CLAIMS

1. A jib anchoring device provided on a crane including a boom, and a jib mounted on a distal end of the boom to be raised and lowered, the jib being foldable with respect to the boom, the jib anchoring device being operative to anchor the jib to the boom, comprising:

a locking portion provided on the boom;

a locked portion provided on the jib, and operative to be locked by the locking portion, when the jib is folded with respect to the boom;

a lock switching member movable between a lock permissible position and a lock release position, operative to switch a locking state of the locked portion by the locking portion, configured to allow the locking portion to lock the locked portion when located at the lock permissible position, and configured to release locking of the locked portion by the locking portion when located at the lock release position;

a biasing portion for biasing the lock switching member in such a way that the lock switching member is located at the lock permissible position;

a drive unit mounted on the locking portion, and operative to move the lock switching member from the lock permissible position to the lock release position against a biasing force of the biasing portion;

a power transmission mechanism mounted on the locking portion, configured to allow power of the drive unit to be transmitted to the lock switching member when being in an energized state, and configured to prevent power of the drive unit from being transmitted to the lock switching member when being in a de-energized state; and

a pulling member connected to the lock switching member, and operative to move the lock switching member from the lock permissible position to the lock release position against a biasing force of the biasing portion by being pulled by an operator, when the power transmission mechanism is in the de-energized state, wherein

the lock switching member includes a protrusion protruding from the locking portion in a direction orthogonal to an axis direction of the boom in such a way that an operator is allowed to view the protrusion from an operation room of the crane, when the lock switching member

is located at the lock permissible position.

2. The jib anchoring device according to claim 1, further comprising

a transmission control unit operative to switch the power transmission mechanism between the energized state and the de-energized state, wherein

the transmission control unit locks the locked portion by the locking portion by setting the power transmission mechanism to a de-energized state, and allowing the lock switching member to move from the lock release position to the lock permissible position by a biasing force of the biasing portion so as to anchor, to the boom, the jib in a folded state with respect to the boom, and

the transmission control unit releases locking of the locked portion by the locking portion by setting the power transmission mechanism to an energized state, and allowing the lock switching member to move from the lock permissible position to the lock release position by power of the drive unit, or by setting the power transmission mechanism to a de-energized state, and allowing the lock switching member to move from the lock permissible position to the lock release position by the pulling member so as to release, from the boom, the jib anchored to the boom.

~~3. The jib anchoring device according to claim 1 or 2, wherein~~

~~the lock switching member includes a protrusion protruding from the locking portion in a direction orthogonal to an axis direction of the boom in such a way that an operator is allowed to view the protrusion from an operation room of the crane, when the lock switching member is located at the lock permissible position.~~

3~~4~~. The jib anchoring device according to ~~any one of~~ claim~~s~~ 1 or 2~~to 3~~, further comprising:

a detection unit operative to detect at least that the lock switching member has moved from the lock permissible position to the lock release position; and

a drive control unit operative to control driving and stopping of the drive unit, based on a detection result of the detection unit.