Title (en)
CHAIR MECHANISM

Title (de)
STUHLMECHANIK

Title (fr)
MECANIQUE DE FAUTEUIL

Publication
EP 1039816 A1 20001004 (DE)

Application
EP 99949277 A 19991020

Priority
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Abstract (en)
[origin: WO0022961A1] The inventive chair mechanism is configured as a so-called synchronous mechanism in order to obtain a simultaneous, co-ordinated adjustment of the seat panel (8) when the angle of the back-rest (4) is adjusted. The underframe is placed on a height-adjustable pneumatic spring (13, 14). A mechanical torsion spring, preferably a rubber spring, is used for the synchronous movement, another mechanical spring, preferably a helical spring, being arranged parallel thereto with an accumulative effect in relation to the resistance of the torsion spring. The strength of the torsion spring can be regulated. The positioning of the axes of rotation (A1-A4) is crucial to the kinematics. The chair can be adjusted from an assembly position in which the springs can be used in their relaxed state, through a vertical position, to a reclining position. The most obvious advantages of the inventive chair mechanism are the large opening angle between the seat panel (8) and the back support in the reclining position, the adjustable degree of hardness, and the non-rigid seat shell. The relaxing reclining position can therefore be adopted as a permanent working position. The degree of lumbar support and the height of the back-rest can also be regulated. The user can select the optimum seat depth and therefore obtain effective support for the back and shoulders, without having to strain the neck muscles in order to maintain eye contact with a screen.

IPC 1-7
A47C 1/032

IPC 8 full level
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CPC (source: EP US)
A47C 1/023 (2013.01 - EP US); **A47C 1/03255** (2013.01 - EP US); **A47C 1/03261** (2013.01 - EP US); **A47C 1/03266** (2013.01 - EP US); **A47C 1/03272** (2013.01 - US); **A47C 1/03274** (2018.08 - EP US); **A47C 7/38** (2013.01 - EP US)

Citation (search report)
See references of WO 0022961A1

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WO2007038879A1; WO2005120291A1; DE102009022994B4; DE202010008894U1; US7568765B2; WO2011022856A1; US8899680B2; WO2018073222A1

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