

Title (en)  
Knocked-down fan for engine cooling and other applications

Title (de)  
Zusammengesetzter Ventilator für Maschinenkühlung und sonstige Anwendungen

Title (fr)  
Ventilateur composé pour le refroidissement d'un moteur et autres applications

Publication  
**EP 0364969 B1 19970416 (EN)**

Application  
**EP 89119287 A 19891017**

Priority  
JP 13500788 U 19881018

Abstract (en)  
[origin: EP0364969A1] An engine cooling-system fan (10) formed by combining two fan assemblies (12, 12') of like construction. Each fan assembly (12, 12') comprises a sheet-metal hub (14) with radiating spokes (20), and a set of fan blades (16) fastened one to each spoke (20). The hubs (14) of both fan assemblies (12, 12') are riveted or otherwise joined together in axial alignment, with the two sets of fan blades arranged alternately at constant angular spacings. Preferably, the spokes (20) of either one of the fan assemblies (12, 12') are offset to provide the same plane of rotation for the two sets of the blades (16).

IPC 1-7  
**F04D 29/32; F04D 29/34**

IPC 8 full level  
**F04D 29/32** (2006.01); **F04D 29/34** (2006.01)

CPC (source: EP)  
**F04D 29/325** (2013.01); **F04D 29/34** (2013.01)

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DOCDB simple family (publication)  
**EP 0364969 A1 19900425; EP 0364969 B1 19970416**; CA 2000296 A1 19900418; CA 2000296 C 20000111; DE 68927972 D1 19970522;  
DE 68927972 T2 19970724; JP H0256898 U 19900424; JP H0741914 Y2 19950927

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