

Title (en)  
POSITIONAL FIXING OF A PIN

Title (de)  
LAGEFIXIERUNG EINES BOLZENS

Title (fr)  
FIXATION D'UN TOURILLON

Publication  
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Application  
**EP 03761465 A 20030612**

Priority  
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Abstract (en)  
[origin: US2004000280A1] The invention concerns the fixing of a bearing shaft (6) in a reception bore (1.3) of a housing, at least one end of the shaft being adapted to be swaged to the reception bore (1.3) for achieving at least one of a force locking and a positive engagement, and an outer peripheral surface of the shaft (6) having a hardness that is greater than a hardness of the ends (6.2) of the shaft. The novel shaft is carbonitrided, quenched and tempered so that at first a hardness of HV 745-950 (HRC 62-68) is realized, following which the thus treated shaft (6) is soft annealed to produce a hardness of HV 212-305 (HRB 93-HRC30), and the outer peripheral surface is then subjected to induction hardening to achieve a final hardness of HV 745-950 (HRC 62-68). The shaft of the invention has a long operating life even under high load conditions.

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**F01L 1/18**

IPC 8 full level  
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**US 2004000280 A1 20040101**; **US 7377988 B2 20080527**; AU 2003242704 A1 20040119; CN 100359138 C 20080102; CN 1662729 A 20050831; DE 10315416 A1 20040122; DE 50311093 D1 20090305; EP 1516107 A1 20050323; EP 1516107 B1 20090114; KR 100927568 B1 20091123; KR 20050014008 A 20050205; PL 202382 B1 20090630; PL 372840 A1 20050808; WO 2004003349 A1 20040108

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