



345 Carlingview Drive
Toronto, Ontario M9W 6N9
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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: 8030657
Your Reference No.: A2021-181
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 : 0H14859.5R1
Main Design No.: "Part of CRN"CRN scope
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.

"Part of CRN"CRN scope

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,

A handwritten signature in black ink that reads "Charley Dong".

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



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-3500 Series. See page 2 for document listing.

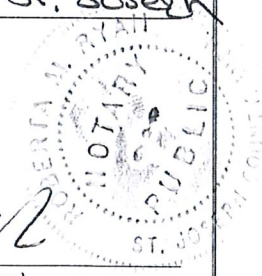
(drawings, calculations, test reports, etc.)

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
(Printed name)

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: 0H14859.5R1

Registered by: Charley Dong Note: "Part of CRN" For CRN scope.

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.: 0H14859.5R1

Signed: Charley Dong

Date: August 5, 2021.



Armstrong[®]

Armstrong International, Inc.

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


THIS IS PART OF CRN

0H14859.5R1

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety
Program

Scope of CRN Registration

Design Code:	ASME B31.1, B31.3
Product	PT-3500
Main drawing:	CDF1041
Pressure and Temp.	100psi @ 406 °F MDMT -20°F
Logo	
QA locations:	Armstrong International 816 Maple Street Three Rivers, MI 49093

Intelligent System Solutions STEAM Ž AIR Ž HOT WATER

www.armstrong-intl.com

DIMENSIONS & DATA CERTIFIED FOR:

Representative: _____ Order: _____

Customer: _____ Order: _____

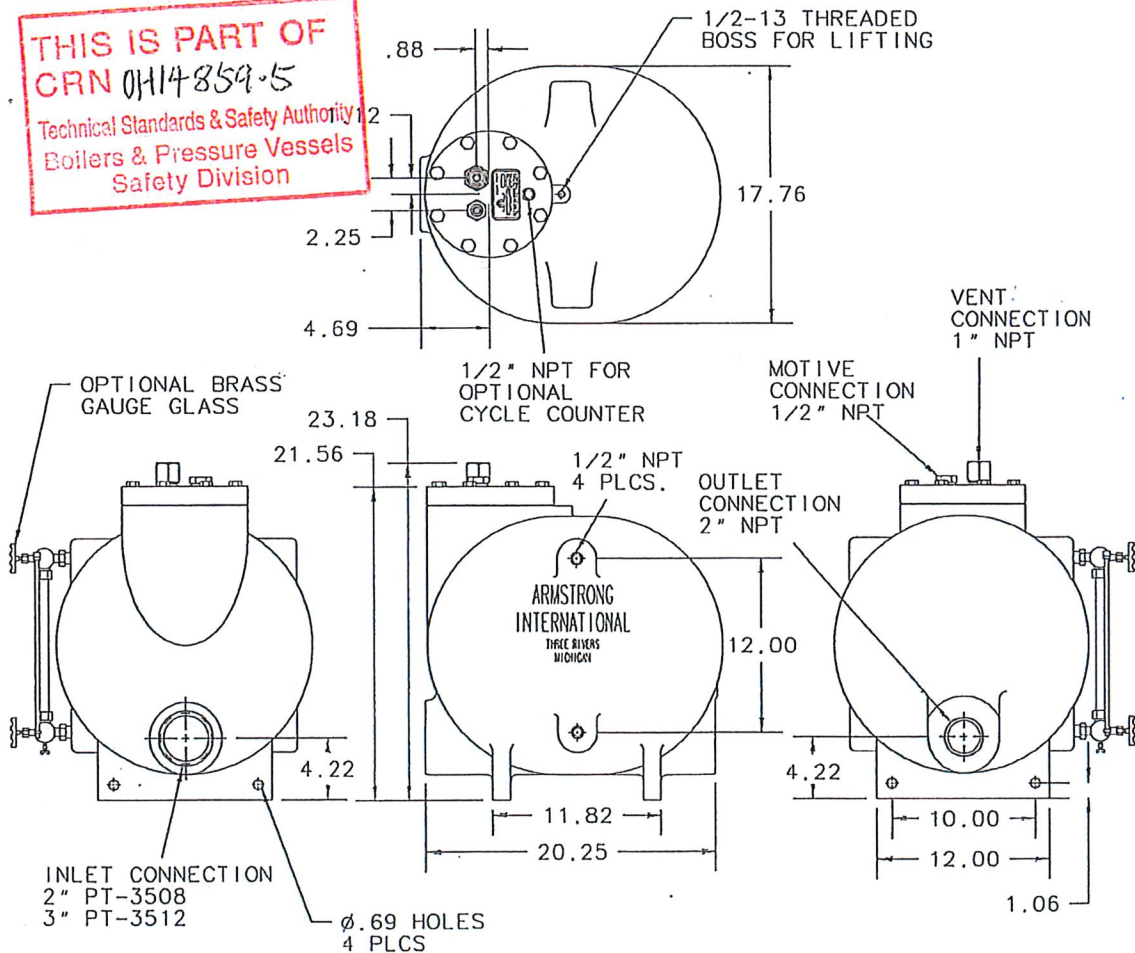
Project: _____

Requirements: _____

THIS IS PART OF CRN
0H14859.5R1
 Technical Standards and Safety Authority
 Boilers and Pressure Vessels Safety
 Program

By: _____ Date: _____

THIS IS PART OF
CRN 0H14859.5
 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Division



Armstrong Fluid Handling, Inc.
 Three Rivers, MI. 49093
 Telephone (269) 279-3601
 Armstrong Fax (269) 279-3150
 Posted on Armstrong's homepage www.armstrong-intl.com

Product	CDF No.	Date
PUMP TRAP PT-3508/3512	CDF1041	9/13/99
		Rev. A

(OVER)



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: PT3508 and PT3512 (common body, collectively called PT3500 series)

Body Material: Cast Iron per ASTM A48 CL 30

Bolting Material: Carbon Steel, SA449

Design conditions: 100 psi at 406 F

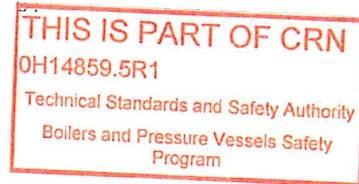
$$(P1)(7.5)(AT/MT) = P2$$

P1 = pressure rating of casting

7.5 = safety factor

AT = average tensile strength of test bars

MT = spec tensile strength



Given: castings were hydro-tested to 930 psi

Tensile strength: $36,269 + 32,751 + 34,149 + 32,951 + 33,226 / 5$

Average tensile strength: 33,869 psi

$$(P1)(7.5)(33,869 / 30,000) = 930$$

P1 = 109 psi

Criteria

P1 > 100 satisfied

