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| Traveler Title | C75 HOM Load Brazed Assembly |
| Traveler Abstract | The purpose of this document is to capture the brazing process and run parameters associated with brazing the HOM Load to the Copper Support Pedestal and SS Mounting Flange Assembly. |
| Traveler ID | C75-HOM-BRAZ-ASSY |
| Traveler Revision  | R1 |
| Traveler Author | Scott Williams |
| Traveler Date | 5-May-20 |
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| NCR Dispositioners | S. Williams, J. Guo, K. Macha, K. Davis, D. Forehand |
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| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | 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. |
| [C75 HOM Load Assy. JL0024622](../HOM%20Load%20Drawings/JL0024622_B_C75%20HOM%20LOAD.pdf) | [C75 HOM ABSORBER FLANGE JL0024623](../HOM%20Load%20Drawings/JL0024623-B-HOM%20ABSORBER%20FLANGE.pdf) | [C75 HOM LOAD JL0006805](../HOM%20Load%20Drawings/JL0006805_-_C50%20HOM%20LOAD%204.0.pdf) | [C75 HOM PEG BOARD JL0041239](../HOM%20Load%20Drawings/JL0041239_-_C50%20HOM%20PEG%20BOARD%287%29.pdf) |  [C75 HOM Load Retainer JL0027665](../HOM%20Load%20Drawings/JL0027665_A_%20RETAINER%204.0%282%29.pdf) |
| [C75 HOM Retainer Screw JL0038398](../HOM%20Load%20Drawings/JL0038398_-_SH%20SH%20SCREW%20.125%20D%20X%200.313%20LG%20X%204-40%20THREAD%281%29.pdf) | [CP-STP-CAV-CHEM-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-141848/CP-STP-CAV-CHEM-ACID-R1.pdf) | [CP-STP-CAV-CHEM-DEGR-R3](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-132364/CP-STP-CAV-CHEM-DEGR-R3.pdf)  |  |  |

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

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| Step No. | Instructions | Data Input |
| 1 | Record Load, Flange, and Copper Pedastal numbers. | [[Technician]] <<USERNAME>>[[LoadMaterialPO]] <<SN>>[[SSFlangeSN]] <<SN>>[[PedastalPO]] <<SN>>[[Date\_DataCapture]] <<TIMESTAMP>>[[Comment\_DataCapture]] <<COMMENT>> |
| 2 | Verify that all components are clean and properly packaged prior to use (HOM Loads, SS Flanges, Cu Pedastals, Fixturing, Braze Alloy, etc.). | [[PartsCleaned]] <<YESNO>>[[Date\_CleaningStatus]] <<TIMESTAMP>>[[Comment\_CleaningStatus]] <<COMMENT>> |
| 3 | Handle with gloves & visually inspect ceramic load, SS flange and copper pedastal for imperfections (chipped ceramics, burrs, scratches, staining, oxidation, etc.) | [[Technician\_VisualInspection]] {{Williams,other}} <<SELECT>>[[Date\_VisualInspection]] <<TIMESTAMP>>[[Comment\_VisualInspection]] <<COMMENT>> |
| 4 | Using the required ceramic fixturing and molybdenum alignment pins, assemble HOM Load Assembly for brazing. Place .008” Thick Cusil ABA Foil between surfaces to be brazed (SS Flange/Copper Pedestal & Copper Pedestal/HOM Load). | [[Technician\_Assembly]] {{Williams,other}} <<SELECT>>[[Date\_Assembly]] <<TIMESTAMP>>[[Comment\_Assembly]] <<COMMENT>> |
| 5 | Place (2) additional ceramics (approx.. 190 gms Ea.) on top of the ceramic alignment fixture, parallel with (1EA) on each side of load. | [[Technician]] <<USERNAME>>[[Date]] <<TIMESTAMP>> |
| 6 | Place fixtured brazement on individual 4” alumina wafer, load in furnace with close proximity to thermal couples, initiate braze run, and start Labview temperature profile recording. | [[Technician\_BrazeRun]] {{Williams,other}} <<SELECT>>[[Date\_BrazeRun]] <<TIMESTAMP>>[[Comment\_BrazeRun]] <<COMMENT>> |
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| 7 | Record brazing program run profile number and upload Labview Temperature Profile file of braze run. | [[Technician\_ProfileDataNo1]] {{Williams,other}} <<SELECT>>[[BrazementSN]] <<SN>>[[FurnaceUsedNo1]] {{Big Blue,Little Blue}} <<SELECT>>[[ProgramName\_LittleBlueNo1]] <<FLOAT>>[[ProgramProfileNo\_BigBlueNo1]] {{1,2,3,4,5,6,7,8,9,10}} <<SELECT>>[[TemperatureProfileFileNo1]] <<FILEUPLOAD>>[[QuantityOfPartsRanNo1]] <<INTEGER>>[[Date\_ProfileDataNo1]] <<TIMESTAMP>>[[Comment\_ProfileDataNo1]] <<COMMENT>> |
| 8 | Vent furnace once cooled, remove brazed HOM Load Assembly, and visually inspect ( alignment retained, proper alloy wetting, good adhesion, chipping of load material, discolorations, etc…).  | [[Technician]] <<USERNAME>>[[Date\_VisualInspection ]] <<TIMESTAMP>>[[VisualInspection]] <<COMMENT>> |
| 9 | Install Load Retainer onto brazement as per drawing [C75 HOM Load Assy. JL0024622](file:///%5C%5Cjlabhome%5Chome%5Cscott%5CJde%5CScotts%20Work%20J%5CSRF%20Work%5CHOM%20Load%20Drawings%5CJL0024622_B_C75%20HOM%20LOAD.pdf), torqueing shoulder screws to 4 in/lbs as noted on drawing. | [[Technician]] <<USERNAME>>[[Date\_RetainerInstall ]] <<TIMESTAMP>>[[RetainerInstall]] <<COMMENT>> |
| 10 | Verify HOM Load Assembly is complete and ready to proceed to QA Work Center for final inspection.  | [[Technician]] <<USERNAME>>[[Date\_AssemblyCompletion ]] <<TIMESTAMP>>[[AssemblyCompletion]] <<COMMENT>> |