

Edition 2003

GL Rules and Programs 5.0

More than 50 Volumes of GL Rules
Support by Programmed Rules
GL Pilots for Application of International Regulations



Germanischer Lloyd
OPERATING 24/7

User Guide

About GL Rules and Programs

GL Rules and Programs, Version 5.0/2003 is an interactive Microsoft Windows-based information and calculation system that gives you easy access to GL's classification rules and calculation programs. The GL Rules and Programs allows you to search and view rule information relevant to your needs. Parallel to this you can calculate using rule compliance. The rules are displayed with the Acrobat Reader from Adobe**).

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GL Rules and Guidelines

I - Ship Technology

Part 0 – Classification and Surveys

Part 1 – Seagoing Ships

- Chapter 1 – Hull Structures
- Chapter 2 – Machinery Installations
- Chapter 3 – Electrical Installations
- Chapter 4 – Automation
- Chapter 5 – High Speed Craft (in English only)
- Chapter 6 – Liquefied Gas Tankers
- Chapter 7 – Chemical Tankers
- Chapter 8 – Fishing Vessels (in English only)
- Chapter 9 – Oil Recovery Vessels
- Chapter 10 – Refrigeration Installations
- Chapter 11 – Bridge Design on Seagoing Ships, One-Man-Control Console
- Chapter 14 – Redundant Propulsion and Steering Systems
- Chapter 15 – Dynamik Positioning Systems
- Chapter 16 – Harmony Class - Rules on Rating Noise and Vibration for Comfort, Cruise Ships (in English only)

Part 2 – Inland Waterway Vessels

- Chapter 1 – Hull Structures
- Chapter 2 – Machinery Installations
- Chapter 3 – Electrical Installations

Part 3 - Pleasure Craft (in English only)

- Chapter 1 – Hull Structures
- Chapter 2 – Mast and Rigging
- Chapter 3 – Machinery Installations
- Chapter 4 – Electrical Installations
- Chapter 5 – Safety Requirements

Part 4 - Special Equipment

- Chapter 1 – Floating Docks
- Chapter 2 – Rigging Designs
- Chapter 3 – Stowage and Lashing of Containers
- Chapter 4 – Guidelines for the Construction, Repair and Testing of Freight Containers
- Chapter 5 – Guidelines for Design and Construction of Large Modern Yacht Rigs
- Chapter 6 – Ship Lifts

II - Materials and Welding

Part 1 – Metallic Materials

- Chapter 1 – Principles, Testing Procedures
- Chapter 2 – Ferrous Materials
- Chapter 3 – Non-Ferrous Metals
- Chapter 4 – Equipment
- Chapter 5 – Materials for Propeller Fabrication

Part 2 – Non-Metallic Materials

- Chapter 1 – Fibre Reinforced Plastics and Adhesive Joints
- Chapter 2 – Wood
- Chapter 3 – Guidelines for Elastomeric Adhesives and Adhesive Joints

Part 3 – Welding

- Chapter 1 – General Requirements, Proof of Qualifications, Approvals
- Chapter 2 – Design, Fabrications and Inspections of Welded Joints
- Chapter 3 – Welding in the Various Fields of Application

III - Offshore Technology

Part 1 – Underwater Technology

- Chapter 1 – Diving Systems and Diving Simulators
- Chapter 2 – Submersibles
- Chapter 3 – Underwater Equipment

Part 2 – Offshore Installations

- Chapter 1 – General Regulations
- Chapter 2 – Structures
- Chapter 3 – Specific Types of Units and Equipment
- Chapter 4 – Machinery Installations
- Chapter 5 – Electrical Installations
- Chapter 6 – Guidelines for the Construction and Classification / Certification of Floating, Production, Storage and Off-Loading-Units

IV - Non-Marine Technology

Part 1 – Wind Energy

- Chapter 1 – General Conditions for Approval
- Chapter 2 – Safety System, Protective and Monitoring Devices
- Chapter 3 – Requirements for Manufacturers, Quality Assurance, Materials and Production
- Chapter 4 – Definition of Load Cases
- Chapter 5 – Rotorblades
- Chapter 6 – Machinery Components
- Chapter 7 – Electrical Installations
- Chapter 8 – Tower and Foundation
- Chapter 9 – Operating Instructions and Maintenance Manual
- Chapter 10 – Noise Aspects References and Enclosures

Part 2 – Offshore Wind Energy (in English only)

- Chapter 1 – General Conditions for Approval
- Chapter 2 – Safety System, Protective and Monitoring Devices
- Chapter 3 – Requirements for Manufacturers, Quality Assurance, Materials and Protection
- Chapter 4 – Environment and Loads
- Chapter 5 – Structural Design
- Chapter 6 – Steel Structures
- Chapter 7 – Concrete Structures
- Chapter 8 – Corrosion Protection

- Chapter 9 – Foundations
- Chapter 10 – Marine Operations
- Chapter 11 – Rotorblades
- Chapter 12 – Machinery Components
- Chapter 13 – Electrical Installations
- References

V - Analysis Techniques

- Chapter 1 – Guidelines for Strength Analyses of Ship Structures with the Finite Element Method
- Chapter 2 – Guidelines for Fatigue Strength Analyses of Ship Structures
- Chapter 3 – Guidelines for the Preparation of Subdivision and Damage Stability Calculations

VI - Additional Rules and Guidelines (in English only)

Part 3 – Machinery Installations

- Chapter 11 – Guidelines for the use of Fuel Cell Systems on board of Ships and Boats

Part 11 – Other Operations

- Chapter 6 – Guidelines for the Design, Manufacture and Installation of Unbonded Flexible Pipe for Subsea Pipelines and Risers
- Chapter 8 – Guidelines and Approval Procedures for “In Service Including Test Systems” (ISITS)
- Chapter 9 – Condition Assessment Program

Information on Recent IMO Legislation (in English only)

IMO Pilot

IMO Safety of Navigation Pilot

IMO Fire Protection Pilot

Programmed Rules

GL RULES ND

- Part 1, Chapter 1 – Hull Structures
- Part 1, Chapter 5 – High Speed Craft
- Part 2, Chapter 1 – Hull Structures
- Part 3, Chapter 1 – Hull Structures

SCC 363

- Part 1, Chapter 3 – Short-Circuit Evaluation

System Requirements

- PC with an 80386 or higher processor (80486 or higher recommended), running Windows 98, 2000, NT or XP
- CD-ROM drive or network connection
- 4 MB with RAM application
- 5 MB free hard disk space for the installation of the Acrobat Reader plus
- 7 MB temporary disk space available during installation. The complete local installation needs up to 90 MB disk space for each language.
- Acrobat Reader 4.0 plus Search (included on this CD-ROM) or higher

Setting Up GL Rules and Programs

Start your Windows system and insert the GL Rules and Programs CD into your CD-ROM drive. Use the appropriate setup program from the AcroRead directory (SETUP.EXE) to install the Acrobat Reader, if the reader isn't installed yet. After you have successfully installed the Acrobat Reader, use the setup program (SETUP.EXE) to install GL Rules and Programs on your computer.

1. Install the Acrobat Reader (if necessary)

- From the **Start** Menu choose **Run**.
- Type the drive letter of your CD-ROM drive followed by a colon and **AcroRead\Deutsch\rdr_srch\32bit\setup.exe** for the german version or **AcroRead\English\rdr_srch\32bit\setup.exe** for the english version.

2. Install GL Rules and Programs

- From the **Start** Menu choose **Run**.
- Type the drive letter of your CD-ROM drive followed by a colon and **setup.exe**.
- Follow the self-explanatory instructions of the setup program.
Choose the CD-Rom / Server Installation which is the default selection
Only the program icons will be installed on your computer. If you choose the local installations, you can copy all books and programs to a local drive.
Please note that the complete installation needs about 90 MB disk space for each language.

Starting GL Rules and Programs

Ensure that GL Rules and Programs has been installed successfully as described in the previous section.

Double-click the [Text der Vorschriften](#) icon for the German version or the [Text of the Rules](#) icon for the English version to start GL rules and programs.

Tips and Tricks

Inside the main contents file of Rules & Guidelines is a link to the newest version of the document Tips and Tricks. Follow this link and read the latest news for using Rules & Guidelines with the Acrobat Reader.

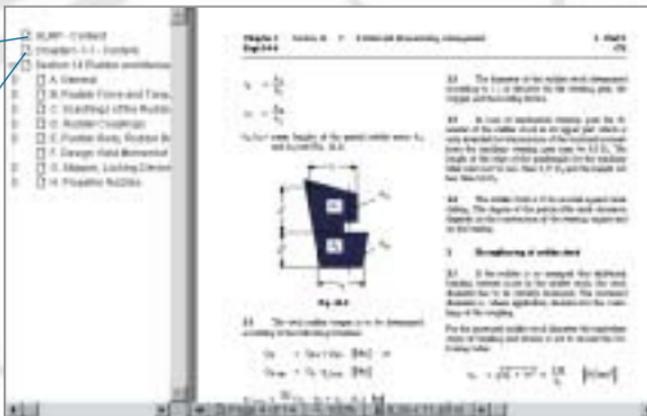
Finding Rule Information

Browsing the Table of Contents

When you double-click the “Text of the Rules” icon, a table of contents with all chapters is shown. Select the title of the chapter you want to open. A content file of this chapter is shown. Select the section you want to open by clicking the title in the left pane of the window. All section files contain an entry for the content file of all chapters and an entry for the content file of the current chapter in the left part of the window.

open content file
of all chapters

open content
file of this chapter



Searching the Rules



click this button to
find a string in the
current file

click this button to
search for words in
all books

For a general description of Acrobat Reader's search facilities refer to the online HELP function of the Acrobat Reader.

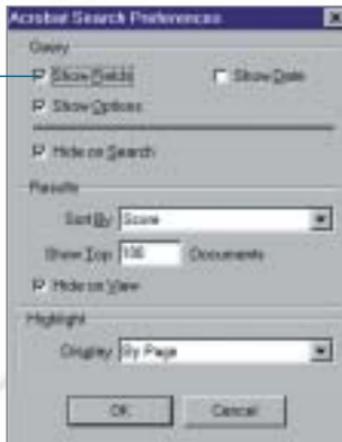
Here are some special notes for the search facility of the Acrobat Reader:

- Use wildcards if you want to type only the beginning of a word. E.g. type "conta*" if you want to search for all words beginning with conta.
- If you look for an indexed variable like fr type f and r as two words.
- An index file is automatically attached. There is one index file for the German version and one index file for the English version available.
- Activate the "show fields" check box in the Search Preference dialog box as illustrated on the following page.

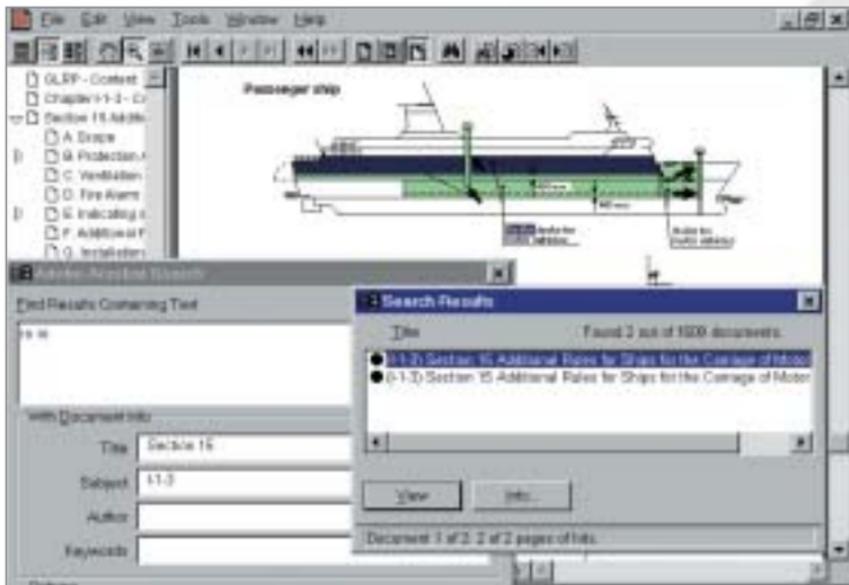
To change search preferences:

- Select File > Preferences > Search.
- Change preferences in the dialog box as required.
- Click OK.

check this field



Because the index file is for all books, you might want to narrow the search by specifying the books you want to search. Specify the title or parts of the title in “Title-field” of the search dialog box. In the following example the book with the code I-1-3 Section 15 in the title is searched for the words ro-ro.



Calculating with GL Programs

All programs, which are available on the CD-ROM can be started by double-clicking the appropriate icon. The setup program of GL Rules and Programs installs the icons in the program group for GL Rules and Programs. A help file for the programs is installed and can be viewed by double-clicking the icon "About GL Programs".

Programs

The following programs are included:

GL RULES

The program contains the computation rules of the Construction Rules of Germanischer Lloyd for

- Seagoing Ships, I - Ship Technology, Part 1, Chapter 1 for Hull Structures.
- Seagoing Ships, I - Ship Technology, Part 1, Chapter 5 for High Speed Craft.
- Seagoing Ships, I - Ship Technology, Part 2, Chapter 5 for Hull Structures.
- Pleasure Craft, Part 3, Chapter 1 for Hull, Chapter 2 for Mast and Rigging.

SCC

This program is based on Draft 18 (Secretariat) 692 of the Revised IEC Publication 363 Short-Circuit Evaluation with Special Regard to Installations in Ships and Offshore Drilling Units. To see further information select and start menu item 10.



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