

Title (en)

Plant and procedure for the production of small parts in hot formed steel

Title (de)

Produktionsanlage und Verfahren zur Herstellung von Warmformkleinteilen aus Stahl

Title (fr)

Installation et procedé de production de petites pièces en acier formées à chaud

Publication

**EP 1348770 A1 20031001 (EN)**

Application

**EP 02006521 A 20020319**

Priority

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Abstract (en)

The invention concerns a plant for the production of small parts in hot formed steel comprising means (1) suitable to hot-press small parts in steel; means (2) suitable to perform a first cooling of the hot-pressed small parts to a temperature of 400-450 DEG C at an average cooling speed of 8-12 DEG C/second. means (3) suitable to perform a second cooling of the hot-pressed steel from 400-450 DEG C to ambient temperature at an average speed of 30-50 DEG C/hour. <IMAGE>

IPC 1-7

**C21D 9/00**; **B21K 1/44**

IPC 8 full level

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Citation (search report)

- [A] WO 0171050 A1 20010927 - KAWASAKI STEEL CO [JP], et al & EP 1199375 A1 20020424 - KAWASAKI STEEL CO [JP]
- [A] WO 9902744 A1 19990121 - SKF IND TRADING & DEV [NL], et al
- [A] US 2001025674 A1 20011004 - PRSKAWETZ GEORG [AT], et al
- [A] US 4714500 A 19871222 - HELLER WILHELM [DE], et al
- [A] EP 0735150 A2 19961002 - TOYOTA MOTOR CO LTD [JP]
- [A] EP 0384181 A2 19900829 - HITACHI LTD [JP]
- [A] GB 2048736 A 19801217 - MSP IND

Cited by

EP1911536A4; CN113547066A

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