

Title (en)  
INPUT POWER SAVING DEVICE FOR PISTON COMPRESSORS, ESPECIALLY FOR THE COMPRESSED-AIR INSTALLATION OF A MOTOR VEHICLE

Publication  
**EP 0372154 B1 19930721 (DE)**

Application  
**EP 89108141 A 19890505**

Priority  
• DE 3841415 A 19881208  
• DE 3841423 A 19881208  
• DE 3909531 A 19890322

Abstract (en)  
[origin: EP0372154A1] In a piston compressor regulated by a pressure regulator, it is desirable for the purpose of the optimum saving of input power to switch the suction valve to an inactive position in the idling phase. For this purpose, the suction plate (7) of the suction valve is displaced out of the pumping position into the shut-off position or idling position on the underside of the valve support (3) by means of an actuating piston (27) acting upon it via a transmission lever (45) in such a way that the suction ports (9) of the piston compressor are at least partially open, i.e. are not completely covered by the suction plate (7). In the idling phase, the suction plate (7) furthermore at least partially covers the outlet ports (11) of the outlet valve of the piston compressor in order to prevent further delivery in the direction of the consuming unit in the idling phase. A nonreturn valve (53), preferably in the form of a nonreturn plate-type valve, which opens in the direction of the suction space (67) and blocks in the direction of the suction line connected to the suction connection (55; 71) is furthermore arranged within the cylinder head (5), between the suction connection (71) of the piston compressor and the valve support plate of the piston compressor, said valve support plate supporting the suction valve and the outlet valve. <IMAGE>

IPC 1-7  
**F04B 39/10; F04B 49/00**

IPC 8 full level  
**F04B 39/10** (2006.01); **F04B 49/00** (2006.01); **F04B 49/16** (2006.01); **F04B 49/24** (2006.01)

CPC (source: EP)  
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Cited by  
US6016833A; US6113369A; US6116874A; DE4321013C5; DE4006156A1; DE19833286A1; US6053713A; US5980219A; US8506260B2

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