CLAIMS:

1. A hydraulic accumulator assembly in which a hydraulic accumulator is associated with at least one means responsive to the weight of the accumulator to provide an indication dependent on the weight of the accumulator, wherein the accumulator comprises a hydraulic accumulator in an underwater fluid extraction well facility.

2. An assembly according to claim 1, including support means which support the accumulator, said at least one responsive means being responsive to a force applied to a part of said support means by the weight of the accumulator.

3. An assembly according to claim 2, including a cover for the accumulator, the cover being carried by said support means.

4. An assembly according to claim 3, wherein said accumulator is constrained horizontally by a collar at the top of said cover.

5. An assembly according to any of claims 2 to 4, wherein said support means comprises a first support member to which the accumulator is attached and a second support member for said first support member, said at least one responsive means being responsive to a force between said first and second support members.

6. An assembly according to claim 5 as dependent on claim 3 or 4, wherein the cover is carried by said second support member.

7. An assembly according to claim 5 or 6, wherein said first support member is at least partially received by said second support member.

8. An assembly according to any preceding claim, including a single hydraulic input and output in communication with said accumulator.

9. An assembly according to any of claims 5 to 7, including hydraulic input and output interfaces in said second support member which communicate with passageways in said first support member for supplying fluid to and receiving fluid from the accumulator.

10. An assembly according to claim 9, wherein said interfaces communicate with said passageways via flexible hoses.

11. An assembly according to any of claims 2 to 4, wherein said support means comprises a support member to which the accumulator is attached and at least one further member attached by attachment means to the support member, said at least one responsive means being responsive to a force applied to said attachment means.

12. An assembly according to claim 11 as dependent on claim 3 or 4, wherein the cover is carried by said at least one further member.

13. An assembly according to claim 11 or 12, including a single hydraulic input and output in communication with said accumulator.

14. An assembly according to claim 11 or 12, including hydraulic input and output interfaces in said at least one further member which communicate with passageways in said support member for supplying fluid to and receiving fluid from the accumulator.

15. An assembly according to claim 14, wherein said interfaces communicate with said passageway via flexible hoses.

16. An assembly according to any of claims 11 to 15, wherein said at least one further member is above said support member in use of the assembly.

17. An assembly according to any preceding claim, wherein said at least one responsive means comprises at least one of a strain gauge, a force gauge, a force meter, a balance scale, a spring force scale, a strain gauge based electronic scale and a fluid-based means of weight measurement.

18. An assembly according to any preceding claim, provided with means for receiving and processing data resulting from said indication dependent on the weight of the accumulator.

19. A method of monitoring the volume of a fluid in a hydraulic accumulator, comprising including the accumulator in an assembly according to any preceding claim and using the at least one responsive means to provide an indication of the weight of the accumulator.

CLAIMS:

1. A hydraulic accumulator assembly comprising:

a hydraulic accumulator in an underwater fluid extraction well facility associated with at least one responsive unit, wherein the at least one responsive unit is responsive to the weight of the accumulator, and is configured to provide an indication dependent on the weight of the accumulator

at least one support to support the accumulator, the at least one responsive unit responsive to a force applied to a part of the at least one support by the weight of the accumulator; and

a cover for the accumulator, the cover carried by the at least one support, and wherein the accumulator is constrained horizontally by a collar at the top of the cover.

2. The assembly according to claim **1**, wherein the at least one support comprises a first support member to which the accumulator is attached and a second support member for the first support member, and the at least one responsive unit is responsive to a force between the first support member and the second support member.

3. The assembly according to claim **2**, further comprising the cover for the accumulator, wherein the cover is carried by the second support member.

4. The assembly according to claim **2**, wherein the first support member is at least partially received by the second support member.

5. The assembly according to claim **1**, further comprising a single hydraulic input and output in communication with the accumulator.

6. The assembly according to claim **2**, further comprising a hydraulic input interface and a hydraulic output interface in the second support member, wherein the interfaces communicate with passageways in the first support member for supplying fluid to and receiving fluid from the accumulator.

7. The assembly according to claim **6**, wherein the interfaces communicate with the passageways via flexible hoses.

8. The assembly according to claim **1**, wherein the at least one support comprises a support member to which the accumulator is attached and at least one further support member attached by an attachment element to the support member, and the at least one responsive unit is responsive to a force applied to the attachment element.

9. The assembly according to claim **8**, further comprising the cover for the accumulator, wherein the cover is carried by the at least one further support member.

10. The assembly according to claim **8**, further comprising a single hydraulic input and output in communication with the accumulator.

11. The assembly according to claim **8**, further comprising a hydraulic input interface and a hydraulic output interface in the at least one further support member, wherein the interfaces communicate with passageways in the support member for supplying fluid to and receiving fluid from the accumulator.

12. The assembly according to claim **11**, wherein the hydraulic input interface and the hydraulic output interface communicate with the passageway by way of flexible hoses.

13. The assembly according to claim **8**, wherein the at least one further support member is above the support member in use of the assembly.

14. The assembly according to claim **1**, wherein the at least one responsive unit comprises at least one of a strain gauge, a force gauge, a force meter, a balance scale, a spring force scale, a strain gauge based electronic scale, and a fluid-based weight measurement device.

15. The assembly according to claim **1**, further comprising a device configured to receive and to process data resulting from the indication dependent on the weight of the accumulator.

16. A method of monitoring the volume of a fluid in a hydraulic accumulator, the method comprising:

using a hydraulic accumulator assembly that comprises hydraulic accumulator in an underwater fluid extraction well facility, wherein the accumulator is associated with at least one responsive unit, wherein the at least one responsive unit is responsive to the weight of the accumulator;

using the at least one responsive unit to provide an indication of the weight of the accumulator;

supporting the accumulator by at least one support, wherein the at least one responsive unit is responsive to a force applied to a part of the at least one support by the weight of the accumulator;

covering the accumulator by a cover, wherein the cover is carried by the at least one support; and

constraining the accumulator horizontally by a collar at the top of the cover.