CLAIMS

1. A ball valve assembly (1) comprising:

   a pipe section (2) having an axial bore (3) for enabling fluid flow therethrough in use;

   a valve ball (4) having an internal conduit, the valve ball being mounted within the pipe section and for rotation with respect to the pipe section between an open position in which fluid within the bore may flow through the conduit and a closed position in which the conduit is inaccessible to fluid within the bore;

   drive means (16a, 20a) for rotating the valve ball, said drive means being located radially outside the bore;

   an encapsulation (19), said encapsulation being positioned to receive the valve ball and having portions located radially between the pipe bore and the drive means, such that the encapsulation prevents fluid within the bore from accessing the drive means; and

   a hydraulic fluid line (23),

   wherein the drive means comprises a piston (20a) actuable by the hydraulic fluid pressure within said hydraulic fluid line, **characterised in that**:

   the pipe section comprises a failsafe fluid path (25a) in fluid connection with the bore, such that in the event of a loss of hydraulic fluid pressure within the hydraulic fluid line, fluid may flow from the bore, through the failsafe fluid path and thus actuate the piston.

2. An assembly (1) according to claim 1, wherein the valve ball (4) comprises first and second diametrically opposed trunnions (5a, 5b), and the valve ball is mounted via respective trunnion plates (6a, 6b), each trunnion plate receiving a respective trunnion.

3. An assembly (1) according to claim 2, wherein the trunnion plates (6a, 6b) are carried by the encapsulation (19).

4. An assembly (1) according to either of claims 2 and 3, wherein seals (8) are provided between each trunnion plate (6a, 6b) and the encapsulation (19) to prevent fluid flow therethrough.

5. An assembly (1) according to any preceding claim, wherein the encapsulation (19) defines a wall of the bore (3).

6. An assembly (1) according to any of claims 1 to 4, wherein the encapsulation (19) carries an insert (14), the insert defining a wall of the bore (3).

7. An assembly (1) according to any preceding claim, wherein the drive means (16a, 20a) comprises a crank arm (16a) attached to the valve ball (4), the encapsulation (19) preventing fluid within the bore (3) from accessing the crank arm.

8. A ball valve assembly (1) according to any of claims 1 to 6, wherein the drive means further comprises a second piston (20b) located on an opposing side of the valve ball (4) in the direction of the bore (3) axis, the pistons being actuable by a common such hydraulic fluid line (23), such that application of hydraulic fluid pressure at said common hydraulic fluid line causes the pistons to be subjected to linear actuating forces of substantially equal magnitude but opposite direction.

9. An assembly (1) according to claim 8, wherein application of hydraulic fluid pressure at said common fluid line (23) causes the valve ball (4) to rotate to an open position, and wherein a second common hydraulic fluid line (24) is provided, such that applying hydraulic fluid pressure to the second common hydraulic fluid line causes the pistons (20a, 20b) to be subjected to linear actuating forces of substantially equal magnitude but opposite direction, causing the valve ball (4) to rotate to a closed position.

10. An assembly (1) according to either of claims 8 and 9, wherein each piston (20a, 20b) is connected to the valve ball (4) via a respective crank arm (16a, 16b), such that linear motion of the piston causes rotation of the valve ball (4).

11. An assembly (1) according to claim 10, wherein each piston (20a, 20b) is connected to the valve ball (4) via an additional respective crank arm (16c, 16d) at a diametrically opposite position to the first respective crank arms.

12. A well completion system comprising a valve assembly in accordance with any preceding claim.

13. An underwater well facility comprising a valve assembly in accordance with any of claims 1-11.