Claims

1. Pressure-resistant piston media separator (10), wherein the pressure-resistant piston media separator (10) has a first piston cylinder (20) with a first piston (30), wherein the piston media separator (10) has a first region (40) and a second region (50), wherein the first region (40) is separated by the first piston (30) from the second region (50), wherein the first region (40) is in contact with the surroundings, wherein the second region (50) is connected to a hydraulic system, wherein the pressure-resistant piston media separator (10) has a piston rod (80), wherein the piston rod (80) is connected to the first piston (30), **characterized in that** the pressure-resistant piston media separator (10) has a second piston cylinder (90) and a second piston (100), wherein the second piston (100) is connected to the piston rod (80), wherein the pressure-resistant piston media separator (10) has a third region, wherein the third region is a closed gas volume, wherein the size of the third region can be varied by the second piston (100).

2. Pressure-resistant piston media separator (10) according to Claim 1, **characterized in that** the third region consists of a fourth region (110) and a fifth region (120), wherein the fourth region (110) is arranged within the second piston cylinder (90), wherein the fifth region (120) is arranged outside the second piston cylinder (90), wherein the fourth region (110) and the fifth region (120) are gas-conductively connected to each other.

3. Pressure-resistant piston media separator (10) according to Claim 2, **characterized in that** the fifth region (120) is arranged surrounding the second piston cylinder (90).

4. Pressure-resistant piston media separator (10) according to any one of Claims 2 to 3, **characterized in that** the third region has a filling valve (140).

5. Pressure-resistant piston media separator (10) according to any one of Claims 2 to 4, **characterized in that** the volume of the fifth region (120) corresponds to one to five times the maximum volume of the fourth region (110).

6. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the third region has a pressure of 2 bar to 5 bar in the central position of the first piston (30) in the first piston cylinder (20).

7. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the pressure in the first region (40) is 1.5 bar to 3.5 bar higher than the pressure in the second region (50).

8. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the third region is filled with an inert gas, preferably with nitrogen.

9. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the third region in the end position of the first piston (30) has a pressure of 1.5 bar to 3.5 bar with a minimal second volume of the second region (50) in the first piston cylinder (20).

10. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the first region (40) is connected to the surroundings via a filter.

11. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the piston rod (80) has a first feedthrough (150), wherein the first feedthrough (150) extends from the side of the first piston (40) facing the first region (40) to the side of the second piston (100) facing away from the fourth region (110), wherein the first feedthrough (150) can be closed.

12. Pressure-resistant piston media separator (10) according to any one of the preceding claims, **characterized in that** the first piston (30) has a first seal (170) against the first region (40) and a second seal (180) against the second region (50), wherein the first piston (30) has a test cavity (190) between the first seal (170) and the second seal (180), wherein the first piston (30) and the piston rod (80) have a second feedthrough (200), wherein the second feedthrough (200) connects the test cavity (190) to the side of the second piston (100) facing away from the fourth region (110).

13. Linear drive for a ship’s steering gear with a pressure-resistant piston media separator (10) according to any one of the preceding claims.

14. Submarine with a pressure-resistant piston media separator (10) according to any one of claims 1 to 12.