

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Amendment to Security Interest in United States Patents

CONVEYING PARTY DATA

Name	Execution Date
Tenneco Automotive Operating Company Inc.	03/12/2007
Tenneco International Holding Corp.	03/12/2007
Tenneco Global Holdings Inc.	03/12/2007
The Pullman Company	03/12/2007
TMC Texas Inc.	03/12/2007
Clevite Industries Inc.	03/12/2007
Tenneco Inc. (formerly known as Tenneco Automotive Inc.)	03/12/2007

RECEIVING PARTY DATA

Name:	JPMorgan Chase Bank
Street Address:	270 Park Avenue
City:	New York
State/Country:	NEW YORK
Postal Code:	10017

PROPERTY NUMBERS Total: 214

Property Type	Number
Patent Number:	5564521
Patent Number:	5657958
Patent Number:	5791679
Patent Number:	5788265
Patent Number:	5795092
Patent Number:	5885688
Patent Number:	6030570
Patent Number:	4927285
Patent Number:	4895353
Patent Number:	4916749

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Patent Number:	5040774
Patent Number:	5013002
Patent Number:	5122011
Patent Number:	5328160
Patent Number:	5397112
Patent Number:	5540420
Patent Number:	6231264
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Patent Number:	6430774
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Patent Number:	7114712
Patent Number:	6588778
Patent Number:	6843472
Patent Number:	6854917
Application Number:	10988479
Patent Number:	6698731
Patent Number:	6758300
Patent Number:	6513801
Application Number:	11332868
Application Number:	10163249
Patent Number:	6966567
Patent Number:	7163216
Application Number:	11047538
Application Number:	11174947
Application Number:	11340208
Application Number:	11651952
Application Number:	11342928
Application Number:	11507313
Application Number:	60713543
Application Number:	11233283
Application Number:	11511664
Application Number:	60831873
Patent Number:	5104144
Patent Number:	4890858

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Application Number:	60755002
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Application Number:	10760179
Application Number:	10885494
Application Number:	11013095
Application Number:	11331443
Application Number:	11269124
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Application Number:	60754586
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Application Number:	60741114
Application Number:	11316170
Application Number:	11605513
Application Number:	60754999
Application Number:	60874921
Application Number:	60879240
Application Number:	60858762
Application Number:	60872588
Application Number:	60875186

CORRESPONDENCE DATA

Fax Number: (312)706-9000

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 312-701-8601

Email: lasmith@mayerbrownrowe.com

Correspondent Name: Deborah Schavey Ruff

Address Line 1: P.O. Box 2828
Address Line 4: Chicago, ILLINOIS 60690-2828

ATTORNEY DOCKET NUMBER: 07688/00638420

NAME OF SUBMITTER: Deborah Schavey Ruff

Total Attachments: 61

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**AMENDMENT TO SECURITY INTEREST
IN UNITED STATES PATENTS**

FOR GOOD AND VALUABLE CONSIDERATION, receipt and sufficiency of which are hereby acknowledged, Tenneco Inc. (formerly known as Tenneco Automotive Inc.), Tenneco Automotive Operating Company Inc., Tenneco International Holding Corp., Tenneco Global Holdings Inc., The Pullman Company, TMC Texas Inc. and Clevite Industries Inc., each a Delaware corporation (each, a "Grantor" and collectively, "the Grantors") with principal offices at 500 North Field Drive, Lake Forest, Illinois 60045 and JPMorgan Chase Bank, as Administrative Agent, with principal offices at 270 Park Avenue, New York, New York 10017 (the "Administrative Agent"), hereby agree to amend and restate Schedule A to the Security Interest in United States Patents executed by Grantors and Administrative Agent on June 19, 2003 and recorded at the U.S. Patent and Trademark Office (the "Security Interest"). Accordingly, Schedule A to the Security Interest shall be amended and restated in its entirety and replaced with Schedule A attached hereto.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 12th
day of March, 2007.

Tenneco Inc.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

Tenneco Automotive Operating Company Inc.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

Tenneco International Holding Corp.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

Tenneco Global Holdings Inc.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

The Pullman Company

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

TMC Texas Inc.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

Clevite Industries Inc.

By: J. Jeffrey Zimmerman
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

JPMorgan Chase Bank, N.A., as
Administrative Agent

By: _____
Name:
Title:

TMC Texas Inc.

By: _____
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

Clevite Industries Inc.

By: _____
Name: J. Jeffrey Zimmerman
Title: Vice President - Law

JPMorgan Chase Bank, N.A., as
Administrative Agent

By: 
Name: ROBERT P. KELLAS
Title: EXECUTIVE DIRECTOR

13130679 00638420

SCHEDULE A

See Attached.

13130679 00638420

**Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT -- Active Cases**

HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appl. No. Filing Date:(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000001/US CLE-2-004	United States Regular~Original Filing~National	08/376749 1/23/1995	5564521 10/15/1996		4/15/2008 1/23/2015	Granted Transferred: Resp. Upon Issuance
<p>Title: Torque Rod Assembly Inventors: MCLAUGHLIN, Ronald J.; HULL, Darin J. Owner/Assignee: The Pullman Company</p>						
1316C-000002/US	United States Regular~Original Filing~National	08/395664 2/28/1995	5657958 8/19/1997		2/19/2009 2/28/2015	Granted Transferred: Resp. Upon Issuance
<p>Title: Seat Post Assembly Inventors: MCLAUGHLIN, Ronald J.; JAWORSKI, Kevin J. Owner/Assignee: The Pullman Company</p>						
1316C-000003/US CLE-2-008	United States Regular~Original Filing~National	08/689923 8/16/1996	5791679 8/11/1998		2/11/2010 8/16/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Torque Rod Configuration Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: The Pullman Company</p>						
1316C-000004/US CLE-2-003	United States Regular~Original Filing~National	08/706603 9/5/1996	5788265 8/4/1998		2/4/2010 9/5/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Torsional Bushing System Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: Pullman Company</p>						

Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT -- Active Cases

HDP Case ID	Client Ref. No.	Country	Case Type-Relationship-Filing Type	Appln. No.	Filing Date/(Lodged)	Patent No.	Issue Date	Publication No.	Publication Date	Next Tax Date	Expiration Date	Status/Substatus
1316C-000006/US	CLE-2-010	United States	Regular-Original Filing-National	08/761540	12/6/1996	5795092	8/18/1996			2/18/2010	12/6/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Internally Sealed Pivotal Joint Assembly Inventors: JAWORSKI, Kevin J.; LUZSICZA, Steven O. Owner/Assignee: The Pullman Company</p>												
1316C-000007/US	CLE-2-019	United States	Regular-Original Filing-National	08/773142	12/28/1996	5885688	3/23/1999			9/23/2010	12/26/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Steel Reinforced Filled Polymer Torque Rod Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: The Pullman Company</p>												
1316C-000007/US/DVA		United States	Regular-Division-National	09/186521	11/5/1998	6030570	2/29/2000			8/29/2007	12/26/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Steel Reinforced Filled Polymer Torque Rod Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: The Pullman Company</p>												
1316C-000054/US/COA	574251-180	United States	Regular-Continuation-National	07/363170	5/15/1989	4927285	5/22/1990			11/22/2001	2/19/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Ball Joint Design Inventors: KOTZ, Steven P.; LANE, John H. History: CON of SN 151729, Filed 02/19/88 (Abd) HD&P assumed responsibility 03/97 Owner/Assignee: The Pullman Company</p>												

Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT -- Active Cases

HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000055/US	United States Regular~Original Filing~National	212504 6/28/1988	485353 1/23/1990		7/23/2001 6/28/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Fluid Filled Elastomeric Damping Device Inventors: ROTH, Stephen F.; COAD, L. Dale History: HD&P Assumed Responsibility 03/97.</p> <p>Owner/Assignee: The Pullman Company</p>						
1316C-000056/US 574251-14	United States Regular~Original Filing~National	07341002 4/20/1989	4916749 4/10/1990		10/10/2001 4/20/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Elastomeric Bushing And Method Of Manufacturing The Same Inventors: URBAN, Henry F.; THORNHILL, Jay W. History: HD&P Assumed Responsibility 03/97.</p> <p>Owner/Assignee: The Pullman Company</p>						
1316C-000058/US 574251-4	United States Regular~Original Filing~National	07506209 4/9/1990	5040774 8/20/1991		2/20/2003 4/9/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Hydraulic Damping Bushing Inventors: VEVERKA, Susan I.; ROTH, Stephen F. History: Assumed Responsibility 03/97.</p> <p>Owner/Assignee: The Pullman Company</p>						
1316C-000059/US 574251-9	United States Regular~Original Filing~National	509092 4/16/1990	5013002 5/7/1991		11/7/2002 4/16/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Elastomeric Clamp Inventors: LEFFERTS, Scott R.; STELZER, Dennis J., Sr.; WEISENBERGER, Thomas V. History: HD&P Assumed Responsibility 03/97.</p> <p>Owner/Assignee: The Pullman Company</p>						

**Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT -- Active Cases**

HARNES DICKY

HDP Case ID	Client Ref. No.	Country	Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000060/US	574251-7	United States	Regular~Original Filing~National	07/616354 11/21/1990	5122011 6/16/1992		12/16/2003 11/21/2010	Granted Transferred: Resp. Upon Issuance

Title: Elastomeric Bushing Assembly For Torque Rod
 Inventors: MISSIG, Robert C.
 History: HD&P Assumed Responsibility 03/97.
 Owner/Assignee: The Pullman Company

1316C-000061/US/COA	574251-6	United States	Regular~Continuation~National	08/011113 1/29/1993	5328160 7/12/1994		1/12/2006 7/12/2011	Granted Transferred: Resp. Upon Issuance
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Title: Rubber-Metal Bushing
 Inventors: MCLAUGHLIN, Ronald J.
 History: CON of SN 666235, Filed 03/08/91, (ABD) HD&P Assumed Responsibility 03/97.
 Owner/Assignee: The Pullman Company

1316C-000063/US	574251-3	United States	Regular~Original Filing~National	08/238718 5/5/1994	5397112 3/14/1995		9/14/2006 5/5/2014	Granted Transferred: Resp. Upon Issuance
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Title: Fluid-Filled Elastomeric Suspension Bushing
 Inventors: ROTH, Stephen F.; HENRY, Harold H., III
 History: HD&P Assumed Responsibility 03/97.
 Owner/Assignee: The Pullman Company

1316C-000064/US	574251-214	United States	Regular~Original Filing~National	08/254984 6/7/1994	5540420 7/30/1996		1/30/2008 6/7/2014	Granted Transferred: Resp. Upon Issuance
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Title: Method Of Making A Bearing Structure And Bearing So Made
 Inventors: LUZSICZA, Steven O.
 History: Assumed Responsibility 03/97.
 Owner/Assignee: The Pullman Company

**Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT - Active Cases**

HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000066/US	United States Regular~Original Filing~National	09/190477 11/12/1998	6231264 5/15/2001		11/15/2008 11/12/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Torque Rod Bearing Assembly Inventors: MCLAUGHLIN, Ronald J.; JAWORSKI, Kevin J. Owner/Assignee: The Pullman Company</p>						
1316C-000069/US C40825AA	United States Regular~Original Filing~National	09/340370 6/28/1999	6267526 7/31/2001		1/31/2009 6/28/2019	Granted Transferred: Resp. Upon Issuance
<p>Title: Headed Solid Rod For Torque Rod Spacer Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: The Pullman Company</p>						
1316C-000070/US	United States Regular~Original Filing~National	09/346836 7/2/1999	6430774 8/13/2002		2/13/2010 7/2/2019	Granted Transferred: Resp. Upon Issuance
<p>Title: Crimped Bushing Inventors: MCLAUGHLIN, Ronald J.; MCCARTHY, Frank J. Owner/Assignee: The Pullman Company</p>						
1316C-000071/US 937590	United States Regular~Original Filing~National	09/348152 7/6/1999	6270282 8/7/2001		2/7/2009 7/6/2019	Granted Transferred: Resp. Upon Issuance
<p>Title: Torque Rod Apex Mount Inventors: MCLAUGHLIN, Ronald J. Owner/Assignee: The Pullman Company</p>						



**Tenneco Automotive Operating
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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000073/US/CPA	United States Regular~Continuation-In-Part-National	10/075062 2/13/2002	6755403 6/29/2004	2002/0121733A1 9/5/2002	12/29/2007 11/25/2019	Granted Transferred: Resp. Upon Issuance
Title: Non-Slip Sta-Bar Bushing Inventors: LEWIS, James; NOVY, Richard; MISSIG, Robert History: CIP of USSN 09/408406, filed 09/29/1999, ABD.						
Owner/Assignee: The Pullman Company						
1316C-000073/US/CPB	United States Regular~Continuation-In-Part-National	10/878622 6/28/2004	7114712 10/3/2006	2005/0029723A1 2/10/2005	4/3/2010 9/29/2019	Granted Transferred: Resp. Upon Issuance
Title: Non-Slip Rate-Plated Sta-Bar Bushing Inventors: LEWIS, James; NOVY, Richard; MISSIG, Robert; FRANZEN, Andrew History: CIP of USSN 10/075062, filed 02/13/2002, USPN 6755403; which is a CIP of USSN 09/408406, filed 09/29/1999, ABD.						
Owner/Assignee: The Pullman Company						
1316C-000074/US 001317	United States Regular~Original Filing-National	09/549796 4/14/2000	6588778 7/8/2003		1/8/2011 4/14/2020	Granted Transferred: Resp. Upon Issuance
Title: One Piece Trailing Arm For Torsional Springs Inventors: MCLAUGHLIN, Ronald J. History: Request for Continued Examination filed 03/21/2003. Request for Continued Examination filed 02/06/2002. MF Responsibility ONLY transferred to client - KEEP FILE HERE.						
Owner/Assignee: The Pullman Company						
1316C-000075/US 001314	United States Regular~Original Filing-National	10/348125 1/21/2003	6843472 1/18/2005		7/18/2008 1/21/2023	Granted Transferred: Resp. Upon Issuance
Title: Upper Shock Mount Isolator With Integral Air Spring Housing Pivot Bearing Inventors: HENRY, Harold H., III; LUZSICZA, Steven O.; STEED, David; KAZMIRSKI, Karl; GROVES, Gary						
Owner/Assignee: The Pullman Company						

Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT - Active Cases

HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000077/US 2724	United States Regular-Original Filing-National	10/074944 2/12/2002	6854917 2/15/2006	2002/0111219A1 8/15/2002	8/15/2008 3/19/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Low-Torque Pivot Bushing Inventors: KRAINE, Edward M., Jr.; CERRI, Joseph F., III; STOLL, Kurt History: Based on PRO USSN 60/268336, filed 02/12/2001. Owner/Assignee: The Pullman Company</p>						
1316C-000077/US/DVA 2724	United States Regular-Division-National	10/988479 11/12/2004		2005/0099378A1 3/31/2005		Filed-Published
<p>Title: Low-Torque Pivot Bushing Inventors: KRAINE, Edward M., Jr.; CERRI, Joseph F.; STOLL, Kurt History: DIV of USSN 10/074944 filed 02/12/2002; which claims benefit of PRO USSN 60/268336, filed 02/12/2001 Owner/Assignee: The Pullman Company</p>						
1316C-000078/US 1472	United States Regular-Original Filing-National	10/128902 4/24/2002	6698731 3/2/2004	2003/0201590A1 10/30/2003	9/2/2007 4/24/2022	Granted Transferred: Resp. Upon Issuance
<p>Title: High Compliance Multiple Chamber Piston For Fluid Damped Elastomer Devices Inventors: THORNHILL, Jay Owner/Assignee: Pullman Company</p>						
1316C-000080/US 1944	United States Regular-Original Filing-National	10/079037 2/20/2002	6758300 7/6/2004	2003/0155169A1 8/21/2003	1/8/2008 4/1/2022	Granted Transferred: Resp. Upon Issuance
<p>Title: Exhaust Isolator System Inventors: KROMIS, Peter J.; CERRI, Joseph F. III Owner/Assignee: The Pullman Company</p>						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000081/US 2312	United States Regular-Original Filing-National	10/202287 7/24/2002	6513801 2/4/2003		8/4/2010 7/24/2022	Granted Transferred: Resp. Upon Issuance
<p>Title: Hinged/Spit Reinforced Clam Shell Bushing Inventors: MCCARTHY, Frank J. Owner/Assignee: The Pullman Company</p>						
1316C-000082/US	United States Regular-Original Filing-National	11/332868 1/16/2006				Filed-Pending
<p>Title: Cast Apex Adjustable V-Type Torque Rod Inventors: McLAUGHLIN, Ronald; MCCARTHY, Frank; WIECZOREK, Matthew; JOHNSTON, Brent Owner/Assignee: The Pullman Company</p>						
1316C-000083/US 2723	United States Regular-Original Filing-National	10/163249 6/5/2002		2003/0227117A1 12/11/2003		Filed-Published
<p>Title: Anti-Walkout Spool Bushing Inventors: MC CARTHY, Frank History: Request for Continued Examination filed 12/23/2003. Owner/Assignee: The Pullman Company</p>						
1316C-000084/US 2731	United States Regular-Original Filing-National	10/435155 5/9/2003	6966567 11/22/2005	2004/0222610A1 11/11/2004	5/22/2009 5/9/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: One End Adjustable Torque Rod Inventors: McLAUGHLIN, Ronald J. History: MF responsibility transferred to client. KEEP FILE HERE. Owner/Assignee: The Pullman Company</p>						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000064/US/CPA	United States Regular~Continuation-In-Part~National	10/938964 9/10/2004	7163216 1/16/2007	2005/0029766A1 2/10/2005	7/16/2010 1/19/2024	Granted Transferred: Resp. Upon Issuance
<p>Title: One End Adjustable Torque Rod Inventors: MCLAUGHLIN, Ronald J. History: CIP of USSN 10/435155, filed 05/09/2003.</p> <p align="right">Owner/Assignee: The Pullman Company</p>						
1316C-000065/US 2737 2736	United States Regular~Original Filing~National	11/047538 1/31/2005		2006/0171775A1 8/3/2006		Filed-Published
<p>Title: Articulated Torque Rod With Elastomer Retainer Inventors: MCLAUGHLIN, Ronald; WIECZOREK, Matthew History: Claims benefit of USSN PRO 60/581987 filed 09/21/2004.</p> <p align="right">Owner/Assignee: The Pullman Company</p>						
1316C-000087/US Disclosure No. 2738	United States Regular~Original Filing~National	11/174947 7/5/2005		2006/0012090A1 1/19/2006		Filed-Published
<p>Title: Multi-Direction Tuned Mass Damper With Unique Assembly Inventors: CERRI, Joe; WEILNAU, Jeremy History: Claims benefit of PRO SI 60/587695, filed 7/14/2004.</p> <p align="right">Owner/Assignee: The Pullman Company</p>						
1316C-000088/US 2767/2768	United States Regular~Original Filing~National	11/340208 1/26/2006		2006/0163765A1 7/27/2006		Filed-Published
<p>Title: Hydraulically Damped Body Mount With Bolt-Through Construction Inventors: GOUDIE, Robert J. History: Claims benefit of PRO USSN 60/647240, filed 01/26/2005.</p> <p align="right">Owner/Assignee: The Pullman Company</p>						

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HDP Case ID	Client Ref. No.	Country	Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000089/US	2766	United States	Regular~Original Filing-National	11/651952 1/10/2007				Filed-Pending

Title: **Increased Axial Rate And Improved Durability Of An Elastomeric Bushing**
Inventors: BOST, Jr., Robert J.; MCLAUGHLIN, Ronald J. Owner/Assignee: Tenneco Automotive Operating

1316C-000081/US	Discl. 2778	United States	Regular~Original Filing-National	11/342928 1/30/2006		2006/0186590A1 8/24/2006		Filed-Published
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Title: **Split Outer Tube Anti-Walkout Bushing**
Inventors: MCLAUGHLIN, Ronald J.; RAYMOND, Jeff
History: Claims benefit of PRO USSN 60/655752, filed 02/24/2005. Owner/Assignee: The Pullman Company

1316C-000092/US	2769	United States	Regular~Original Filing-National	11/507313 8/21/2006				Filed-Pending
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Title: **Hydraulic Bushing**
Inventors: THORNHILL, Jay; GOUDIE, Robert; BROWN, Butch; MORIMAN, Mark; BURK, Bill; HENRY, Hal; WITTLER, Daniel; FERGUSON, Robert; STEWART, David; FRANZEN, Andrew; BAKER, David
History: Claims benefit of USSN 60/713543, filed 09/01/2005. Owner/Assignee: The Pullman Company

