

Title (en)  
NON-SCALING HEAT-TREATABLE STEEL AND METHOD FOR PRODUCING A NON-SCALING COMPONENT FROM SAID STEEL

Title (de)  
ZUNDERARMER VERGÜTUNGSSTAHL UND VERFAHREN ZUR HERSTELLUNG EINES ZUNDERARMEN BAUTEILS AUS DIESEM STAHL

Title (fr)  
ACIER DE TRAITEMENT THERMIQUE PRÉSENTANT PEU DE CALAMINE, ET PROCÉDÉ PERMETTANT DE FABRIQUER À PARTIR DE CET ACIER UNE PIÈCE PRÉSENTANT PEU DE CALAMINE

Publication  
**EP 2828414 B1 20170830 (DE)**

Application  
**EP 13728095 A 20130319**

Priority  
• DE 102012006470 A 20120323  
• DE 102013004905 A 20130315  
• DE 2013000165 W 20130319

Abstract (en)  
[origin: WO2013139327A1] The invention relates to a non-scaling heat-treatable steel with particular suitability for producing hardened or die-hardened components, characterised by the following chemical composition in % by weight: C 0.04-0.50; Mn 0.5-6.0; Al 0.5-3.0; Si 0.05-3.0; Cr 0.05-3.0; Ni less than 3.0; Cu less than 3.0; Ti 0.010-≤0.050; B 0.0015-≤0.0040; P less than 0.10; S less than 0.05; N less than 0.020; remainder iron and unavoidable impurities. The invention further relates to a method for producing a non-scaling hardened component from the steel and a method for producing a hot strip from a steel.

IPC 8 full level  
**C21D 8/02** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP RU US)  
**B21B 1/466** (2013.01 - US); **B22D 11/0631** (2013.01 - EP US); **C21D 1/18** (2013.01 - EP US); **C21D 1/34** (2013.01 - EP US); **C21D 1/74** (2013.01 - EP US); **C21D 8/02** (2013.01 - RU); **C21D 8/0226** (2013.01 - EP US); **C21D 9/08** (2013.01 - EP US); **C21D 9/52** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/34** (2013.01 - EP US); **C22C 38/38** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP RU US); **C22C 38/60** (2013.01 - RU); **B22D 11/1206** (2013.01 - EP US); **B22D 11/126** (2013.01 - EP US); **C21D 2211/001** (2013.01 - EP US); **C21D 2241/00** (2013.01 - EP US); **Y10T 29/49991** (2015.01 - EP US)

Cited by  
CN112267069A; DE102019100140A1; WO2020141147A1; US11795535B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**DE 102013004905 A1 20130926**; EP 2828414 A1 20150128; EP 2828414 B1 20170830; KR 102054878 B1 20200122; KR 20140138801 A 20141204; RU 2014142690 A 20160520; RU 2618958 C2 20170511; US 10036085 B2 20180731; US 10822681 B2 20201103; US 2015020992 A1 20150122; US 2018237892 A1 20180823; WO 2013139327 A1 20130926

DOCDB simple family (application)  
**DE 102013004905 A 20130315**; DE 2013000165 W 20130319; EP 13728095 A 20130319; KR 20147027255 A 20130319; RU 2014142690 A 20130319; US 201314387158 A 20130319; US 201815958204 A 20180420