

Title (en)

LOADER-TYPE HEAVY-CONSTRUCTION MACHINE

Title (de)

ERDBEWEGUNGSMASCHINE DES LADER-TYPS

Title (fr)

ENGIN DE TRAVAUX PUBLICS DU TYPE CHARGEUSE

Publication

**EP 1370731 B1 20040616 (FR)**

Application

**EP 02722354 A 20020320**

Priority

- FR 0200976 W 20020320
- FR 0103858 A 20010322

Abstract (en)

[origin: US2004060711A1] A loader-type heavy construction machine has a chassis and work equipment. The work equipment includes two parallel arms articulated relative to the frame, a bucket articulated relative to the arms, a set of link rods forming, with a portion of the bucket and of the arms, a deformable parallelogram, and a bucket actuator capable of being controlled to cause deformation of the deformable parallelogram so as to orient the bucket with respect to the arms. A cam is moved by a connecting bar connected at one end to the deformable parallelogram so that the position of the cam is dependent on the orientation of the bucket with respect to the chassis. The cam interfaces with an hydraulic circuit to ensure that the bucket is maintained in a position preventing it from accidentally tipping over backwards, regardless of commands exerted on an hydraulic manipulator by a driver of the machine.

IPC 1-7

**E02F 3/43**

IPC 8 full level

**E02F 3/43** (2006.01)

CPC (source: EP US)

**E02F 3/432** (2013.01 - EP US); **E02F 3/433** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**US 2004060711 A1 20040401; US 6912804 B2 20050705**; AT E269452 T1 20040715; DE 60200655 D1 20040722; EP 1370731 A1 20031217; EP 1370731 B1 20040616; FR 2822483 A1 20020927; FR 2822483 B1 20030718; WO 02081828 A1 20021017

DOCDB simple family (application)

**US 65964303 A 20030910**; AT 02722354 T 20020320; DE 60200655 T 20020320; EP 02722354 A 20020320; FR 0103858 A 20010322; FR 0200976 W 20020320