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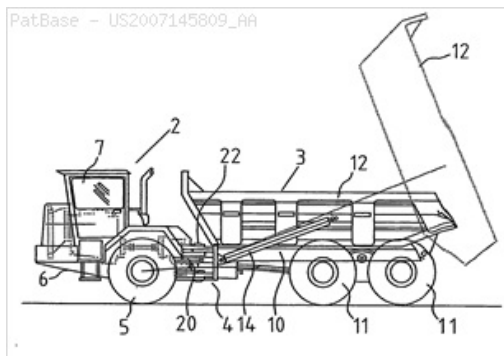
Search 1: TAC=((vehicle or saddle or motorcycle) near (tilt* OR lean OR roll* OR incline)) (Results 34513)
Search 2: 1 AND (IC= B62D OR B62K) (Results 4889)
Search 3: 2 AND (TAC= (suspension OR damp*) near (system OR mechanism OR device OR assembl*)) (Results 424)
Search 4: 3 AND (TAC= fork OR telescopic) (Results 35)
Search 5: 4 AND (TAC= (brake OR stop) near (disc OR clip OR cal?iper)) (Results 3)
Search 6: TAC=((vehicle or saddle or motorcycle) near (tilt* OR lean OR roll* OR incline)) and PD<20130701 (Results 29395)
Search 7: 4 AND (PD<20130701) (Results 31)

Title: ARTICULATED DUMP TRUCK

Abstract: Source: US2007145809A An article dump truck has a front tractor unit connected to an associated rear trailer unit with a tipping container by an articulated coupling. The articulated coupling is operable to allow the front tractor unit and rear trailer unit to pivot about a vertical pivot axis, rams being provided to turn the front tractor unit and rear trailer unit about the pivot to steer the dump truck. The articulated coupling also allows the front tractor unit and rear trailer unit to rotate relative to each other about a longitudinal axis of the dump truck. In addition, the front tractor unit has a front chassis mounted on a pair of wheels by an independent **suspension system**.

Classifications:

International (IPC 8-9): B60G11/16 B60G21/055 B60G3/20 B60G7/02 B60G9/00 B60K17/34 B60P1/04 B60P1/16 B60P1/28 B62D12/00 B62D53/00 B62D53/02 B65F3/00 B65F3/20 (Advanced/Invention); B60G11/00 B60G21/00 B60G3/18 B60G7/02 B60P1/04 B62D12/00 B62D53/00 B65F3/00 (Core/Invention)
International (IPC 1-7): B60G3/20 B60P1/28 B62D12/00 B62D53/00 B62D53/02 B65F3/20
CPC: B60G7/02 B60G3/20 B60G11/16 B60G2200/144 B60G2200/422 B60G2202/12 B60G2204/124 B60G2204/1244 B60G2204/143 B60G2204/15 B60G2204/19 B60G2206/0114 B60G2206/124 B60G2206/60 B60G2300/026 B60G2300/07 B62D12/00 B62D53/021 B60G11/16 B60G3/20 B60G7/02 B62D12/00 B62D53/02C B62D9/00B L60G200/144 L60G200/422 L60G202/12 L60G204/124 L60G204/1244 L60G204/143 L60G204/15 L60G204/19 L60G206/0114 L60G206/124 L60G206/60 L60G300/026 L60G300/07
US: 180/235 180/265 280/124.1 280/124.100P 280/124.106 280/400 298/17.00RS 298/17R 298/22.00P 298/22.00PP 298/22P



Family:

Publication number	Publication date	Application number	Application date
CA2582004 AA	20070329	CA20042582004	20041001
CA2582004 C	20130219	CA20042582004	20041001
DE602004042296 D1	20130725	DE200460042296T	20041001
DK1675767 T3	20130902	DK20040770410T	20041001
EP1675767 A2	20060705	EP20040770410	20041001
EP1675767 B1	20130529	EP20040770410	20041001
IE20040670 A1	20050504	IE20040000670	20041001
IE20070107 A2	20070418	IE20070000107	20041001
US2007145809 AA	20070628	US20040574270	20041001
US2010102532 AA	20100429	US20090647285	20091224
US2011233887 AA	20110929	US20110017283	20110131
US8327966 BB	20121211	US20110017283	20110131
WO05030563 A2	20050407	WO2004IE00136	20041001
WO05030563 A3	20050526	WO2004IE00136	20041001

Priority:

EP20040770410	20041001	IE20030000720	20031001	IE20030000721	20031001
IE20040000670	20041001	US20070574270	20070122	IE20070000107	20041001
WO2004IE00136	20041001	US20090647285	20091224	US20040574270	20041001
US20110017283	20110131				

Probable Assignee: TECHNOLOGY INVESTMENTS LTD

Assignee(s): (std): PRONSIAS TIMONEY EANNA ; TECHNOLOGY INVEST LTD ; TECHNOLOGY INVESTMENTS LTD ; TIMONEY EANNA PRONSIAS ; TIMONEY SEAN

Assignee(s): TECHNOLOGY INVESTMENTS LIMITED

Inventor(s): (std): EANNA PRONSIAS TIMONEY ; PRONSIAS TIMONEY EANNA ; TIMONEY EANNA P ; TIMONEY EANNA PRONSIAS ; TIMONEY SEAN

