1. GENERAL.

1.1. This Cargo Securing Manual is developed pursuant to resolution A.489 (XII), Guidelines on the Safe Stowage and Securing of Cargo Units and Other Entities in Ships Other than Cellular Containerships, adopted by the International Maritime Organization (IMO).

1.2. This Cargo Securing Manual specifies arrangements and securing gear provided on board the ship for correct application to and the securing of cargo units, vehicles and other entities, based on transverse, longitudinal and vertical dynamics forces which may arise during adverse weather and sea conditions.

1.3. It is imperative to the safety of the ship and the protection of the cargo and personnel that the securing gear is used as specified in the Cargo Securing Manual.

1.4. The cargo securing gear should be adapted to the quantity and properties of the cargo to be carried and, when required, additional gear should be provided.

1.5. There should be sufficient quantity of reserve cargo securing gear on board the ship.

1.6. Information on the safe working load of any specific item of cargo securing gear should be provided. The cargo securing gear should be maintained in a satisfactory condition. Items worn to such an extent that their quality is impaired should be renewed.

1.7. Definitions.

Maximum Securing Load (MSL) is a term used to define the allowable load capacity for a device used to secure cargo to a ship. Safe Working Load (SWL) may be substituted for MSL for securing purposes, provided this is equal to or exceeds the strength-definition by MSL. Calculated Strength (CS) equals MSL/1.5.

2. CARGO SECURING.

2.1. Details of fixed cargo securing arrangements and their location.

2.1.1. Fixed securing facilities on bulkheads, web frames, stanchions, etc., and their types (padeyes, eyebolts, etc.), including their strength. See attached photos.

2.1.2. Fixed securing facilities on decks, their types and strengths. See attached photos.

2.2. Location and stowage of portable cargo securing gear.
2.3. Details of portable cargo securing gear, inventory of items provided, including their strengths.

2.3.1. Chains, wires, rods, etc., their strengths and use.

2.3.2. Tensioners (turnbuckles and chain tensioners, etc.), their strengths and use.

2.3.3. Securing gear for boats and other vehicles, their strengths and use.

2.3.4. Anti-skid material used (e.g. soft boards, rubber).

2.4. Correct application of portable securing gear on various units, vehicles and other entities carried on board the ship, taking into account the following factors:

2.4.1. Duration of the voyage.

2.4.2. Geographical area of the voyage.

2.4.3. Sea conditions which may be expected.

2.4.4. Size, design and characteristics of the ship.

2.4.5. Dynamic forces under the expected conditions.

2.4.6. Types of cargo

2.4.7. Intended stowage pattern.

2.4.8. Mass of the cargo.

2.5. Indication of the magnitude of forces expected to act on cargo units in various positions on board the ship.

2.5.1. Tables or diagrams giving a broad outline of the accelerations which can be expected during adverse sea conditions.

2.5.2. Examples of the forces acting on typical cargo units.

2.5.3. Examples of the number and strengths of portable securings required to counteract the forces.