

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B60 VEHICLES IN GENERAL

(NOTE omitted)

B60G VEHICLE SUSPENSION ARRANGEMENTS (air-cushion vehicles [B60V](#); {cycle suspensions [B62K 25/00](#)})

NOTES

- Attention is drawn to the explanatory note following the class title [B60](#)
- Indexing codes [B60G 2200/00](#) - [B60G 2800/00](#) are dedicated to particular aspects of suspension arrangements:
 - [B60G 2200/00](#) refers to the type of suspension arrangement;
 - [B60G 2202/00](#) refers to the suspension elements used (springs, dampers and actuators);
 - [B60G 2204/00](#) refers to mounting features of suspension elements;
 - [B60G 2206/00](#) refers to constructional and manufacturing details of suspension elements;
 - [B60G 2300/00](#) refers to the type of vehicle;
 - [B60G 2400/00](#) - [B60G 2800/00](#) refer to the electronic control of suspension arrangements, whereby:
 - [B60G 2400/00](#) refers to input parameters of the control;
 - [B60G 2401/00](#) refers to types of sensors used;
 - [B60G 2500/00](#) refers to the controlled action or device;
 - [B60G 2600/00](#) refers to particular details of the control system;
 - [B60G 2800/00](#) refers to the result to be achieved by the control action.
- Groups [B60G 2200/00](#) - [B60G 2800/00](#) are to be used in multi-aspect classification, so that subject matter characterised by aspects covered by more than one of these groups, which is considered to represent information of interest for search, should be classified in a combination of at least one relevant "invention information" symbol in association with indexing codes from each of these groups.

WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

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|----------------------------|------------|------------------------------|
| B60G 23/00 | covered by | B60G 17/0165 |
|----------------------------|------------|------------------------------|
- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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|-------------|---|-------|--|
| 1/00 | Suspensions with rigid connection between axle and frame | 3/12 | . . the arm being essentially parallel to the longitudinal axis of the vehicle |
| 1/02 | . with continuous axle | 3/14 | . . . the arm being rigid |
| 1/04 | . with divided axle | 3/145 | {the arm forming the axle housing} |
| 3/00 | Resilient suspensions for a single wheel (pivoted suspensions arms per se, attachment thereof to sprung part of the vehicle, buffer means for limiting movement of arms B60G 7/00; {rigid axle suspensions B60G 9/00;} characterised by arrangement, location or type of springs B60G 11/00) | 3/16 | . . . the arm itself being resilient, e.g. leaf spring { B60G 7/003 takes precedence} |
| | | 3/18 | . with two or more pivoted arms, e.g. parallelogram |
| | | 3/185 | . . {the arms being essentially parallel to the longitudinal axis of the vehicle} |
| | | 3/20 | . . all arms being rigid |
| 3/01 | . the wheel being mounted for sliding movement, e.g. in or on a vertical guide (camber maintaining means B60G 3/26) | 3/202 | . . . {having one longitudinal arm and two parallel transversal arms, e.g. dual-link type strut suspension} |
| 3/02 | . with a single pivoted arm | 3/205 | {with the pivotal point of the longitudinal arm being on the vertical plane defined by the wheel rotation axis and the wheel ground contact point} |
| 3/04 | . . the arm being essentially transverse to the longitudinal axis of the vehicle | 3/207 | {the arms being essentially parallel to the longitudinal axis of the vehicle} |
| 3/06 | . . . the arm being rigid | 3/22 | . . . a rigid arm forming the axle housing |
| 3/08 | the arm forming the axle housing | 3/225 | {the arm being of the trailing wishbone type} |
| 3/10 | . . . the arm itself being resilient, e.g. leaf spring { B60G 7/003 takes precedence} | | |

- 3/24 . . . a rigid arm being formed by the live axle
{(B60G 3/22, B60G 3/26 take precedence;
driving arrangements B60K 17/22,
B60K 17/30, B60K 17/32)}
- 3/26 . . . Means for maintaining substantially-constant
wheel camber during suspension movement
{; Means for controlling the variation
of the wheel position during suspension
movement (B60G 3/202, B60G 3/22,
B60G 7/003, B60G 7/006 take precedence;
means for adjusting camber, castor, or toe-in
B62D 17/00)}
- 3/265 {with a strut cylinder contributing to the
suspension geometry by being linked to the
wheel support via an articulation}
- 3/28 . . at least one of the arms itself being resilient, e.g.
leaf spring {(B60G 7/003 takes precedence)}
- 3/285 . . . {the arm being essentially parallel to the
longitudinal axis of the vehicle}
- 5/00 Resilient suspensions for a set of tandem wheels or
axles having interrelated movements**
- 5/005 . {the wheels being fixed on a non-pivotal structure,
e.g. a sliding mount}
- 5/01 . the set being characterised by having more than two
successive axles
- 5/02 . mounted on a single pivoted arm {, e.g. the arm
being rigid}
- 5/025 . . {the arm being transverse to the longitudinal axis
of the vehicle}
- 5/03 . . the arm itself being resilient, e.g. a leafspring
(B60G 5/053 takes precedence)
- 5/04 . with two or more pivoted arms, the movements of
which are resiliently interrelated {, e.g. the arms
being rigid}
- 5/043 . . {the arms being transverse to the longitudinal axis
of the vehicle}
- 5/047 . . at least one arm being resilient, e.g. a leafspring
(B60G 5/053 takes precedence)
- 5/053 . . a leafspring being used as equilibration unit
between two axle-supporting units
- 5/06 . . the arms turning on a common pivot {, e.g. being
rigid}
- 5/065 . . . {at least one arm being resilient}
- 7/00 Pivoted suspension arms; Accessories thereof
(means for maintaining substantially constant wheel
camber during suspension movement B60G 3/26;
{articulations for wheels B60G 5/00; leaf spring
attaching means B60G 11/10, B60G 11/12; trailing
arm twist beam axle attaching means B60G 21/052;
articulations in general F16C})**
- 7/001 . {Suspension arms, e.g. constructional features
(B60G 7/006 takes precedence)}
- 7/003 . . {of adjustable length}
- 7/005 . {Ball joints (B60G 7/006 takes precedence; for
steering linkage B62D 7/16; ball joints per se
F16C 11/06)}
- 7/006 . {Attaching arms to sprung or unsprung part of
vehicle, characterised by comprising attachment
means controlled by an external actuator, e.g. a fluid
or electrical motor (B62D 7/146 takes precedence)}
- 7/008 . {Attaching arms to unsprung part of vehicle
(B60G 7/005, B60G 7/006 take precedence)}
- 7/02 . Attaching arms to sprung part of vehicle
{(B60G 7/006 takes precedence)}
- 7/04 . Buffer means for limiting movement of arms
{(stops limiting fluid passage in fluid dampers
F16F 9/49; stroke-limiting stops for fluid dampers
F16F 9/58)}
- 9/00 Resilient suspensions of a rigid axle or axle
housing for two or more wheels {(the axle being a
part of a set of tandem axles B60G 5/00-B60G 5/065;
with leaf springs B60G 11/02-B60G 11/08)}**
- 9/003 . {the axle being rigidly connected to a trailing
guiding device}
- 9/006 . {the axle being connected to two trailing arms with
only one of them being rigidly connected to the
axle}
- 9/02 . the axle or housing being pivotally mounted on the
vehicle {, e.g. the pivotal axis being parallel to the
longitudinal axis of the vehicle (B60G 9/003 takes
precedence)}
- 9/022 . . {the axle having an imaginary pivotal point}
- 9/025 . . . {using linkages for the suspension of the axle
allowing its lateral swinging displacement}
- 9/027 . . {the axle having either a triangular, a "T" or "U"
shape and being directly articulated with the
chassis only by its middle apex, e.g. De Dion
suspension}
- 9/04 . the axle or housing not being pivotally mounted on
the vehicle {(B60G 9/003 takes precedence)}
- 11/00 Resilient suspensions characterised by
arrangement, location or kind of springs (single
wheel suspension by pivoted arm resilient in
itself B60G 3/00; adjusting spring characteristic
B60G 17/00; springs per se F16F)**
- NOTE**
- The term "torsion bar" includes torsion tube or
the like. The term "rubber" includes synthetic
substitutes of a similar nature.
- 11/003 . {Lubrication devices for springs and dampers
(vehicle lubrication devices in general B60R 17/00;
for leaf springs in general F16F 1/24)}
- 11/006 . {Centrally located spring units, e.g. all wheels being
connected to a common spring unit (B60G 5/00,
B60G 17/033 take precedence)}
- 11/02 . having leaf springs only {(B60G 11/006 takes
precedence)}
- 11/025 . . {repairing devices for leaf springs}
- 11/04 . . arranged substantially parallel to the longitudinal
axis of the vehicle
- 11/06 . . arranged obliquely to the longitudinal axis of the
vehicle
- 11/08 . . arranged substantially transverse to the
longitudinal axis of the vehicle
- 11/10 . . characterised by means specially adapted for
attaching the spring to axle or sprung part of the
vehicle
- 11/107 . . . Sliding or rolling mountings
- 11/113 . . . Mountings on the axle (B60G 11/107 takes
precedence)
- 11/12 . . . Links, pins, or bushes
- 11/125 {Multiple-eye arrangements}
- 11/14 . having helical, spiral or coil springs only
{(B60G 11/006 takes precedence)}
- 11/15 . . Coil springs resisting deflection by winding up