Inventor(s): TIMONEY EANNA PRONSIAS NAVAN ; SEAN TIMONEY ; TIMONEY EANNA

Agent(s): GOWLING LAFLEUR HENDERSON LLP; KILBURN AND STRODE LLP; SCHUETTE GEAROID; BIRCH STEWART KOLASCH AND BIRCH; HOLLAND AND KNIGHT LLP; BRIAN J; JEFFREY T

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **VEHICLE** WITH MOVABLE AND INWARDLY **TILTING** SAFETY BODY

Abstract: Source: US2005275181A A **suspension system** for a vehicle (50c) having a body (52c) and a plurality of wheel support assemblies (56c, 58c) includes a tie structure (60c) interposed between the body and the wheel support assemblies. A first interconnection system (68c) interconnects the tie structure to the wheel support assemblies, and the second interconnection system (302) interconnects the tie structure and the body. The second interconnection system includes a plurality of link structures (304, 320) pivotally connected at one end to the tie structure, and pivotally connected at the opposite end to the body. Such link structures are oriented relative to the tie structure to extend towards a common point along a longitudinal axis (33B) of the tie structure.

Classifications:

International (IPC 8-9): B60G1/00 B60G13/16 B60G17/005
B60G17/016 B60G21/00 B60G3/01 B60G3/20 B60G7/00 B60R21/00
B62D39/00 B62D9/02 (Advanced/Invention);
B60R19/18 (Advanced/Non-invention);
B60G1/00 B60G13/00 B60G17/005 B60G17/015 B60G21/00
B60G3/00 B60G3/18 B60G7/00 B60R21/00
B62D39/00 (Core/Invention);
B60R19/18 (Core/Non-invention)

International (IPC 1-7): B60G1/00 B60G17/01 B60R21/00

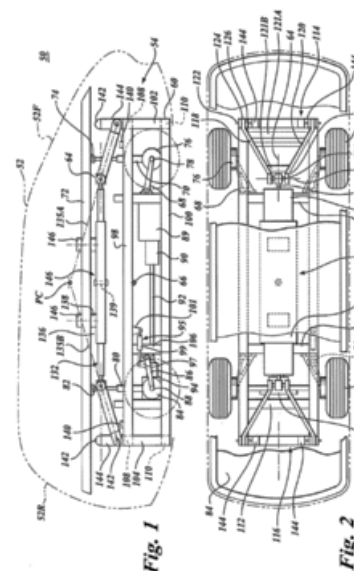
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B60G2204/30 B60G2204/422 B60G2204/4222 B60G2204/62
B60G2206/50 B60R2019/1893 B62D39/00

European: B60G13/16 B60G17/016F B60G21/00D B60G3/01
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L60G206/50 L60R19/18P

US: 180/271 280/124.103 280/124.103P 280/5.506 280/5.507
280/5.513 280/6.15

PatBase - US2005275181_AA

Patent Application Publication Dec. 15, 2005 Sheet 1 of 37 US 2005/0275181 A1



Family:

Publication number	Publication date	Application number	Application date
US2005275181 AA	20051215	US20030667105	20030918
US2008224436 AA	20080918	US20080127761	20080527
US2010171282 AA	20100708	US20090488259	20090619
US2012181768 AA	20120719	US20120431874	20120327
US7377522 BB	20080527	US20030667105	20030918

Priority:

US20020412045P 20020918 US20030667105 20030918 US20080127761 20080527
US20090488259 20090619 US20120431874 20120327

Probable Assignee: MACISAAC WILLIAM L

Assignee(s): (std): MACISAAC WILLIAM L

Inventor(s): (std): MACISAAC WILLIAM L

Inventor(s): MACISAAC WILLIAM

Agent(s): CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC; CHRISTENSEN OCONNOR JOHNSON KINDNESS PLLC

Title: STABILITY SYSTEM FOR AN INDUSTRIAL VEHICLE

Abstract: Source: US2006231312A A materials handling vehicle may include a vehicle frame, a drive wheel, a first caster assembly located on the right side of the drive wheel, and a second caster assembly located on the left side of the drive wheel. A weight distribution assembly connects the first or second caster assembly to the vehicle frame and may include an adjustable preload mechanism to provide a preload force to the first or second caster assembly.

Classifications:

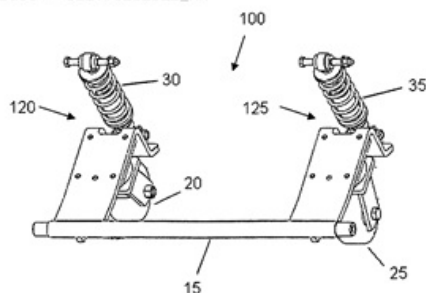
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CPC: B60G21/051 B60G2300/022 B62B3/0612 B62B2301/23 B62D37/04 B62D51/02 B62D51/04 B66F9/07559 B62B2301/08 B62B2301/20 B62B3/008 B62B5/02

European: B60G21/05C B62B3/00M B62B3/06C B62D37/04 B62D51/02 B62D51/04 B66F9/075J L60G300/022 L62B301/08 L62B301/20 L62B301/23 L62B5/02

US: 180/19.2 180/19.200 180/19.3 180/19.300 180/211 280/124.107 280/43.12 280/43.120 280/47.11 280/47.110

PatBase - US2006231312_AA



Family:

Publication number	Publication date	Application number	Application date
DE06750287 T1	20080619	DE20060750287T	20060414
DE06750287 T8	20090514	DE20060750287T	20060414
DE202006020569 U1	20090108	DE200620020569U	20060414
EP1868829 A2	20071226	EP20060750287	20060414
EP1868829 A4	20081224	EP20060750287	20060414
EP1868829 B1	20120905	EP20060750287	20060414
EP2050650 A1	20090422	EP20080021904	20060414
ES2394920 T3	20130206	ES20060750287T	20060414
US2006231312 AA	20061019	US20060404607	20060413
US2006232030 AA	20061019	US20060404171	20060413
US7770904 BB	20100810	US20060404607	20060413
WO06113511 A2	20061026	WO2006US14214	20060414
WO06113511 A3	20071011	WO2006US14214	20060414

Priority:

EP20060750287 20060414 US20050671548P 20050414 WO2006US14214 20060414
 US20060404607 20060413 US20060404171 20060413 US20050672148P 20050414

Probable Assignee: HYSTER YALE GROUP INC

Assignee(s): (std): NACCO MATERIALS HANDLING GROUP ; NACCO MATERIALS HANDLING GROUP INC ; NMHG OREGON LLC ; PASSERI GIANNI

Assignee(s): BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; CITICORP NORTH AMERICA INC ; HYSTER YALE GROUP INC

Inventor(s): (std): PASSERI GIANNI

Agent(s): HESS PETER K G; HESS PETER K G ET AL; FABREGA XAVIER; MARGER JOHNSON AND MCCOLLOM PC; STOLOWITZ FORD COWGER LLP

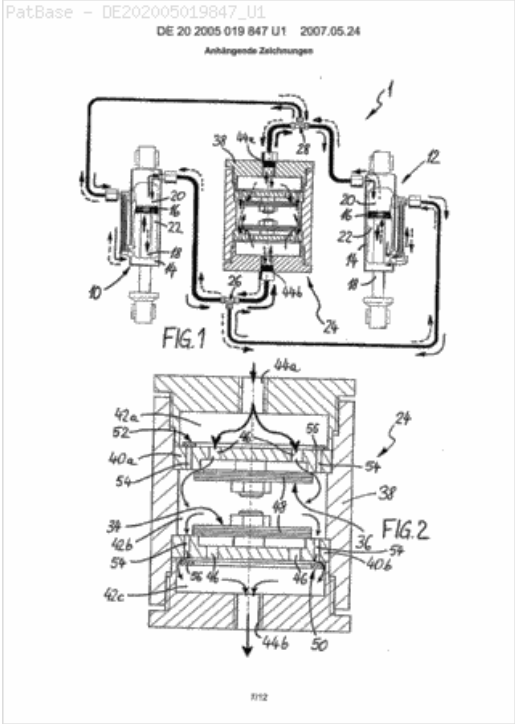
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Title: DAEMPfungSSYSTEM INSbESONDERE FUEr SCHWERLAST-FAHRZEUGE **SUSPENSION DAMPING SYSTEM**
ESPECIALy FOR HEAVY VEHICLE HAS HYDRAULIC **TELESCOPIC** DAMPERS ON OPPOSITE ENDS OF AXLE CONNECTED VIA A CONTROL VALVE MODULE

Abstract: Source: DE202005019847U1 (Claim1) Daempfungssystem (1) zum Daempfen von Relativbewegungen insbesondere zwischen einer Achse (2) und einem Aufbau (4) eines Schwerlast-Fahrzeuges, mit zwei hydraulischen Teleskop-Daempferzylindern (10, 12), die jeweils aus einem Zylinder (14), einem innerhalb des Zylinders (14) gefuehrten Kolben (16) und einer Kolbenstange (18) bestehen, wobei der Kolben (16) innerhalb des Zylinders (14) einen Kolbenraum (20) von einem die Kolbenstange (18) umschliessenden Ringraum (22) abteilt, dadurch gekennzeichnet, dass die beiden Daempferzylinder (10, 12) hydraulisch bezueglich ihrer Kolbenraeume (20/20) und/oder ihrer Ringraeume (22/22) ueber eine gemeinsame, bei gegenseinniger Durchstroemung mit gleicher Daempfung wirkende Daempfungsventilanordnung (24) verbunden sind . A **suspension damping system**, especially for a heavy vehicle which has hydraulic **telescopic** dampers on opposite ends of a beam axle pivot mounted on the chassis in the center. Both dampers are connected hydraulically via a control valve (24). The control system does not require costly pneumatic-hydraulic pressure reservoirs for each damper as in a conventional layout, and it can be mounted in any convenient, compact position.

