

Title (en)  
THIN-WALLED ANTIFRICTION BEARINGS

Title (de)  
DÜNNWANDIGE WÄLZLAGER

Title (fr)  
PALIER A ROULEMENT A PAROIS MINCES

Publication  
**EP 1649178 A1 20060426 (DE)**

Application  
**EP 04740182 A 20040623**

Priority  
• EP 2004006757 W 20040623  
• DE 10333875 A 20030725

Abstract (en)  
[origin: DE10333875A1] Needle bearing has a cold-formed outer ring made from steel. The ratio of the wall thickness of the ring to the diameter of the needles (7) is 1:20 - 1:5 and the hardened wall has a core hardness of 600 HV or more and an edge hardness of 680 HV or more. An independent claim is included for a universal joint bush made from cold-formed steel with the same properties.

IPC 1-7  
**F16C 19/46**; **F16D 3/38**

IPC 8 full level  
**F16C 19/26** (2006.01); **F16C 19/46** (2006.01); **F16C 21/00** (2006.01); **F16C 33/62** (2006.01); **F16C 33/64** (2006.01); **F16D 3/38** (2006.01); **C21D 9/40** (2006.01)

CPC (source: EP US)  
**C22C 38/04** (2013.01 - EP US); **F16C 19/466** (2013.01 - EP US); **F16C 21/005** (2013.01 - EP US); **F16C 33/588** (2013.01 - EP US); **F16C 33/62** (2013.01 - EP US); **F16C 33/64** (2013.01 - EP US); **F16D 3/385** (2013.01 - EP US); **C21D 9/40** (2013.01 - EP US); **F16C 2202/04** (2013.01 - EP); **F16C 2361/41** (2013.01 - EP US)

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