1316C-000092/US/PS1	2768	United States	Provisional Filing~Original Filing-National	60/713543 9/1/2005				Filed-Pending
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Title: **Two Ring Intermediate Tube With Interlock For Hydraulic Bushings**
Inventors: THORNHILL, Jay; GOUDIE, Robert; BROWN, Butch; MORIMAN, Mark; BURK, Bill; HENRY, Hal; WITTLER, Dan; FERGUSON, Bob; STEWART, Dave Owner/Assignee: Tenneco Automotive Operating



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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316C-000093/US 2784/2785	United States Regular-Original Filing-National	11/233283 9/22/2005				Filed-Pending
<p>Title: Isolator Inventors: ROECKER, Troy P. Owner/Assignee: The Pullman Company</p>						
1316C-000094/US D-2765	United States Regular-Original Filing-National	11/511664 8/29/2006				Filed-Pending
<p>Title: Exhaust Isolator Inventors: CERRI, Joseph F. III Owner/Assignee: The Pullman Company</p>						
1316C-000095/US/PS1 D-2787	United States Provisional Filing-Original Filing-National	60/631673 7/19/2006				Filed-Pending
<p>Title: Very High Damping Body Mount Subframe Mount Or Engine Mount With Bolt-Through Construction Inventors: GOUDIE, Robert J. Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~ Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001451/US	United States Regular~Original Filing~National	07/587981 9/25/1990	5104144 4/14/1992		10/14/2003 9/25/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Shock Absorber With Sonar Position Sensor Inventors: BETHELL, Michael R. History: MF Resp Only Transferred to Client - Keep file here.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001452/US	United States Regular~Original Filing~National	07/156533 2/16/1988	4890858 1/2/1990		7/2/2001 2/16/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling Shock Absorbers Inventors: BLANKENSHIP, David R. History: MF Resp Only Transferred to Client - Keep file here.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001453/US/COA	United States Regular~Continuation~National	07/361720 5/3/1999	4901828 2/20/1990		8/20/2001 3/21/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling Displacement Of A Piston In A Shock Absorber Inventors: SCHMIDT, Robert J.; ZAWADA, Jerome J. History: CON of USSN 170821, Filed 03/21/88.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001454/US	United States Regular~Original Filing~National	156306 2/16/1988	4867475 9/19/1989		3/19/2001 2/16/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling Shock Absorbers Inventors: GROVES, Gary W. History: MF Resp Only Transferred to Client - Keep file here.</p> <p style="text-align: right;">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001457/US 662	United States Regular~Original Filing~National	07125237 11/25/1987	4865170 9/12/1989		3/12/2001 11/25/2007	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Sealing Inventors: CIEPICHAL, Thomas P. History: MF Resp Only Transferred to Client - Keep file here.</p> <p style="text-align: right;">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001459/US	United States Regular~Original Filing~National	07505703 4/6/1990	5074533 12/24/1991		6/24/2003 4/6/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Endothermic Furnace Inventors: FRANTZ, Russell L. History: MF Resp Only Transferred to Client - Keep file here.</p> <p style="text-align: right;">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001463/US	United States Regular~Original Filing~National	07237842 8/29/1988	4866966 9/19/1989		3/19/2001 8/29/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Producing Bypass Grooves Inventors: HAGEN, Robert A. History: MF Resp Only Transferred to Client - Keep file here.</p> <p style="text-align: right;">Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001468/US 661	United States Regular~Original Filing~National	07/490061 3/7/1990	5297424 3/29/1994		9/29/2005 3/29/2011	Granted Transferred: Resp. Upon Issuance
<p>Title: Telemetry System For Tire Pressure And Temperature Sensing Inventors: SACKETT, Ray A. History: MF Resp Only Transferred to Client - Keep file here.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001469/US	United States Regular~Original Filing~National	07/261685 10/24/1988	4909536 3/20/1990		9/20/2001 10/24/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Electronic Height Sensor Inventors: HALE, James A. History: MF Resp Only Transferred to Client - Keep file here.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001491/US	United States Regular~Continuation-In-Part~National	07/509566 4/16/1990	5092626 3/3/1992		9/3/2003 3/13/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Apparatus For Controlling The Damping Of A Shock Absorber Inventors: ATHANAS, David S.; GROVES, Gary W.; HAMMOUD, Fahrey M.; PERRY, David L.; SACKETT, Ray A.; TYRRELL, Charles E. History: CIP of USSN 322774 filed 03/13/89.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001492/US 260	United States Regular~Original Filing~National	07/509895 4/16/1990	5152379 10/6/1992		4/6/2004 4/16/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Adjustable Shock Absorber Assembly Inventors: SACKETT, Ray A.; TYRRELL, Charles E.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001495/US 283	United States Regular-Original Filing-National	07/322774 3/13/1989	5016908 5/21/1991		11/21/2002 3/13/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling Shock Absorbers Inventors: ATHANAS, David S.; GROVES, Gary W.; HAMMOUD, Fahrey M.; PERRY, David L. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001495/US/CPA 434	United States Regular-Continuation-In-Part-National	07/669503 3/14/1991	5123671 6/23/1992		12/23/2003 6/23/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling Shock Absorbers Inventors: DRIESSEN, Jan N.H.; VANROYE, Albert E.; STEED, David L.; ATHANAS, David S.; GROVES, Gary W.; HAMMOUD, Fahrey M.; PERRY, David L. History: CIP of USSN 07/322774, Filed 03/13/89. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001496/US 246	United States Regular-Division-National	07/270543 11/14/1988	4989844 2/5/1991		8/5/2002 2/5/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Vehicle Leveling Shock Absorber Assembly Inventors: WIJNHOVEN, Jan M.A.; VANHOVE, Henri C.J.; PANIS, Mark J.I.I.J. History: DIV of Case 01398, USSN 877121 filed 06/23/86 (PAT 4802657). Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appn. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001496/US/DVA 246	United States Regular~Division~National	07/649853 2/1/1991	5135203 8/4/1992		2/4/2004 8/4/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Vehicle Leveling Shock Absorber Assembly Inventors: WIJNHOFEN, Jan M.A.; VANHOVE, Henri C.J.; PANIS, Mark J.I.I.J History: DIV of USSN 270543 filed 11/14/88 (PAT 4989844); A DIV of Case 1316N-01398, USSN 877121 filed 06/23/86 (PAT 4802857).</p>						
1316N-001499/US 263	United States Regular~Original Filing~National	07/617677 11/28/1990	5125681 6/30/1992		12/30/2003 11/26/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Determining The Displacement Of A Piston Within A Shock Absorber Inventors: BRACKETTE, Daniel, Jr.</p>						
1316N-001508/US 522	United States Regular~Original Filing~National	07/625835 12/11/1990	5154263 10/13/1992		4/13/2004 12/11/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Controlling The Flow Of Damping Fluid Through A Piston Inventors: LIZELL, Magnus B.</p>						
1316N-001509/US 658, 321	United States Regular~Original Filing~National	07/658321 2/20/1991	5113979 5/19/1992		11/19/2003 2/20/2011	Granted Transferred: Resp. Upon Issuance
<p>Title: Base Valve For A Shock Absorber Inventors: DRIESSEN, Jan N.H.</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appn. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001520/US 255	United States Regular~Original Filing~National	07/625947 12/11/1990	5163659 11/17/1992		5/17/2004 12/11/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Hydraulic Actuator For Levelling System Inventors: LIZELL, Magnus B. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001522/US 473	United States Regular~Original Filing~National	07/669645 3/14/1991	5325942 7/5/1994		1/5/2006 7/5/2011	Granted Transferred: Resp. Upon Issuance
<p>Title: Tunable Hydraulic Valve For Shock Absorber Inventors: GROVES, Gary W.; BOUCHER, David T. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001523/US 703	United States Regular~Original Filing~National	07/754396 9/3/1991	5217245 6/8/1993		12/8/2004 9/3/2011	Granted Transferred: Resp. Upon Issuance
<p>Title: Switchable Roll-Stabilizer Bar Inventors: GUY, Yorain Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001524/US/COA 250	United States Regular~Continuation~National	08/541288 10/10/1995	5653315 8/5/1997		2/5/2009 3/21/2014	Granted Transferred: Resp. Upon Issuance
<p>Title: Automatic Damper System Inventors: EKQUIST, Alan L.; HAMMOUD, Fahrey M.; SCOTT, Graham B. History: CON of USSN 08/215303 filed 03/21/94 (ABD). Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001529/US/COA 723	United States Regular~Continuation~National	08/522220 8/31/1995	5518090 5/21/1996		11/21/2007 3/21/2014	Granted Transferred: Resp. Upon Issuance
<p>Title: Piston Post For A Damper Inventors: MILLER, Lonnie G.D.; SCOTT, Graham B. History: CON of 08/215360, Filed 03/21/94.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001541/US 712	United States Regular~Original Filing~National	07/962501 10/16/1992	5350187 9/27/1994		3/27/2006 10/16/2012	Granted Transferred: Resp. Upon Issuance
<p>Title: Adjustable Damping System Inventors: SHINDZAKI, David M.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001571/US 845	United States Regular~Original Filing~National	06/595949 2/6/1996	5692980 11/4/1997		5/4/2009 2/6/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Active Suspension System Inventors: REYBROUCK, Koenraad G.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001581/US/COA 761	United States Regular~Continuation~National	08/689189 8/5/1996	5708196 1/6/1998		7/6/2009 6/7/2013	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Determining The Velocity Of A Vehicle Body Inventors: ROMSTADT, Douglas J. History: CON of USSN 08/073459 filed 06/07/93.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001562/US/DVA 848 & 733	United States Regular--Division--National	08/878420 6/18/1997	5839552 11/24/1998		5/24/2010 5/19/2015	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Delivering Fluid And Or Electric Signals Inventors: VANDEWAL, Bart; GUY, Yoram History: DIV of 08/445173, Filed 05/19/95 (Abd). Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001594/US/COA 702	United States Regular--Continuation--National	08/390433 2/14/1995	5474367 12/12/1995		6/12/2007 6/9/2013	Granted Transferred: Resp. Upon Issuance
<p>Title: Actuation Member For A Proportioning Valve For Load Leveling Applications Inventors: GAINES, Michael G. History: CON of USSN 08/073900 filed 08/09/93. (Abd) Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001599/US/REA Rancho	United States Reissue Patent--Original Filing--National	08/066503 5/24/1993	RE35168 3/5/1996		1/24/2002 2/10/2009	Granted Transferred: Resp. Upon Issuance
<p>Title: Vehicle Suspension Assembly inventors: GOLPE, William History: Reissue of SN 309460, Filed 02/10/89 (Pat. 4943081, Issued 07/24/90.) Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001601/US 1765	United States Regular--Original Filing--National	08/072918 6/7/1993	5433470 7/18/1995		1/18/2007 6/7/2013	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Absorbing Resonance Vibration In A Leaf Spring In A Suspension System Inventors: LONG, William R. Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001603/US/CPA 983	United States Regular~Continuation-in-Part~National	08/508043 7/27/1995	5579614 12/3/1996		6/3/2008 3/17/2014	Granted Transferred: Resp. Upon Issuance
<p>Title: Method And Apparatus For Charging Dampers With Pressurized Gas Inventors: JONES, Gareth M.; JENKINS, Jeffrey A.; SHNIER, Michael J. History: CIP of 08/210039 filed 03/17/94 (Abd). Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001606/US 902 & 903	United States Regular~Original Filing~National	09/318301 5/25/1999	6321888 11/27/2001		5/27/2009 5/25/2019	Granted Transferred: Resp. Upon Issuance
<p>Title: Damper With Externally Mounted Semi-Active System Inventors: REYBROUCK, Koeraad G.; SCHURMANS, Rudi J. History: Request for Continued Examination filed 06/21/01. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001607/US 907, 909	United States Regular~Original Filing~National	08/858353 5/19/1997	5882017 3/16/1999		9/16/2010 5/19/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Adaptive Anti-Roll Device Inventors: CARLEER, Jan Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001607/US/COA 907, 909	United States Regular~Continuation~National	08/191216 11/12/1998	6161843 12/19/2000		6/19/2008 5/19/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Adaptive Anti-Roll Device Inventors: CARLEER, Jan History: CON of SN 08/858353, Filed 05/19/97. Now USPN 5882017 Notice of ABD 02/15/00. Expiration based on Terminal Disclaimer from PN 5882017, issued 03/16/99. (SN 08/858353, Filed 05/19/97.) Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001608/US 913	United States Regular~Original Filing~National	08/803200 2/21/1997	5824528 7/20/1999		1/20/2011 2/21/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Load Depending Damping Assembly Inventors: VERMOLEN, Koen; CARLEER, Jan; DRIESSEN, Jan N.H. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001609/US 912	United States Regular~Continuing Prosecution Applin~National	08/819250 3/17/1987	5867268 10/19/1999		4/19/2007 3/17/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Temperature Responsive Damper Inventors: DE MOLINA, Simon A.; VANDEWAL, Bart History: Continuation Prosecution Application Filed 11/09/98. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001610/US 915	United States Regular~Original Filing~National	08/619963 3/20/1996	5738190 4/14/1998		10/14/2009 3/20/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Flexing Disc-Blow Off Assembly For Use In A Shock Absorber Inventors: DEFERME, Stefan History: Request for Continued Prosecution Application dated 01/04/99. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001610/US/COA 915	United States Regular~Continuation~National	08/923875 9/2/1997	6085876 7/11/2000		1/11/2008 3/20/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Flexing Disc-Blow Off Assembly For Use In A Shock Absorber Inventors: DEFERME, Stefan History: CON of 08/619963, Filed 03/26/96; now USPN 5738190. Continuation Prosecution Application Filed 09/14/99. Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001612/US 918	United States Regular-Original Filing-National	08/622563 3/25/1996	5813500 9/29/1998		3/29/2010 3/25/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Anti-Swivch Mechanism For A Damper Inventors: DEFERME, Stefan History: This case is a combination of case 1316N-01613 (abd) and case 1316N-01612. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001612/US/DVA 919/918	United States Regular-Division-National	09/030536 2/24/1998	5855258 1/5/1999		7/5/2010 3/25/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Anti-Swivch Mechanism For A Damper Inventors: DEFERME, Stefan History: A DIV of 08/622563, Filed 03/26/96. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001614/US 1261	United States Regular-Original Filing-National	08/596992 2/5/1996	5727662 3/17/1998		9/17/2009 2/5/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Thermal Expansion Compensation Device For Shock Absorbers Inventors: GUY, Yoram; PIPIS, John S., Jr. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001615/US 1262	United States Regular-Original Filing-National	08/587416 1/16/1996	5893436 4/13/1999		10/13/2010 1/16/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: One Piece Aluminum Pressure Tube With Rod Guide For Shock Absorbers Inventors: GUY, Yoram Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001617/US 1150	United States Regular-Original Filing-National	08/589325 1/22/1996	5785344 7/28/1998		1/28/2010 1/22/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Active Roll Control Inventors: VANDEWAL, Bart; MOORS, Hans</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001618/US 1152	United States Regular-Original Filing-National	08/624731 3/26/1996	5725239 3/10/1998		9/10/2009 3/26/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Adaptive Load Dependent Suspension System Inventors: DE MOLINA, Simon A.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001619/US 1164	United States Regular-Original Filing-National	08/587227 1/16/1996	5769190 6/23/1998		12/23/2009 1/16/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Continuous Controlled Restriction Valve For A Shock Absorber Inventors: DEFERME, Stefan</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001620/US 1253	United States Regular-Original Filing-National	08/589034 1/19/1996	5829773 11/3/1998		5/3/2010 1/19/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Modular Telescopic Front Fork Assembly Inventors: RAJ/AEE, Babak</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001620/US/COA 1253	United States Regular--Continuation--National	09/127304 7/31/1998	5947498 9/7/1999		3/7/2007 1/19/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Modular Telescopic Front Fork Assembly Inventors: RAJAE, Babak History: CON of SN 08/589034, Filed 01/19/96. Patent expiration based on a terminal disclaimer, Patent 5828773, Issued 11/03/98.</p>						
1316N-001621/US 1158/1166	United States Regular--Original Filing--National	08/746388 11/12/1996	5923306 10/20/1998		4/20/2010 11/12/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Stroke Dependent Damping Inventors: DEMOLINA, Simon A.</p>						
1316N-001622/US 1167	United States Regular--Original Filing--National	08/797236 2/7/1997	5755305 5/26/1998		11/26/2009 2/7/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Hydraulic Vibration Damper With Noise Reducing Valve Structure Inventors: DEFERME, Stefan; CEUSTERMANS, Johan Luc; RICHARDSON, Colin Peter</p>						
1316N-001623/US 1182	United States Regular--Original Filing--National	08/819544 3/17/1997	5934422 8/10/1999		2/10/2011 3/17/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Step Motor Actuated Continuously Variable Shock Absorber Inventors: STEED, David L.</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001624/US 1181 1182	United States Regular~Original Filing~National	08/803224 2/20/1997	5911290 6/15/1999		12/15/2010 2/20/2017	Granted Transferred: Resp. Upon Issuance
<p>Title: Step Motor Actuated Continuous Variable Shock Absorber Inventors: STEED, David L. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001627/US 1156,1157,1165	United States Regular~Original Filing~National	09/074728 5/7/1998	6102170 8/15/2000		2/15/2008 5/7/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Passive Anti-Roll System Inventors: DE MOLINA, Simon A.; DEFERME, Stefan Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001627/US/DVA 1156/1157/1165	United States Regular~Division~National	09/572359 5/17/2000	6220406 4/24/2001		10/24/2008 5/7/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Passive Anti-Roll System Inventors: DEMOLINA, Simon A.; DEFERME, Stefan History: A DIV of 09/074728, Filed 05/07/98; Pat 6102170. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001630/US 1265	United States Regular~Original Filing~National	09/100060 6/19/1998	6109641 8/29/2000		2/28/2008 6/19/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: First-In/First-Out Tractor And Semi-Trailer Cargo Transfer System Inventors: GUY, Yoram Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Apph. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001631/US 1361, 2938	United States Regular~Original Filing~National	09/168034 10/7/1998	6352145 3/5/2002		9/5/2009 10/7/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Stroke Dependent Damping Inventors: DEMOLINA, Simon A.; KAZMIRSKI, Karl C. History: Request for Continued Examination filed 07/16/01. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001632/US 1306	United States Regular~Original Filing~National	09/044715 3/19/1998	5992585 11/30/1999		5/30/2007 3/19/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Acceleration Sensitive Damping For Automotive Dampers Inventors: KAZMIRSKI, Karl C.; TYRRELL, Charles E.; STEED, David L.; HUGER, Rich; HOPPERT, Dale; JOHNSON, Wayne; BOMBRY, Timothy Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001632/US/CPA 1306	United States Regular~Continuation-In-Part~National	09/443236 11/18/1999	6290035 9/18/2001		3/18/2009 3/19/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Acceleration Sensitive Damping For Automotive Dampers Inventors: KAZMIRSKI, Karl C.; TYRRELL, Charles E.; STEED, David; HUGER, Rich; HOPPERT, Dale; JOHNSON, Wayne; BOMBRY, Timothy E. History: CIP of USSN 09/044715, Filed 03/19/98. Owner/Assignee: Tenneco Automotive Operating</p>						



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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001633/US 1185/1186/1187	United States Regular~Original Filing~National	10/730560 12/8/2003		2005/0121268A1 6/9/2005		Filed-Published
Title: Solenoid Actuated Continuously Variable Servo Valve For Adjusting Damping In Shock Absorbers And Struts Inventors: GROVES, Gary W.; KAZMIRSKI, Karl; STEED, David L.; ZEBOLASKY, Michael L. History: RCE filed 11/7/2005. RCE filed 12/5/2005 w/xt.						
1316N-001634/US 1180	United States Regular~Original Filing~National	09/360570 7/26/1999	6464053 10/15/2002		4/15/2010 7/26/2019	Granted Transferred: Resp. Upon Issuance
Title: Single Piece Piston Inventors: HOEBRECHTS, Albert G. History: Request for Continued Examination Filed 07/18/01.						
1316N-001636/US 1178	United States Regular~Original Filing~National	09/306343 5/6/1999	6220409 4/24/2001		10/24/2008 5/6/2019	Granted Transferred: Resp. Upon Issuance
Title: Stroke Dependent Bypass Inventors: DEFERME, Stefan						
1316N-001637/US 1179	United States Regular~Original Filing~National	09/328576 6/9/1999	6371264 4/16/2002		10/16/2009 6/9/2019	Granted Transferred: Resp. Upon Issuance
Title: Fulcrum Blow Off Valve For Use In A Shock Absorber Inventors: DEFERME, Stefan History: Request for Continued Examination filed 10/31/2001						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Apph. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001639/US 1377	United States Regular~Original Filing~National	09/159722 9/24/1998	6148969 11/21/2000		5/21/2008 9/24/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Frequency Dependant Damper Inventors: LEMMENS, Luc Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001639/US/CPA 1377	United States Regular~Continuation-In-Part~National	09/399537 9/20/1999	6382373 5/7/2002		11/7/2009 9/24/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Frequency Dependant Damper Inventors: LEMMENS, Luc; DUJYM, Stefaan History: CIP of USSN 09/159722, Filed 09/24/1998, now Patent 6148969 Request For Continued Examination filed 06/28/01. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001639/US/CPB 1377	United States Regular~Continuation-In-Part~National	09/703012 10/31/2000	6364075 4/2/2002		10/2/2009 9/24/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Frequency Dependant Damper Inventors: LEMMENS, Luc; DUJYM, Stefaan History: CIP of USSN 09/159722, Filed 09/24/1998, now Pat No. 6148969. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001640/US Rancho	United States Regular~Original Filing~National	09/414115 10/8/1999	6354614 3/12/2002		9/12/2009 10/8/2019	Granted Transferred: Resp. Upon Issuance
<p>Title: Link Assembly For Motor Vehicle Suspension Inventors: HAM, Donald R., Jr.; EWANEK, Jarret M. History: Based on PPO SN 60/106329, Filed 10/30/98. Owner/Assignee: Tenneco Automotive Operating</p>						



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1316N-001641/US Rancho	United States Regular~Original Filing~National	09/415406 10/8/1999	6267197 7/31/2001		1/31/2009 10/8/2019	Granted Transferred: Resp. Upon Issuance
Title: Axis Shaft Spacer Member Inventors: DOUGLAS, Scott W. History: Based on PRO SN 60/106318, Filed 10/30/98. Owner/Assignee: Tenneco Automotive Operating						
1316N-001643/US 1371	United States Regular~Original Filing~National	10/738341 12/17/2003		2005/013397BA1 6/23/2005		Filed~Published
Title: Air Pressure Proportional Damper Inventors: LEMMENS, Luc Owner/Assignee: Tenneco Automotive Operating						
1316N-001644/US 1184	United States Regular~Original Filing~National	09/310318 5/12/1999	6325187 12/4/2001		6/4/2009 5/12/2019	Granted Transferred: Resp. Upon Issuance
Title: Dirt Wiper System For Suspension Damper Inventors: BOUCHER, David J. History: Request for Continued Examination filed 06/21/01. Owner/Assignee: Tenneco Automotive Operating						
1316N-001646/US 2902	United States Regular~Original Filing~National	09/476281 1/3/2000	6382372 5/7/2002		11/7/2009 1/3/2020	Granted Transferred: Resp. Upon Issuance
Title: Ported Disc Variable Bleed Orifice Inventors: KEIL, Daniel; KAZMIRSKI, Karl Owner/Assignee: Tenneco Automotive Operating						

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1316N-001647/US 2901/2905	United States Regular~Original Filing~National	09/552125 4/19/2000	6672436 1/6/2004		7/6/2007 4/19/2020	Granted Transferred: Resp. Upon Issuance
<p>Title: Variable Bleed Orifice Valving Inventors: KEIL, Daniel; BOMBRYNS, Timothy; KAZMIRSKI, Karl History: Request for Continued Examination filed 02/27/2002. 2nd Request for Continued Examination filed 07/10/2003. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001648/US 1261/1283	United States Regular~Original Filing~National	09/575900 5/22/2000	6460664 10/8/2002		4/8/2010 5/22/2020	Granted Transferred: Resp. Upon Issuance
<p>Title: Independently Tunable Variable Bleed Orifice Inventors: STEED, David L.; ZEBOLSKY, Michael L.; DODGE, Dean R. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001649/US 1186	United States Regular~Original Filing~National	09/624682 7/24/2000	6464048 10/15/2002		4/15/2010 7/24/2020	Granted Transferred: Resp. Upon Issuance
<p>Title: Solenoid Actuated Continuously Variable Shock Absorber Inventors: GROVES, Gary W.; KAZMIRSKI, Karl C.; STEED, David L.; ZEBOLSKY, Michael L. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001650/US 1187	United States Regular~Original Filing~National	09/624120 7/24/2000	6793048 9/21/2004		3/21/2008 9/24/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Solenoid Actuated Continuously Variable Shock Absorber Inventors: GROVES, Gary W.; KAZMIRSKI, Karl C.; STEED, David L.; ZEBOLSKY, Michael L. Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001651/US 2907	United States Regular--Original Filing--National	09/992316 11/19/2001	6644445 11/11/2003	2003/0094340 5/22/2003	5/11/2007 12/28/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Floating Port Blocker Inventors: DODGE, Dean R. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001652/US 2907	United States Regular--Original Filing--National	09/603444 6/23/2000	6340081 1/22/2002		7/22/2009 6/23/2020	Granted Transferred: Resp. Upon Issuance
<p>Title: Shock Absorber Having Poried Plate Low Speed Turnability Inventors: KEIL, Daniel History: Based on 1316N-500251. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001653/US 13671378/1373/1374	United States Regular--Original Filing--National	10/671354 9/25/2003	7004293 2/28/2006	2005/0067237A1 3/31/2005	8/28/2009 9/25/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Thermal Expansion Compensation Shock Absorber Inventors: SCHURMANS, Rudi Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001653/US/DVB	United States Regular--Division--National	11/294693 12/5/2005		2006/0081428A1 4/20/2006		Filed-Published
<p>Title: Thermal Expansion Compensation Shock Absorber Inventors: SCHURMANS, Rudi History: DIV of USSN 10/671354, 09/25/2003. Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001654/US 1376/1377	United States Regular~Original Filing~National	09/778455 2/7/2001	7070028 7/4/2006	2002/0104724A1 8/8/2002	1/4/2010 2/7/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Frequency Dependent Damper Inventors: REYBROUCK, Koenraad; LEMMENS, Luc Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001655/US 2925,2926,2927	United States Regular~Original Filing~National	09/667297 5/29/2001	6443436 9/3/2002		3/3/2010 5/29/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Air Spring Assembly On Shock Absorber With Combined Seal Inventors: SCHEL, Jacobus History: Request For Continued Examination Filed 05/03/2002. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001656/US 2930/2931/2932	United States Regular~Original Filing~National	10/775980 2/10/2004				Filed-Pending
<p>Title: Electronically Controlled Frequency Dependent Damping Inventors: VANDEWAL, Bart Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001659/US 2504	United States Regular~Original Filing~National	09/992309 1/19/2001	6581733 6/24/2003	2003/0094339 5/22/2003	12/24/2010 11/19/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Acceleration Sensitive Damping for Automotive Dampers Inventors: KAZMIRSKI, Karl C. Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001659/US/DVA	United States Regular-Division-National	10/425127 4/28/2003	6783049 9/21/2004	2003/0192753A1 10/16/2003	3/21/2008 11/19/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Acceleration Sensitive Damping For Automotive Dampers Inventors: KAZMIRSKI, Karl History: DIV o' USSN 09/992309, filed 11/19/2001, USPN 6581733. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001662/US 2934	United States Regular-Original Filing-National	10/667555 9/22/2003	6959796 11/11/2005	2005/0061593A1 3/24/2005	5/1/2009 9/22/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Adjustable Damper With Valve Mounted In-Line Inventors: DEGRONCKEL, Dirk; MARTENS, Paul; VANMECHELEN, Patrick Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001663/US 1370	United States Regular-Original Filing-National	10/775981 2/10/2004		2005/0173214A1 8/11/2005		Filed-Published
<p>Title: Air Pressure Proportional Damper For Shock Absorber Inventors: LEMMENS, Luc; SCHEL, Sjaak; VERMOLEN, Koen; DE MOLINA, Simon A.; SPIRITUS, Walter; VANDEWAL, Bart History: Case was filed and received a SN of 10/717357 on 11/19/2003. it was found that the case was filed with the incorrect Assignment and Declaration. Accordingly, it was then refilled on 02/10/2004 per Paula Gibbs. Notice of Abandonment of SN 10/717357 issued 03/01/2005. Sent to HKM 03/14/2005. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001664/US 1380	United States Regular-Original Filing-National	10/667913 9/22/2003	6883652 4/26/2005	2005/0061591A1 3/24/2005	10/26/2008 9/22/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Heavy Duty Base Valve Inventors: DEFERME, Stefan Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001667/US 2305	United States Regular~Original Filing~National	09/999870 11/21/2001	6581905 6/24/2003	2003/0094591 5/22/2003	12/24/2010 11/21/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Brake Bleed Tool Inventors: RAFKO, David C.; JOHNSON, Timothy</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001669/US 2936	United States Regular~Original Filing~National	10/666051 9/17/2003	6918473 7/19/2005	2005/0056506A1 3/17/2005	1/19/2009 9/17/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Stroke Dependent Bypass Inventors: DEFERME, Stefan</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001670/US 2938	United States Regular~Original Filing~National	10/662547 9/15/2003		2005/0056501A1 3/17/2005		Filed~Published
<p>Title: Alternative By-Pass Designs For Stroke Dependent Damping Inventors: DEMOLINA, Simon A.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001671/US 2941	United States Regular~Original Filing~National	10/670584 9/25/2003	6896110 5/24/2005	2005/0067242A1 3/31/2005	11/24/2008 10/21/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Temperature Compensated Dual Acting Slip Inventors: VANMECHELEN, Patrick; HOLIVIERS, David; SCHURMANS, Rudi</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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1316N-001672/US 2942	United States Regular~Original Filing~National	10/670667 9/25/2003	6802404 10/12/2004		4/12/2008 9/25/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Electro-Rheological Or Magneto-Rheological Controlled Hydraulic Restriction Inventors: SCHURMANS, Rudi; MAES, Mario; HOLIVIERS, David</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001673/US	United States Regular~Original Filing~National	09/992307 11/19/2001	6698999 3/2/2004	2003/0095859A1 5/22/2003	9/2/2007 11/19/2021	Granted Transferred: Resp. Upon Issuance
<p>Title: Dual Rotating Stock System Inventors: MORIMAN, Mark J.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001675/US 1379	United States Regular~Original Filing~National	10/464192 5/18/2003	6776269 8/17/2004		2/17/2008 7/18/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Twin Piston Shock Absorber Inventors: SCHEL, Sjaak</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001677/US 2967	United States Regular~Original Filing~National	10/662546 9/15/2003	6964325 11/15/2005	2005/0056502A1 3/17/2005	5/15/2009 9/15/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Integrated Tagging System For An Electronic Shock Absorber Inventors: MAES, Mario</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						



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HDP Case ID Client Ref. No.	Country Case Type--Relationship-Filing Type	Appn. No. Filing Date/(Logged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001678/US 2970	United States Regular-Original Filing-National	10/674025 9/29/2003	6913127 7/5/2005	2005/0067240A1 3/31/2005	1/5/2009 9/29/2023	Granted Transferred: Resp. Upon Issuance
Title: Adjacent Baffle Design For Shock Absorber Inventors: HOLIVIERS, David; MARTENS, Paul; HERMANS, Jan; VANMECHELEN, Patrick Owner/Assignee: Tenneco Automotive Operating						
1316N-001679/US 2971	United States Regular-Original Filing-National	10/674030 9/29/2003	6886670 5/3/2005	2005/0067241A1 3/31/2005	11/3/2008 12/5/2023	Granted Transferred: Resp. Upon Issuance
Title: Extra Support Land For Valve Disc Inventors: HOLIVIERS, David; DE GRONCKEL, Dirk; VANGRIEKEN, Johan Owner/Assignee: Tenneco Automotive Operating						
1316N-001680/US 2265/2266	United States Regular-Original Filing-National	10/674161 9/29/2003	6899207 5/31/2005	2005/0067238A1 3/31/2005	11/30/2008 9/29/2023	Granted Transferred: Resp. Upon Issuance
Title: Extra Support Area For Valve Disc Inventors: DEFERME, Stefan; TUTS, Jean-Marie; MANGELSCHOTS, Gerrit; VANMECHELEN, Patrick Owner/Assignee: Tenneco Automotive Operating						
1316N-001682/US 2267	United States Regular-Original Filing-National	10/666196 9/17/2003	6978871 12/27/2005	2005/0056504A1 3/17/2005	6/27/2009 9/17/2023	Granted Transferred: Resp. Upon Issuance
Title: Adjustable Damper With Control Valve, Mounted In An External Collar Inventors: HOLIVIERS, David Owner/Assignee: Tenneco Automotive Operating						



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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001683/US 2269	United States Regular-Original Filing-National	10/662662 9/15/2003		2005/0056507A1 3/17/2005		Filed-Published
<p>Title: Shock Absorber Stage Valving System Inventors: DE MOLINA, Simon A.; TUTS, Jean-Marie History: Request For Continued Examination filed 04/08/2005.</p> <p align="right">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001684/US 2943/2946	United States Regular-Original Filing-National	10/666472 9/19/2003	6814347 11/9/2004		5/9/2008 9/19/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Booster To Adapt Air Spring Pressure For FDD Shock Absorber Inventors: LEMMENS, Luc; SCHEL, Jacobus; VANHOVE, Henri</p> <p align="right">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001687/US 2955/2959	United States Regular-Original Filing-National	10/665061 9/19/2003	7083163 8/1/2006	2005/0062249A1 3/24/2005	2/1/2010 9/19/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Booster With Spring To Adapt Air Spring Pressure For Load Dependent Shock Absorber Inventors: LEMMENS, Luc; SCHEL, Jacobus</p> <p align="right">Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001689/US 2978	United States Regular-Original Filing-National	10/694255 10/27/2003	7073643 7/11/2006	2005/0087412A1 4/28/2005	1/11/2010 10/27/2023	Granted Transferred: Resp. Upon Issuance
<p>Title: Compensated Rod For A Frequency Dependent Damper Shock Absorber Inventors: SCHEL, Sjaak</p> <p align="right">Owner/Assignee: Tenneco Automotive Operating</p>						



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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001690/US 2980	United States Regular~Original Filing~National	10/662544 9/15/2003	7070029 7/4/2006	2005/0056505A1 3/17/2005	1/4/2010 9/15/2023	Granted Transferred: Resp. Upon Issuance
Title: Monotube Piston Valving System With Selective Bleed Inventors: DEFERME, Stefan Owner/Assignee: Tenneco Automotive Operating						
1316N-001691/US 2281	United States Regular~Original Filing~National	11/639111 12/14/2006				Filed-Pending
Title: Top Cap Crimping For Air Spring Suspension Inventors: KNEVELS, Luc Owner/Assignee: Tenneco Automotive Inc.						
1316N-001693/US 1363	United States Regular~Original Filing~National	10/655663 9/5/2003	7097016 8/29/2006	2005/0051395A1 3/10/2005	2/28/2010 10/2/2023	Granted Transferred: Resp. Upon Issuance
Title: Fulcrum Blow Off Valve For Use In A Shock Absorber Inventors: DEFERME, Stefan Owner/Assignee: Tenneco Automotive Operating						
1316N-001695/US Discl. 2272	United States Regular~Original Filing~National	10/779592 2/13/2004	7011193 3/14/2006	2005/0178627A1 8/18/2005	9/14/2009 2/13/2024	Granted Transferred: Resp. Upon Issuance
Title: Rod Guide And Seal System For Gas Filled Shock Absorbers Inventors: LEMMENS, Robby; DE MAESSHALCK, Tom; VERDEYEN, Dirk; BOON, Peter Owner/Assignee: Tenneco Automotive Operating						

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HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appln. No. Filing Date/(Logged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001696/US 2276	United States Regular--Original Filing--National	10/925263 8/24/2004		2006/0042895A1 3/2/2006		Filed-Published
<p>Title: Base Cup Connection For Shock Absorber Inventors: MANGELSCHOTS, Gert; OUKHEDOU, M'Hand Nait Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001697/US 2274	United States Regular--Original Filing--National	10/937838 9/9/2004	7032727 4/25/2006	2006/0049014A1 3/9/2006	10/25/2009 9/9/2024	Granted Transferred: Resp. Upon Issuance
<p>Title: Shock Absorber Having A Hydraulic Stop inventors: VANSPAUWEN, Vincent Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001697/US/DVA 2274	United States Regular--Division--National	11/330277 1/11/2006	7156213 1/2/2007	2006/0108189A1 5/25/2006	7/2/2010 9/9/2024	Granted Transferred: Resp. Upon Issuance
<p>Title: Shock Absorber Having A Hydraulic Stop Inventors: VANSPAUWEN, Vincent History: DIV of USSN 10/937838, filed 09/09/2004. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001698/US 2275	United States Regular--Original Filing--National	10/976252 10/27/2004		2006/006581A1 4/27/2006		Filed-Published
<p>Title: Stroke Dependent Damping Inventors: VANBRABANT, Ronny Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001699/US Disclosure No. 3009	United States Regular~Original Filing~National	11/222343 9/8/2005		2006/0049592A1 3/9/2006		Filed-Published
<p>Title: Automatic Orientation Of Top Mount Inventors: SCHUYTEN, Kris History: Claims benefit of PRO USSN 60/608556, filed 09/09/2004. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001700/US Disclosure No. 3010	United States Regular~Original Filing~National	11/223602 9/9/2005		2006/0049015A1 3/9/2006		Filed-Published
<p>Title: Automatic Nut Running To Torque Without The Possibility for Slip Inventors: SCHUYTEN, Kris History: Claims benefit of PRO USSN 60/608555, filed 09/09/2004. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001701/US Disclosure No. 3011	United States Regular~Original Filing~National	11/222405 9/8/2005		2006/0049605A1 3/9/2006		Filed-Published
<p>Title: McPherson Front Corner Module Assembly With Banana Or S-Shaped Springs Inventors: SCHUYTEN, Kris History: Claims benefit of PRO USSN 60/608554, filed 09/09/2004. Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001702/US Disclosure No. 2544	United States Regular~Original Filing~National	11/248102 10/12/2005		2006/0081431A1 4/20/2006		Filed-Published
<p>Title: Amplitude Controlled Orifice Valving Inventors: BREESE, Darrell History: Claims benefit of PRO USSN 60/618745, filed 10/14/2004. Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appn. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
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1316N-001703/US	United States Regular~Original Filing~National	11/351494 2/10/2006		2006/0265830A1 11/30/2006		Filed-Published
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Title: Encapsulated Beam With Anti-Rotation System
 Inventors: WALWORTH, Van T.; BOYLE, Mark; BACARELLA, Joseph C.; HOOK, David; MC GINN, William; MOSER, George
 History: Claims benefit of PRO USSN 60/652807, filed 02/14/2005.
 Owner/Assignee: Tenneco Automotive Operating

1316N-001704/US	United States Regular~Original Filing~National	11/494272 7/27/2006				Filed-Pending
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Title: Relative Axial Translation Prevention System
 Inventors: WALWORTH, Van T.; HOOK, David B.; WHITAKER, Craig; BACARELLA, Joseph C.; MOSER, George
 History: Claims priority of PRO USSN 60/703281, filed 07/28/2005.
 Owner/Assignee: Tenneco Automotive Operating

1316N-001705/US	United States Regular~Original Filing~National	11/494273 7/27/2006		2007/0022556A1 2/1/2007		Filed-Published
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Title: Wind Deflector With Symmetrical Geometry
 Inventors: WALWORTH, Van T.; HOOK, David B.; WHITAKER, Craig; HOWELL, Mark; MCGINN, William; BACARELLA, Joseph C.
 History: Claiming benefit of US Provisional 60/703283, filed 07/28/2005.
 Owner/Assignee: Tenneco Automotive Operating

1316N-001706/US	United States Design~Original Filing~National	29/252714 1/26/2006	D534430 1/2/2007		1/2/2021	Granted Transferred: Resp. Upon Issuance
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Title: Design: Container
 Inventors: ALAMEDDINE, Richard; LAROY, John; MORRIS, Laura; STEINBRENNER, Frederick J.; CARTER, Richard A.
 Owner/Assignee: Tenneco Automotive Operating

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1316N-001707/US Discl. 3008	United States Regular~Original Filing~National	11/130338 5/16/2005		2006/0254069A1 11/16/2006		Filed-Published

Title: Measuring Device For A Support Land For A Valve Disc
Inventors: DEFERME, Stefan; BERVOETS, Patrick
Owner/Assignee: Tenneco Automotive Operating

1316N-001708/US 3014	United States Regular~Original Filing~National	11/472261 6/21/2005		2006/0283676A1 12/21/2006		Filed-Published
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Title: Four-Piece Piston
Inventors: DEFERME, Stefan
History: Based on US Provisional 60/692434, filed 06/21/2005.
Owner/Assignee: Tenneco Automotive Operating

1316N-001709/US/PS1 Discl 3014	United States Provisional Filing~Original Filing~National	60/692434 6/21/2005				Filed-Pending
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Title: 4-Piece Piston For MTBO
Inventors: DEFERME, Stefan
Owner/Assignee: Tenneco Automotive Operating

1316N-001709/US 3016	United States Regular~Original Filing~National	11/471311 6/20/2006		2006/0287791A1 12/21/2006		Filed-Published
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Title: Semi-Active Anti-Roll System
Inventors: BOON, Peter; REYBROUCK, Koen
History: Based on PRO USSN 60/692433, filed 06/21/2005.
Owner/Assignee: Tenneco Automotive Operating

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
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1316N-001709/US/PS1 Disc. 3016	United States Provisional Filing~Original Filing~National	60/692433 6/21/2005				Filed-Pending
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Title: Semi-Active Anti-Roll System
Inventors: BOON, Peter; REYBROUCK, Koen
Owner/Assignee: Tenneco Automotive Operating

1316N-001710/US	United States Regular~Original Filing~National	11/218380 9/2/2005				Filed-Pending
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Title: Rod Guide Seal
Inventors: KEIL, Daniel T.; ROESSELE, Matthew; MILLER, Lonnie
Owner/Assignee: Tenneco Automotive Operating

1316N-001711/US 3017	United States Regular~Original Filing~National	11/493984 7/27/2006		2007/0034466A1 2/15/2007		Filed-Published
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Title: Asymmetrical Intake Damper Valve
Inventors: PAESMANS, Johan; SPIRITUS, Walter; GOMMANS, Frank; TUTELEERS, Michel
History: Claims benefit of PRO USSN 60/708354, filed 08/15/2005.
Owner/Assignee: Tenneco Automotive Operating

1316N-001711/US/PS1 Disc. 3017	United States Provisional Filing~Original Filing~National	60/708354 8/15/2005				Filed-Pending
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Title: 3-Island Asymmetrical Intake On Cylinder End Or Piston
Inventors: PAESMANS, Johan; SPIRITUS, Walter; GOMMANS, Frank; TUTELEERS, Michel
Owner/Assignee: Tenneco Automotive Operating

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Apph. No. Filing Date:(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001712/US/PS1 Disclosure #26	United States Provisional Filing~Original Filing~National	60/755004 12/29/2005				Filed-Pending
	Title: Connectable-Disconnectable Shroud-Connector- Adapter Inventors: BACARELLA, Joseph C.; WALWORTH, Van T.; WHITAKER, Craig; MC GINN, William; HOOK, David B.					
1316N-001712/US/PS2 #26	United States Provisional Filing~Original Filing~National	60/875184 12/15/2006				Filed-Pending
	Title: Connectable-Disconnectable Shroud-Connector- Adapter Inventors: BACARELLA, Joseph C.; WALWORTH, Van T.; WHITAKER, Craig; MCGINN, William; HOOK, David B.					
1316N-001713/US/PS1 Disc. No. 27	United States Provisional Filing~Original Filing~National	60/755003 12/29/2005				Filed-Pending
	Title: Method Of Manufacture Of A Molded Hollow Using Tangential Structures Inventors: WALWORTH, Van T.; BACARELLA, Joseph C.; HOOK, David B.; MC GINN, William					
1316N-001713/US/PS2 #27	United States Provisional Filing~Original Filing~National	60/875187 12/15/2006				Filed-Pending
	Title: Method Of Manufacture Of A Molded Hollow Using Tangential Structures Inventors: WALWORTH, Van T.; BACARELLA, Joseph C.; HOOK, David B.; MCGINN, William					

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HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
1316N-001714/US/PS1 Discl. No. 28	United States Provisional Filing--Original Filing--National	60/755002 12/29/2005				Filed-Pending
<p>Title: Method Of Manufacture Using Heat Forming Inventors: WALWORTH, Van T.; BACCARELLA, Joseph C.; HOOK, David B.; MCGINN, William Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001714/US/PS2 #28	United States Provisional Filing--Original Filing--National	60/875166 12/15/2006				Filed-Mailed
<p>Title: Method Of Manufacture Using Heat Forming Inventors: WALWORTH, Van T.; BACCARELLA, Joseph C.; HOOK, David B.; MCGINN, William Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001715/US D-3021/3022	United States Regular--Original Filing--National	11/546501 10/11/2006				Filed-Pending
<p>Title: Shock Absorber Having A Continuously Variable Semi-Active Valve Inventors: VANHEES, Gert; REYBROUCK, Koen Owner/Assignee: Tenneco Automotive Operating</p>						
1316N-001722/US/PS1 D-2270	United States Provisional Filing--Original Filing--National	60/890637 2/20/2007				Filed-Unofficial
<p>Title: Positioning Feature And Method For Precise Vehicle Heights Inventors: HEEREN, John; SANEN, Herman; MAARTEN, Maes Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001E-001622/US	United States Regular--Original Filing--National	09/749334 11/4/1996	5848188 12/8/1998		6/6/2010 11/4/2016	Granted Transferred: Resp. Upon Issuance
<p>Title: Active noise Conditioning System Inventors: SHIPPS, J. Clay; LEVREULT, John E., Jr.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001E-001623/US	United States Regular--Original Filing--National	09/032317 2/27/1998	6005957 12/21/1999		6/21/2007 2/27/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Loudspeaker Pressure Plate Inventors: MEEKS, Timothy E.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001E-001624/US	United States Regular--Original Filing--National	09/032326 2/27/1998	6072880 6/6/2000		12/6/2007 2/27/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Modular Active Silencer With Port Dish Inventors: SHIPPS, J. Clay; RENZ, Charles J.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001E-001625/US	United States Regular--Original Filing--National	09/195294 11/18/1998	6594365 7/15/2003		1/15/2011 11/18/2018	Granted Transferred: Resp. Upon Issuance
<p>Title: Acoustic System Identification Using Acoustic Masking Inventors: EATWELL, Graham P.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						



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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001402/US	United States Regular-Original Filing-National	06/142490 1/11/1988	4913250 4/3/1990		10/3/2001 1/1/2008	Granted Transferred: Resp. Upon Issuance
Title: Gas Silencing System With Controlled Sound Attenuation Inventors: FALLON, Blaise M. Owner/Assignee: Tenneco Automotive Operating						
2001U-001437/US	United States Regular-Original Filing-National	06/937835 12/4/1986	4735283 4/5/1988		10/5/1999 12/4/2006	Granted Transferred: Resp. Upon Issuance
Title: Muffler With Flow Director Plates Inventors: MACALUSO, Howard C. Owner/Assignee: Tenneco Automotive Operating						
2001U-001461/US	United States Regular-Continuation-in-Part-National	07/156838 4/1/1988	4969264 11/13/1990		5/13/2002 11/13/2007	Granted Transferred: Resp. Upon Issuance
Title: Catalytic Converter And Substrate Support Inventors: DRYER, Leonard J.; SCHWARTZ, Thomas J. History: CIP of SN 873684, filed 6/12/86. Owner/Assignee: Tenneco Automotive Operating						
2001U-001461/US/DVA	United States Regular-Division-National	07/586419 9/21/1990	5118476 6/2/1992		12/2/2003 6/2/2009	Granted Transferred: Resp. Upon Issuance
Title: Catalytic Converter And Substrate Support Inventors: DRYER, Leonard J.; SCHWARTZ, Thomas J. History: DIV of CIP SN 156838, Filed 04/01/88; CIP of SN 873684, Filed 06/12/86. Owner/Assignee: Tenneco Automotive Operating						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date/(Logged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001484/US	United States Regular-Original Filing-National	07/24/9504 9/26/1988	4865154 9/12/1989		3/12/2001 9/26/2008	Granted Transferred: Resp. Upon Issuance
<p>Title: Muffler With Drain Holes Inventors: HANSON, Roger D.; HILL, William E.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001488/US	United States Regular-Original Filing-National	573386 8/27/1990	5148597 9/22/1992		3/22/2004 8/27/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Method Of Making A Collector Device Inventors: WEEKS, Andrew M.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001489/US	United States Regular-Original Filing-National	07/571181 8/23/1990	5134852 8/4/1992		2/4/2004 8/23/2010	Granted Transferred: Resp. Upon Issuance
<p>Title: Cam Shell Type Y-Joint Inventors: WEEKS, Andrew M.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001527/US	United States Regular-Original Filing-National	07/752009 8/29/1991	5200582 4/6/1993		10/6/2004 8/29/2011	Granted Transferred: Resp. Upon Issuance
<p>Title: Passive Muffler For Low Pass Frequencies Inventors: KRAAI, Leon A.; SAGER, Robert L., Jr.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						



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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001548/US/COA	United States Regular-Continuation-National	08/11/0332 8/20/1993	5365025 11/15/1994		5/15/2006 1/24/2012	Granted Transferred: Resp. Upon Issuance
Title: Low Backpressure Straight-Through Reactive And Dissipative Muffler Inventors: KRAAI, Leon A.; SAGER, Robert L., Jr.; HILL, William E. History: CON of SN 07/825536, filed 1/24/92. Owner/Assignee: Tenneco Automotive Operating						
2001U-001568/US	United States Regular-Continuation-National	07/754042 9/3/1991	5482681 1/9/1996		7/9/2007 1/9/2013	Granted Transferred: Resp. Upon Issuance
Title: Catalytic Converter For Motor Vehicles Inventors: SAGER, Robert L., Jr. History: CON of 175150, Filed 3/30/88 (ABD); A CIP of SN 778023, Filed 9/20/85. Owner/Assignee: Tenneco Automotive Operating						
2001U-001596/US	United States Regular-Original Filing-National	08/198521 2/18/1994	5519994 5/28/1996		11/28/2007 2/18/2014	Granted Transferred: Resp. Upon Issuance
Title: Muffler With Inlet Pipe Equalizer Inventors: HILL, William E. Owner/Assignee: Tenneco Automotive Operating						
2001U-001621/US 1547	United States Regular-Original Filing-National	08/741944 10/31/1996	5724849 3/10/1998		9/10/2009 10/31/2016	Granted Transferred: Resp. Upon Issuance
Title: Process For Forming A Tube For Use In A Sound Attenuating Muffler Inventors: FROSSARD, Norman J., Jr. Owner/Assignee: Tenneco Automotive Operating						



