PrimeShip-HULL software for CSR Calculations
- ClassNK’s advanced calculation software for Common Structural Rules (CSR)-

Nippon Kaiji Kyokai, ClassNK

1. Outline

1.1 Applicability of the software

➢ Single side skin and double side skin bulk carriers of 90m in length and upward.
➢ Double hull oil tankers of 150m in length and upward.

1.2 System architecture
PrimeShip-HULL software for CSR Calculations is composed of Rule Calculation Programs and Direct Strength Assessment Program.

➢ Rule Calculations (PrimeShip-HULL(Rules)/CSR Bulk Carrier, /CSR Tanker )

Rule Calculation Programs provide information and reporting functions essential for the demonstration if ship designs comply with CSRs, which consist of cross section calculation, hull girder strength assessment, local strength assessment, fatigue strength assessment, buckling strength assessment, etc. based on inputs of arrangements and gross scantlings of cross section as shown in the right hand figure.

➢ Direct Strength Assessment (PrimeShip-HULL(DSA)/CSR)

Direct Strength Assessment Program provides functions to conduct Finite Element Analysis (FEA) and strength assessments as shown in the left-hand figure. This program is integrated with Patran of MSC Software as pre- and post-processor. It enables users to carry out a series of direct strength analysis and assessment in accordance with requirements of CSRs such as design loads and boundary conditions.
2. Condition of service

2.1 Possible Customers

The software will be provided, by free of charge, to ClassNK’s customers who are going to carry out strength assessments of ships complying with Part CSR-B and Part CSR-T of Rules for the Survey and Construction of Steel Ship.

It should be, however, noted that users of the Direct Strength Assessment Program should prepare Patran and MSC Nastran or MD Nastran which enable the system, respectively.

2.2 Agreement between customers and ClassNK

Followings should be agreed between customers and ClassNK.

1) It is prohibited to allow any third party except the applicant to use the software by any means such as lending, transformation and redistribution of the software.

2) It is prohibited to use whole or part of this software for the purposes other than structural strength assessment based on Part CSR-B and CSR-T.

3) It is prohibited to change any parts of the software.

4) It is prohibited to provide any third party with technical information such as know-how and data structure obtained by using the software.

5) ClassNK should have no responsibility whatsoever for any detriment resulting from the use of this software.

2.3 User Support Services

ClassNK provides users with followings support services.

1) Technical consultation
2) Providing updated version of each system
3) Repair of software by any problems

* Please note that maintenance and support for Patran, MSC Nastran and MD Nastran are not included in user support services provided by ClassNK.

2.4 Hardware Requirements

Refer to the hardware requirements for PrimeShip-HULL software for CSR calculations, please see “Products & Services > Common Structural Rules (CSR) > Software for Common Structural Rules” in the homepage.


3. Applications and Inquiries

After filling out all necessary information attached to the end of this paper, please send the application form to Hull Department (HLD) of ClassNK.

In case you have any inquiries about the software, please contact Hull Rules Development Department (DHD) of ClassNK.
Address of Hull Department

Hull Department, Administration Center, Head Office, NIPPON KAIJI KYOKAI
TEL: + (81)-3-5226-2017
FAX: + (81)-3-5226-2019
E-Mail: hld@classnk.or.jp

Address of Hull Rules Development Department

Hull Rules Development Department, Administration Center, Head Office, NIPPON KAIJI
KYOKAI
TEL: + (81)-3-5226-2180
FAX: + (81)-3-5226-2172
E-Mail: primeship-hull@classnk.or.jp

4. Declaration of Ownership

✓ NIPPON KAIJI KYOKAI, ClassNK has ownership of Rule Calculation Programs and Direct Strength Assessment Program.

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APPLICATION FORM

TO: Nippon Kaiji Kyokai  Date: ____________________________
Attn.: Hull Dept.
FAX: +81-3-5226-2019  E-mail: hld@classnk.or.jp

PrimeShip-HULL software for CSR Calculations

Applicant's details

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ PrimeShip-HULL(Rules)/CSR Bulk Carrier</td>
<td>Rule calculation program for CSR Bulk Carriers</td>
</tr>
<tr>
<td>☐ PrimeShip-HULL(Rules)/CSR Tanker</td>
<td>Rule calculation program for CSR Tankers</td>
</tr>
<tr>
<td>☐ PrimeShip-HULL(DSA)/CSR</td>
<td>Direct Strength Assessment program * for CSR Bulker and Tanker</td>
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</tbody>
</table>

Company
Department
Name
Signature or Seal
Address
TEL & FAX
E-mail

* Please note that the above information will be disclosed to MSC.Software for confirmation of licensee of Patran.

With noted that the lease is subject to the following conditions:

1. The Software, which includes the main module, runtime-library, etc. may be installed in multiple computers within (one location of) the company. However the Software shall not be leased, sold, distributed or subleased to any third party other than the location specified in the application form. You may not copy the Software or any of the printed materials accompanying the Software except as expressly permitted by ClassNK.

2. The information and results provided by the software are “as is” with out warranty of any kind, express or implied, including without limitation any warranty concerning the accuracy, adequacy, or completeness of such information or results. Any information or results that the software provides shall be used at your sole discretion and responsibility. ClassNK, its employees or related parties shall not be responsible for any claims attributable to errors, omissions, or other inaccuracies in the information or results provided by the Software, and in no event shall ClassNK be liable for direct, indirect, special, incidental or consequential damages or losses arising out of the use of the Software, such information or results.