|  |  |
| --- | --- |
| TITLE: Hall B Cryogenics, Pre-Cooldown Instrument Checkout Procedure | DATE: |
| BY: Pablo Campero | 1/24/2017 |
| CHK: |  |
| APP: |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| REV. | DESCRIPTION | BY | CHK. | APP. | APP. | DATE |

**DEFINITIONS:**

TR = Cernox

TD = Silicon Diode

TP = Platinum RTD

TC = Thermocouple

PT = Pressure Transducer

DP = Differential Pressure Transducer

~~SG = Strain Gage~~

**Purpose**

The purpose of this document is to provide a general procedure for verifying ‘sensible’ readouts of cryogenic instruments prior to cooldown and to make available a location to record the results of the same.

**Procedure for Thermometers (TR, TD, TP, TC):**

For each thermometer listed in the following checklists, record the actual and the expected value along with the date and the initials of the individual performing the checkout.

**Procedure for Pressure Transducers (PT, DP):**

For each sensor listed in the following checklists, record the actual and expected value along with the date and the initials of the individual performing the checkout.

**NOTE:**

For pressure transducers, a sensible reading could be ~0, ~1 or ~3 Atm-absolute depending on whether the circuit is under vacuum, bled up to ambient pressure or under pressure (due to pressure checks), respectively.

**Procedure for ~~Strain Gages &~~ Load Cells (~~SG,~~ LC):**

For each sensor listed in the following checklists, record the actual and expected value along with the date and initials of the individual performing the checkout.

**Distribution Box and Ancillary Piping Thermometers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TD8512 |  |  |  |  |  |
| TP8523 |  |  |  |  |  |
| TD8522DR |  |  |  |  |  |
| TD8522TR |  |  |  |  |  |
| TD8522SR |  |  |  |  |  |
| TD8513S |  |  |  |  |  |
| TP8557S |  |  |  |  |  |
| TD8513T |  |  |  |  |  |
| TP8557T |  |  |  |  |  |
| TP8567 |  |  |  |  |  |
| TP8564 |  |  |  |  |  |
| TP8552 |  |  |  |  |  |
| TP8555 |  |  |  |  |  |
| TP8565 |  |  |  |  |  |
| TC8559F |  |  |  |  |  |
| TC8559M |  |  |  |  |  |
| ~~TD8512~~ | ~~Repeated~~ |  |  |  |  |
| ~~TP8523~~ | ~~Repeated~~ |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Distribution Box and Ancillary Piping Pressure Transducers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [atma] | Actual Value [atma] | Pass/Fail | Initials | Date |
| PT8552 |  |  |  |  |  |
| PT8554 |  |  |  |  |  |
| PT8555 |  |  |  |  |  |
| PT8565 |  |  |  |  |  |
| PT8563 |  |  |  |  |  |
| PT8561 |  |  |  |  |  |
| PT8512 |  |  |  |  |  |
| PT8513T |  |  |  |  |  |
| PT8557T |  |  |  |  |  |
| PT8557S |  |  |  |  |  |
| PT8513S |  |  |  |  |  |
| ~~PT8552~~ | Repeated |  |  |  |  |
| ~~PT8554~~ | Repeated |  |  |  |  |
| ~~PT8555~~ | Repeated |  |  |  |  |
| ~~PT8565~~ | Repeated |  |  |  |  |
| ~~PT8563~~ | Repeated |  |  |  |  |
| ~~PT8561~~ | Repeated |  |  |  |  |
| ~~PT8512~~ | Repeated |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Solenoid Service Tower (Lead and Magnet Reservoirs) Thermometers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TR8610 |  |  |  |  |  |
| TR8611 |  |  |  |  |  |
| TR8671 |  |  |  |  |  |
| TR8670 |  |  |  |  |  |
| TR8672 |  |  |  |  |  |
| TR8673 |  |  |  |  |  |
| TR8674 |  |  |  |  |  |
| TP8675 |  |  |  |  |  |
| TR8624A |  |  |  |  |  |
| TR8624B |  |  |  |  |  |
| TR8622A |  |  |  |  |  |
| TR8622B |  |  |  |  |  |
| TP8621A |  |  |  |  |  |
| TP8621B |  |  |  |  |  |
| TP8611 |  |  |  |  |  |
| TP8620A |  |  |  |  |  |
| TP8620B |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Solenoid Service Tower Pressure Transducers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| PT8620 |  |  |  |  |  |
| PT8670 |  |  |  |  |  |
| PT8675A |  |  |  |  |  |
| PT8677 |  |  |  |  |  |
| LL8620DP |  |  |  |  |  |
| LL8670DP |  |  |  |  |  |
|  |  |  |  |  |  |