Classifications:

International (ipc 8-9): B60G13/08 B60G17/08
B62D33/00 (Advanced/Invention);
B60G13/00 B60G17/06 B62D33/00 (Core/Invention)
CPC: B60G9/02 B60G17/056 B60G17/08 B60G21/073 B60G2200/32
B60G2202/154 B60G2800/012
European: B60G17/056 B60G17/08 B60G21/073 B60G9/02
L60G200/320 L60G202/154 L60G800/012



Family:

Publication number	Publication date	Application number	Application date
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Priority:

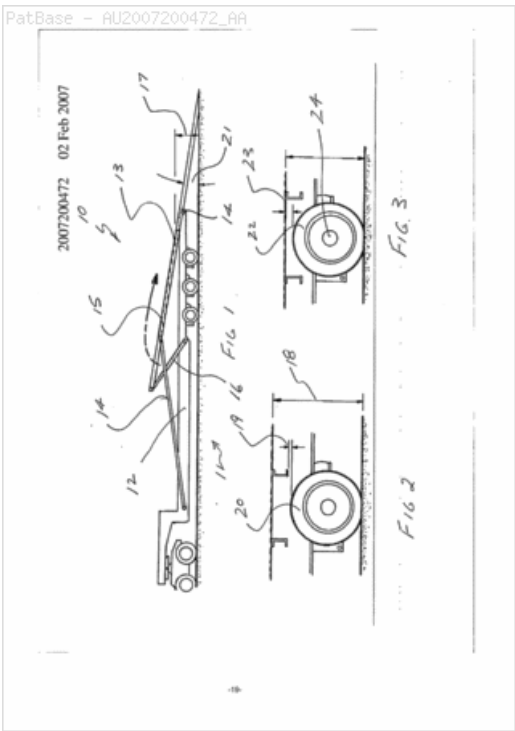
DE200520019847U 20051216

Probable Assignee: HEMSCHEIDT FAHRWERKTECH GMBH
Assignee(s): (std): HEMSCHEIDT FAHRWERKTECH GMBH
Assignee(s): HEMSCHEIDT FAHRWERKTECHNIK GMBH AND CO KG

Title: Vehicle recovery

Abstract: Source: AU2007200472A C A recovery vehicle suitable for recovery of broken down buses or other o vehicles comprises a low loader assembly 37 having a tray 38 supported by a 5 wheel assembly 39 on a chassis 40. A controller enables air to be released from the suspension of the rear axle group 41 and double folding ramps 42 may Sbe lined up as a ramp so that the inclination of the tray 38 is at approximately degrees to the horizontal with the tray tilting as low as possible and in this example about the rearmost axle. A bus 44 when "kneeled" may be winched onto the tray utilising the winch assembly 45 and cable 46 without damage. 4~ and c2~

Classifications:
International (ipc 8-9): B60P1/04 B60P3/07 B60P3/12
B62D63/06 (Advanced/Invention);
B60P1/04 B60P3/06 B60P3/12 B62D63/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
AU2007200472 AA	20070823	AU20070200472	20070202

Priority:

AU20060900519 20060203 AU20070200472 20070202

Probable Assignee:	KALBELA PTY LTD
Assignee(s): (std):	KALBELA PTY LTD
Assignee(s):	KALBELA PTY LIMITED
Inventor(s): (std):	DAY STANLEY JOSEPH
Inventor(s):	STANLEY JOSEPH DAY
Agent(s):	INTELLEPRO

Title: **SUSPENSION** THRUST BEARING **DEVICE** AND STRUT

Abstract: Source: US2008031562A The **suspension** thrust bearing **device**, in particular for a motor **vehicle**, includes a **rolling** bearing forming an axial thrust bearing, a lower support cap of the rolling bearing that is provided with a body made of synthetic material, and a vibration-filtering element mounted on the body of the support cap. The filtering element includes at least one flange extending substantially radially and designed to form a flow deflector for reducing any ingress of water inside the rolling bearing.

Classifications:

International (IPC 8-9): B60G15/00 B60G15/06 B60G15/07 B60G23/00 B62D7/16 F16C19/02 F16C19/10 F16C19/30 F16C33/76 F16C33/78 F16F1/12 F16F13/16 F16F7/04 F16F9/32

F16F9/54 (Advanced/Invention);

B60G15/00 B60G15/06 B62D7/16 F16C19/02 (Advanced/Non-invention);

B60G15/00 B60G23/00 B62D7/00 F16C19/02 F16C19/22 F16C33/76

F16F1/04 F16F13/04 F16F7/00 F16F9/32 F16F9/54 (Core/Invention)

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CPC: F16C19/10 B60G15/068 B60G11/15 B60G2202/12

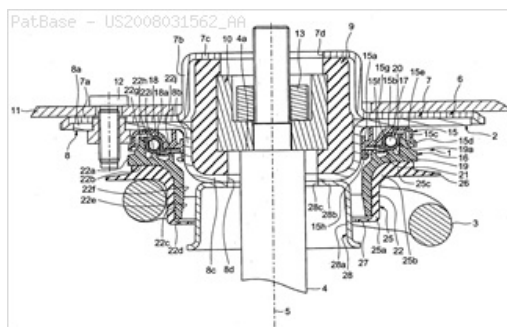
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US: 280/124.145 384/609 384/618 384/618P



Family:

Publication number	Publication date	Application number	Application date
AR061513 AA	20080903	AR2007P102677	20070619
BRPI0701668 A2	20090113	BR2007PI01668	20070530
DE102007028584 A1	20071227	DE200710028584	20070619
FR2902699 A1	20071228	FR20060005698	20060626
FR2902699 B1	20101022	FR20060005698	20060626
JP2008008491 A2	20080117	JP20070167290	20070626
JP5159184 B2	20130306	JP20070167290	20070626
KR101345852 B1	20131230	KR20070061410	20070622
KR20070122382 A	20071231	KR20070061410	20070622
US2008031562 AA	20080207	US20070807180	20070525
US8226301 BB	20120724	US20070807180	20070525

Priority:

FR20060005698 20060626

Probable Assignee: SKF AB

Assignee(s): (std): HOUDAYER CHRISTOPHE ; SKF AB ; POULLE THIERRY ; MIGLIORE JEAN SYLVAIN

Assignee(s): AKTIEBOLAGET SKF

Inventor(s): (std): HOUDAYER C ; MIGLIORE J S ; POULLE T ; POULLE THIERRY ; MIGLIORE JEAN SYLVAIN ; HOUDAYER CHRISTOPHE

Inventor(s): CHRISTOPHE HOUDAYER ; JEAN SYLVAIN MIGLIORE ; THIERRY POULLE

Agent(s): BUREAU DA CASALONGA AND JOSSE; CASALONGA AND ASSOCIES; MEYERTONS HOOD KIVLIN KOWERT AND GOETZEL PC; ERIC B

Title: BEARING BUSHING ARRANGEMENT FOR INDEPENDENT WHEEL **SUSPENSION** HAVING AN ADJUSTING **MECHANISM** FOR ACTIVE TRACK ADJUSTMENT

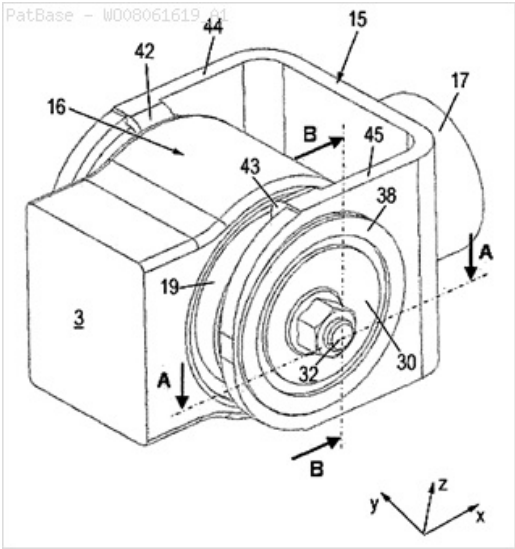
Abstract: The invention relates to a bearing bushing arrangement for an independent wheel suspension (1) of a motor vehicle, comprising a bearing bushing (16) connecting a guide rod (2) to a wheel carrier (7) of the independent wheel suspension in a rotating manner, and an adjusting mechanism that can be actuated by an actuator (24), by means of which a relative distance in the vehicle transversal direction (y) between the wheel carrier (7) and the guide rod (2) can be adjusted by means of the bearing bushing.

Classifications:

International (IPC 8-9): B60G21/10 B60G3/20 B60G7/00 B60G7/02 B62D17/00 B62D6/00 B62D7/14 (Advanced/Invention); B60G21/00 B60G3/18 B60G7/00 B60G7/02 B62D17/00 B62D6/00 B62D7/14 (Core/Invention)

CPC: B60G3/20 B60G7/006 B60G2200/18 B60G2200/462 B60G2204/148 B60G2204/41 B60G2204/419 B60G2206/121 B62D17/00

European: B60G3/20 B60G7/00D B62D17/00 L60G200/180 L60G200/462 L60G204/148 L60G204/41 L60G206/121



Family:

Publication number	Publication date	Application number	Application date
DE102006055293 A1	20080529	DE200610055293	20061123
WO08061619 A1	20080529	WO2007EP09567	20071105

Priority:

DE200610055293 20061123

Probable Assignee: GM GLOBAL TECH OPERATIONS INC

Assignee(s): (std): EHRlich DIRK ; GM GLOBAL TECH OPERATIONS INC

Assignee(s): GM GLOBAL TECHNOLOGY OPERATIONS INC

Inventor(s): (std): EHRlich DIRK

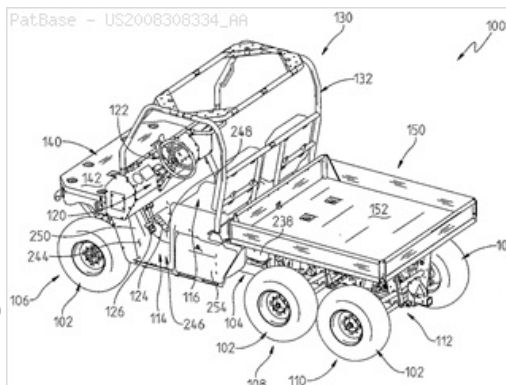
Agent(s): GEBAUER DIETER

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: VEHICLE WITH SPACE UTILIZATION**Abstract:** Source: US2008308334A A utility vehicle with space utilization features is disclosed. The space utilization features provide storage and access to components.**Classifications:****International (IPC 8-9):** B60G15/06 B60G17/02 B60G3/00 B60G3/20 B60K11/00 B60K13/00 B60K17/00 B60K17/16 B60K23/04 B60K37/00 B60K37/04 B60K5/00 B60N2/015 B60N3/00 B60N3/02 B60P1/04 B60P7/06 B60P7/08 B60P7/135 B60P9/00 B60Q1/14 B60Q3/00 B60R11/00 B60R21/02 B60R21/13 B60R5/04 B60T1/06 B60W10/12 B62D21/00 B62D21/09 B62D21/12 B62D21/14 B62D21/18 B62D23/00 B62D25/20 B62D33/00 B62D33/02 B62D33/03 B62D33/033 B62D55/04 B62D61/10 B62D61/12 B62D63/02 B65G67/02 F16D55/226 G02F1/01

