

Cylinder and method for determining a position of a piston in a cylinder

Summary

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The method refers to a cylinder (100; 200; 400; 500), particularly for use in a hydraulic system, comprising a cylinder casing (102) with cylindrical side wall (103); a piston (101) located axial slidable in the cylinder casing (102); at least one signal feeding device (106; 201; 401) being located in the cylinder casing (103) and arranged to send out an ultrasonic signal (108) in such way that the ultrasonic signal (108) will propagate alongside an inner face (103a) of the side wall (103) of the cylinder casing (102); at least one receiving device (107; 201; 401) being located in the cylinder casing (102) and arranged in such way to receive the ultrasonic signal (108) reflected from the piston (101); and one evaluation device (112) being arranged in such way to determine a position (x) of the piston (101) by a runtime (Δt) of the ultrasonic signal (108) between the sending of the ultrasonic signal (108) by the signal feeding device (106; 201; 401) and the receiving of the ultrasonic signal (108) by the receiving device (107; 201; 401).

(Fig. 1)