

Title (en)
STEEL INGOT FOR FORGING AND INTEGRAL CRANKSHAFT

Title (de)
STAHLBLOCK ZUM SCHMIEDEN UND INTEGRALE KURBELWELLE

Title (fr)
LINGOT D'ACIER POUR FORGEAGE ET VILEBREQUIN MONOBLOC

Publication
EP 2141254 A4 20110914 (EN)

Application
EP 08722360 A 20080318

Priority

- JP 2008054966 W 20080318
- JP 2007089336 A 20070329
- JP 2007167849 A 20070626
- JP 2007207100 A 20070808

Abstract (en)
[origin: WO2008120574A1] A steel ingot for forging that excels in fatigue performance and hydrogen cracking resistance; and an integral crankshaft therefrom. The steel ingot for forging is produced with use of a casting mold, wherein the density (D_{BOT}) of inclusions of 5 to 10 μm major diameter observed on a steel section in an inferior portion of the steel ingot is 10 to 80 inclusions/cm²; the density (D_{TOP}) of inclusions of 5 to 10 μm major diameter observed on a steel section in a superior portion of the steel ingot is 20 to 90 inclusions/cm²; the density of inclusions of 40 μm or greater major diameter observed on a steel section in both inferior and superior portions of the steel ingot is 5 inclusions/cm² or less; and the densities satisfy the relationship ($D_{\text{TOP}}/D_{\text{BOT}} = [S(\text{ppm})]/18$). The integral crankshaft is produced by hot forging of this steel ingot for forging.

IPC 8 full level
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CPC (source: EP KR)
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Citation (search report)

- [X] US 6165289 A 20001226 - MATSUMOTO YOICHI [JP], et al
- See references of WO 2008120574A1

Cited by
EP2671963A1; EP2527476A1; AU2012202044B2; EP3511434A4; US8511903B2; EP2169082B1

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