION
Year

to --- 1518-5 ---
Addenda (Date) Code Case Nos. Special Service per UG 120(d)

6. Shell: SA-106 GR B 3/8" 1/16" 12-3/4" OD 48"
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: SMLS NONE 100% - - SGL BUTT SPOT 1
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. SA 234 WPB (b) Matl. 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	0.3281"	1/16"	-	-	2:1	-	-	-	CONCAVE
(b)	BOTTOM	0.3281"	1/16"	-	-	2:1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) -

9. MAWP 400 psi at max. temp. 250 °F
Min. design metal temp. -20 °F at 400 psi hydro, pneu., vacuum test pressure 440 psi
(Matl., Spec. No., Gr., Size, No.)

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
CONN.	1	3"	W.E.	SA-106 GR B	SCH.80	-	WELDED	SIDE
CONN.	3	1-1/2"	CPLG.	SA 105	6000 LB	-	WELDED	SIDE/BTM
CONN.	3	3/4"	CPLG.	SA 105	6000 LB	-	WELDED	SIDE
CONN.	1	3"	W.E.	SA-234 WPB	SCH.80	-	WELDED	TOP
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

11. Supports: Skirt YES Lugs - Legs - Other - Attached BOTTOM / WELDED
(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)

NO IMPACT TEST REQUIRED AS PER UCS-66

FOR CORROSIVE SERVICE

VESSEL MEETS RT3 REQUIREMENTS

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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 29646 expires Jun-05-2006

Date Feb. 25/05 Co. Name HENRY TECHNOLOGIES LIMITED Signed Michael J. McIntyre
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by HENRY TECHNOLOGIES LIMITED at 36 CRAIG ST., BRANTFORD, ONTARIO

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of ONTARIO and employed by T. S. S. A. have inspected the component described in this Manufacturer's Data Report on Feb 23, 2005, 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 Feb. 25, 05 Signed Kingmei Commissions ON 33
(Authorized Inspector) (Nat'l Board. (incl. endorsements) State, Prov. and No.)

PSV 375psi @ 491 SCFM.

11726 A 530619

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 Code Rules, Section VIII, Division 1

TAG# V3

1. Manufactured and certified by HENRY TECHNOLOGIES LIMITED, 36 CRAIG STREET BRANTFORD, ONTARIO, CANADA N3T 5T6
(Name and address of manufacturer)

2. Manufactured for TOROMONT PROCESS SYSTEMS, 10121 BARLOW TRAIL N.E., CALGARY, ALBERTA T1Y 6Z8
(Name and address of purchaser)

3. Location of installation UNKNOWN
(Name and address)

4. Type: HORIZONTAL C250062C(4-5) L9799.213 R200183D / 1 N/A 2005
(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 2004 Edition
Year

to --- 1518-5 -
Addenda (Date) Code Case Nos. Special Service per UG 120(d)

6. Shell: SA-53 Gr B 3/8" 1/16" 12-3/4" OD. 26-1/2"
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: ERW NONE 85% - - SNGL BUTT NONE 1
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. SA 516-70 (b) Matl. SA 516-70
(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)	END	0.2938"	1/16"	-	-	2:1	-	-	-	CONCAVE
(b)	END	0.2938"	1/16"	-	-	2:1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) BOLTS : SA 193-B7, 5/8"-11UNC, QTY = 12
(Matl., Spec. No., Gr., Size, No.)

9. MAWP 400 psi at max. temp. 400 °F
Min. design metal temp. -20 °F at 400 psi. ~~hydro.~~ pneu., ~~hydro.~~ test pressure 440 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
Handhole	1	11"	BOLT PAD	SA-516 Gr70 N	1-1/2"	-	WELDED	END
CONN.	2	2-1/2"	PIPE	SA-106 GR B	SCH.80	-	WELDED	SIDE/END
CONN.	1	1-1/2"	CPLG	SA-105N	6000LB	-	WELDED	SIDE
CONN.	3	3/4"	CPLG	SA-105N	6000LB	-	WELDED	TOP/BOTTOM

