|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Traveler Title | SNSPPU Cavity Receiving Inspection | | | |
| Traveler Abstract | Incoming Inspection of SNSPPU Production Cavities. | | | |
| Traveler ID | SNSPPU-CAV-INSP-CAV | | | |
| Traveler Revision | R1 | | | |
| Traveler Author | Pashupati Dhakal | | | |
| Traveler Date | 6-Oct-20 | | | |
| NCR Informative Emails | kwilson, edaly, dhakal, macha | | | |
| NCR Dispositioners | kwilson, edaly, dhakal, macha | | | |
| D3 Emails | kwilson, edaly, dhakal, macha | | | |
| Approval Names | Pashupati Dhakal | Kurt Macha | G. Dekerlegand | Ed Daly |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | Reviewer | Project Manager |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| References | List and Hyperlink all documents related to this traveler. This includes, but is not limited to: safety (THAs, SOPs, etc), drawings, procedures, and facility related documents. | | | |
| [104211800-M8U-8200-A001 Cavity Assembly](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219292/104211800-M8U-8200-A001-R00___.pdf) | [104211800-M8U-8200-A002 Probe End Sub-Assy](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219293/104211800-M8U-8200-A002-R00.pdf) | [104211800-M8U-8200-A002 FPC End Sub-Assy](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219294/104211800-M8U-8200-A003-R00.pdf) | [Cavity in Shipping Crate](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219295/Cavity%20in%20shipping%20crate.JPG) | |  |  | | --- | --- | |  | [104211800-M8U-8200-A017 FPC Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219298/104211800-M8U-8200-A017-R00.pdf) | |
| [104211800-M8U-8200-A016 FPC End Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219299/104211800-M8U-8200-A016-R00.pdf) | [104211800-M8U-8200-A011 Probe End Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219299/104211800-M8U-8200-A016-R00.pdf) |  |  |  |

|  |  |
| --- | --- |
| Revision Note |  |
| R1 | Initial release of this Traveler. |
| R2 | First Revision after the first cavity Inspection |

|  |  |  |
| --- | --- | --- |
| Step No. | Instructions | Data Input |
| 1 | Enter the cavity serial number ID that is going to be inspected. | [[CAVSN]] <<CAVSN>>  [[Inspector1]] <<SRF>> |
| 2 | Un-crate the cavity from the shipping box and inspect for any visual damage. Record the component serial numbers.  Visual inspection should be looking for any obvious damage to the cavity as well as damage to the input and FPC connectors. Pay special attention the the feedthrough pins. Inspect the busrt disk to ensure it is not dented or broken.  [Cavity in Shipping Crate](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219295/Cavity%20in%20shipping%20crate.JPG)  Field Probe FT (FPFTSN)  Input FT (INFTSN)  Burs tDisk (BDSN)  End Group FPC Side (FPCEGSN)  End Group FP Side (FPEGSN)  Beamline Flange FPC Side (FPCFSN)  Beamline Flange FP Side (FPFSN) | [[PassVisualInspectionOK]] <<YESNO>>  [[VisualInspectComments]] <<COMMENT>>  [[FieldProbeFT]] <<FPFTSN>>  [[InputFT]] <<INFTSN>>  [[BurstDisk]] <<BDSN>>  [[EndGroup]] <<FPCEGSN>>  [[EndGroup]] <<FPEGSN>>  [[BeamlineFlange]] <<FPCFSN>>  [[BeamlineFlange]] <<FPFSN>>  [[Inspector2]] <<SRF>>  [[AdditionalFile1]] <<FILEUPLOAD>> |
