

A Comparative study for the Effect of Loads on a Various Proportional Hydraulic Systems

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Abstract

Hydraulic drives are able to generate high forces and move large loads. With the help of proportional valves, it is possible to control movements fast and accurately.

Depending on the application, a linear cylinder, a rotary cylinder or a rotary motor are used. Linear cylinders are most frequently used. The following designs are therefore confined to this type of drive. We compare among various types of cylinders which are common by used. We compared different conditions for cylinders with friction and without it.

Keywords: Proportional valve, equal area, unequal area, acceleration, Directional, pressure.

For the Paper in Arabic see pages (65-79)

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