

Title (en)

METHOD FOR MANUFACTURING A NEAR NET-SHAPE MOLD

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER ENDABMESSUNGSNAHEN FORM

Title (fr)

PROCEDE DE FABRICATION D'UN MOULE DE GRANDE PRECISION DIMENSIONNELLE

Publication

**EP 1292425 A4 20051116 (EN)**

Application

**EP 01922508 A 20010322**

Priority

- US 0108971 W 20010322
- US 19156900 P 20000323

Abstract (en)

[origin: WO0170450A1] A method for manufacturing a near net-shape mold from a weldable material, including creating a computer model of a mold portion (30, 32), analytically sectioning the computer model of the mold portion into a plurality of mold zones (22), generating mold zone cutting paths for a cutting machine to follow, cutting the weldable material into plurality of mold zones, generating surface profile cutting paths for a cutting machine to follow, machining surface profiles into the mold zones, assembling the mold zones by placing the mold zones side-by-side, generating welding paths for an electron beam welding a machine to follow, and welding the mold zones together.

IPC 1-7

**B23P 17/00**; **B23P 15/24**; **B29C 67/00**

IPC 8 full level

**B23K 15/00** (2006.01); **B21D 37/20** (2006.01); **B22C 9/06** (2006.01); **B23P 15/24** (2006.01); **B29C 67/00** (2006.01)

CPC (source: EP)

**B21D 37/20** (2013.01); **B23P 15/246** (2013.01)

Citation (search report)

- [XAY] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12 25 December 1997 (1997-12-25)
- [Y] WALCZYK D F ET AL: "RAPID TOOLING FOR SHEET METAL FORMING USING PROFILED EDGE LAMINATIONS- DESIGN PRINCIPLES AND DEMONSTRATION", TRANSACTIONS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, SERIES B: JOURNAL OF ENGINEERING FOR INDUSTRY, ASME. NEW YORK, US, vol. 120, no. 4, November 1998 (1998-11-01), pages 746 - 754, XP000803370, ISSN: 0022-0817
- See references of WO 0170450A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0170450 A1 20010927**; AU 4930101 A 20011003; CA 2403159 A1 20010927; CN 1430544 A 20030716; EP 1292425 A1 20030319; EP 1292425 A4 20051116; JP 2003532539 A 20031105; MX PA02009267 A 20040812

DOCDB simple family (application)

**US 0108971 W 20010322**; AU 4930101 A 20010322; CA 2403159 A 20010322; CN 01810076 A 20010322; EP 01922508 A 20010322; JP 2001568691 A 20010322; MX PA02009267 A 20010322