




MTS-Test Workmanship Standards

Workmanship Standards Number: 02-07

Rev: A

- 1.1 Name: Casting – Surface Appearance
- 1.2 Workmanship Standards Category: Metal Fabricated Materials
- 1.3 Purpose/Description (why/when/how): The existence of unacceptable tooling marks and inconsistently randomized surface creates risks to meeting functional and cosmetic requirements of assembled components and finished surfaces at subsequent operations. This standard applies to the results of casting operations.
- 1.4 Illustration: The following illustrations depict “Acceptable” and “Unacceptable” workmanship results.
- 1.5 When inspecting, lighting should be parallel to the surface.
- 1.6 Note: Many images from “APPEARANCE STANDARD-TABLE TOP BASE, LANDKMARK/BIONIX”, MTS Part number: 700007822 have been used to create this document.
- 1.7 The standard is intended to be used in conjunction with WS 05-02, “Identification Methods for Finished Surface Classes”.

Acceptable Workmanship	Acceptable Notes
	<p>This image is meant to be for reference only and not meant to represent the only application of this document.</p> <p>The surface texture is even and consistent in irregular size and distribution. Minor incidental marks or imperfections are not a concern as the overall appearance is consistent.</p> <p>Inconsistencies in surfaces are subtle while maintaining a representation of controlled process and quality intended workmanship practices.</p>



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Acceptable Workmanship

Acceptable Notes



Smoothly blended surfaces, edges and corners prior to painting.



Smoothly blended surfaces, edges and corners after painting.

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Unacceptable Workmanship

Unacceptable Notes



Corners not smoothly blended. Discontinuity is highlighted after paint is applied.



Dents in the material are exaggerated post paint application.

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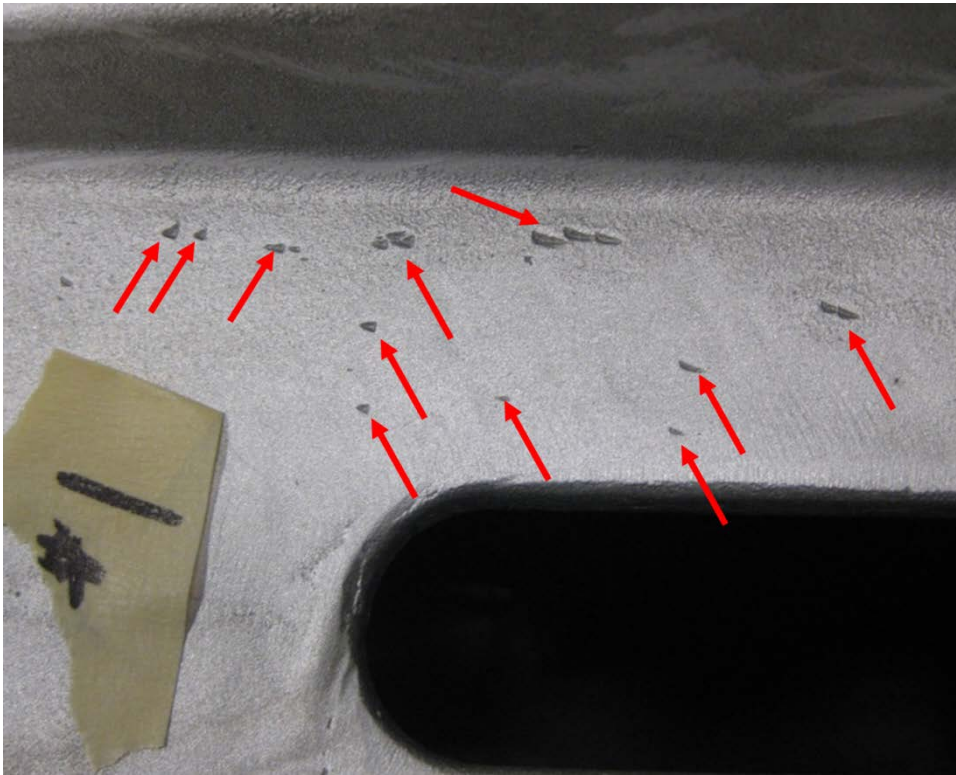
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Unacceptable Workmanship

Unacceptable Notes



Excessive amount of tooling marks in the surface from what appears to be a chipping hammer are not acceptable..



