

CLAIMS:

1. A ride vehicle for an attraction of an amusement park, the ride vehicle comprising:

a ride seat;

a pivot adapter configured to rotate relative to the ride seat;

a gear of the pivot adapter, the gear comprising a first set of teeth;

a passenger restraint piece coupled to the pivot adapter and configured to rotate with the pivot adapter between a closed position and an open position;

a cap comprising a second set of teeth, wherein the cap is configured to be positioned to engage the gear of the pivot adapter such that the second set of teeth of the cap engages with the first set of teeth of the gear, and wherein engagement between the second set of teeth and the first set of teeth substantially blocks movement of the pivot adapter relative to the ride seat in a rotational direction.

2. The ride vehicle of claim 1, comprising an actuator configured to move the cap relative to the gear to engage and disengage the second set of teeth with the first set of teeth.

3. The ride vehicle of claim 2, wherein the actuator is a linear actuator configured to move the cap relative to the gear to engage the second set of teeth with the first set of teeth and to move the cap relative to the gear to disengage the second set of teeth with the first set of teeth.

4. The ride vehicle of claim 2, comprising a control system communicatively coupled to the actuator, wherein the control system is configured to output a signal to cause the cap to move relative to the gear.

5. The ride vehicle of claim 4, wherein the control system is configured to output the signal based on a time of operation of the attraction.

6. The ride vehicle of claim 2, wherein the passenger restraint piece is an over-the-shoulder restraint, wherein the ride seat comprises a head support, and wherein the actuator is positioned behind the head support.

7. The ride vehicle of claim 1, wherein the rotational direction is a first rotational direction, and wherein each tooth of the first set of teeth is angled and each tooth of the second set of teeth is angled such that the engagement between the second set of teeth and the first set of teeth enables movement of the pivot adapter relative to the ride seat in a second rotational direction opposite the first rotational direction.

8. The ride vehicle of claim 7, wherein movement of the pivot adapter relative to the ride seat in the first rotational direction moves the passenger restraint piece away from a seating portion of the ride seat, and wherein movement of the pivot adapter relative to the ride seat in the second rotational direction moves the passenger restraint piece toward the seating portion of the ride seat.

9. A restraint system for a ride vehicle of an amusement park, the restraint system comprising:

- a gear rotatably coupled to a pivot of the restraint system, wherein the gear comprises a first set of teeth;

- a cap comprising a second set of teeth; and

- an actuator configured to move the cap relative to the gear, wherein the actuator is configured to move the cap to engage the second set of teeth of the cap with the first set of teeth of the gear, wherein the actuator is configured to move the cap to disengage the second set of teeth with the first set of teeth, and wherein the cap is coupled to the ride vehicle such that engagement between the second set of teeth and the first set of teeth substantially blocks rotation of the gear relative to the pivot in a rotational direction.

10. The restraint system of claim 9, wherein the gear is configured to rotate about a rotational axis, and wherein the actuator is configured to linearly translate the cap along the rotational axis to move the cap relative to the gear.

11. The restraint system of claim 9, wherein the actuator is directly coupled to the cap, and the actuator is configured to move the cap such that the second set of teeth is directly engaged with the first set of teeth.

12. The restraint system of claim 9, wherein the actuator is a solenoid actuator, wherein the actuator is configured to be in an energized state to move the cap toward the gear in response to receiving a signal, and the actuator is configured to be in a de-energized state to move the cap away from the gear when not receiving the signal.

13. The restraint system of claim 9, comprising a restraint piece and a pivot adapter coupling the restraint piece with the gear such that rotation of the gear about the pivot causes rotation of the restraint piece about the pivot to facilitate securement and release of a passenger in the ride vehicle.

14. A ride vehicle for an attraction of an amusement park, the ride vehicle comprising:

a pivot;

a pivot adapter comprising a gear rotatably coupled to the pivot, wherein the gear comprises a first set of teeth;

a restraint piece coupled to the pivot adapter, wherein the restraint piece is configured to rotate about the pivot between an open position and a closed position via rotation of the gear about the pivot; and

a restraint control assembly, comprising:

a cap comprising a second set of teeth; and

an actuator configured to move the cap relative to the gear;

wherein the restraint control assembly is adjustable between a first configuration and a second configuration, wherein the second set of teeth of the cap is engaged with the first set of teeth of the gear in the first configuration to substantially block movement of the restraint piece from the closed position to the open position, and wherein the second set of teeth is disengaged with the first set of teeth in the second configuration to enable the restraint piece to move between the open position and the closed position.

15. The ride vehicle of claim 14, wherein the actuator is configured to move the cap to engage the second set of teeth with the first set of teeth and set the restraint control assembly in the first configuration, and wherein the actuator is configured to move the cap to disengage the second set of teeth with the first set of teeth and set the restraint control assembly in the second configuration.

16. The ride vehicle of claim 15, comprising a control system configured to output a signal to cause the actuator to move the cap relative to the gear.

17. The ride vehicle of claim 16, comprising a sensor communicatively coupled to the control system, wherein the sensor is configured to monitor an operating parameter of the ride vehicle, wherein the sensor is configured to transmit feedback indicative of the operating parameter, and wherein the control system is configured to output the signal based on the feedback received from the sensor.

18. The ride vehicle of claim 17, wherein the operating parameter is indicative of a position of the ride vehicle, a position of a passenger in the ride vehicle, an operating mode of the ride vehicle, a user input, or any combination thereof.

19. The ride vehicle of claim 14, wherein engagement between the second set of teeth and the first set of teeth enables movement of the restraint piece from the open

position to the closed position but blocks movement of the restraint piece from the closed position to the open position.

20. The ride vehicle of claim 14, wherein the cap covers the gear in the first configuration.