

Title (en)
METHOD OF LUBRICATING A TEXTILE SPINDLE

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Application
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Abstract (en)
[origin: US4448016A] The invention relates to lubrication of a bearing of a spinning or twisting spindle which comprises a spindle shaft and a fixedly mounted housing. Lubricant is moved in a closed circulation path or system from a reservoir to a bearing arranged above the reservoir and back again to the reservoir. According to the invention, the spindle shaft is rotatably connected with the reservoir and is provided with a tube or pipe fixed to the housing and immersing into the reservoir. The tube is provided at its end which is immersed in the reservoir with an inlet opening towards which the lubricant flows during the start of the rotation of the reservoir. Thus, a back or dam-up pressure forms at the inlet opening of the tube, by means of which the lubricant is propelled upwardly within the tube forming a closed circulation path, emerges from an exit or outlet opening of the tube and again flows back through the bearing into the reservoir. The position of the tube or inlet opening, as the case may be, is chosen in such a manner that the inlet opening is located externally of the lubricant, which is driven by centrifugal force against a side wall of the reservoir, upon reaching the maximum rotational speed of the lubricant. By appropriately proportioning the spindle dimensions and the quantity of lubricant, a vigorous lubrication is achieved during start-up of the spindle, and a complete interruption of the circulation path is attained at full rotational speed because of the centrifugal force. Thus, no additional (drive) energy is required for purposes of lubrication during the normal spinning process.

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