Excessive amounts of deep grind marks are not acceptable.



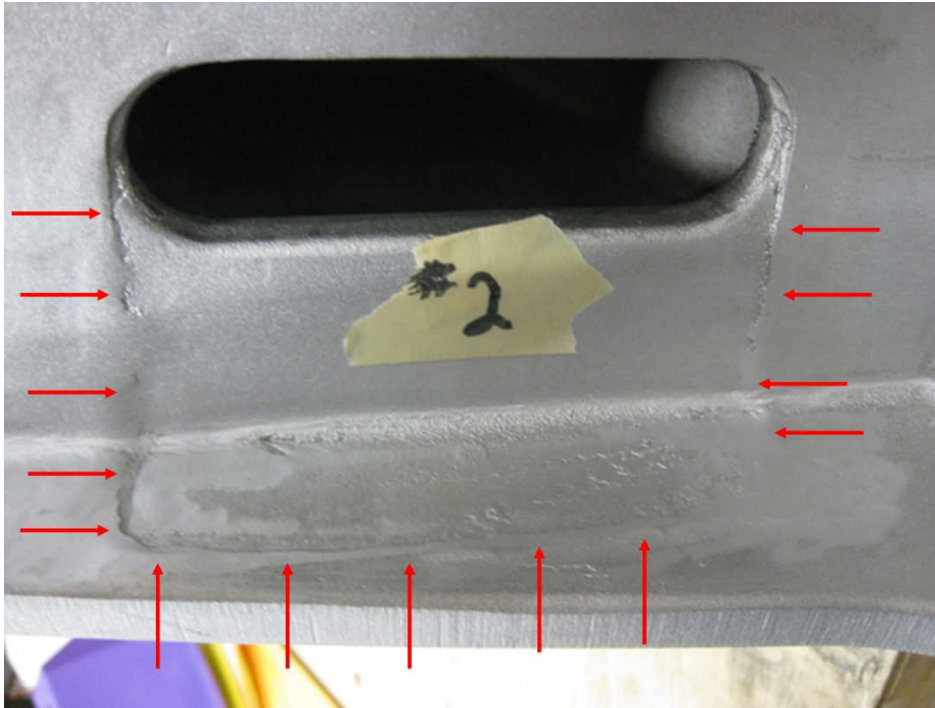
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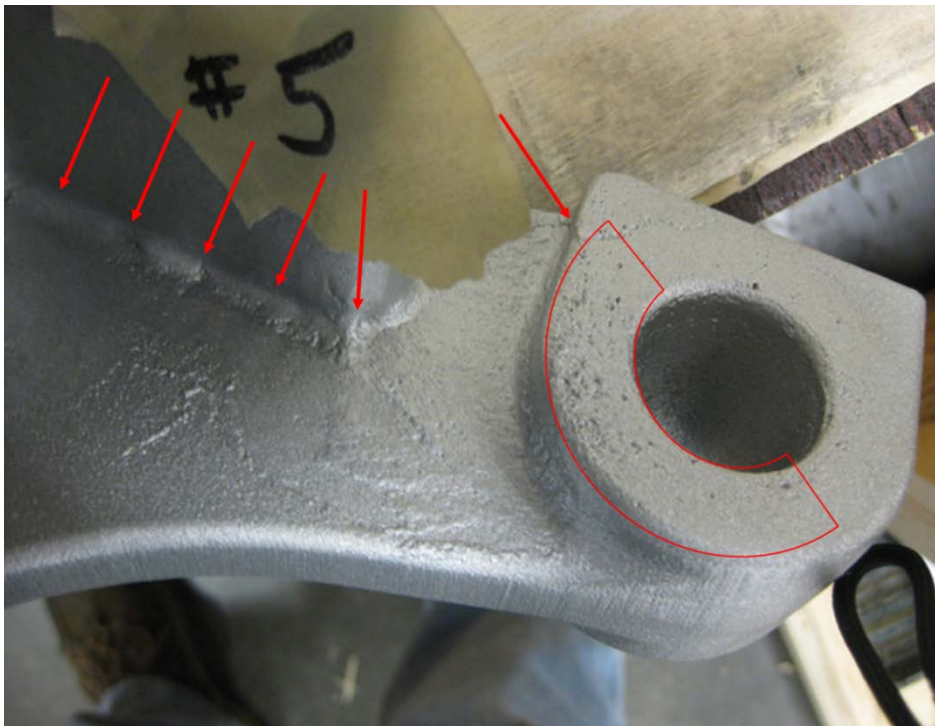
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Unacceptable Workmanship

Unacceptable Notes



Core mismatch, two pieces that came together to form the mold before the metal was poured caused discontinuity potentially leading to a stress riser.



Porosity of the surface may be able to be cleaned during machining of the surface. Radius of neighboring features are not consistent with requirements and lead to stress risers. These are not acceptable situations.



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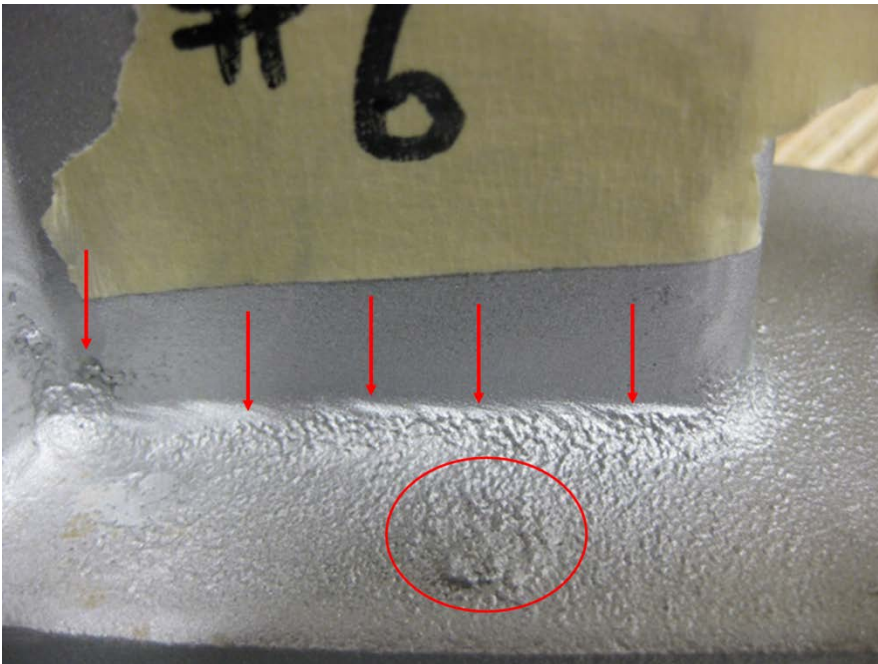
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Unacceptable Workmanship

Unacceptable Notes



Contamination on the surface may be able to be cleaned however this is not acceptable. This is not acceptable.



The accumulation of metal in the circled region may be able to be cleaned but the radius in the neighboring regions is not consistent with requirements and is not acceptable.



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2 REVISION HISTORY & APPROVAL

REVISION HISTORY			
Rev	Description of Change	Author	Effective Date
A	Initiated	Jack Borgeson	3/4/2016

APPROVAL OF CURRENT REVISION		
Name / Function	Signature	Date
Stephen Jordheim / Workmanship Standards Process Owner	(approval on file)	
Dave Winslow / Workmanship Standards Co-Pilot	(approval on file)	
Tom Bannon / Director of Global Sourcing	(approval on file)	

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