



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

August 5, 2021

AAONE
PO BOX 91072 BURNHAMTHORPE PO
TORONTO ON M9C 5N5

Workorder Type: Registration - Fitting(Conventional)
Workorder No: 8030665
Your Reference No.: A2021-182
Registered to: ARMSTRONG INTERNATIONAL

Dear EMMA SMITH,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN : 0H14860.5R1
Main Design No.: Attached CRN scope "Part of CRN"
Expiry Date: Aug 05, 2031

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

CRN scope "Part of CRN"

The stamped copy of the approved registration and the invoice are mailed separately (There will be no hard copies for electronic submissions). Should you have any questions or require further assistance, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Charley Dong
Engineer, BPV
Tel. : +1 416-734-3436
Email : cdong@tssa.org



Technical Standards and Safety Authority
 345 Carlingview Drive
 Toronto, Ontario M9W 6N9
 www.tssa.org

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



STATUTORY DECLARATION

Registration of Fittings

I, Andy Schirk Global Quality Director
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Armstrong International, Inc.
(Name of Manufacturer)

Located at 816 Maple St. Three Rivers, MI 49093 USA 269-273-1415
(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

(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 ASME B31.1 & B31.3 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 Registration Services

The items covered by this declaration, for which I seek registration, are category H type fittings. In support of this application, the following information and/or test data are attached as follows:
Model PT-104. See page 2 for document listing.

(drawings, calculations, test reports, etc.)

Declared before me at Three Rivers in the County of St. Joseph
 the 9th day of June AD 2021.

Commissioner for Oaths:
ROBERTA MARIE RYAN
 Notary Public, St. Joseph County, MI
 My Commission Expires Sept. 13, 2024

Roberta Marie Ryan
(Signature)

Andy Schirk
(Signature of Declarer)



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 H.

CRN: 0H14860.5R1 Note: "Part of CRN" For CRN scope.

Registered by: Charley Dong

Dated: Aug 5, 2021

NOTE: This registration expires on: Aug 5, 2031

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

REGISTERED

C.R.N.: 0H14860.5R1

Signed: Charley Dong


Date: August 5, 2021.



Armstrong International, Inc.

816 Maple Street, Three Rivers, Michigan 49093 USA Phone: (269) 273-1415 Ž Fax: (269) 278-6555

Scope of CRN Registration

| | |
|---------------------------|--|
| Design Code: | ASME B31.1, B31.3 |
| Product | PT-104 |
| Main drawing: | CDF1028 |
| Pressure and Temp. | 90 psi @ 406. °F MDMT -20°F |
| Logo |  Armstrong |
| QA locations: | Armstrong International 816 Maple Street Three Rivers, MI 49093 |

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Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety
Program

Intelligent System Solutions STEAM Ž AIR Ž HOT WATER

www.armstrong-intl.com

DIMENSIONS & DATA CERTIFIED FOR:

Representative: _____

Order: _____

Customer: _____

Order: _____

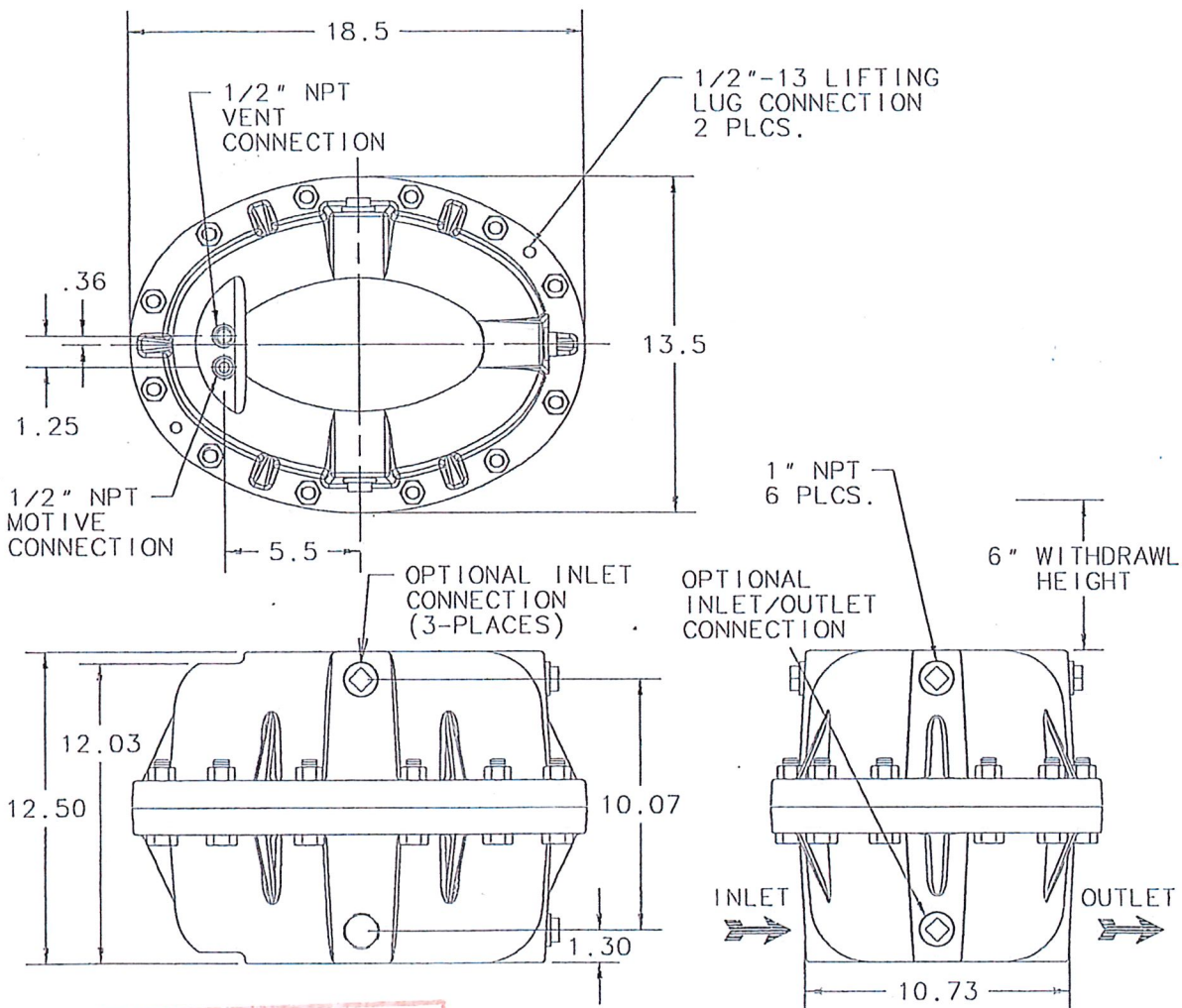
Project: _____

Requirements: _____

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Boilers and Pressure Vessels Safety
Program

By: _____

Date: _____



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CRN OH14860-5
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Division

| | | |
|---|----------|---------|
| Armstrong Fluid Handling, Inc. Three Rivers, MI. 49093 Telephone (269) 278-6500 Fax (269) 279-3150 | | |
| Product | CDF No. | Date |
| PUMP TRAP PT-104 | CDF 1028 | 10/9/02 |
| | | Rev. B |



Armstrong

Armstrong Steam and Condensate Group

816 Maple St, Three Rivers, Michigan 49093 – U.S.A. Phone: (269) 273-1415 · Fax: (269) 278-6555

July 7, 2011

Re: Burst Calculation

Product: PT104

Body Material: Cast Iron per ASTM A48 CL 30

Bolting Material: Carbon Steel, SA449

Design conditions: 90 psi at 406 F

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 Program

$$(P1)(7.5)(AT/MT) = P2$$

P1 = pressure rating of casting

7.5 = safety factor

AT = average tensile strength of test bars

MT = spec tensile strength

This Document has been digitally signed and approved. The stamp size has been optimized for 11 x 17 documents.

Given: castings were hydro-tested to 960 psi

Tensile strength: $41,300 + 40,900 + 40,900 + 39,600 + 42,000 / 5$

Average tensile strength: 40,900 psi

$$(P1)(7.5)(33,869 / 30,000) = 960$$

P1 = 93 psi

Criteria

P1 > 90 satisfied

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 Boilers & Pressure Vessels
 Safety Division