Claims

What is claimed is:

1. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a damping component fixedly connected to the another one of the connecting base and the wheel base, a through hole is disposed on the damping component, and the spindle component passes through the through hole and tightly fits with the damping component,

wherein the restraining mechanism further comprises at least one fixing component configured to fixedly connect the damping component to the another one of the connecting base and the wheel base, and

wherein a connecting portion is formed on the damping component and formed in a concave structure along a radial direction of the damping component, the connecting portion is located on a middle portion of the damping component along an axial direction of the damping component, the fixing component is inserted in the another one of the connecting base and the wheel base and the connecting portion for restraining the damping component from being driven to move along the axial direction of the damping component by the spindle component.

2. The anti-shimmy device of claim 1, wherein a recess is disposed on the spindle component, and a protrusion protrudes from the damping component and tightly fits with the recess.

3. The anti-shimmy device of claim 2, wherein the recess is a trapezoid recess, and the protrusion is a trapezoid protrusion.

4. The anti-shimmy device of claim 1, wherein the restraining mechanism further comprises a bearing disposed on the another one of the connecting base and the wheel base, and the spindle component is rotatably connected to the another one of the connecting base and the wheel base by the bearing.

5. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a pushing component configured to push the spindle component along an axial direction of the spindle component.

6. The anti-shimmy device of claim 5, wherein the pushing component is movably disposed on the another one of the connecting base and the wheel base, and the restraining mechanism further comprises a resilient component connected to the pushing component for driving the pushing component to push the spindle component.

7. The anti-shimmy device of claim 6, wherein the restraining mechanism further comprises an engaging component, a long hole is disposed on the engaging component, the spindle component passes through the long hole,

and the engaging component is movable relative to the spindle component along a lateral direction of the spindle component by a cooperation of the long hole and the spindle component to push the spindle component along the lateral direction of the spindle component.

8. The anti-shimmy device of claim 7, wherein a recess is disposed on the spindle component, and a protrusion protrudes from the engaging component and engages with the recess along the lateral direction of the spindle component when the engaging component pushes the spindle component along the lateral direction of the spindle component.

9. The anti-shimmy device of claim 7, wherein the engaging component is movably disposed on the another one of the connecting base and the wheel base, and the restraining mechanism further comprises a recovering component disposed between the engaging component and the another one of the connecting base and the wheel base for driving the engaging component to push the spindle component along the lateral direction of the spindle component.

10. The anti-shimmy device of claim 7, wherein the restraining mechanism further comprises at least one positioning column fixedly disposed on at least one of the pushing component and the another one of the connecting base and the wheel base, and the resilient component is sleeved on the at least one positioning column.

11. The anti-shimmy device of claim 5, wherein the pushing component comprises two protruding portions fixedly disposed on the one of the connecting base and the wheel base, and an end of the spindle component is clamped by the two protruding portions.

12. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-

shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism further comprises at least two rotators rotatably engaged with each other.

13. The anti-shimmy device of claim 12, wherein the at least two rotators comprises a first gear and a second gear, the first gear is fixedly disposed on the another one of the connecting base and the wheel base and sleeved on the spindle component, and the second gear is rotatably disposed on the one of the connecting base and the wheel base .

14. The anti-shimmy device of claim 13, wherein the restraining mechanism further comprises a fixing portion fixedly disposed on the another one of the connecting base and the wheel base and sleeved on the spindle component.

15. The anti-shimmy device of claim 14, wherein the first gear and the fixing portion are integrally formed with each other.

16. The anti-shimmy device of claim 13, wherein a root diameter of the first gear is larger than a root diameter of the second gear.

17. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a damping block disposed on a side of the spindle component and movable relative to the spindle component along a lateral direction of the spindle component to push the spindle component along the lateral direction of the spindle component.

18. The anti-shimmy device of claim 17, wherein a recess is disposed on the spindle component, and a protrusion protrudes from the damping block and engages with the recess along the lateral direction of the spindle component when the damping block pushes the spindle component along the lateral direction of the spindle component.

19. The anti-shimmy device of claim 17, wherein the damping block is movably disposed on the another one of the connecting base and the wheel base, and the restraining mechanism further comprises a recovering component disposed between the damping block and the another one of the connecting base and the wheel base for driving the damping block to push the spindle component along the lateral direction of the spindle component.

20. The anti-shimmy device of claim 19, wherein the restraining mechanism further comprises at least one positioning column fixedly disposed on at least one of the damping block and the another one of the connecting base and the wheel base, and the recovering component is sleeved on the at least one positioning column.

21. The anti-shimmy device of claim 17, wherein the restraining mechanism further comprises a mounting component fixedly disposed on the another one

of the connecting base and the wheel base, and the spindle component is rotatably connected to the another one of the connecting base and the wheel base by the mounting component.

22. The anti-shimmy device of claim 17, wherein the anti-shimmy device further comprises a buffering component disposed between the wheel and the wheel base, and the buffering component and the spindle component are arranged in parallel.

23. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a rotating sleeve and a damping plate, the rotating sleeve is fixedly disposed on the another one of the connecting base and the wheel base, the spindle component passes through the rotating sleeve and is rotatable relative to the rotating sleeve, and the damping plate is disposed on the spindle component and pushes the rotating sleeve along an axial direction of the spindle component.

24. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the

wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a damping plate, and the damping plate is disposed on the spindle component and pushes the spindle component along an axial direction of the spindle component.

25. The anti-shimmy device of claim 24, wherein the restraining mechanism further comprises a rotating sleeve, the rotating sleeve is fixedly disposed on the another one of the connecting base and the wheel base, the spindle component comprises a restraining portion and an extending portion, the rotating sleeve comprises a penetrating hole for insertion of the extending portion, the restraining portion is for restraining an insertion length of the extending portion into the penetrating hole, the damping plate is located between the restraining portion and the rotating sleeve, and the extending portion passes through the penetrating hole to be connected to the connecting base.

26. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a sheathing component, and the sheathing component is fixedly disposed on the another of the connecting base and the wheel base and sleeved on the spindle

component, and

wherein at least one notch is disposed on a wall of the sheathing component, and an inner diameter of the sheathing component is less than an outer diameter of the spindle component.

27. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a shaft sleeve and a resilient component, the shaft sleeve is movably disposed on the another one of the connecting base and the wheel base and sleeved on the spindle component, and the resilient component is disposed between the shaft sleeve and the another one of the connecting base and the wheel base for driving the shaft sleeve to push the spindle component along a lateral direction of the spindle component.

28. The anti-shimmy device of claim 27, wherein the restraining mechanism further comprises at least one bearing fixedly disposed on the another one of the connecting base and the wheel base.

29. The anti-shimmy device of claim 27, wherein the restraining mechanism further comprises an abutting component disposed between the connecting base and the wheel base.

30. An anti-shimmy device adapted for a wheel of a child carrier, wherein the anti-

shimmy device comprises:

a connecting base connected to a frame of the child carrier;

a wheel base connected to the wheel of the child carrier;

a spindle component fixedly connected to one of the connecting base and the wheel base and rotatably connected to another one of the connecting base and the wheel base; and

a restraining mechanism configured to restrain a shimmy movement of the wheel base relative to the connecting base,

wherein the restraining mechanism comprises a fixing base fixedly connected to the one of the connecting base and the wheel base and sleeved on the spindle component, an accommodating hole is disposed on the another one of the connecting base and the wheel base, and the fixing base tightly fits with the accommodating hole.

31. The anti-shimmy device of claim 30, wherein the fixing base comprises a fixing main body and at least one resilient abutting portion, and the at least one resilient abutting portion abuts against a wall of the accommodating hole and is resiliently deformed when the fixing base tightly fits with the accommodating hole.