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| Traveler Title | End Group 2 Assembly Traveler |
| Traveler Abstract | Outlines the inspection and fabrication steps for the End Group 2 for the EIC 197Mhz Crab Cavity  |
| Traveler ID | EIC197-FAB-ENDG2-ASSY |
| Traveler Revision  | R1 |
| Traveler Author | Eduard Drachuk |
| Traveler Date | 22-Oct-24 |
| NCR Informative Emails | AREILLY,GEORGED,O'BRIEN,KDAVIS |
| NCR Dispositioners | DRACHUK,BUTTLES,HUQUE |
| D3 Emails | AREILLY,GEORGED,BUTTLES, O'BRIEN,KDAVIS,DRACHUK,HUQUE |
| Approval Names | E. DRACHUK | A. O'BRIEN | J. BUTTLES | N. HUQUE |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | Group Leader | Project Manager |

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| --- | --- |
| 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. |
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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| Step No. | Instructions | Data Input |
| PART IDENTIFICATION |
| 0 | Enter Serial Number of Finished Part

|  |  |  |
| --- | --- | --- |
| **STEPS** | **WORK CENTER AREAS** | **ACTIONS** |
| 1 | MACHSHOP | Part Forming |
| 2 | INSP | CMM |
| 3 | CHEM | BCP |
| 4 | EBW | EBW |
| 5 | INSP | CMM |
| 6 | CHEM | BCP |
| 7 | EBW | EBW |
| 8 | INSP | CMM |
| 9 | CHEM | BCP |
| 10 | EBW | EBW |
| 11 | CHEM | BCP |
| 12 | CMA | Leak Check |
| 13 | CMA | Assemble |
| 14 | INSP | CMM |