**Solenoid Thermometers**

**Coils 1-5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TR86105C1 |  |  |  |  |  |
| TR86106C1 |  |  |  |  |  |
| TR86107C2 |  |  |  |  |  |
| TR86108C2 |  |  |  |  |  |
| TR86109C3 |  |  |  |  |  |
| TR86110C3 |  |  |  |  |  |
| TR86111C4 |  |  |  |  |  |
| TR86112C4 |  |  |  |  |  |
| TR86113C5 |  |  |  |  |  |
| TR86114C5 |  |  |  |  |  |

**Splices and Bobbin**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TR86115SP\_C1\_C3 |  |  |  |  |  |
| TR86116SP\_C1\_C3 |  |  |  |  |  |
| TR86117SP\_C3\_C5 |  |  |  |  |  |
| TR86118SP\_C3\_C5 |  |  |  |  |  |
| TR86119SP\_C4\_C5 |  |  |  |  |  |
| TR86120SP\_C4\_C5 |  |  |  |  |  |
| TR86120SP\_C2\_C4 |  |  |  |  |  |
| TR86121SP\_C2\_C4 |  |  |  |  |  |
| TR86132BOB\_US |  |  |  |  |  |
| TR86133BOB\_DS |  |  |  |  |  |

**LHe Channels/ Cooling Plate**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TR86101CP\_B |  |  |  |  |  |
| TR86102CP\_B |  |  |  |  |  |
| TR86103CP\_T |  |  |  |  |  |
| TR86104CP\_T |  |  |  |  |  |

**Solenoid Thermometers**

**Radiation Shields**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TP86128HS\_BO\_B\_BR |  |  |  |  |  |
| TP86129HS\_BO\_B\_BL |  |  |  |  |  |
| TP86130HS\_B\_OD |  |  |  |  |  |
| TP86131HS\_B\_OD |  |  |  |  |  |
| TP86134HS\_US\_CO\_LBR |  |  |  |  |  |
| TP86135HS\_DS\_CO\_LBR |  |  |  |  |  |
| TP86136HS\_US\_CO\_UBR |  |  |  |  |  |
| TP86137HS\_DS\_CO\_UBR |  |  |  |  |  |
| TP86138HS\_US\_CO\_UBL |  |  |  |  |  |
| TP86139HS\_DS\_CO\_UBL |  |  |  |  |  |
| TP86140HS\_DS\_CO\_LBL |  |  |  |  |  |
| TP86141HS\_US\_CO\_LBL |  |  |  |  |  |

**Suspension**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [K] | Actual Value [K] | Pass/Fail | Initials | Date |
| TR86123RS\_US\_T\_BL\_C |  |  |  |  |  |
| TR86124RS\_DS\_B\_BL\_C |  |  |  |  |  |
| TP86125RS\_US\_T\_BL\_M |  |  |  |  |  |
| TP86126RS\_US\_T\_BL\_M |  |  |  |  |  |
| TP86127RS\_DS\_B\_BL\_M |  |  |  |  |  |

**Solenoid Load Cells**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value [lb] | Actual Value [lb] | Pass/Fail | Initials | Date |
| RS86107DS\_BL\_B |  |  |  |  |  |
| ZS86107DS\_BL\_B |  |  |  |  |  |
| RS86106DS\_BL\_T |  |  |  |  |  |
| ZS86106DS\_BL\_T |  |  |  |  |  |
| RS86103DS\_BR\_T |  |  |  |  |  |
| ZS86103DS\_BR\_T |  |  |  |  |  |
| RS86102DS\_BR\_B |  |  |  |  |  |
| ZS86102DS\_BR\_B |  |  |  |  |  |
| RS86105US\_BL\_T |  |  |  |  |  |
| ZS86105US\_BL\_T |  |  |  |  |  |
| RS86108US\_BL\_B |  |  |  |  |  |
| ZS86108US\_BL\_B |  |  |  |  |  |
| RS86104US\_BR\_T |  |  |  |  |  |
| ZS86104US\_BR\_T |  |  |  |  |  |
| RS86101US\_BR\_B |  |  |  |  |  |
| ZS86101US\_BR\_B |  |  |  |  |  |

