MODELS FOR UNSTRUCTURED, NON-GEOMETRIC INFORMATION OF TECHNICAL REQUIREMENTS

XSB, Inc
About the Speaker: Tatyana Vidrevich

Global Product Data Interoperability Summit | 2019

- Chief Operating Officer at XSB
- Joined as a Data Science software engineer in 2001
- Interest: enabling machines to help humans solve engineering problems in unexplored spaces
What is Unstructured, Non-geometric Information?
SURFACE CLEANLINESS OF GROUND SUPPORT EQUIPMENT FLUID SYSTEMS, SPECIFICATION FOR

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ENGINEERING DIRECTORATE

National Aeronautics and Space Administration
John F. Kennedy Space Center

KSC-C-123J
JULY 17, 2009

Supercedes
KSC-C-122H
September 29, 1995
and 1996 updates
Change Notice
1 Through 6

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How About This?

Table 1. Fluid Surface Cleanliness Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Mass [g/cm²]</th>
<th>Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>0.1</td>
<td>A</td>
</tr>
<tr>
<td>50</td>
<td>1.0</td>
<td>B</td>
</tr>
<tr>
<td>100</td>
<td>2.0</td>
<td>C</td>
</tr>
<tr>
<td>150</td>
<td>3.0</td>
<td>D</td>
</tr>
<tr>
<td>200</td>
<td>4.0</td>
<td>E</td>
</tr>
<tr>
<td>300</td>
<td>5.0</td>
<td>F</td>
</tr>
<tr>
<td>400</td>
<td>6.0</td>
<td>G</td>
</tr>
<tr>
<td>500</td>
<td>7.0</td>
<td>H</td>
</tr>
<tr>
<td>700</td>
<td>8.0</td>
<td>I</td>
</tr>
<tr>
<td>1000</td>
<td>9.0</td>
<td>J</td>
</tr>
</tbody>
</table>

Notes
- All particles and NVR are based on 3.3 µm (33 µin)
- Some materials can be treated by the control require by the atmosphere (Tec Method 1.3.3.2)
- * Sitting is not required.
General Notes - Raw Forging

51. Specified tolerances include die closure, linear, straightness and mismatch tolerances as applicable.
52. Draft angles must be matched where necessary.
53. Corner radii are 0.16 ± 0.03 except as noted.
54. Fillet radii are 0.12 ± 0.03 except as noted.
55. Pads shall be in as-forged condition, no grinding permitted.
56. Maximum flash extension is 0.03.
57. Records of mill heat and heat treatment to be furnished to Vertol.
58. Mark per Vertol Spec. MS 1301.
59. Fabricate forging in accordance with Spec. QQ-M-40.
60. Datum dimensions (zero tolerance) for location of datum plane.
61. Alternate material is ZK60A-T5 magnesium alloy per QQ-M-31 or AMS 4352. Stock size is 5.00 x 5.00 x 5.10.

MATERIAL: MAGNESIUM
PROCESS: FORGING
STATE: CANCELLED

Forging in accordance with Spec. QQ-M-40.
Semantic Linking: “Who” am I pointing to and “why”

FROM DOCUMENTS
Documents
- ASTM D380
- MIL-DTL-13444
  - Section 1 SCOPE
  - Section 27.2 OZONE TEST
  - Text

TO UNIQUELY IDENTIFIABLE CONCEPTS
- Subject
- Part
- Material
- Process
- Testing
  - Environmental Testing
  - Electrical Testing
- Ozone Testing

HasLinkTo: Section 4.7.8 OZONE RESISTANCE
IsAbout: Testing, Ozone Testing
Navigate Here
### Extending the Spec Model Through Requirements Extraction

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#### RESEARCH OBJECTIVES

<table>
<thead>
<tr>
<th>Controlled vocabulary</th>
<th>Verification links</th>
<th>Context</th>
</tr>
</thead>
</table>

#### Requirements found for: YA CL-WP 99-01

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Verification links</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastener Tape</td>
<td><strong>cord</strong>&lt;br&gt;The cord shall meet the requirements in paragraph 3.3.5 when tested for breaking strength in accordance with ASTM-D-5035.</td>
<td>ASTM D5035 11 Section 6.2 Clamps and Jaw Faces</td>
</tr>
<tr>
<td>Section 4.3.1 Knife pocket reinforcement webbing and lanyard cord</td>
<td><strong>hook</strong>&lt;br&gt;The sheer strength of the hook shall be 5.0 grams/linear yard, the pull strength of the hook shall be .5 grams/linear yard, and the weight shall be 4.5 grams/linear yard for the hook and 5.9 grams/linear yard for the loop when tested in accordance with paragraph 4.3.2.</td>
<td>YA CL-WP PD 99-01 Section 4.3.2 Hook and loop fastener tape test</td>
</tr>
<tr>
<td>Section 3.3.3 Hook and Loop Fastener Tape</td>
<td><strong>snap fastener</strong>&lt;br&gt;The snap fastener for the knife pocket shall conform to style 2 finish 2 of MIL-F-10864 and MS27850-1B (button), MS27660-03 (socket), MS27880-7B (stud) and MS27880-8B (eyelit).</td>
<td></td>
</tr>
<tr>
<td>Section 3.4.1 Barcode tag</td>
<td><strong>label</strong>&lt;br&gt;The label shall be attached without using adhesive or without piercing the fabric to prevent damage to the item.</td>
<td></td>
</tr>
</tbody>
</table>
The SWISS API Delivers Data to the Apps and Standards You Already Use
Demonstration of the Elysium 3D PDF plugin
Five SWISS Game Changers

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