H02J7/00 (Advanced/Invention);

B60G15/00 B60G3/00 B60G3/18 B60K11/00 B60K17/00 B60K23/04 B60K37/00 B60K37/04 B60N2/005 B60N3/00 B60N3/02 B60P1/04 B60P7/06 B60P9/00 B60Q1/14 B60Q3/00 B60R11/00 B60R5/00 B60T1/00 B60W10/12 B62D21/00 B62D21/12 B62D21/14 B62D23/00 B62D25/20 B62D33/00 B62D33/02 B62D61/00 B65G67/02 G02F1/01 H02J7/00 (Core/Invention)

CPC: B60N2/01525 B60N2/01575 B60P3/423 B60P7/0815 B60R5/041 B62D25/2054 B60K37/00 F41A23/34 B60G2202/30 B60G2204/143 B60G2204/15 B60G2206/124 B60G2206/60 B60G2206/606 B60G2300/07 B60T7/06 B62D25/081 B62D25/10 B62D21/186 B62D23/005 B62D33/0621 B62D33/0625 B60L11/14 B60N3/023 B62D25/20 B62D33/02 B60L1/02 B60L11/1864 B60L11/1877 B60L2200/12 B60L2200/22 B60L2210/10 B60L2210/40 B60L2240/12 B60L2240/34 B60L2240/36 B60L2240/441 B60L2250/16 Y02T10/7005 Y02T10/7061 Y02T10/7077 Y02T10/7216 Y02T10/7241 B60G15/06 B60G2200/144 B60G2202/24 B60G2206/011 B60G2206/0114 B60G2300/13 B62D21/12 B62D21/14 B62D55/04 B62D61/10 F16D55/226 Y02T10/70 B60G15/067 B60K17/16 B60G3/20 B62D21/183 B62D63/025 B60R21/13 B62D61/12**European:** B60G15/06 B60G3/20 B60K37/00 B60N2/015B2E B60N2/015B2K4 B60N3/02B B60P3/42B B60P7/08A3 B60R5/04A B60T7/06 B62D21/12 B62D21/14 B62D21/18C B62D23/00B B62D25/08B B62D25/10 B62D25/20 B62D25/20B B62D33/02 B62D33/06E2 B62D33/06E3 B62D55/04 B62D61/10 B62D61/12 F16D55/226 F41A23/34 L60G200/144 L60G202/24 L60G202/30 L60G204/143 L60G204/15 L60G206/011 L60G206/0114 L60G206/124 L60G206/60 L60G206/606 L60G300/07 L60G300/13**US:** 180/208 180/209 180/21 180/22 180/22S 180/24 180/24.09 180/24.090P 180/311 180/377 180/377S 180/54.1 180/54.100S 180/68.3 180/68.4 180/68.400P 180/89.1 180/89.100P 180/90 180/90.6 180/90.600P 180/90S 250/494.1 250/495.1 250/504.00R 250/504R 267/255 280/124.101 280/124.102 280/124.102 280/124.134 280/124.134S 280/124.142 280/124.147 280/638 280/638P 280/638S 280/748 280/748S 280/756 280/767 280/767S 280/781 280/785 280/785S 296/1.04 296/1.040S 296/182.1 296/182.100S 296/183.1 296/203.01 296/203.010S 296/219 296/37.8 296/71 296/71S 296/97.22 298/17.00RS 298/17R 320/107 320/107S 362/487 362/487S 362/543 410/121 410/121S 410/143 410/143S 414/809 414/809S**Family:**

Publication number	Publication date	Application number	Application date
US2008308334 AA	20081218	US20080050048	20080317
US2009000849 AA	20090101	US20080050041	20080317
US2009071737 AA	20090319	US20080092191	20080317
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US7717495 BB	20100518	US20080050064	20080317
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US8205910 BB	20120626	US20080092151	20080317
US9004510 BB	20150414	US20110233415	20110915
WO08115459 A1	20080925	WO2008US03480	20080317
WO08115461 A2	20080925	WO2008US03483	20080317
WO08115461 A3	20081127	WO2008US03483	20080317
WO08115463 A1	20080925	WO2008US03485	20080317

Priority:

US20070918356P	20070316	US20070918444P	20070316	US20070918502P	20070316
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US20150667649	20150324	US20160228655	20160804		

Probable Assignee: POLARIS INC**Assignee(s):** (std): BERGMAN JAMES ; BJERKCTVEDT ERIC ; BJERKELVEDT ERIC ; BJERKETVEDT ERIC ; BRADY LOUIS J ; GEORGES LYLE ; HOLTER LARRY ; POLARIS INC ; MAKI RICHARD RAYMOND ; NELSON RICHARD ; HOFF LIONEL ; MOMAN DOUG ; KROSSCHELL BRIAN D ; JOHNSON MITCHELL D ; MORISCH BRADLEY ROBERT ; LEONARD JOSHUA J ; MORISCH ROBERT BRADLEY ; GEORGES LYLE R ; SCHNEIDER MICHAEL D**Assignee(s):** POLARIS IND ; POLARIS IND INC ; POLARIS INDUSTRIES INC**Inventor(s):** (std): BERGMAN JAMES ; BJERKETVEDT ERIC ; BRADY LOUIS J ; GEORGES LYLE ; HOFF LIONEL ; HOLTER LARRY ; JOHNSON MITCHELL D ; KROSSCHELL BRIAN D ; LEONARD JOSHUA J ; MAKI RICHARD RAYMOND ; MOMAN DOUG ; MORISCH BRADLEY ROBERT ; NELSON RICHARD ; SCHNEIDER MICHAEL D ; MORISCH ROBERT BRADLEY ; MORISCH BRADLEY R ; MAKI RICHARD R ; BJERKETVEDT ERIC D ;

BJERKCTVEDT ERIC ; GEORGES LYLE R ; BJERKELVEDT ERIC

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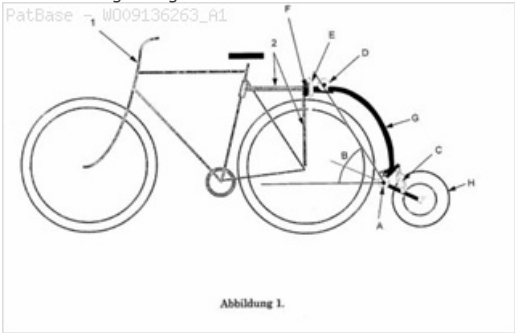
Designated states:

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Title: SINGLE-WHEEL PUSHING TRAILER

Abstract: The invention is a single-wheeled, driven pushing trailer that can be attached to almost any normal bicycle (1) or light vehicle that can be modified. Stable driving is accomplished through the combination of two mechanical **systems**: trailer wheel **suspension** with spring (C), wherein the geometry of the trailer wheel suspension plays an important role, and a semi-rigid trailer coupling at the vehicle (F, E, D) that permits the trailer to follow the vehicle and prevents the trailer from being pushed into the **vehicle** and allows **tilting** for safety reasons for save riding along uneven surfaces.

Classifications:
International (IPC 8-9): B62D59/04 B62K27/14
B62M7/14 (Advanced/Invention);
B62M7/14 (Advanced/Non-invention);
B62M7/00 (Core/Invention)
CPC: B62M7/16
European: B62M7/16



Family:

Publication number	Publication date	Application number	Application date
CH704108 B1	20120531	CH20080000703	20080507
NL1036923 A	20101109	NL20091036923	20090505
NL1036923 C	20110725	NL20091036923	20090505
WO09136263 A1	20091112	WO20091B05513	20090506

Priority:

CH20080000703 20080507

Probable Assignee: ROBERT BECKER E VELO CITY ASS P A WEBSTER UNIVERSITY

Assignee(s): (std): BECKER ROBERT ; BECKERT ROBERT ; BLAKE CHRISTOPHER ; ROBERT BECKER E VELO CITY ASS P A WEBSTER UNIVERSITY

Assignee(s): ROBERT BECKER E VELO CITY ASSOCIATION P A WEBSTERUNIVERSITY

Inventor(s): (std): BECKERT ROBERT ; BECKER ROBERT

Inventor(s): ROBERT BECKER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TACTILE FEEDBACK FOR JOYSTICK POSITION/SPEED CONTROLS

Abstract: Source: US2010302017A The present invention includes a control system with a joystick controller for controlling the direction and speed of one or more controlled systems, such as a boom lift platform or the vehicle on which it rides. The joystick is neutrally-biased and effects a null velocity of the controlled system when the joystick is positioned in a neutral position. The joystick controller has motors, or the like, that provide intuitive tactile feedback to the joystick operator. The tactile feedback includes biasing the joystick away from the neutral position according to the controlled system's actual direction and speed but without generating a commanded direction and speed based on the biased position.

Classifications:

International (IPC 8-9): B62D1/12 B66F11/04 B66F17/00 B66F9/22 G05G1/04 G05G9/047 G05G9/06 G06F3/01 G06F3/0338

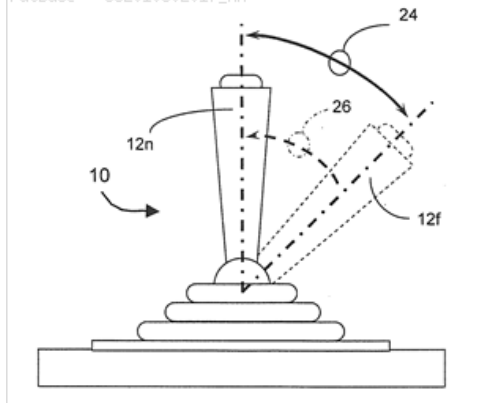
G08B6/00 (Advanced/Invention);
H01H3/00 (Advanced/Non-invention)

CPC: G05G9/06 B62D1/12 G05G1/04 B66F11/046 B66F17/006 B66F9/22 B66F11/04 G05G9/047 G05G2009/04766 G05G2009/0477 G05G2009/04777 G06F3/016 G06F3/0338 G06F2203/015 H01H2003/008 Y10T74/20201

European: G05G9/047 S05G9/047F

US: 1/1 182/141 182/18 182/19 182/2.2 182/2.3 182/63.1 187/224 340/3.7 340/3.71 340/407.2 340/407.200P 340/685 345/161 345/161S 701/50 74/471 74/471XY

PatBase - US2010302017_AA



Family:

Publication number	Publication date	Application number	Application date
US2010302017 AA	20101202	US20100773170	20100504
US2013220734 AA	20130829	US20130846177	20130318
US2014284142 AA	20140925	US20140275088	20140512
US2016179128 AA	20160623	US20160056493	20160229
US8723638 BB	20140513	US20130846177	20130318
US9272889 BB	20160301	US20140275088	20140512
US9568939 BB	20170214	US20160056493	20160229
WO10141054 A1	20101209	WO2010US01473	20100519

Priority:

US20090217552P 20090601 US20100773170 20100504 US20130846177 20130318
US20140275088 20140512 US20160056493 20160229

Probable Assignee: ENOVATION CONTROLS LLC

Assignee(s): (std): ECONTROLS INC ; ENOVATION CONTROLS LLC ; GUGLIELMO KENNON ; GUGLIELMO KENNON H

Assignee(s): BOKF NA DBA BANK OF OKLAHOMA ADMIN AGENT AS

Inventor(s): (std): GUGLIELMO KENNON ; GUGLIELMO KENNON H

Agent(s): TUGGEY ROSENTHAL PAUERSTEIN SANDOLOSKI AGATHER LLP; WILLIAM H; ROSENTHAL PAUERSTEIN SANDOLOSKI AGATHER LLP; DANIEL A; JESSE L; QUIRK WILLIAM H

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **TILTABLE MOTORCYCLES** WITH TWO FRONT STEERING WHEELS

Abstract: Source: US2013168944A Motorcycles are provided which include a frame, two front steering wheels, a steering pipe rotatably connected to the frame and rigidly connected to two supporting assemblies, one for each front steering wheel and a steering group consisting of two pairs of transversal arms-upper front, lower front, upper rear and lower rear-arranged inverted at the opposite sides of a central steering pipe and laterally connected through two lateral posts. On each of the supporting assemblies the fixed portions of two **telescopic** elements may be constrained. Each pair of **telescopic** elements may be cantilever-mounted with respect to the steering wheel.

Classifications:

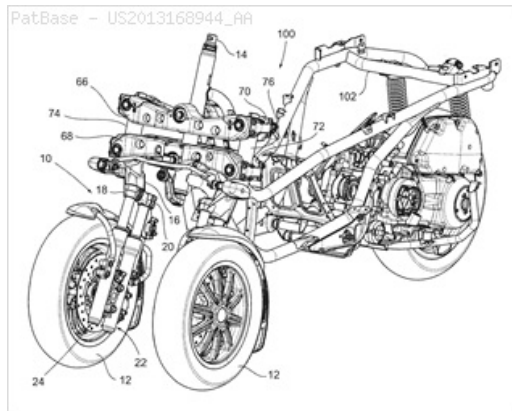
International (IPC 8-9): B60G3/01 B62D61/06 B62D9/02 B62D9/04 B62K11/02 B62K21/00 B62K25/00 B62K25/08 B62K5/00 B62K5/01 B62K5/027 B62K5/04 B62K5/05 B62K5/08 B62K5/10 (Advanced/Invention); B62K25/04 B62K5/00 (Advanced/Non-invention)

International (IPC 1-7): B62K5/04

CPC: B62D9/02 B62D61/065 B62K25/08 B62D9/04 B62K11/02 B60G3/01 B60G2300/122 B60G2300/45 B62K5/027 B62K5/05 B62K5/08 B62K5/10 B62K2005/001 B62K2025/047 B62K5/01

European: B60G3/01 B62K5/027 B62K5/05 B62K5/08 B62K5/10 L60G300/122 L60G300/45 L62K25/04F L62K5/00B

US: 1/1 280/269



Family:

Publication number	Publication date	Application number	Application date
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CN103153769 A	20130612	CN201180044710	20110707
CN103153769 B	20160817	CN201180044710	20110707
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EP2593352 A1	20130522	EP20110751935	20110707
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EP2977306 A1	20160127	EP20150180302	20110707
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IT1401130 B1	20130712	IT2010MI01317	20100716
ITMI20101317 A1	20120117	IT2010MI01317	20100716
TW201210882 A	20120316	TW20110124572	20110712
TWI549856 B	20160921	TW20110124572	20110712
US2013168944 AA	20130704	US20110810231	20110707
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US9227662 BB	20160105	US20110810231	20110707
WO12007819 A1	20120119	WO2011IB01619	20110707
WO12007819 A8	20120322	WO2011IB01619	20110707

Priority:

EP20110751935	20110707	EP20150180293	20110707	IT2010MI01317	20100716
EP20150180295	20110707	EP20150180302	20110707	EP20150180305	20110707
WO2011IB01619	20110707	US20130810231	20130318	US20140301377	20140611

Probable Assignee: PIAGGIO AND C SPA

Assignee(s): (std): BARTOLOZZI STEFANO ; BERNARDI LUCA ; PIAGGIO AND AMP C S P A ; PIAGGIO AND C S P A ; PIAGGIO AND C SPA ; PROFETI MARCO ; ROSELLINI WALTER

Inventor(s): (std): BARTOLOZZI STEFANO ; BERNARDI LUCA ; PROFETI MARCO ; ROSELLINI WALTER

Agent(s): MUELLER BORE AND PARTNER PATENTANWALTE PARTG MBB; LEIHKAUF STEFFEN FALK; MITOLA MARCO; LINAGE RAFAEL; ROBERT E; OTTAZZO MARCO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW