

Search history

Search PN=(IN00349MU2013) (Results 1)

1:

Search Motorcycle steering (Results 287)

2:

Search Bearing and box and rim and motorcycle (Results 23)

3:

Search 2 and 3 (Results 0)

4:

Search PN=(JP61157481) (Results 2)

5:

Search PN=(WO2015002161) (Results 1)

6:

Search fn=(65316240 or 46431558 or 50261563 or 31763957 or 42055847 or 50261563 or 50261563 or 40743896 or 40743896 or 40743896 or 5263032 or 50480734 or 33055230 or 32172264 or 43543460 or 50480734 or 50950789 or 58241744 or 22812478 or 18248362 or 5263032 or 18133239 or 27915510 or 33689187 or 33344008 or 41793145 or 50480734 or 34914698 or 42937038 or 50480734 or 50480734 or 50950789 or 50950789) (Results 22)

Search ((Bucket and bearing and telescoping and shock and absorber) and motorcycle) (Results 0)

8:

Search (mechanism and (double and wheels and motorcycle)) (Results 68)

9:

Search system and absorber and motorcycle (Results 362)

10:

Search IPC=(B62K5/10) and 10 (Results 2)

11:

Search fn=(59626384 or 62232084 or 64422620 or 48160832 or 49591047 or 49591047 or 49700016 or 49591047 or 49591047 or 44603093 or 50261036 or 49591047 or 44603093 or 44603093 or 55900368 or 49591047 or 55900368 or 44603093 or 49591047 or 44603093 or 51623493 or 49591047 or 51791183 or 61182664 or 61321562 or 63617658 or 17706217 or 23477445 or 31795233 or 20632336 or 32076600 or 32076600 or 31413451 or 3465834 or 1747296 or 6540184 or 3840131 or 3840131 or 9108301 or 30877338 or 32479886 or 20776369 or 23018525 or 2821851 or 2824490 or 3032535 or 15580055 or 13529046 or 13529046 or 42931309 or 8317317 or 8317317 or 20632336) (Results 36)

Search fn=(38521167 or 33554067 or 34363303 or 41179033 or 41179033 or 30609035 or 33125534 or 18248362 or 2595520) (Results 8)

13:

Search fn=(49934511 or 55733904 or 48985994 or 45917440 or 40783769 or 42115328 or 52998943 or 40783769 or 52998943 or 58241749 or 43650948 or 41783937 or 44518226 or 44664807 or 46421381 or 47811208 or 47899873 or 48907158 or 52998943 or 58073604 or 63295016 or 63295117 or 44518226 or 44664807 or 46421381 or 50068967 or 43650948 or 53652336 or 51961370 or 51961370 or 48907158 or 53652336 or 34255972 or 51961370 or 56138702 or 47811208 or 59084084 or 47811208 or 58073604 or 53652336 or 42002900 or 42002900 or 42002900 or 42002900 or 42002900 or 43627626 or 49858364 or 53199390 or 53693237 or 52167519 or 53199390 or 53693237 or 13865171 or 10141604 or 5550851 or 2645387 or 6763712 or 9108301 or 20000580 or 28630017 or 29082341 or 29171967 or 31380924 or 31380924 or 31380924 or 30315561 or 13530619 or 30572275 or 15775534 or 31380924 or 30619856 or 33173439 or 15320054 or 30663526 or 42142366 or 31713033 or 29590781 or 29153368 or 31944565 or 31380924 or 31380924 or 31380924 or 29021284 or 32361111 or 32361118 or 32503075 or 32651629 or 32761742 or 32761743 or 31796083 or 32424328 or 33055230 or 33211706 or 33173439 or 32142070 or 33689187 or 33972246 or 21102716 or 21670612 or 21996317 or 22861545 or 20265724 or 20199459 or 948421 or 3738358 or 7543397 or 29442702 or 1237646 or 1298269 or 1317114 or 1390830 or 1435377 or 1440344 or 18916897 or 1445636 or 1445638 or 1445639 or 1453687 or 6667845 or 1518869 or 6668141 or 1523124 or 6705181 or 1526864 or 1526864 or 1269379 or 1523921 or 1390830 or 6791343 or 1268148 or 7057007 or 7113170 or 7246240 or 7469000 or 7488347 or 7113170 or 8583617 or 8283012 or 8348950 or 8583617 or 8583617 or 24048718 or 18248362 or 5550851 or 3796258 or 3866757 or 1945865 or 4223819 or 4223825 or 18649102 or 2339349 or 4371422 or 4386963 or 4387662 or 2530582 or 4455631 or 4530702 or 4574796 or 4654247 or 4798163 or 29119665 or 5376399 or 4880885 or 4575672 or 29119665 or 2082546 or 4371422 or 5036919 or 5065821 or 5150255 or 2055787 or 2202070 or 5266647 or 5319807 or 5369795 or 5376399 or 3803491 or 29760199 or 2768643 or 2816879 or 2893102 or 3266374 or 3275000 or 3349660 or 30455307 or 3426343 or 4360505 or 4491252 or 4527608 or 4717672 or 3426343 or 5029111 or 12520833 or 11154149 or 4222736 or 11272057 or 2808143 or 11575225 or 29372434 or 11708264 or 11958738 or 12364871 or 12433876 or 9357885 or 12869496 or 12912544 or 18133239 or 13331323 or 10698964 or 10854820 or 30512764 or 9541574 or 11141407 or 11154895 or 9390347 or 11555004 or 30249316 or 11680956 or 13441489 or 33492557 or 11944550 or 12250838 or 14929162 or 14935928 or 14941836 or 30132045 or 14997591 or 13189854 or 28100073 or 20640225 or 20660463 or 20682921 or 20163087 or 30132045 or 1392075 or 28321825 or 24038747 or 23134470 or 27917393 or 28176119 or 26941866 or 15320054 or 31018397 or 30112913 or 28298663 or 21603329 or 28467923 or 30132045 or 32086956 or 28514423 or 30112991 or 29920468 or 28246883 or 24677273 or 23130600 or 28155540 or 28251742 or 29018567 or 13865171 or 30112913 or 30003780 or 29906839 or 29542396 or 29213440 or 15958274 or 30379210 or 28517817 or 28821432 or 30112913 or 30130821 or 30499203 or 30142310 or 28444189 or 28286012 or 28300723 or 28325163 or 23529953 or 29906864 or 43789241 or 24677778 or 15320054 or 20069538 or 15775534 or 31380924 or 28879190 or 28155549 or 31445202 or 31445202 or 29539526 or 31445202 or 31445202 or 30619856 or 13530619 or 31380924 or 15320054 or 14939043 or 29994856 or 32191927 or 32124482 or 42142366 or 30420269 or 33173439 or 43789241 or 33972246 or 41613343 or 31713033 or 40810631 or 24477154 or 24414747 or 24361290 or 24309848 or 24302286 or 24299799 or 24400290 or 24271212 or 24192071 or 24188367 or 24270910 or 24230664 or 24224657 or 24212921 or 28570559 or 28875151 or 28854009 or 29027188 or 30239951 or 30250181 or 31715832 or 31745810 or 31745811 or 31745812 or 33357777 or 24048718 or 31457878) (Results 274)

Search IPC=(B62K5/10) and 14 (Results 5)

15:

Search [SP]: 1. a vehicle comprising: a body frame that leans to a right of the vehicle when the vehicle turns right and leans to a left of the vehicle when the vehicle turns left a right front wheel and a left front wheel aligned in a left-and-right direction of the body frame and which each include a tire and a wheel that supports the tire a suspension device including a right shock absorbing device and a left shock absorbing device that support the right front wheel and the left front wheel so as to rotate about wheel axes thereof, respectively, each of the right shock absorbing device and the left shock absorbing device including a front telescopic element and a rear telescopic element aligned in a front-and-rear direction of the body frame and a connecting portion that connects the front telescopic element and the rear telescopic element together and supports the right shock absorbing device and the left shock absorbing device on the body frame so that the right shock absorbing device and the left shock absorbing device turn individually about steering axes thereof which extend in a direction perpendicular or substantially perpendicular to the wheel axes and are able to be displaced in an up-and-down direction of the body frame and a front wheel rotation speed detector which includes a detected portion which rotates together with one front wheel of the right front wheel and the left front wheel and a detecting portion which is provided on one shock absorbing device of the right shock absorbing device and the left shock absorbing device which supports the one front wheel to measure a rotation speed of at least the one front wheel wherein at least a portion of the detecting portion of the front wheel rotation speed detector is supported on the front telescopic element or the rear telescopic element of the one shock absorbing device and is positioned, as viewed in a direction of the wheel axis, in an area which is defined by a front imaginary line which passes a front end of the one shock absorbing device and which is parallel or substantially parallel to the steering axis and a rear imaginary line which passes a rear end of the one shock absorbing device and which is parallel or substantially parallel to the steering axis, an area which is located inwards of an external shape of the one front wheel, and an area which is located outside an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device. 2. the vehicle according to claim 1, wherein an upper portion of the steering axis is positioned farther rearwards than a lower portion thereof in

the front-and-rear direction of the body frame when the vehicle is in the upright state and at least a portion of the detecting portion of the front wheel rotation speed detector is provided in an area which is located behind the front end of the one shock absorbing device and an area which is located outside of an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device when the vehicle is in the upright state. 3. the vehicle according to claim 1, wherein an upper portion of the steering axis is positioned farther rearwards than a lower portion thereof in the front-and-rear direction of the body frame when the vehicle is in the upright state and at least a portion of the detecting portion of the front wheel rotation speed detector is provided in an area which is located behind a front end of the one shock absorbing device, an area which is located ahead of a lower end of the one shock absorbing device, and an area which is located outside an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device when the vehicle is in the upright state. 4. the vehicle according to claim 1, wherein an upper portion of the steering axis is positioned farther rearwards than a lower portion thereof in the front-and-rear direction of the body frame when the vehicle is in the upright state and at least a portion of the detecting portion of the front wheel rotation speed detector is provided in an area which is located above a lower end of the one shock absorbing device in relation to an up-and-down direction of the body frame and an area which is located outside an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device when the vehicle is in the upright state. 5. the vehicle according to claim 1, wherein an upper portion of the steering axis is positioned farther rearwards than a lower portion thereof in the front-and-rear direction of the body frame when the vehicle is in the upright state and at least a portion of the detecting portion of the front wheel rotation speed detector is provided in an area which is located above a lower end of the rear telescopic element of the one shock absorbing device in relation to an up-and-down direction of the body frame, an area which is located below a front end of the front telescopic element of the one shock absorbing device in relation to the up-and-down direction of the body frame, and an area which is located outside an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device when the vehicle is in the upright state. (Results 0)

