

June 26, 2022

Attention: Tanya Francis
TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO, ON M9W 6N9

The design submission, tracking number 2022-03079, originally received on June 01, 2022 was surveyed and accepted for registration as follows:

| | | | |
|---|------------------------------|---------------------|----------------|
| CRN : | 0A23909.52 | Accepted on: | June 26, 2022 |
| Reg Type: | NEW DESIGN | Expiry Date: | April 13, 2032 |
| Drawing No. : | SCOPE OF REGISTRATION | | |
| Fitting type: | GYROLOK TUBE & PIPE FITTINGS | | |
| Design registered in the name of : CRANE INSTRUMENTATION SAMPLING INC | | | |

The registration is conditional on your compliance with the following notes:

As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction are ASME B31.1 and ASME B31.3.

- It is our understanding that the fitting(s), included as the scope of this submission, that is(are) subject to the Safety Codes Act shall comply with the requirements of the indicated Standard or Code of Construction on the AB-41 Statutory Declaration as supported by the attached data which identifies the dimensions, materials of construction, press./temp. ratings and the basis for such ratings, and the identification marking of the fittings.*
- This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.*
- This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date.*
- Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.*

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3337 or fax (780) 437-7787 or e-mail Dick@absa.ca.

Sincerely,



DICK, ASHLING, P. Eng.
DOP Cert. No. D00007936



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, Paul Wright Engineering Supervisor
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Crane Instrumentation & Sampling
(Name of Manufacturer)

Located at 405 Centura Court, Spartanburg, SC, 29303, USA
(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 2020 Ed. (Unlisted Components)/ASME B31.3 2020 Ed. (Unlisted Components)
(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 which has been verified by the following authority, SAI Global

The items covered by this declaration, for which I seek registration, are category A type fittings. In support of this application, the following information and/or test data are attached as follows:

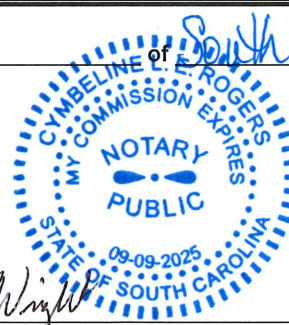
ER-GYROCRN
(drawings, calculations, test reports, etc.)

Declared before me at Spartanburg in the State of South Carolina
the 3rd day of September AD 2021

Commissioner for Oaths:

Cymbeline L.E. Rogers
(Printed name)
Cymbeline L.E. Rogers
(Signature)

Paul Wright
(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 _____

CRN: _____

Registered by: _____

Dated: _____

NOTE: This registration expires on: _____

2022-03079

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: QA23909. 52

**See acceptance letter for
conditions of registration.**

Date: 2022-06-26

By:

Ashling Dick
ASHLING DICK, P. Eng.
DOP: D00007936

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.


2022-03079

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

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Date: 2022-06-26 By: 

ASHLING DICK, P. Eng.
DOP: D00007936

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ER-GYROCRN

Engineering Report

Title Qualification of Hoke Gyrolok Tube and Pipe Fittings by Burst Test and Similarity

REV.

DATE:

PAGE:

B

14-FEB-2022

231 OF 232

Scope of Registration

| Description | Connection Type & Size Range | Material | Minimum Design Metal Temperature (MDMT) | Max. Allowable Working Pressure | | Design Code of Construction |
|--------------------------------|---|--|--|---------------------------------|---------------------------------|---|
| | | | | MDMT to 100°F | At Maximum Temperature | |
| Gyrolok Tube and Pipe Fittings | Gyrolok® Compression Fitting Ends Sizes 1/8" to 1" | F316/L SST (ASTM A182 / ASME SA-182) (Shaped fittings) | -20°F for ASME B31.1 applications -40 °F/°C | SEE TABLE BELOW | SEE TABLE BELOW | ASME B31.1 (UNLISTED COMPONENTS) & ASME B31.3 (UNLISTED COMPONENTS) |
| | Male NPT 1/16" to 2" Male ISO-7 (tapered) 1/8" to 2" | | | 10,975 psig to 3800 psig | 7000 psig to 2900 psig @ 1000°F | ASME B1.20.1 |
| | Female NPT 1/16" to 2" Female ISO-7 (tapered) 1/8" to 2" | | | 7000 psig to 3000 psig | 4700 psig to 2300 psig @ 1000°F | |

THIS IS PART OF CRN

0A23909.5

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety Program

This report contains proprietary data. Distribution to parties outside of Crane Instrumentation & Sampling PFT Corp. is prohibited without Engineering approval. Compliance to all export control regulations must be maintained.

| | | | |
|---|--|------------------------|---|
|  ER-GYROCRN | <p align="center">Engineering Report</p> <p align="center">Title Qualification of Hoke Gyrolok Tube and Pipe Fittings by Burst Test and Similarity</p> | REV. DATE: PAGE: | <p align="center">B</p> <p align="center">14-FEB-2022</p> <p align="center">232 OF 232</p> |
|---|--|------------------------|---|

Scope of Registration (cont'd)

| Gyrolok End Connection Size | MAWP at temps. up to 100°F | MAWP at temps. at 1000°F (max. temp.) |
|-----------------------------|----------------------------|---------------------------------------|
| 1/8 in. | 8421 psig | 6442 psig |
| 1/4 in. | 7542 psig | 5749 psig |
| 3/8 in. | 6710 psig | 5133 psig |
| 1/2 in. | 5795 psig | 4433 psig |
| 9/16 in. | 5461 psig | 4178 psig |
| 5/8 in. | 5045 psig | 3860 psig |
| 3/4 in. | 4213 psig | 3223 psig |
| 13/16 in. | 3797 psig | 2905 psig |
| 7/8 in. | 3381 psig | 2586 psig |
| 15/16 in. | 2965 psig | 2268 psig |
| 1 in. | 2584 psig | 1977 psig |

THIS IS PART OF CRN
0A23909.5

Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety
Program