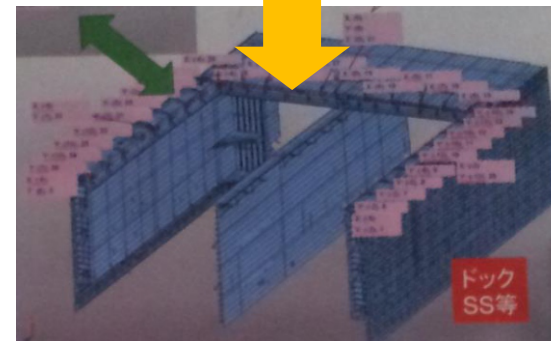
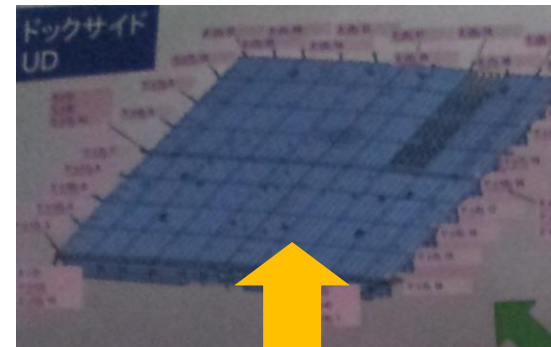


## Customer Shipyard in Japan

- Objectives of introducing the solution
  - Improving efficiency of Block Erection Work
  - Technology Transfer & Settle down the systematic D.C./Production system before the retirement of dock master
- Results
  - It is not a large shipyard like Korea, but this shipyard one of the good cases of adoption the solution properly within their production management system.



<Measuring for Erection>



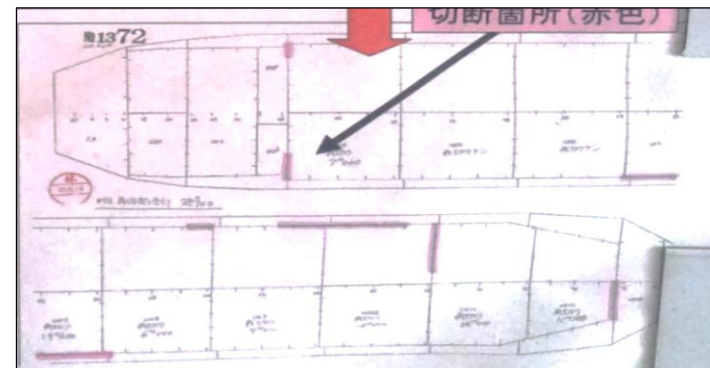
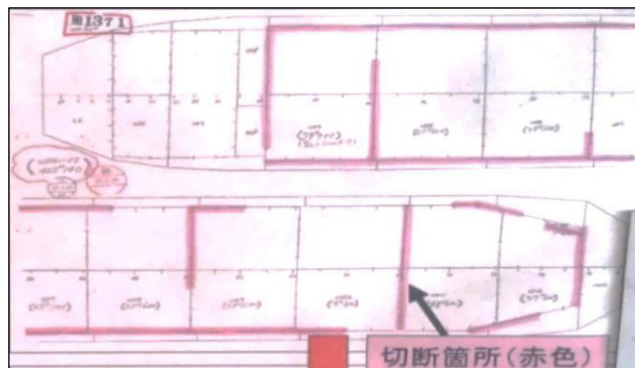
<Block Analysis for OTS Simulation>

## Customer Shipyard in Japan – Good record with EcoMarine

- Before introducing the solution, due to the block dimensional errors, blocks were cut during the erection to fix the errors.
- Incurred burn damages on the block paint during the block cutting, so huge part of blocks were required re-painting.
- As following table shows, with the solution, the working hours and cutting range for “1372” vessel has been decreased tremendously compared to previous series vessel “1371”.
- As the amount of cut was reduced, the paint burn was also reduced and the re-painting process to cover the burn mark was reduced.
- More work can be done on the ground, so less scaffoldings are required on the erection phase compared to compared to previous series vessel “1371”.

Item	1371 Project (without SAMIN)	1372 Project (with SAMIN)
Hours Crane Using	6 Hours	<ul style="list-style-type: none"> <li>• 2H (Not able to cut due to the production schedule )</li> <li>• 0.5H ( Block cutting before erection )</li> </ul>
Cutting	402 m	79 m

Pink Line : Cutting areas for correcting errors



## Customer Shipyard in Japan – Utilization of EcoMarine Solution

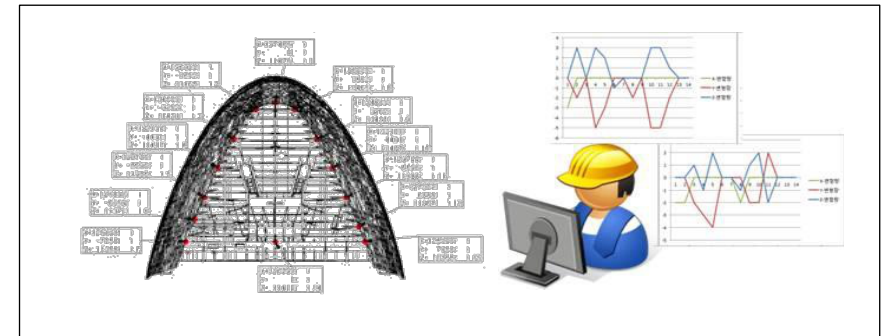
- The software is utilizing many purposes in the production.
  - Training for the new employee
  - Base data for decision making
  - Trace the cause of errors through the statistics of accumulated dimensional error data
- EcoMarine has been evaluated that a helpful tool to improve the entire production process and technical skills.



<Training>



<Discussion>



<Data Statistics>

i.e. Analysis of changes of dimension;  
After tech welding – After Welding- After the deck fairing