**Tenneco Automotive Operating
Patent Portfolio by Family
U.S./PCT - Active Cases**

HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001626/US W98-256	United States Regular-Original Filing~National	09/339996 6/25/1999	6158546 12/12/2000		6/12/2008 6/25/2019	Granted Transferred: Resp. Upon Issuance
Title: Straight Through Muffler With Conically-Ended Output Passage Inventors: HANSON, Roger D.; STERRETT, Dale E. Owner/Assignee: Tenneco Automotive Operating						
2001U-001627/US	United States Regular-Original Filing~National	861525 5/9/1986	4673058 6/16/1987		12/16/1998 5/9/2006	Granted Transferred: Resp. Upon Issuance
Title: High Performance Automotive Muffler Inventors: ROBERTS, Peter; CHONG, Sydney History: Resp Trans to HD&P 11/98. Owner/Assignee: Tenneco Automotive Operating						
2001U-001629/US 001556	United States Regular-Original Filing~National	09/568633 5/10/2000	6405827 6/18/2002		12/18/2009 5/10/2020	Granted Transferred: Resp. Upon Issuance
Title: Lock Seam For Cannisters Inventors: CHURCH, Russell E. Owner/Assignee: Tenneco Automotive Operating						
2001U-001630/US 001554	United States Regular-Original Filing~National	09/568632 5/10/2000	6446322 9/10/2002		3/10/2010 5/10/2020	Granted Transferred: Resp. Upon Issuance
Title: Method And Apparatus For Sealing Cannisters Inventors: CHURCH, Russell E. Owner/Assignee: Tenneco Automotive Operating						

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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001637/US 001657	United States Regular-Original Filing-National	10/373821 2/25/2003	6892855 5/17/2005	2004/0163885A1 8/26/2004	11/17/2008 5/28/2023	Granted
<p>Title: Embossed Shell For Spun Mufflers Inventors: WARMENHOVEN, John L. History: Based on USSN 10/373821, filed 02/25/2003</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001639/US 1997	United States Regular-Original Filing-National	10/876242 6/24/2004	7063134 6/20/2006	2005/0284623A1 12/29/2005	12/20/2009 6/24/2024	Granted Transferred: Resp. Upon Issuance
<p>Title: Combined Muffler/Heat Exchanger Inventors: POOLE, Wallace J.; ABBOTT, James R.; KUSCHEL, Gabriel A.; HUA, Jian Guo</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001640/US 002080	United States Regular-Original Filing-National	10/760179 1/16/2004		2005/0155816A1 7/21/2005		Filed:Published
<p>Title: Dynamic Exhaust System For Advanced Internal Combustion Engines Inventors: ALCINI, William V.; ROBLES, Pavel; VENEZIANO, Richard; WEINERT, Rico; SCHINKO, Alexander; LABARGE, George</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						
2001U-001642/US 002080	United States Regular-Original Filing-National	10/885494 7/6/2004		2006/0005598A1 1/12/2006		Filed:Published
<p>Title: Weld Box Auto Roll Sensing And Positioning System Inventors: WILLIS, Michael J.</p> <p>Owner/Assignee: Tenneco Automotive Operating</p>						

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HDP Case ID Client Ref. No.	Country Case Type~Relationship~Filing Type	Appl. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001643/US 002077	United States Regular~Original Filing~National	11/01/3095 12/15/2004		2006/0156794A1 7/20/2006		Filed-Published
<p>Title: Apparatus And Method For Measuring Gap Bulk Density of A Catalytic Converter Support Mat Inventors: HORN, Tobin L.; WHEELER, Scott J. Owner/Assignee: Tenneco Automotive Operatng</p>						
2001U-001644/US 04-0014	United States Regular~Original Filing~National	11/331443 1/12/2006		2006/0150382A1 7/13/2006		Filed-Published
<p>Title: Post Calibration Catalytic Converter Canning Apparatus And Method Inventors: MARTIN, Scott M. History: Claims benefit of PRO USSN 60/643357, filed 01/12/2005. Owner/Assignee: Tenneco Automotive Operatng</p>						
2001U-001647/US 05-0054	United States Regular~Original Filing~National	11/269124 11/8/2005				Filed-Pending
<p>Title: Selective Catalyst Reduction Of Nitrogen Oxides With Hydrogen Inventors: RINALDI, Fabrizio C.; YANG, Ralph T.; Qi, Gongsin Owner/Assignee: Tenneco Automotive Operatng</p>						
2001U-001648/US 04-1993	United States Regular~Original Filing~National	11/644024 12/21/2006				Filed-Pending
<p>Title: Fluid Bearing Assisted Assembly Of An Exhaust Treatment Device Inventors: KOTRBA, Adam J.; OLIVIER, Keith G. History: Claims benefit of PRO USSN 60/754586, filed 12/28/2005. Owner/Assignee: Tenneco Automotive Operatng</p>						

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HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001648/US/PS1 1993	United States Provisional Filing--Original Filing--National	60/754596 12/28/2005				Filed-Pending
	Title: Fluid Bearing Assisted Assembly Of An Exhaust Treatment Device Inventors: KOTRBA, Adam J.; OLIVIER, Keith G. Owner/Assignee: Tenneco Automotive Operating					
2001U-001649/US 05-0042	United States Regular--Original Filing--National	11/590591 10/31/2006				Filed-Pending
	Title: Muffler Assembly With Sound Absorbing Member Inventors: HILL, William E. Owner/Assignee: Tenneco Automotive Operating History: Claims benefit of PRO USSN 60/741114, filed 12/01/2005.					
2001U-001649/US/PS1	United States Provisional Filing--Original Filing--National	60/741114 12/1/2005				Filed-Pending
	Title: Muffler Assembly With Sound Absorbing Member Inventors: HILL, William E. Owner/Assignee: Tenneco Automotive Operating					
2001U-001650/US 05-0052	United States Regular--Original Filing--National	11/316170 12/22/2005				Filed-Pending
	Title: Exhaust Dispersion Device Inventors: GIRARD, James W.; LACIN, Figen Owner/Assignee: Tenneco Automotive Operating					



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HDP Case ID Client Ref. No.	Country Case Type-Relationship-Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001651/US 05-0055	United States Regular-Original Filing~National	11/605513 11/28/2006				Filed-Pending
	Title: Woven Metal Fiber Diesel Particulate Filter Inventors: RINALDI, Fabrizio History: Claims benefit of PRO USSN 60/754999, filed 12/29/2005.				Owner/Assignee: Tenneco Automotive Operating	
2001U-001651/US/PS1 05-0055	United States Provisional Filing~Original Filing~National	60/754999 12/29/2005				Filed-Pending
	Title: Woven Metal Fiber Diesel Particulate Filter Inventors: RINALDI, Fabrizio				Owner/Assignee: Tenneco Automotive Operating	
2001U-001653/US/PS1 06-0078 06-0079 06-0082	United States Provisional Filing~Original Filing~National	60/874921 12/14/2006				Filed-Pending
	Title: Fluid Injecting And Mixing Systems For Exhaust After-Treatment Devices Inventors: SCHUSTER, Markus; GOMULKA, Ted G.; HAVERKAMP, Sascha				Owner/Assignee: Tenneco Automotive Operating	
2001U-001657/US/PS1 06-0093	United States Provisional Filing~Original Filing~National	60/879240 1/8/2007				Filed-Pending
	Title: Chrome-Plated Workpieces Inventors: PARISEAU, David L.; HORNER, David R.; DEAN, Mark				Owner/Assignee: Tenneco Automotive Operating	



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Patent Portfolio by Family
U.S./PCT -- Active Cases**

HDP Case ID Client Ref. No.	Country Case Type--Relationship--Filing Type	Appln. No. Filing Date/(Lodged)	Patent No. Issue Date	Publication No. Publication Date	Next Tax Date Expiration Date	Status/Substatus
2001U-001659/US/PS1 06-0073	United States Provisional Filing--Original Filing--National	60/858762 11/14/2006				Filed-Pending

Title: Device For Lowering Tail Pipe Exhaust Temperature
Inventors: ANGOSHTARI, Negin; SCHUSTER, Markus
Owner/Assignee: Tenneco Automotive Operating

2001U-001660/US/PS1 06-0098	United States Provisional Filing--Original Filing--National	60/872588 12/1/2006				Filed-Pending
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Title: Catalytic Converter With Mounting Device For A Hot Exhaust Gas Oxygen Sensor
Inventors: BALK, Timothy S.; SULLIVAN, Permilla S.; COTHRON, Tom; WALWORTH, Brad
Owner/Assignee: Tenneco Automotive Operating

<u>Country</u>	<u>Class Type</u>	<u>Relation Type</u>	<u>Client/Division</u>	<u>Status</u>	<u>Application Date</u>	<u>Application Number</u>	<u>Patent Number</u>	<u>Title</u>
United States	Regular	Original Filing	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	Filed	6/7/2004	10/681,373		LINEAR CONTROL OF AN AUTOMOBILE SUSPENSION
United States	Regular	Original Filing	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	Filed	4/22/2005	11/111,632		MODEL FREE SEMI-ACTIVE VEHICLE SUSPENSION SYSTEM
United States	Regular	Original Filing	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	Filed	7/14/2005	11/181,026		SHOCK ABSORBER WITH INTEGRATED DISPLACEMENT SENSOR
United States	Regular	Original Filing	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	Docketed		Unknown		CATALYTIC CONVERTER - POST CALIBRATION CANNING TECHNOLOGY
United States	Provisional Filing	Original Filing	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	Filed	9/20/2006	60/826,288		KNOWLEDGE BASED ENGINEERING SYSTEM