 | [[EG1SN]] <<SN>>[[New part SN dropdown]] <<NOTE>> |
| FORMING |
| 1 | Form JL0129594 End Dish | [[FormingTech]] <<SRF>>[[FormingTime]] <<TIMESTAMP>>[[FormingComment]] <<COMMENT>> |
| DIMENSIONAL INSPECTION |
| 2 | Verify dimensions in red for JL0129594 End Dish | [[DISHSN]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[InspectionTech1]] <<SRF>>[[InspectionTime1]] <<TIMESTAMP>>[[InspectionComment1]] <<COMMENT>>[[InspectionUpload1]] <<FILEUPLOAD>> |
| CHEMISTRY |
| 3a | BCP JL0129594 End Dish to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech1]] <<SRFCVP>>[[ChemistryTime1]] <<TIMESTAMP>>[[ChemistryComment1]] <<COMMENT>>[[ChemistryUpload1]] <<FILEUPLOAD>> |
| 3b | BCP JL0143260 Boss (x2) to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech2]] <<SRFCVP>>[[ChemistryTime2]] <<TIMESTAMP>>[[ChemistryComment2]] <<COMMENT>>[[ChemistryUpload2]] <<FILEUPLOAD>> |
| 3c | BCP JL0135965 Boss (x2) to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech3]] <<SRFCVP>>[[ChemistryTime3]] <<TIMESTAMP>>[[ChemistryComment3]] <<COMMENT>>[[ChemistryUpload3]] <<FILEUPLOAD>> |
| 3d | BCP JL0134212 End Plate 2 to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech5]] <<SRFCVP>>[[ChemistryTime5]] <<TIMESTAMP>>[[ChemistryComment5]] <<COMMENT>>[[ChemistryUpload5]] <<FILEUPLOAD>> |
| 3e | BCP JL0136180 HHOW Waveguide Assembly to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech6]] <<SRFCVP>>[[ChemistryTime6]] <<TIMESTAMP>>[[ChemistryComment6]] <<COMMENT>>[[ChemistryUpload6]] <<FILEUPLOAD>> |
| 3f | BCP JL0136179 FPC Waveguide Assembly to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech7]] <<SRFCVP>>[[ChemistryTime7]] <<TIMESTAMP>>[[ChemistryComment7]] <<COMMENT>>[[ChemistryUpload7]] <<FILEUPLOAD>> |
| 3g | BCP JL0136181 FPC Beampipe Assembly to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech8]] <<SRFCVP>>[[ChemistryTime8]] <<TIMESTAMP>>[[ChemistryComment8]] <<COMMENT>>[[ChemistryUpload8]] <<FILEUPLOAD>> |
| 3h | BCP JL0143978 Nut (x4) to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech9]] <<SRFCVP>>[[ChemistryTime9]] <<TIMESTAMP>>[[ChemistryComment9]] <<COMMENT>>[[ChemistryUpload9]] <<FILEUPLOAD>> |
| EBW |
| 4a | Using fixture JL0147503, EBW JL0143260 Boss (x2) and JL0135965 Boss (x2) to JL0129594 End Dish | [[DISHSN]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[BSOUTSN]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[BSINSN]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[EBWTech1]] <<SRF>>[[EBWTime1]] <<TIMESTAMP>>[[EBWComment1]] <<COMMENT>>[[EBWFile1]] <<FILEUPLOAD>> |
| 4b | EBW JL0136180 HHOM Waveguide Assembly and JL0136179 FPC Waveguide Assembly to JL0134212 End Plate 2 | [[PLATE2SN]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[???179]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[???180]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[EBWTech2]] <<SRF>>[[EBWTime2]] <<TIMESTAMP>>[[EBWComment2]] <<COMMENT>>[[EBWFile2]] <<FILEUPLOAD>> |
| DIMENSIONAL INSPECTION |
| 5a | Verify dimensions in red for JL0129594 End Dish With Bosses | [[InspectionTech2]] <<SRF>>[[InspectionTime2]] <<TIMESTAMP>>[[InspectionComment2]] <<COMMENT>>[[InspectionUpload2]] <<FILEUPLOAD>> |
| 5b | Verify dimensions in red for JL0134212 End Plate 2 With HHOM Waveguide And FPC Waveguide | [[InspectionTech3]] <<SRF>>[[InspectionTime3]] <<TIMESTAMP>>[[InspectionComment3]] <<COMMENT>>[[InspectionUpload3]] <<FILEUPLOAD>> |
| CHEMISTRY |
| 6a | Optional BCP JL0129594 End Dish With Bosses to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech10]] <<SRFCVP>>[[ChemistryTime10]] <<TIMESTAMP>>[[ChemistryComment10]] <<COMMENT>>[[ChemistryUpload10]] <<FILEUPLOAD>> |
| 6b | BCP JL0134212 End Plate 2 With HHOM Waveguide And FPC Waveguide to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech11]] <<SRFCVP>>[[ChemistryTime11]] <<TIMESTAMP>>[[ChemistryComment11]] <<COMMENT>>[[ChemistryUpload11]] <<FILEUPLOAD>> |
| EBW |
| 7 | Using fixture JL0170550, EBW JL0136181 FPC Beampipe Assembly to JL0134212 End Plate 2 With HHOM Waveguide and FPC Waveguide to create part JL0136182 | [[???181]] <<SN>>[[New part SN dropdown]] <<NOTE>>[[EBWTech4]] <<SRF>>[[EBWTime4]] <<TIMESTAMP>>[[EBWComment4]] <<COMMENT>>[[EBWFile4]] <<FILEUPLOAD>> |
| DIMENSIONAL INSPECTION |
| 8 | Verify dimensions in red for JL0136182 FPC End Plate Assembly | [[InspectionTech5]] <<SRF>>[[InspectionTime5]] <<TIMESTAMP>>[[InspectionComment5]] <<COMMENT>>[[InspectionUpload5]] <<FILEUPLOAD>> |
| CHEMISTRY |
| 9 | BCP JL0136182 FPC End Plate Assembly to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech13]] <<SRFCVP>>[[ChemistryTime13]] <<TIMESTAMP>>[[ChemistryComment13]] <<COMMENT>>[[ChemistryUpload13]] <<FILEUPLOAD>> |
| EBW |
| 10 | Using fixture JL0146916, EBW JL0136182 to JL0136183 to create part JL0134243 | [[EBWTech6]] <<SRF>>[[EBWTime6]] <<TIMESTAMP>>[[EBWComment6]] <<COMMENT>>[[EBWFile6]] <<FILEUPLOAD>> |
| CHEMISTRY |
| 11 | BCP JL0134243 to a depth of 15 micronsAccording to SRF-MSPR-CHEM-NB-ACID-R1 Acid Etching Proceedure | [[ChemistryTech15]] <<SRFCVP>>[[ChemistryTime15]] <<TIMESTAMP>>[[ChemistryComment15]] <<COMMENT>>[[ChemistryUpload15]] <<FILEUPLOAD>> |
| LEAK CHECK |
| 12 | Leak check the assembly (JL0134243) in accordance with 11141-S-0033 Vendor Standard Helium Leak Check Procedure Upload any relevant images/comments | [[LeakCheckTech]] <<SRF>>[[LeakCheckTime]] <<TIMESTAMP>>[[LeakCheckPass]] <<YESNO>>[[LeakCheckComment]] <<COMMENT>>[[LeakCheckUpload]] <<FILEUPLOAD>>[[LeakCheckEmail]] {{DRACHUK}} <<EMAIL>>[[LeakCheckEmail]] {{Pansophy: End Group 1 Passed The Leak Check}} <<EMAILSUBJ>> |
| ASSEMBLY |
| 13 | Assemble JL0145103 (x4) Rod with JL0143978 (x4) Nut to JL0134243 | [[AssemblyTech]] <<SRF>>[[AssemblyTime]] <<TIMESTAMP>>[[AssemblyComment]] <<COMMENT>>[[AssemblyUpload]] <<FILEUPLOAD>> |
| DIMENSIONAL INSPECTION |
| 14 | Verify dimensions in red for JL0134243 | [[InspectionTech7]] <<SRF>>[[InspectionTime7]] <<TIMESTAMP>>[[InspectionComment7]] <<COMMENT>>[[InspectionUpload7]] <<FILEUPLOAD>> |