- 11/16 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle
- 11/18 . having torsion-bar springs only {(B60G 11/006 takes precedence; having rubber springs of the torsional-energy-absorption type B60G 11/23)}
- NOTE**
[B60G 11/184](#) takes precedence over
[B60G 11/181](#) - [B60G 11/183](#)
- 11/181 . . {arranged in a plane parallel to the longitudinal axis of the vehicle}
- 11/182 . . {arranged in a plane oblique to the longitudinal axis of the vehicle}
- 11/183 . . {arranged in a plane transverse to the longitudinal axis of the vehicle}
- 11/184 . . {the torsion-bar consisting of a bundle of torsion elements}
- 11/185 . . . {the elements being rods}
- 11/186 {of hexagonal cross-section}
- 11/187 . . . {the elements being leaf-springs loaded by twisting}
- 11/188 . . . {the elements being cables}
- 11/189 . . {the torsion spring consisting of a tube with a slit}
- 11/20 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle
- 11/22 . having rubber springs only {(B60G 11/006 takes precedence)}
- 11/225 . . {Neidhart type rubber springs}
- 11/23 . . of the torsional-energy-absorption type
- 11/24 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle
- 11/26 . having fluid springs only, e.g. hydropneumatic springs {(B60G 11/006,) [B60G 15/12](#) take precedence}
- 11/265 . . {hydraulic springs}
- 11/27 . . wherein the fluid is a gas
- 11/28 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle
- 11/30 . . having pressure fluid accumulator therefor, e.g. accumulator arranged in vehicle frame {(dampers accumulating utilisable energy [B60G 13/14](#))}
- 11/32 . having springs of different kinds {(B60G 11/006 takes precedence)}
- 11/34 . . including leaf springs
- 11/36 . . . and also helical, spiral or coil springs
- 11/38 . . . and also rubber springs
- 11/40 the rubber springs being attached to the axle
- 11/42 the rubber springs being attached to sprung part of the vehicle
- 11/44 . . . and also torsion-bar springs
- 11/46 . . . and also fluid springs
- 11/465 {with a flexible wall}
- 11/48 . . not including leaf springs
- 11/50 . . . having helical, spiral or coil springs, and also torsion-bar springs
- 11/52 . . . having helical, spiral or coil springs, and also rubber springs
- 11/54 with rubber springs arranged within helical, spiral or coil springs
- 11/56 . . . having helical, spiral or coil springs, and also fluid springs
- 11/58 arranged coaxially
- 11/60 . . . having both rubber springs and torsion-bar springs
- 11/62 . . . having both rubber springs and fluid springs
- 11/64 . . . having both torsion-bar springs and fluid springs
- 13/00 Resilient suspensions characterised by arrangement, location or type of vibration dampers (adjusting damping effect [B60G 17/06](#); vibration dampers per se [F16F](#))**
- 13/001 . {Arrangements for attachment of dampers (mounting arrangements of combined spring and damper units [B60G 15/00](#); mountings of fluid dampers in general [F16F 9/54](#))}
- 13/003 . . {characterised by the mounting on the vehicle body or chassis of the damper unit}
- 13/005 . . {characterised by the mounting on the axle or suspension arm of the damper unit}
- 13/006 . . . {on the stub axle}
- 13/008 . . . {involving use of an auxiliary cylinder ([B60G 13/006](#) takes precedence)}
- 13/02 . having dampers dissipating energy, e.g. frictionally
- 13/04 . . mechanically, e.g. having frictionally-engaging springs as damping elements
- 13/06 . . of fluid type
- 13/08 . . . hydraulic
- 13/10 . . . pneumatic
- 13/12 . . . quasi-fluid, i.e. having powdered medium
- 13/14 . having dampers accumulating utilisable energy, e.g. compressing air {(fluid springs with an accumulator [B60G 11/30](#))}
- 13/16 . having dynamic absorbers as main damping means, i.e. spring-mass system vibrating out of phase
- 13/18 . . combined with energy-absorbing means
- 15/00 Resilient suspensions characterised by arrangement, location or type of combined spring and vibration damper, e.g. telescopic type (combined spring and vibration-dampers per se [F16F](#))**
- 15/02 . having mechanical spring
- 15/04 . . and mechanical damper {or dynamic damper}
- 15/06 . . and fluid damper
- 15/061 . . . {with a coil spring being mounted inside the damper}
- 15/062 . . . {the spring being arranged around the damper ([B60G 15/061](#), [B60G 15/067](#), [B60G 15/07](#) take precedence)}
- 15/063 {characterised by the mounting of the spring on the damper ([B60G 15/065](#), [B60G 15/066](#) take precedence)}
- 15/065 {characterised by the use of a combination of springs}
- 15/066 {the spring being different from a coil spring ([B60G 15/065](#) takes precedence)}
- 15/067 {characterised by the mounting on the vehicle body or chassis of the spring and damper unit}
- 15/068 {specially adapted for MacPherson strut-type suspension}

- 15/07 . . . the damper being connected to the stub axle and the spring being arranged around the damper {[\(B60G 15/068 takes precedence\)](#)}
- 15/08 . having fluid spring
- 15/10 . . and mechanical damper {or dynamic damper}
- 15/12 . . and fluid damper
- 15/14 . . . the damper being connected to the stub axle and the spring being arranged around the damper
- 17/00 Resilient suspensions having means for adjusting the spring or vibration-damper characteristics, for regulating the distance between a supporting surface and a sprung part of vehicle or for locking suspension during use to meet varying vehicular or surface conditions, e.g. due to speed or load {(levelling or stabilising systems for tippers [B60P 1/045](#))}**
- 17/002 . {by temperature regulation of the suspension unit, e.g. heat operated systems}
- 17/005 . Suspension locking arrangements {(for retractable wheels [B62D 61/12](#))}
- 17/015 . the regulating means comprising electric or electronic elements {([B60G 17/002](#)), [B60G 17/005 takes precedence](#)}
- 17/0152 . . {characterised by the action on a particular type of suspension unit ([B60G 17/01941 takes precedence](#))}
- 17/0155 . . . {pneumatic unit}
- 17/0157 . . . {non-fluid unit, e.g. electric motor}
- 17/016 . . characterised by their responsiveness, when the vehicle is travelling, to specific motion, a specific condition, or driver input {([B60G 17/017 takes precedence](#))}
- 17/0161 . . . {mainly during straight-line motion ([B60G 17/0164 takes precedence](#))}
- 17/0162 . . . {mainly during a motion involving steering operation, e.g. cornering, overtaking ([B60G 17/0164 takes precedence](#))}
- 17/0163 {the control involving steering geometry, e.g. four-wheel steering}
- 17/0164 . . . {mainly during accelerating or braking}
- 17/0165 . . . to an external condition, e.g. rough road surface, side wind
- 17/017 . . characterised by their use when the vehicle is stationary, e.g. during loading, engine start-up or switch-off
- 17/018 . . characterised by the use of a specific signal treatment or control method
- 17/0182 . . . {involving parameter estimation, e.g. observer, Kalman filter}
- 17/0185 . . . for failure detection
- 17/019 . . characterised by the type of sensor or the arrangement thereof {([B60G 17/01941 takes precedence](#))}
- 17/01908 . . . {Acceleration or inclination sensors (characterised by the use of gyroscopes [B60G 21/08](#))}
- 17/01916 {Mercury-switch type devices}
- 17/01925 {Pendulum-type devices}
- 17/01933 . . . {Velocity, e.g. relative velocity-displacement sensors}
- 17/01941 . . . {characterised by the use of piezo-electric elements, e.g. sensors or actuators}
- 17/0195 . . characterised by the regulation being combined with other vehicle control systems {(conjoint control of vehicle sub-units including control of suspension systems [B60W 10/22](#))}
- 17/02 . Spring characteristics {, e.g. mechanical springs and mechanical adjusting means} ([B60G 17/005](#), [B60G 17/015 takes precedence](#))
- 17/021 . . {the mechanical spring being a coil spring ([B60G 17/0272 takes precedence](#))}
- 17/023 . . {the mechanical spring being a leaf spring ([B60G 17/0275 takes precedence](#))}
- 17/025 . . {the mechanical spring being a torsion spring ([B60G 17/0277](#), [B60G 21/0553 takes precedence](#))}
- 17/027 . . Mechanical springs regulated by fluid means ([B60G 17/033 takes precedence](#))
- 17/0272 . . . {the mechanical spring being a coil spring}
- 17/0275 . . . {the mechanical spring being a leaf spring}
- 17/0277 . . . {the mechanical spring being a torsion spring ([B60G 21/0553 takes precedence](#))}
- 17/033 . . characterised by regulating means acting on more than one spring
- 17/04 . . fluid spring characteristics
- 17/0408 . . . {details, e.g. antifreeze for suspension fluid, pumps, retarding means *per se*}
- 17/0416 . . . {regulated by varying the resiliency of hydropneumatic suspensions ([B60G 17/048 takes precedence](#))}
- 17/0424 {by varying the air pressure of the accumulator}
- 17/0432 {by varying the number of accumulators connected to the hydraulic cylinder ([B60G 17/0424 takes precedence](#))}
- 17/044 . . . Self-pumping fluid springs (pumps for liquids [F04](#))
- 17/048 . . . with the regulating means inside the fluid springs ([B60G 17/044 takes precedence](#))
- 17/0485 {the springs being pneumatic springs with a flexible wall, e.g. with levelling valves}
- 17/052 . . . Pneumatic spring characteristics ([B60G 17/048 takes precedence](#) ; valves *per se* [F16K](#))
- 17/0521 {the spring having a flexible wall}
- 17/0523 {Regulating distributors or valves for pneumatic springs}
- 17/0525 {Height adjusting or levelling valves}
- 17/0526 {Distributor units, e.g. for retractable wheels (vehicles with retractable wheels *per se* [B62D 61/12](#))}
- 17/0528 {Pressure regulating or air filling valves}
- 17/056 . . . Regulating distributors or valves {for hydropneumatic systems} ([B60G 17/044](#) - [B60G 17/048](#), {[B60G 17/0416](#)} take precedence; {Fluid interconnection systems to control vehicle inclination [B60G 21/06](#), [B60G 21/10](#)}; valves *per se* [F16K](#))
- 17/0565 {Height adjusting valves}
- 17/06 . Characteristics of dampers {, e.g. mechanical dampers} ([B60G 17/015 takes precedence](#))
- 17/08 . . Characteristics of fluid dampers (adjusting fluid dampers in general [F16F 9/44](#) - [F16F 9/53](#))

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|----------------|--|-----------|---|
| 21/00 | Interconnection systems for two or more resiliently-suspended wheels, e.g. for stabilising a vehicle body with respect to acceleration, deceleration or centrifugal forces (B60G 17/033 takes precedence {; levelling or stabilising systems for tippers B60P 1/045}; steering deflectable wheels combined with means for inwardly inclining the vehicle body on bends B62D 9/02) | 2200/14 | . . with lateral arms |
| 21/002 | . {longitudinally} | 2200/141 | . . . with one trailing arm and one lateral arm only |
| 21/005 | . {transversally} | 2200/142 | . . . with a single lateral arm, e.g. MacPherson type |
| 21/007 | . {means for adjusting the wheel inclination} | 2200/1422 | the lateral arm being resilient |
| 21/02 | . permanently interconnected | 2200/1424 | the lateral arm having an L-shape |
| 21/023 | . . {longitudinally} | 2200/143 | . . . with lateral arms crossing each other, i.e. X formation as seen along the longitudinal axis |
| 21/026 | . . {transversally} | 2200/144 | . . . with two lateral arms forming a parallelogram |
| 21/04 | . . mechanically | 2200/1442 | including longitudinal rods |
| 21/045 | . . . between wheels on different axles on the same side of the vehicle, i.e. the left or the right side | 2200/154 | . . . the lateral arm having an L-shape |
| 21/05 | . . . between wheels on the same axle but on different sides of the vehicle, i.e. the left and right wheel suspensions being interconnected | 2200/156 | . . . wishbone-type arm formed by two links defining a virtual apex |
| 21/051 | {Trailing arm twist beam axles} | 2200/17 | . . with a strut contributing to the suspension geometry by being articulated onto the wheel support |
| 21/052 | {Mounting means therefor} | 2200/18 | . . Multilink suspensions, e.g. elastokinematic arrangements |
| 21/053 | {adjustable} | 2200/182 | . . . with one longitudinal arm or rod and lateral rods |
| 21/055 | Stabiliser bars | 2200/184 | . . . Assymetric arrangements |
| 21/0551 | {Mounting means therefor} | 2200/20 | . Semi-rigid axle suspensions |
| 21/0553 | {adjustable} | 2200/21 | . . Trailing arms connected by a torsional beam, i.e. twist-beam axles |
| 21/0555 | {including an actuator inducing vehicle roll} | 2200/22 | . . Trailing arms connected by a straight torsion bar |
| 21/0556 | {including a releasable coupling (B60G 21/0555 takes precedence)} | 2200/23 | . . Trailing arms connected by a U-shaped torsion bar |
| 21/0558 | {including means varying the stiffness of the stabiliser (B60G 21/0556 takes precedence)} | 2200/24 | . . Interconnected split axles |
| 21/06 | . . fluid | 2200/30 | . Rigid axle suspensions |
| 21/067 | . . . between wheels on different axles on the same side of the vehicle, i.e. the left or the right side | 2200/31 | . . with two trailing arms rigidly connected to the axle |
| 21/073 | . . . between wheels on the same axle but on different sides of the vehicle, i.e. the left and right wheel suspensions being interconnected | 2200/312 | . . with one of the two trailing arms being rigidly connected to the axle |
| 21/08 | . characterised by use of gyroscopes (gyroscopes for stabilising vehicle bodies without controlling suspension arrangements B62D 37/06) | 2200/314 | . . with longitudinally arranged arms articulated on the axle |
| 21/10 | . not permanently interconnected, e.g. operative only on acceleration, only on deceleration or only at off-straight position of steering | 2200/315 | . . . at least one of the arms having an A or V shape |
| 21/103 | . . {longitudinally} | 2200/318 | . . two or more axles being mounted on a longitudinal rocking or walking beam |
| 21/106 | . . {transversally} | 2200/32 | . . pivoted |
| 99/00 | Subject matter not provided for in other groups of this subclass | 2200/322 | . . . with a single pivot point and a straight axle |
| 99/002 | . {Suspension details of the suspension of the vehicle body on the vehicle chassis} | 2200/324 | . . . with a single pivot point and a triangular "T" or "U"-shaped axle, e.g. DeDion arrangement |
| 99/004 | . {Other suspension arrangements with rubber springs} | 2200/326 | . . . with two laterally spaced pivots, e.g. trailing frame |
| 99/006 | . {Other suspension arrangements with metallic springs} | 2200/34 | . . Stabilising mechanisms, e.g. for lateral stability |
| 99/008 | . {Other suspension arrangements with fluid springs} | 2200/341 | . . . Panhard rod |
| 2200/00 | Indexing codes relating to suspension types | 2200/3415 | Scott-Russel linkage |
| 2200/10 | . Independent suspensions | 2200/342 | . . . Watt linkage |
| 2200/13 | . . with longitudinal arms only | 2200/343 | . . . with an axle suspended by two pivoted rods in "V"-arrangement, the rods being coupled at its apex |
| 2200/132 | . . . with a single trailing arm | 2200/344 | . . . with an axle suspended by two pivoted rods in an inverted "V"-arrangement, the rods being coupled at its apex |
| 2200/1322 | with a wishbone or triangular arm | 2200/345 | . . . with an axle suspended by two pivoted rods in "X"-arrangement |
| 2200/1324 | with a resilient trailing arm | 2200/346 | . . . with an axle suspended by two laterally displaced rods having an imaginary point of intersection above the wheel axis |
| | | 2200/347 | . . . with an axle suspended by two laterally displaced rods having an imaginary point of intersection below the wheel axis |
| | | 2200/40 | . Indexing codes relating to the wheels in the suspensions |

