

Title (en)

Acid resistant austenitic alloy for valve seat insert

Title (de)

Säurebeständige austenitische Legierung für Ventilsitzring

Title (fr)

Alliage austénitique résistant à l'acide pour siège de soupape

Publication

EP 1775351 A1 20070418 (EN)

Application

EP 06255276 A 20061013

Priority

US 25130805 A 20051014

Abstract (en)

A high-carbon austenitic iron-base alloy for wear and corrosion resistant applications is developed for valve seat insert applications when corrosion resistance is required. The alloy comprises 1.8-2.8 wt% carbon, 0.5-3.5 wt% silicon, 12.0-22.0 wt% chromium, less than 1.5 wt% manganese, 2.0-16.0 wt% molybdenum and tungsten combined, 0.05-4.0 wt% niobium and vanadium combined, 0-1.0 wt% titanium, 0.01-0.2 wt% aluminum, 12-25 wt% nickel, 0.05-3.0 wt% copper, and the balance being iron and a small amount of impurities.

IPC 8 full level

C22C 33/00 (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP US)

B22F 5/008 (2013.01 - EP US); **C22C 33/0285** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/56** (2013.01 - EP US); **F01L 3/02** (2013.01 - EP US); **F01L 2301/00** (2020.05 - EP US)

Citation (search report)

- [DA] EP 1391529 A1 20040225 - WINSERT TECHNOLOGIES INC [US]
- [A] GB 2301116 A 19961127 - WINSERT INC [US]
- [A] US 4724000 A 19880209 - LARSON JAY M [US], et al
- [A] JP S48102717 A 19731224
- [AP] EP 1614762 A2 20060111 - ALLOY TECHNOLOGY SOLUTIONS INC [US]

Cited by

CN110468333A; EP1980637A1; CN107385317A; CN104018094A; EP2772558A3; EP3378960A1; US7754142B2; US9982562B2; US9982563B2

Designated contracting state (EPC)

DE FR GB SE

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1775351 A1 20070418; **EP 1775351 B1 20090318**; BR PI0604291 A 20070821; BR PI0604291 C1 20180619; BR PI0604291 E2 20090106; DE 602006005757 D1 20090430; US 2007086910 A1 20070419

DOCDB simple family (application)

EP 06255276 A 20061013; BR PI0604291 A 20061013; DE 602006005757 T 20061013; US 25130805 A 20051014