

Title (en)
SLIDING PENDULUM SEISMIC ISOLATOR

Title (de)
ERDBEBENISOLATOR MIT SCHIEBEPENDEL

Title (fr)
ISOLATEUR SISMIQUE À PENDULE COULISSANT

Publication
EP 2198099 B1 20110202 (EN)

Application
EP 07827678 A 20070911

Priority
IT 2007000626 W 20070911

Abstract (en)
[origin: WO2009034585A1] A bi-directional sliding pendulum seismic isolator comprises a rail-shaped lower sliding element (1) and a rail-shaped upper sliding element (2) substantially perpendicular to each other and having opposite cylindrical concave surfaces (1a, 2a). Between the sliding elements (1, 2) a first and a second intermediate element (3, 4) are arranged, each provided with a cylindrical convex sliding surface (3a, 4a) allowing it to slide along the cylindrical concave surface (1a, 2a) of the lower and upper sliding elements (1, 2). Each of the first and the second intermediate element (3, 4) is provided with a cylindrical concave surface (3b, 4b) opposite to its sliding surface (3a, 4a), and between them a third intermediate element (5) is arranged, provided with a lower and an upper surface (5a, 5b) that are both cylindrical convex surfaces and have their axes perpendicular to each other. The intermediate elements (3, 4, 5) constitute a joint having the shape of a cylindrical double saddle that allows the movement and the relative rotation between the rail-shaped sliding elements (1, 2) and allows to dimension the joint in function of the actual load conditions and rotations in the two sliding directions of the isolator, thus avoiding a useless oversizing and optimizing the design solutions and the manufacturing costs.

IPC 8 full level
E04H 9/02 (2006.01)

CPC (source: EP US)
E04H 9/021 (2013.01 - US); **E04H 9/023** (2013.01 - EP)

Cited by
EP3862593A1; ITMI20110257A1; IT201900005478A1; IT202000002542A1; WO2017082839A1; WO2012114246A1; US11502033B2; EP2873883B1

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