

Title (en)

Thermal mechanical treatment for enhancing high temperature properties of cast austenitic steel structures.

Title (de)

Verfahren zur Erhöhung der Hochtemperatureigenschaften gegossener austenitischer Stähle durch thermomechanische Behandlung.

Title (fr)

Traitement thermomécanique d'aciers austénitiques moulés pour élever les propriétés à chaud.

Publication

**EP 0083191 A2 19830706 (EN)**

Application

**EP 82306799 A 19821220**

Priority

US 33465181 A 19811228

Abstract (en)

A thermal mechanical treatment for improving the high temperature properties of cast austenitic heat resistant chromium-containing alloy steel structures is disclosed. The method comprises (a) heating the structures to at least the temperature at which chromium carbides go into solution, but below the temperature where incipient melting occurs; (b) maintaining the structures at such a temperature long enough so that at least 50% of the chromium carbides go into solution; (c) applying from about 15% to 60% plastic deformation by hot forming operations; and (d) cooling the structures to room temperature at such a rate to allow complete recrystallization of the grains to occur.

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