

Title (en)  
HARDENING PIPES

Publication  
**EP 0507619 A3 19931006 (EN)**

Application  
**EP 92302981 A 19920403**

Priority  
GB 9106924 A 19910403

Abstract (en)  
[origin: EP0507619A2] A method of and apparatus for hardening a heated pipe by applying a quenching liquid to the interior surface of the pipe through a tubular lance in line therewith and over which the pipe is moved, the lance having a terminal guide member generally matching the section of, but spaced from, the said interior surfac, in which the liquid is propelled through a series of jets passing through the wall of the lance at positions along the lance and being directed away from the terminal guide member, the angle of the jets progressively being more acute to the wall of the lance in the direction of movement of the pipe the further the jets are disposed from the guide members whereby to promote the entrainment of the atmosphere through the space between the guide member and the said interior surface such as to enhance the unidirectionality and uniformity in the flow of water in the said direction. <IMAGE>

IPC 1-7  
**C21D 9/08**

IPC 8 full level  
**C21D 9/08** (2006.01)

CPC (source: EP)  
**C21D 9/085** (2013.01)

Citation (search report)

- [Y] US 3937448 A 19760210 - FUJII YOSHIHISA, et al
- [A] GB 1385243 A 19750226 - MANNESMANN AG
- [A] US 3807714 A 19740430 - HOLLYER J
- [Y] SOVIET INVENTIONS ILLUSTRATED Section Ch, Week D37, 21 October 1981 Derwent Publications Ltd., London, GB; Class M24, AN 67471D/37 & SU-A-789 607 (KOLOMENSKII V K) 28 December 1980
- [A] SOVIET INVENTIONS ILLUSTRATED Section Ch, Week 8829, 31 August 1988 Derwent Publications Ltd., London, GB; Class M24, AN 88-203341/29 & SU-A-828 715 (KHEIFETS G N) 23 January 1988

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