| type <br> HDC | subject | CHECK OF TIGHTNESS OF FIXING BOLT FOR DECK CRANE' S WINCHES | $\begin{array}{\|l\|} \hline \text { Ref } \\ \text { AS-DC 11-001 } \\ \hline \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dat | March 4, 2011 |

We would express our sincere appreciation for your patronage for MITSUBISHI deck cranes.
On the one of our deck crane, the trouble had been occurred that fixing bolts for hoisting and luffing winch have been broken and abnormal noise occurred.

Estimated cause of this problem was loose of fixing bolts, due to insufficient tightening torque at the time of manufactured. As the bolts get looser, internal stress of bolts rises, and it leads to break of bolt.

The detailed location of the bolts is shown as below. This bolts are provided for shaft fixing structure, located inside of side frame for winches. This bolts are located at blind area, therefore, it is difficult to find loose of bolts, unless they are checked consciously.

To prevent occurrence of trouble in advance, please check tightness of the bolts as soon as possible, and fasten the bolts if they are loosen.

In general, loose of bolts can be the cause of serious trouble, therefore, please carry out periodical check of tightness of bolts entirely (for all machinery of deck crane), not only around winch area, as instructed in the instruction manual. (As for winch area, please check bolts for both of side frame-side and hyd. motor-side.)

【Detailed location of broken bolt】

## Hoisting/Luffing Winch



Hyd. motor -side Side frame-side


Bolt specification (for 30T crane)
Size : M24
Material : SCM435
Tightening torque: $628 \mathrm{~N}-\mathrm{m}$

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