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Huskamp et al.

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(54) **FORMED SHEET METAL COMPOSITE TOOLING**

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CPC ***B29C 70/30*** (2013.01); ***B21D 22/18*** (2013.01); ***B21D 31/005*** (2013.01); ***B21D 37/20*** (2013.01); ***B29C 33/3842*** (2013.01); ***B29C 70/345*** (2013.01); ***B29C 70/54*** (2013.01); *B29C 33/42* (2013.01); *B29D 99/001* (2013.01); *B29D 99/0025* (2013.01); *B29K 2905/00* (2013.01); *B29L 2031/748* (2013.01); *Y10T 29/4998* (2015.01); *Y10T 156/1002* (2015.01)

(58) **Field of Classification Search**

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USPC 264/219, 257, 258; 72/379.2

See application file for complete search history.

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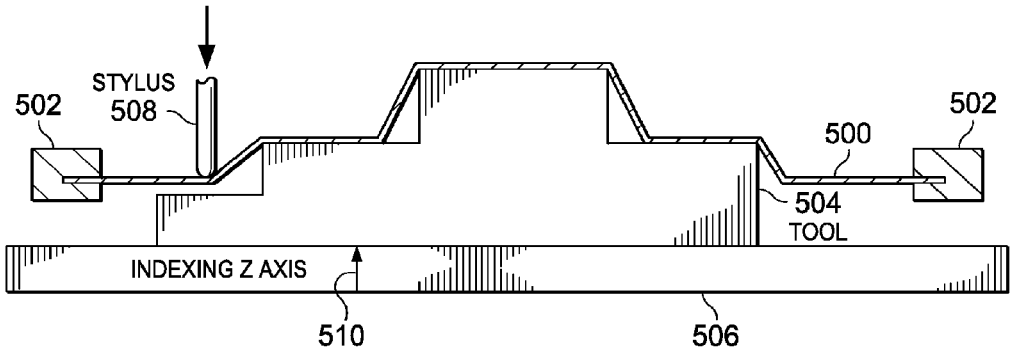
(57) **ABSTRACT**

A method and apparatus for manufacturing a tool for creating composite components. A sheet metal material is secured over a forming tool in an incremental sheet metal forming machine. The sheet metal material is incrementally shaped with a stylus to form a shape for the tool. The tool is removed from the incremental sheet metal forming machine when the shape for the tool is complete. Composite materials on the tool are laid up, wherein the shape of the tool provides a desired shape for a composite component.

7 Claims, 6 Drawing Sheets