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TECHNOLOGY LICENCING OPPORTUNITY

Variable Split Displacement Ratio Axial Piston Machines

Technology Details

This pump was designed to power single-rod hydraulic actuator of any ratio and without any passive or active valves. It should work in all 4 quadrants, either clockwise or counterclockwise rotation. This pump should be able to work with Energy Storage and Reutilization system in clockwise and counterclockwise functional direction.

Applications

Beside its main application this pump / machine could be used, without any changes, for other applications such as:

- Synchronized movement of two different size hydraulic actuators,
- Variable ratio flow divider/combiner,
- Steering pump on some crawling vehicles,
- Variable pressure intensifier.

Technology Benefits

This technology has great benefits as it can be applied to any single rod hydraulic actuator and for different sizing. In addition, the adjustment to different cylinders is straightforward.

Development Stage

Currently the pump is in prototype production stage.

Patent Status:
US National Phase (App No. 18/330592; filed 07 July 2023).

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