

Title (en)  
Pump device and reservoir

Title (de)  
Zusammenbau von Behälter und Pumpe

Title (fr)  
Assemblage d'un réservoir et d'une pompe

Publication  
**EP 1340915 A3 20040512 (EN)**

Application  
**EP 03004150 A 20030226**

Priority  
JP 2002050873 A 20020227

Abstract (en)  
[origin: EP1340915A2] A pump device unifying a reservoir is disclosed. The pump device comprises a pump housing, a bracket, bolts and nuts. The pump housing comprises a front and a rear housing. The bracket is attached to the reservoir at one end thereof. The bolt has a bolt head at an intermediate portion thereof, a first thread portion formed on one side thereof and a second thread portion formed on the other side thereof, which a diameter of the first thread portion is larger than the same of the second thread portion. The nut engages to the second thread portion. The rear housing is secured to the front housing by screwing the first thread portion to the front housing through the rear housing. The nut is screwed to the second thread portion so that the other end of the bracket is fixed between the bolt head and the nut. <IMAGE>

IPC 1-7  
**F04C 11/00**; **F04C 2/344**

IPC 8 full level  
**B62D 5/07** (2006.01); **F01C 21/10** (2006.01); **F04C 11/00** (2006.01); **F04C 2/344** (2006.01)

CPC (source: EP US)  
**F01C 21/10** (2013.01 - EP US); **F04C 11/00** (2013.01 - EP US); **F04C 2/344** (2013.01 - EP US); **F04C 2240/805** (2013.01 - EP US)

Citation (search report)  
• [A] US 4347048 A 19820831 - KAWABATA MINORU, et al  
• [A] US 5478116 A 19951226 - JAROCKI COREY J [US], et al

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)  
**EP 1340915 A2 20030903**; **EP 1340915 A3 20040512**; JP 2003252218 A 20030910; US 2003161736 A1 20030828

DOCDB simple family (application)  
**EP 03004150 A 20030226**; JP 2002050873 A 20020227; US 37374103 A 20030227