345 Carlingview Drive
Toronto, Ontario
CANADA M9W 6N9
Tel.: 416.734.3300
Fax.: 416.231.1626
Toll Free: 1.877.682.8772
www.tssa.org

January 29, 2019

SCOTT ISLIP
ROUND ENGINEERING INC
10 SEGWUN RD
WATERDOWN ON L8B 0K6
CA

Service Request Type.: BPV-National BC
Service Request No.: 2461140
Your Reference No.: R-0988
Registered to.: WATSON MCDANIEL

Dear SCOTT ISLIP,

Please find enclosed the original response from BC, registered under the CRN No.: 0E20868.51.

As all jurisdictional fees are handled by the Technical Standards and Safety Authority (TSSA), you do not pay any jurisdictions directly.

Should you have any questions or require further assistance, I will be happy to assist you.
For general enquiries, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Tanya Francis
Administrative Assistant_ BPV Engineering
Tel. : 416-734-3423
Fax : 416-231-6183
Email :tfrancis@tssa.org

TECHNICAL SAFETY BC

Suite 600 - 2889 E 12th Ave
Vancouver, BC V5M 4T5

Toll Free: 1-866-566-7233
www.technicalsafetybc.ca

TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO ON M9W 6N9

Date: December 24, 2018
Account #: 35231
Journal #: 72311

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, TSSA SR# 2461140, for a Fitting is accepted for registration as follows:

Registered To: WATSON MCDANIEL COMPANY **CRN:** 0E20868.51

Drawing #: Report A-0988A/B/C/D/E **Drawing Revision:** 0/0/0/0/0

Conditions Of Registration:

Registration of Steam Traps and Liquid Drainer Series as per attached SOR.

This design was registered based on a technical review performed by the province of initial registration in accordance with the Association of Chief Inspectors policy on reciprocal recognition of design review.

Reviewer's Notes:

As required by CSA B51 4.2.1, this registration expires on November 20, 2028. This CRN is valid until the expiry date as long as the Manufacturer maintains a valid quality control program verified by an acceptable third-party agency until that date. Should the certification of the quality control program lapse before the expiry date, this registration shall become void.

Contact me if you have any questions. The invoice for registration will be forwarded under separate cover.

Emilia Tam

emilia.tam@technicalsafetybc.ca
Design Administration

cc:

TECHNICAL STANDARDS & SAFETY AUTHORITY
14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

Watson McDaniel

TECHNICAL SAFETY BC

STATUTORY DECLARATION
Registration of Fittings

CRN #: OE20868.51
Date: DEC 24, 2018
BC J#: 72311

I, ROBERT HICKEY, GENERAL MANAGER
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of WATSON MCDANIEL
(Name of Manufacturer)

Located at 428 JONES BLVD., POTTSTOWN, PENNSYLVANIA, 19464 610-495-5131 610-495-5134
(Plant Address) *(Telephone No.)* *(Fax No.)*

☑ do solemnly declare that the fittings listed hereunder, which are subject to the ***Technical Standards and Safety Act***, Boilers and Pressure Vessels Regulation, comply with all of the requirements of
ASME B31.1, ASME B31.3
(Title of recognized North American Standard)
which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

☐ or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2015 which has been verified by the following authority, HSB

The items covered by this declaration, for which I seek registration, are category E STEAM TRAPS / DRAINERS type fittings. In support of this application, the following information and/or test data are attached as follows:
SCOPE OF CRN, DRAWINGS, CALCULATIONS, REPORTS
(drawings, calculations, test reports, etc.)

Declared before me at Pottstown In the State of Pennsylvania

the 30th day of October AD 20 18.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Jay Goldberg, Notary Public
Limerick Twp., Montgomery County
My Commission Expires June 28, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Commissioner for Oaths:

Jay Goldberg
(Printed name)

(Signature)

(Signature of Declarant)

FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the *Technical Standards and Safety Act*, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category E

CRN: OE20868.5

Registered by: MARK VALCIC, P.ENG.

