【DESCRIPTION】

【Invention Title】

APPARATUS AND METHOD FOR A TURRET TEST

【Technical Field】

The present invention relates to a turret test method and apparatus that check performance of a turret by rotating the turret.

【Background Art】

A marine structure such as a drillship or a floating production storage and offloading (FPSO) unit independently operates on the sea. To this end, the marine structure is equipped with various kinds of equipment. Before being mounted to the marine structure, whether the equipment normally operates is tested.

Particularly, in the case of a large rotatable structure such as a turret that is mounted to a marine structure, rotatability of the structure should be tested before the structure is mounted. In conventional cases, the turret has been placed on a rotating member and rotated by a hydraulic cylinder to test rotatability of the turret.

According to the conventional art as above, an angle that a support plate rotates per operation of the hydraulic cylinder is too small, and thus a large amount of time is taken to fully rotate the large structure once. Thereby, the total time to test the rotatability of the large structure increases.

【Disclosure】

【Technical Problem】

Embodiments of the present invention seek to provide a turret test method and apparatus to check performance of a turret by rotating the turret.

【Technical Solution】

According to an aspect of the present invention, there is provided a turret test method including rotatably installing a turret at an adjacent structure, installing a winding drum, the winding drum being disposed in a rotation direction of the turret and rotating along with the turret, winding both parts of a rope about the winding drum in the same direction about a rotation axis of the turret, and providing tension to the rope.

In the providing of the tension, when the both parts of the rope are unwound from the winding drum, withdrawing directions of the both parts may form 180 degrees with respect to the winding drum.

The providing of the tension may include installing a movable pulley on the rope, and lifting the movable pulley using a crane.

In accordance with another aspect of the present invention, there is provided a turret test apparatus including a winding drum disposed in a rotation direction of the turret and configured to rotate according to rotation of the turret, a rope having both side ends fixed to the winding drum, both parts of the rope being wound about an outer circumferential surface of the winding drum in the same direction about a rotation axis of the turret, and a drive unit to pull the rope to provide tension to the rope, wherein, when the tension is provided to the rope by the drive unit, the both parts of the rope are unwound from the winding drum, and the turret is rotated.

The turret test apparatus may further include a flange to rotatably support the turret with respect to a counterpart object adjacent to the turret, wherein the winding drum is fixed to the turret or the flange.

When the both parts of the rope are unwound from the winding drum, withdrawing directions of the both parts may form 180 degrees with respect to the winding drum.

The winding drum may include a plurality of winding parts spaced apart from each other in a rotation direction of the turret.

The turret may rotate clockwise or counterclockwise depending