Claims

1. A fluid transfer apparatus comprising:

a transfer manifold (150);

a frame (120) secured to the transfer manifold, wherein a base portion (122) of the frame is configured for engagement with a first coupling point (328) of a receiving vessel (300) in order to support a weight of the transfer manifold; and

a support member (102), wherein the transfer manifold is suspended from the support member by an extensible member (104).

2. The apparatus of claim 1, further comprising attachment means (124) secured to the frame at a position removed from the base portion, wherein the attachment means are configured for engagement with a second coupling point (330) of the receiving vessel located at a position removed from the first coupling point.

3. The apparatus of claim 2, wherein the attachment means (124) comprises a cable.

4. The apparatus of claim 2, wherein the attachment means (124) comprises a rigid arm.

5. The apparatus of any of the preceding claims, wherein the transfer manifold comprises a distal part and a proximal part, the distal part being removably coupled from the proximal part.

6. The apparatus of claim 5, wherein the frame is fixed to the distal part.

7. The apparatus of claims 5 or 6, further comprising an emergency disconnection section for coupling the distal part of the transfer manifold to the proximal part, wherein the emergency disconnection section is configured to decouple the distal part from the proximal part when a tension across the transfer manifold exceeds a threshold.

8. The apparatus of any one of claims 5 to 7, wherein the distal part of the transfer manifold comprises one or more flexible hoses.

9. The apparatus of claim 8, wherein each of the one or more flexible hoses is configured for connection to a receiving manifold of the receiving vessel.

10. The apparatus of claim 9, wherein support means are coupled between each of the one or more flexible hoses and the distal part of the transfer manifold, and wherein the support means are extensible.

11. The apparatus of claim 10, wherein the support means comprise a winch and a cable.

12. A fluid transfer facility (100) comprising the fluid transfer apparatus of any of the preceding claims.

13. A fluid transfer system comprising:

a transfer manifold (150);

a receiving manifold (332) for coupling to the transfer manifold to form a fluid path therewith;

a first coupling point (328) of a receiving vessel (300);

a frame (120) secured to the transfer manifold, wherein a base portion (122) of the frame is configured for engagement with the first coupling point in order to support a weight of the transfer manifold; and

a support member (102), wherein the transfer manifold is suspended from the support member by an extensible member (104).

14. The system of claim 13, further comprising:

a second coupling point (330) of a receiving vessel, the second coupling point located at a position removed from the first coupling point; and

attachment means (124) secured to the frame at a position removed from the base portion, wherein the attachment means are configured for engagement with the second coupling point.

15. A method for carrying out fluid transfer, comprising:

suspending a transfer manifold (150) from a support member (102) by an extensible member (104);

manoeuvring the support member until a base portion (122) of a frame (120) secured to the transfer manifold engages with a first coupling point (328) of a receiving vessel (300);

extending a support means (134) coupled between the transfer manifold and a flexible hose of the transfer manifold to position the flexible hose near to a receiving manifold of the receiving vessel, the flexible hose configured for connection to the receiving manifold;

connecting the flexible hose of the transfer manifold to the receiving manifold; and

initiating a fluid transfer operation between the receiving manifold and the transfer manifold.

16. The method of claim 15, further comprising:

prior to extending, securing attachment means to a second coupling point of the receiving vessel, wherein the attachment means are secured to the frame at a position

removed from the base portion, and wherein the second coupling point is located at a position removed from the first coupling point.

17. The method of claims 15 or 16, wherein a tensile force is applied to the transfer manifold by an extensible member during the fluid transfer operation.