**Does the Torus instrumentation records needs to be in this document?**

**Torus Service Tower & Torus Chimney Thermometers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TP8151 |  |  |  |  |  |
| TP8152 |  |  |  |  |  |
| TP815AR |  |  |  |  |  |
| TP815BR |  |  |  |  |  |
| TP815CR |  |  |  |  |  |
| TP815DR |  |  |  |  |  |
| TP815ER |  |  |  |  |  |
| TP815FR |  |  |  |  |  |
| TP815DSHRS |  |  |  |  |  |
| TP815DSHRN |  |  |  |  |  |
| TD8120 |  |  |  |  |  |
| TD8115 |  |  |  |  |  |
| TD8111 |  |  |  |  |  |
| TD8111SC |  |  |  |  |  |
| TD8114DSHR |  |  |  |  |  |
| TD8121A |  |  |  |  |  |
| TD8121B |  |  |  |  |  |
| TP8121A |  |  |  |  |  |
| TP8121B |  |  |  |  |  |
| TR8114S |  |  |  |  |  |
| TR8114R |  |  |  |  |  |

**Torus Service Tower Pressure Transducers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| PT8151 |  |  |  |  |  |
| PT8152 |  |  |  |  |  |
| LL8152DP |  |  |  |  |  |
| PT8111 |  |  |  |  |  |
| PT8115 |  |  |  |  |  |
| PT8120 |  |  |  |  |  |
| LL8120DP |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Torus Thermometers**

**CCM A**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811AR |  |  |  |  |  |
| TR811AS |  |  |  |  |  |
| TR817A1 |  |  |  |  |  |
| TR817A2 |  |  |  |  |  |
| TR817A3 |  |  |  |  |  |
| TR817A4 |  |  |  |  |  |
| TR817A5 |  |  |  |  |  |
| TR817A6 |  |  |  |  |  |
| TR817A7 |  |  |  |  |  |
| TR817A8 |  |  |  |  |  |
| TR817A9 |  |  |  |  |  |
| TP817A1 |  |  |  |  |  |
| TP817A2 |  |  |  |  |  |
| TP817A3 |  |  |  |  |  |
| TP817A4 |  |  |  |  |  |
| TP817A5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM A**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817A1 |  |  |  |  |  |
| SG817A2 |  |  |  |  |  |
| SG817A3 |  |  |  |  |  |
| SG817A4 |  |  |  |  |  |

**Torus Load Cells**

**CCM A**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817A1 |  |  |  |  |  |
| LC817A2 |  |  |  |  |  |
| LC817A3 |  |  |  |  |  |
| LC817A4 |  |  |  |  |  |

**Torus Thermometers**

**CCM B**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811BR |  |  |  |  |  |
| TR811BS |  |  |  |  |  |
| TR817B1 |  |  |  |  |  |
| TR817B2 |  |  |  |  |  |
| TR817B3 |  |  |  |  |  |
| TR817B4 |  |  |  |  |  |
| TR817B5 |  |  |  |  |  |
| TR817B6 |  |  |  |  |  |
| TR817B7 |  |  |  |  |  |
| TR817B8 |  |  |  |  |  |
| TR817B9 |  |  |  |  |  |
| TP817B1 |  |  |  |  |  |
| TP817B2 |  |  |  |  |  |
| TP817B3 |  |  |  |  |  |
| TP817B4 |  |  |  |  |  |
| TP817B5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM B**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817B1 |  |  |  |  |  |
| SG817B2 |  |  |  |  |  |
| SG817B3 |  |  |  |  |  |
| SG817B4 |  |  |  |  |  |
| SG817B5 |  |  |  |  |  |
| SG817B6 |  |  |  |  |  |

**Torus Load Cells**

**CCM B**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817B1 |  |  |  |  |  |
| LC817B2 |  |  |  |  |  |
| LC817B3 |  |  |  |  |  |
| LC817B4 |  |  |  |  |  |

