

ABSTRACT

HYDRO-PNEUMATIC TENSIONER WITH FLUID RETENTION DEVICE

A cylinder accumulator system is disclosed. The system includes 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. The cylinder piston assembly further includes a dynamic sealing arrangement, which comprises one or more dynamic seals. The system further includes a first annular volume coaxial to the cylinder rod and the cylinder barrel, and a second volume disposed within the cylinder piston assembly. The system also includes a piston disposed within a bore of the second volume and between a hydraulic fluid located on a first side of the piston and a gas media located on a second side of the piston. The system also includes an external high-pressure accumulator, a low-pressure accumulator, and one or more tube manifolds coupling the external high-pressure accumulator and low-pressure accumulator to the cylinder.

Fig. 3A - 3C



162162



G00002