

Title (en)  
EFFICIENT SURFACE TREATING MACHINE

Title (de)  
EFFIZIENTE MASCHINE ZUR FLÄCHENBEHANDLUNG

Title (fr)  
MACHINE DE TRAITEMENT DE SURFACE EFFICACE

Publication  
**EP 3200666 A4 20180926 (EN)**

Application  
**EP 15845560 A 20150928**

Priority  
• US 201462056722 P 20140929  
• US 2015052643 W 20150928

Abstract (en)  
[origin: WO2016053872A1] A machine for treating a surface lying in an XY plane. The machine includes a body, a body plate, a cleaning plate, a drive assembly and an attachment assembly. The cleaning plate is located between the body plate and the XY plane. The drive assembly is connected to the cleaning plate to drive the cleaning plate with a cleaning vibration in an oscillating pattern parallel to the XY plane. The attachment assembly flexibly attaches the cleaning plate to the body plate to permit the cleaning plate to vibrate relative to the body plate and to isolate the cleaning vibration from the body. A connector is attached to the body for connecting to a member, such as a handle, to move the machine in the XY plane.

IPC 8 full level  
**A47L 11/284** (2006.01); **A47L 11/26** (2006.01)

CPC (source: EP KR)  
**A47L 11/26** (2013.01 - EP); **A47L 11/284** (2013.01 - EP KR); **A47L 11/4069** (2013.01 - EP KR)

Citation (search report)  
• [X1] US 2004040579 A1 20040304 - SMITH YALE [US]  
• [X1] WO 2013056515 A1 20130425 - PREMIER APPLIANCES MANUFACTORY CO LTD [CN], et al  
• [XA] WO 2012078145 A1 20120614 - SMITH YALE [US]  
• [A] US 2006059640 A1 20060323 - HORNSBY JAMES R [US], et al  
• See references of WO 2016053872A1

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EP4278939A1

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)  
**WO 2016053872 A1 20160407**; AU 2015324093 A1 20170420; AU 2015324093 B2 20200430; CA 2962925 A1 20160407; CA 2962925 C 20231121; CN 107072458 A 20170818; CN 107072458 B 20200103; EP 3200666 A1 20170809; EP 3200666 A4 20180926; EP 3200666 B1 20200219; JP 2017532176 A 20171102; JP 6687629 B2 20200422; KR 102439114 B1 20220831; KR 20170063915 A 20170608; SG 11201702449X A 20170427

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**US 2015052643 W 20150928**; AU 2015324093 A 20150928; CA 2962925 A 20150928; CN 201580052423 A 20150928; EP 15845560 A 20150928; JP 2017536228 A 20150928; KR 20177011924 A 20150928; SG 11201702449X A 20150928