

SERVICE NEWS

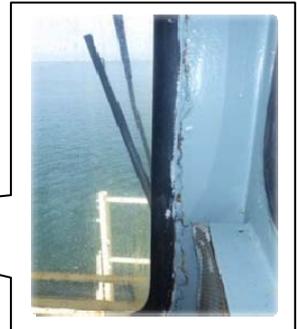
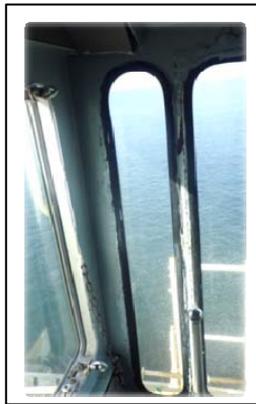
| | | |
|-------------|--|---------------------|
| type HDC | Subject <u>INSPECTION & MAINTENANCE FOR</u> <u>STRUCTURE OF OPERATOR'S CABIN</u> | Ref AS-DC19-002E |
| | | Date Feb 2019 |

Regarding the subject, we would like to inform you of the cases of trouble due to progress of rust, corrosion, etc.

To prevent big trouble & repair, refusal of cargo work by stevedore due to issue of safety, etc., please carry out periodical inspection and take necessary measures timely.

1. Cases of trouble:

【Progress of corrosion around window glass】



【Progress of corrosion of outer surface / handrail】



【Progress of corrosion, breakage of wiper】



【Progress of corrosion, breakage of fixing bolts】

