

Title (en)  
INTERNAL GRAB FOR LIFTING LOADS, ESPECIALLY ROLLS

Publication  
**EP 0070950 B1 19851211 (DE)**

Application  
**EP 81710034 A 19810731**

Priority  
EP 81710034 A 19810731

Abstract (en)  
[origin: EP0070950A1] 1. Internal gripping device (1) as load lifter, especially roll lifter, with a connecting means (7) for a supporting apparatus for example a crane hook, also with an expanding mandrel (2) on whose housing (5) a radially projecting bearing contact surface (46) is arranged at the upper region and in whose housing (5) an expanding device is arranged which consists of at least one axially mobile expanding guide (14) converging towards the connecting means, and of radially mobile expanding teeth (19) which abut on said guide, wherein the connecting means (7) is connected to an entrainment element (6) guided to be axially movable in the expanding mandrel housing (5) for the entrainment of the expanding guide (14) after a specific idle travel, and the entrainment element (6) and the expanding mandrel housing (5) are connected by means of a gravity change-over switch for changing-over the expanding device to "expand" when the bearing contact surface comes to bear on the load and for subsequently changing-over to "release" after the load has been set down, characterised in that the gravity change-over switch consists substantially of two parts arranged on the one hand on the entrainment element (6) and on the other hand on the expanding mandrel housing (5), namely a triangular control plate (35) and a control lever (32) which co-operates with the control plate (35) and which is movable in the circumferential direction, the control plate (35) having a substantially circumferentially disposed side (38) provided with a recess (39), and, oppositely, a nose (37) which is directed towards the suspension of the control lever (32) and in the region of which there is arranged a latch (43) for the guiding of the control lever (32) on telescoping of the entrainment element (6) and the expanding mandrel housing (5) in opposition to a force (31) acting on the control lever (32).

IPC 1-7  
**B66C 1/54**; **B66C 1/42**

IPC 8 full level  
**B66C 1/54** (2006.01)

CPC (source: EP)  
**B66C 1/54** (2013.01)

Cited by  
US4723884A; DE10048135A1; DE10048135B4; GB2337983A; US5439264A; CN112201376A; US6010171A; DE4330717A1; DE4330717C2; GB2229202A; GB2229202B; EP4043381A1

Designated contracting state (EPC)  
CH DE FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0070950 A1 19830209**; **EP 0070950 B1 19851211**; DE 3173187 D1 19860123

DOCDB simple family (application)  
**EP 81710034 A 19810731**; DE 3173187 T 19810731