

Title (en)

Lead-free free-cutting aluminium brass alloy and its manufacturing method

Title (de)

Aluminium enthaltende, bleifreie Automatenmessinglegierung und deren Herstellungsverfahren

Title (fr)

Alliage de décolletage en laiton sans plomb comprenant de l'aluminium et son procédé de fabrication

Publication

EP 2208802 B1 20111221 (EN)

Application

EP 09180653 A 20091223

Priority

- CN 200810188263 A 20081223
- US 64351309 A 20091221

Abstract (en)

[origin: EP2208802A1] The present invention provides a lead-free free-cutting aluminum brass alloy and its manufacturing method. The alloy comprises: 57.0#1/463.0 wt% Cu, 0.3#1/40.7 wt% Al, 0.1#1/40.5 wt% Bi, 0.2#1/40.4 wt% Sn and the balance being Zn and unavoidable impurities, or: 57.0#1/463.0 wt% Cu, 0.3#1/40.7 wt% Al, 0.1#1/40.5 wt% Bi, 0.2#1/40.4 wt% Sn, 0.1#1/40.5 wt% Si, 0.01#1/40.15 wt% P, at least two elements selected from the group of 0.01-0.15 wt% Mg, 0.0016-0.0020 wt% B, and 0.001-0.05 wt% rare earth elements and the balance being Zn and unavoidable impurities. The inventive alloy has excellent castability, weldability, cuttability and corrosion resistance. It is suitable for low pressure die casting, gravity casting, horizontal continuous casting, forging and extrusion. Its metal material cost is lower than bismuth brass. It is particularly applicable for components used in drinking water supply systems and other structural components. It is a new environmentally-friendly free-cutting aluminum brass alloy.

IPC 8 full level

C22C 9/04 (2006.01); **C22F 1/08** (2006.01)

CPC (source: EP)

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Cited by

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DOCDB simple family (publication)

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