Search 17: [SP]: background of the invention1. field of the inventionthe present invention relates to a vehicle including a body frame that leans and two front wheels which are aligned in a left-and-right direction.2. description of the related artinternational patent publication no. 2012/007819 describes a vehicle including a body frame that leans and two front wheels which are aligned in a left-and-right direction.in general, the vehicle including the body frame that leans and the two front wheels which are aligned in a left-and-right direction is a vehicle which turns with the body frame leaning from a vertical direction. more specifically, the body frame leans to the right of the vehicle when the vehicle turns right, whereas when the vehicle turns left, the body frame leans to the left of the vehicle. in the vehicle described above which includes the body frame that leans and the two front wheels which are aligned in a left-and-right direction, since the body frame is caused to lean, a distance defined between the two front wheels which are aligned in a left-and-right direction of the body frame is very short compared with a normal four-wheeled vehicle. the vehicle including the body frame that leans and the two front wheels which are aligned in a left-and-right direction is a vehicle which is compact and highly maneuverable.the vehicle described in international patent publication no. 2012/007819 which includes the body frame that leans and the two front wheels which are aligned in a left-and-right direction includes a right shock absorbing device and a left shock absorbing device which each include two telescopic elements. the right shock absorbing device supports the right front wheel rotatably. the left shock absorbing device supports the left front wheel rotatably. when the handlebar is operated, the right shock absorbing device turns together with the right front wheel about a turning axis which extends in an up-and-down direction, and the left shock absorbing device turns together with the left front wheel about a turning axis which extends in an up-and-down direction. because of this, it is designed that the right shock absorbing device, the right front wheel, the left shock absorbing device, and the left front wheel do not interfere with the body cover and other body parts.incidentally, in the vehicle described in international patent publication no. 2012/007819 which includes the body frame that leans and the two front wheels which are aligned in a left-and-right direction, it is desired to mount a front wheel rotation speed detector. the front wheel rotation speed detector includes, in addition to a sensor main body, a bracket to which the sensor main body is attached and a fastening member to fix the bracket to the vehicle. in order to mount the front wheel rotation speed detector on the vehicle, a bracket where the front wheel rotation speed detector is attached is also provided on the vehicle side. because of this, in attempting to mount the front wheel rotation speed detector, it is necessary to ensure a space where those members are disposed and a space which prevents those members from interfering with other members. this causes a concern that the vehicle including the body frame that leans and the two front wheels which are aligned in a left-and-right direction is enlarged in size.then, as shown in fig. 12, international patent publication no. 2012/007819 discloses that a front wheel rotation speed detector 1028 is provided between two telescopic elements 1022, 1024. a gap is inevitably generated between the two telescopic elements 1022, 1024 which are aligned in a back-and-forth direction. additionally, the gap is originally a dead space. in international patent publication no. 2012/007819, however, the space is effectively used by providing a front wheel rotation speed detector 1028 in the gap which is a dead space.in this manner, in international patent publication no. 2012/007819, although the front wheel rotation speed detector is mounted on the vehicle including the body frame that leans and the two front wheels which are aligned in a left-and-right direction, the enlargement in size of the vehicle is reduced by the use of this space.however, the market still demands a more compact vehicle which includes a body frame that leans and two front wheels which are aligned in a left-and-right direction. it is desirable for this reason that the enlargement in the size of the vehicle including the body frame that leans and the two front wheels which are aligned in a left-and-right direction is reduced further although the front wheel rotation speed detector is mounted on the vehicle.summary of the inventionpreferred embodiments of the present invention provide a vehicle including a body frame that leans and two front wheels which are aligned in a left-and-right direction which significantly reduces or prevents the enlargement of the vehicle even though the front wheel rotation speed detector is mounted thereon.according to a preferred embodiment of the present invention, a vehicle includes a body frame that leans to the right of the vehicle when the vehicle turns right and leans to the left of the vehicle when the vehicle turns left a right front wheel and a left front wheel which are aligned in a left-and-right direction of the body frame and which each include a tire and a wheel which supports the tire a suspension device which includes a right shock absorbing device and a left shock absorbing device which support the right front wheel and the left front wheel so as to rotate about wheel axes thereof, respectively, and which each include a front telescopic element and a rear telescopic element which are aligned in a front-and-rear direction of the body frame and a connecting portion which connects the front telescopic element and the rear telescopic element together and which supports the right shock absorbing device and the left shock absorbing device on the body frame so that the right shock absorbing device and the left shock absorbing device turn individually about steering axes thereof which extend in a direction perpendicular or substantially perpendicular to the wheel axes and is able to be displaced in an up-and-down direction of the body frame and a front wheel rotation speed detector which includes a detecting portion which rotates together with one front wheel of the right front wheel and the left front wheel and a detecting portion which is provided on one shock absorbing device of the right shock absorbing device and the left shock absorbing device which supports the one front wheel to measure a rotation speed of at least the one front wheel of the right front wheel and the left front wheel, wherein at least a portion of the detecting portion of the front wheel rotation speed detector is supported on the front telescopic element or the rear telescopic element of the one shock absorbing device and is positioned, as viewed in the direction of the wheel axis, in an area which is defined by a front imaginary line which passes a front end of the one shock absorbing device and which is parallel to the steering axis and a rear imaginary line which passes a rear end of the one shock absorbing device and which is parallel to the steering axis in a perpendicular or substantially perpendicular direction to the wheel axis and the steering axis, an area which is located inwards of an external shape of the wheel, and an area which is located outside an area defined between the front telescopic element and the rear telescopic element of the one shock absorbing device.the inventors have studied extensively the circumferential construction of the shock absorbing device for the sake of locating a front wheel rotation speed detector. it has been discovered from the results of the study that in the event that a front wheel rotation speed detector is disposed in the dead space between the two telescopic elements as described in international patent publication no. 2012/007819, the interval between the two telescopic elements needs to be expanded slightly. the front wheel rotation speed detector includes, in addition to a sensor main body, a bracket to which the sensor main body is attached and a fastening member to fix the bracket to the vehicle. in order to mount this front wheel rotation speed detector on the vehicle, a bracket where the front wheel rotation speed detector is attached is also provided on the vehicle side. because of this, when attempting to mount the front wheel rotation detector between the two telescopic elements, the interval between the two telescopic elements needs to be expanded slightly compared to when no front wheel rotation speed detector is mounted therebetween. at a glance, a slight expansion of the interval between the two telescopic elements only enlarges the shock absorbing device itself slightly, and it is considered that the enlargement of the shock absorbing device minimally affects the overall size of the vehicle.however, the inventors discovered the following problems during their extensive study. a problem was discovered that the expansion of the interval between the two telescopic elements results in a great increase in the moving range of the two telescopic elements, so that the vehicle tends to be enlarged in size to avoid the interference of the two telescopic elements with other parts on the vehicle. this is attributed to the fact that the two telescopic elements are members which are long in the direction in which they extend and contract and that the two telescopic elements turn about the steering axes along the direction in which they extend and contract when they are fixed to each other. the moving range of the two telescopic elements refers to a space where the two tele (Results 0)

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Search 19: fn=(58241742:795 or 56089642:495 or 56777493:325 or 58073604:250 or 63115451:240 or 63115517:235 or 58241744:235 or 60460567:230 or 50480734:230 or 63115453:225 or 65316227:210 or 63579786:210 or 63115518:205 or 58241749:205 or 55627331:205 or 48907158:205 or 65316231:200 or 65316228:200 or 65316236:190 or 65316235:190 or 65316233:190 or 65316230:190 or 49591047:190 or 43222346:190 or 42115328:190 or 34363306:185 or 34255972:185 or 32026897:185 or 31457878:185 or 65316240:180 or 65316234:180 or 65235741:180 or 49373453:180 or 23916715:180 or 51041080:175 or 48148111:175 or 34363303:175 or 65338814:170 or 65235740:170 or 60460543:170 or 58641971:170 or 58241746:170 or 56339391:170 or 51919259:165 or 41778293:165 or 59143001:160 or 58241745:160 or 50261563:160 or 44272353:160 or 33110076:160 or 31722893:160 or 30922063:160 or 28286012:160 or 50950789:155 or 44328541:155 or 33689187:155 or 32424328:155 or 30716913:155 or 30249316:155 or 65315221:150 or 60020711:150 or 60020709:150 or 57981299:150 or 57660205:150 or 57413875:150 or 44603093:150 or 42937038:150 or 40812221:150 or 30420270:150 or 61645286:145 or 41179033:145 or 41178928:145 or 40799774:145 or 34952290:145 or 65470328:140 or 62232084:140 or 61743790:140 or 60460540:140 or 60020707:140 or 58688949:140 or 58241747:140 or 57793780:140 or 56265434:140 or 56141060:140 or

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Search PN=(US2011275256 or US7887077) (Results 2)
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Search (Damping and system and motorcycle) (Results 256)
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Search IPC=(B62K5/10) and 21 (Results 2)
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Search ((Motorcycle and steering) or (motorcycle and Damping)) (Results 5380)
23:

Search IPC=(B62K5/10) and 23 (Results 13)
24:

Search ((Motorcycle and steering) and (motorcycle and Damping)) (Results 173)
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Search IPC=(B62K5/10) and 25 (Results 1)
26:

Search INV=(DAISUKE ASANO) (Results 3)
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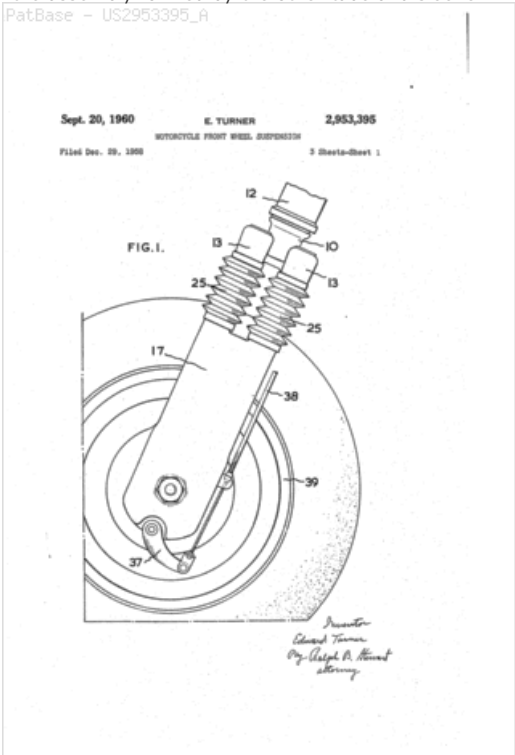
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28:

Title: MOTORCYCLE FRONT WHEEL SUSPENSION

Abstract: Source: US2953395A (Claim 1) 1. Suspension for the front wheel of a light towheeled vehicle in which the wheel is rotatably mounted on a spindle supported at one end only, comprising a steering stem, a bifurcated crown fixed on and extendin.laterally from the lower end of said stem and incorporating two spaced parallel sockets, two parallel tubes secured at their upper ends in said sockets, two parallel sleeves in which the lower parts of said tubes are slidably engaged, the axes of the tubes and sleeves being in a plane at right angles to the axis of said spindle, a housing carried by the lower ends of said sleeves and adapted to receive one end of said spindle, a spring for supporting the load on the wheel located in the assembly formed by one tube and sleeve, and an hydraulic damper in the assembly formed by the other tube and sleeve.

Classifications:

International (IPC 8-9): B60G15/06 B62K25/00 (Advanced/Invention);
B60G15/00 B62K25/00 (Core/Invention)
International (IPC 1-7): B62K25/08
CPC: B60G15/06 B62K25/005 B62K25/08
European: B60G15/06 B62K25/00B B62K25/08
US: 267/221 280/276



Family:

Publication number	Publication date	Application number	Application date
US2953395 A	19600920	US19580783399	19581229

Priority:

US19580783399 19581229

Probable Assignee: TRIUMPH ENGINEERING CO LT

Assignee(s): (std): TRIUMPH ENGINEERING CO LT ; TRIUMPH ENGINEERING COMPANY LT

Assignee(s): TRIUMPH ENGINEERING CO LTD ; TRIUMPH ENGINEERING COMPANY LIMITED

Inventor(s): (std): EDWARD TURNER

Inventor(s): TURNER EDWARD

Title: SELF-BALANCING WHEELED VEHICLE

Abstract: Source: US4351410A A wheeled vehicle includes a vehicle frame having at least one wheel at one end of the frame and a hinged parallelogram frame mounted on the other end of the vehicle frame and having a pair of spaced wheels mounted on opposite sides thereof. The parallelogram frame will pivot laterally in first or second opposite lateral directions when the frame leans laterally away from a position of equilibrium in the first or second lateral direction. A sensing device is connected to the vehicle frame and a power source is connected to the sensing means and parallelogram frame whereby initial leaning movement of the parallelogram frame in one direction (caused by conditions of unequilibrium) will cause the sensing device and power source to pivot the parallelogram frame in the opposite direction thereby to laterally pivot the vehicle frame to a position of equilibrium. The sensing device may be a lever pivotally connected to the vehicle frame and the power source may include a pair of extensible and retractable cylinder units for connecting opposite ends of the sensor lever to opposite sides of the parallelogram frame.