| 3 | Cell Serialization ( FPC-FP, Cell 1-6)  Each cell has two SN for each half record both. | [[Cell 1]] <<FLOAT>>  [[Cell 2]] <<FLOAT>>  [[Cell 3]] <<FLOAT>>  [[Cell 4]] <<FLOAT>>  [[Cell 5]] <<FLOAT>>  [[Cell 6]] <<FLOAT>> |
| 4 | Ensure the right Angle Valve is in the closed position. | [[RightAngleValve Clsoed]] <<YESNO>>  [[ValveComments]] <<Comments>> |
| 5 | **Torque Value Check.** A286 8/32 – 40 in-lb. A 286 ¼ - 11 ft-lb  ***Joints are numbered 1 to 9. NOTE - Starting location is at valve end of cavity*** | [[Are torque values correct]] << YES NO>>  [[Torque]] <Comments>> |
|  | 1 Valve screws. *Torque spec??* | [[DIMTOL25]] <<YESNO>>  [[TorqComment1]] <<COMMENT>> |
|  | 2 Blank on valve. *Torque spec??* | [[DIMTOL26]] <<YESNO>>  [[TorqComment2]] <<COMMENT>> |
|  | 3 Coupler. *Torque spec??* | [[DIMTOL27]] <<YESNO>>  [[TorqComment3]] <<COMMENT>> |
|  | 4 Beamline flange. Fpc End. Torque spec A286 5/16 – 30 ft-lb | [[DIMTOL28]] <<YESNO>>  [[TorqComment4]] <<COMMENT>> |
|  | 5 FPC Torque spec A286 5/16 – 30 ft-lb | [[DIMTOL29]] <<YESNO>>  [[TorqComment5]] <<COMMENT>> |
|  | 6 FPC coupler *Torque spec??* | [[DIMTOL30]] <<YESNO>>  [[TorqComment6]] <<COMMENT>> |
|  | 7 Field probe *Torque spec??* | [[DIMTOL31]] <<YESNO>>  [[TorqComment7]] <<COMMENT>> |
|  | 8 Beamline flange Field Probe end. Torque spec A286 5/16 – 30 ft-lb | [[DIMTOL32]] <<YESNO>>  [[TorqComment8]] <<COMMENT>> |
|  | 9 Burst disk joint. *Torque spec??* | [[DIMTOL33]] <<YESNO>>  [[TorqComment9]] <<COMMENT>> |
| 6 | **CMM Inspections**  **Perform dimensional inspections on CMM. Fill out NCR for any out of tolerance measurements.**  [104211800-M8U-8200-A001 Cavity Assembly](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219292/104211800-M8U-8200-A001-R00___.pdf)  [104211800-M8U-8200-A002 Probe End Sub-Assy](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219293/104211800-M8U-8200-A002-R00.pdf)  [104211800-M8U-8200-A003 FPC End Sub-Assy](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219294/104211800-M8U-8200-A003-R00.pdf)  [104211800-M8U-8200-A017 FPC Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219298/104211800-M8U-8200-A017-R00.pdf)  [104211800-M8U-8200-A011 Probe End Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219299/104211800-M8U-8200-A016-R00.pdf)  [104211800-M8U-8200-A016 FPC End Flange Detail](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-219299/104211800-M8U-8200-A016-R00.pdf) | [[Inspector3]] <<SRF>>  [[CmmComments]] <<COMMENT>>  [[AdditionalFile2]] <<FILEUPLOAD>> |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Drawing number** | **Description** | **Drawing Value (inch)** | **Measured Value** | **Within Tolerance** |
