



TLP Documentation Update 10-11-18

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TLP Documentation Update...

§ What are we doing...???

- Objective – Document the completed TLP work
- Mission Statement – Address a gap in fatigue life prediction capability between machined and welded components

§ What is the time constraint...???

- We would like to present this work at the SAE World Congress on April 9-10, 2019.
- Abstract submission deadline was Sep 2018.

TLP Documentation Update...

§ Authors submitted 7 papers meeting the abstract deadline

- Overview of the Fatigue Design & Evaluation Total Life Project Paper Offer Number: 19M-0089 [Daniel J. Lingenfelter]
- Testing of Welded and Machined A36 Steel T-Joint Configuration Specimens Paper Offer Number: 19M-0171 [Eric Norton, Ryan Blodig, Michael Lister, Tom Cordes]
- FD&E Total Life T-Sample Residual Stress Analytical Predictions and Measured Results [Justin Mach, Casey Gales]
- Accounting for Geometry and Residual Stresses in Weld Fatigue: a Strain Energy Density Approach to Total Life of Welded T-Specimens [Peter Huffman]
- Comparison of Total Fatigue Life Predictions of Welded and Machined A36 Steel T-Joints [Tom Cordes, Kurt Munson, Eric Norton, and Haley Brown]
- Fatigue Life Prediction for F.D.E. Welded Plate Specimen [Al Conle]
- A finite element based methodology for combined crack initiation and crack growth prediction in welded structures [Kurt Munson, Jeff Mentley, Andrew Halfpenny]

TLP Documentation Update: Compilation Options...

- § Option 1: Conference Paper Collection: Is the easiest and uses a mostly automated process. If we want an introduction, then Dan would need to write a paper and get it published in the congress. So we'd need to change his from oral only to a full paper. All other options can have an introduction.
- § Option 2: SAE Edge Report: This is a new option from SAE and they are pushing it. Sherry said it's a very fast and used with the newer technology areas (like autonomous vehicles) to get the information out quickly.
- § Option 3: Paper Compilation: This could be useful if there are other SAE related papers that we would want to include. For example, if Glinka has an SAE paper on his method, it could be included in the book. We would need to provide the list of 10 papers (or less) to them.
- § Option 4: Traditional Book: This is what FD&E has done in the past, but it will be the longest lead item.

TLP Documentation Update: Next Steps...

§ Peer review of the papers...

- Needs to be ASAP.
- Volunteers?

§ Organize a “track” at the Congress for TLP...

- Papers will need to be reduced to ppt's.

§ Decide on a final format for the compilation...

- What's easy?
- What requires the least paperwork/sign-off from management.

TLP Documentation Update...

§ Extra thanks to Mark Pompetzki for help with moving the process along.



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