

Title (en)  
Axial bearing for a pump wheel

Title (de)  
Sicherung eines Pumpenlaufrades

Title (fr)  
Sécurisation d'une roue de pompe centrifuge

Publication  
**EP 2273123 B1 20161005 (DE)**

Application  
**EP 09164927 A 20090708**

Priority  
EP 09164927 A 20090708

Abstract (en)  
[origin: EP2273123A1] The electrical motor vehicle coolant pump (10) has a gap head-engine arrangement, a pump rotor (20) with pump shovels (50) and a sliding bearing case (22), which is supported on fixed metallic rotor axis (26). The pump shovels of the pump rotor are axially arranged in the range of the sliding bearing case. A metallic stop ring (40) is provided at the distal end of the rotor axis, where the stop ring is joined with the rotor axis.

IPC 8 full level  
**F04D 13/06** (2006.01); **F04D 29/041** (2006.01); **F04D 29/047** (2006.01)

CPC (source: EP)  
**F04D 13/0626** (2013.01); **F04D 13/0633** (2013.01); **F04D 13/0673** (2013.01); **F04D 29/0413** (2013.01); **F04D 29/047** (2013.01)

Citation (opposition)  
Opponent : Volkswagen AG  
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