**Claims**

1. A method of testing a hydroelectric turbine (10) comprising a stator and a rotor housed for rotation within the stator, the method comprising the steps of:
securing the turbine to a transport vessel (18);
transporting the turbine and vessel to open water;
locating the turbine such that at least the rotor is submerged; characterised by the step of
~~and~~ displacing the transport vessel and turbine through the water in order to effect rotation of the rotor.

2. A method according to claim 1 comprising the step of securing the turbine beneath the transport vessel prior to transporting the turbine to open water.

3. A method according to claim 1 or 2 comprising the step of lowering the turbine away from the vessel prior to the step of displacing the vessel and turbine through the water.

4. A method according to any preceding claim comprising the step of recording and/or analysing operational data from the turbine as the vessel and turbine are displaced through the water.

5. A method according to any preceding claim comprising the step of wirelessly transmitting the operational data from the turbine to a data recorder/analyser.

6. A method according to any preceding claim comprising the step of varying the velocity at which the turbine is towed through the water.

7. A method according to claim 6 comprising, in the step of varying the velocity, varying the velocity to simulate the variation in tidal velocity likely to be experienced by the turbine during use.

8. A method according to any preceding claim comprising, in the step of displacing the turbine through the water, displacing the turbine through the water in a first direction and subsequently displacing the turbine through the water in a second direction opposite to the first direction.

9. A method according to any preceding claim comprising, in the step of displacing the transport vessel and turbine through the water in order to effect rotation of the rotor, displacing the vessel and turbine without an electrical load connected to the turbine.

10. A method according to any of claims 1 to 8 comprising, in the step of displacing the transport vessel and turbine through the water in order to effect rotation of the rotor, displacing the vessel and turbine with an electrical load connected to the turbine.

11. A method according to any of claims 4 to 10 comprising the step of analysing the operational data to determine the relationship between the velocity of the water flow through the turbine and one or more operating parameters of the turbine.

12. A method according to any of claims 4 to 10 comprising the step of analysing the operational data to determine the relationship between the velocity of the water flow through the turbine and the angular velocity of the rotor.

13. A method according to any of claims 4 to 10 comprising the step of analysing the operational data to determine the relationship between the velocity of the water flow through the turbine and the power generated by the turbine.

14. A method according to any of claims 4 to 10 comprising the step of analysing the operational data to determine the relationship between the velocity of the water flow through the turbine and the electrical characteristics of the turbine.

15. A method according to any preceding claim comprising the step of securing the turbine and base to the vessel with a plurality of main lines (26) and corresponding secondary lines (28).