

Title (en)  
Spreading device for winter service vehicles

Title (de)  
Streugerät für Winterdienstfahrzeuge

Title (fr)  
Appareil d'épandage pour véhicules de services d'hiver

Publication  
**EP 2354309 B1 20160720 (DE)**

Application  
**EP 10197273 A 20101229**

Priority  
• DE 102009060681 A 20091229  
• DE 102010029142 A 20100519

Abstract (en)  
[origin: EP2354309A2] The spreader device (1) has a girt container (3) that is utilized as a brine tank. A liquid thawing material is stored in the girt container. A spreading unit (6) or a spraying device (17) is functionally coupled with the girt container or the brine container. Independent claims are also included for the following: (1) a logistic method for transporting of liquid thawing material for winter services; and (2) a liquid tank, which has transporting elements.

IPC 8 full level  
**E01C 19/12** (2006.01); **E01C 19/21** (2006.01); **E01H 10/00** (2006.01)

CPC (source: EP)  
**E01C 19/12** (2013.01); **E01C 19/21** (2013.01); **E01H 10/007** (2013.01)

Cited by  
DE102015117151A1; DE102015116686A1; CN102747703A; DE102015116691A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2354309 A2 20110810; EP 2354309 A3 20140101; EP 2354309 B1 20160720**; DE 102010029142 A1 20110630; DK 2354309 T3 20161114; DK 2824238 T3 20170717; EP 2824238 A1 20150114; EP 2824238 B1 20170329; ES 2599066 T3 20170131; ES 2630105 T3 20170818; HR P20161360 T1 20170210; HR P20170977 T1 20170922; HU E031672 T2 20170728; HU E033605 T2 20171228; LT 2354309 T 20161125; LT 2824238 T 20171010; PL 2354309 T3 20170331; PL 2824238 T3 20170929; PT 2354309 T 20161026

DOCDB simple family (application)  
**EP 10197273 A 20101229**; DE 102010029142 A 20100519; DK 10197273 T 20101229; DK 14177173 T 20101229; EP 14177173 A 20101229; ES 10197273 T 20101229; ES 14177173 T 20101229; HR P20161360 T 20161018; HR P20170977 T 20170628; HU E10197273 A 20101229; HU E14177173 A 20101229; LT 10197273 T 20101229; LT 14177173 T 20101229; PL 10197273 T 20101229; PL 14177173 T 20101229; PT 10197273 T 20101229