



LIGHTHOUSE ASSISTANCE INC
30 BRAEMORE DRIVE
CHARLOTTETOWN PE C1E 1N7

Date: March 28, 2011
Account #: 38931
Journal #: 51711
Our File #: 4697544

Attn: MILLER WEST

Re: Application for Design Registration

The design, as detailed in your, Ref Log # 378, for a Fitting is accepted for registration as follows:

Registered To: SHURJOINT METALS INC

CRN: 0A1021.91

Drawing #: See Attachment

Conditions of Registration:

1. This CRN covers nonstandard Category A fittings as listed in the attached documents.

	<u>Amount</u>	<u>HST</u>	<u>Total</u>
Fee for reviewing your design:	\$144.00	\$17.28	\$161.28
Total:	<u>\$144.00</u>	<u>\$17.28</u>	<u>\$161.28</u>
Less amount received with submission:			\$0.00
			<u>\$161.28</u>

An invoice for \$161.28 will follow.

Contact me if you have any questions.

ROMEO TUAZON
(778) 396-2031
Romeo.Tuazon@safetyauthority.ca
Design Engineer

CC:



**THIS IS PART OF
 CRN 0A1021.91
 Journal # 51711
 BCSA**

505 - 6th Street, Suite 200
 New Westminster, B. C. V3L 0E1

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 Fax: (778) 396-2064
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Shurjoint Grooved Components are to be registered (Category A: Couplings & Fittings).

Model Number	Size Range (inch)	Rated Pressure (psi)	Service Temperature	Drawings
G28 Hinged Lever Coupling	1½", 2", 2½", 3", 4", 5", 6", 8", 10"	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-G28 178a 178b G15a G15b
7181 Universal Reducing Flange Adapter	3"x2", 4"x2½", 4"x3", 6"x4"	125	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	1AG
7118 90° Adapter Elbow	1½", 2", 2½", 3", 4"	200 175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	1AC
	7110-B 90o Elbow with Base Support	3", 4", 6"		
7160T Transition Fitting (Gr. X Ft)	2"x1", 2"x1¼", 2½"x1", 2½"x1½", 2½"x1½", 3"x1", 3"x1¼", 3"x1½", 3"x2", 4"x1", 4"x1¼", 4"x1½", 4"x2", 5"x1", 5"x2", 6"x1", 6"x1¼", 6"x1½", 6"x2", 8"x1", 8"x1½", 8"x2"	175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	160a
7110DR Drain Elbow	2", 2½", 3", 4", 6", 8"	175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	ASDa
7150F Reducing Socket (Gr. X Ft)	1½"x1", 2"x1", 2"x1¼", 2"x1½", 2½"x1", 2½"x1¼", 2½"x1½", 2½"x2", 3"x1", 3"x1¼", 3"x1½", 3"x2", 3"x2½", 4"x1¼", 4"x1½", 4"x2", 4"x2½", 5"x1½", 6"x1½", 6"x2", 6"x2½", 6"x4"	175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	154
7150M Reducing Nipple (Gr. X Mt)	1½"x1", 2"x1", 2"x1¼", 2"x1½", 2½"x1", 2½"x1¼", 2½"x1½", 2½"x2", 3"x1", 3"x1¼", 3"x1½", 3"x2", 3"x2½", 4"x1½", 4"x2", 4"x2½", 4"x3", 5"x1½", 6"x1½", 6"x2", 6"x2½", 6"x4",	175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	152
79 Wildcat Coupling	2", 2½", 3"	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-79 H179a H179b 179c G515 G115b 7705TB
	4"	150		
	5", 8", 14"	75		
	6"	100		
	12"	40		
16"	50			
723 Saddle-Let	1¼"x½", 1¼"x¾", 1¼"x1", 1½"x½", 1½"x¾", 1½"x1", 2"x¾", 2"x¾", 2"x1", 2½"x½", 2½"x¾", 2½"x1"	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-723 H133 G133 723UB
M21 Mechanical Tee, Threaded Outlet	2"x½", 2"x¾", 2"x1", 2"x1¼", 2"x1½", 2½"x½", 2½"x¾", 2½"x1", 2½"x1¼", 2½"x1½", 3"x½", 3"x¾", 3"x1", 3"x1¼", 3"x1½", 3"x2", 4"x½", 4"x¾", 4"x1", 4"x1¼", 4"x1½", 4"x2", 4"x2½", 5"x2", 5"x2½", 5"x3", 6"x1¼", 6"x1½", 6"x2", 6"x2½", 4"x3", 6"x3", 6"x4"	200 100	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-M21 H1B4U H1B4L G11 G1B4 7705TB



**THIS IS PART OF
 CRN 0A1021.91
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Model Number	Size Range (inch)	Rated Pressure (psi)	Service Temperature	Drawings
M22 Mechanical Tee, Grooved Outlet	2"x1", 2"x1½", 2"x1½", 2½"x1", 2½"x1½", 2½"x1½", 3"x1", 3"x1½", 3"x1½", 3"x2", 4"x1", 4"x1½", 4"x1½", 4"x2", 4"x2½", 5"x2", 5"x2½", 5"x3", 6"x1½", 6"x1½", 6"x2", 6"x2½", 4"x3", 6"x3", 6"x4"	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-M22 H1B5U H1B4L G11 G1B4 7705TB
		100		
811 90° Elbow	½", ¾", 1", 1¼", 1½", 2", 2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S811001
812 Reducing 90° Elbow	¾"x ½", 1"x½", 1"x1½", 1¼"x½", 1¼"x¾", 1½"x1", 1½"x½", 1½"x¾", 1½"x1", 1½"x1½", 2"x¾", 2"x1", 2"x1½", 2½"x2"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S812001
813 45° Elbow	½", ¾", 1", 1¼", 1½", 2", 2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S813001
814 Tee	½", ¾", 1", 1¼", 1½", 2", 2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S814001
815 Reducing Tee	¾"x¾"x½", 1"x½"x1", 1"x¾"x½", 1"x¾"x¾", 1"x¾"x1", 1"x1"x½", 1"x1"x¾", 1¼"x1"x½", 1¼"x1"x¾", 1¼"x1"x1", 1¼"x1"x1½", 1¼"x1½"x½", 1¼"x1½"x¾", 1¼"x1½"x1", 1½"x1"x½", 1½"x1"x¾", 1½"x1"x1", 1½"x1"x1½", 1½"x1½"x½", 1½"x1½"x¾", 1½"x1½"x1", 1½"x1½"x1½", 2"x1"x2", 2"x1½"x2", 2"x1½"x2", 2"x1½"x½", 2"x1½"x¾", 2"x1½"x1", 2"x1½"x1½", 2"x1½"x2", 2"x2"x½", 2"x2"x¾", 2"x2"x1", 2"x2"x1½", 2"x2"x1½", 2½"x2"x¾"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S815001 S815002 S815003
815 Bullhead Tee	¾"x¾"x½", 1"x1"1¼"x, 1"x1"x1½", 1¼"x1"x1½", 1¼"x1½"x1½", 1¼"x1½"x2", 1½"x1½"x2", 1½"x1½"x2", 2"x2"x2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S815001 S815002 S815003
816 Reducing Coupling	¾"x½", 1"x½", 1"x¾", 1¼"x¾", 1¼"x1", 1½"x1", 1½"x1½", 2"x1", 2"x1½", 2"x1½", 2½"x2"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S816001
817 Cross	½", ¾", 1", 1¼", 1½", 2"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S817001
817 Reducing Cross	1¼"x1½"x1"x1", 1½"x1½"x1"x1", 2"x2"x1"x1"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S817002
818 Straight Coupling	½", ¾", 1", 1¼", 1½", 2", 2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S818001



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Model Number	Size Range (inch)	Rated Pressure (psi)	Service Temperature	Drawings
819 Plug	½", ¾", 1", 1¼", 1½", 2"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S819001
820 Cap	½", ¾", 1", 1¼", 1½", 2", 2½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S820001
825 Extrusion Piece	½"x1½"L, ½"x2"L, ¾"x1½"L, ¾"x2"L	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S825001
827 Hex Bushing	1"x½", 1"x¾", 1"x1", 1½"x1", 1½"x1¼", 2"x1", 2"x1¼", 2"x1½"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S827001
830 Brass Seat Union	½", ¾", 1", 1¼", 1½", 2"	175	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S830001
831 Long Street 90° Elbow	1"x½"M, 1"x1"M	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S198
832 Long Street Tee	1"x½"x1"M, 1"x1"x1"M	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	S179
C-7 Outlet Coupling	1½"x½"(F), 1½"x¾"(F), 1½"x1"(F), 2"x½"(F), 2"x¾"(F), 2"x1"(F), 2"x1"(G), 2"x1"(M), 2½"x½"(F), 2½"x¾"(F), 2½"x1"(F), 2½"x1¼"(M), 2½"x1¼"(G), 2½"x1½"(M), 2½"x1½"(G), 3"x½"(F), 3"x1"(F), 3"x1"(M), 3"x1"(G), 3"x1½"(G), 3"x1½"(M), 4"x¾"(F), 4"x1"(F), 4"x1½"(F), 4"x1½"(M), 4"x1½"(G), 4"x2"(G), 4"x2"(M), 6"x1"(F), 6"x1½"(F), 6"x1½"(M), 6"x1½"(G), 6"x2"(M), 6"x2"(G) * F= Female Threaded * M= Male Threaded * G= Grooved	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-C7 37U 137L G37 7705TB
SS-1200 Stainless Steel Flexible Coupling	1¼", 1½", 2", 3" 4"	300 200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-SS1200 HIST GLAR STB

GRINNELL Grooved Components are to be registered (Category A: Couplings & Fittings).

Model Number	Size Range (inch)	Rated Pressure (psi)	Service Temperature	Drawings
780 Snap Coupling	1½", 2", 2½", 3", 4", 5", 6", 8", 10"	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-G28 178a 178b G15a G15b
705 Flexible Coupling	1" through 6"	300	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	7705TB H105 G15a AS-7705B
	8" through 12"	250		
702 Outlet Coupling	1½"x1½"(F), 1½"x¾"(F), 1½"x1"(F), 2"x1½"(F), 2"x¾"(F), 2"x1"(F), 2"x1"(G), 2"x1"(M), 2½"x1½"(F), 2½"x¾"(F), 2½"x1"(F), 2½"x1¼"(M), 2½"x1¼"(G), 2½"x1½"(M), 2½"x1½"(G), 3"x¾"(F), 3"x1"(F), 3"x1"(M), 3"x1"(G), 3"x1½"(G), 3"x1½"(M), 4"x¾"(F), 4"x1"(F), 4"x1½"(F), 4"x1½"(M), 4"x1½"(G), 4"x2"(G), 4"x2"(M), 6"x1(F), 6"x1½(F), 6"x1½(M), 6"x1½(G), 6"x2(M), 6"x2(G) * F= Female Threaded * M= Male Threaded * G= Grooved	200	EPDM: -20°F ~ +180°F (-29°C ~ +82°C)	AS-C7 37U 137L G37 7705TB



88 6th Street, Suite 400
New Westminster, BC V3L 5B3

Phone: (604) 660 - 6286
Toll Free: 1-866-566-SAFE
Fax: (604) 660 - 6215
www.safetyauthority.ca

LIGHTHOUSE ASSISTANCE INC
30 BRAEMORE DRIVE
CHARLOTTETOWN PE C1E 1N7

Date: August 31, 2005
Account #: 38931
Journal #: 37185
Our File #: 3000456

Attn: MILLER WEST

Re: Application for Design Registration

The design, as detailed in your, SHURJOINT METALS (0A1021.9), for a Fitting is accepted for registration as follows:

Registered To: SHURJOINT METALS INC CRN: 0A1021.91

Drawing #: ARDa, H1Z5, H1Z7, G15a, 7705TB

Drawing Revision: Various

Conditions Of Registration:

***** ADDITION *****

This "addendum 1" to our CRN 0A1021.91 is issued to add "Ductile Iron Grooved Pipe Fittings" as follows:

1. Model 7151 Reducers, Size: 2 1/2 x 2 thru 12 x 8
2. Model Z05 Angle-Pad Rigid Couplings, Size: 1 1/4 thru 8
3. Model Z07 Angle-Pad Rigid Couplings, Size: 1 1/4 thru 12

Name of the manufacturer changed from "Tai Hau Iron & Steel Co. Ltd." to "Shurjoint Metals Inc."

	<u>Amount</u>	<u>GST</u>	<u>Total</u>
Total fee for reviewing your design:	\$271.00	\$18.97	\$289.97
Amount received with submission:	\$289.97		

An invoice for \$0.00 will follow.

Contact me if you have any questions.

SUBHASH GUPTA
(604) 660-6239
Subhash.Gupta@safetyauthority.ca
Design Engineer

CRN Registration

March 5, 2005

Model Number	Size Range	Pressure Rating	Service Temperature	Drawing and Revision
7151 Concentric Reducer	2-1/2 x 2, 3 x 2, 3 x 2-1/2, 4 x 2, 4 x 2-1/2, 4 x 3, 5 x 4, 6 x 2, 6 x 3, 6 x 4, 6 x 5, 8 x 6, 10 x 4, 10 x 6, 12 x 6, 12 x 8, 12 x 10	300 psi (20 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	#ARDa Rev. 3
Z05 Angle Pad Rigid Coupling	1-1/4", 1-1/2", 2", 2-1/2", 3", 4", 5"	300 psi (20 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	#H1Z5 #G15a Rev. 21 #7705TB Rev.15
	6", 8"	250 psi (17bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	
Z07 Angle Pad Rigid Coupling	1-1/4", 1-1/2", 2", 2-1/2", 3", 4", 5",	400 psi (28 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	#H1Z7 #G15a Rev. 21 #7705TB Rev.15
	5",	350 psi (24 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	
	6", 8"	300 psi (20 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	
	10", 12"	250 psi (17 bar) CWP	EPDM: -20°F + +180°F (-29°C ~ +82°C)	