| 104211800-M8U-8200-A001 | Distance between end dishes. Measure from machined step to machined step. | **35.423** | [[DIM1]] <<FLOAT>> | Reference Dimension N/A |
| 104211800-M8U-8200-A003 | Coupler flange perpendicularity. | .005 | [[DIM2]] <<FLOAT>> | [[DIMTOL2]] <<YESNO>> |
| 104211800-M8U-8200-A017 | Coupler flange perpendicularity OD | 4.889 | [[DIM3]] <<FLOAT>> | [[DIMTOL3]] <<YESNO>> |
| 104211800-M8U-8200-A016 | Beamline Flange OD- FPC side | 4.889 | [[DIM4]] <<FLOAT>> | [[DIMTOL4]] <<YESNO>> |
| 104211800-M8U-8200-A011 | Beamline Flange OD – FP side | 4.889 | [[DIM5]] <<FLOAT>> | [[DIMTOL5]] <<YESNO>> |
| 104211800-M8U-8200-A002 | End Flange to Dish ( FP side) | **6.397** | [[DIM6]] <<FLOAT>> | Reference Dimension N/A |
| 104211800-M8U-8200-A003 | End Flange to Dish ( FPC Side) | **9.01** | [[DIM7]] <<FLOAT>> | Reference Dimension N/A |
| 104211800-M8U-8200-A003 | Perpendicularity of FPC end dish to beam center | .005 | [[DIM8]] <<FLOAT>> | N/A |
| 104211800-M8U-8200-A002 | Perpendicularity of FP end dish to beam center | .005 | [[DIM9]] <<FLOAT>> | N/A |
| 104211800-M8U-8200-A002 | Tuner 120 Deg. C-Bore location | 2.559  5.118 | [[DIM10]] <<FLOAT>>  [[DIM11]] <<FLOAT>> | [[DIMTOL10]] <<YESNO>>  [[DIMTOL11]] <<YESNO>> |
| 104211800-M8U-8200-A002 | Tuner tapped hole locations.  Verify 10-32 Thread inserts are installed and test thread. | .590  1.180  2.559  5.118 | [[DIM12]] <<FLOAT>>  [[DIM13]] <<FLOAT>>  [[DIM14]] <<FLOAT>>  [[DIM15]] <<FLOAT>> | [[DIMTOL12]] <<YESNO>>  [[DIMTOL13]] <<YESNO>>  [[DIMTOL14]] <<YESNO>>  [[DIMTOL15]] <<YESNO>>  [[ThreadCheck1]] <<YESNO>> |
| 104211800-M8U-8200-A002  104211800-M8U-8200-A001 | Lollipop tapped hole C-Bore face. Side of flange at FP side.  Flange rotation, Lollipop tapped hole 0 Deg. To FPC flange.  Verify 5/8-11 threads with thread gauge. | 2.351  0 Deg. | [[DIM16]] <<FLOAT>>  [[DIM17]] <<FLOAT>> | [[DIMTOL16]] <<YESNO>>  [[DIMTOL17]] <<YESNO>>  [[ThreadCheck2]] <<YESNO>> |
| 104211800-M8U-8200-A002 | Alignment tool tapped hole C-Bore face. Side of flange at FP side.  Hole location 90 deg from FPC face  Verify 5/8-11 threads with thread gauge. | 2.351  2.351  90 Deg | [[DIM18]] <<FLOAT>>  [[DIM19]] <<FLOAT>>  [[DIM20]] <<FLOAT>> | [[DIMTOL18]] <<YESNO>>  [[DIMTOL19]] <<YESNO>>  [[DIMTOL20]] <<YESNO>>  [[ThreadCheck3]] <<YESNO>> |
| 104211800-M8U-8200-A003  104211800-M8U-8200-A001 | Lollipop tapped hole C-Bore face. Side of flange at FPC side.  Flange rotation, Lollipop tapped hole 0 Deg. To FPC flange.  Verify 5/8-11 threads with thread gauge. | 2.351  0 Deg. | [[DIM21]] <<FLOAT>>  [[DIM22]] <<FLOAT>> | [[DIMTOL21]] <<YESNO>>  [[DIMTOL22]] <<YESNO>>  [[ThreadCheck4]] <<YESNO>> |
| 104211800-M8U-8200-A002  104211800-M8U-8200-A001 | Alignment tool tapped hole C-Bore face. Side of flange at FPC side.  Hole location 90 deg from FPC face  Verify 5/8-11 threads with thread gauge.  Are the threads okay? | 2.351  2.351  90 Deg | [[DIM23]] <<FLOAT>>  [[DIM24]] <<FLOAT>> | [[DIMTOL23]] <<YESNO>>  [[DIMTOL24]] <<YESNO>>  [[ThreadCheck5]] <<YESNO>> |