CLAIMS

1. A propeller arrangement for a marine vessel, the propeller arrangement comprising

a propeller;

a propeller shaft assembly comprising a shaft portion extending from a distal side of the propeller;

a support member arranged to be connected to a hull of the marine vessel;

a hollow space defined within the support member;

a bearing arrangement housed in the support member and interconnecting the support member and the shaft portion; and

at least one cooling fluid conduit disposed within the hollow space and configured to accommodate and circulate a first cooling fluid within the support member and further to the shaft portion and/or to the bearing arrangement;

wherein the first cooling fluid leaving the shaft portion and/or the bearing arrangement can flow freely within the hollow space.

2. The propeller arrangement according to claim 1, wherein the shaft portion is tubular and comprises at least one passage for guiding the first cooling fluid from an interior space of the shaft portion to the bearing arrangement, so as to allow the first cooling fluid to lubricate the bearing arrangement.

3. The propeller arrangement according to any of the preceding claims, wherein the bearing arrangement has a housing comprising at least one channel for guiding a second cooling fluid through the bearing housing.

4. The propeller arrangement according to claim 3, wherein the at least one channel has an inlet arranged to receive the second cooling fluid from an exterior of the housing.

5. The propeller arrangement according to any of the preceding claims, wherein the support member comprises means for monitoring and/or controlling the load subjected to the bearing arrangement.

6. The propeller arrangement according to any of the preceding claims, wherein the propeller arrangement comprises

a pitch changing mechanism for controlling the pitch settings of at least one propeller blade of the propeller,

a hydraulic fluid distribution unit arranged to supply a hydraulic fluid to the pitch changing mechanism from the distal side of the propeller.

7. The propeller arrangement according to claim 6, wherein the hydraulic fluid distribution unit is arranged to supply the first cooling fluid to the pitch changing mechanism.

8. The propeller arrangement according to any of the preceding claims, wherein the support member is part of one of a rudder stock, a hydrofoil bracket or a propeller nozzle of the marine vessel.

9. A marine vessel comprising a propeller arrangement according to any of claims 1-8.