Dated: NOV. 20, 2018

NOTE: This registration expires on NOV. 20, 2028

Technical Standards and Safety Authority — Boilers and Pressure Vessels Safety Program

REGISTERED
C.R.N.: OE20868.5
Signed:
Date: NOV. 20, 2018

NOTE: STEAM TRAPS & LIQUID DRAINERS SERIES: 1B103X / 1B104X, WFT / WLD1900, FTT / WLD1400, PTE / WLDE & FT600 / WLD600. SEE THE ATTACHED THREE (3) PAGES FOR THE SCOPE OF REGISTRATION

NOV. 20/18

TECHNICAL SAFETY BC

CRN #: 0E20868.51

Date: DEC 24, 2018.

BC J#: 72311

03-Nov-18

Watson McDaniel

WATSON MCDANIEL
428 JONES BLVD.
POTTSTOWN, PENNSYLVANIA
19464, U.S.A.

SCOPE OF CRN REGISTRATION

Product Description	Design Code	Material Specification	Model	Size Range	End Connection Inlet/Outlet	MAWP at 100°F, (psig)	MAWP at MAWT (psig)	Report Number
Inverted Bucket Steam Trap	ASME B31.1, ASME B31.3.	Cast Iron ASTM A126-B ASTM A48 CL. 30 ASTM A278 CL. 30 (Note 7)	IB1031	1/2", 3/4"	NPT	250 psig	250 psig at 450°F	R-0988A
			IB1032	1/2", 3/4", 1"	NPT			
			IB1033	1/2", 3/4"	NPT			
			IB1034	3/4", 1"	NPT			
			IB1041	1/2", 3/4"	NPT			
			IB1042	1/2", 3/4"	NPT			
			IB1044	3/4", 1"	NPT			
			IB1038S	1-1/4", 1-1/2"	NPT			
Float and Thermostatic Steam Traps and Liquid Drainers	ASME B31.1, ASME B31.3.	Cast Iron ASTM A126-B ASTM A48 CL. 30 ASTM A278 CL. 30 (Note 7)	WFT-15/30	3/4", 1", 1-1/4"	NPT	125 psig	125 psig at 450°F	R-0988B
			WFT-75/125	3/4", 1"	NPT			
			WFT-175/250	3/4", 1"	NPT			
			WFT-15/30	1-1/2"	NPT			
			WFT-75/125/ 175/250	1-1/4", 1-1/2"	NPT			
					NPT			
			WFT-XXX	2"	NPT			
			WLD191X-15/30	3/4", 1", 1-1/4"	NPT			
			WLD191X-90/150	3/4", 1"	NPT			
			WLD191X-200/250	3/4", 1"	NPT			
			WLD191X-15/30	1-1/2"	NPT			
			WLD191X-90/150/ 200/250	1-1/4", 1-1/2"	NPT			
					NPT			
			WLD191X-XXX	2"	NPT			
Float and Thermostatic Steam Traps and Liquid Drainers	ASME B31.1, ASME B31.3.	Ductile Iron ASTM A536 Grade 65-45-12 (Note 8)	FTT	1/2"	NPT	200 psig	200 psig at 450°F	R-0988C
			FTT	3/4"	NPT			
			FTT	1"	NPT	300 psig	300 psig at 450°F	
			FTT	1-1/2"	NPT			
			FTT	2"	NPT			
			WLD1400	1/2"	NPT	200 psig	200 psig at 450°F	
			WLD1400	3/4"	NPT			
			WLD1400	1"	NPT	300 psig	300 psig at 450°F	
			WLD1400	1-1/2"	NPT			
			WLD1400	2"	NPT			

THIS IS PART OF CRN 0E20868.5
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Watson McDaniel

WATSON MCDANIEL
428 JONES BLVD.
POTTSTOWN, PENNSYLVANIA
19464, U.S.A.

