

Title (en)
COMPENSATION DEVICE

Publication
EP 0228050 A3 19881117 (DE)

Application
EP 86117769 A 19861219

Priority
DE 3546277 A 19851228

Abstract (en)
[origin: US4724970A] A compensating device for avoiding swell-generated relative movements between a load suspended on a crane and a load placing surface, or between a crane hook and a load to be carried thereby, the compensating device comprises a hydraulic cylinder-piston unit including a cylinder with an inner space, a piston sealingly displaceable in the cylinder and subdividing the inner space into a load supporting chamber which is to be filled in operation with hydraulic liquid and a second chamber, a piston rod connected with the piston, and a hydraulic accumulator connected with the supporting chamber and accommodating a pretensioned gas cushion, the second chamber being filled in operation with hydraulic liquid, the hydraulic accumulator including at least one hydraulic accumulating element which is connected with the second chamber and accommodating a gas cushion with a low pressure, the piston rod extending through both the load supporting chamber and the second chamber and extending outwardly beyond end surfaces of the cylinder.

IPC 1-7
B66C 13/02

IPC 8 full level
B66C 15/00 (2006.01); **B66C 13/02** (2006.01); **B66C 23/52** (2006.01)

CPC (source: EP US)
B66C 13/02 (2013.01 - EP US)

Citation (search report)

- DE 2741943 A1 19790329 - SCHMIDT & CO GMBH KRANZ
- DE 3430085 A1 19860227 - PHB WESERHUETTE AG [DE]
- US 3842603 A 19741022 - DITZEN E
- FR 2197806 A1 19740329 - SERAM [FR]
- US 4121806 A 19781024 - IATO MICHEL, et al

Cited by
EP2752361A1; EP2896589A1; US9926048B2; WO9100236A1; WO2014107109A1

Designated contracting state (EPC)
FR GB IT NL SE

DOCDB simple family (publication)
EP 0228050 A2 19870708; EP 0228050 A3 19881117; EP 0228050 B1 19900718; DE 3546277 A1 19870702; DE 3546277 C2 19890323; JP S62157184 A 19870713; NO 163051 B 19891218; NO 163051 C 19900328; NO 865297 D0 19861223; NO 865297 L 19870811; US 4724970 A 19880216

DOCDB simple family (application)
EP 86117769 A 19861219; DE 3546277 A 19851228; JP 31599486 A 19861226; NO 865297 A 19861223; US 94485786 A 19861222