**Torus Thermometers**

**CCM C**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811CR |  |  |  |  |  |
| TR811CS |  |  |  |  |  |
| TR817C1 |  |  |  |  |  |
| TR817C2 |  |  |  |  |  |
| TR817C3 |  |  |  |  |  |
| TR817C4 |  |  |  |  |  |
| TR817C5 |  |  |  |  |  |
| TR817C6 |  |  |  |  |  |
| TR817C7 |  |  |  |  |  |
| TR817C8 |  |  |  |  |  |
| TR817C9 |  |  |  |  |  |
| TP817C1 |  |  |  |  |  |
| TP817C2 |  |  |  |  |  |
| TP817C3 |  |  |  |  |  |
| TP817C4 |  |  |  |  |  |
| TP817C5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM C**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817C1 |  |  |  |  |  |
| SG817C2 |  |  |  |  |  |
| SG817C3 |  |  |  |  |  |
| SG817C4 |  |  |  |  |  |

**Torus Load Cells**

**CCM C**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817C1 |  |  |  |  |  |
| LC817C2 |  |  |  |  |  |
| LC817C3 |  |  |  |  |  |
| LC817C4 |  |  |  |  |  |

**Torus Thermometers**

**CCM D**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811DR |  |  |  |  |  |
| TR811DS |  |  |  |  |  |
| TR817D1 |  |  |  |  |  |
| TR817D2 |  |  |  |  |  |
| TR817D3 |  |  |  |  |  |
| TR817D4 |  |  |  |  |  |
| TR817D5 |  |  |  |  |  |
| TR817D6 |  |  |  |  |  |
| TR817D7 |  |  |  |  |  |
| TR817D8 |  |  |  |  |  |
| TR817D9 |  |  |  |  |  |
| TP817D1 |  |  |  |  |  |
| TP817D2 |  |  |  |  |  |
| TP817D3 |  |  |  |  |  |
| TP817D4 |  |  |  |  |  |
| TP817D5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM D**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817D1 |  |  |  |  |  |
| SG817D2 |  |  |  |  |  |
| SG817D3 |  |  |  |  |  |
| SG817D4 |  |  |  |  |  |
| SG817D5 |  |  |  |  |  |
| SG817D6 |  |  |  |  |  |

**Torus Load Cells**

**CCM D**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817D1 |  |  |  |  |  |
| LC817D2 |  |  |  |  |  |
| LC817D3 |  |  |  |  |  |
| LC817D4 |  |  |  |  |  |

**Torus Thermometers**

**CCM E**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811ER |  |  |  |  |  |
| TR811ES |  |  |  |  |  |
| TR817E1 |  |  |  |  |  |
| TR817E2 |  |  |  |  |  |
| TR817E3 |  |  |  |  |  |
| TR817E4 |  |  |  |  |  |
| TR817E5 |  |  |  |  |  |
| TR817E6 |  |  |  |  |  |
| TR817E7 |  |  |  |  |  |
| TR817E8 |  |  |  |  |  |
| TR817E9 |  |  |  |  |  |
| TP817E1 |  |  |  |  |  |
| TP817E2 |  |  |  |  |  |
| TP817E3 |  |  |  |  |  |
| TP817E4 |  |  |  |  |  |
| TP817E5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM E**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817E1 |  |  |  |  |  |
| SG817E2 |  |  |  |  |  |
| SG817E3 |  |  |  |  |  |
| SG817E4 |  |  |  |  |  |

**Torus Load Cells**

**CCM E**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817E1 |  |  |  |  |  |
| LC817E2 |  |  |  |  |  |
| LC817E3 |  |  |  |  |  |
| LC817E4 |  |  |  |  |  |

**Torus Thermometers**

**CCM F**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR811FR |  |  |  |  |  |
| TR811FS |  |  |  |  |  |
| TR817F1 |  |  |  |  |  |
| TR817F2 |  |  |  |  |  |
| TR817F3 |  |  |  |  |  |
| TR817F4 |  |  |  |  |  |
| TR817F5 |  |  |  |  |  |
| TR817F6 |  |  |  |  |  |
| TR817F7 |  |  |  |  |  |
| TR817F8 |  |  |  |  |  |
| TR817F9 |  |  |  |  |  |
| TP817F1 |  |  |  |  |  |
| TP817F2 |  |  |  |  |  |
| TP817F3 |  |  |  |  |  |
| TP817F4 |  |  |  |  |  |
| TP817F5 |  |  |  |  |  |

