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Mala Mani
Science Editor
JoVE
1 Alewife Center, Suite 200, Cambridge, MA 02140

Re: JoVE55061 “Experimental procedure for warm spinning of cast aluminum components”

June 25, 2016

Dear Dr. Mani,

Thank you for your editorial review of the manuscript referenced above. I have made changes to the text to reflect your feedback, and these are contained the latest draft. 'Track changes' was employed to highlight the modifications made; please find attached a description of how each of your comments were addressed.

Warmest regards,

Matthew Roy BEng MEng PhD

cc: Daan Maijer

Response to editorial review

- Comment 1: JoVE is unable to publish manuscripts containing commercial sounding language, including trademark or registered trademark symbols (TM/R) and the mention of company brand names before an instrument or reagent. Please remove all commercial sounding language from your manuscript text and figures. Examples of commercial sounding language in your manuscript are: Foseco DYCOTE, SureCOAT, Dow Corning Molycote, Omega Engineering model 88108, etc. All commercial products should be sufficiently referenced in the table of materials/reagents. Please replace all commercial sounding language in your manuscript with generic names that are not company-specific.
- Response: References to Foseco DYCOTE, SureCOAT, Dow Corning Molycote, Omega Engineering model 88108 have been eliminated.
- Comment 2: Please indicate if the article should be published as Standard Access or Open Access. The scanned copy of the Article and Video License agreement indicates Open and Editorial Manager indicates Standard.
- Response: The Editorial Manager has been changed to reflect the article and video license agreement.
- Comment 3: Please define all abbreviations before use. For e.g., DAQ, PC, SiC, etc.
- Response: This has been done. SiC has been replaced with silicon carbide.
- Comment 4: Please ensure that all text in the protocol section is written in the imperative tense as if you are telling someone how to do the technique (i.e. Do this, Measure that etc.). Avoid usage of phrases such as could be, should be, and would be throughout the Protocol. Any text that cannot be written in the imperative tense may be added as a Note, however, notes should be used sparingly and actions should be described in the imperative tense wherever possible.
- Response: Passages which were not imperative (Note in 1.1) have been amended.
- Comment 5: Step 2.1: How is the surface of the mandrel cleaned? How are the fasteners tightened? There should be enough detail in each step to supplement the actions seen in the video so that viewers can easily replicate the protocol.
- Response: This has been amended. The mandrel is cleaned with a damp cloth/rag, and fasteners are tightened with a torque wrench. The model has been included in a revised table of equipment.
- Comment 6: 2.2: Please mention how to pre-heat and extinguish.
- Response: These details have been included.
- Comment 7: 2.3: Please mention the speed.
- Response: This detail has been included.
- Comment 8: 2.7: How is the 3 clamp assemblies assembled? Please mention how to inspect thermal distortion. How is the lubricant applied?
- Response: The step has been amended to direct the reader to Fig. 4 where the clamp assembly is shown in detail, lubricant application is detailed.
- Comment 9: 3.3: What temperature?
- Response: There is no target temperature for any of the components aside from the stipulation of the workpiece temperature (Step 3.4/3.5). The heat output from the torches is fixed, and transfer is complicated. The step is dictated by physical response of the overall system, driven by thermal expansion.
- Comment 10: 3.5: Repeat step 3.4 alone or 3.3 and 3.4? Please clarify.
- Response: Clarified that step 3.4 can be repeated.
- Comment 11: 3.8: Please specify which step(s) are repeated. Is the optimal forming temperature 350 deg C? What is the reheating temperature?

- Response: As per Step 3.5, the optimum forming temperature for the specific material is 350 deg C. Steps 3.4 to 3.5 have been identified as those to be repeated to re-heat the work piece.
- Comment 12: 4.3: Please mention the tool used in your studies.
- Response: Tongs or heavily insulated gloves have been identified.
- Comment 13: After you have made all of the recommended changes to your protocol (listed above), please re-evaluate the length of your protocol section. There is a 10-page limit for the protocol text, and a 3- page limit for filmable content. If your protocol is longer than 3 pages, please highlight (in yellow) 2.75 pages or less of text (which includes headings and spaces) to identify which steps should be visualized to tell the most cohesive story of your protocol steps. Please see JoVEs instructions for authors for more clarification. Remember that the non-highlighted protocol steps will remain in the manuscript and therefore will still be available to the reader.
- Response: The protocol remains less than 3 pages.
- Comment 14: Please disregard this comment ...
- Response: All artwork is original or the authors currently hold the copyright to.
- Comment 15: Please ensure that all parts/panels of the figures are mentioned in the figure legend. For e.g. description of Figure 5 left is missing.
- Response: Changes to the figure legends for figures 1, 2, 4 and 5 have been made to reference each panel explicitly, where applicable.
- Comment 16: Please expand your discussion to cover the following in detail and in paragraph form: 1) modifications and troubleshooting, 2) limitations of the technique, 3) significance with respect to existing methods, 4) future applications and 5) critical steps within the protocol.
- Response: The discussion has been expanded and revised as recommended, with specific attention paid to highlighting critical steps within the protocol, significance and future applications.
- Comment 17: References: Please abbreviate all journal titles.
- Response: This has been done.