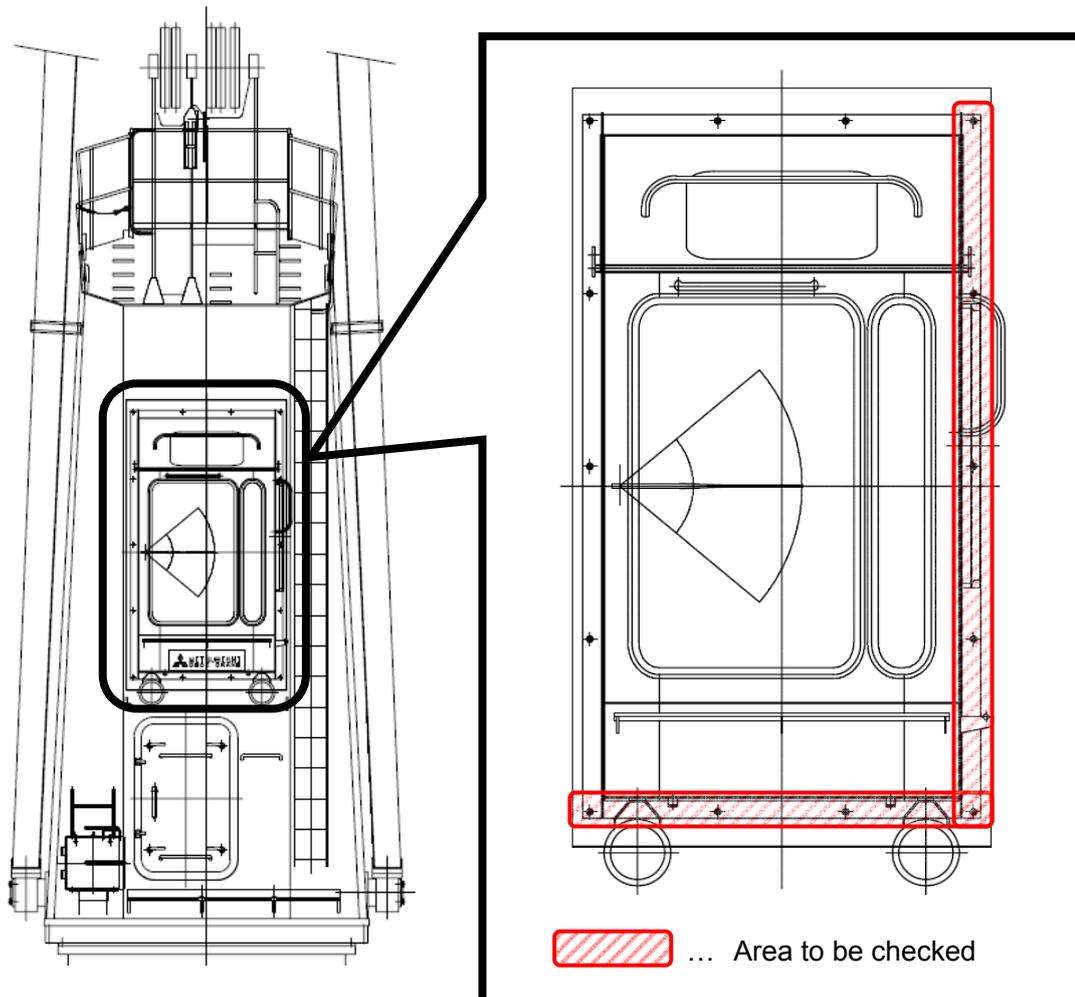


2. Inspection

Please check condition of structure of cabin, fixing bolts, etc. by appearance.

If progress of rust / corrosion of structure, loose / breakage of fixing bolts, etc. is observed, please take necessary measures as mentioned in the next page.

As for check of fixing bolts, access to upper & left side of cabin is difficult without scaffolding, so please carry out possible check for lower & right side as shown below.



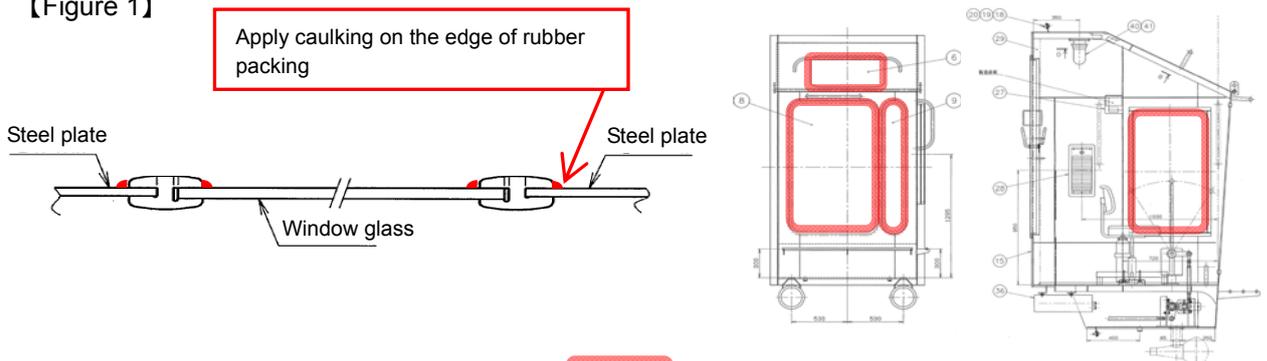
3. Necessary measures

Typical conditions and necessary measures are as below.

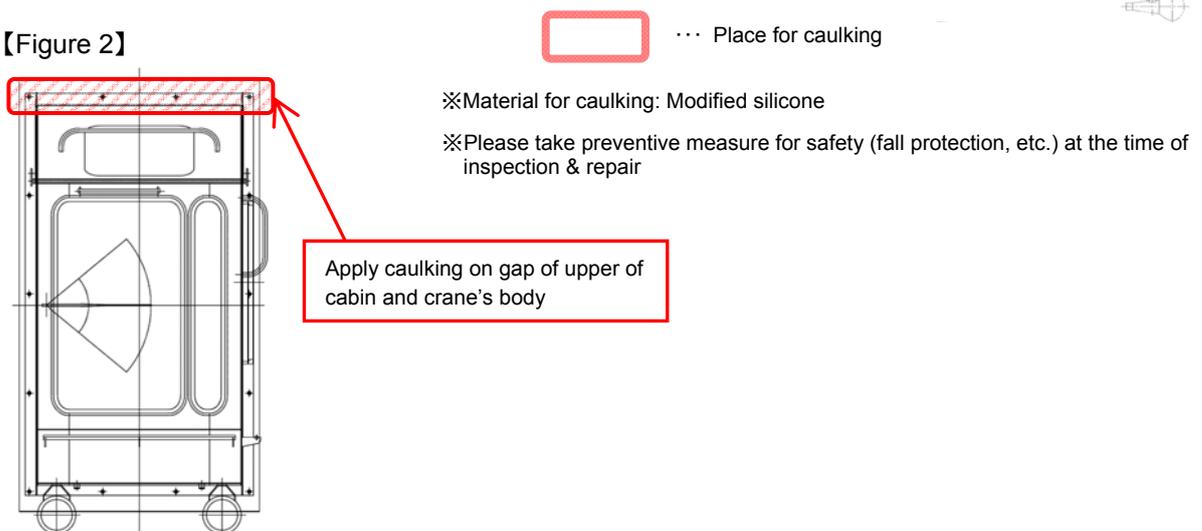
In case condition is severer which needs special investigation, please inform contact window about detailed condition.

| Condition | Necessary measures |
|---|--|
| Rust / corrosion of steel structure of cabin | Removal of rust and re-painting |
| Water ingresses through rubber for window | Apply caulking on the edge of rubber packing (outer side of cabin) 【Figure 1】 |
| Water ingresses through gap between cabin and crane's body. | Apply caulking on gap of upper of cabin and crane's body 【Figure 2】 |
| Hole, damage on steel structure of cabin / handrail | Replacement of steel plate of damaged area (Material: SS400, thickness: 6mm) Replacement of handrail (Material: SGP20A, Outer dia. ϕ 27.2mm, thickness: 2.8mm) |
| Breakage of fixing bolts of cabin | Replacement of bolts * In case replacement of bolts is difficult due to accessibility, it can be altered by addition of stiffener from inside of crane's post. 【Refer to appendix】 |
| Breakage of wiper | Replacement of wiper |

【Figure 1】

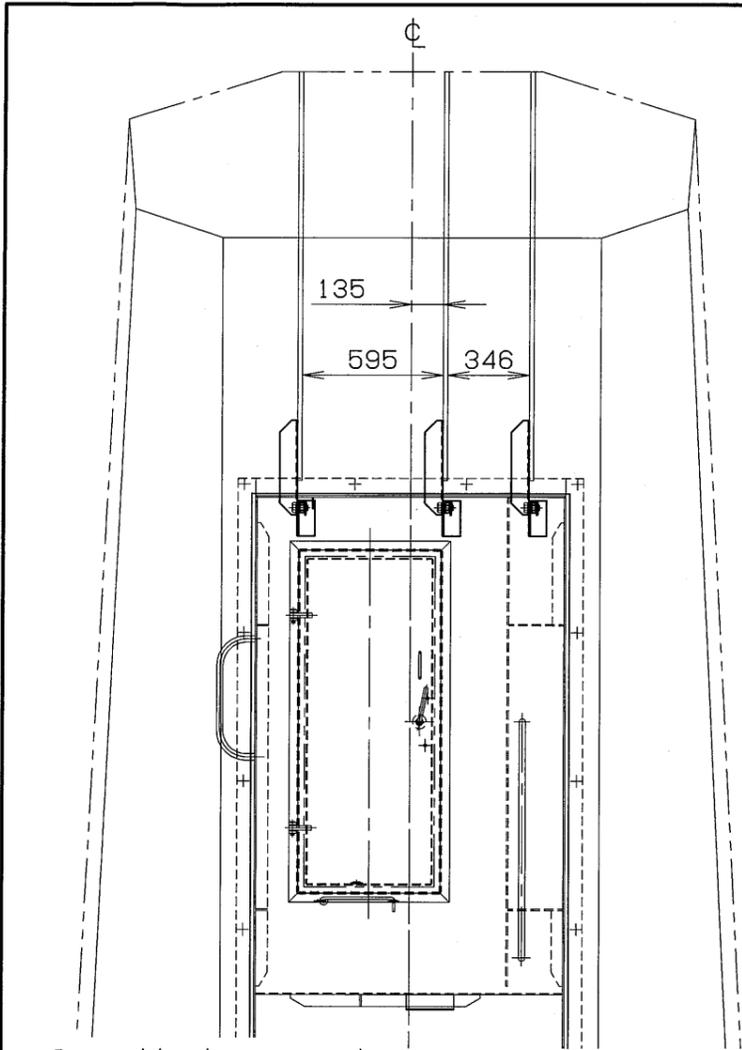


【Figure 2】

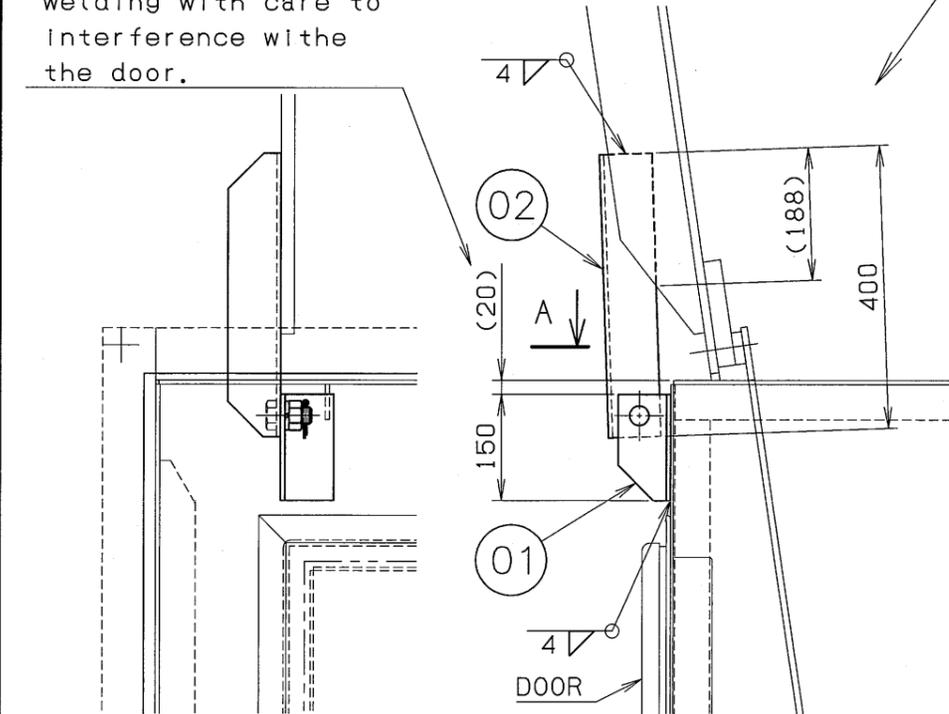


CONTACT WINDOW

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※Install the parts by welding with care to interference with the door.



NOTE) Old JIS roughness symbols shall be replaced with current JIS symbols in accordance with the following table.

| (Current JIS) | Arithmetical mean deviation Ra | Maximum height Rz | (Old JIS) |
|-----------------------|--------------------------------|---|-----------|
| √ Ra0.2 | √ Ra1.6 | √ Ra6.3 | ▽ |
| √ Ra0.8 | √ Ra3.2 | √ Ra12.5 | ▽ |
| √ Ra1.25 | √ Ra5.0 | √ Ra25 | ▽ |
| √ Ra2.0 | √ Ra8.0 | √ Ra50 | ▽ |
| √ Ra2.5 | √ Ra10.0 | √ Ra100 | ▽ |
| √ Ra3.15 | √ Ra12.5 | √ Ra200 | ▽ |
| √ Ra4.0 | √ Ra16.0 | √ Ra400 | ▽ |
| √ Ra5.0 | √ Ra20.0 | √ Ra800 | ▽ |
| √ Ra6.3 | √ Ra25.0 | √ Ra1600 | ▽ |
| √ Ra8.0 | √ Ra31.5 | √ Ra3200 | ▽ |
| √ Ra10.0 | √ Ra40.0 | √ Ra6400 | ▽ |
| √ Ra12.5 | √ Ra50.0 | √ Ra12800 | ▽ |
| √ Ra16.0 | √ Ra63.0 | √ Ra25600 | ▽ |
| √ Ra20.0 | √ Ra80.0 | √ Ra51200 | ▽ |
| √ Ra25.0 | √ Ra100.0 | √ Ra102400 | ▽ |
| √ Ra31.5 | √ Ra125.0 | √ Ra204800 | ▽ |
| √ Ra40.0 | √ Ra160.0 | √ Ra409600 | ▽ |
| √ Ra50.0 | √ Ra200.0 | √ Ra819200 | ▽ |
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