

Title (en)
SELF-BALANCING, SINGLE-AXLE RUNNING-GEAR UNIT HAVING A STAIR-CLIMBING FUNCTION

Title (de)
SELBSTBALANCIERENDES, EINACHSIGES FAHRGESTELL MIT TREPPENSTEIGFUNKTION

Title (fr)
CHÂSSIS UNIAXE À AUTOSTABILISATION, À FONCTION MONTE-ESCALIER

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Abstract (en)
[origin: WO2019020645A1] The invention relates to a self-balancing, single-axle running-gear unit (10), comprising: a movement module (12) having a drive axle (14) on which two drive wheels (16, 18) are rotatably mounted, and a drive (28) which can be coupled to the two drive wheels; a stair-climbing module (46) having two spoked stars (54) which are mounted so as to be rotatable about the drive axle (14), wherein each spoked star (54) has a plurality of radially extending supporting spokes (56) which are arranged with an offset in the circumferential direction and which have a radially outer, free end on which a ground contact element is fitted, and wherein each spoked star (54) is arranged laterally next to one of the drive wheels (16, 18); and a controller which contains an inclination sensor and/or an acceleration sensor and is configured, by controlled application of a torque to the drive wheels (16, 18) and/or to the spoked stars (54), to prevent or to limit tilting of the load-receiving interface (42) relative to a vertical (V) extending through the load-receiving interface (42) in an initial state.

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