Certificate of Approval

Certificate No: CLI/23/338

Issue Date: 29/08/2023

Expiry Date: 28/08/2026

This certificate is issued to: Autoship Systems Corporation

409-938 Howe Street
Vancouver, BC
V6Z 1N9
Canada

Program Name: Autoload

Program ID/Version Number: 6.0 (build 699 and later)

Minimum Hardware Specification: 1 Ghz or faster processor, 4GB RAM, 100MB Free Hard Disk Space, Graphics Card XGA (or WXGA) and XGA (or WXGA) Monitor

Operating System: Windows 7 Professional or Ultimate (32 or 64 bit) with latest service packs, Windows 10 Professional, Windows 11 Professional

Strength Design Appraisal Document: SOUTSO/HULL/WP25599252-1

Stability Design Appraisal Document: UKITSO/SLT/30248619

User's Operations Manual ID: --

This is to certify that the above Strength and Intact (Type 1) & Damage (Type 2 & 3) Stability calculation program has been examined in accordance with the relevant Classification Rules and the requirements of Statutory Regulations and is approved for the functions stated on the Supplement attached hereto.

Conditions of Certification:

Approval of test conditions will be required together with an installation test for each specific ship.

The supplier is responsible for ensuring that any computer software and hardware is capable of handling date changes without loss of performance or functionality. The capability of the computer software and hardware to handle date changes without loss of performance or functionality has not been demonstrated to Lloyd's Register EMEA.

Colin Clifford-Smith
Global Technical Support Office
Lloyd's Register EMEA

C. Clifford-Smith
Surveyor to Lloyd's Register EMEA
A Subsidiary Of Lloyd's Register Group Limited

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	INTACT	DAMAGED
Strength Features:	* Indicates Not Applicable	
Shear Forces and Bending Moments	Yes	N/A *
Multiple Shear Forces and Bending Moments	No	N/A *
Bulkhead Shear Force Correction Factors, Ship Rules	No	N/A *
Bulkhead Shear Force Correction Factors, CSR Up To June 2015	No	N/A *
Bulkhead Shear Force Correction Factors, CSR From July 2015	No	N/A *
Cargo Torque	No	N/A *
Multiple Cargo Torque	No	N/A *
Longitudinal Strength In Flooded Hold Conditions	No	N/A *
Local Double Bottom Strength	No	N/A *
Stability Features:		
IACS URL5 Compliant for the approved stability features only	Type 1	Type 2 & 3
Program Type:		
Hydrostatic data- Pre-programmed Even Keel, Trimmed or 3D Hullform	3D	3D
Cross curve data- Pre-programmed Even Keel, Trimmed or 3D Hullform	3D	3D
Tank capacity data- Even keel, Trimmed, 3D hullform or 3DI (3D ignoring trim)	3D	3D
Downflooding Data- Even keel angles, Trimmed: angles or 3D points	3D	3D
Intact Stability:		
A749(18) General Criteria check (A167 para. 3.1.2)	Yes	N/A *
A749(18) Timber Criteria check (A206 para. 4.1.3)	No	N/A *
Automatic Timber Cargo Water Absorption Calculation	No	N/A *
A749(18) Weather Criteria (A562 para. 3.2.2.)	Yes	N/A *
Windage Data- Single Table, Variable Table or Direct Area Calculation	D	N/A *
Icing - Deadweight item or density on Surface area	D	N/A *
Inland Waterways (ADN) Intact Stability, Type C Tank Ships, Tank Width > 0.7B	No	N/A *
Free Surfaces:		
Pre-defined Maximum values (at zero heel, Even keel or Trimmed)	E	None
Pre-defined Calibrated data (at zero heel, Even keel or Trimmed)	None	None
Directly calculated from tank geometry, taking heel into account	No	No
Directly calculated from tank geometry taking heel and trim into account	Yes	No
GZ Curve:		
Program calculates ship's overall TCG	Yes	N/A *
GZ curve calculations included for any initial heel angle (using GM or GZ)	No	No
GZ corrected for constant FSM/GGo for all heel angles	Yes	No
GZ corrected for FSM/GGo varying with heel (from pre-defined tables)	No	No
GZ directly calculated from 3D hull/tank geometry and floating position	Yes	Yes
Reference displacement - Intact, Intact minus Outflow	N/A *	O
Intermediate Stages assessed (number of stages)	N/A *	5
SRtP, Directive 2003/25 EC (Stockholm Agreement - Water on Deck)	N/A *	No
SRtP, User Entry of Actual Damage Case	N/A *	No
Limiting GM/KG Curve:		
Single parameter, pre-programmed (ie. limit versus draught)	Yes	Yes
Two parameter, pre-programmed (ie. see DAD for parameters)	Yes	Yes
Multiple parameter, pre-programmed (ie. see DAD for parameters)	No	No
Combined limit curve option (only where no separate curves exist)	No	N/A *
Grain Stability:		
Pre-programmed trimmed/partly filled data	No	N/A *
Pre-programmed trimmed/untrimmed/partly filled data	No	N/A *
Grain stability individual criteria check	No	N/A *
Pre-programmed allowable heeling moment check	No	N/A *
GZ curve with heeling moment plot shown	No	N/A *