

Title (en)  
CONTROL DEVICE FOR POSITIVE DISPLACEMENT PUMPS

Title (de)  
REGELEINRICHTUNG FÜR VERDRÄNGERPUMPEN

Title (fr)  
DISPOSITIF DE REGULATION POUR POMPES VOLUMETRIQUES

Publication  
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Application  
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Abstract (en)  
[origin: WO0159301A1] The invention relates to a control device for positive displacement pumps, consisting of a throttle device (20) and a flow control valve (18). The flow control valve (18) is provided with a flow control piston (21) and regulates an unrequired excess flow to the pump at an increased speed. The throttle device (20) produces a speed-related pressure differential in a bore section (17A), said pressure differential being responsible for the displacement of the flow control valve (18) and the throttle device (20). The throttle device (20) is placed in the pressure outlet (bore section 17A) of the pump and contains a regulating pin (27) which is connected to the flow control piston (21), having a control contour which is embodied in such a way that a modifiable through cross-section is created in association with a throttle bore (28). The control pin (27) has a wider section (34) in an axial displacement area of the throttle device (20), said area not being involved in control of the volume flow, whereby a minimum obturating section arises in the displacement area. This results in accelerated movement of the flow control piston (21), which in turn results in quicker reaction of the control mechanism, thereby preventing an overshoot and overincrease in the flow capacity.

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