

Title (en)  
Actuator for construction machines

Title (de)  
Aktuator für Baumaschinen

Title (fr)  
Actuateur pour engins de chantier

Publication  
**EP 2146009 A1 20100120 (EN)**

Application  
**EP 09425292 A 20090717**

Priority  
HR P20080358 A 20080717

Abstract (en)  
An actuator (9) particularly for construction site machines, such as earth-movers, lifting machines, hydraulic work vehicles. These machines comprise a chassis (2) for supporting a cab (3) and the motor drive arranged on tracks (4a) or supported on wheels (4b) and provided with an arm or a pair of main arms actuated by at least one first piston controlled by a hydraulic circuit. The actuator consists of at least one second piston (10) with an upward force, which is interposed between the chassis (2) and the main arm (5). The second piston (10) is connected to a separate actuation circuit.

IPC 8 full level  
**E02F 9/22** (2006.01); **E02F 3/38** (2006.01); **E02F 3/42** (2006.01)

CPC (source: EP)  
**E02F 3/382** (2013.01); **E02F 3/425** (2013.01); **E02F 9/2217** (2013.01); **E02F 9/2271** (2013.01)

Citation (search report)

- [X] AU 443718 B2 19731212
- [X] US 6443196 B1 20020903 - KURELEK JOHN [CA]
- [X] US 3521781 A 19700728 - HOLSINGER DAVID J, et al
- [X] US 4354797 A 19821019 - HIROSE KIYONOBU, et al

Citation (third parties)  
Third party :  
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Cited by  
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Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
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DOCDB simple family (application)  
**EP 09425292 A 20090717**; HR P20080358 A 20080717