

Title (en)  
METHOD OF CONTINUOUS VACUUM CARBURIZATION OF METAL WIRE, METAL BAND OR METAL PIPE AND APPARATUS THEREFOR

Title (de)  
VERFAHREN ZUR KONTINUIERLICHEN VAKUUMAUFKOHLUNG VON METALLDRAHT, -BAND ODER -ROHREN UND VORRICHTUNG DAFÜR

Title (fr)  
PROCEDE DE CARBURATION SOUS VIDE CONTINUE D'UN CABLE METALLIQUE, D'UNE BANDE METALLIQUE OU D'UN TUYAU METALLIQUE, ET APPAREIL ASSOCIE

Publication  
**EP 1642995 A4 20081224 (EN)**

Application  
**EP 04746650 A 20040630**

Priority  
• JP 2004009181 W 20040630  
• JP 2003271035 A 20030704

Abstract (en)  
[origin: EP1642995A1] A continuous vacuum carburizing process carburizes material such as a steel wire 7 with a carbon content equal to or less than a desired carbon content by passing it under reduced pressure continuously through a carburizing atmosphere 5 with constant pressure and constant gas composition. A continuous vacuum carburizing apparatus for carrying out this process has at least one furnace core tube 1, 11, or 12 and a feeding/taking-up mechanism 13, 14 for the steel wire 7 in a vacuum container 1. Carburizing medium gas is supplied to the furnace core tube 1 via pipes 2, 4 to form the carburizing atmosphere 5. A heater 10 heats the furnace core tube 1, thereby activating carbon of the carburizing medium gas. In this way, material having a small thickness of, for example, 0.02 mm to 3 mm is carburized with less variation in the amount of carburization and no surface oxidation or sooting.

IPC 8 full level  
**C23C 8/20** (2006.01); **C23C 8/36** (2006.01)

CPC (source: EP)  
**C23C 8/22** (2013.01)

Citation (search report)  
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• [A] JP H03247749 A 19911105 - SUMITOMO HEAVY INDUSTRIES  
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• [A] US 2003020214 A1 20030130 - POOR RALPH PAUL [US], et al  
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Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 1642995 A1 20060405; EP 1642995 A4 20081224**

DOCDB simple family (application)  
**EP 04746650 A 20040630**