SCOPE OF CRN REGISTRATION CONTINUED

Product Description	Design Code	Material Specification	Model	Size Range	End Connection Inlet/Outlet	MAWP at 100°F, (psig)	MAWP at MAWT (psig)	Report Number
Float and Thermostatic Steam Traps and Liquid Drainers	ASME B31.1, ASME B31.3.	Ductile Iron ASTM A536 Grade 65-45-12 (Note 8)	FTE-20-17	2"	NPT	190 psig	190 psig at 450°F	R-0988D
			FTE-50-17	2"	NPT	190 psig	190 psig at 450°F	
			FTE-50-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
			FTE-125-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
			FTE-200-16	1-1/2"	NPT	200 psig	200 psig at 450°F	
			FTE-200-17	2"	NPT	190 psig	190 psig at 450°F	
			FTE-200-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
			WLDE-20-17	2"	NPT	190 psig	190 psig at 450°F	
			WLDE-50-17	2"	NPT	190 psig	190 psig at 450°F	
			WLDE-50-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
			WLDE-125-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
			WLDE-200-16	1-1/2"	NPT	200 psig	200 psig at 450°F	
			WLDE-200-17	2"	NPT	190 psig	190 psig at 450°F	
			WLDE-200-18	2-1/2"	NPT	165 psig	165 psig at 450°F	
Float and Thermostatic Steam Traps and Liquid Drainers	ASME B31.1, ASME B31.3.	Carbon Steel ASTM A216-WCB	FT600-XX, WLD600-XX	3/4", 1", 1-1/2" 2"	NPT, Socket Weld, CL. 300 Flanged (Note 3,5)	370 psig (Note 3,5)	370 psig at 100°F	R-0988E
							370 psig at 200°F	
							370 psig at 300°F	
							370 psig at 400°F	
							363 psig at 500°F	
							339 psig at 600°F	
							328 psig at 650°F	
							319 psig at 700°F	
							272 psig at 750°F	
					CL. 150 Flanged (Note 4,5)	285 psig (Note 4,5)	285 psig at 100°F	
							260 psig at 200°F	
							230 psig at 300°F	
							200 psig at 400°F	
							170 psig at 500°F	
							140 psig at 600°F	
							125 psig at 650°F	
							110 psig at 700°F	
							95 psig at 750°F	

THIS IS PART OF CRN 0E20868.5
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WATSON MCDANIEL
428 JONES BLVD.
POTTSTOWN, PENNSYLVANIA
19464, U.S.A.

SCOPE OF CRN REGISTRATION CONTINUED

Note 1: MAWP = Maximum Allowable Working Pressure, MAWT = Maximum Allowable Working Temperature.

Note 2: The pressure-temperature ratings shown are the maximum CRN pressure-temperature ratings. In all cases the MAWP may be limited by the seat or seal material or other considerations. Please consult Watson McDaniel literature.

Note 3: When ASME B16.5 CL. 300 flanges are used the pressure-temperature ratings are limited to the values stated. These values are less than the ASME B16.5 Table II-2-1.1 CL. 300 flange ratings.

Note 4: Pressure Temperature ratings in accordance with ASME B16.5 Table II-2-1.1 CL. 150.

Note 5: Pipe used in flanged connections shall be carbon steel SA106-B schedule 80 minimum thickness per ASME B36.10M. Flanges shall be carbon steel SA105 or any other ASME B16.5 Table II-2-1.1 listed material.

Note 6: For low temperature operation the products shall conform to the rules of the applicable codes under which they are used.

Note 7: ASTM A126-B and ASTM A48 Class 30 are limited to 406°F maximum temperature when used under the ASME B31.1 code.

Note 8: In accordance with ASME B31.1 para 123.1.2(D) when this product is used under the ASME B31.1 code the owner must accept the use of the following non listed materials:
- Ductile Iron ASTM A536 Grade 65-45-12.

In all cases the above unlisted materials shall only be used for nonboiler external piping.

THIS IS PART OF CRN OE20868.5
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TECHNICAL SAFETY BC
CRN #: OE20868.51
Date: DEC 24, 2018
BC J#: 72311