

Title (en)

DEVICE FOR HANDLING AND TRANSPORTING LOADS

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0311869A1] The manipulator according to the invention for heavy loads, preferably coils of printed products wound up into rolls and arranged loosely in imbricated formation, has only a single pivot (35) or an articulation which, according to the invention, is arranged in such a way that the load (5) can be moved by only this one pivot or only one articulation into three main positions orthogonal to one another. The load is held by a holding device (33, 38). The pivot (35) passes through the centre of gravity of the load (5) or the centre of gravity lies at the centre of rotation. It is thereby possible to even take hold of heavy loads at the front or side in a precise manner and then to deposit them on a loading device or in the store by means of a drive and/or manually without a great expenditure of force. <??>Furthermore, the invention is characterised by the combination of a floor vehicle (10) with a lifting device (11) arranged on the floor vehicle and with a mounted implement (31-38), preferably the manipulator according to the invention, arranged on the floor vehicle. <IMAGE>

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IPC 8 full level

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Cited by

EP0936172A3; EP1090865A1; US5599152A; EP0527702A1; US5379963A; DE10048135A1; DE10048135B4; DE19604123A1; DE19604123C2;
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