

Title (en)  
LIFTING AND TIPPING DEVICE

Title (de)  
HUBKIPPVORRICHTUNG

Title (fr)  
DISPOSITIF DE LEVAGE ET DE CULBUTAGE

Publication  
**EP 1077890 B1 20021218 (DE)**

Application  
**EP 99920856 A 19990506**

Priority  
• EP 9903118 W 19990506  
• ZA 983946 A 19980511

Abstract (en)  
[origin: WO9958431A1] The invention relates to a lifting and tipping device for emptying containers into the loading opening of a collecting container, especially for emptying refuse containers (50) into the collecting container (12) of a refuse truck (10). The lifting and tipping device (5) has a swivel drive device (32) in the area of the loading opening (14) to which at least one swivel arm (38) with a device (46) for receiving a container is connected with a non-positive fit. The aim of the invention is to provide a lifting and tipping device (5a, 5b) which is as compact as possible and in which the device (46) for receiving a container moves substantially from the bottom upwards without a significant horizontal component when it takes hold of the refuse container (50). To this end the invention provides for the swivel drive device (32) to be fixed to a slide (60) guided in at least one vertical rail (16), and for means which transform the rotation of the swivel drive device (32), during a simultaneous swivel movement of the swivel arm (38), into a lifting movement of the slide (60) which stops at a defined height of lift. The slide (60) can be locked in relation to the rail (16) at the defined height of lift.

IPC 1-7  
**B65F 3/08**; **B65F 3/04**

IPC 8 full level  
**B65F 3/00** (2006.01); **B65F 3/04** (2006.01); **B65F 3/08** (2006.01); **B65G 65/24** (2006.01)

CPC (source: EP US)  
**B65F 3/046** (2013.01 - EP US); **B65F 3/08** (2013.01 - EP US)

Cited by  
DE102006052796A1; EP1921026A1

Designated contracting state (EPC)  
AT BE DE DK ES FR GB IE NL PT SE

DOCDB simple family (publication)  
**WO 9958431 A1 19991118**; AT E229915 T1 20030115; AU 3827899 A 19991129; BR 9910351 A 20011016; CN 1300266 A 20010620; CZ 20003744 A3 20011212; DE 59903838 D1 20030130; DK 1077890 T3 20030414; EP 1077890 A1 20010228; EP 1077890 B1 20021218; ES 2189419 T3 20030701; JP 2002514559 A 20020521; PL 343834 A1 20010910; RU 2195421 C2 20021227; US 6551046 B1 20030422

DOCDB simple family (application)  
**EP 9903118 W 19990506**; AT 99920856 T 19990506; AU 3827899 A 19990506; BR 9910351 A 19990506; CN 99806019 A 19990506; CZ 20003744 A 19990506; DE 59903838 T 19990506; DK 99920856 T 19990506; EP 99920856 A 19990506; ES 99920856 T 19990506; JP 2000548246 A 19990506; PL 34383499 A 19990506; RU 2000131170 A 19990506; US 67495401 A 20010123