**Torus Strain Gages**

**CCM F**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817F1 |  |  |  |  |  |
| SG817F2 |  |  |  |  |  |
| SG817F3 |  |  |  |  |  |
| SG817F4 |  |  |  |  |  |
| SG817F5 |  |  |  |  |  |
| SG817F6 |  |  |  |  |  |

**Torus Load Cells**

**CCM F**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817F1 |  |  |  |  |  |
| LC817F2 |  |  |  |  |  |
| LC817F3 |  |  |  |  |  |
| LC817F4 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U1HB1 |  |  |  |  |  |
| TR817U1HB2 |  |  |  |  |  |
| TR817D1HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U1HB1 |  |  |  |  |  |
| SG817U1HB2 |  |  |  |  |  |
| SG817U1HB3 |  |  |  |  |  |
| SG817U1HB4 |  |  |  |  |  |
| SG817D1HB1 |  |  |  |  |  |
| SG817D1HB2 |  |  |  |  |  |
| SG817D1HB3 |  |  |  |  |  |
| SG817D1HB4 |  |  |  |  |  |

**Sector 1 Lateral Support Load Cell**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817H1 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U2HB1 |  |  |  |  |  |
| TR817U2HB2 |  |  |  |  |  |
| TR817D2HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U2HB1 |  |  |  |  |  |
| SG817U2HB2 |  |  |  |  |  |
| SG817U2HB3 |  |  |  |  |  |
| SG817U2HB4 |  |  |  |  |  |
| SG817D2HB1 |  |  |  |  |  |
| SG817D2HB2 |  |  |  |  |  |
| SG817D2HB3 |  |  |  |  |  |
| SG817D2HB4 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U3HB1 |  |  |  |  |  |
| TR817U3HB2 |  |  |  |  |  |
| TR817D3HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U3HB1 |  |  |  |  |  |
| SG817U3HB2 |  |  |  |  |  |
| SG817U3HB3 |  |  |  |  |  |
| SG817U3HB4 |  |  |  |  |  |
| SG817D3HB1 |  |  |  |  |  |
| SG817D3HB2 |  |  |  |  |  |
| SG817D3HB3 |  |  |  |  |  |
| SG817D3HB4 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U4HB1 |  |  |  |  |  |
| TR817U4HB2 |  |  |  |  |  |
| TR817D4HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U4HB1 |  |  |  |  |  |
| SG817U4HB2 |  |  |  |  |  |
| SG817U4HB3 |  |  |  |  |  |
| SG817U4HB4 |  |  |  |  |  |
| SG817D4HB1 |  |  |  |  |  |
| SG817D4HB2 |  |  |  |  |  |
| SG817D4HB3 |  |  |  |  |  |
| SG817D4HB4 |  |  |  |  |  |

**Sector 4 Lateral Support Load Cell**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| LC817H4 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U5HB1 |  |  |  |  |  |
| TR817U5HB2 |  |  |  |  |  |
| TR817D5HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U5HB1 |  |  |  |  |  |
| SG817U5HB2 |  |  |  |  |  |
| SG817U5HB3 |  |  |  |  |  |
| SG817U5HB4 |  |  |  |  |  |
| SG817D5HB1 |  |  |  |  |  |
| SG817D5HB2 |  |  |  |  |  |
| SG817D5HB3 |  |  |  |  |  |
| SG817D5HB4 |  |  |  |  |  |

**Hex Beam Thermometers**

**Sector 6**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| TR817U6HB1 |  |  |  |  |  |
| TR817U6HB2 |  |  |  |  |  |
| TR817D6HB1 |  |  |  |  |  |

**Hex Beam Strain Gages**

**Sector 6**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instrument ID | Expected Value | Actual Value | Pass/Fail | Initials | Date |
| SG817U6HB1 |  |  |  |  |  |
| SG817U6HB2 |  |  |  |  |  |
| SG817U6HB3 |  |  |  |  |  |
| SG817U6HB4 |  |  |  |  |  |
| SG817D6HB1 |  |  |  |  |  |
| SG817D6HB2 |  |  |  |  |  |
| SG817D6HB3 |  |  |  |  |  |
| SG817D6HB4 |  |  |  |  |  |