

Title (en)  
HIGH-STRENGTH ELECTRICAL-RESISTANCE-WELDED STEEL PIPE AND MANUFACTURING METHOD THEREFOR

Title (de)  
HOCHFESTES WIDERSTANDSGESCHWEISSTES STAHLROHR UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
TUBE D'ACIER À HAUTE RÉSISTANCE SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 2551366 A1 20130130 (EN)**

Application  
**EP 11759643 A 20110323**

Priority

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- JP 2011057928 W 20110323

Abstract (en)  
A high-strength electric resistance welded steel tube suitable for use in shock absorbing members of automobiles is provided. The high-strength electric resistance welded steel tube has a composition including, in terms of percent by mass, C: 0.05 to 0.20%, Si: 0.5 to 2.0%, Mn: 1.0 to 3.0%, P: 0.1% or less, S: 0.01% or less, Al: 0.01 to 0.1%, N: 0.005% or less, and the balance being Fe and unavoidable impurities; and a structure which is a dual phase structure including a ferrite phase and a martensite phase, with a volume ratio of the martensite phase being 20 to 60%, wherein a tensile strength TS is 1180 MPa or more, an elongation El in a tube axis direction is 10% or more, and a yield ratio is less than 90%; and after application of a 2% prestrain and baking finishing that includes a heat treatment of 170°C × 10 min, a strength increase (BH value) is 100 MPa or more and a yield ratio is 90% or more.

IPC 8 full level  
**C22C 38/06** (2006.01); **B21C 37/08** (2006.01); **C21D 8/02** (2006.01); **C21D 9/08** (2006.01); **C21D 9/46** (2006.01); **C22C 38/04** (2006.01)

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