CLAIMS

1. A toner cartridge for use in an image forming device, comprising:

a housing having a front, a rear opposite the front, a first side, a second side opposite the first side, a top and a bottom opposite the top, the housing having a reservoir for holding toner;

an outlet port on the front of the housing proximate the first side for transferring toner out of the reservoir;

a drive gear on the front of the housing having a center proximate the second side for receiving rotational power when the toner cartridge is installed in the image forming device;

a cavity formed in the bottom of the housing; and

a latch catch in the cavity on an inner side of the front of the housing for receiving a latch for securing the toner cartridge in the image forming device, the latch catch being positioned closer to the bottom of the housing than the outlet port and the drive gear, the latch catch being positioned between the center of the drive gear and the outlet port in the side-to-side direction.

2. The toner cartridge of claim 1, further comprising a generally vertical positioning slot on the front of the housing positioned closer to the bottom of the housing than the outlet port and the drive gear, the generally vertical positioning slot being formed between first and second side walls and having an open bottom end, the first side wall being proximate the first side of the housing and the second side wall being proximate the second side of the housing, wherein the latch catch is positioned directly below the first side wall of the generally vertical positioning slot.

3. The toner cartridge of claim 2, wherein the first side wall is formed by a rib projecting from the front of the housing and the latch catch is positioned directly below the rib.

4. The toner cartridge of claim 1, wherein a portion of a front edge of an opening into the cavity on the bottom of the housing below the latch catch extends further forward than an adjacent portion of the front edge of the opening into the cavity on the bottom of the housing closer to the first side of the housing.

5. The toner cartridge of claim 1, further comprising a pair of guide rails on the rear of the housing, one of the pair of guide rails being positioned at each of the first side and the second side, the guide rails being indentations in the first side and the second side, respectively, at the rear of the housing, the indentations each having an open bottom end.

6. The toner cartridge of claim 1, further comprising a hold-down stop extending from a rearmost portion of the second side of the housing closer to the bottom of the housing than the outlet port and the drive gear, a top of the hold-down stop being unobstructed to engage a corresponding hold-down feature in the image forming device during insertion of the toner cartridge into the image forming device.

7. The toner cartridge of claim 1, wherein the latch catch includes a generally horizontal shelf positioned to contact the latch when the toner cartridge is installed in the image forming device.

8. The toner cartridge of claim 7, wherein the latch catch includes one of a hole through the front of the housing and a recess formed on the inner side of the front of the housing.

9. A toner cartridge for use in an image forming device, comprising:

a housing having a front, a rear opposite the front, a first side, a second side opposite the first side, a top and a bottom opposite the top, the housing having a reservoir for holding toner;

an outlet port on the front of the housing proximate the first side for transferring toner out of the reservoir;

a drive gear on the front of the housing having a center proximate the second side for receiving rotational power when the toner cartridge is installed in the image forming device;

a cavity formed in the bottom of the housing;

an electrical connector positioned in the cavity for establishing a communications link when the toner cartridge is installed in the image forming device; and

a latch catch on the front of the housing unobstructed to receive a latch from within the cavity on an inner side of the front of the housing for securing the toner cartridge in the image forming device, the latch catch being positioned closer to the bottom of

the housing than the outlet port and the drive gear, the latch catch being positioned between the center of the drive gear and the outlet port in the side-to-side direction.

10. The toner cartridge of claim 9, further comprising a generally vertical positioning slot on the front of the housing positioned closer to the bottom of the housing than the outlet port and the drive gear, the generally vertical positioning slot being formed between first and second side walls and having an open bottom end, the first side wall being proximate the first side of the housing and the second side wall being proximate the second side of the housing, wherein the latch catch is positioned directly below the first side wall of the generally vertical positioning slot.

11. The toner cartridge of claim 9, wherein a portion of a front edge of an opening into the cavity on the bottom of the housing below the latch catch extends further forward than an adjacent portion of the front edge of the opening into the cavity on the bottom of the housing closer to the first side of the housing.

12. The toner cartridge of claim 9, further comprising a pair of guide rails on the rear of the housing, one of the pair of guide rails being positioned at each of the first side and the second side, the guide rails being indentations in the first side and the second side, respectively, at the rear of the housing, the indentations each having an open bottom end.

