Amendment on 29 June 2026
Resolved by Technical Committee on 29 January 2026

Requirements for Lashing Software

Object of Amendment

Rules for the Survey and Construction of Steel Ships Parts B, C and CS

Reason for Amendment

All cargoes, other than solid and liquid bulk cargoes, cargo units and cargo transport units shall be loaded, stowed and secured throughout the voyage in accordance with a Cargo Securing Manual (CSM) approved by the Administration as required by regulation VI/5 of SOLAS. On the other hand, in the case of transporting containers as cargo, it is common to stow and secure the containers based on the calculation results of onboard lashing software, and IACS published Unified Requirement (UR) C6 which specifies the requirements for lashing software in May 2024.

Said UR was developed for the purpose of mandating the installation of lashing software for all seagoing container carriers; however, since it was not explicitly specified in the UR that the installation of lashing software is required for all seagoing container carriers, IACS adopted UR C6 (Rev. 1) in September 2025 to clarify said installation is compulsory.

Relevant requirements are, therefore, amended accordingly to incorporate UR C6 (Rev.1) into the NK Rules.

Outline of Amendment

Amend requirements related to lashing software as follows.

(1) Clarify that the installation of lashing software is mandatory for all seagoing container carriers.
(2) Transfer the requirements for lashing software specified in Annex 3.1, Part 2-1 to 3.3 and delete Annex 3.1.

Effective Date and Application

This amendment will apply to ships for which the date of contract for construction is on or after 1 January 2027.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DH25-13

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part B CLASS SURVEYS** **Chapter 2 CLASSIFICATION SURVEYS** **2.1 Classification Survey during Construction** **2.1.4 Plans and Documents to be Maintained On Board*** **1** At the completion of a classification survey, the plans and documents specified in **(1)** to **(7)** below are to be are on board. Duplicate plans and documents are not required. (1) Finished Plans(On Board) specified in **Table B2.1** and **Table B2.2**. (2) For ships subject to **Part N**, Finished Plans (On Board) specified in **Table B2.3** in addition to **(1)** above. (3) For ships subject to **Part S**, Finished Plans(On Board) specified in **Table B2.4** in addition to **(1)** above. (4) For ships subject to **Part GF**, Finished Plans(On Board) specified in **Table B2.5** in addition to **(1)** above. (5) For ships engaged on international voyages, the Ship Construction File specified in **Table B2.1** in addition to **(1)** above. (6) Notwithstanding **(5)** above, for ships complying with	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part B CLASS SURVEYS** **Chapter 2 CLASSIFICATION SURVEYS** **2.1 Classification Survey during Construction** **2.1.4 Plans and Documents to be Maintained On Board*** **1** At the completion of a classification survey, the plans and documents specified in **(1)** to **(7)** below are to be<u> are</u> on board. Duplicate plans and documents are not required. (1) Finished Plans(On Board) specified in **Table B2.1** and **Table B2.2**. (2) For ships subject to **Part N**, Finished Plans(On Board) specified in **Table B2.3** in addition to **(1)** above. (3) For ships subject to **Part S**, Finished Plans(On Board) specified in **Table B2.4** in addition to **(1)** above. (4) For ships subject to **Part GF**, Finished Plans(On Board) specified in **Table B2.5** in addition to **(1)** above. (5) For ships engaged on international voyages, the Ship Construction File specified in **Table B2.1** in addition to **(1)** above. (6) Notwithstanding **(5)** above, for ships complying with	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
SOLAS Chapter II-1 Regulation 3-10, the Ship Construction File specified in **Table B2.1** in addition to **(1)** above. The construction file is to be included the information specified in **Table B2.6**. (7) Plans and documents other than **(1)** to **(6)** above when deemed necessary by the Society.	*SOLAS Chapter II-1 Regulation 3-10,* the Ship Construction File specified in **Table B2.1** in addition to **(1)** above. The construction file is to be included the information specified in **Table B2.6**. (7) Plans and documents other than **(1)** to **(6)** above when deemed necessary by the Society.	

Table B2.1 Plans and Documents – Hull (General)

Name*1	Notes	Submission			Maintained On Board		
		Approval	Other	Finished Plans (Submission)	Finished Plans (On Board)	Ship Construction File: Ships engaged in international voyages	Ship Construction File: Ships subject to *SOLAS Chapter II-1 Regulation 3-10*
(1 to 98 omitted.)							
100 Operation manual for lashing software	(1) For container carriers engaged in international voyages (2) As specified in ~~**Annex3.1**~~**3.3, Part 2-1, Part C of the Rules**				○		

Change of reference

2.1.7 Survey

2 Hull and equipment

For hull and equipment, relevant items in **Table B2.7** are to be implemented.

Table B2.7 Survey - Hull and Equipment

Survey Item	Details
(1 to 36 are omitted.)	
37 Lashing software	(1) For container carriers engaged in international voyages. (2) Operating tests, using the approved test loading conditions in accordance with ~~**Annex3.1**~~**3.3, Part 2-1, Part C of the Rules** are carried out for lashing software after installation to confirm proper operation.

Change of reference

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

<table>
<tr><th>Amended</th><th>Original</th><th>Remarks</th></tr>
<tr><td>

Chapter 3 ANNUAL SURVEYS

3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings

3.2.3 Performance Tests*

At Annual Surveys, performance tests listed in **Table B3.3** are to be carried out.

</td><td>

Chapter 3 ANNUAL SURVEYS

3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings

3.2.3 Performance Tests*

At Annual Surveys, performance tests listed in **Table B3.3** are to be carried out.

</td><td></td></tr>
<tr><td colspan="3">

Table B3.3 Performance Tests

<table>
<tr><th>Items</th><th>Tests</th></tr>
<tr><td colspan="2">(1 to 14 are omitted.)</td></tr>
<tr><td>15 Lashing software</td><td>(1) Checking the accuracy of the lashing software by applying the test loading conditions in accordance with ~~Annex3-1~~3.3, Part 2-1, Part C. Survey items deemed appropriate by the Society may be delegated to the examination of the verification results including a copy of the test loading condition results conducted by the ship’s master.</td></tr>
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</td><td>Change of reference</td></tr>
<tr><td>

Chapter 5 SPECIAL SURVEYS

5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings

5.2.3 Performance Test*

2 In addition to **-1** above, the performance tests and operation tests specified in **(1)** to **(10)** below are to be carried out.

((1) to (10) are omitted.)

(11) For container carriers engaged in international voyages, an accuracy check of the lashing software by

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Chapter 5 SPECIAL SURVEYS

5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings

5.2.3 Performance Test*

2 In addition to **-1** above, the performance tests and operation tests specified in **(1)** to **(10)** below are to be carried out.

((1) to (10) are omitted.)

(11) For container carriers engaged in international voyages, an accuracy check of the lashing software by

</td><td></td></tr>
</table>

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
applying test loading conditions in accordance with **3.3, Part 2-1, Part C**.	applying test loading conditions in accordance with **Annex 3.1, Part 2-1, Part C**.	Change of reference

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part C HULL CONSTRUCTION AND EQUIPMENT** **Part 2-1 CONTAINER CARRIERS** **Chapter 3 STRUCTURAL DESIGN PRINCIPLES**	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part C HULL CONSTRUCTION AND EQUIPMENT** **Part 2-1 CONTAINER CARRIERS** **Chapter 3 STRUCTURAL DESIGN PRINCIPLES**	The requirements for lashing software which have been specified in Annex 3.1 was moved to 3.3.
3.3 Lashing Software	**3.3 Lashing Software**	
3.3.1 General	**3.3.1 General**	C6.1.1
3.3.1.1 Application All seagoing dedicated container ships are to be equipped with an onboard lashing software approved in compliance with **3.3.**	**3.3.1.1 General** For container carriers engaged in international voyages, the lashing software in accordance with **Annex 3.1, Part 2-1, Part C** is to be provided on board the ship.	
3.3.1.2 Definition **1** Lashing software is an electronic data processing tool for onboard analysis of forces in container stacks and thereby reflects the parameters of the lashing system as described in the Cargo Securing Manual prepared in accordance with the Administration requirements. **2** An approved lashing software is not a substitute for the approved Cargo Securing Manual. It is considered as a		C6.1.2

Amended	Original	Remarks
supplement to the approved Cargo Securing Manual. **3** The lashing software is a ship specific tool, and the results of the calculations are only applicable to the ship for which it has been approved. **3.3.2 Operation Manual** **3.3.2.1** **1** An operation manual is to be provided for the lashing software and be kept on board. **2** The language of the operation manual is to be the same as the language of the approved Cargo Securing Manual. A translation into another language considered appropriate may be required. **3** The operation manual should contain descriptions and instructions, as appropriate, of the following **(1)** to **(9)**. (1) A general description of the lashing software (2) Installation (3) Function keys (4) Menu displays (5) Input and output data (6) Required minimum hardware to operate the software (7) Instruction on testing the lashing software with the test loading condition (8) A list of all terms, definitions, error messages and warnings likely to be encountered by the user (9) In the case of error messages and warnings, there are to be unambiguous user instructions for subsequent action to be taken in each case		C6.2

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
3.3.3 Functional Requirements **3.3.3.1** **1** The lashing software is to be capable of calculating forces on containers and container securing equipment for any loading conditions for each container stack. **2** It is also to be capable of indicating the respective permissible values in order to assist the master in his/her judgement on whether the ship is loaded within the approved limits. The following **(1)** to **(7)** parameters are to be presented. (1) Summary of ship particulars such as IMO No., length, and breadth (2) Summary of loading conditions showing relevant input parameters such as draught and GM (3) Stack and container positions (4) Actual stack weights verified against permissible stack weights (5) Relevant properties of securing devices, including permissible loads (6) Accelerations and other external forces such as wind containers are exposed to (7) Listing of all calculated forces on containers and container securing equipment, and evaluation of compliance of the calculated forces with the corresponding allowable values **3** The container and lashing arrangements in each bay on deck and in holds are to be shown graphically. **4** The data are to be presented on screen and in hard copy printout in a clear and unambiguous manner.		C6.3

Amended	Original	Remarks
5 A clear warning is to be given on screen and in hard copy printout if any of the allowable forces are exceeded. **6** In addition to the printout content, each page of the printout is to contain ship's identification, lashing software name and version number, date and time of the printout, and the title of the loading condition. The printout is to be paginated sequentially, and the total number of printout pages is to be shown. **7** Units of measurement are to be clearly identified and used consistently. **8** Incorrect data input by the users, such as negative draught values, is to be prohibited. An error message is to be prompted on screen and in hard copy printout in a clear and unambiguous manner. **3.3.4 Test Loading Conditions** **3.3.4.1** **1** The lashing software is to be delivered with test loading conditions for selected stacks and bays covering applicable stowage patterns for containers of different dimensions contained in the Cargo Securing Manual, as per the Rules of the Society. **2** The test loading conditions and their results are to be permanently stored in the computer where the lashing software is installed and be protected against unintentional or unauthorised modifications and access.		C6.4

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
3.3.5 Approval of Lashing Software **3.3.5.1** **1** The lashing software is subject to approval by the Society and is to include the following **(1)** to **(5)**. (1) Verification that the latest ship data has been used (2) Verification and approval of the test loading conditions and their results (3) Verification if requirements of **3.3.3** are satisfied (4) Checking of proper installation, and verification of the instrument on board in accordance with the approved test loading conditions (5) Checking the availability of the operation manual on board **2** In case of modifications implying changes in the ship's design or container securing arrangement, the software is to be modified accordingly and re-approved by the Society. **3** Any changes in software version related to the container securing calculations are to be reported to and be approved by the Society. **4** Upon installation, the lashing software is to be verified with the approved test loading conditions in the presence of the surveyor. It is to be checked that the operation manual for the lashing software is available on board. **5** Verification by the Society does not absolve the shipowner of responsibility for ensuring that the information supplied into the lashing software is consistent with the current condition of the ship and approved Cargo Securing Manual.		C6.5

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
3.3.6 Acceptable Tolerances **3.3.6.1** **1** The accuracy of the computational results from the lashing software for the particular ship, on which the lashing software will be installed, is to be determined by using reference computation results deemed appropriate by the Society. **2** The tolerance of the accuracy of the results from the lashing software is to be below 1.0 % of the allowable values. However, deviations may be accepted subject to review by the Society provided that there is a satisfactory explanation for the deviation and that there will be no adverse effects on the safety of the ship.		C6.6
3.3.7 Acceptable Tolerances **3.3.7.1** The lashing software and its data are to be protected against unintentional or unauthorised modifications and access.		C6.7
(Deleted)	**Annex 3.1 Requirements for Lashing Software** **An1 General** **An1.1 Application** **An1.1.1** All seagoing dedicated container ships are to comply with	Since the requirements for lashing software was now moved to 3.3, Annex 3.1 was deleted.

Amended	Original	Remarks
	these minimum requirements. **An1.2 Definition** **An1.2.1** **1** Lashing software is an electronic data processing tool for onboard analysis of forces in container stacks and thereby reflects the parameters of the lashing system as described in the Cargo Securing Manual prepared in accordance with the Administration requirements. **2** An approved lashing software is not a substitute for the approved Cargo Securing Manual. It is considered as a supplement to the approved Cargo Securing Manual. **3** The lashing software is a ship specific tool, and the results of the calculations are only applicable to the ship for which it has been approved. **An2 Operation Manual** **An2.1 Operation Manual** **An2.1.1** **1** An operation manual is to be provided for the lashing software and be kept on board. **2** The language of the operation manual is to be the same as the language of the approved Cargo Securing Manual. A translation into another language considered appropriate may be required. **3** The operation manual should contain descriptions and instructions, as appropriate, of the following **(1)** to **(9).** (1) A general description of the lashing software	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
	(2) Installation, (3) Function keys (4) Menu displays (5) Input and output data (6) Required minimum hardware to operate the software (7) Instruction on testing the lashing software with the test loading condition (8) A list of all terms, definitions, error messages and warnings likely to be encountered by the user (9) In the case of error messages and warnings, there are to be unambiguous user instructions for subsequent action to be taken in each case **An3 Functional Requirements** **An3.1 Functional Requirements** **An3.1.1** -1. The lashing software is to be capable of calculating forces on containers and container securing equipment for any loading conditions for each container stack. -2. It is also to be capable of indicating the respective permissible values in order to assist the master in his/her judgement on whether the ship is loaded within the approved limits. The following **(1)** to **(7)** parameters are to be presented. (1) Summary of ship particulars such as IMO No., length, and breadth (2) Summary of loading conditions showing relevant input parameters such as draught and GM (3) Stack and container positions	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
	(4) Actual stack weights verified against permissible stack weights (5) Relevant properties of securing devices, including permissible loads (6) Accelerations and other external forces such as wind containers are exposed to (7) Accelerations and other external forces such as wind containers are exposed to **3** The container and lashing arrangements in each bay on deck and in holds are to be shown graphically. **4** The data are to be presented on screen and in hard copy printout in a clear and unambiguous manner. **5** A clear warning is to be given on screen and in hard copy printout if any of the allowable forces are exceeded. **6** In addition to the printout content, each page of the printout is to contain ship's identification, lashing software name and version number, date and time of the printout, and the title of the loading condition. The printout is to be paginated sequentially, and the total number of printout pages is to be shown. **7** Units of measurement are to be clearly identified and used consistently. **8** Incorrect data input by the users, such as negative draught values, is to be prohibited. An error message is to be prompted on screen and in hard copy printout in a clear and unambiguous manner.	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
	An4 Test Loading Conditions **An4.1 Test Loading Conditions** **An4.1.1** **1** The lashing software is to be delivered with test loading conditions for selected stacks and bays covering applicable stowage patterns for containers of different dimensions contained in the Cargo Securing Manual, as per the Rules of the Society. **2** The test loading conditions and their results are to be permanently stored in the computer where the lashing software is installed and be protected against unintentional or unauthorised modifications and access. **An5 Approval of Lashing Software** **An5.1 Approval of Lashing Software** **An5.1.1** **1** The lashing software is subject to approval by the Society and is to include the following **(1)** to **(5)**. (1) Verification that the latest ship data has been used (2) Verification and approval of the test loading conditions and their results (3) Verification if requirements of **An3.** are satisfied (4) Checking of proper installation, and verification of the instrument on board in accordance with the approved test loading conditions (5) Checking the availability of the operation manual on board	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
	2 In case of modifications implying changes in the ship's design or container securing arrangement, the software is to be modified accordingly and re-approved by the Society. **3** Any changes in software version related to the container securing calculations are to be reported to and be approved by the Society. **4** Upon installation, the lashing software is to be verified with the approved test loading conditions in the presence of the surveyor. It is to be checked that the operation manual for the lashing software is available on board. **5** Verification by the Society does not absolve the shipowner of responsibility for ensuring that the information supplied into the lashing software is consistent with the current condition of the ship and approved Cargo Securing Manual. **An6 Acceptable Tolerances** **An6.1 Acceptable Tolerances** **An6.1.1** **1** The accuracy of the computational results from the lashing software for the particular ship, on which the lashing software will be installed, is to be determined by using reference computation results deemed appropriate by the Society. **2** The tolerance of the accuracy of the results from the lashing software is to be below 1.0 % of the allowable values. However, deviations may be accepted subject to review by the Society provided that there is a satisfactory explanation for the	

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
	deviation and that there will be no adverse effects on the safety of the ship. **An7 Other Requirements** **An7.1 Other Requirements** **An7.1.1** The lashing software and its data are to be protected against unintentional or unauthorised modifications and access.	
Chapter 14 EQUIPMENT **14.2 Container Securing Systems** **14.2.6 Lashing Software** **14.2.6.1 General** If the ship is equipped with lashing software on board, the approval is to follow the requirements of **3.3**.	**Chapter 14 EQUIPMENT** **14.2 Container Securing Systems** **14.2.6 Lashing Software** **14.2.6.1 General** If the ship is equipped with lashing software on board as per **3.3**, the approval is to follow the requirements of **Annex 3.1**.	Change of reference

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS** **Chapter 28 LASHING SOFTWARE** **28.1 Lashing Software** **28.1.1 General** All seagoing dedicated container ships are to be equipped with onboard lashing software approved in compliance with **3.3, Part 2-1, Part C**.	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS** **Chapter 28 LASHING SOFTWARE** **28.1 Lashing Software** **28.1.1 General** For container carriers engaged in international voyages, the lashing software in accordance with **Annex 3.1, Part 2-1, Part C** is to be installed on board.	Change of reference

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2027.

2. Notwithstanding the amendments, the current requirements apply to ships for which the date of contract for construction* is before the effective date.

3. For ships subject to Part C of the Rules for the Survey and Construction of Steel Ships prior to its comprehensive revision by Rule No. 62 on 1 July 2022 (hereinafter referred to as "old Part C of the Rules"), this amendment also applies to the following of old Part C of the Rules/Guidance.

32.14 of the Rules

* "contract for construction" is defined in the latest version of IACS Procedural Requirement (PR) No.29.

IACS PR No.29 (Rev.0, July 2009)

1. The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment

Amended-Original Requirements Comparison Table (Requirements for Lashing Software)

Amended	Original	Remarks
of class to a newbuilding. **2.** The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder. For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided: (1) such alterations do not affect matters related to classification, or (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval. The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed. **3.** If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply. **4.** If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder. Note: This Procedural Requirement applies from 1 July 2009.		