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|-----------|--|------------|---|
| 2200/42 | . . Driven wheels or dead axles | 2202/322 | . . . the damper being controllable |
| 2200/422 | . . Driving wheels or live axles | 2202/40 | . Type of actuator |
| 2200/44 | . . steerable | 2202/41 | . . Fluid actuator |
| 2200/445 | . . Self-steered wheels | 2202/412 | . . . Pneumatic actuator |
| 2200/446 | . . Non-steerable wheels | 2202/413 | . . . Hydraulic actuator |
| 2200/46 | . . camber angle | 2202/414 | . . . using electrohydraulic valves |
| 2200/462 | . . Toe-in/out | 2202/415 | . . . using other types of valves, e.g. mechanically operated valves |
| 2200/4622 | . . . Alignment adjustment | 2202/416 | . . . using a pump, e.g. in the line connecting the lower chamber to the upper chamber of the actuator |
| 2200/464 | . . Caster angle | | |
| 2200/466 | . . Damping acceleration or deceleration torque on wheel axle | | |
| 2202/00 | Indexing codes relating to the type of spring, damper or actuator | | |
| 2202/10 | . Type of spring | 2202/42 | . . Electric actuator |
| 2202/11 | . . Leaf spring | 2202/422 | . . . Linear motor |
| 2202/112 | . . . longitudinally arranged | 2202/424 | . . . electrostrictive materials, e.g. piezoelectric actuator |
| 2202/114 | . . . transversally arranged | 2202/43 | . . Mechanical actuator |
| 2202/116 | . . . having a "C" form loaded only at its ends transversally to its central axis | 2202/432 | . . . Spring motor |
| 2202/117 | . . . having a "C" form loaded parallel to its central axis | 2202/44 | . . Axial actuator, e.g. telescopic |
| 2202/12 | . . Wound spring | 2202/441 | . . . where axial movement is translated to rotation of the connected end part |
| 2202/122 | . . . subjected to tension | 2202/442 | . . Rotary actuator |
| 2202/13 | . . Torsion spring | 2202/45 | . . Other types, e.g. external jets for stability with particular characteristics |
| 2202/132 | . . . comprising a longitudinal torsion bar and/or tube | 2202/49 | . . Other type, e.g. external jets for stability |
| 2202/134 | . . . comprising a transversal torsion bar and/or tube | 2204/00 | Indexing codes related to suspensions <u>per se</u> or to auxiliary parts |
| 2202/135 | . . . Stabiliser bar and/or tube | 2204/10 | . Mounting of suspension elements |
| 2202/1351 | comprising at least two stabiliser bars parallel to each other | 2204/11 | . . Mounting of sensors thereon |
| 2202/136 | . . . Twist-beam type arrangement | 2204/111 | . . . on pneumatic springs |
| 2202/1362 | including a second torsional element, e.g. second beam, stabiliser bar or tube | 2204/112 | . . . on dampers, e.g. fluid dampers |
| 2202/14 | . . Plastic spring, e.g. rubber | 2204/113 | . . . Tyre related sensors |
| 2202/141 | . . . subjected to tension | 2204/114 | . . . Steering column mounted sensors |
| 2202/142 | . . . subjected to shear, e.g. Neidhart type | 2204/115 | . . . Wheel hub bearing sensors |
| 2202/1422 | Axial | 2204/116 | . . . Sensors coupled to the suspension arm |
| 2202/1424 | Torsional | 2204/1162 | directly mounted on the suspension arm |
| 2202/143 | . . . subjected to compression | 2204/12 | . . Mounting of springs or dampers |
| 2202/144 | . . . of rotary type | 2204/121 | . . . Mounting of leaf springs |
| 2202/15 | . . Fluid spring | 2204/122 | . . . Mounting of torsion springs |
| 2202/152 | . . . Pneumatic spring | 2204/1222 | Middle mounts of stabiliser on vehicle body or chassis |
| 2202/1522 | of rotary type | 2204/1224 | End mounts of stabiliser on wheel suspension |
| 2202/1524 | with two air springs per wheel, arranged before and after the wheel axis | 2204/1226 | on the trailing arms of a twist beam type arrangement |
| 2202/154 | . . . with an accumulator | 2204/124 | . . . Mounting of coil springs |
| 2202/16 | . . Magnetic spring | 2204/1242 | on a damper, e.g. MacPherson strut |
| 2202/20 | . Type of damper | 2204/12422 | anchoring the end coils on the spring support plate |
| 2202/21 | . . with two dampers per wheel, arranged before and after the wheel axis | 2204/1244 | on a suspension arm |
| 2202/22 | . . Rotary Damper | 2204/1246 | on twist beam axles |
| 2202/23 | . . Friction Damper | 2204/125 | . . . Mounting of rubber type springs |
| 2202/24 | . . Fluid damper | 2204/126 | . . . Mounting of pneumatic springs |
| 2202/242 | . . . Pneumatic damper | 2204/1262 | on a damper |
| 2202/25 | . . Dynamic damper | 2204/127 | . . . with the mounting of springs or dampers moving so that the direction of the related force vector can be changed, thus contributing to a variation of the loading of the wheel |
| 2202/30 | . Spring/Damper and/or actuator Units | 2204/128 | . . . Damper mount on vehicle body or chassis |
| 2202/31 | . . with the spring arranged around the damper, e.g. MacPherson strut | 2204/129 | . . . Damper mount on wheel suspension or knuckle |
| 2202/312 | . . . The spring being a wound spring | 2204/13 | . . . with the spring, i.e. coil spring, or damper horizontally mounted |
| 2202/314 | . . . The spring being a pneumatic spring | 2204/1302 | inside the vehicle frame |
| 2202/32 | . . The spring being in series with the damper and/or actuator | | |

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| 2204/14 | . . Mounting of suspension arms | 2204/424 | . . Mechanisms for force adjustment, e.g. constant force mechanisms |
| 2204/143 | . . . on the vehicle body or chassis | 2204/43 | . . Fittings, brackets or knuckles |
| 2204/1431 | of an L-shaped arm | 2204/4302 | . . . for fixing suspension arm on the vehicle body or chassis |
| 2204/1432 | by vertical bolts or studs | 2204/4304 | . . . Bracket for lower cylinder mount of McPherson strut |
| 2204/1434 | in twist-beam axles arrangement | 2204/4305 | . . . Bracket for mounting of hydraulic lines on a damper cylinder |
| 2204/147 | . . . on the vehicle engine body | 2204/4306 | . . . Bracket or knuckle for rigid axles, e.g. for clamping |
| 2204/148 | . . . on the unsprung part of the vehicle, e.g. wheel knuckle or rigid axle | 2204/43065 | U-shaped bolts crossing each other |
| 2204/1482 | on rigid axle by elastic mount | 2204/4307 | . . . Bracket or knuckle for torsional springs |
| 2204/1484 | on an intermediate upright strut upon which the stub axle is pivoted | 2204/4308 | . . . Protecting guards, e.g. for rigid axle damage protection |
| 2204/149 | . . . Mounting of rigid axle on wheel knuckle | 2204/44 | . . Centering or positioning means |
| 2204/15 | . . Mounting of subframes | 2204/4402 | . . . Spacers or shims |
| 2204/16 | . . Mounting of vehicle body on chassis | 2204/4404 | . . . Retainers for holding a fixing element, e.g. bushing, nut, bolt etc., until it is tightly fixed in position |
| 2204/162 | . . . Cabins, e.g. for trucks, tractors | 2204/45 | . . Stops limiting travel |
| 2204/17 | . . Mounting of bogies, e.g. for trailers | 2204/4502 | . . . using resilient buffer |
| 2204/18 | . . Mounting of vehicle engines | 2204/45021 | for limiting upper mount movement of a McPherson strut |
| 2204/182 | . . . Electric motor on wheel support | 2204/4504 | . . . using cable or band to prevent extension |
| 2204/19 | . . Mounting of transmission differential | 2204/46 | . . Means for locking the suspension |
| 2204/20 | . . Mounting of accessories, e.g. pump, compressor | 2204/4602 | . . . Locking of a McPerson type strut upper mount on the vehicle body |
| 2204/201 | . . . of fluid lines | 2204/4604 | . . . mechanically, e.g. using a hook as anticreep mechanism |
| 2204/202 | . . . of cables | 2204/4605 | . . . hydraulically, e.g. interrupting communication between the chambers of a hydraulic cylinder |
| 2204/2022 | using a suspension element (e.g. link, damper or spring) as part of the electrical circuitry | 2204/47 | . . Means for retracting the suspension |
| 2204/22 | . . Linking of trailers to trucks, e.g. truck-trailer connections | 2204/4702 | . . . pneumatically |
| 2204/30 | . . In-wheel mountings | 2204/61 | . Adjustable during maintenance |
| 2204/40 | . Auxiliary suspension parts; Adjustment of suspensions | 2204/62 | . Adjustable continuously, e.g. during driving |
| 2204/41 | . . Elastic mounts, e.g. bushings | 2204/80 | . Interactive suspensions; arrangement affecting more than one suspension unit |
| 2204/4102 | . . . having a pin or stud extending perpendicularly to the axis of the elastic mount | 2204/81 | . . front and rear unit |
| 2204/4103 | . . . having an eccentrically located inner sleeve | 2204/8102 | . . . diagonally arranged |
| 2204/4104 | . . . Bushings having modified rigidity in particular directions | 2204/82 | . . left and right unit on same axle |
| 2204/41042 | by using internal cam surfaces | 2204/83 | . . Type of interconnection |
| 2204/41043 | formed by a U-shaped external bracket | 2204/8302 | . . . Mechanical |
| 2204/41044 | in a shell for being loaded mainly in axial direction, e.g. piston rod mounts, longitudinal push-pull rod mounts | 2204/83022 | using cables, wires, belts or chains |
| 2204/41046 | having the axis of an inner sleeve or pin inclined to the axis of the bush | 2204/8304 | . . . using a fluid |
| 2204/4106 | . . . Elastokinematic mounts | 2204/8306 | . . . Permanent; Continuous |
| 2204/41062 | hydromounts; interconnected mounts | 2206/00 | Indexing codes related to the manufacturing of suspensions: constructional features, the materials used, procedures or tools |
| 2204/4108 | . . . Resilient element being enclosed and or pre-stressed in a solid container | 2206/01 | . Constructional features of suspension elements, e.g. arms, dampers, springs |
| 2204/414 | . . Cardan joints | 2206/011 | . . Modular constructions |
| 2204/416 | . . Ball or spherical joints | 2206/0112 | . . . Bogies for heavy vehicles |
| 2204/418 | . . Bearings, e.g. ball or roller bearings | 2206/0114 | . . . Independent suspensions on subframes |
| 2204/419 | . . Gears | 2206/0116 | . . . Integrated distribution control units with valves, accumulators, PCB's or the like |
| 2204/4191 | . . . Planetary or epicyclic gears | 2206/012 | . . Hollow or tubular elements |
| 2204/4192 | . . . rack and pinion | 2206/0122 | . . . having a U profile with plate closing the profile in the total or partial length of the element |
| 2204/4193 | . . . worm gears | 2206/013 | . . with embedded inserts for material reinforcement |
| 2204/42 | . . Joints with cam surfaces | 2206/014 | . . with reinforcing nerves or branches |
| 2204/421 | . . Pivoted lever mechanisms for mounting suspension elements, e.g. Watt linkage | 2206/016 | . . allowing controlled deformation during collision |
| 2204/422 | . . Links for mounting suspension elements | | |
| 2204/4222 | . . . for movement on predefined locus of, e.g. the wheel center | | |
| 2204/423 | . . Rails, tubes, or the like, for guiding the movement of suspension elements | | |
| 2204/4232 | . . . Sliding mounts | | |