11. Supports: Skirt NO Lugs - Legs - Other - Attached -
(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)

FOR CORROSIVE SERVICE

NO IMPACT TEST AS PER UCS-66

HEADS ARE HOT FORMED

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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 29646 expires Jun-05-2006
Date Feb. 28/05 Co. Name HENRY TECHNOLOGIES LIMITED Signed Michael Dretz
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by HENRY TECHNOLOGIES LIMITED at 36 CRAIG ST., BRANTFORD, ONTARIO
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of ONTARIO and employed by T. S. S. A. have inspected the component described in this Manufacturer's Data Report on 25/2/05, 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 28/2/05 Signed Rolf E. Blakemore Commissions 59
(Authorized Inspector) (Nat'l Board, (incl. endorsements) State, Prov. and No.)

PSV 375 psi @ 491 SCFM

11726

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

1. Manufactured and certified by AIR COOLED EXCHANGERS, INC. ONE ACE AVE. BROKEN ARROW, OK. 74013
(Name and address of manufacturer)

2. Manufactured for TOROMONT PO BOX 5308 STN C CALGARY, AB T2C 3C6
(Name and address of purchaser)

3. Location of installation UNKNOWN
(Name and address)

4. Type VERTICAL 0502606-2 T1101.231 05026-H2-1 3272 2005
(Horiz or vert., tank) (Mfg's serial No.) (CRN) (Drawing No.) (Materl. Bld. 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 2001
Year

to A2003 NONE NONE
Addenda (Date) Code Case Nos. Special Service per UG-120(d)

Tube & Plug

6. Shell: SA-516-70 .75" .0625" 4.375" 20.625"
Materl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: SINGLE BEVEL NA NA NA NA NA NA NA
Long (Welded, Dbl., Singl. Lap, Butt) R.T. (Spot or Full) Eit. (%) H.T. Temp. (°F) Time (hr) Girth (Welded, Dbl., Singl. Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Materl. SA-516-70 (b) Materl. SA-516-70
(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 & BTM	.5"	.0625"	NA	NA	NA	NA	NA	4"	NA
(b)	ENDS	.5"	.0625"	NA	NA	NA	NA	NA	4"	NA

if removable, bolts used (describe other fastenings) _____
SERVICE: AC (Materl., Spec. No., Gr., Size, No.)

9. MAWP 400 psi at max. temp. 350 °F
Min. design metal temp. -20 °F at 400 psi. Hydro., pneu., or comb. test pressure 520 psi.

10. Nozzles, inspection and safety valve openings: SAFETY RELIEF VALVE TO BE PROVIDED ELSEWHERE BY OTHERS

Purpose (Inlet, Outlet, Drain)	No.	Diam. Or Size	Type	Materl.	Nom. Thk.	Reinforcement Materl.	How Attached	Location
IN/OUTLET	2	4"	PIPE	SA-106B	XH	MATERIAL & WELD	UW16.1(a)	-----
	2	4"	RFWN	SA-105	300#	MATERIAL & WELD	WELDED	-----
	1	.75"	CPLG	SA-105	3000#	MATERIAL & WELD	UW16.1(a)	-----

11. Supports: Skirt NO Lugs 2 Legs 0 Other NA Attached TUBESHEET/WELDED
(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: CONSTRUCTED IN CONFORMANCE WITH APPENDIX 28, IMPACT EXEMPT PER UG-20(f)(1)(b)
(Name of part, item number, Mfg's name and identifying stamp)

TUBES:(37)SA-214 X .625" OD X .060" MW X 6' LONG STRAIGHT TYPE

PLUGS:(74)SA-105 SHOULDER

UT-ONE LONG SEAM & ONE END PER HEAD PER CUSTOMER REQUEST

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. 7616 expires 4/30, 2005
Date 3-17-05 Co. name AIR COOLED EXCHANGERS, INC. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by AIR COOLED EXCHANGERS, INC. at BROKEN ARROW,
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 OKLAHOMA and employed by ONEBEACON AMERICA INSURANCE CO. BOSTON, MASS.
have inspected the component described in this Manufacturer's Data Report on 3-17, 2005, 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 3-17-05 Signed [Signature] Commissions 1B.8432-W OK. 266
(Authorized Inspector) (Natl Board (incl. endorsements), State, Prov. and No.)

11726

FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE
COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, SEE U-1(j)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by ViEX Inc. 1201 Nicholson Road, Newmarket, Ontario, Canada, L3Y 9C3
(Name and address of manufacturer)
2. Manufactured for Toromont Process Systems, 10121 Barlow Trail N.E., Calgary, Alberta, Canada, T3J 3C6
(Name and address of purchaser)
3. Location of installation Unknown
(Name and address)
4. Type Vertical VX20 Plate & Frame Heat Exchanger 4.97 US gal 270751.11-15
(Horiz or vert, or sphere) (Tank, separator, etc.) (Capacity) (Mfg's serial No.)
L9315.5123 VX20-G-400 Rev 0 2005
(CRN) (Drawing No.) (Year built)
5. ASME Code, Section VIII, Division 1 2001 Edition, 03 Add None
(Edition and Addenda (date)) (Code Case No.)
6. Shell: (a) no. of course(s): n/a (b) Overall length (ft & in.): 27.8125"

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
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) SA516 Gr 70 HT-No (b) SA516 Gr 70 HT-No
(Mat'l Spec. No., Grade or Type) (H.T. - Time & Temp) (Mat'l 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)	Fixed head	2.25"	-	-	-	-	-	-	12 7/8" x 44"	-	-	-	-	-
(b)	Mobile head	1.50"	-	-	-	-	-	-	12 7/8" x 43.2"	-	-	-	-	-

If removable, bolts used (describe other fastenings) (20) Tie Rods SA-193 Gr B7 / Hex Nuts SA-194 2H (3/4"-10NC)
(Matl, Spec No., Grade, Size, No.)

8. Type of jacket n/a Jacket closure n/a
(Describe as ogee & weld, bar, etc.)
- If bar, give dimensions; If bolted, describe or sketch n/a

9. MAWP 400 none psi at max. temp. 250 n/a °F Min. design metal temp. -20 °F at 400 psi.
(internal) (external) (internal) (external)

10. Impact test No (Impact test exemption per UCS-66(a)) at test temperature of n/a °F.
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 520 psig Proof test n/a

12. 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	
Hot Side Inlet	F2	2"	cl300flg	SA106B	SA105N	0.154"	None	-	Welded	Welded	-
Hot Side Outlet	F3	2"	cl300flg	SA106B	SA105N	0.154"	None	-	Welded	Welded	-
Cold Side Inlet	F4	2" NPT	-	SA106B	N/a	0.218"	None	-	Welded	-	-
Cold Side Outlet	F1	2" NPT	-	SA106B	N/a	0.218"	None	-	Welded	-	-

13. Supports: Skirt No Lugs No Legs No Others Foot Attached Bolted to F. Head & End Post
(yes or no) (No.) (No.) (Describe) (Where and how)

14. 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.)

15. Remarks: 1) This heat exchange consists of 31 gasketed heat transfer plates which are clamped between fixed & mobile heads by tie rods
(2) Heat transfer plate material - 989mm x 242mm SA240-304 (3) Heating surface is 62.4 ft² (4) Inspection openings are not applicable (5) Safety relief devices per UG-125 are the responsibility of the user. (6) Volume per circuit is 0.328 ft³. (7) Both circuits have same design conditions

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.

UM Certificate of Authorization No. 32.743 expires August 17, 2007
Date FEB. 25. 05 Name ViEX Inc. Signed [Signature]
(Certified Individual) (Manufacturer) (Representative)



FARRIS PRESSURE MANAGEMENT

EDMONTON FACILITY INSPECTION TEST REPORT

11726

CUSTOMER:	ORDER#:	SE#:	MetalTag:
Toromont	419324	419324-5	PSV-104
PO: PON185956			

TYPE:	VALVE SIZE:	ORIFICE	FactorySerial #:	CRN#:
27DA33-M20 - GAS	1"MNPTx1"FNPT	D	482900-22-KE	OG0386.9C
SPRING:				

SERVICE:

SERVICE: GAS StampSymbol: UV NB

CAPACITY: 859 SCFM

Set Pressure	BackPressure	Diff	ColdDiff	Temp. Corr.	Temperature
375 PSIG	0 PSIG	375 PSIG	375 PSIG	0 PSIG	60 F
2586 KPAG	0 KPAG	2586 KPAG	2586 KPAG	0 KPAG	16 C

MATERIAL/HEAT NUMBER ASSIGNMENT:

☐ MTR'S REQUIRED ☐ WITNESS TEST REQUIRED

Body a10 Nozzle Disc 10821

Bonnet c13 InspectionRequiredBy

PERFORMANCE TEST DATA:

Test Fluid ☒ Air ☐ Waters ☐ Air Over Water

Final Test Pressure 375 PSIG 2586 KPAG

Upper B.D.R. Setting: Notches

Lower B.D.R. Setting: fixed Notches

Shop Test Gauges Used: 1. 70 2. 115

BackPressure TEST:

☐ Not Applicable, (Open Bonnet / Cap Design)

☒ 120 PSIG Air

SEAT TIGHTNESS TEST: API-527

Test Fluid ☒ Air ☐ Waters ☐ Air Over Water

Req'd At ☒ 90% ☐ 95% Of Set Pressure

Leak Test Pressure 338 PSIG 2331 KPAG

No Visible Leakage ☐

LeakRate: 9 B.P.M.

Final Inspection / TechTested: Jim

DateCompleted: May 120/05

FOR WITNESS TESTING ONLY

Tested By: Date:

Customer Witness: Farris Witness:



CONSTRUCTION DATA REPORT FOR PIPING SYSTEMS

In accordance with the provisions of the Safety Codes Act

Shop Construction ☒; Field Construction ☐; Final Data Report ☒;
Partial Data Report ☐ (from one ABSA-authorized Contractor to another ABSA-authorized Contractor).

Complete both sides of this Form

1. Constructed By: Toromont Process Systems Division Of Toromont Industries Owner's Job No: 11726
(Name of ABSA authorized primary contractor or subcontractor)
10121 Barlow Trail NE Calgary Alberta T3J 3C6
(Address)

Alberta Quality Program No. AQP-1405(S)

Expiry Date: December 12 2005

2. Constructed For: Same As Above
(Name of primary contractor if different from above)
Same As Above
(Address)

Alberta Quality Program No. AQP- - Expiry Date: -
(Required when the primary contractor undertakes some/all of the quality functions, e.g., Mat'l supply, NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

3. Owner: Husky Energy Inc. 707 8th Avenue S.W. Calgary Alberta T2P 3G7
(Name and address)
LSD : 100\13-29-38-02 W5M
(Location of installation)

Alberta Quality Program No. AQP- - Expiry Date: -
(Required when the owner undertakes some/all of the quality functions, e.g., Mat'l supply, NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

4. Piping Design Alberta Registration No.: PP- -
(Required if aggregate piping volume is over 0.5m³)

5. WP No.: WP-496.2; Company: Toromont Process Systems; Owner's WP No. (If used): WP- -
(Alberta Registration No.) (Alberta Registration No.)
WPS No(s). used: WP # 1,5,6; Owner's WPS No(s). (If used): -

6. Code: ASME B31.1 Non Boiler External Piping ☐; ASME B31.1 Boiler External Piping ☐
ASME B31.3 ☒ - Service category: Normal ☒, D ☒, M ☐, High Pressure ☐; B31.5 ☐; B31.9 ☐.

Drawing No. Rev. No. Line No.	Fluid (Air/Stm. Etc.)	Des. Press. PSI	Des. Temp. °F	Test Press. PSI	Test Medium	Pipe Mat'l Spec. & Grade	C.A. IN	Pipe NPS & Schedule	Flange Material & Rating	PWHT/ Preheat Temp. °F	R.T. %	Other NDE
Dwg # 11726-101 Rev 1												
4"-HG-INLET-1-C31	GAS	375	250	413	AIR	SA-106-B	.0625	4" STD 3" STD	SA-105N 300#	60	5	VISUAL
4"-HG-V1-1-C31	GAS	375	250	413	AIR	SA-106-B	.0625	5" STD 4" STD 1" XH	SA-105N 300# SA-105N 3000# NPT	60 / NA	5 / NA	VISUAL
4"-HG-V2-1-C31	GAS	375	250	413	AIR	SA-106-B	.0625	4" STD 3" STD 2" STD 1" XH	SA-105N 300# SA-105N 3000# NPT	60 / NA	5 / NA	VISUAL
3"-HG-V3-1-C31	GAS	375	250	413	AIR	SA-106-B	.0625	2" STD	SA-105N 300#	60	5	VISUAL
3"-HG-V3-C31	GAS	375	250	413	AIR	SA-106-B	.0625	3" STD	SA-105N 300#	60	5	VISUAL
3"-HG-OUTLET-C31 4"-HG-E1-2-C31 3"-HG-E1-2-C31	GAS	375	250	413	AIR	SA-106-B	.0625	4" STD 3" STD 1" XH	SA-105N 300# SA-105N 3000# NPT	60 / NA	5 / NA	VISUAL
2"-HG-C1-1-C31	GAS	375	250	413	AIR	SA-106-B	.0625	4" STD 2" STD	SA-105N 300#	60	5	VISUAL
1"-HL-V1-1-C31	Hydrocarbons	375	250	413	AIR	SA-106-B	.0625	1" XH	SA-105N 3000# NPT	N/A	N/A	VISUAL
1½"-L-E2-2-C31 1½"-L-V2-2-C31	LUBE OIL	375	250	413	AIR	SA-106-B	.0625	1½" XH 1" XH	SA-105N 300# SW SA-105N 3000# NPT	60 / N/A	N/A	VISUAL

Partial Data Reports, properly identified and certified by ABSA-authorized contractors, as listed below are attached to and form part of this Data Report ☐

No.	Line No.	Spool No.	Drg. No. (with Rev. No.)	Contractor (Name)	AQP No.	Expiry date
-						
-						
-						
-						
-						
-						
-						

Remarks: Provide additional comments including noting any code work that was not performed by the ABSA-authorized contractor(s) supplying this document as a Partial Data Report but which must be completed by another ABSA-authorized contractor who assumes overall responsibility for conformance with the Safety Codes Act & Regulations and applicable ASME Codes, and who assures that all required code work is completed prior to putting the piping system into service.

Endorse certificate 'A' or 'B'

A. CERTIFICATE OF COMPLIANCE

Signed by the subcontractor when supplying this certificate as a
Partial Data Report

We certify that the statements in this Data Report are correct and that materials, construction and workmanship of the piping fabrication conform to the registered quality system and the applicable Piping code(s).

Date: _____
Subcontractor

Print Authorized Representative's Name _____ Signature _____

**This certificate is not valid unless it forms part of a
Final Data Report signed by Primary Contractor**

B. CERTIFICATE OF COMPLIANCE

Signed by the primary contractor when supplying this certificate as a
Final Data Report

We certify that the statements in this Data Report are correct and that piping job no. 11726 described in this Data Report was constructed in accordance with the Province of Alberta Safety Codes Act and Regulations, and applicable ASME Piping Code(s).

Date: July 6 2005 Toromont Process Systems

Primary Contractor
Rob Power

Print Authorized Representative's Name _____ Signature _____

CERTIFICATE OF INSPECTION

I, the undersigned, employed by Globol have inspected the piping job no. 11726 described in this Construction Data Report and state that, to the best of my knowledge and belief, the Contractor has constructed this piping in accordance with the applicable Sections of the ASME Piping Codes and Province of Alberta Safety Codes Act and Regulations.

Date: July 6 2005

Date: _____

Dean Labbe

Name: _____ Sign.: _____

Print Owner's Inspector's Name _____ Owner's Inspector's Signature _____

ABSA Safety Codes Officer
(BOILER EXTERNAL PIPING ONLY)