13. The toner cartridge of claim 9, further comprising a hold-down stop extending from a rearmost portion of the second side of the housing closer to the bottom of the housing than the outlet port and the drive gear, a top of the hold-down stop being unobstructed to engage a corresponding hold-down feature during insertion of the toner cartridge into the image forming device.

14. The toner cartridge of claim 9, wherein the latch catch includes a generally horizontal shelf positioned to contact the latch when the toner cartridge is installed in the image forming device.

15. The toner cartridge of claim 14, wherein the latch catch includes one of a hole through the front of the housing and a recess formed on the inner side of the front of the housing.

CLAIMS

1. A toner cartridge for use in an image forming device, comprising:

a housing having a front, a rear opposite the front, a first side, a second side opposite the first side, a top and a bottom opposite the top, the housing having a reservoir for holding toner;

an outlet port on the front of the housing proximate the first side for transferring toner out of the reservoir;

a drive gear on the front of the housing having a center proximate the second side for receiving rotational power when the toner cartridge is installed in the image forming device;

a cavity formed in the bottom of the housing; and

a latch catch in the cavity on an inner side of the front of the housing for receiving a latch for securing the toner cartridge in the image forming device, the latch catch being positioned closer to the bottom of the housing than the outlet port and the drive gear, the latch catch being positioned between the center of the drive gear and the outlet port in a side-to-side direction from the first side to the second side of the housing.

2. The toner cartridge of claim 1, further comprising a generally vertical positioning slot on the front of the housing positioned closer to the bottom of the housing than the outlet port and the drive gear, the generally vertical positioning slot being formed between first and second side walls and having an open bottom end, the first side wall being proximate the first side of the housing and the second side wall being proximate the second side of the housing, wherein the latch catch is positioned directly below the first side wall of the generally vertical positioning slot.

3. The toner cartridge of claim 2, wherein the first side wall is formed by a rib projecting from the front of the housing and the latch catch is positioned directly below the rib.

4. The toner cartridge of claim 1, wherein a portion of a front edge of an opening into the cavity on the bottom of the housing below the latch catch extends further forward than an adjacent portion of the front edge of the opening into the cavity on the bottom of the housing closer to the first side of the housing.

5. The toner cartridge of claim 1, further comprising a pair of guide rails on the rear of the housing, one of the pair of guide rails being positioned at each of the first side and the second side, the guide rails being indentations in the first side and the second side, respectively, at the rear of the housing, the indentations each having an open bottom end, the indentations running from the open bottom ends vertically upward toward the top of the housing.

6. The toner cartridge of claim 1, further comprising a hold-down stop extending from a rearmost portion of the second side of the housing closer to the bottom of the housing than the outlet port and the drive gear, a top of the hold-down stop being unobstructed to engage a corresponding hold-down feature in the image forming device during insertion of the toner cartridge into the image forming device.

7. The toner cartridge of claim 1, wherein the latch catch includes a generally horizontal shelf positioned to contact the latch when the toner cartridge is installed in the image forming device.

8. The toner cartridge of claim 7, wherein the latch catch includes one of a hole through the front of the housing and a recess formed on the inner side of the front of the housing.

9. A toner cartridge for use in an image forming device, comprising:

a housing having a front, a rear opposite the front, a first side, a second side opposite the first side, a top and a bottom opposite the top, the housing having a reservoir for holding toner;

an outlet port on the front of the housing proximate the first side for transferring toner out of the reservoir;

a drive gear on the front of the housing having a center proximate the second side for receiving rotational power when the toner cartridge is installed in the image forming device;

a cavity formed in the bottom of the housing;

an electrical connector positioned in the cavity for establishing a communications link when the toner cartridge is installed in the image forming device; and

a latch catch on the front of the housing unobstructed to receive a latch from within the cavity on an inner side of the front of the housing for securing the toner cartridge in the image forming device, the latch catch being positioned closer to the bottom of the housing than the outlet port and the drive gear, the latch catch being positioned between the center of the drive gear and the outlet port in a side-to-side direction from the first side to the second side of the housing.

