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| Traveler Title | Electron Beam Welding General Traveler for Weld Parameters | | | |
| Traveler Abstract | Traveler captures Electron-Beam Welding parameters and processes for all EBW work | | | |
| Traveler ID | SRFRD-EBW-COMP | | | |
| Traveler Revision | R1 | | | |
| Traveler Author | Adam O'Brien | | | |
| Traveler Date | 7-May-21 | | | |
| NCR Informative Emails | follkie | | | |
| NCR Dispositioners | aobrien,edaly | | | |
| D3 Emails | Follkie,aobrien,edaly | | | |
| Approval Names | Adam O'Brien | Jim Follkie | Ed Daly |  |
| 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. | | | |
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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| **Step No** | | **Instructions** | | **Data Inputs** |
| 1 | | **General Information** | |  |
|  | | Name of Operator: | | [[Welder]] <<SRF>> |
| Date of Operation: | | [[WeldDate]] <<TIMESTAMP>> |
| Project Code: | | [[ProjCode]] <<TEXT>> |
| Assembly ID: | | [[AssemblyID]]<<TEXT>> |
| Weld ID (Weld#, Repair#, Location, etc): | | [[WeldID]]<<TEXT>> |
| 2 | | **Joint Information** |  |
|  | | Joint Design: | [[JointDesign]] {{Step-Butt,Butt,Fillet,Lap,Other}} <<SELECT>> |
| Joint Penetration: | [[JointPenetration]]{{Complete,Partial}}<<RADIO>> |
| Joint Comments: | [[JointComment]] <<COMMENT>> |
| Details/Sketches Upload: | [[DrawingUpload]] <<FILEUPLOAD>> |
| Fixturing Photo: | [[FixturePhoto]] <<FILEUPLOAD>> |
| Fixturing Notes: | [[FixtureNote]] <<COMMENT>> |
| 3 | | **Base Metal Information** |  |
|  | | Material 1 Information | |
| Alloy  If the alloy is not in the dropdown, type the alloy into “OtherMaterial” | [[M1AlloySN]] {{Stainless Steel,Nb,Nb-55Ti, Ti, Al, Cu}} <<MTRLSN>>  [[M1OtherMaterial]]<<TEXT>>  [[Please push text from "OtherMaterial" to the MTRLSN dropdown]]<<NOTE>> |
| Grade/Temper | [[M1Grade]] <<TEXT>> |
| Type | [[M1Type]] <<TEXT>> |
| Thickness | [[M1Thickness]]<<FLOAT>>  [[M1ThkUnit]]{{Millimeter,Inch}}<<SELECT>>  [[Thickness should only be stored in mm measurements, rounded to two decimal places. If "Inch" is selected in the unit drop down, convert the value of M2Thickness prior to input (Millimeter = Inch\*25.4). The drop down should be empty when the page is opened and the user MUST select a measurement type prior to saving]]<<NOTE>> |
| Cleaning and Comments | [[M1Comment]]<<COMMENT>> |
| Material 2 Information: | |
| Alloy  If the alloy is not in the dropdown, type the alloy into “OtherMaterial” | [[M2AlloySN]] {{Stainless Steel,Nb,Nb-55Ti, Ti, Al, Cu}} <<MTRLSN>>  [[M2OtherMaterial]]<<TEXT>>  [[Please push text from "OtherMaterial" to the MTRLSN dropdown]]<<NOTE>> |
| Grade/Temper | [[M2Grade]] <<TEXT>> |
| Type | [[M2Type]] <<TEXT>> |
| Thickness | [[M2Thickness]]<<FLOAT>>  [[M2ThkUnit]]{{Millimeter,Inch}}<<SELECT>>  [[Thickness should only be stored in mm measurements, rounded to two decimal places. If "Inch" is selected in the unit drop down, convert the value of M2Thickness prior to input (Millimeter = Inch\*25.4). The drop down should be empty when the page is opened and the user MUST select a measurement type prior to saving]]<<NOTE>> |
| Cleaning and Comments | [[M2Comment]]<<COMMENT>> |
| **4** | | **Weld Information** |  |
|  | | Axes | |
| A-Axis Setup Position  B-Axis Setup Position  C-Axis Setup Position | [[AAxis]]<<FLOAT>>  [[BAxis]]<<FLOAT>>  [[CAxis]]<<FLOAT>> |
| Puddler Settings | |
| Frequency  X-Scale Factor  Y-Scale Factor | [[PuddFreq]]<<INTEGER>>  [[XSF]]<<INTEGER>>  [[YSF]]<<INTEGER>> |
| Gun-to-Work and Focus | |
| Gun-to-Work Distance  Beam Focus  Relative Beam Focus | [[GTW]]<<FLOAT>> in  [[BF]]<<INTEGER>>  [[RelativeBF]]<<INTEGER>>  [[RelativeBFAutofills based on the following formula: BF-(427.45(GTW-0.129)) rounded to the nearest int]] <<NOTE>> |
| Beam Settings | |
| Travel Speed (IPM)  Travel Speed (F value) input F value for weld moves. If multiple, put most-used and add notes in comments below)  Beam Current  Filament Voltage (KNEE)  Accelerating Voltage  Beam Current Low  X-Deflection  Y-Deflection | [[TravelSpeedIPM]]<<FLOAT>>  [[TravelSpeedF]]<<INTEGER>>  [[BC]]<<INTEGER>>  [[FIL]]<<INTEGER>>  [[AV]]<<INTEGER>>  [[BCL]] <<INTEGER>>  [[XD]]<<INTEGER>>  [[YD]]<<INTEGER>> |
| Filament Time | [[FilHours]]<<INTEGER>>  [[FilMin]]<<INTEGER>>  [[FilSec]]<<INTEGER>> |
| Other Weld Information/Comments | [[WeldComments]]<<COMMENT>> |
| Weld Results | [[WeldResult]]<<COMMENT>>  [[WeldImage1]]<<FILEUPLOAD>>  [[WeldImage2]]<<FILEUPLOAD>>  [[WeldImage3]]<<FILEUPLOAD>>  [[WeldImage4]]<<FILEUPLOAD>> |
| Files | [[APTFileName]]<<TEXT>>  [[APTFile]]<<FILEUPLOAD>>  [[WeldFileName]]<<TEXT>>  [[WeldFile]]<<FILEUPLOAD>>  [[WeldDataAcquisition]]<<FILEUPLOAD>>  [[VacuumDataAcquisition]]<<FILEUPLOAD>> |