

DocumentID	241197
Vortragstitel	Increasing Aircraft Design Flexibility - The Development of a Hydrostatic Transmission for Gliders with Self-Launching Capability
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Preisträger	
Vortragssprache	englisch
Seiten	18
Veranstaltung	Deutscher Luft- und Raumfahrtkongress 2011
Veranstaltungsort	Bremen
Veröffentlicht in	Deutscher Luft- und Raumfahrtkongress, Tagungsband - Manuskripte, 2011; Seite 865 - 883; DGLR e.V.; Bonn; 2011
Stichwörter	Motorsegler Hydraulik
Abstract	This paper gives an overview of existing motor gliders and hydrostatic power transmissions. It shows the potential benefits of a hydrostatic power transfer for gliders with self launching capability, the required system properties and its limitations. Furthermore a preliminary system setup is described to demonstrate the challenges associated with this application. At the end a selection of unconventional airplane designs is discussed that could be realized by using a hydrostatic transmission in the propulsion system.