

What is claimed is:

1. A downhole tool, comprising:

a tool body comprising an inner housing and an outer housing to form an annulus between the inner housing and the outer housing;
a primary piston positioned within the annulus to form a primary cavity within the annulus;
a backup piston positioned within the annulus to form a second cavity within the annulus;
a pressure operating device in fluid communication with the annulus and configured to operate in response to a pressure in the annulus;
wherein the pressure operating device is configured to operate in response to the pressure in the annulus being above an operating pressure;
wherein the backup piston is positioned between the primary cavity and the second cavity and comprises a pressure inhibiting device configured to prevent pressure below a predetermined amount from communicating across the backup piston;
wherein the downhole tool further comprising another backup piston positioned within the annulus to form another backup cavity within the annulus positioned between the primary cavity and the second cavity; and
wherein the other backup piston comprises a backup pressure inhibiting device configured to prevent pressure below a second predetermined amount from communicating across the other backup piston; and the second predetermined amount for the backup pressure inhibiting device is higher than the first predetermined amount for the primary pressure inhibiting device.

2. The downhole tool of claim1, wherein the operating pressure is at or above about 3,000 psi (20,700 kPa).

3.The downhole tool of claim1, wherein the predetermined amount of pressure for the pressure inhibiting device is lower than the operating pressure for the pressure operating device.

4.The downhole tool of claim1, wherein the predetermined amount for the pressure inhibiting device is at or lower than about 2,000 psi (13,800 kPa).

5. The downhole tool of claim 1, wherein the pressure inhibiting device comprises at least one of a frangible element and a relief valve, and wherein the frangible element comprises a burst disc.

6. The downhole tool of claim 1, wherein the pressure operating device is positioned within the annulus and is in fluid communication with the second cavity.

7. The downhole tool of claim 1, wherein the pressure operating device comprises an indexing sleeve.

8. The downhole tool of claim 1, wherein a port is formed within inner housing to enable fluid communication between a bore of the inner housing and the annulus.

9. The downhole tool of claim 1, wherein at least one of the primary piston and the backup piston comprises a seal to sealingly engage the tool body.

10. A method to operate a pressure operating device in a downhole tool, the method comprising:

introducing pressure into a bore of a tool body of the downhole tool, the tool body comprising an inner housing and an outer housing to form an annulus between the inner housing and the outer housing;
communicating the pressure across a primary piston positioned within the annulus;
communicating the pressure across a backup piston positioned within the annulus; and

operating the pressure operating device in response to the pressure in the annulus;

wherein the method further comprising communicating the pressure across another backup piston positioned within the annulus,

wherein the communicating the pressure across the other backup piston comprises communicating the pressure through a back pressure inhibiting device of the other backup piston if a pressure differential develops across the other backup piston above a second predetermined amount,

wherein the second predetermined amount for the backup pressure inhibiting device is higher than the first predetermined amount for the primary pressure inhibiting device; and

wherein the communicating the pressure across the backup piston comprises communicating the pressure through a pressure inhibiting device of the backup piston if a pressure differential develops across the backup piston above a predetermined amount.

11.The method of claim10, wherein the pressure operating device operates in response to a pressure above an operating pressure, wherein the predetermined amount of pressure for the pressure inhibiting device is lower than the operating pressure for the pressure operating device.

12.The method of claim10, wherein the pressure inhibiting device comprises at least one of a frangible element and a relief valve, and wherein the frangible element comprises a burst disc.

13.The method of claim10, wherein the pressure operating device comprises an indexing sleeve.

14.A downhole tool, comprising:

- a tool body comprising an inner housing and an outer housing to form an annulus between the inner housing and the outer housing with the annulus in fluid communication with a bore of the inner housing;

- a primary piston positioned within the annulus to form a primary cavity within the annulus;

- a backup piston positioned within the annulus to form a second cavity within the annulus with the backup piston positioned between the primary cavity and the second cavity;

- a pressure inhibiting device configured to prevent pressure below a predetermined amount from communicating across the backup piston;

- a pressure operating device in fluid communication with the annulus and configured to operate in response to a pressure in the annulus above an operating pressure;

- wherein the predetermined amount of pressure for the pressure inhibiting device is lower than the operating pressure for the pressure operating device;

- wherein the backup piston is positioned between the primary cavity and the second cavity and comprises a pressure inhibiting device configured to prevent

pressure below a predetermined amount from communicating across the backup piston;

wherein the downhole tool further comprising another backup piston positioned within the annulus to form another backup cavity within the annulus positioned between the primary cavity and the second cavity; and

wherein the other backup piston comprises a backup pressure inhibiting device configured to prevent pressure below a second predetermined amount from communicating across the other backup piston; and the second predetermined amount for the backup pressure inhibiting device is higher than the first predetermined amount for the primary pressure inhibiting device.