|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
| **\*DATE** |  | **\*QUANTITY TESTED** |  |
| **\*ORGANIZATION** |  | **\*PART NUMBER** |  |
| \*SUPPLIER/VENDOR CODE |  | **\*PART NAME** |  |
| **\*NAME OF LABORATORY** |  | **\*Batch Trace Number** |  |
| **\*MATERIAL SUPPLIER** |  | **\*Tier 1 PO Number** |  |
| **\*CUSTOMER SPECIFIED SUPPLIER/VENDOR CODE**  \*If source approval is req’d, include Supplier (Source) & Customer assigned code. | |  | |

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| **Heat Treat - Carburize and Carbonitride per**  **TPS 301 (Rev. L, 11-15-17). These additional requirements also apply to 8355701** | SPECIFICATION / LIMITS (min/max) | | SUPPLIER TEST RESULTS (DATA) | **OK** | **NOT OK** |
| \*Per Print and Spec: Effective Case Depth by microhardness traverse per 4.3.  Other methods can be utilized as stated in section 4.3.2 and 4.3.3 from Allison Transmission |  |  |  |  |  |
| \*Per Print: Case Hardness |  |  |  |  |  |
| \*Per Print: Core Hardness |  |  |  |  |  |
| \*Per Spec: 1.1.1 and 4.2 (8355701 page 2) Microstructure  Describe microconstituents and/or include photo with dictation (photo with dictation is the preferred method). |  | |  |  |  |
| \*Per Spec: 4.2.1.3/4.2.1.4 Intergranular Oxidation (IGO)/ Non-martensitic Transformation Products (NMTP) Based on case depth per Spec |  |  |  |  |  |
| \*Per Spec: 4.2.1.5 Decarburization Total decarburization is not acceptable |  | |  |  |  |
| \*\*Per Spec (at PPAP and Annually): 3.2.2.7 Surface Carbon Concentration  average of first .002 to .006” depth |  |  |  |  |  |
| \*Per Spec: 1.1.1 and 4.2.1.1 Network carbides no semi- or continuous carbide networks allowed |  | |  |  |  |
| \*Per Spec: 4.2.1.1 Retained Austenite  Must meet surface hardness requirement |  | |  |  |  |
| \*Heat Treat Metallurgist to review and confirm part preparation per 3.1; carburizing/carbonitriding temperatures per 3.2.1; atmosphere controls per 3.2.2; quenching parameters per 3.3, tempering parameters per 3.5 |  | |  |  |  |

\* Must be filled out completely with every heat treat batch

\*\* Must be filled out annually, part development or PPAP