WHAT IS CLAIMED IS:

1. A cementing tool, comprising:

a body;

one or more ports extending through the body;

a first seat internal to the body and configured to receive a ball landed thereon;

a second seat internal to the body and configured to receive a ball, dart, or plug landed thereon; and

a shifting sleeve assembly internal to the body and configured to selectively transition the cementing tool from a first operating mode to a second operating mode and from the second operating mode to a third operating mode, wherein:

in the first operating mode, a central flowbore of the cementing tool is open;

in the second operating mode, a ball is landed on the first seat, at least a portion of the central flowbore is closed and the one or more ports are open; and

in the third operating mode, the ball is released from the first seat, a ball, dart, or plug is landed on the second seat, and the shifting sleeve forms an internal flow path that circumvents the second seat.

2. The cementing tool of claim 1, further comprising an actuator coupled to the first seat, wherein the first seat is configured to release the ball therefrom upon actuation of the first seat by the actuator.

3. The cementing tool of claim 1, wherein the first seat comprises a rotatable ball having two different sized flow paths formed therethrough, wherein the rotatable ball is rotatable between a first position in which a first flow path is aligned with the central flowbore and a second position in which a second flow path is aligned with the central flowbore.

4. The cementing tool of claim 1, wherein the first seat is configured to receive a ball having a first outer diameter thereon and wherein the second seat is configured to receive a ball, dart, or plug having a second outer diameter thereon, the second outer diameter being greater than the first outer diameter.

5. The cementing tool of claim 1, wherein the second seat is located axially above the first seat.

6. The cementing tool of claim 5, wherein the one or more ports are located at an axial position between the first seat and the second seat.

7. A liner installation work string, comprising:

a liner hanger setting tool; and

a cementing tool coupled to the liner hanger setting tool and having a central flowbore in fluid communication with a flowbore of the liner hanger setting tool, the cementing tool comprising:

a body;

one or more ports extending through the body;

a first seat internal to the body and configured to receive a ball landed thereon;

a second seat internal to the body and configured to receive a ball, dart, or plug landed thereon; and

a shifting sleeve assembly internal to the body and configured to selectively transition the cementing tool from a first operating mode to a second operating mode and from the second operating mode to a third operating mode, wherein:

in the first operating mode, the central flowbore of the cementing tool is open;

in the second operating mode, a ball is landed on the first seat, at least a portion of the central flowbore is closed and the one or more ports are open; and

in the third operating mode, the ball is released from the first seat, a ball, dart, or plug is landed on the second seat, and the shifting sleeve forms an internal flow path that circumvents the second seat.

8. The liner installation work string of claim 7, wherein the liner hanger setting tool comprises a third seat configured to receive a ball landed thereon to set the liner hanger.

9. The liner installation work string of claim 8, wherein:

the first seat is configured to receive a ball having a first outer diameter thereon;

the second seat is configured to receive a ball, dart, or plug having a second outer diameter thereon, the second outer diameter being greater than the first outer diameter; and

the third seat is configured to receive a ball having a diameter equal to or less than the first outer diameter thereon.

10. The liner installation work string of claim 7, further comprising an actuator coupled to the first seat, wherein the first seat is configured to release the ball therefrom upon actuation of the first seat by the actuator.

11. The liner installation work string of claim 7, wherein the first seat comprises a rotatable ball having two different sized flow paths formed therethrough, wherein the rotatable ball is rotatable between a first position in which a first flow path is aligned with the central flowbore and a second position in which a second flow path is aligned with the central flowbore.

12. The liner installation work string of claim 7, wherein the second seat is located axially above the first seat.

13. The liner installation work string of claim 12, wherein the one or more ports are located at an axial position between the first seat and the second seat.

14. A liner installation method, comprising:

providing a cementing tool coupled to a liner hanger setting tool, wherein the cementing tool comprises:

a body;

one or more ports extending through the body;

a first seat internal to the body and configured to receive a ball landed thereon;

a second seat internal to the body and configured to receive a ball, dart, or plug landed thereon; and

a shifting sleeve assembly internal to the body and configured to selectively transition the cementing tool from a first operating mode to a second operating mode and from the second operating mode to a third operating mode, wherein:

in the first operating mode, a central flowbore of the cementing tool is open;

in the second operating mode, a ball is landed on the first seat, at least a portion of the central flowbore is closed and the one or more ports are open; and

in the third operating mode, the ball is released from the first seat, a ball, dart, or plug is landed on the second seat, and the shifting sleeve forms an internal flow path that circumvents the second seat;

cementing a liner coupled to the liner hanger setting tool in a wellbore via the cementing tool; and

setting a liner hanger holding the liner via the liner hanger setting tool.

15. The liner installation method of claim 14, further comprising:

while the cementing tool is in the first operating mode, circulating cement through the central flowbore, the liner hanger setting tool, and the liner to cement the liner in the wellbore from bottom-up;

shifting the cementing tool from the first operating mode to the second operating mode;

while the cementing tool is in the second operating mode, routing cement through the one or more ports into an annulus surrounding the cementing tool to cement the liner in the wellbore from top-down;

shifting the cementing tool from the second operating mode to the third operating mode to reestablish flow into a flowbore of the liner hanger setting tool; and

while the cementing tool is in the third operating mode, setting the liner hanger.

16. The liner installation method of claim 15, wherein:

shifting the cementing tool from the first operating mode to the second operating mode comprises landing the ball on the first seat;

shifting the cementing tool from the second operating mode to the third operating mode comprises landing the ball, dart, or plug on the second seat and releasing the ball from the first seat; and

setting the liner hanger comprises landing the ball released from the first seat onto a third seat in the liner hanger setting tool.

17. The liner installation method of claim 15, further comprising cementing the liner in the wellbore from top-down before the cement circulated through the liner to cement the liner from bottom-up is dry.

18. The liner installation method of claim 14, further comprising:

while the cementing tool is in the first operating mode, circulating cement through the central flowbore, the liner hanger setting tool, and the liner to cement the liner in the wellbore from bottom-up; and

while the cementing tool is in the first operating mode, and without shifting the cementing tool into the second or third operating modes, setting the liner hanger.

19. The liner installation method of claim 18, wherein setting the liner hanger comprises landing a ball on a third seat in the liner hanger setting tool.