

Title (en)

METHOD OF MAKING IN A METAL PIECE A THOROUGHFARE HOLE HAVING EDGE-REINFORCEMENTS ON BOTH ENDS, AND ALSO TOOL AND APPARATUS FOR CARRYING OUT THE METHOD

Publication

EP 0085888 A3 19840328 (DE)

Application

EP 83100629 A 19830125

Priority

US 34667982 A 19820208

Abstract (en)

[origin: US4428214A] A flow drilling tool including a blunt-ended prepunch portion for punching a circular slug from the workpiece as the tool is rotated and moved axially with respect to the workpiece. Thereafter, a circular forming portion is rotated in contact with the workpiece to increase the length and diameter of the punched hole. The prepunch permits formation of a rimmed hole in a single step by eliminating predrilling. Variations and irregularities in the length and thickness of the rim portion surrounding the hole are reduced, and ragged tapered surfaces on the rim portion are eliminated. The axial location of the hole relative to the workpiece is controlled by adjusting the speed of rotation of the tool and the axial pressure of the tool against the workpiece, and by preheating the workpiece.

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IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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