

Title (en)
Cylinder block with welded bridge-elements

Title (de)
Zylinderkurbelgehäuse mit geschweissten Brücken

Title (fr)
Bloc-cylindres avec éléments formant ponts soudés

Publication
EP 0869270 A3 19990526 (DE)

Application
EP 98104647 A 19980314

Priority
DE 19714062 A 19970405

Abstract (en)
[origin: EP0869270A2] The cast housing (11) has a coolant jacket chamber (18) formed between cylinder tube walls (14,15) and a coolant jacket wall (16). The chamber is formed by cast wall faces (20,22) of the three walls, which are without undercuts as seen from the cylinder head seat face. Bridge elements (23-28) are fitted into the coolant jacket chamber, to connect the three walls and form free coolant transfer openings. The bridge elements may consist of welded, glued, wedged or shrunk into place mouldings. They are supported on shoulders in the wall faces, or engage into undercut apertures in the walls.

IPC 1-7
F02F 7/00

IPC 8 full level
F01P 3/02 (2006.01); **F02F 1/10** (2006.01); **F02F 1/14** (2006.01); **F02F 7/00** (2006.01)

CPC (source: EP KR)
F02F 1/10 (2013.01 - EP KR); **F02F 1/108** (2013.01 - EP KR); **F02F 7/00** (2013.01 - EP); **F02F 7/00** (2013.01 - KR);
F02F 2001/104 (2013.01 - EP KR); **F02F 2001/106** (2013.01 - EP KR)

Citation (search report)

- [A] EP 0465947 A1 19920115 - UBE INDUSTRIES [JP]
- [X] PATENT ABSTRACTS OF JAPAN vol. 013, no. 405 (M - 868) 7 September 1989 (1989-09-07)
- [X] PATENT ABSTRACTS OF JAPAN vol. 008, no. 087 (M - 291) 20 April 1984 (1984-04-20)
- [X] PATENT ABSTRACTS OF JAPAN vol. 010, no. 326 (M - 532) 6 November 1986 (1986-11-06)
- [X] PATENT ABSTRACTS OF JAPAN vol. 096, no. 002 29 February 1996 (1996-02-29)
- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 585 (M - 1700) 9 November 1994 (1994-11-09)

Cited by
FR3059049A1; EP3163060A1; DE102016102468A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0869270 A2 19981007; EP 0869270 A3 19990526; BR 9801149 A 19990928; CZ 100298 A3 19981111; DE 19714062 A1 19981008;
DE 19714062 C2 19990121; JP H1130152 A 19990202; KR 19980081095 A 19981125; PL 325719 A1 19981012

DOCDB simple family (application)
EP 98104647 A 19980314; BR 9801149 A 19980406; CZ 100298 A 19980402; DE 19714062 A 19970405; JP 11020498 A 19980406;
KR 19980011977 A 19980404; PL 32571998 A 19980406