

Title (en)
APPARATUS FOR AND METHOD OF METALIZING METAL BODIES

Publication
EP 0094759 A3 19840328 (EN)

Application
EP 83302487 A 19830503

Priority
US 37428282 A 19820503

Abstract (en)
[origin: EP0094759A2] An apparatus and method for metalizing the surface of metal bodies, such as bars, rods and tubes is providing using a substantially enclosed chamber in which the metalizing is caused to occur. An elongated body to be metalized is moved axially into the chamber through an entrance opening while the body is simultaneously rotated, and then passes through a first induction heating coil to pre-heat a portion of the body surface to a selected pre-heat temperature. The pre-heated portion is then advanced past the pre-heating coil to a point where it is subjected to, and bathed by, a flowing stream of metalizing powder entrained within a heated non-oxidizing gas, such as nitrogen, with the flowing stream directed against the preheated body portion so that the entrained metalizing powder impinges against and clings to and covers the entire surface of the pre-heated portion. The pre-heated body portion with metalizing powder clinging thereto then moves through a second induction heating coil which heats the body and metalizing powder to a fusing temperature greater than the pre-heat temperature, so as to fuse the metalizing powder to the body. The interior of the chamber is filled with the non-oxidizing gas to prevent entry of air. The moving body with fused metalized surface thereon then exits from the chamber and is arranged to pass through a water quenching station which quenches and cools the metalized body.

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CPC (source: EP)
C23C 24/00 (2013.01); **C23C 24/106** (2013.01)

Citation (search report)

- [A] GB 1499978 A 19780201 - GLACIER METAL CO LTD
- [A] US 3436244 A 19690401 - YOKAWONIS ANTHONY G
- [A] GB 1177729 A 19700114 - MAAK FRITZ [DE]
- [A] US 2803559 A 19570820 - WINTHROP RUTHERFURD, et al
- [A] DE 1929153 A1 19701217 - HECK FRIEDRICH

Cited by
EP0119095A3; DE10102991C2; FR2822727A1; CN104911521A; EP0247582A1; FR2599384A1; US4839237A; US6600130B1; WO9900534A1; WO0134875A1; WO02081773A1; US6677560B2; US6689995B2

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