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| 2206/017 | . . forming an eye for the bushing | 2206/71 | . . . Light weight materials |
| 2206/10 | . . Constructional features of arms | 2206/7101 | Fiber-reinforced plastics [FRP] |
| 2206/11 | . . . the arm being a radius or track or torque or steering rod or stabiliser end link | 2206/7102 | Aluminium alloys |
| 2206/111 | of adjustable length | 2206/7103 | Magnesium alloys |
| 2206/1112 | Manually, for alignment purposes | 2206/7104 | Thermoplastics |
| 2206/1114 | Self-adjustable during driving | 2206/71042 | Polyester elastomer |
| 2206/1116 | Actively adjustable during driving | 2206/71043 | Polyamid elastomer |
| 2206/12 | . . . with two attachment points on the sprung part of the vehicle | 2206/71044 | Soft nylon |
| 2206/121 | . . . the arm having an H or X-shape | 2206/7105 | Porous materials, ceramics, e.g. as filling material |
| 2206/122 | . . . the arm having L-shape | 2206/72 | . . . Steel |
| 2206/123 | . . . the arm having T-shape | 2206/722 | Plates |
| 2206/124 | . . . the arm having triangular or Y-shape, e.g. wishbone | 2206/724 | Wires, bars or the like |
| 2206/13 | . . . with more than two attachment points on the sprung part of the vehicle | 2206/73 | . . . Rubber; Elastomers |
| 2206/14 | . . . the arm forming a U-shaped recess for fitting a bush | 2206/80 | . . Manufacturing procedures |
| 2206/141 | The recess being integrally or seamlessly formed | 2206/81 | . . . Shaping |
| 2206/15 | . . . the arm being resilient | 2206/8101 | by casting |
| 2206/16 | . . . the arm having a U profile and/or made of a plate | 2206/81012 | by injection moulding |
| 2206/161 | with middle section narrower than end section | 2206/8102 | by stamping |
| 2206/162 | with a plate closing the profile in the total or partial length of the arm | 2206/81022 | by forging |
| 2206/20 | . . Constructional features of semi-rigid axles, e.g. twist beam type axles | 2206/8103 | by folding or bending |
| 2206/201 | . . . with detachable cross beam and/or torsion stabiliser bar/tube | 2206/81035 | involving heating to relieve internal stresses |
| 2206/202 | . . . with a radially deformed tube as a cross member | 2206/8104 | by drawing |
| 2206/203 | . . . with outwardly bent trailing arms to increase the width of the support or wheelbase | 2206/8105 | by extrusion |
| 2206/30 | . . Constructional features of rigid axles | 2206/8106 | by thermal treatment, e.g. curing hardening, vulcanisation |
| 2206/31 | . . . Straight axle | 2206/81062 | to relieve internal stresses, e.g. during folding or bending |
| 2206/312 | . . . Cranked axle | 2206/8107 | by hydroforming |
| 2206/32 | . . . Hollow cross section | 2206/8108 | by twisting |
| 2206/40 | . . Constructional features of dampers and/or springs | 2206/8109 | by rolling |
| 2206/41 | . . . Dampers | 2206/811 | by cutting |
| 2206/42 | . . . Springs | 2206/8111 | by machining |
| 2206/422 | Accumulators for hydropneumatic springs | 2206/8112 | by thermal spraying of molten material |
| 2206/4222 | with a flexible separating wall; Membrane construction | 2206/82 | . . . Joining |
| 2206/424 | Plunger or top retainer construction for bellows or rolling lobe type air springs | 2206/8201 | by welding |
| 2206/426 | Coil springs having a particular shape, e.g. curved axis, pig-tail end coils | 2206/82012 | Pressure welding |
| 2206/427 | Stabiliser bars or tubes | 2206/82013 | Friction or heat welding |
| 2206/428 | Leaf springs | 2206/82014 | Magnetic pulse welding (welding by magnetic pulse in general B23K 20/06) |
| 2206/50 | . . Constructional features of wheel supports or knuckles, e.g. steering knuckles, spindle attachments | 2206/8205 | by conical or compressed rubber clamping inserts as joining means |
| 2206/60 | . . Subframe construction | 2206/8206 | by riveting |
| 2206/601 | . . . Hanger bracket | 2206/8207 | by screwing |
| 2206/602 | . . . Single transverse beam | 2206/8208 | by hemming or seaming, e.g. by folding of the rim |
| 2206/604 | . . . with two parallel beams connected by cross members | 2206/8209 | by deformation |
| 2206/605 | . . . Flexible constructions | 2206/82092 | by press-fitting |
| 2206/606 | . . . Complex constructions | 2206/821 | by gluing |
| 2206/70 | . . Materials used in suspensions | 2206/83 | . . . Punching |
| | | 2206/84 | . . . Hardening |
| | | 2206/8401 | Annealing |
| | | 2206/8402 | Quenching |
| | | 2206/8403 | Shot-peening |
| | | 2206/85 | . . . Filament winding |
| | | 2206/90 | . . Maintenance |
| | | 2206/91 | . . . Assembly procedures |
| | | 2206/911 | using a modification kit |
| | | 2206/92 | . . . Tools or equipment used for assembling |
| | | 2206/921 | Coil spring compressor |
| | | 2206/93 | . . . Tools used for adjustments |

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| 2206/931 | McPherson strut positioning tool | 2400/05144 | Wheel toe |
| 2206/94 | . . . Tools used for supporting parts | 2400/05146 | Wheel caster |
| 2206/99 | . . . Suspension element selection procedure depending on loading or performance requirements, e.g. selection of damper, spring or bush | 2400/0516 | . . . Angular position of a suspension element |
| | | 2400/05162 | the element being a suspension arm |
| | | 2400/052 | . . Angular rate |
| | | 2400/0521 | . . . Roll rate |
| | | 2400/0522 | . . . Pitch rate |
| | | 2400/0523 | . . . Yaw rate |
| | | 2400/053 | . . Angular acceleration |
| | | 2400/0531 | . . . Roll acceleration |
| | | 2400/0532 | . . . Pitch acceleration |
| | | 2400/0533 | . . . Yaw acceleration |
| | | 2400/10 | . Acceleration; Deceleration |
| | | 2400/102 | . . vertical |
| | | 2400/104 | . . lateral or transversal with regard to vehicle |
| | | 2400/1042 | . . . using at least two sensors |
| | | 2400/106 | . . longitudinal with regard to vehicle, e.g. braking |
| | | 2400/1062 | . . . using at least two sensors |
| | | 2400/20 | . Speed |
| | | 2400/202 | . . Piston speed; Relative velocity between vehicle body and wheel |
| | | 2400/204 | . . Vehicle speed |
| | | 2400/2042 | . . . Lateral speed |
| | | 2400/206 | . . Body oscillation speed; Body vibration frequency |
| | | 2400/208 | . . of wheel rotation |
| | | 2400/25 | . Stroke; Height; Displacement |
| | | 2400/252 | . . vertical |
| | | 2400/256 | . . horizontal |
| | | 2400/257 | . . . transversal with regard to vehicle |
| | | 2400/258 | . . . longitudinal with regard to vehicle |
| | | 2400/30 | . Propulsion unit conditions |
| | | 2400/302 | . . Selected gear ratio; Transmission function |
| | | 2400/304 | . . . neutral position |
| | | 2400/306 | . . . overdrive |
| | | 2400/31 | . . Clutch condition |
| | | 2400/32 | . . Torque on propulsion shaft |
| | | 2400/33 | . . Throttle position |
| | | 2400/34 | . . Accelerator pedal position |
| | | 2400/35 | . . Position of fuel or air injector |
| | | 2400/36 | . . Functioning of turbocharger |
| | | 2400/37 | . . Brake pad or disc friction |
| | | 2400/38 | . . Speed of engine rotation |
| | | 2400/382 | . . . Ignition switch |
| | | 2400/39 | . . Brake pedal position |
| | | 2400/40 | . Steering conditions |
| | | 2400/41 | . . Steering angle |
| | | 2400/412 | . . . of steering wheel or column |
| | | 2400/4122 | Neutral position detection |
| | | 2400/42 | . . Steering torque |
| | | 2400/44 | . . Steering speed |
| | | 2400/46 | . . Steering frequency |
| | | 2400/47 | . . Rear wheel steering |
| | | 2400/50 | . Pressure |
| | | 2400/51 | . . in suspension unit |
| | | 2400/512 | . . . in spring |
| | | 2400/5122 | Fluid spring |
| | | 2400/51222 | Pneumatic |
| | | 2400/518 | . . . in damper |
| | | 2400/5182 | Fluid damper |
| | | 2400/52 | . . in tyre |
| | | 2400/60 | . Load |
| 2300/00 | Indexing codes relating to the type of vehicle | | |
| 2300/02 | . Trucks; Load vehicles | | |
| 2300/022 | . . Fork lift trucks, Clark | | |
| 2300/024 | . . Light trucks | | |
| 2300/026 | . . Heavy duty trucks | | |
| 2300/0262 | . . . Multi-axle trucks | | |
| 2300/03 | . Silo or fluid transporting vehicles | | |
| 2300/04 | . Trailers | | |
| 2300/042 | . . Semi-trailers | | |
| 2300/044 | . . Truck-trailer connections | | |
| 2300/06 | . Cranes | | |
| 2300/07 | . Off-road vehicles | | |
| 2300/08 | . Agricultural vehicles | | |
| 2300/082 | . . Tractors | | |
| 2300/083 | . . Boom carrying vehicles, e.g. for crop spraying | | |
| 2300/084 | . . Ridable lawn mowers | | |
| 2300/09 | . Construction vehicles, e.g. graders, excavators | | |
| 2300/10 | . Railway vehicles | | |
| 2300/102 | . . having track following mechanism for lateral stability | | |
| 2300/12 | . Cycles; Motorcycles | | |
| 2300/122 | . . Trikes | | |
| 2300/124 | . . Quads | | |
| 2300/13 | . Small sized city motor vehicles | | |
| 2300/14 | . Buses | | |
| 2300/16 | . Aeroplanes | | |
| 2300/18 | . Helicopters | | |
| 2300/20 | . Toys | | |
| 2300/22 | . Perambulators | | |
| 2300/24 | . Wheelchairs | | |
| 2300/26 | . Carts | | |
| 2300/27 | . Racing vehicles, e.g. F1 | | |
| 2300/28 | . Amphibious vehicles | | |
| 2300/30 | . Load ramps | | |
| 2300/32 | . Track vehicles | | |
| 2300/322 | . . Snowmobiles | | |
| 2300/34 | . Ambulances | | |
| 2300/36 | . Independent Multi-axle long vehicles | | |
| 2300/37 | . Vehicles having steerable wheels mounted on a vertically moving column | | |
| 2300/38 | . Low or lowerable bed vehicles | | |
| 2300/40 | . Variable track or wheelbase vehicles | | |
| 2300/402 | . . Extra load carrying wheels, e.g. tag axles | | |
| 2300/45 | . Rolling frame vehicles | | |
| 2300/50 | . Electric vehicles; Hybrid vehicles | | |
| 2300/60 | . Vehicles using regenerative power | | |
| 2400/00 | Indexing codes relating to detected, measured or calculated conditions or factors | | |
| 2400/05 | . Attitude | | |
| 2400/051 | . . Angle | | |
| 2400/0511 | . . . Roll angle | | |
| 2400/0512 | . . . Pitch angle | | |
| 2400/0513 | . . . Yaw angle | | |
| 2400/0514 | . . . Wheel angle detection | | |
| 2400/05142 | Wheel camber | | |

