

Title (en)  
END-OF-STROKE CUSHIONING DEVICE

Publication  
**EP 0157213 B1 19861120 (DE)**

Application  
**EP 85102590 A 19850307**

Priority  
DE 3408421 A 19840308

Abstract (en)  
[origin: EP0157213A1] 1. End of stroke cushioning device for traversing gears of working apparatus (2), like cranes and dredger arms, which are operated via hydraulic cylinders and in which two cylinders (6, 7; 34, 43) act on positions (9, 10) of a pivot drive circle (11) displaced relatively to each other, characterised in that the side (12, 13) of the cylinders (6, 7; 34; 43) to be cushioned comprises in its end region a connecting line (14, 16; 35; 46) of the hydraulic system and a further connecting line (15, 17; 36; 48) with a throttle valve (23, 24; 41; 49), a check valve (25, 26; 42; 50) shutting off the fluid discharge from the cylinder (6, 7; 34; 43) being arranged parallel to the throttle valve (23, 24; 41; 49), and that the check valves (25, 26; 42; 50) in dependency of the dead-centre position of the cylinders (6, 7) are unlockable via a sequence switch cam (32) at the pivot drive circle (11) by means of control elements (29, 31, 33) in such a manner that in each case the check valve for the cylinder (6 or 7) with the larger effective lever arm (lagging cylinder) remains shut off.

IPC 1-7  
**F15B 15/22; B66C 23/86**

IPC 8 full level  
**B66C 23/86** (2006.01); **F15B 15/22** (2006.01)

CPC (source: EP)  
**B66C 23/545** (2013.01); **B66C 23/86** (2013.01); **F15B 15/224** (2013.01)

Cited by  
WO8704202A1

Designated contracting state (EPC)  
DE IT NL

DOCDB simple family (publication)  
**EP 0157213 A1 19851009; EP 0157213 B1 19861120**; DE 3408421 A1 19850912; DE 3560023 D1 19870108

DOCDB simple family (application)  
**EP 85102590 A 19850307**; DE 3408421 A 19840308; DE 3560023 T 19850307