#### RESOLUTION A.533(13)

Adopted on 17 November 1983 Agenda item 10(b)

# ELEMENTS TO BE TAKEN INTO ACCOUNT WHEN CONSIDERING THE SAFE STOWAGE AND SECURING OF CARGO UNITS AND VEHICLES IN SHIPS

THE ASSEMBLY,

RECALLING Article 16(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations concerning maritime safety,

RECALLING FURTHER that at its twelfth session it adopted resolution A.489(XII) regarding safe stowage and securing of cargo units and other entities in ships other than cellular container ships,

TAKING ACCOUNT of the IMO/ILO guidelines for training in the packing of cargo in freight containers,

RECOGNIZING that cargo units and vehicles are transported in increasing numbers on seagoing ships,

RECOGNIZING FURTHER that the cargo is stowed on and secured to cargo units and vehicles in most cases at the shipper's premises or at inland terminals and transported by road or rail to ports prior to the seagoing voyage and that the cargo on cargo units and vehicles may not always be adequately stowed or secured for safe sea transport,

REALIZING that adequately stowed and secured cargoes on cargo units and vehicles for road and rail transport in most cases would also be capable of withstanding the forces imposed on them during the sea leg of the transport,

ACKNOWLEDGING that there is a need for cargo units and vehicles presented for transport by sea to be fitted with satisfactory securing arrangements for securing them to the ship, arrangements for the securing of the cargo within the cargo unit or vehicle to facilitate its safe stowage and securing therein and for ships to be fitted with adequate securing points,

BELIEVING that the universal application of improved standards and securing arrangements is best facilitated if the elements to be taken into account when considering such matters are known to, and considered by, all links in the transport chain,

BELIEVING FURTHER that this can best be achieved on an international basis,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its forty-eighth session,

- 1. INVITES Governments to issue recommendations to the different links in the transport chain in their countries, responsible for the transport of cargo units and vehicles intended for, and including, sea transport, taking into account the elements set out in the Annex to this resolution;
- 2. REQUESTS the Secretary-General to bring these elements to the attention of Member Governments and international organizations responsible for the safety of road, rail and sea transport in order that they can be taken into account in the design and construction of cargo units and vehicles and the design and construction of the ships in which they are carried.

#### ANNEX

# ELEMENTS TO BE TAKEN INTO ACCOUNT WHEN CONSIDERING THE SAFE STOWAGE AND SECURING OF CARGO UNITS\* AND VEHICLES IN SHIPS

The elements which should be taken into account relate specifically to the safe shipment of cargo units, including vehicles. The aim is to indicate to the various parties involved the principal factors and features which need to be considered when designing and operating the ship or presenting the cargo unit, or vehicle, for such shipment. In addition, it is hoped that the elements will facilitate and promote better understanding of the problems and the needs of the masters of ships so engaged.

#### 1 THE PARTIES INVOLVED.

- 1.1 The elements are intended primarily for the information and guidance of the following parties which, it is considered, are in some way associated with either the design or the operation of the ship or, alternatively, with the design, presentation or loading of cargo units including vehicles. They are:
  - .1 shipbuilders;
  - .2 shipowners;
  - .3 shipmasters;
  - .4 port authorities;
  - .5 shippers;
  - .6 forwarding agents:
  - .7 road hauliers;
  - .8 stevedores;
  - .9 cargo unit and vehicle manufacturers;
  - .10 insurers:
  - .11 railway operators; and
  - .12 packers of containers at inland depots.

### 2 GENERAL ELEMENTS

- 2.1 It is of the utmost importance to ensure that:
  - cargo units including vehicles intended for the carriage of cargo in sea transport are in sound structural condition and have an adequate number of securing points of sufficient strength so that they can be satisfactorily secured to the ship. Vehicles should, in addition, be provided with an effective braking system; and
  - .2 cargo units and vehicles are provided with an adequate number of securing points to enable the cargo to be adequately secured to the cargo unit or vehicle so as to withstand the forces, in particular the transverse forces, which may arise during the sea transport.

<sup>\*</sup> Cargo units in this context means wheeled or tracked cargo, containers, flats, portable tanks, vehicles and the ship's mobile cargo handling equipment not fixed to the ship.

#### 3 ELEMENTS TO BE CONSIDERED BY THE SHIPOWNER AND SHIPBUILDER

- 3.1 The ship should be provided with an adequate number of securing points of sufficient strength, a sufficient number of items of cargo securing gear of sufficient strength and a Cargo Securing Manual. In considering the number and strength of the securing points, items of cargo securing gear and the preparation of the Cargo Securing Manual, the following elements should be taken into account:
  - .1 duration of the voyage;
  - .2 geographical area of the voyage;
  - .3 sea conditions which may be expected
  - .4 size, design and characteristics of the ship;
  - .5 dynamic forces under adverse weather conditions;
  - .6 types of cargo units and vehicles to be carried;
  - .7 intended stowage pattern of the cargo units and vehicles; and
  - .8 weight of cargo units and vehicles.
- 3.2 The Cargo Securing Manual should provide information on the characteristics of cargo securing items and their correct application.
- 3.3 Ship's mobile cargo handling equipment not fixed to the ship should be provided with adequate securing points.

## 4 ELEMENTS TO BE CONSIDERED BY THE MASTER

- 4.1 When accepting cargo units or vehicles for shipment and having taken into account the elements listed in paragraph 3.1 above, the master should be satisfied that:
  - all decks intended for the stowage of cargo units including vehicles are in so far as is practicable free from oil and grease;
  - .2 cargo units including vehicles are in an apparent good order and condition suitable for sea transport particularly with a view to their being secured;
  - .3 the ship has on board an adequate supply of cargo securing gear which is maintained in sound working condition;
  - .4 cargo units including vehicles are adequately stowed and secured to the ship; and
  - .5 where practicable, cargoes are adequately stowed on and secured to the cargo unit or vehicle.
- 4.2 In addition, cargo spaces should be regularly inspected to ensure that the cargo, cargo units and vehicles remain safely secured throughout the voyage.
- 5 ELEMENTS TO BE CONSIDERED BY THE SHIPPER, FORWARDING AGENTS, ROAD HAULIERS AND STEVEDORES (AND, WHERE APPROPRIATE, BY THE PORT AUTHORITIES)
- 5.1 Shippers or any other party involved with presenting cargo units including vehicles for shipment should appreciate that such items can be subjected to forces of great magnitude,

particularly in the transverse direction and especially in adverse weather conditions. Consequently, it is of importance that they should be constantly aware of this fact and that they ensure that:

- .1 cargo units including vehicles are suitable for the intended sea transport;
- .2 cargo units including vehicles are provided with adequate securing points for the securing of the cargo unit or vehicle to the ship and the cargo to the cargo unit or vehicle;
- 3 the cargo in the cargo unit or vehicle is adequately stowed and secured to withstand the forces which may arise during sea transport; and
- .4 in general the cargo unit or vehicle is clearly marked and provided with documentation to indicate its gross weight and any precautions which may have to be observed during sea transport.