

Title (en)

COOLING ROLLER WITH AN OUTER ROLLER ENVELOPE AND AN INNER BODY

Publication

EP 0022156 B1 19830921 (DE)

Application

EP 80102676 A 19800514

Priority

DE 2927198 A 19790705

Abstract (en)

[origin: US4351386A] To provide for axial guidance of cooling fluid, typically water, through a double-jacketed cooling roller which has an outer jacket (5) rotatably positioned over an inner stationary displacement body (6), in which the inner displacement body is smaller than the inner surface of the outer jacket to define a space (19) for flow of cooling fluid therethrough, the inner surface of the outer rotating jacket (5) is formed with spirally extending surface deformations (16), such as grooves or ridges or ribs or vanes, to transport water being centrifugally pressed against the inner walls of the rotating jacket (5) in axial direction. The axial end of the chamber (19) preferably is formed by an enlarged radially extending chamber (21) in which guide vanes (22) are located to return water flow to a hollow central shaft (9) for removal of cooling fluid axially therethrough. The hollow shaft (9) preferably acts as a central stationary shaft about which the outer jacket (5) rotates, so that rotary seals for water supply and removal can be eliminated.

IPC 1-7

F28D 11/02

IPC 8 full level

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CPC (source: EP US)

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Citation (examination)

- **US 2849951 A 19580902** - HEINRICH HARALD H
- **FR 520305 A 19210623** - HANS JORGEN JENSEN BIGUM [DK]

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FR2628830A1; US4582128A; CN113002158A; DE3536236A1; GB2181816A; GB2181816B; WO8402573A1

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