

Title (en)  
Lifting arrangement for detachable counterweight

Title (de)  
Hubeinrichtung für eine Umsetzvorrichtung

Title (fr)  
Installation de levage pour contrepoids démontable

Publication  
**EP 0669280 B1 19990602 (DE)**

Application  
**EP 95101185 A 19950128**

Priority  
DE 4405780 A 19940223

Abstract (en)  
[origin: EP0669280A1] The counterweight reconfiguration system for turntable cranes has lifting elements (8L,8R) consisting of a fixed upper cylinder cage (9) and a rotating lower cylinder cage (10), of square cross-section. The base plate (11) of the upper cage is fixed to the turntable (7) via a rotary bearing (12). Each cage is fitted with a counterweight lifting cylinder (13), with a squared upper end which slides inside the cages. A transverse bolt (14) is fitted to the lower end of the cylinders. A piston rod (17) is linked to each lower cage, and can turn it to allow the bolt to pass through the counter weights.

IPC 1-7  
**B66C 23/74**

IPC 8 full level  
**B66C 23/74** (2006.01); **B66C 23/76** (2006.01)

CPC (source: EP US)  
**B66C 23/74** (2013.01 - EP US)

Cited by  
CN104444860A; CN104444862A; CN103133599A; EP1607364A3; CN103342297A

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**DE 4405780 A1 19950824**; DE 59506061 D1 19990708; EP 0669280 A1 19950830; EP 0669280 B1 19990602; ES 2132440 T3 19990816; JP 3675871 B2 20050727; JP H07257879 A 19951009; US 5524777 A 19960611

DOCDB simple family (application)  
**DE 4405780 A 19940223**; DE 59506061 T 19950128; EP 95101185 A 19950128; ES 95101185 T 19950128; JP 3118295 A 19950220; US 39401895 A 19950223