

Title (en)  
PNEUMATIC KNOCKER

Publication  
**EP 0345481 A3 19901205 (DE)**

Application  
**EP 89108537 A 19890512**

Priority  
DE 3819111 A 19880604

Abstract (en)  
[origin: JPH0224070A] PURPOSE: To lessen the number of the part items of a knocking device by integrally forming an air duct within a housing in the form of one air passage to make the cover of the air duct separate from a valve chamber and arrange at a space from a top wall part, and moreover arranging a control diaphragm in a valve hole communicated by a communicational hole. CONSTITUTION: An air duct 14 is integrated in a housing 1, in the form of at least one air passage extending nearly crossing the height H of a housing 1 integrated with the top wall part 20 of the duct 14. The cover 3 of the duct 14 is separated from a valve chamber 15 to be arranged at a space from the wall part 20, and a valve hole 21 communicated by a connecting hole 8 is provided. In addition, a control diaphragm 11 is movably arranged, so as to open a chamber 22 under a piston 2 to outside, in the hole 21 by facing the diaphragm 11 to a hole 10 in the top wall part 20 to close the hole 10.

IPC 1-7  
**B65D 88/70**

IPC 8 full level  
**B25D 9/00** (2006.01); **B06B 1/18** (2006.01); **B25D 9/14** (2006.01); **B65D 88/66** (2006.01); **B65D 88/70** (2006.01); **F15B 11/15** (2006.01)

CPC (source: EP US)  
**B65D 88/66** (2013.01 - EP US)

Citation (search report)  
• [Y] DE 2549551 A1 19770518 - NETTER FA J  
• [Y] DE 1728071 A1 19720203 - IRMER & ELZE MASCHINENFABRIK  
• [A] DE 342042 C 19211012 - BOEHLER & CO AKT GES GEB

Cited by  
US4698378A; CN115283110A

Designated contracting state (EPC)  
CH DE ES FR GB LI NL SE

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**EP 0345481 A2 19891213; EP 0345481 A3 19901205; EP 0345481 B1 19931013**; DE 3819111 A1 19891214; DE 58905878 D1 19931118; ES 2045246 T3 19940116; JP H0224070 A 19900126; US 4996907 A 19910305

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