Classifications:**International (IPC 8-9):** B62D37/00 B62D61/08 B62D9/02 B62K5/04 B62K5/08 (Advanced/Invention);

B62D37/00 B62D61/00 B62D9/00 B62K5/00 (Core/Invention)

International (IPC 1-7): A22C17/12 B60G17/00 B60G19/00

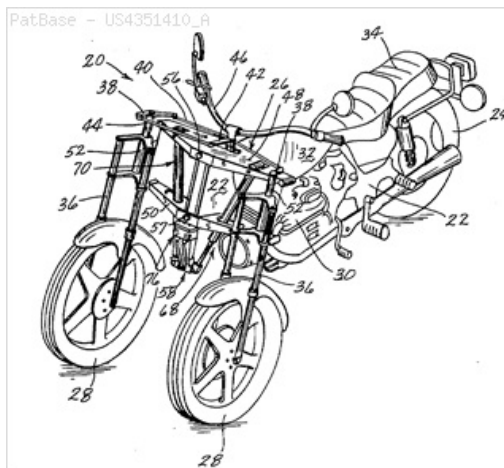
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B62K5/04 B62K5/08

CPC: B62K5/027 B62K5/05 B60G2300/122 B62D9/02 B62D37/00

B62D61/065 B62K5/08 B62K5/10

European: L60G300/122**US:** 180/210 280/267 280/5.509**Family:**

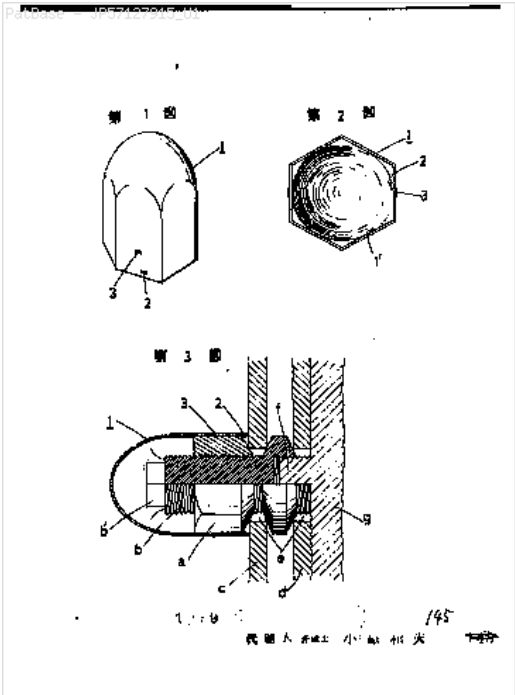
Publication number	Publication date	Application number	Application date
AU198172381 A1	19820121	AU19810072381	19810630
AU537014 B2	19840531	AU19810072381	19810630
BR8104519 A	19820330	BR19810004519	19810715
CA1147663 A1	19830607	CA19810380794	19810629
CH653630 A	19860115	CH19810004682	19810716
DE3128371 A1	19820408	DE19813128371	19810717
DE8121065 U1	19820401	DE19810021065U	19810717
ES504034 A1	19821201	ES19810504034	19810716
ES8301161 A1	19830216	ES19810504034	19810716
FR2486899 A1	19820122	FR19810013877	19810716
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GB2082517 B2	19840613	GB19810020137	19810630
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JP57041278 A2	19820308	JP19810111522	19810716
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SE441260 C	19860109	SE19810004051	19810629
SE8104051 A	19820118	SE19810004051	19810629
SE8104051 L	19820118	SE19810004051	19810629
US4351410 A	19820928	US19800169804	19800717

Priority:

CA19810380794 19810629 US19800169804 19800717

Probable Assignee: TOWNSEND ENGINEERING CO**Assignee(s):** (std): TOWNSEND ENGINEERING CO ; TOWNSEND ENGINEERING CY ; TOWNSEND ENGINEERING COMPANY ; TOWNSEND ENGINEERING COMPANY TE DES MOINES IOWA VE ; TOWNSEND R T**Assignee(s):** TOWNSEND ENGINEERING COMPANY TE DES MOINES IOWA VER ST V AM ; TOWNSEND RAY T ; TOWNSEND ENGINEERING CO TE DES MOINES IOWA VER STVAM ; TOWNSEND ENGINEERING CO 50317 DES MOINES IA US ; TOWNSEND ENGINEERING CO A CORP OF IOWA ; R T TOWNSEND ; TOWNSEND ENG CO**Inventor(s):** (std): R T TOWNSEND ; RAY THEODORE TOWNSEND ; REI SEODOA TAUNZENTO ; RT TOWNSEND ; TOWNSEND R ; TOWNSEND R T ; TOWNSEND RAY T ; TOWNSEND RAY THEODORE ; TOWNSEND RAY THEODORE**Inventor(s):** THEODORE TOWNSEND RAY**Agent(s):** DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; SHEARN G JAMES M

Classifications:
International (IPC 8-9): B60B3/16 F16B37/14 (Advanced/Invention);
B60B3/00 F16B37/00 (Core/Invention)
International (IPC 1-7): B60B3/16 F16B37/14



Family:

Publication number	Publication date	Application number	Application date
JP57127915 U1	19820810	JP19810015762U	19810205

Priority:

JP19810015762U 19810205

Title: Bicycle

Abstract: Source: US4659097A The invention relates to a bicycle, the frame (31) of which is connected to a single-arm drive extension (30) which, at its rear end, has firmly connected to it a rear wheel axle (11a) which is rotatably mounted and can be driven by a drive device (38,33,34,35), onto which rear wheel axle (11a) the rear wheel can be attached from one side. Moreover, the front wheel holder connected to the bicycle frame (31) is designed as a monospar fork (1), with the front wheel axle (11) being firmly connected to the monospar fork (1) for accommodating the front wheel on one side. The wheels (8a,8b) have wheel hubs (9a,9b) which are designed in half shell shapes and are open towards the axle bearing devices (12,13,14), with a brake device (22), which is firmly connected to the axle bearing device, being arranged within at least one half shell shaped wheel hub, which brake device (22) can be pressed against the inner peripheral surface of a wheel hub (9a, 9b) for braking the bicycle. The bicycle according to the invention, apart from identical wheels, has practically identical axle bearings and brake devices for the front and rear wheels, which are protected from external influences by the wheel hubs. By releasing only one screw (20), it is possible to change a wheel without dismantling the brake devices.

Classifications:

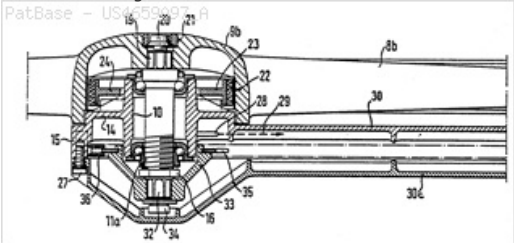
International (IPC 8-9): B60B27/02 B60B27/04 B60B3/02 B62K21/02 B62K25/00 B62K3/02 (Advanced/Invention); B60B27/00 B60B3/00 B62K21/00 B62K25/00 B62K3/00 (Core/Invention)

International (IPC 1-7): B60B27/04 B62K21/02 B62K25/02 B62K3/02 B62M9/02

CPC: B62K3/02 B62K25/005

European: B62K25/00B B62K3/02

US: 280/261 280/274 280/279 280/281.1 280/281B 280/281R 280/288



Family:

Publication number	Publication date	Application number	Application date
AT36997 E	19880915	AT19840116441T	19841228
DE3473861 D1	19881013	DE19843473861	19841228
EP0187170 A1	19860716	EP19840116441	19841228
EP0187170 B1	19880907	EP19840116441	19841228
JP61157481 A2	19860717	JP19850067366	19850330
US4659097 A	19870421	US19850764248	19850809

Priority:

EP19840116441 19841228

Probable Assignee: DUERKOPP SYSTEM TECHNIK GMBH

Assignee(s): (std): DEYURUKOTSUPU SYST TECHNIK GMB ; DUERKOPP SYSTEM TECHNIK GMBH

Assignee(s): DURKOPP SYSTEM TECHNIK GMBH ; DEYURUKOTSUPU SYST TECHNIK GMBH

Inventor(s): (std): BUUKUHARUTO FUOTSUSEN ; DURKOPP SYSTEM TECHNIK GMBH ; GERUTO KIYUTSUPAA ; JIIKUFURIITO ZABINSUKII ; KUEPPER GERD ; VOSSEN BURGHARDT ; ZABINSKI SIEGFRIED

Designated states: AT BE CH DE FR GB IT LI LU NL SE

Title: ARTICULATED BALANCER WITH AN OSCILLATING AXLE AND HAVING LOCKING POSSIBILITIES

Abstract: Source: US5611555A An articulated balancer with an oscillating axle and having locking possibilities provides dynamic stability and static balance to a vehicle having a high center of gravity in rounding curves. This vehicle has three wheels, one in front and two in the rear. It rivals the maneuverability of a motorcycle, yet offers a higher level of safety and convenience than conventional motorcycles. The stability in curves is obtained by enhancing the lateral tilting of the vehicle. For this, each rear wheel must allow an up or down motion; each of these motions is opposite to the other but to the same extent. By means of "ball-and-socket" hinged joints, two connecting rods connect the balancer with the rear swinging forks, converting the balancer's rotation to an up-and-down motion. The balancer's axle allows an oscillation motion controlled by a shock absorber, that provides the rear suspension of the vehicle. The static balance and certain characteristics of its dynamic behavior are obtained by locking the rotation of the balancer.

Classifications:

International (IPC 8-9): B60G21/00 B60G21/05 B60G3/14 B60G9/02 B62D9/02 B62K5/027 B62K5/04 B62L1/00 (Advanced/Invention); B60G21/00 B60G3/00 B60G9/00 B62D9/00 B62K5/00 B62L1/00 (Core/Invention)

International (IPC 1-7): B60G21/00 B60G5/00 B62D9/02 B62H1/12 B62K25/04 B62K5/02 B62K5/04

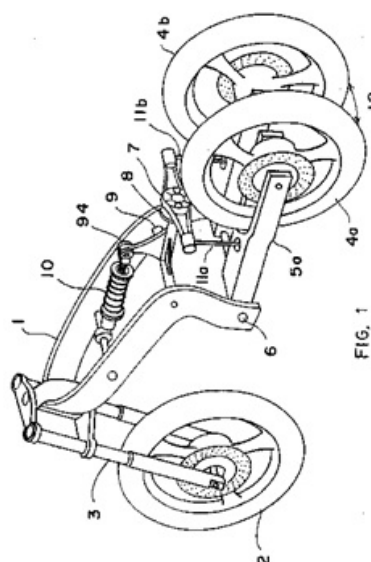
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European: B60G21/00D B60G21/05 B60G3/14 B60G9/02 B62D9/02 B62K5/027 B62K5/10 B62L1/00 L60G200/320 L60G300/12 L60G300/122

US: 180/215 280/112.2 280/113 280/124.103 280/124.128 280/282 280/62 280/97

PatBase - US5611555_A

U.S. Patent Mar. 18, 1997 Sheet 1 of 14 5,611,555



Family:

Publication number	Publication date	Application number	Application date
DE69402087 D1	19970424	DE19946002087	19940103
DE69402087 T2	19971030	DE19946002087T	19940103
EP0606191 A1	19940713	EP19940500001	19940103
EP0606191 B1	19970319	EP19940500001	19940103
ES2064251 AB	19950116	ES19930000004	19930104
ES2064251 AC	19970701	ES19930000004	19930104
ES2064251 BA	19980216	ES19930000004	19930104
US5611555 A	19970318	US19940177082	19940103

Priority:

ES19930000004 19930104

Probable Assignee: CALLEJA VIDAL CARLOS

Assignee(s): (std): CALLEJA VIDAL CARLOS

Assignee(s): CALLEJA VIDAL CARLOS GRANADA ES ; VIDAL CARLOS C

Inventor(s): (std): CALLEJA VIDAL CARLOS ; VIDAL CARLOS C

Inventor(s): CALLEJA VIDAL CARLOS GRANADA ES

Designated states: DE FR GB IT PT

Title: Wheel speed detecting device for a vehicle

Abstract: Source: US6492805B To provide device capable of enhancing the detection accuracy of a wheel speed detecting device and reducing cost. A wheel speed detecting device for a rear wheel includes a pulsar ring mounted on a rear wheel hub, and a pulse counting sensor mounted on a swing arm. The pulsar ring includes a disc, and pulse detecting holes are formed at a predetermined pitch on a pitch circle drawn at a radially inward circumferential position spaced at a predetermined distance from the outer edge of the disc. The pulse detecting hole is formed in a position on the center side apart from the outer edge of the pulsar ring, leaving the outer edge of the pulsar ring in a circular form. Therefore, it is possible to prevent warpage of the pulsar ring by the outer edge portion if the pulse detecting holes are made by pressing.

