

AMENDED CLAIMS

1. (Amended) A rekeyable lock cylinder comprising:

a cylinder body with a longitudinal axis and including a groove;

a plug assembly disposed in the cylinder body and being rotatable about the longitudinal axis;

a plurality of key followers and a corresponding plurality of racks disposed in the plug assembly, wherein at least one of the plurality of racks is selectively disengageable from at least one of the plurality of key followers responsive to application of a force by an object inserted into the rekeyable lock cylinder to facilitate rekeying to a new key, at least one of the plurality of key followers including a projection and at least one of the plurality of racks including a plurality of projection receiving recesses at a first side to receive the projection, each projection receiving recess being separated by a projection receiving recess distance measured between bottom-most portions of immediately adjacent projection receiving recesses;

wherein at least one of the plurality of racks includes an engaging groove at a second side, opposite the first side, wherein a groove height is measured from an engaging groove opening edge and a bottom-most portion of the locking bar engaging groove, in a direction in which the at least one of the plurality of racks travels within the plug assembly, the engaging groove having a groove height that is greater than the projection receiving recess distance;

a locking bar for blocking rotation of the plug assembly with respect to the cylinder body to prevent unlocking of the rekeyable lock cylinder with an unauthorized object, wherein-the locking bar includes a flange on a first side oriented toward the plurality of racks and is movable between a locked position in which at least a portion of the locking bar is positioned within the groove of the cylinder body and an unlocked position in which the locking bar is positioned out of the groove of the cylinder body and at least partially within the engaging groove; and

a biasing member urging the locking bar towards the plurality of racks,

wherein the locking bar is configured such that force from torqueing the plug assembly with an unauthorized object is primarily distributed between the cylinder body and locking bar

compared with any force translated to the plurality of racks, enhancing torque resistance of the rekeyable lock cylinder.

2. (Canceled)

3. The rekeyable lock cylinder of claim 1, wherein the at least one locking bar includes a surface that engages a surface of the groove when in the locked position, wherein the respective surfaces of the at least one locking bar and groove that engage when the at least one locking bar is in the locked position are in approximately parallel planes.

4. The rekeyable lock cylinder of claim 3, wherein the surface of the at least one locking bar that engages the groove in the cylinder body when the at least one locking bar is in the locked position is not a ramped surface.

5. The rekeyable lock cylinder of claim 3, wherein the surface of the at least one locking bar that engages the groove in the cylinder body when the at least one locking bar is in the locked position is a flat surface.

6. The rekeyable lock cylinder of claim 3, wherein the surface of the at least one locking bar that engages the groove in the cylinder body is in a plane that is parallel to an axis radial to the longitudinal axis.

7. The rekeyable lock cylinder of claim 1, wherein an edge of the at least one locking bar is received in the groove of the cylinder body when in the locked position.

8. The rekeyable lock cylinder of claim 7, wherein the edge of the at least one locking bar is squared off.

9. The rekeyable lock cylinder of claim 7, wherein the edge of the at least one locking bar has an rectangular cross-section.

10. (Canceled)

11. The rekeyable lock cylinder of claim 1, wherein the plurality of key followers are spring-loaded and wherein a spring force of the biasing member is proportional to a spring force of the spring-loaded key followers.

12. (Amended) A rekeyable lock cylinder comprising:

a cylinder body with a longitudinal axis including a groove;

a plug assembly disposed in the cylinder body and being rotatable about the longitudinal axis;

a carrier assembly including a plurality of racks and at least one locking bar;

a plurality of key followers disposed in the plug assembly, wherein at least one of the plurality of racks is selectively disengageable from at least one of the plurality of key followers responsive to application of a force by an object inserted into the rekeyable lock cylinder to facilitate rekeying to a new key, at least one of the plurality of key followers including a projection and at least one of the plurality of racks including a plurality of projection receiving recesses at a first side to receive the projection, each projection receiving recess being separated by a projection receiving recess distance measured between bottom-most portions of immediately adjacent projection receiving recesses;

wherein at least one of the plurality of racks includes an engaging groove at a second side, opposite the first side, wherein a groove height is measured from an engaging groove opening edge and a bottom-most portion of the locking bar engaging groove, in a direction in which the at least one of the plurality of racks travels within the plug assembly, the engaging groove having a groove height that is greater than the projection receiving recess distance;

a biasing member urging the locking bar towards the plurality of racks,

wherein the at least one locking bar includes a flange on a first side oriented toward the plurality of racks and ~~is movable between a locked position in which at least a portion of the locking bar is positioned within the groove of the cylinder body and an unlocked position in which the locking bar is positioned out of the groove of the cylinder body, and~~ is movable transverse to, and rotationally about the longitudinal axis, wherein at least a portion of the at least

one locking bar is movable between a locked position in the groove of the cylinder body and an unlocked position out of the groove in the cylinder body; and

wherein the at least one locking bar is configured to prevent unlocking of the rekeyable lock cylinder with an unauthorized object, wherein the at least one locking bar is configured such that force from torqueing the plug assembly with an unauthorized object is primarily distributed between the cylinder body and carrier assembly compared to any force translated to the plurality of racks.

13. (Canceled)

14. The rekeyable lock cylinder of claim 12, wherein the plurality of key followers are spring-loaded and wherein a spring force of the biasing member is less than a spring force of the spring-loaded key followers.