WHAT IS CLAIMED IS:

1. A cylinder accumulator system comprising:

a cylinder comprising a cylinder rod, a cylinder barrel coaxial to the cylinder rod, a cylinder end cap coupled to the cylinder barrel and the cylinder rod, and a cylinder piston assembly disposed within the cylinder barrel, wherein the cylinder piston assembly comprises a dynamic sealing arrangement comprising one or more dynamic seals;

a first annular volume coaxial to the cylinder rod and the cylinder barrel;

a second volume disposed within the cylinder piston assembly;

~~an~~ first external ~~high-pressure~~ accumulator;

a second external~~low-pressure~~ accumulator; and

one or more tube manifolds coupling the first and second external ~~high-pressure accumulator and low-pressure~~ accumulators to the cylinder.

2. The system of claim 1, wherein the second volume is an annular volume.

3. The system of claim 1, wherein the cylinder end cap comprises a dynamic sealing arrangement comprising one or more dynamic seals and a fluid access port for one of adding or~~and~~ removing a hydraulic fluid in contact with the dynamic seals.

4. The system of claim 1, wherein the cylinder rod comprises an axial supply hole, and wherein the axial supply hole supplies a hydraulic fluid to the second volume.

5. The system of claim 1, wherein the cylinder piston assembly comprises an axial communication hole by which a gas media is communicated from the first annular volume to the second volume, substantially equalizing the pressure in a

hydraulic fluid located in the second volume and the gas media.

6. The system of claim 1, wherein the dynamic sealing arrangement of the cylinder piston assembly is exposed to a hydraulic fluid in the second volume.

7. The system of claim 4, wherein the cylinder piston assembly and the cylinder rod comprise one or more radial supply holes, and wherein the radial supply holes provide communication between the axial supply hole of the cylinder rod and the second volume.

8. The system of claim 1, wherein the cylinder piston assembly comprises an axial communication hole by which a gas media is communicated from the first annular volume to the second volume, maintaining a hydraulic fluid located in the second volume and the gas media at equal pressures through direct contact.

9. The system of claim 1, wherein the cylinder further comprises a cylinder head coupled to the cylinder barrel, and a cylinder rod extension coupled to the cylinder rod.

10. The system of claim 9, wherein the cylinder rod extension comprises a radial hole, and wherein the radial hole communicates with a second radial hole of the cylinder rod.

11. A cylinder accumulator system comprising:

a cylinder comprising a cylinder rod, a cylinder barrel coaxial to the cylinder rod, a cylinder end cap coupled to the cylinder barrel and the cylinder rod, and a cylinder piston assembly disposed within the cylinder barrel, wherein the cylinder piston assembly comprises a dynamic sealing arrangement comprising one or more dynamic seals;

a first annular volume coaxial to the cylinder rod and the cylinder barrel;

a second volume disposed within the cylinder piston assembly;

a piston disposed within a bore of the second volume between a hydraulic fluid located on a first side of the piston and a gas media located on a second side of the piston, wherein the second side of the piston is opposite the first side of the piston;

~~an~~ first external ~~high-pressure~~ accumulator;

a second external~~low-pressure~~ accumulator; and

one or more tube manifolds coupling the first and second external ~~high-pressure accumulator and low-pressure~~ accumulators to the cylinder.

12. The system of claim 11, wherein the second volume is an annular volume.

13. The system of claim 11, wherein the gas media comprises at least one of nitrogen gas or compressed air.

14. The system of claim 11, wherein the cylinder rod comprises an axial supply hole, and wherein the axial supply hole supplies a hydraulic fluid to the second volume.

15. The system of claim 11, wherein the cylinder end cap comprises a dynamic sealing arrangement comprising one or more dynamic seals and a fluid access port for one of adding or~~and~~ removing a hydraulic fluid in contact with the dynamic seals.

16. The system of claim 14, wherein the cylinder piston assembly and the cylinder rod comprise one or more radial supply holes for providing communication between the axial supply hole of the cylinder rod and the second volume.

17. The system of claim 11, wherein the second side of the piston is in direct contact with the gas media, and wherein the gas media is located in the first annular volume.~~,~~

18. The system of claim 11, wherein the piston in the second volume is an annular piston.

19. A method for reducing the total size of a traditional pull-up style tensioner system while improving maintenance time and reducing safety risks comprising:

utilizing a first annular volume located between a cylinder barrel and a cylinder rod as an internal gas accumulator;

creating a second volume within a cylinder piston assembly;

minimizing the pressure difference in the second volume and the internal gas accumulator;

providing a communication path for a hydraulic fluid in the second volume to lubricate one or more dynamic seals in the cylinder piston assembly;

utilizing an axial hole in the cylinder rod to adjust the amount of the hydraulic fluid in the second volume.

20. The method of claim 19, wherein utilizing an axial hole in the cylinder rod to adjust the amount of the hydraulic fluid comprises one of adding or~~and~~ removing the hydraulic fluid from the second volume.