

Title (en)

JOYSTICK WITH COMPENSATION SPRINGS AND METHOD OF MAKING SAME.

Title (de)

STEUERKNÜPPEL MIT AUSGLEICHSFEDERN UND VERFAHREN ZUR HERSTELLUNG.

Title (fr)

Joystick à ressorts de compensation, procédé de fabrication et manette correspondants

Publication

EP 2341410 B1 20150909 (FR)

Application

EP 11150137 A 20110104

Priority

FR 1050018 A 20100104

Abstract (en)

[origin: EP2341410A1] The joystick has a stick (12) movable with respect to a base in rotation around two axes, and returning units e.g. metal helicoidal spring (214), mounted between the base and a movable element i.e. movable support, acting on the stick and tending to return the stick to a neutral position. Compensation units e.g. compression springs, are mounted between the base and the movable element, and apply force on the movable element partially compensating the force applied by the returning units when the stick is located in vicinity of the neutral position. An independent claim is also included for a method for manufacturing a joystick.

IPC 8 full level

G05G 5/05 (2006.01); **G05G 9/047** (2006.01)

CPC (source: EP US)

G05G 5/05 (2013.01 - EP US); **G05G 9/047** (2013.01 - EP US); **G05G 2009/04707** (2013.01 - EP US); **G05G 2009/04755** (2013.01 - EP US)

Citation (examination)

- DE 102005012883 A1 20060928 - GESSMANN GMBH W [DE]
- US 2009295724 A1 20091203 - CHENG WEN-FENG [TW], et al

Cited by

FR3126691A1; US11409321B2; WO2023037071A1; WO2024078694A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2341410 A1 20110706; EP 2341410 B1 20150909; FR 2954980 A1 20110708; FR 2954980 B1 20120210; JP 2011175630 A 20110908; US 2011163957 A1 20110707; US 8471815 B2 20130625

DOCDB simple family (application)

EP 11150137 A 20110104; FR 1050018 A 20100104; JP 2010294155 A 20101228; US 98378611 A 20110103