10. The toner cartridge of claim 9, further comprising a generally vertical positioning slot on the front of the housing positioned closer to the bottom of the housing than the outlet port and the drive gear, the generally vertical positioning slot being formed between first and second side walls and having an open bottom end, the first side wall being proximate the first side of the housing and the second side wall being proximate the second side of the housing, wherein the latch catch is positioned directly below the first side wall of the generally vertical positioning slot.

11. The toner cartridge of claim 9, wherein a portion of a front edge of an opening into the cavity on the bottom of the housing below the latch catch extends further forward than an adjacent portion of the front edge of the opening into the cavity on the bottom of the housing closer to the first side of the housing.

12. The toner cartridge of claim 9, further comprising a pair of guide rails on the rear of the housing, one of the pair of guide rails being positioned at each of the first side and the second side, the guide rails being indentations in the first side and the second side, respectively, at the

rear of the housing, the indentations each having an open bottom end, the indentations running from the open bottom ends vertically upward toward the top of the housing.

13. The toner cartridge of claim 9, further comprising a hold-down stop extending from a rearmost portion of the second side of the housing closer to the bottom of the housing than the outlet port and the drive gear, a top of the hold-down stop being unobstructed to engage a corresponding hold-down feature during insertion of the toner cartridge into the image forming device.

14. The toner cartridge of claim 9, wherein the latch catch includes a generally horizontal shelf positioned to contact the latch when the toner cartridge is installed in the image forming device.

15. The toner cartridge of claim 14, wherein the latch catch includes one of a hole through the front of the housing and a recess formed on the inner side of the front of the housing.

16. A toner cartridge for use in an image forming device, comprising:

a housing having a front, a rear opposite the front, a first side, a second side opposite the first side, a top and a bottom opposite the top, the housing having a reservoir for holding toner;

an outlet port on the front of the housing proximate the first side for transferring toner out of the reservoir;

a drive gear on the front of the housing having a center proximate the second side for receiving rotational power when the toner cartridge is installed in the image forming device;

a cavity formed in the bottom of the housing;

an electrical connector positioned in the cavity for establishing a communications link when the toner cartridge is installed in the image forming device; and

a latch receiving shelf in the cavity on an inner side of the front of the housing unobstructed to receive a latch for securing the toner cartridge in the image forming device, the latch receiving shelf defining the vertical position of the toner cartridge when the toner cartridge is installed in the image forming device, the latch receiving shelf being positioned closer to the bottom of the housing than the outlet port and the drive gear, the latch receiving shelf being spaced above the bottom of the housing, the latch receiving shelf being positioned between the center of the drive gear and the outlet port in a side-to-side direction from the first side to the second side of the housing.

17. The toner cartridge of claim 16, further comprising a generally vertical positioning slot on the front of the housing positioned closer to the bottom of the housing than the outlet port and the drive gear, the generally vertical positioning slot being formed between first and second side walls and having an open bottom end, the first side wall being proximate the first side of the housing and the second side wall being proximate the second side of the housing, wherein the latch receiving shelf is positioned directly below the first side wall of the generally vertical positioning slot.

18. The toner cartridge of claim 16, wherein a portion of a front edge of an opening into the cavity on the bottom of the housing below the latch receiving shelf extends further forward than an adjacent portion of the front edge of the opening into the cavity on the bottom of the housing closer to the first side of the housing.

19. The toner cartridge of claim 16, further comprising a pair of guide rails on the rear of the housing, one of the pair of guide rails being positioned at each of the first side and the second side, the guide rails being indentations in the first side and the second side, respectively, at the rear of the housing, the indentations each having an open bottom end, the indentations running from the open bottom ends vertically upward toward the top of the housing.

20. The toner cartridge of claim 16, further comprising a hold-down stop extending from a rearmost portion of the second side of the housing closer to the bottom of the housing than the

outlet port and the drive gear, a top of the hold-down stop being unobstructed to engage a corresponding hold-down feature during insertion of the toner cartridge into the image forming device.

21. The toner cartridge of claim 16, further comprising one of (1) a hole through the front of the housing, a bottom surface of the hole forming the latch receiving shelf; and (2) a recess formed on the inner side of the front of the housing, a bottom surface of the recess forming the latch receiving shelf.