0A1021.92

JUN 15 2005



88 6th Street, Suite 400
New Westminster, BC V3L 5B3

Phone: (604) 660 - 6286
Toll Free: 1-866-566-SAFE
Fax: (604) 660 - 6215
www.safetyauthority.ca

LIGHTHOUSE ASSISTANCE INC
30 BRAEMORE DRIVE
CHARLOTTETOWN PE C1E 1N7

Date: June 8, 2006
Account #: 38931
Journal #: 39758
Our File #: 3232030

Attn: MILLER WEST

Re: Application for Design Registration

The design, as detailed in your, Lighthouse Log #51 Rev. to Acc. Design, for a Fitting is accepted for registration as follows:

Registered To: SHURJOINT METALS INC **CRN:** 0A1021.91

Drawing #: H105, G15a, & 7705TB.

Reviewer's Notes:

This revision reflects the addition of the Shurjoint Model #7705 Flexible Coupling to the scope of the existing registration. See attached table titled 'CRN Coupling Test Program' for size range & rating information.

	<u>Amount</u>	<u>GST</u>	<u>Total</u>
Fee for reviewing your design:	\$125.00	\$8.75	\$133.75
Total:	\$125.00	\$8.75	\$133.75
Less amount received with submission:			\$0.00
An invoice for \$133.75 will follow.			\$133.75

Contact me if you have any questions.

HEYE KLAVER
(604) 660-6238
Heye.Klaver@safetyauthority.ca
Design Engineer

ATTACHMENT 1 -----GROOVED COMPONENTS TO BE REGISTERED

ITEM:	MODEL:	DWG #:	Proof test record#:	Qualified size & pressure & temp:
Coupling	7771	H108a	#2, #3, #4, #10.	1.5" to 8" - 300 psig @ 180F
Coupling	7771	H108a	#9.	10" and 12" - 175 psig@180F
Coupling	XH-70	1X7	#14, #15, #16.	2" to 12" - 500 psig@ 180F
Coupling	7707	C7707AB, 7707-01	#12, #13, #14, #15. #11	0.75" to 6" - 500 psig @ 180F over 6" to 12" - 300 psig @ 180F
Red. Coup.	7706	C7706-01, CS7706-01,	same thickness as 7771	2"x1.5" to 8"x6" - 300 psig@ 180F
Laterals	7130	7130-01	#2, #4.	2" and 6" only -300 psig@ 180F
Mechanical Tee	7721, 7722	C720UA-1, C722UA-1 C720LA-01, 7721-01	#2, #10, #20	2" to 8" -300 psig@180F
Reducers	7150	150A-01	#2, #4, #11	2.5"x2" to 12"x10" - 300 psig@180F
Elbows	7110, (7111, 7112, 7113.)	110A-01,(111A-01, 112, 113)	#1, #4, #11.	1" to 12" - 300 psig@180F (Bracketed items are 45, 22.5 and 11.25 degree elbows of same size & thickness)
SR Elbow	901	901-01	same thickness as 7110	2" to 8" - 300 psig@180F
Tees	7120, 7121	120A-01, 121B-01.	#1, #4, #11,	1" to 12" - 300 psig@180F
SR Tee	903	903-01	same thickness as 7120	2" to 8" - 300 psig@180F
Caps	7160	7160-01	#1, #2, #4,	1" to 6" - 300 psig@180F
Caps	7120	7160H-01	#11.	10" to 12" - 300 psig@180F
Cross	7135	135B-01, ASDb	#2, #10, #19.	2" to 8" - 300 psig@180F
Nipples	57, (58, 59)	157, (158, 159)	#2, #4, #11	2" to 12" - 300 psig@180F
End	899	END-TO1	same thickness as ells 7110	1.5" to 2.5" - 300 sig @ 180F
Bolts /nuts		BN-01		

ATTACHMENT 2 -----GROOVED AND FLANGED COMPONENTS TO BE REGISTERED

ITEM:	MODEL:	DWG #:	Proof test record#:	Qualified size & pressure:
Flange adapter	7170,	7170-1	#6,#18, #19.	2" to 8" - 300 psig
Flange adapter	7180.	180	#2, #18, #19.	2" to 8" - 300 psig
Flange	7041	HA104a	#2, #5, #6,	2" to 6" – 300 psig
Flange	7041	HA104a	#7, #8,	10" and 12" – 175 psig