

Title (en)  
SEATED-VALVE DEVICE

Publication  
**EP 0193640 B1 19881026 (DE)**

Application  
**EP 85110597 A 19850823**

Priority  
DE 3446096 A 19841218

Abstract (en)  
[origin: US4685653A] A valve assembly having a valve seat, and a valve tappet that moves relative to the valve seat. A stop member for limiting the stroke of the valve tappet. The valve tappet includes an elongated shaft having a reduced mid-section for the purpose of increasing flexibility. The stop member for the valve tappet is a flexible ring-shaped element which functions like a spring washer. As a result of the shape of the valve tappet and of the stop member, any sudden excessive forces or stresses occurring during the opening and closing of the valve are partially suppressed by the elastic characteristics to avoid damage to the valve assembly. The energy-absorbing features avoid breakage of the shaft and eliminate deformation of the valve piston and the stop member in the area of the stop communicating surfaces, and also reduce damage to the sealing surfaces between the tappet head and the valve seat. Accordingly, the useful life of the valve is materially increased, so that cost savings of repair or replacement is realized.

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**F04B 49/02**; **F04B 39/10**

IPC 8 full level  
**F01L 3/20** (2006.01); **F04B 39/10** (2006.01); **F04B 49/02** (2006.01)

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