CLAIMS

1. A system for inspecting a tank in a ship, the tank being a receptacle suitable for containing cargo in bulk, comprising:
   - a support member for supporting at least one sensor means for producing sensor data related to the tank;
   - at least three suspending means comprising an elongated flexible member, adapted to connect to the support member, and a winch for winding a length of the elongated flexible member, the winch comprising a motor for driving the winding of the elongated flexible member;
   - a control unit for controlling the motor of the winch of the at least three suspending means,
   wherein the at least three suspending means are adapted to suspend the support member in a position inside the tank,
   wherein the control unit is configured to synchronize the length of the elongated flexible member wound of the at least three suspending means, with the position of the suspended support member inside the tank
   wherein the support member comprises an elongated member for allowing the at least one sensor means to reach spaces created by at least one bulkhead stiffener inside the tank.

2. System according to the previous claim, wherein the support member comprises at least one pivoting means for pivoting the elongated member in one rotation axis in relation to the support member.

3. System according to any of the previous claims, wherein the support member comprises at least one electromagnet for fixing the support member to the tank.

4. System according to any of claims 1 to 2, and according to claim 3, wherein the at least one electromagnet is positioned in the elongated member.

5. System according to any of the previous claims, wherein the at least three suspending means comprises at least one pulley adapted to be fixed to the tank, for changing the direction of the elongated flexible member.

6. System according to any of the previous claims, wherein the control unit comprises a communication means for communicating with the at least one sensor means supported by the support member, and
   wherein the control unit is configured to receive the produced sensor data from the at least one sensor means.

7. System according to any of the previous claims, wherein the support member is adapted to support at least one robotic arm.

8. System according to the previous claim, wherein the at least one robotic arm comprises a marking means for marking the tank.

9. System according to claim 6 and according to any of the claims 7 to 8, wherein the communication means of the control unit is adapted for communicating with the at least one robotic arm supported by the support member, and
wherein the control unit is configured to control the at least one robotic arm.

10. System according to any of the previous claims, comprising a four suspending means.

11. System according to any of the previous claims, wherein a sensor means is any of:
- a camera;
- a thermal camera; or
- an ultrasonic transducer for measuring the thickness of the tank.

12. A ship comprising at least one tank for containing cargo in bulk, wherein the at least one tank comprises the system described in any of the previous claims.

13. A ship according to the previous claim, wherein the at least three suspending means of the system are embedded in the at least one tank.

14. A ship according to any of the claims 12 to 13, wherein the control unit of the system is embedded in the tank.