

Title (en)

CONTROL STRUCTURE WITH ROTARY FORCE LIMITER AND ENERGY DISSIPATER

Title (de)

STEUERUNGSSTRUKTUR MIT DREHKRAFTBEGRENZER UND ENERGIEABLEITER

Title (fr)

STRUCTURE DE COMMANDE AVEC LIMITEUR DE FORCE DE ROTATION ET DISSIPATEUR D'ÉNERGIE

Publication

EP 3830355 A4 20220420 (EN)

Application

EP 19849668 A 20190816

Priority

- NZ 74541218 A 20180817
- NZ 74549318 A 20180820
- NZ 74593118 A 20180831
- IB 2019056940 W 20190816

Abstract (en)

[origin: WO2020035822A1] A control structure comprising a pivotably based rocker frame assembly integral with rotary yield units able to produce a constant resistive yield force through high elasto-plastic displacements and high ductilities. Located within and distributed about the rotary yield units are flexural yield plates with particular boundary conditions enabling them to elasto-plastically flex to high cycling elasto-plastic displacements and high displacement and curvature ductilities, while maintaining a constant resistive yield force. The constant resistive yield force produced by the replaceable rotary units enables the control structure to resist and endure extreme seismic events (base motion input) with a constant resistive yield force, while plastic curvatures within the yield zones of the flexural plates of the rotary units are maintained well within their capacity; and forces within the control structure, within its supporting foundations, and within masses or other structures it is seismically supportive of are controlled and limited.

IPC 8 full level

E04B 1/98 (2006.01); **E04H 9/02** (2006.01); **F16F 7/02** (2006.01); **F16F 7/12** (2006.01)

CPC (source: AU EP US)

B65G 1/02 (2013.01 - EP); **B65G 1/14** (2013.01 - AU); **E04H 9/02** (2013.01 - AU); **E04H 9/0215** (2020.05 - AU); **E04H 9/0237** (2020.05 - EP US); **F16F 7/104** (2013.01 - AU); **B65G 2207/20** (2013.01 - EP)

Citation (search report)

- [X] EP 2475829 A1 20120718 - BALDUCCI ALESSANDRO [IT]
- [X] JP S62197574 A 19870901 - HAZAMA GUMI
- [I] JP 2002338018 A 20021127 - NIPPON STEEL CORP, et al
- [A] US 5161655 A 19921110 - SHIMODA IKUO [JP]
- [A] JP 2008121347 A 20080529 - DAISHU KENSETSU KK
- [A] EP 2537999 A1 20121226 - OKURA KENHO [JP]
- See references of WO 2020035822A1

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)

WO 2020035822 A1 20200220; EP 3830355 A1 20210609; EP 3830355 A4 20220420; JP 2021534340 A 20211209

DOCDB simple family (application)

IB 2019056940 W 20190816; EP 19849668 A 20190816; JP 2021507996 A 20190816