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| 2400/61 | . . Load distribution | 2401/21 | . Laser |
| 2400/62 | . . Seat occupation; Passenger presence | 2401/22 | . Radioactivity sensitive materials |
| 2400/63 | . . Location of the center of gravity | 2401/23 | . Memory materials |
| 2400/64 | . . Wheel forces, e.g. on hub, spindle or bearing | 2401/24 | . Heat sensitive materials; temperature gauge |
| 2400/70 | . Temperature of vehicle part or in the vehicle | 2401/25 | . Capacitance type, e.g. as level indicator |
| 2400/71 | . . of suspension unit | 2401/26 | . Resistance type, e.g. as level indicator |
| 2400/712 | . . . of spring | 2401/27 | . Gravitational, e.g. pendulum or axial movement type |
| 2400/7122 | Fluid spring | 2401/28 | . Gyroscopes |
| 2400/716 | . . . of damper | 2401/90 | . Single sensor for two or more measurements |
| 2400/7162 | Fluid damper | 2401/902 | . . the sensor being an xy axis sensor |
| 2400/72 | . . in vehicle interior | 2401/904 | . . the sensor being an xyz axis sensor |
| 2400/73 | . . of other part than suspension unit | | |
| 2400/732 | . . . of propulsion unit | 2500/00 | Indexing codes relating to the regulated action or device |
| 2400/80 | . Exterior conditions | 2500/02 | . Supply or exhaust flow rates; Pump operation |
| 2400/82 | . . Ground surface | 2500/022 | . . Minimisation of pressure cavitation effects upon demand |
| 2400/821 | . . . Uneven, rough road sensing affecting vehicle body vibration | 2500/04 | . using inertia type valves |
| 2400/822 | . . . Road friction coefficient determination affecting wheel traction | 2500/10 | . Damping action or damper |
| 2400/8222 | Hydroplaning | 2500/102 | . . stepwise |
| 2400/823 | . . . Obstacle sensing | 2500/104 | . . continuous |
| 2400/824 | . . . Travel path sensing; Track monitoring | 2500/106 | . . duty rate |
| 2400/84 | . . Atmospheric conditions | 2500/11 | . . Damping valves |
| 2400/841 | . . . Wind | 2500/112 | . . . Fluid actuation |
| 2400/842 | . . . Temperature | 2500/114 | . . . pressure regulating valves |
| 2400/8422 | of air | 2500/116 | . . . for damping pressure oscillations of the fluid in hydraulic lines |
| 2400/8424 | of ground or road | 2500/20 | . Spring action or springs |
| 2400/843 | . . . Humidity; Rainfall | 2500/201 | . . Air spring system type |
| 2400/845 | . . . Darkness | 2500/2012 | . . . Open systems |
| 2400/847 | . . . Sunshine; Light | 2500/2014 | . . . Closed systems |
| 2400/90 | . Other conditions or factors | 2500/202 | . . Height or leveling valve for air-springs |
| 2400/91 | . . Frequency | 2500/2021 | . . . Arrangement of valves |
| 2400/92 | . . Travelling or driving time | 2500/2022 | . . . with valve seat actuation for selectively adjusting neutral height |
| 2400/922 | . . Travelling distance | 2500/203 | . . Distributor valve units comprising several elements, e.g. valves, pump or accumulators |
| 2400/94 | . . Deformation of a vehicle part | 2500/204 | . . Pressure regulating valves for air-springs |
| 2400/942 | . . . of vehicle body | 2500/2041 | . . . for variable volume air springs, e.g. using accumulators as expansion chambers |
| 2400/95 | . . Position of vehicle body elements | 2500/2042 | . . . Air filling valves |
| 2400/952 | . . . of door or bonnet | 2500/2043 | . . . Wheatstone bridge type valve arrangements |
| 2400/954 | . . . Wheelbase | 2500/2044 | . . . Air exhausting valves |
| 2400/96 | . . Presence, absence or inactivity of driver | 2500/2046 | . . . Pressure equalising valves between two units |
| 2400/97 | . . Relation between towing and towed vehicle, e.g. tractor-trailer combination | 2500/205 | . . Air-compressor operation |
| 2400/972 | . . . Angle of articulation | 2500/206 | . . Variable pressure accumulators for hydropneumatic suspensions |
| 2400/98 | . . Stabiliser movement | 2500/2062 | . . . by varying the air-pressure of the accumulator |
| | | 2500/2064 | . . . by varying the number of accumulators connected in parallel to the hydraulic cylinder |
| 2401/00 | Indexing codes relating to the type of sensors based on the principle of their operation | 2500/22 | . . Spring constant |
| 2401/10 | . Piezoelectric elements | 2500/30 | . Height or ground clearance |
| 2401/11 | . Electrostrictive transducers | 2500/302 | . . using distributor valves |
| 2401/12 | . Strain gauge | 2500/32 | . . of only one vehicle part or side |
| 2401/122 | . . Wheatstone bridge circuit | 2500/322 | . . . only front part |
| 2401/14 | . Photo or light sensitive means, e.g. Infrared | 2500/324 | . . . only rear part |
| 2401/142 | . . Visual Display Camera, e.g. LCD | 2500/326 | . . . only left or right side |
| 2401/144 | . . Fiber optic sensor | 2500/40 | . Steering |
| 2401/15 | . Doppler effect | 2500/42 | . . Sensibility |
| 2401/16 | . GPS track data | | |
| 2401/17 | . Magnetic/Electromagnetic | | |
| 2401/172 | . . Hall effect | | |
| 2401/174 | . . Radar | | |
| 2401/176 | . . Radio or audio sensitive means, e.g. Ultrasonic | | |
| 2401/19 | . Speech recognising means | | |
| 2401/20 | . Switches, e.g. mercury or ball type switches | | |