Classifications:

International (IPC 8-9): B60T1/06 B60T8/00 B60T8/17 B60T8/171 B60T8/32 B62J39/00 B62J99/00 B62L1/00 B62L5/06 G01P1/04 G01P3/44 G01P3/48 G01P3/488 G01P3/50 (Advanced/Invention); B62J99/00 (Advanced/Non-invention); B62J99/00 (Core/Invention)

International (IPC 1-7): B60T8/00 B62J39/00 B62J39/00 B62J99/00 B62L5/06 G01P3/00 G01P3/44 G01P3/48 G01P3/488 G01P3/50 G01P34/88

CPC: B62J99/00 B60T1/065 B60T8/1706 B60T8/171 B60T8/329 B62J2099/002 B62K2207/00 B62L1/00 G01P1/04 G01P3/488 G01P3/50

European: B60T1/06C B60T8/00B2 B60T8/00B8F B60T8/171 B60T8/17P7 B60T8/32D18 B62J99/00 B62L1/00 G01P1/04 G01P3/488 G01P3/50 L62J99/00D L62K207/00

US: 324/160 324/173

PatBase - US6492805_BA

U.S. Patent Dec. 10, 2002 Sheet 1 of 17 US 6,492,805 B1

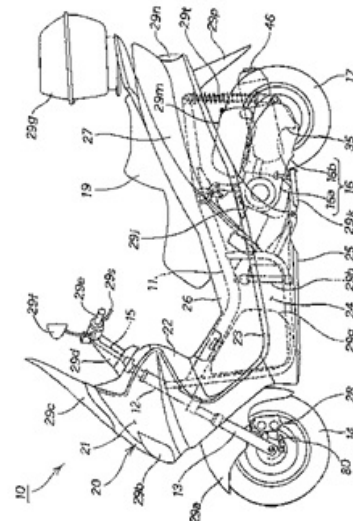


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
CN1290621 A	20010411	CN20001029091	20000929
CN1291872 C	20061227	CN20001029091	20000929
DE60019054 D1	20050504	DE20006019054	20000928
DE60019054 T2	20050811	DE20006019054T	20000928
DE60027801 D1	20060608	DE20006027801	20000928
DE60027801 T2	20061102	DE20006027801T	20000928
EP1088751 A2	20010404	EP20000121130	20000928
EP1088751 A3	20030502	EP20000121130	20000928
EP1088751 B1	20050330	EP20000121130	20000928
EP1514784 A1	20050316	EP20040029912	20000928
EP1514784 B1	20060503	EP20040029912	20000928
ES2238956 T3	20050916	ES20000121130T	20000928
ES2263103 T3	20061201	ES20040029912T	20000928
ID27406 A	20010405	ID20000000846	20000929
IN00848MU2000 A	20060707	IN2000MU00848	20000914
IN207021 B	20070727	IN2000MU00848	20000914
JP2001165949 A2	20010622	JP20000219608	20000719
KR100394537 B1	20030809	KR20000057488	20000929
KR20010050774 A	20010625	KR20000057488	20000929
MY128738 A	20070228	MY20000004546	20000928
TH40107 B	20140521	TH20001003662	20000925
TH46023 A	20010629	TH20001003662	20000925
TW526153 B	20030401	TW20000118756	20000913
US6492805 BA	20021210	US20000675087	20000929
VN3838 A1	20031125	VN20000000870	20000929

Priority:

EP20000121130 20000928 JP19990279568 19990930 JP20000219608 20000719

Probable Assignee: HONDA GIKEN KOGYO KK

Assignee(s): (std): HONDA GIKEN KOGYO KK ; HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO ; HONDA GIKEN KOGYO K K ; HONDA GIKEN KOGYO K K TOKIO TOKYO ; HONDA GIKEN KOGYO KABUSHIKI KAISHA

Inventor(s): (std): SHIN WAKAHAYASHI TAKESHI IGARA ; WAKAHAYASHI TAKESHI ; TAKESHI WAKABAYASHI ; MAKOTO IRAGASI ; WAKABAYASHI TAKESHI ; TAKESHI WAKAHAYASHI ; SHIN IGARASHI ; IGARASHI MAKOTO ; IGARASHI SHIN ; IRAGASI MAKOTO

Inventor(s): WAKAHAYASHI TAKESHI IGARASHI SHIN ; AKOTO IGARASHI ; WAKABAYASHI ; IGARASHI ; MAKOTO IGARASHI

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: METHOD FOR REPLACING THE FRONT WHEELS OF A THREE-WHEELED VEHICLE

Abstract: Source: US2006151232A The present invention concerns a method for replacing the front wheels of a rolling three-wheeled vehicle (100) equipped with two front steering wheels (2, 3) and a rear wheel, at least one central trestle and a roll locking means of the vehicle.

Classifications:

International (ipc 8-9): B62D61/12 B62D7/15 B62K17/00

B62K5/027 B62K5/04 B62K5/05 (Advanced/Invention);

B62D61/00 B62D7/15 B62K17/00 B62K5/00 (Core/Invention)

International (ipc 1-7): B26K25/08 B60B29/00 B62K5/02

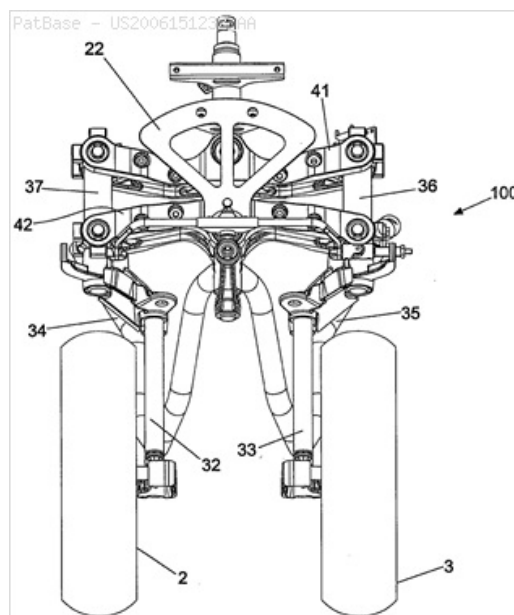
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B62K5/10

European: B60G21/00D B62K5/027 B62K5/05 B62K5/08 B62K5/10

L60G300/122

US: 180/414



Family:

Publication number	Publication date	Application number	Application date
AT389578 E	20080415	AT20050110923T	20051118
CN1789069 A	20060621	CN200510127277	20051205
DE602005005423 D1	20080430	DE200560005423T	20051118
DE602005005423 T2	20090423	DE200560005423T	20051118
DK1666346 T3	20080714	DK20050110923T	20051118
EP1666346 A1	20060607	EP20050110923	20051118
EP1666346 B1	20080319	EP20050110923	20051118
ES2306028 T3	20081101	ES20050110923T	20051118
IN03175DE2005 A	20090731	IN2005DE03175	20051128
ITMI20042340 A1	20050306	IT2004MI02340	20041206
JP2006160254 A2	20060622	JP20050350771	20051205
PT1666346 T	20080626	PT20050110923T	20051118
SI1666346 T1	20080831	SI20050030273T	20051118
TW200624296 A	20060716	TW20050142280	20051201
US2006151232 AA	20060713	US20050288045	20051128

Priority:

EP20050110923 20051118 IT2004MI02340 20041206

Probable Assignee: PIAGGIO AND C SPA

Assignee(s): (std): MARCACCI MAURIZIO ; PIAGGIO AND C SPA

Assignee(s): PIAGGIO AND C S P A

Inventor(s): (std): MAURIZIO MARCACCI ; MARCACCI MAURIZIO

Agent(s): DE GREGORI ANTONELLA ET AL; HEDMAN AND COSTIGAN PC

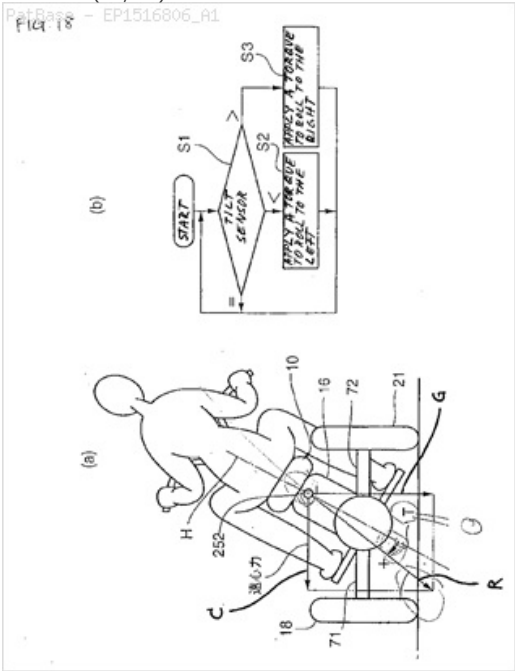
Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Title: Roll control device for rolling type vehicle

Abstract: Source: EP1516806A1 A roll control device for a motorized three-wheeled vehicle (10) in which a vehicle body rolls, is characterized in that the angle of force acting on either a vehicle body (16) side which is a rolling side vehicle body or suspension arms (71, 72) side which is a non-rolling side vehicle body is detected, and, based on the detected angle, the relative roll angle between the vehicle body (16) side and the suspension arms (71, 72) side is controlled.

Classifications:

International (ipc 8-9): B62J27/00 B62J99/00
B62K5/04 (Advanced/Invention);
B62J27/00 B62K5/00 (Core/Invention)
International (ipc 1-7): B62K5/04
CPC: B62J27/00 B62K5/027 B62K5/10
European: B62J27/00 B62K5/027 B62K5/10



Family:

Publication number	Publication date	Application number	Application date
DE602004014864 D1	20080821	DE200460014864T	20040913
EP1516806 A1	20050323	EP20040021738	20040913
EP1516806 B1	20080709	EP20040021738	20040913
JP2005088742 A2	20050407	JP20030324810	20030917
JP4583741 B2	20101117	JP20030324810	20030917

Priority:

JP20030324810 20030917

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s): (std): HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO

Inventor(s): (std): IEDA YOSHIHISA ; TAKAYANAGI SHINJI ; TOMODA AKIHIKO ; TOMOTA AKIHIKO

Agent(s): RUPP CHRISTIAN ET AL

Designated states: DE IT

Title: TILTING VEHICLE

Abstract: Source: US2008238005A A tilting vehicle comprising at least one section (17) tiltable about the longitudinal axis of the vehicle, tilt registration means (20) recording variations in the tilt position of the tiltable section (17), a control element (5), tilt control means (12) connecting the control element (5) to the tilt section (17), at least three wheels (42, 42 a, 45) including wheels (42, 42 a) laterally spaced, a castoring element including at least one front wheel (42, 42 a) able to tilt with the tiltable section (17) and dynamically directionally controllable due to the tilt and speed of the vehicle, a speed sensitive control signal transmitter (21), a variable force steer transmitter (16) connected to the castoring element, the tilt registration means (20) and to the speed sensitive control signal transmitter (21), the variable force steer transmitter (16) being able to exert a directing moment and/or positioning moment on the castoring element, that directs and/or positions the castoring element according to the tilt registration means (20) and the force exerted by the variable force steer transmitter (16), which is varied by control signals from the speed sensitive control signal transmitter (21).

Classifications:

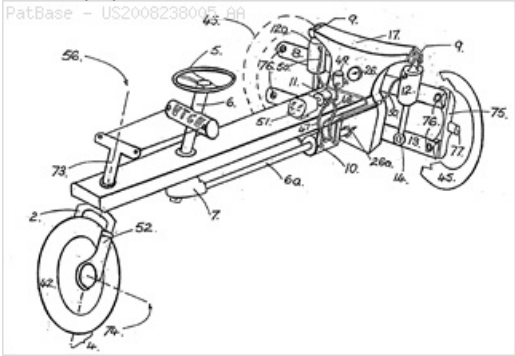
International (IPC 8-9): B62D9/02 B62K5/08 (Advanced/Invention); B62D9/00 B62K5/00 (Core/Invention)

International (IPC 1-7): B62D9/02 B62K5/06

CPC: B62D9/02 B62K5/027 B62K5/05 B62K5/08 B62K5/10

European: B62D9/02 B62K5/027 B62K5/05 B62K5/08 B62K5/10

US: 280/5.509 280/5.509P



Family:

Publication number	Publication date	Application number	Application date
US2008238005 AA	20081002	US20050586819	20050202
WO05075278 A1	20050818	WO2005AU00110	20050202

Priority:

AU20040900556 20040206 AU20040905617 20040930 WO2005AU00110 20050202

Probable Assignee: JAMES PHILLIP RONALD

Assignee(s): (std): JAMES PHILLIP RONALD

Inventor(s): (std): JAMES PHILLIP RONALD

Agent(s): PHILLIP R JAMES

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 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: SPEED SENSOR FITTING STRUCTURE

Abstract: Source: US2006202553A When a vehicle speed sensor is provided as a separate unit, the vehicle sensor should be removed when a vehicle wheel is changed. A brake caliper is fitted to an upper stay and a lower stay formed at a lower part of the front fork supporting the front wheel. The sensor stay is fitted to the inside of the lower stay in the vicinity of the brake caliper. A sensor cover is fastened integrally in an overlapping manner to the outside of the sensor stay. A projection formed on the sensor cover overlaps with a fitting bolt of the brake caliper. Thus, it is not possible to remove the brake caliper without first removing the sensor cover. Further, a vehicle speed sensor is sandwiched by the sensor stay and the lower end of the sensor cover and the three members are fastened together.

