

Title (en)
SCISSORS-TYPE ELEVATING PLATFORM

Title (de)
SCHERENHUBTISCH

Title (fr)
PLATE-FORME ELEVATRICE A CISEAUX

Publication
EP 1699728 B1 20080227 (DE)

Application
EP 04804070 A 20041220

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Abstract (en)
[origin: WO2005058742A1] The invention concerns a scissors-type elevating platform, comprising two pairs of scissors, spaced apart in parallel and arranged between a base unit (20) and a support unit (10) moving up and down. Said pairs of scissors have each two scissors links (1, 2) pivotable relative to each other about a scissors pin (9). Said device also comprises an elevating mechanism having at least one spacing unit (4) which can reciprocate between the scissors limbs (1, 2) to raise and lower the support units and which is coupled to a winding cylinder (8.1) via a traction mechanism (5) capable of being wound on the winding cylinder (8.1) driven by a motor, said traction mechanism comprising at least two flat traction belts spaced apart in parallel. The width of the traction belts is selected so as to ensure, when the support unit (10) is raised, that the belts are superimposed on the winding cylinder. A cam spacer (3) co-operating with the spacing unit (4), for influencing the drive torque produced by the drive motor (8.2), the tensile loads acting in the traction mechanism (5) and/or the evolution of the lifting movement speed, is arranged respectively on at least part of the scissors limbs, on either side, oriented towards the spacing unit (4) relative to the pivot pin (9). In order to ensure reliable operating conditions, the spacing unit (4) is loosely coupled to the traction mechanism (5) and one end of the traction mechanism (5), opposite to the winding cylinder (8.1), is connected to the elevating platform or to a separate retaining device, via a retaining element of the traction mechanism (7), outside the spacing unit (4). The control of the drive motor(s) (8.2) and the outline of the cam spacer are mutually adjusted, the variation on the path of travel of the winding radius of the traction belts on the winding cylinder (8.1) being integrated, such that a predetermined evolution of the torque of the drive motor(s) (8.2) or a predetermined evolution of the tensile loads in the traction mechanism (5) is reproduced on the path of travel, the drive motor(s) being controlled or regulated.

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