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| 2600/00 | Indexing codes relating to particular elements, systems or processes used on suspension systems or suspension control systems | |
| 2600/02 | . Retarders, delaying means, dead zones, threshold values, cut-off frequency, timer interruption | 2600/43 . MIMO system, i.e. multi input - multi output system |
| 2600/04 | . Means for informing, instructing or displaying | 2600/44 . Vibration noise suppression |
| 2600/042 | . . Monitoring means | 2600/60 . Signal noise suppression; Electronic filtering means |
| 2600/0422 | . . . involving data transmission, e.g. via satellite or GPS; for data monitoring, telemetry or platooning purposes | 2600/602 . . high pass |
| 2600/044 | . . Alarm means | 2600/604 . . low pass |
| 2600/07 | . Inhibiting means | 2600/66 . Humidifying or drying means |
| 2600/08 | . Failure or malfunction detecting means | 2600/68 . Filtering means, e.g. fluid filters |
| 2600/082 | . . Sensor drift | 2600/70 . Computer memory; Data storage, e.g. maps for adaptive control |
| 2600/084 | . . Supervisory systems | 2600/702 . . Parallel processing |
| 2600/086 | . . Redundant systems | 2600/704 . . Electronic tags containing data, e.g. identification number of a component; Gain values for the control of the unit, etc. |
| 2600/09 | . Feedback signal | 2600/71 . Distributed control; Master - slave controllers; Remote control units |
| 2600/11 | . Feedforward signal | 2600/72 . Cooling or warming means |
| 2600/12 | . Sampling or average detecting; Addition or subtraction | 2600/73 . Electrical control |
| 2600/122 | . . Summation signal | 2600/74 . Analog systems |
| 2600/124 | . . Error signal | 2600/76 . Digital systems |
| 2600/14 | . Differentiating means, i.e. differential control | 2600/77 . A/D, D/A signal converters |
| 2600/16 | . Integrating means, i.e. integral control | 2600/82 . duty rate function |
| 2600/17 | . Proportional control, i.e. gain control | 2600/85 . Speed of regulation |
| 2600/172 | . . Weighting coefficients or factors | 2600/90 . other signal treatment means |
| 2600/18 | . Automatic control means | 2800/00 Indexing codes relating to the type of movement or to the condition of the vehicle and to the end result to be achieved by the control action |
| 2600/181 | . . Signal modulation; pulse-width, frequency-phase | 2800/01 . Attitude or posture control |
| 2600/182 | . . Active control means | 2800/012 . . Rolling condition |
| 2600/184 | . . Semi-Active control means | 2800/0122 . . . Roll rigidity ratio; Warping |
| 2600/186 | . . Analogue Controller Details and Signal Treatment | 2800/0124 . . . Roll-over conditions |
| 2600/187 | . . Digital Controller Details and Signal Treatment | 2800/014 . . Pitch; Nose dive |
| 2600/1871 | . . . Optimal control; Kalman Filters | 2800/016 . . Yawing condition |
| 2600/1872 | . . . Observer; Luapinov function | 2800/019 . . Inclination due to load distribution or road gradient |
| 2600/1873 | . . . Model Following | 2800/0192 . . . longitudinal with regard to vehicle |
| 2600/1874 | . . . Modal analysis | 2800/0194 . . . transversal with regard to vehicle |
| 2600/1875 | . . . Other parameter or state estimation methods not involving the mathematical modelling of the vehicle | 2800/16 . Running |
| 2600/1876 | . . . Artificial intelligence | 2800/162 . . Reducing road induced vibrations |
| 2600/1877 | . . . Adaptive Control | 2800/164 . . Heaving; Squatting |
| 2600/1878 | . . . Neural Networks | 2800/166 . . Platooning |
| 2600/1879 | . . . Fuzzy Logic Control | 2800/18 . Starting, accelerating |
| 2600/188 | . . Spectral analysis; Transformations | 2800/182 . . Traction |
| 2600/1881 | . . . Integral | 2800/20 . Stationary vehicle |
| 2600/1882 | . . . Fourier | 2800/202 . . kneeling, e.g. for letting passengers on/off |
| 2600/1883 | . . . z-transform | 2800/203 . . lowering the floor for loading/unloading |
| 2600/1884 | . . . Laplace | 2800/204 . . adjusting floor height to the loading ramp level |
| 2600/1885 | . . . Euler equations | 2800/2042 . . . using an anticreep mechanism to lock the height |
| 2600/189 | . . Statistical analysis | 2800/205 . . jacking-up for changing tyre or vehicle inspection |
| 2600/20 | . Manual control or setting means | 2800/21 . Traction, slip, skid or slide control |
| 2600/202 | . . using a remote, e.g. cordless, transmitter or receiver unit | 2800/212 . . Transversal; Side-slip during cornering |
| 2600/204 | . . Joystick actuated suspension | 2800/213 . . by applying forward/backward torque on each wheel individually |
| 2600/206 | . . Control-by-wire | 2800/214 . . by varying the load distribution |
| 2600/21 | . Self-controlled or adjusted | 2800/215 . . by applying a braking action on each wheel individually |
| 2600/22 | . Magnetic elements | 2800/22 . Braking, stopping |
| 2600/24 | . . permanent magnets | 2800/222 . . during collision |
| 2600/26 | . . Electromagnets; Solenoids | 2800/224 . . automatically, based on dangerous living style |
| 2600/28 | . Temporary fluctuations | 2800/226 . . automatically, based on stopping at a preset or target point position |
| 2600/41 | . SISO system, i.e. single input - single output system | 2800/24 . Steering, cornering |

- 2800/242 . . Obstacle avoidance manoeuvre
- 2800/244 . . Oversteer
- 2800/246 . . Understeer
- 2800/248 . . Neutral steering behaviour
- 2800/70 . Estimating or calculating vehicle parameters or state variables
- 2800/702 . . Improving accuracy of a sensor signal
- 2800/7022 . . . Calibration of a sensor, e.g. automatically
- 2800/704 . . predicting unorthodox driving conditions for safe or optimal driving
- 2800/80 . Detection or control after a system or component failure
- 2800/802 . . Diagnostics
- 2800/85 . System Prioritisation
- 2800/87 . System configuration based on vehicle type or model
- 2800/90 . System Controller type
- 2800/91 . . Suspension Control
- 2800/912 . . . Attitude Control; levelling control
- 2800/9122 ARS - Anti-Roll System Control
- 2800/9123 Active Body Control [ABC]
- 2800/9124 Roll-over protection systems, e.g. for warning or control
- 2800/914 . . . Height Control System
- 2800/915 . . . Suspension load distribution
- 2800/916 . . . Body Vibration Control
- 2800/92 . . ABS - Brake Control
- 2800/922 . . . EBV - Electronic brake force distribution
- 2800/925 . . Airbag deployment systems
- 2800/93 . . Skid or slide control [ASR]
- 2800/94 . . Electronic Stability Program (ESP, i.e. ABS +ASC+EMS)
- 2800/95 . . Automatic Traction or Slip Control [ATC]
- 2800/952 . . . Electronic driving torque distribution
- 2800/954 . . . Four-wheel drive
- 2800/96 . . ASC - Assisted or power Steering control
- 2800/962 . . . Four-wheel steering
- 2800/963 . . . Steer-by-wire
- 2800/964 . . . Auto-navigation
- 2800/965 . . . Automatic or driver-independent manoeuvre, e.g. for obstacle avoidance or roll-over prevention
- 2800/97 . . Engine Management System [EMS]
- 2800/972 . . Electronic Differential Lock [EDS]
- 2800/98 . . Intelligent Transportation System or Bus [IDB]
- 2800/982 . . Active Cruise Control, e.g. DISTRONIC type
- 2800/984 . . Tyre Pressure Monitoring Systems