Classifications:

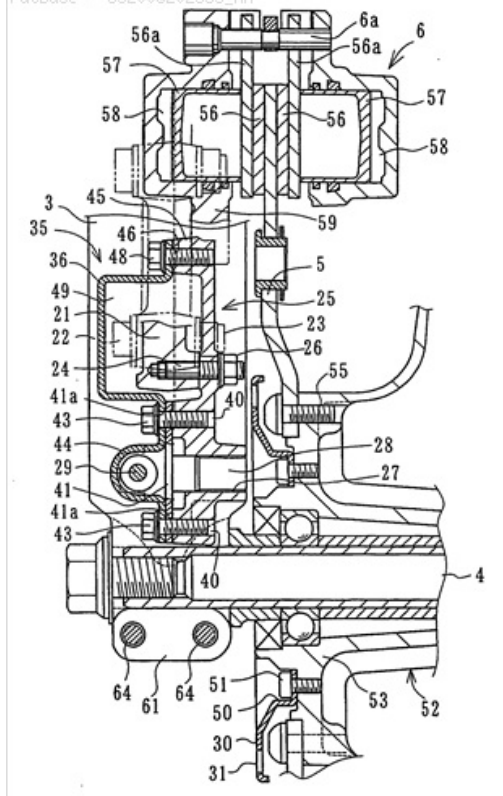
International (IPC 8-9): B60T8/17 B60T8/171 B60T8/32 B62J99/00 B62K19/38 B62K25/08 B62L5/00 G01P3/44 (Advanced/Invention); B60T8/17 B62J99/00 B62K19/00 B62K25/06 B62L5/00 (Core/Invention)

CPC: B60T8/1706 B60T8/171 B62J99/00 B62J2099/002 B62K25/08 B62K2207/00 G01P1/026

European: B60T8/171 B60T8/17P7 B62J99/00 B62K25/08 G01P1/02C L62J99/00D L62K207/00

US: 180/219 188/26 188/26S 303/137 303/168 303/168P 324/166 324/173 73/493

PatBase - US2006202553_AA

**Family:**

Publication number	Publication date	Application number	Application date
DE102006009409 A1	20060914	DE200610009409	20060301
DE102006009409 B4	20101007	DE200610009409	20060301
JP2006248296 A2	20060921	JP20050064878	20050309
JP4520333 B2	20100804	JP20050064878	20050309
US2006202553 AA	20060914	US20060370848	20060309
US7661771 BB	20100216	US20060370848	20060309

Priority:

JP20050064878 20050309

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s): (std): HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO

Inventor(s): (std): ASHIMI TAKASHI ; NIMURA TAISUKE ; IWAI TOSHIYUKI ; ASHIGAI TAKASHI

Agent(s): BIRCH STEWART KOLASCH AND BIRCH; BIRCH STEWART KOLASCH AND BIRCH LLP

Title: SELF-CENTERING RETURN MECHANISM

Abstract: Source: US2006255550A An auxiliary lean control system is provided for controlling a lean angle of at least a portion of a vehicle. The auxiliary lean control system includes an energy storage device for storing energy to actuate the lean control system, a stabilizing mechanism coupled to the energy storage device and to the at least a portion of the vehicle for applying energy received from the energy storage device to the at least a portion of the vehicle to adjust the lean angle of the at least a portion of a vehicle, and a linkage coupled to the energy storage device and to the stabilizing mechanism for transferring energy from the energy storage device to the stabilizing mechanism. The auxiliary lean control system controls the lean angle of the portion of the vehicle in an absence of control of the lean angle by a primary lean control system. In another aspect, the present invention provides a vehicle including a vehicle suspension apparatus and a vehicle lean control system coupled to the vehicle suspension apparatus for controlling a lean of at least a portion of the vehicle, the suspension apparatus being operable independent of the vehicle lean control system.

Classifications:

International (IPC 8-9): B60G11/27 B60G17/01 B60G17/015 B60G21/00 B60G21/10 B62D37/00 B62D61/06 B62D9/02

B62K5/04 (Advanced/Invention);

B60G3/20 (Advanced/Non-invention);

B60G11/26 B60G17/01 B60G17/015 B60G21/00 B62D37/00

B62D9/00 B62K5/00 (Core/Invention);

B60G3/18 (Core/Non-invention)

CPC: B60G21/007 B60G2200/144 B60G2200/44 B60G2204/128

B60G2204/129 B60G2204/143 B60G2204/148 B60G2204/414

B60G2204/43 B60G2204/4308 B60G2300/122 B60G2300/45

B62D9/02 B62K5/027 B62K5/05 B62K5/08 B62K5/10

European: B60G21/00D B62D9/02 B62K5/027 B62K5/05 B62K5/08

B62K5/10 L60G200/144 L60G200/440 L60G204/128 L60G204/129

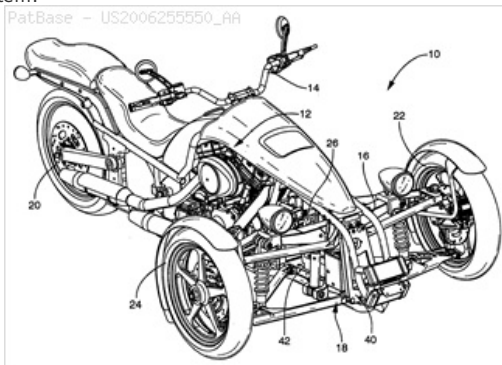
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L60G300/122 L60G300/45

US: 180/210 180/41 280/124.103 280/124.103S 280/124.157

280/124.157S 280/5.509 280/5.509P 280/6.15 280/6.15S

PatBase - US2006255550_AA

**Family:**

Publication number	Publication date	Application number	Application date
DE102006022134 A1	20061130	DE200610022134	20060511
JP2006315674 A2	20061124	JP20060134354	20060512
JP4845585 B2	20111228	JP20060134354	20060512
US2006255550 AA	20061116	US20060432976	20060512
US7568541 BB	20090804	US20060432976	20060512

Priority:

US20050680588P 20050513
US20050722821P 20050930

US20050722686P 20050930

US20060432976 20060512

Probable Assignee: BWI CO LTD SA

Assignee(s): (std): FULKS GARY C ; HAERR TIMOTHY A ; PFEIL MICHAEL C ; ROTH ANDREW H ; SAIKI SCOTT J ; DELPHI TECH INC ; HARLEY DAVIDSON MOTOR CO GROUP ; HARLEY DAVIDSON MOTOR CO INC

Assignee(s): BWI CO LTD SA ; HARLEY DAVIDSON MOTOR COMPANY GROUP INC ; DELPHI TECHNOLOGIES INC ; HARLEY DAVIDSON MOTOR CO GROUP INC

Inventor(s): (std): FULKS GARY C ; HAERR TIMOTHY A ; PFEIL MICHAEL C ; ROTH ANDREW H ; SAIKI SCOTT J

Inventor(s): FULKS GARY ; SAIKI SCOTT ; ROTH ANDREW ; PFEIL MICHAEL ; HAERR TIMOTHY

Agent(s): DELPHI TECHNOLOGIES INC; THOMAS N

Title: MOTORCYCLE

Abstract: Source: USD547242S I claim, the ornamental design for a motorcycle, as shown and described.

Classifications:

CPC: B62K5/10 B62K5/05 B62K5/027 B62K5/08

US: D12/110

Locarno class: 12/11

PatBase - USD547242 S1



Family:

Publication number	Publication date	Application number	Application date
CN3654481 D	20070606	CN200630123240F	20060901
IN206550 S	20120420	IN20060206550F	20060302
TWD118656 S1	20070821	TW20060304737F	20060823
USD547242 S1	20070724	US20060265047F	20060824

Priority:

EM20060487723F 20060302

Probable Assignee: PIAGGIO AND C SPA

Assignee(s): (std): PIAGGIO AND C SPA

Assignee(s): PIAGGIO and C. S.P.A. ; PIAGGIO AND C S P A

Inventor(s): (std): LAMBRI MARCO

Agent(s): HEDMAN AND COSTIGAN; JAMES V

Title: MOTORCYCLE WHEEL SPEED SENSOR MOUNTING STRUCTURE

Abstract: Source: US2008110706A A motorcycle wheel speed sensor mounting structure, includes an axle holder for supporting a front wheel is disposed below a front fork of the motorcycle and an axle support disposed in a lower part of the axle holder. Further, a caliper mount, for supporting a brake caliper of a disc brake, is disposed on a rear portion of the axle holder and a wheel speed sensor is mounted on the caliper mount, wherein the wheel speed sensor is located above a line connecting a lower end of the axle support to a lower end of the caliper mount.

Classifications:

International (IPC 8-9): B60T8/171 B60T8/66 B62J39/00 B62J99/00 B62L1/00 (Advanced/Invention);

B62K25/08 (Advanced/Non-invention);

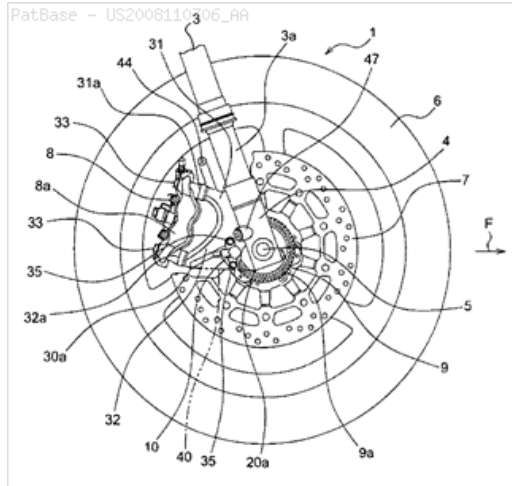
B60T8/17 B62J99/00 B62L1/00 (Core/Invention);

B62K25/06 (Core/Non-invention)

CPC: B60T8/171 B60T8/329 B62J99/00 B62J2099/002 B62K19/30 B62K2207/00 G01P1/026

European: B60T8/171 B60T8/32D18 B62J99/00 B62K19/30 G01P1/02C L62J99/00D L62K207/00

US: 188/181.00RP 188/181R 303/137 303/168 324/166 324/173 73/493



Family:

Publication number	Publication date	Application number	Application date
DE102007053339 A1	20080515	DE200710053339	20071108
ITTO20070708 A1	20080514	IT2007TO00708	20071009
JP2008120243 A2	20080529	JP20060306175	20061113
JP4724646 B2	20110713	JP20060306175	20061113
US2008110706 AA	20080515	US20070932218	20071031
US7901013 BB	20110308	US20070932218	20071031

Priority:

JP20060306175 20061113

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s): (std): HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO

Inventor(s): (std): ISHIDA SHINICHIRO

Agent(s): WESTERMAN HATTORI DANIELS AND ADRIAN LLP

Title: AUTOMATIC TWO- OR THREE-WHEELER

Abstract: Source: JP2008155671A PROBLEM TO BE SOLVED: To provide an automatic two- or three-wheeler capable of ensuring a foot space of a rear part occupant and making weight balance of front and rear sides of a vehicle body sufficient. SOLUTION: A seat comprises a front side seat 4 for a driver; and a rear seat 5 for a tandem rider arranged spaced at a rear side from the front side seat 4. At least a front part (engine body) 15 of an engine unit 3 is positioned between left and right leg placement parts 34, 34 for the driver.

