

INTERNATIONAL TRUCK AND ENGINE CORPORATION		
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TITLE: Quality Requirements For Punched And Drilled Holes		REVISION: A-1
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1.0 APPLICATION

This specification establishes quality requirements for punched and drilled holes in truck cab and chassis parts and components and is applicable only to those part or assembly drawings which reference this specification.

2.0 SCOPE

This specification establishes allowable burr heights on primary (Class "A") and secondary surfaces and covers diametrical tolerances for four (4) classes of holes.

- Class 0 – Reamed Holes
- Class 1 – Drilled Holes
- Class 2 – Punched Holes
- Class 3 – Non-critical Holes

3.0 REFERENCE DOCUMENTS (Not Applicable)

4.0 REQUIREMENTS

4.1 Burr Height

Unless otherwise specified, burr height shall not exceed 10% of the stock thickness for material up to 12 gage (0.1 inch) thickness and shall not exceed .010 inch on material with thickness greater than 0.1 inch.

4.1.1 Class A Surfaces

No burrs are permitted on Class "A" surfaces. Holes identified as being on Class "A" surfaces must be deburred by a secondary operation. No portion of the surface of the hole is permitted to extend beyond the plane of the surface or the surface of the hole must meet established visual standards.

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4.1.1.1 Identification Of Holes On Class A Surfaces

The manufacturing plant or assembly plant planning department shall identify those surfaces /holes to be designated as Class A surfaces for which secondary deburring operations are necessary. Identification of these holes may be made on the engineering part/assembly drawing or on the manufacturing plant drilling template.

4.1.2 Cutting Burrs

The manufacturing plant or assembly plant planning department shall identify holes on which burrs present a cutting hazard in subsequent operations. These burrs shall be removed by a secondary deburring operation so as to meet established visual standards.

4.2 Diametrical Tolerances

Unless otherwise specified, all drilled and punched holes shall meet requirements of Class 1- drilled Holes or Class 2 – Punched Holes.

4.2.1 Class O

The closer tolerances of Class O holes are normally achieved by a secondary reaming operation after drilling or punching. The diameter of the hole shall be within the tolerance shown in Table I for its entire length/depth.

When required, Class O holes shall be designated on the engineering drawing by the designation Class O, or by the use of the tolerance shown in Table I for this class.

4.2.2 Class 1

Class 1 holes are normally drilled. The diameter of the hole will be within the tolerance shown in Table I for its entire length/depth.

4.2.3 Class 2

Class 2 holes are normally punched. The diameter of the hole shall be within the tolerance shown in Table I from the punch entry side of the hole for a distance equal to one third (1/3) of the stock thickness.

4.2.3.1 The plus tolerance on the lower two thirds (2/3) of hole shall not exceed 10% of the stock thickness. The minus tolerance shall be as shown in Table I.

4.2.3.2 The hole locating dimensions shown on the engineering drawing apply to the punch entry side of the part only. When required for engineering function, the punch entry side of the part should be indicated on the engineering drawing.

4.2.4 Class 3

Class 3 holes are non-critical holes for which increased diametrical tolerances are permitted. These holes may be drilled or punched and secondary operations may be performed. The diameter of the hole will be within the tolerance shown in Table I.

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