

Sealing clamp based on multiple transponders

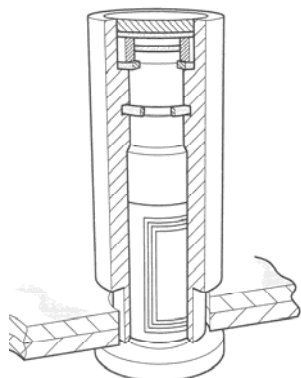
Description

The present invention relates to the control and traceability of products or materials requiring special security measures, such as nuclear materials or money. Existing electronic solutions were too expensive, too complicated to implement, too specific to certain types of application, and too fragile to withstand frequent transport and handling.

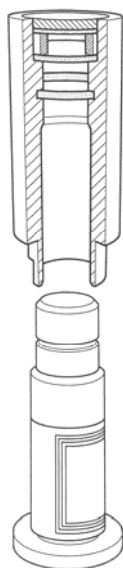
The solution proposed consists of a safety sleeve to be clamped on a special designed nail. The special configuration of the nail prevents the opening of the lock. The correct assembly of the seal is confirmed by the breaking of the installation transponder. Another transponder is used to store data important to identify the travel of the seal. The permanent transponder has a unique identification which makes impossible to replace the seal after illegal opening without triggering an alarm at the first following reading.

Innovative aspects and main advantages

- Each shipment is univocally identified
- Correct assembly of the seal can be verified
- Shipment travel can be tracked down
- Detect illegal opening
- Low cost and simple to implement
- Encrypted identity
- Low controlling and production cost



Schematic view of the two components of the seal



Areas of application

- Transport industry
- Air and ground freight companies
- Nuclear inspections
- Nuclear and atomic agencies
- Nuclear and atomic companies



Stages of development

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Pending CA, CN

Technology is mature. License available.

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