Classifications:

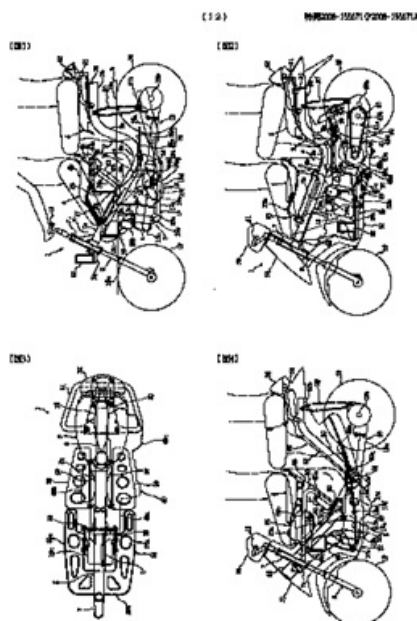
International (IPC 8-9): B62D65/10 B62J1/00 B62J1/14 B62J25/00 B62J35/00 B62K11/00 B62K11/04 B62K11/06 B62M7/02 (Advanced/Invention);

B62J1/00 B62J1/14 B62J25/00 B62J35/00 B62K11/00 B62K11/06 B62M7/00 (Core/Invention);

B62D65/10 B62K11/04 (Core/Non-invention)

International (IPC 1-7): B62J01/14 B62J1/14

PatBase - JP2008155671_A2



Family:

Publication number	Publication date	Application number	Application date
CN101219691 A	20080716	CN200710301610	20071220
CN101219691 B	20110216	CN200710301610	20071220
JP2008155671 A2	20080710	JP20060343574	20061220
JP4986603 B2	20120725	JP20060343574	20061220
TH53320 B	20170112	TH20071006574	20071219
TH95483 A	20090430	TH20071006574	20071219
TW200836962 A	20080916	TW20070143727	20071119
TWI334397 B	20101211	TW20070143727	20071119
VN13484 A1	20150126	VN20070002729	20071219

Priority:

JP20060343574 20061220

Probable Assignee: YAMAHA MOTOR CO LTD

Assignee(s): (std): YAMAHA MOTOR CO LTD ; YAMAHA MOTOR CORP

Assignee(s): YAMAHA HATSUDOKI KABUSHIKI KAISHA ; YAMAHA HATSUDOKI KK ; YAMAHA MOTOR CO

Inventor(s): (std): MASARU ODAIRA ; MATSUNO YASUTOKI ; OHIRA MASARU ; YASUTOKI MATSUGANO

Inventor(s): ODAIRA MASARU ; MATSUGANO YASUTOKI

Title: INCLINING AND STEERING SYSTEM TO OBTAIN THE TRICYCLE (WITH 2 FRONT WHEELS) OR ALSO THE QUADRICYCLE (WITH OTHER, ONLY INCLINABLE, 2 BACK WHEELS) TO GUIDE BETTER

Abstract: The inclining and steering System, object of this innovation, made of a usual main fork lying and welded on top on the vertical motion plane frame under the handle-bar and made of the inclining parallelogram System crosswise swinging between the 2 legs of the fork having its 2 horizontal axes grafted to their 2. dual-joint internally anchoring on each leg of the same fork and made of 2 further usual forks externally anchoring on each side of the inclining parallelogram System supporting the 2 usual forks wheels; this entire System is now able to steer, by driving leverage from the handle-bar and simultaneously to incline the entire vehicle (in this case we obtain a tricycle with 2 front forks-wheels and 1 back). The inclining and steering System is made to obtain the Tricycle (with 2 front wheels and 1 back wheel) or also the Quadricycle (with another inclining System, welded on the back on top on the vertical motion plane frame under the saddle, only inclinable, with 2 back forks-wheels). Each leg of the front main fork or of the back main fork can have inside a telescopic shock-absorber and the behavior of the vehicle (with 3 or 4 wheels) in curve or in straight motion is regular, because the 2 back forks-wheels follow the same kind of inclining and pass on the the same drive tracing without sliding. The inclining and steering System is made to obtain the Tricycle (with 2 front wheels and 1 back wheel) or also the Quadricycle (with another inclining System, with 2 other back wheels) The 2 front wheels can have or not the 2 usual fork. It could have the 2 vertical axles externally mounting the front 2 wheels. The same for the Quadricycle with the 2 further back wheels. Obviously, the usual handle-bar, by its usual driving leverages down to the 2 further front forks-wheels, is now able to brake or to steer and or to incline the entire vehicle (in this case the vehicle is a Tricycle). The same for the Quadricycle with the 2 further back wheels, those are only braking and or inclining and pass on the same drive tracing without sliding.

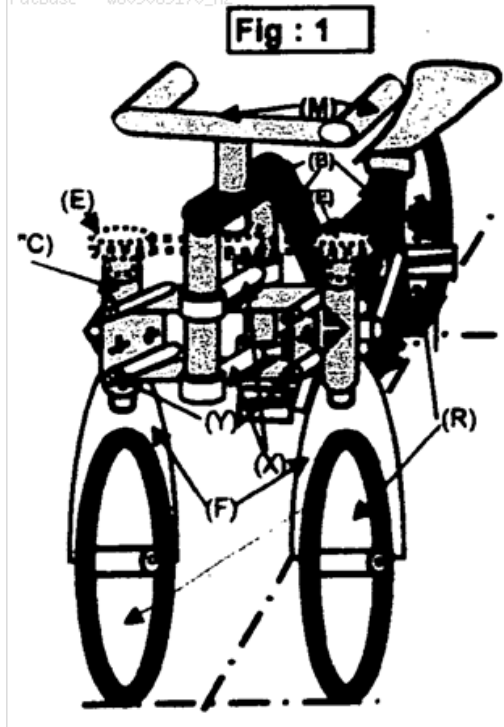
Classifications:

International (IPC 8-9): B60G21/00 B60G21/05 B62D9/02 B62K5/00 B62K5/04 B62K5/05 (Advanced/Invention)

CPC: B60G21/05 B60G2300/122 B60G2300/124 B62K5/00 B62K5/05 B62K5/10 B62K2005/001

European: B60G21/05 B62K5/00 B62K5/05 B62K5/10 L60G300/122 L60G300/124 L62K5/00B

PatBase - WO09069170_A2



Family:

Publication number	Publication date	Application number	Application date
ITRM20070616 A1	20090528	IT2007RM00616	20071127
WO09069170 A2	20090604	WO2008IT00731	20081127
WO09069170 A3	20090723	WO2008IT00731	20081127

Priority:

IT2007RM00616 20071127

Probable Assignee: CECININI GIANNI

Assignee(s): (std): CECININI GIANNI

Inventor(s): (std): CECINI GIANNI ; CECININI GIANNI

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: SPEED SENSOR COLLISION PREVENTION DEVICE

Abstract: Source: US2009183957A A motorcycle includes a swing arm swingably provided on a body frame, a wheel rotatably provided at an end part of the swing arm, a disk plate attached to the wheel, a caliper bracket provided on the body frame side of the vehicle, a disk brake caliper provided on the caliper bracket, and a wheel speed sensor attached to the caliper bracket. The wheel speed sensor is disposed between the swing arm and the wheel. The wheel speed sensor and the swing arm overlap one other in a side view of the vehicle.

Classifications:

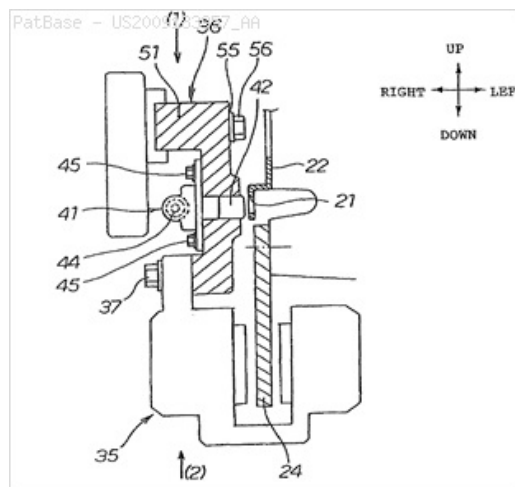
International (IPC 8-9): B60T8/32 B60T8/72 B62J6/16 B62J99/00 B62K11/02 B62K25/20 B62L1/00 F16D65/02 G01P1/02 G01P3/00 G01P3/44 (Advanced/Invention);

B60T8/72 B62J6/00 B62J99/00 B62K25/04 B62L1/00 F16D65/02 G01P1/00 G01P3/00 (Core/Invention)

CPC: B60T8/329 B62K19/38

European: B60T8/32D18 B62K19/38

US: 180/227 188/181.00RP 188/181R 280/284 280/288

**Family:**

Publication number	Publication date	Application number	Application date
CN101493472 A	20090729	CN200910003576	20090120
CN101493472 B	20110126	CN200910003576	20090120
DE602009002901 D1	20111201	DE200960002901T	20090119
EP2082934 A1	20090729	EP20090150851	20090119
EP2082934 B1	20111005	EP20090150851	20090119
JP2009173136 A2	20090806	JP20080012989	20080123
JP5422127 B2	20140219	JP20080012989	20080123
US2009183957 AA	20090723	US20090353428	20090114
US7976047 BB	20110712	US20090353428	20090114

Priority:

EP20090150851 20090119 JP20080012989 20080123

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s): (std): HONDA MOTOR CO LTD

Assignee(s): HONDA GIKEN KOGYO K K ; HONDA MOTOR CO

Inventor(s): (std): ISHIDA SHINICHIRO ; NIMURA TAISUKE ; SHINICHIRO ISHIDA ; TAISUKE NIMURA

Inventor(s): NIMURA TAISUKE C O HONDA R AND D CO LTD ; NIMURA TAISUKE C O HONDA R AND D CO LTD ; ISHIDA SHINICHIRO C O HONDA R AND D CO LTD ; ISHIDA SHINICHIRO C O HONDA R AND D CO LTD

Agent(s): BETTEN AND RESCH PATENT U RECHTSANWAELTE PARTGMBB; ILGART JEAN CHRISTOPHE; WESTERMAN HATTORI DANIELS AND ADRIAN LLP

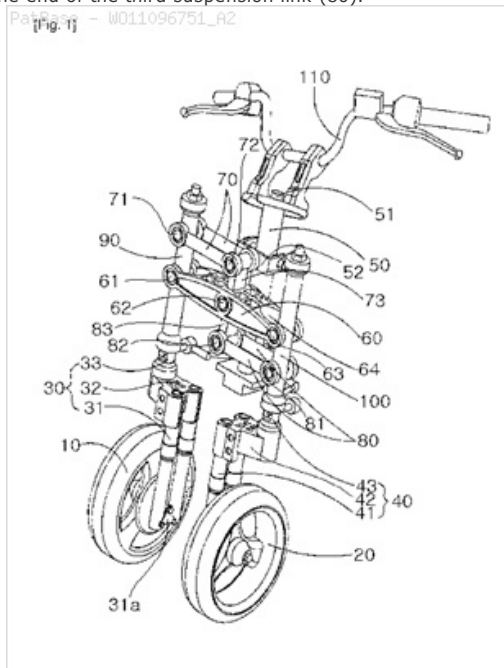
Designated states: AL BA DE FR IT RS

Title: INTERLOCKING DEVICE FOR A HEAD UNIT OF A TRICYCLE

Abstract: The present invention relates to an interlocking device for a head unit of a tricycle. The technical solution to be provided by the present invention is allowing a front unit of a tricycle to have a two-wheel interlocking structure, thus improving stability, reducing the area of the entire tricycle and the space used by the tricycle, enabling the tricycle to turn a corner in a convenient and non-sliding manner, simplifying the structure and reducing costs. For this purpose, the interlocking device for a head unit of a tricycle comprises: a first wheel (10); a second wheel (20) spaced apart from the first wheel (10); a first suspension unit (30) the lower end of which has a side portion pin-coupled to the first wheel (10) to support the first wheel (10) such that the first wheel (10) is rotatable, and which buffers shock transmitted from the first wheel (10); a second suspension unit (40) which has lower end with a side portion pin-coupled to the second wheel (20) to support the second wheel (20) such that the second wheel (20) is rotatable, and which buffers shock transmitted from the second wheel (20); a chassis (50) having a top on which a handle stem is protruded; a center suspension link (60) which is formed into an H-shaped plate, and which has a center and both ends with respective pin holes; a second suspension link (70) which has two links arranged in parallel with each other, wherein both ends of the links are pin-coupled, and one of the pins which interconnect ends of the links has a protrusion coupled to the top of the center of the center suspension link (60); a third suspension link (80) which has two links arranged in parallel with each other, wherein both ends of the links are pin-coupled, and one of the pins which interconnect ends of the links has a protrusion coupled to the bottom of the center of the center suspension link (60); a first suspension support (90) which is pin-coupled to one end of the center suspension link (60) and pin-coupled to one end of the second suspension link (70); and a second suspension support (100) which is pin-coupled to the other end of the center suspension link (60) and pin-coupled to one end of the third suspension link (80).

