Title (en)

Device for handling refuse receptacles and for emptying them in a collecting vehicle provided with such a device

Title (de)

Vorrichtung zur Handhabung von Müllbehältern und zu deren Entleerung in ein mit einer solchen Vorrichtung versehenen Sammelfahrzeug

Title (fr)

Dispositif de manipulation de poubelles pour les vider dans un véhicule de collecte pourvu du dit dispositif

Publication

EP 1057754 A1 20001206 (FR)

Application

EP 00490020 A 20000526

Priority

FR 9907115 A 19990601

Abstract (en)

The manipulator consists of a gripper (3) for the bin (6), a mechanism for moving it vertically, a tipping mechanism and a moving guide panel (5) set in line with a waste separator (7) inside the bin. The guide panel is pivoted to the ends of the two arms (18) of a fork articulated to the gripper and is itself controlled by the arms as the bin is tipped. The collection vehicle also has a selector with a shutter to determine which of its compartments is opened to receive the waste.

IPC 1-7 (main, further and additional classification)

B65F 3/00; B65F 1/00

IPC 8 full level (invention and additional information)

B65F 1/00 (2006.01); **B65F 3/00** (2006.01)

CPC (invention and additional information)

B65F 1/004 (2013.01); **B65F 3/001** (2013.01)

Citation (applicant)

- EP 0257442 A2 19880302 - ZOELLER KIPPER [DE]
- DE 3703557 A1 19880818 - MEHRKAMMER MUELL SYSTEM GMBH [DE]

Citation (search report)

- [DA] DE 3703557 A1 19880818 - MEHRKAMMER MUELL SYSTEM GMBH [DE]
- [A] EP 0356833 A1 19900307 - OTTO LIFT SYSTEME GMBH [DE]
- [A] WO 9301111 A1 19930121 - HICKEY COLIN JOSEPH [AU]
- [A] DE 4415721 A1 19941110 - MFS MULTI FUNKTIONS SYSTEM GMB [DE]
- [DA] EP 0257442 A2 19880302 - ZOELLER KIPPER [DE]

Cited by

EP1686079A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

EPO simple patent family

EP 1057754 A1 20001206; EP 1057754 B1 20021113; AT 227682 T 20021115; DE 60000761 D1 20021219; DE 60000761 T2 20030703; ES 2182764 T3 20030316; FR 2794441 A1 20001208; FR 2794441 B1 20010803

INPADOC legal status

2017-08-31 [PGFP IT] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : IT
- Payment date : 20170517
- Year of fee payment : 18

2017-08-31 [PGFP BE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : BE
- Payment date : 20170531
- Year of fee payment : 18

2017-08-31 [PGFP ES] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : ES
- Payment date : 20170608
- Year of fee payment : 18

2017-08-31 [PGFP LU] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : LU
- Payment date : 20170414
- Year of fee payment : 18

2017-07-31 [PGFP CH] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : CH
- Payment date : 20170517
- Year of fee payment : 18

2017-07-31 [PGFP GB] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE

- Ref Country Code : GB
- Payment date : 20170517
- Year of fee payment : 18

2017-07-31 [PGFP DE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : DE
- Payment date : 20170511
- Year of fee payment : 18

2017-06-30 [PGFP NL] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : NL
- Payment date : 20170412
- Year of fee payment : 18

2017-04-28 [PGFP FR] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : FR
- Payment date : 20170329
- Year of fee payment : 18

2017-03-29 [REG FR PLFP] FEE PAYMENT
- Year of fee payment : 18

2016-04-28 [REG FR PLFP] FEE PAYMENT
- Year of fee payment : 17

2011-07-15 [REG CH PCAR] CHANGE OF THE ADDRESS OF THE REPRESENTATIVE
- Free text : NOVAGRAAF SWITZERLAND SA;CHEMIN DE L'ECHO 3;1213 ONEX (CH)

2010-07-15 [REG CH PFA] NAME/FIRM CHANGED
- Owner name : FLAMME ENVIRONNEMENT, S.A.
- Free text : FLAMME ENVIRONNEMENT, S.A.#12 RUE JEAN MESSAGER#59330 SAINT REMY DU NORD (FR) -TRANSFER TO- FLAMME ENVIRONNEMENT, S.A.#12 RUE JEAN MESSAGER#59330 SAINT REMY DU NORD (FR)

2003-11-05 [26N] NO OPPOSITION FILED
- Effective date : 20030814

2003-07-23 [REG IE FD4D] EUROPEAN PATENTS DESIGNATING IRELAND TREATED AS ALWAYS HAVING BEEN VOID
- Document : IE 1057754E

2003-05-31 [PG25 MC] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : MC
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20030531

2003-05-26 [PG25 CY] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : CY
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030526

2003-03-16 [REG ES FG2A] DEFINITIVE PROTECTION
- Document : ES 2182764 T3

2003-02-26 [GBT] GB: TRANSLATION OF EP PATENT FILED (GB SECTION 77(6)(A)/1977)
- Effective date : 20030203

2003-02-13 [PG25 DK] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : DK
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030213

2003-02-13 [PG25 PT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : PT
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030213

2003-02-13 [PG25 SE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO

- Ref Country Code : SE
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20030213

2002-12-19 [REF] CORRESPONDS TO:
- Document : DE 60000761 20021219

2002-12-11 [REG IE FG4D] EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
- Free text : FRENCH

2002-11-29 [REG CH NV] NEW AGENT
- Representative's name : WILLIAM BLANC & CIE CONSEILS EN PROPRIETE INDUSTRI

2002-11-15 [REG CH EP] ENTRY IN THE NATIONAL PHASE

2002-11-13 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : B1
- Designated State(s) : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2002-11-13 [REG GB FG4D] EUROPEAN PATENT GRANTED
- Free text : NOT ENGLISH

2002-11-13 [PG25 AT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : AT
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20021113

2002-11-13 [PG25 FI] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : FI
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20021113

2002-11-13 [PG25 GR] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : GR
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20021113

2002-11-13 [PG25 IE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : IE
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20021113

2002-11-13 [REF] CORRESPONDS TO:
- Document : AT 227682 T 20021115

2001-12-12 [17Q] FIRST EXAMINATION REPORT
- Effective date : 20011023

2001-08-22 [AKX] PAYMENT OF DESIGNATION FEES
- Free text : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2001-01-31 [17P] REQUEST FOR EXAMINATION FILED
- Effective date : 20001208

2000-12-06 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : A1
- Designated State(s) : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2000-12-06 [AX] REQUEST FOR EXTENSION OF THE EUROPEAN PATENT TO:
- Free text : AL;LT;LV;MK;RO;SI