Classifications:

International (IPC 8-9): B62K21/00 B62K21/08 B62K21/14
B62K25/04 B62K25/08 B62K5/00 B62K5/04 B62K5/05 B62K5/06
B62K5/08 (Advanced/Invention);
B62K5/00 (Advanced/Non-invention);
B62K21/00 B62K25/04 (Core/Invention)
CPC: B62K5/05 B62K5/10 B62K21/02 B62K25/08 B62K2005/001
B62K21/00 B62K25/04
European: B62K21/02 B62K25/08 B62K5/05 B62K5/10 L62K5/00B



Family:

Publication number	Publication date	Application number	Application date
CN101774414 A	20100714	CN201010118780	20100206
CN101774414 B	20121128	CN201010118780	20100206
KR20110091618 A	20110812	KR20110007990	20110126
WO11096751 A2	20110811	WO2011KR00756	20110202
WO11096751 A3	20111110	WO2011KR00756	20110202

Priority:

CN201010018780 20100206 CN201010118780 20100206 KR20110007990 20110126

Probable Assignee: KOREA JISU MOTOR CO LTD

Assignee(s): (std): KIM DOO JEONG ; KIM DU JEONG ; KOREA JISU MOTOR CO LTD

Assignee(s): KOREA JISU MOTOR CO

Inventor(s): (std): DOO JEONG KIM ; DOOJEONG KIM ; KIM DOO JEONG ; KIM DU JEONG

Inventor(s): KIM DOOJEONG

Agent(s): KIM SEONG DAE

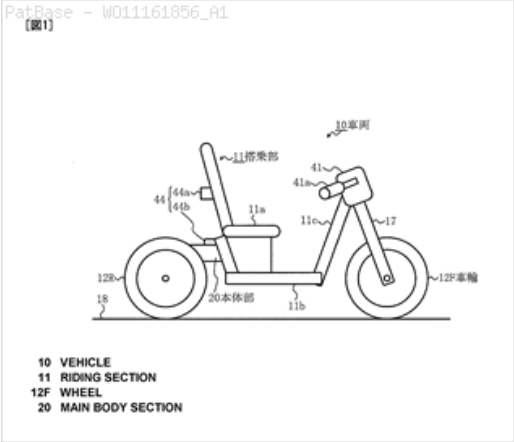
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Title: VEHICLE

Abstract: The disclosed vehicle does not change in position, does not generate unnecessary vibrations, and does not require incline control when stopped, thus said vehicle is very safe, provides good ride quality and those riding therein do not feel any discomfort. The vehicle comprises: a vehicle provided with a drive unit and a steering unit which are connected to one another; a steering wheel for steering the vehicle; a drive wheel for driving the vehicle; a tilting actuator device for tilting a steering unit or a drive unit in the turning direction; a tilting brake device for stopping the tilting operation of the vehicle; a lateral acceleration sensor; and a control device. The control device controls so as to tilt in the turning direction on the basis of the lateral acceleration detected by the lateral acceleration sensor, and when the vehicle is stopped the control device stops the control of the vehicle tilt and operates the tilting brake device and locks the position of the vehicle.

Classifications:

International (IPC 8-9): B60G1/02 B60G17/005 B60G17/015 B60G17/017 B60G3/20 B62J99/00 B62K25/04 B62K5/025 B62K5/027 B62K5/04 B62K5/05 B62K5/10 (Advanced/Invention)
CPC: B62J99/00 B60G3/20 B60G2300/45 B62J2099/002 B62K5/025 B62K5/027 B62K5/10 B62K25/04 B62K2005/001
European: B60G3/20 B62J99/00 B62K25/04 B62K5/025 B62K5/027 B62K5/05 B62K5/10 L60G300/45 L62J99/00D L62K5/00B



Family:

Publication number	Publication date	Application number	Application date
CN103079946 A	20130501	CN201180031536	20110328
CN103079946 B	20151125	CN201180031536	20110328
JP2012025370 A2	20120209	JP20100257399	20101118
JP5521994 B2	20140618	JP20100257399	20101118
WO11161856 A1	20111229	WO2011JP01822	20110328

Priority:

JP20100144371 20100625 JP20100257399 20101118 WO2011JP01822 20110328

Probable Assignee: EQUOS RES CO LTD

Assignee(s): (std) EQUOS RES CO LTD ; HAYASHI KOKI ; TAKAKURA YUJI ; YAMAMOTO SHINJI

Assignee(s): EQUOS RESEARCH CO ; EQUOS RESEARCH CO LTD

Inventor(s): (std) HAYASHI KOKI ; TAKAKURA YUJI ; YAMAMOTO SHINJI

Agent(s): AOKI TOSHIKI

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 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:

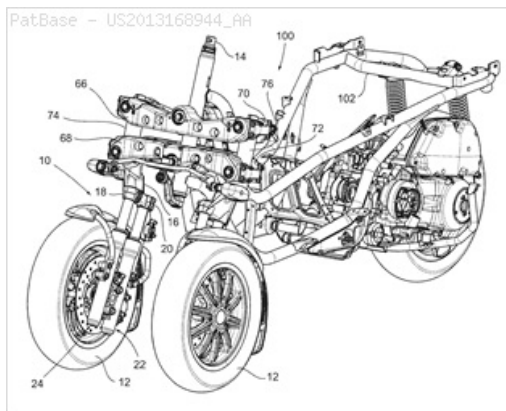
International (IPC 8-9): B60G3/01 B62D61/06 B62D9/02 B62D9/04 B62K11/02 B62K21/00 B62K25/00 B62K25/08 B62K5/00 B62K5/01 B62K5/027 B62K5/04 B62K5/05 B62K5/08 B62K5/10 (Advanced/Invention); B62K25/04 B62K5/00 (Advanced/Non-invention)

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
AR082228 AA	20121121	AR2011P102552	20110715
CN103153769 A	20130612	CN201180044710	20110707
CN103153769 B	20160817	CN201180044710	20110707
DE602011018958 D1	20151001	DE201160018958T	20110707
EP2593352 A1	20130522	EP20110751935	20110707
EP2593352 B1	20150819	EP20110751935	20110707
EP2977304 A1	20160127	EP20150180293	20110707
EP2977305 A1	20160127	EP20150180295	20110707
EP2977306 A1	20160127	EP20150180302	20110707
EP2977307 A1	20160127	EP20150180305	20110707
ES2553744 T3	20151211	ES20110751935T	20110707
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
US2014353940 AA	20141204	US20140301377	20140611
US9227662 BB	20160105	US20110810231	20110707
WO12007819 A1	20120119	WO2011B01619	20110707
WO12007819 A8	20120322	WO2011B01619	20110707

Priority:

EP20110751935	20110707	EP20150180293	20110707	IT2010MI01317	20100716
EP20150180295	20110707	EP20150180302	20110707	EP20150180305	20110707
WO2011B01619	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

Title: VEHICLE BODY TILTING APPARATUS

Abstract: Source: US2013193656A A vehicle body tilting apparatus includes: a right/left-wheels holding member having an elongated shape, and holding a right side wheel and a left side wheel of a vehicle which are disposed to be spaced apart from each other in a width direction of the vehicle such that each of the wheels is movable in a vertical direction; and a lean actuator disposed between the right/left-wheels holding member and a body of the vehicle, and configured to tilt at least the body of the vehicle in a lateral direction with respect to a normal line that is perpendicular to a road surface, by pivoting the right/left-wheels holding member and the body of the vehicle relative to each other. An output shaft of the lean actuator is fixed to the right/left-wheels holding member, and the body of the vehicle is fixed to a main body of the lean actuator.

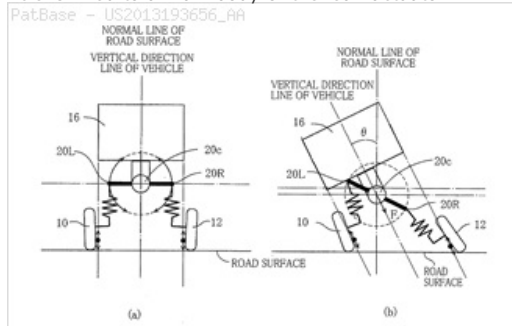
Classifications:

International (IPC 8-9): B60G17/005 B60G17/015 B60G21/00 B60G21/05 B60G3/28 B62D9/02 B62K25/00 B62K25/08 B62K5/04 B62K5/05 B62K5/08 B62K5/10 (Advanced/Invention)

CPC: B60G21/005 B60G17/005 B60G2300/45 B62K5/05 B62K5/10 B60G3/20 B60G17/0162 B60G21/007

European: B62K5/05 B62K5/10 L60G300/45

US: 280/124.103 280/5.509



Family:

Publication number	Publication date	Application number	Application date
CN103124671 A	20130529	CN201080069226	20101012
CN103124671 B	20150610	CN201080069226	20101012
JP5447683 B2	20140319	JP20120538485T	20101012
US2013193656 AA	20130801	US20100822502	20101012
US8657301 BB	20140225	US20100822502	20101012
WO12049724 A1	20120419	WO2010JP67843	20101012

Priority:

WO2010JP67843 20101012

Probable Assignee: TOYOTA MOTOR CO LTD

Assignee(s): (std): ITOH KOICHI ; MONZAKI SHIRO ; ONODA YUICHI ; TOYOTA MOTOR CO LTD ; YAMAZAKI IPPEI ; TOYOTA MOTOR CORP

Assignee(s): TOYOTA JIDOSHA KK ; TOYOTA MOTOR CO ; TOYOTA JIDOSHA KABUSHI KAISHA ; TOYOTA JIDOSHA KABUSHIKI KAISHA

Inventor(s): (std): ITOH KOICHI ; MONZAKI SHIRO ; ONODA YUICHI ; YAMAZAKI IPPEI

Agent(s): OLIFF PLC ; CHUBU PATENT OFFICE

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: VEHICLE

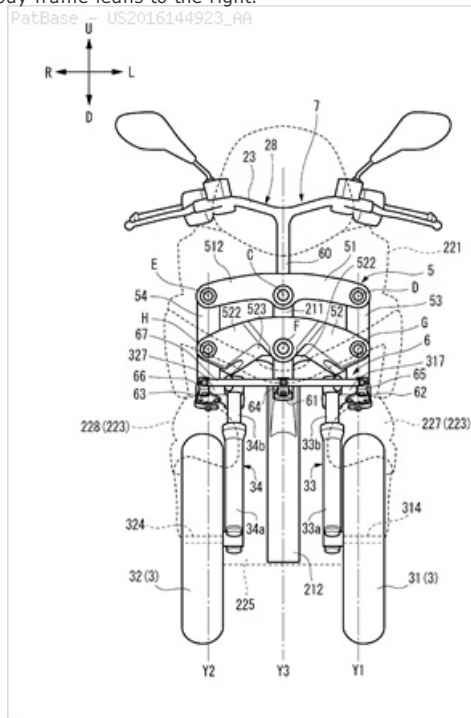
Abstract: Source: US2016144923A A vehicle includes a suspension device including a right cover member that is provided at least partially between a left surface of a right brake disc and a ground contact point of a left tire and in a position located closer to the right brake disc than the ground contact point of the left tire when a body frame is in the upright state and when the body frame leans to the left, and a left cover member that is located between a right surface of a left brake disc and a ground contact point of a right tire and in a position located closer to the left brake disc than a ground contact point of the right tire when the body frame is in the upright state and when the body frame leans to the right.

Classifications:

International (IPC 8-9): B62J15/00 B62J23/00 B62K19/38
B62K21/02 B62K25/08 B62K5/02 B62K5/027 B62K5/05 B62K5/06
B62K5/08 B62K5/10 B62L1/00 B62L3/08
F16D65/00 (Advanced/Invention);
B62L3/08 F16D65/00 (Core/Invention)

CPC: B60T17/22 F16D65/0062 B62J23/00 B62J2099/002 B62J15/00
B62K25/08 B62K21/02 B62L1/00 B62K5/10 B62K5/027 B62K5/05
B62K5/08 B62K2005/001

US: 280/124.103



Family:

Publication number	Publication date	Application number	Application date
AP201508942 A0	20151231	AP20150008942	20140630
CN105339255 A	20160217	CN201480037215	20140630
CO7600672 A2	20160510	CO20160018610	20160127
EP3000710 A1	20160330	EP20140820488	20140630
EP3000710 A4	20160518	EP20140820488	20140630
ID201605254 A	20160923	ID2015P0008842	20140630
IN04242KN2015 A	20160708	IN2015KN04242	20151229
JP2015002163 A1	20170223	JP20150525217T	20140630
MX2015017597 A1	20160415	MX20150017597	20140630
TH159956 A	20170207	TH20151007740	20140630
TW201512020 A	20150401	TW20140122781	20140701
TWI554428 B	20161021	TW20140122781	20140701
US2016144923 AA	20160526	US20140901363	20140630
WO15002163 A1	20150108	WO2014JP67476	20140630

Priority:

JP20130138477 20130701 WO2014JP67476 20140630

Probable Assignee: YAMAHA HATSUDOKI KK

Assignee(s): (std): YAMAHA MOTOR CO LTD

Assignee(s): YAMAHA HATSUDOKI KK ; YAMAHA MOTOR CO

Inventor(s): (std): ASANO DAISUKE

Inventor(s): DAISUKE ASANO

Agent(s): JUAN PABLO CADENA SARMIENTO; GRUENECKER PATENT U RECHTSANWALTE PARTG MBB; DIPL LNG ROHALDY MULUK; SHIN EI PATENT FIRM PC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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: VEHICLE

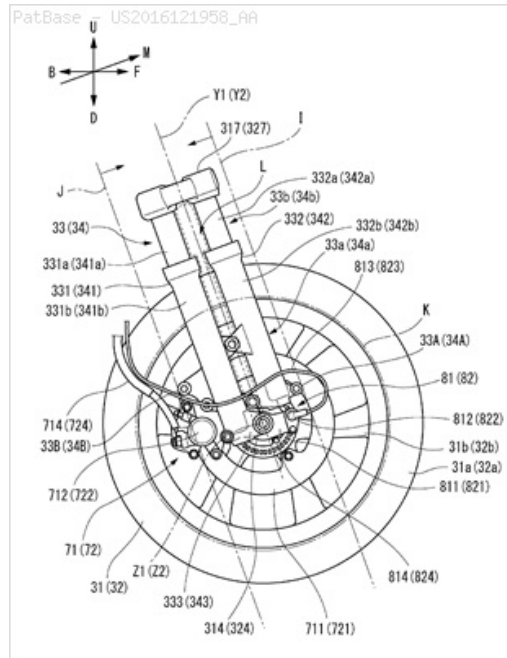
Abstract: Source: US2016121958A At least portion of a detecting portion of a front wheel rotation speed detector is supported on one front telescopic element of a shock absorbing device and is positioned in, as viewed in the direction of a wheel axis, an area defined by a front imaginary line which passes a front end of the shock absorbing device and which is parallel to a steering axis and a rear imaginary line which passes a rear end of the shock absorbing device and which is parallel to the steering axis in a perpendicular or substantially perpendicular direction to the wheel axis and the steering axis, an area located inwards of an outer shape of a wheel, and an area which is located outside an area defined between the front and rear telescopic elements.

Classifications:

International (IPC 8-9): B60G13/06 B60G21/00 B60G21/02
B60G21/04 B60G21/05 B62D1/00 B62D9/02 B62J23/00 B62J99/00
B62K19/38 B62K25/08 B62K5/02 B62K5/027 B62K5/05 B62K5/06
B62K5/08 B62K5/10 B62K52/08 (Advanced/Invention);
B62J99/00 B62K5/00 (Advanced/Non-invention);
B60G13/06 B62J23/00 B62J99/00 B62K5/02 B62K5/05
B62K5/08 (Core/Invention)

CPC: B60B27/0052 B60B27/02 B60Y2200/122 B60Y2200/126
B62K25/08 B62J99/00 B60G21/005 B60G21/04 B60G21/026
B62K2005/001 B60G13/06 B62J2099/002 B62K5/10 B62K5/027
B62K5/08 B62K19/38 B62K21/12 B62K25/00 B60T7/102 B60T11/16
B60T17/046 B62J17/02 B62L3/023 B62L3/08 B60G21/05
B60G2204/10 B60G2204/112 B60G2300/122 B60G2300/45
B62K5/05

US: 280/124.103



Family:

Publication number	Publication date	Application number	Application date
AP201508946 A0	20151231	AP20150008946	20140630
AP201508951 A0	20151231	AP20150008951	20140630
CN105339249 A	20160217	CN201480037031	20140630
CN105339249 B	20170503	CN201480037031	20140630
CN105392693 A	20160309	CN201480037224	20140630
CO7590589 A2	20160429	CO20160018601	20160127
CO7600653 A2	20160510	CO20160018605	20160127
EP3000706 A1	20160330	EP20140820431	20140630
EP3000706 A4	20160525	EP20140820431	20140630
EP3002195 A1	20160406	EP20140819779	20140630
EP3002195 A4	20160525	EP20140819779	20140630
ID201605260 A	20160923	ID2015P0008841	20140630
ID201701119 A	20170217	ID2015P0008843	20140630
IN03735MN2015 A	20160715	IN2015MN03735	20151230
IN201637000141 A	20160701	IN201637000141	20160104
JP2015002161 A1	20170223	JP20150525216T	20140630
JP2015002162 A1	20170223	JP20150500704T	20140630
JP5707008 B1	20150422	JP20150500704T	20140630
MX2015017598 A1	20160415	MX20150017598	20140630
MX2015017816 A1	20160415	MX20150017816	20140630
TH157522 A	20161109	TH20151007739	20140630
TH160491 A	20170223	TH20151007891	20140630
TW201512017 A	20150401	TW20140122776	20140701
TW201512021 A	20150401	TW20140122783	20140701
TWI554429 B	20161021	TW20140122783	20140701
TWI564210 B	20170101	TW20140122776	20140701
US2016121958 AA	20160505	US20140901368	20140630
US9604687 BB	20170328	US20140901368	20140630
WO15002161 A1	20150108	WO2014JP67474	20140630
WO15002162 A1	20150108	WO2014JP67475	20140630

Priority:

JP20130138475 20130701 JP20130138476 20130701 WO2014JP67475 20140630
JP20150500704 20140630 WO2014JP67474 20140630 JP20130138482 20130701

Probable Assignee: YAMAHA MOTOR CO LTD

Assignee(s): (std): YAMAHA MOTOR CO LTD

Assignee(s): YAMAHA HATSUDOKI KK ; YAMAHA HATSUKOKI KK

Inventor(s): (std): ASANO DAISUKE ; SASAKI KAORU

Inventor(s): DAISUKE ASANO ; KAORU SASAKI

Agent(s): JUAN PABLO CADENA SARMIENTO; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; DIPL LNG
ROHALDY MULUK; SHIN EI PATENT FIRM PC; KEATING AND BENNETT LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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

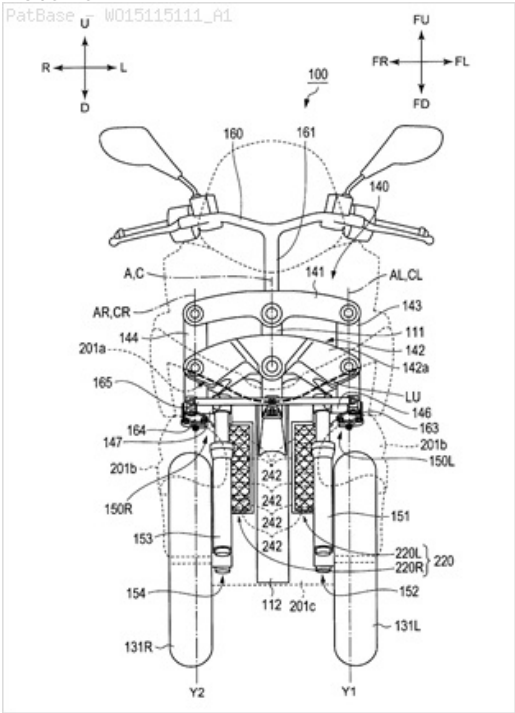
Title: VEHICLE

Abstract: The purpose of the present invention is to provide a vehicle having a vehicle body frame that inclines in the left-right direction with respect to the vehicle when turning to the left or right and two front wheels disposed in parallel in the left-right direction with respect to this vehicle body frame, wherein the radiator can be efficiently cooled and the front section of the vehicle can be made compact in size. This vehicle comprises: a vehicle body frame; a left front wheel and a right front wheel disposed in parallel in the left-right direction with respect to the vehicle body frame; a linking mechanism that comprises a right side rod linked to the right front wheel, a left front rod linked to the left front wheel, an upper cross member that supports the right side rod and the left side rod, and a lower cross member that supports the right side rod and the left side rod; and a heat exchanger that releases heat. With the vehicle frame in an upright state, and when seen in front view, a power unit is cooled by air passing through a range below the lower end of the lower cross member of the linking mechanism, to the left of the right front wheel, and to the right of the left front wheel, and the range also being behind the front ends of the right front wheel and the left front wheel when seen in side view.

Classifications:

International (IPC 8-9): B62J17/06 B62J99/00 B62K5/02 B62K5/027 B62K5/05 B62K5/08 (Advanced/Invention)

CPC: B62J99/00 B62K5/027 B62K5/08 B62J17/06 B62K5/05



Family:

Publication number	Publication date	Application number	Application date
CO7590614 A2	20160429	CO20160004560	20160108
EP2982588 A1	20160210	EP20150742879	20150130
EP2982588 A4	20160622	EP20150742879	20150130
IN03617MN2015 A	20160722	IN2015MN03617	20151219
JP2015115111 A1	20170323	JP20150559830T	20150130
MX2015017940 A1	20160510	MX20150017940	20150130
TW201532890 A	20150901	TW20150103364	20150130
TWI576270 B	20170401	TW20150103364	20150130
WO15115111 A1	20150806	WO2015JP00415	20150130

Priority:

JP20140017276 20140131 JP20140017276 20150131 WO2015JP00415 20150130

Probable Assignee: YAMAHA MOTOR CO LTD

Assignee(s): (std): YAMAHA MOTOR CO LTD

Assignee(s): YAMAHA HATSUDOKI KK

Inventor(s): (std): ASANO DAISUKE ; TAKANO KAZUHISA

Inventor(s): KAZUHISA TAKANO ; DAISUKE ASANO

Agent(s): JUAN PABLO CADENA SARMIENTO; GRUENECKER PATENT U RECHTSANWALTE PARTG MBB; WASHIDA KIMIHIITO

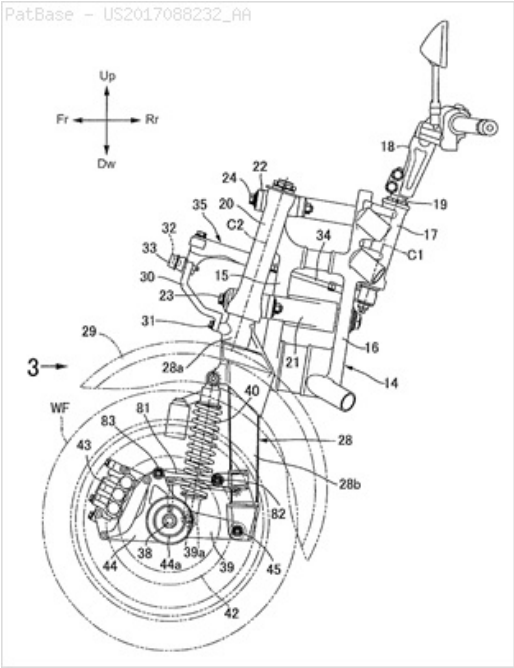
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA 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: STRADDLE-TYPE VEHICLE

Abstract: Source: US2017088232A An axle extends in an axial direction. A front wheel is rotatable around a wheel rotational axis. A front wheel supporting arm rotatably supports the axle. A front fork swingably supports the front wheel supporting arm such that the front wheel supporting arm is rotatable in a first direction about the wheel rotational axis. A rotary member is rotatable together with the axle around the wheel rotational axis. An axle rotation detector is supported on the axle opposite to the rotary member in the axial direction to be rotatable around the wheel rotational axis to detect a difference between rotational speeds of the axle rotation detector and the rotary member. A link mechanism is provided between the axle rotation detector and the front fork to turn the axle rotation detector in a second rotational direction opposite to the first rotational direction about the wheel rotational axis.

Classifications:

International (IPC 8-9): B62J99/00 B62K25/08 B62K5/027 B62K5/05 B62K5/08 B62K5/10 B62L1/00 G01P3/00 (Advanced/Invention)
CPC: B62K25/08 B62L1/005 B62K5/027 B62K5/08 B62J2099/002 B62J2300/002 B62K5/05 B62K5/10



Family:

Publication number	Publication date	Application number	Application date
EP3153388 A1	20170412	EP20160190984	20160928
JP2017065542 A2	20170406	JP20150194310	20150930
US2017088232 AA	20170330	US20160263371	20160913

Priority:

JP20150194310 20150930

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s): (std): HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO

Inventor(s): (std): IGUCHI KAZUNARI ; KANETA HIROYUKI ; MIYAGISHI SHUNICHI ; MORI YOTARO ; UEBAYASHI YUICHI

Agent(s): BREVALEX

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR