**AMovP-5**

# Allied Movement Publication 5

# Multi Modal Transport Issues

**SEPTEMBER 2005**

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**NORTH ATLANTIC TREATY ORGANIZATION**

**NATO STANDARDISATION AGENCY (NSA)**

**NATO LETTER OF PROMULGATION**

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2. AMovP-5 is effective NATO-wide upon receipt.

J MAJ
Brigadier General, POL(A)
Director, NSA

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RECORD OF CHANGES

| Change Date | Date Entered | Effective Date | By Whom Entered |
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# CHAPTER 1

# FREIGHT CONTAINERS

(*The forms shown at Annexes B, G, J, K, L, and Appendix 1 to Annex H are offered as suggested styles and are not mandatory)*

101. THE FREIGHT CONTAINER

1. Definition - ISO Container. Although some authorities apply slightly different specifications, the International Standards Organisation (ISO) defines a freight container as:

a. An article of transport equipment of a permanent character, strong enough to be suitable for repeated use and inherently suitable for the storage of materiel.

b. Specifically designed to facilitate the carriage of materiel by one or more modes of transport, without intermediate reloading.

c. Fitted with devices permitting its ready handling, particularly from one mode of transport to another.

d. So designed as to be easy to fill and empty.

e. Having a minimum internal volume of one cubic metre (m).

2. Further Definitions. These are at Annex A.

3. Types. There are a number of different types of containers:

a. Closed (with or without ventilation):

(1) End Loading (one or both ends)

(2) Side Loading (Door or Full Side Access (FSA))

b. Half Height (with sub para a. variations).

c. Open Top (with sub para a. variations).

d. Refrigerated (REEFER)/Insulated.

e. Tank Containers for liquids or gases.

f. Platforms.

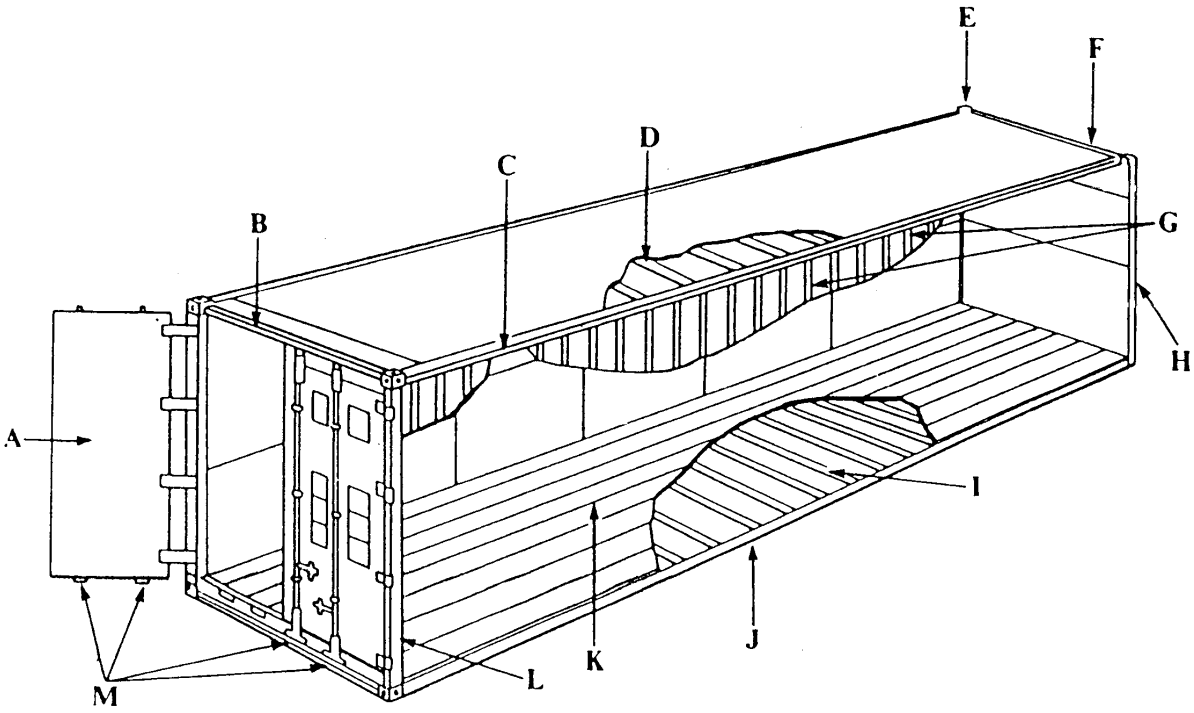
g. Dry Bulk.

4. Containers Commonly Used for Dangerous Goods.

a. The type of container most commonly used for the carriage of dangerous goods is the closed container with doors at the rear or side or with Full Side Access (FSA). They are 20 ft in length and have a capacity of 20 tonnes. FSA containers may also be alarmed, and these are always to be used when required by security regulations.

b. For explosives and ammunition, complete information is contained in Chapter 7 of Allied Ammunition Storage and Transport Publication-2, The Manual of NATO Principles for the Transport of Military Ammunition and Explosives.

The anatomy of a container is illustrated below (the example is a 40 ft container):




Legend

| | | |
|---|---|---|
| A Rear Door | F Front header | J Bottom Rail |
| B Rear Header | G Side Posts | K Floor Boards |
| C Top Rail | H Front Corner Posts | L Rear Corner Post |
| D Roof Bows | I Cross Members | M Locking Bars |
| E Corner Casting | | |

c. A 40 ft closed container with doors at the rear may also be used to carry explosives but the IMDG Code restricts to 5000 kg the NEQ of explosive which may be carried in any container exceeding 20 ft.

d. It may also be necessary to use an open (or an open half height) container to ease loading or because the load will not fit into a closed container. Such containers are to be fitted with a fire resistant tarpaulin which must also be tough, resistant to cutting, impermeable and, where reasonably practicable, capable of being held taut and kept in position with locks.

5. ISO Container Plating. Containers used to carry dangerous goods are to be plated under the following conditions:

a. To qualify for plating, the container must meet the requirements of and pass the tests required by the International Convention for Safe Containers 1972 (1996 Edition). Such containers are frequently referred to as ISO Containers. Once qualified, a Safety Approval Plate must be fixed to the container in a readily visible place. Those in charge of stuffing a container are always to check the plate first to ensure it is in date.

b. The plate is to be marked permanently and legibly with the following information:

CSC SAFETY APPROVAL

1. Country of approval and approval reference.

2. Date (month and year) of manufacture.

3. Manufacturer's identification number of the container or, in the case of existing containers for which the number is unknown, the number allotted by the Administration.

4. Maximum operating gross weight (kg and lbs).

5. Allowable stacking load for 1.8g (kg and lbs).

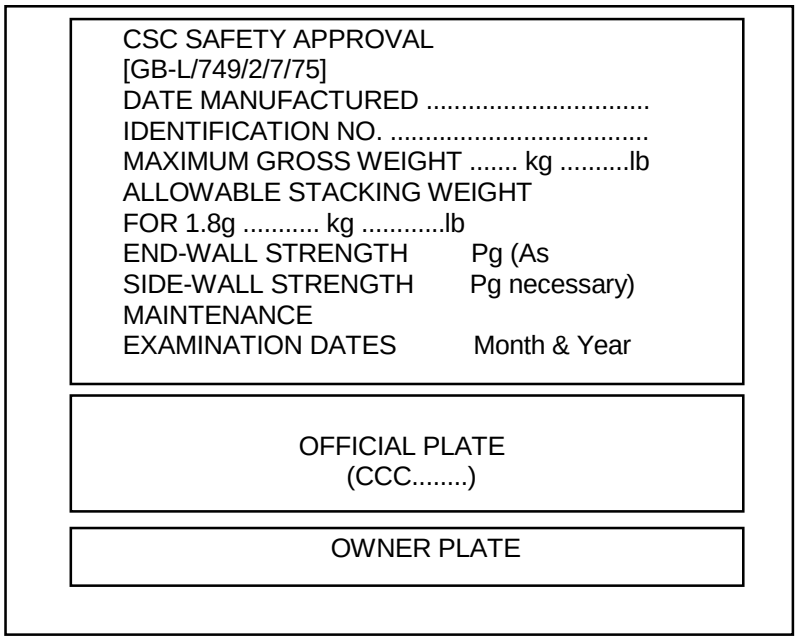
6. Transverse racking test load value (kg and lbs).

7. End-wall strength to be indicated on plate only if the end-walls are designed to withstand a load of less or greater than 0.4 times the maximum permissible payload i.e. 0.4Pg (where P is expressed in units of mass and is the difference between maximum operating gross mass or rating and tare).

8. Side-walls strength to be indicated on plate only if the side-walls are designed to withstand a load of less or greater than 0.6 times the maximum permissible payload i.e. 0.6Pg.

9. First maintenance examination date (month and year) for new containers and subsequent maintenance examination dates (month and year) if plate is used for this purpose.

c. The CSC Safety Approval Plate may be grouped with any other approval plates issued for official purposes or for other international conventions or national requirements on one base plate. For example:




d. For the purposes of the Convention, the word WEIGHT is considered to be equivalent to the word MASS and therefore can be used on the Safety Approval Plate. When the 1993 amendments to the Convention come into force, the word MASS should replace WEIGHT on plates fitted to containers and the word FORCE will replace LOAD. It may, however, be some years before the 1993 amendments to the Convention are adopted by two thirds of the Contracting Parties to the Convention.

6. Maintenance and Examination Procedures. The owner is responsible for maintaining the container in a safe condition. The owner, subject to National Authority approval, has the choice of having the container examined under a Periodic Examination Scheme or an Approved Continuous Examination Programme. Details of the requirements are given in the Convention. A container being examined under an Approved Continuous Examination Programme is to be marked with the letters ACEP on or close to the Safety Approval Plate. The date (month and year) before which a new container must undergo its first examination is to be marked on the Safety Approval Plate and the date (month and year) before which the container must be re-examined clearly marked on the container on or as close to the Safety Approval Plate as practical. The Convention requires that the date of the first examination must not exceed five years from the date of manufacture of the container and that subsequent examinations must be at intervals of not more than 30 months.

7. The National Authority may decide to reduce these intervals depending on the usage of the container. The use of decals is permitted to indicate the date of the first examination and subsequent re-examination. A decal is a coloured disc segmented to indicate the month and coloured to indicate the year. The decals are coloured in accordance with the year shown below and are located in the Safety Approval Plate:

| | | | |
|---|---|---|---|
| BROWN | 1986 | 1992 | 1998 |
| BLUE | 1987 | 1993 | 1999 |
| YELLOW | 1988 | 1994 | 2000 |
| RED | 1989 | 1995 | etc |
| BLACK | 1990 | 1996 | |
| GREEN | 1991 | 1997 | |

102. GENERAL INSTRUCTIONS - ALL DANGEROUS GOODS (UN CLASSES 1-9)

Stuffing, Stripping and Stowage of Freight Containers

1. Introduction. While the use of freight containers substantially reduces the physical hazards to which dangerous goods are exposed, improper or careless packing of goods into them or lack of proper blocking, bracing and securing, may be the cause of personal injury when they are handled or transported. The person who packs and secures a container may be the last person to look inside until it is opened by the consignee at its final destination. The importance of these safe packing guidelines is signified by the requirement to provide a Container/Vehicle Packing Certificate (Annex B).

2. 'Stuffing', 'Stripping' and 'Stowage'. In the context of this section, 'stuffing' denotes the placing of pallets, receptacles or packages into a container. Unpacking is termed as 'stripping'. 'Stowage' denotes the loading and the positioning of a container aboard a ship.

3. Scope. This section is intended as a guide to the minimum requirements for safe stuffing for those responsible for the stuffing and securing of dangerous goods cargo in freight containers and for those whose task it is to train people in these skills. Such training is essential if safety standards are to be maintained. Additional provisions for carriage of specific classes of dangerous goods by road, rail and sea are covered respectively in ADR, RID, ADN and the IMDG Code. This guidance is not intended to conflict with, or to replace or supersede any existing regulations or recommendations which may concern the carriage of dangerous goods cargo in containers.

4. Supervision during Stuffing and Stripping. A competent trained person (henceforward referred to as the "stuffer") is to be present during freight container stuffing and stripping operations. He is to be familiar with the risks involved with dangerous goods and the appropriate emergency measures to be taken in the event of an incident or accident. This person is to carry out the necessary checks, supervise the stuffing and stripping operations and prepare the freight container for movement strictly in accordance with the instructions contained in this section. All those involved in stuffing and handling containers are to be suitably trained. A recommended training syllabus, extracted from the Draft IMO/ILO/ECE Guidelines for the Packing of Transport Cargo Units, is at Annex C.

5. General Conditions. Container transit may occur in a variety of circumstances leading to rough handling and disturbance involving pitching, rolling, heaving, surging, yawing or swaying or a combination of two or more. Such movements can exert forces on the cargo greater than those usually found in conventional transport (see Annex D). Stuffing cargo inside a container is to be carried out with this in mind. If sea movement is involved it is always to be assumed that the weather will never be calm nor the sea smooth and that securing methods used for land transport alone may be inadequate at sea.

6. Visual Inspections Prior to Stuffing. A container is to be inspected inside and outside before it is stuffed with cargo. The structural strength of a container depends to a great extent on the integrity of its main framework comprising the corner posts, corner fittings, main longitudinals and the top and bottom transverse members which form the end frame. If there is any evidence that the container is weakened, it is not to be used. Vehicles and rail wagons carrying freight containers are to be fitted with adequate and appropriately positioned twist locks, all of which are to be engaged when the vehicle is in motion. The procedure for inspecting containers is covered in detail in Annex E and the definition of 'structurally serviceable' is at Annex F.

7. Double Mounted. When two 20 foot containers are mounted on a 40 foot trailer, it should be remembered that the end door of the forward container may be blocked by the vehicle headboard or by the other container.

8. Before Stuffing. A container to be stuffed is to rest on level and firm ground or on a rail wagon or trailer. In the latter case, care is to be taken to ensure the trailer cannot tip while being stuffed, especially if a forklift truck is being used. If necessary, the trailer is to be propped, brakes securely applied and the wheels chocked. The stuffing sequence and configuration is to be planned in advance. This should make it possible to produce a tightly stuffed and/or well braced load in which compatibility of all items of cargo and their nature i.e. type, strength and how packaged, are taken into account. In addition:

a. Subject to considerations of centre of gravity, dangerous goods consignments which form only part of the load of a container are preferably to be stuffed adjacent to the doors with markings and labels visible, and separated from the non-dangerous goods in the container.

b. Suitable measures to prevent fires are to be taken, including the prohibition of smoking in the vicinity of dangerous goods.

c. Packages are to be examined before loading. Any found to be damaged, leaking or sifting are not to be stuffed into a container. Packages showing evidence of staining etc, are not to be packed without first determining that it is safe and acceptable to do so. Water, snow, ice or other matter adhering to packages are to be removed before stuffing. Liquids that have accumulated on drum heads are initially to be treated with caution in case they are the result of leakage of contents.

d. If dangerous goods are palletised or otherwise unitised they are to be compacted and secured in a manner unlikely to damage the individual packages. The materials used to bond the unit load together are to be compatible with the unitised substances and retain their efficiency when exposed to moisture, extremes of temperature and sunlight.

9. Weight Factors. The planned load is not to weigh more than the payload of the container which is marked upon it. This ensures that the permitted maximum gross weight of the container on the CSC Safety Approval Plate (which includes the payload) will never be exceeded. The measures to prevent overloading are given below. Any weight limitation dictated by regulations or other circumstances (such as lifting and handling equipment), is to be strictly observed irrespective of the CSC Approval Plate. Such a limit may be considerably less than the permitted gross weight already referred to. In case of doubt, the container operator is to be consulted.

10. Weight Distribution. Load planning is to take account of the fact that container design generally assumes the load to be evenly distributed over the entire floor area. Where substantial deviations from uniform stuffing could occur, specialist advice is to be sought. When a heavy indivisible load is to be shipped in a container, due regard is to be given to the localised weight bearing capacity of the container, especially the floor. If necessary, the weight is to be spread over a larger area than the actual bearing surface of the load, for example by use of balks of timber. In such a case the method of securing the load is to be planned before packing occurs and any necessary preparations made. In addition:

a. The cargo weight should be evenly distributed over the floor of a container. Where cargo items of a varying weight are to be stuffed into a container or where a container will not be full (either because of insufficient cargo or because the maximum weight allowed will be reached before the container is full), the configuration is to be so arranged and secured so that the approximate centre of the weight of the cargo is close to the mid-length of the container. In no case is more than 60% of the load to be concentrated in less than half the length of a container measured from one end.

b. Heavy goods are not to be placed on top of lighter goods.

c. The centre of gravity is to be below the half-height of a container. When heavy cargo is to be shipped, if it is impracticable to place the centre of gravity in or near the centre of the horizontal plane of the container, or if it will be above the half-height, the container operator is to be consulted.

11. Hazards of Overloading a Container. Occupational safety hazards are caused by overloaded containers in a multi-modal transport chain. These hazards include risks to handlers in the event of structural failure of the containers, and risks to container handlers and plant operators, particularly fork-lift truck drivers whose vehicles may be damaged or may become unstable. The principal hazard is due to accidents involving loading or unloading a container on or off a vehicle or ship and container handling equipment, especially when containers are to be stacked for storage pending shipment or despatch to

consignees. Most cranes can be expected to have weight limit controls but, as these are designed to prevent overstressing of the crane, they will not assist in the detection of overloaded containers. This highlights the need to strictly observe the individual gross weight limits of containers when loading.

12. Measures To Prevent Overloading

a. Supervision. The problem of potentially overloaded containers is to be properly addressed at the initial phase of stuffing the container. Stuffing freight containers is to be done under the supervision of trained competent persons who have adequate information on the cargo to be stuffed and who possess sufficient authority to control the operation to prevent containers being overloaded.

b. Stuffing. Stuffing is to be carried out in accordance with established procedures which should address all relevant aspects of the operation, including container selection, inspection and preparation, stowage, segregation and distribution, blocking, bracing and securing, and documentation. To prevent overloading, proper measures are to be taken to ensure that:

(1) The cargo in the container has been properly stuffed, blocked, braced and secured.

(2) The distribution of cargo within the container has been arranged so that the centre of gravity is reasonably central with regard to the length and breadth and height of the container.

(3) The maximum gross weight of the container has not been exceeded.

(4) A weight declaration or weighbridge certificate is included in or with the container documentation, and

(5) Where practicable, load detection devices are fitted to container handling equipment, in particular to fork-lift trucks and side loaders used to transport containers.

(6) The maximum permissible weight and axle load on a vehicle or rail wagon is not exceeded.

13. Container Found to be Overloaded. If a container is found to be overloaded, it is to be removed from service until it can be restored to a safe handling condition.

14. Stuffing and Securing Requirements. It is essential to secure the cargo in a container against any reasonably foreseeable movement. At the same time the method of restraining the cargo should not itself cause damage or deterioration either to the cargo or the container. When planning the stuffing of a container, consideration is to be given to potential problems which may be created for those who will strip it. Where goods of

regular shape and size are concerned, a tight pack from wall to wall should be sought. However, in many instances some empty spacing will occur. Spaces are acceptable providing the rigidity of the load is maintained by adjacent packages. If there is insufficient rigidity or if the spaces between the packages are too large, then the stuffing structures are to be reinforced by using dunnage or other filling materials.

15. Securing Cargo. The normal methods of securing cargo are:

a. Shoring. Timber, bars, struts and slats located in cargo voids to keep the cargo pressed against the walls or other cargo. If shoring against the walls or ceiling of the container, suitable “blocking” is to be used to protect against damage (e.g. to avoid the “stiletto effect” of sharp items penetrating the walls).

b. Lashing. Ropes, wires, chains, strapping or nets secured to designated anchoring points and tensioned against the cargo.

c. Wedging. Wooden distance pieces, pads of synthetic material and inflatable dunnage to fill voids in the cargo and to keep it immobile against the container walls.

d. Locking. Cargo built up to give three dimensional brick-wall effect.

e. Proprietary Securing Equipment. Track locating dunnage which fits into slots in the container walls.

f. Flexible Laminated Bulkheads. Strips glued to container walls before stow is completed and tensioned around the finished stow by straps or other fastenings.

16. Restraint of Cargo. Stuffers are to be trained to ensure that the cargo is restrained so that it does not move during transit, and meets the restraint parameters for combined transport as laid down in the IMDG Code Supplement:

| | | |
|---|---|---|
| a. | Forward and Rearward Movement | 1.0 G |
| b. | Sideways Movement | 0.5 G |

17. Restraints. The following points should be remembered when applying restraint:

a. Use only the built-in securing points and observe their safe working load.

b. Any timber used must be dry and seasoned. It may also have to comply with certain quarantine regulations.

c. If nails are used to secure cargo to a wooden floor, they should only penetrate to the thickness of the floor. Holes must not be drilled in walls or floors. Nails must never be used in a reefer container.

d. Any shoring which presses against the container wall should have extra timber laid longitudinally between the wall and point of support. Alternatively, the weight may be spread over two or more side posts.

18. Cargo Protection. In order to avoid cargo damage from moisture, dunnage, pallets or packaging should not be loaded if they are wet. Permanent securing equipment incorporated in the design of a container is to be used wherever possible to prevent cargo movement. Special care is to be taken during handling to avoid damage to packages. However, if a package is damaged during handling the immediate area is to be evacuated until the hazard potential can be assessed. The damaged package is not to be shipped, but moved to a safe place in accordance with instructions given by a competent person.

19. Mixed Loading/Intermediate or Partial Loading/Unloading. Instructions on mixed loading are given ADR, RID and the IMDG Code. Once stuffed and sealed it should be exceptional for containers to undergo intermediate or partial stuffing/stripping but, if this is necessary, all such operations are to be supervised fully in accordance with the loading conditions set out in the paragraphs above.

20. On Completion of Stuffing. During the final stages of stuffing a container, care should be taken, insofar as is practicable, to build a secure face to the cargo so as to prevent falling out when the doors are opened. Where there is any doubt as to the security of the cargo, further steps are to be taken to ensure security by weaving strapping between securing points or placing timber between the rear posts. It should be borne in mind that a container on a trailer usually inclines towards the doors, and that cargo may move against the doors due to jolts etc during transit. In addition:

a. If a container is destined for a country with wood treatment quarantine regulations, care is to be taken that all wood in the container, packaging and cargo complies with the regulations. In cases of doubt the National Forestry Commission is to be consulted through the appropriate channels.

b. After closing the doors, ensure that all closures are properly engaged and secure. In addition to the ACME Seals, padlocks and/or twist seals are to be applied. Care is to be taken that sealing procedures are carried out properly. The key to any padlock is always to accompany the container - it is usually kept with the paperwork.

c. Customs Inspections. Samples of each type of item being carried should, if practical, be placed near the door. This may avoid the time and cost involved in a full Customs search.

21. Placarding. Appropriate placards and other hazard warnings relating to the load being consigned are to be applied to the outside of the container in accordance with the regulations for the journey being undertaken, as detailed in the relevant modal regulations.

22. Container/Vehicle Packing Certificate (CPC). The person responsible for stuffing goods/ dangerous goods in a container/vehicle is to provide a Container Packing Certificate certifying that the container was in a fit state and that stuffing has been properly

carried out. The form of CPC for both normal goods and dangerous goods appears at Annex B. For Dangerous goods there are to be two separate signatures relating to the container/vehicle packing certificate and the dangerous goods declaration.

23. Advice on Receipt of Containers.

a. Check that the seals are intact and have not been tampered with.

b. The external condition of the container should be sound. Any damage that may have occurred should be noted on the Exchange Report when the container is first delivered. (See Annex G.)

c. Before opening the doors, due regard should be taken of any placards and marks, e.g. 'Dangerous Goods'.

d. The right hand door should be opened - cautiously - first. Persons opening a container are to be aware of the risk of cargo falling out. Doors, when opened, are to be secured in the fully-opened position. If there is a particular reason to suspect danger, because of damage to packages for example, expert advice is to be sought before stripping of the container commences. After a container loaded with dangerous goods has been stripped, particular care is to be taken to ensure that no hazard remains. This may require special cleaning, particularly if toxic spillage has occurred or is suspected. When the container offers no further hazard, the dangerous goods placards, orange panels and any other marks and signs relevant to the dangerous goods are to be removed, masked or otherwise obliterated. Advice on cleaning, contaminating, decontaminating, fumigating and ventilating containers is given at Annex H.

24. Container Interchange and Condition Report. A copy of this report form is at Annex G. It is to be completed by the person in charge of stuffing or stripping a container, on receipt of the container and/or before stuffing starts or after stripping is finished. A copy is to be sent to the owner of the container and one copy retained by the unit. This will ensure that the condition of a container is known on its receipt empty and before it is returned to its owner.

25. Detailed Guidance. The stuffing and stripping of containers principles are covered in detail at Annex I. Checklists for the stuffing supervisor and driver respectively are at Annexes J and K.

26. Bids for Container and its Movement. At Annex L is a form to be used when bidding for a container and its subsequent movement.

27. Container Standards. A list of Container Standards is at Annex M.

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## LIST OF CONTAINER TERMS AND ABBREVIATIONS

| | |
|---|---|
| Blocking | Blocking prevents damage to the cargo from moving longitudinally. |
| Bottom Stack | Robust or strongly packed cargo which can be over stowed without being damaged. |
| Bracing | Bracing prevents damage to the cargo from moving up and down and vibration. |
| Broken Stowage | Unoccupied space due to irregular shaped cargo. |
| CTU | Cargo Transport Unit. |
| Cubic Capacity | The amount of available space inside a container. Cubic capacity may be expressed in cubic feet or cubic metres. |
| Dunnage | Timber or any suitable material used to stabilise, ventilate, secure or spread the weight of the cargo inside a container. |
| FSA | Full Side Access |
| Gross Weight | The actual weight of a container when stuffed with goods. Sometimes called "ALL UP WEIGHT". |
| IMO | International Maritime Organisation. |
| ISO | International Standards Organisation. |
| Maximum Floor Loading | When cargo is placed in a container not more than 60% of the total load is to be placed in any one half of the container (either lengthways or widthways). |
| NEQ | Net Explosive Quantity |
| Stripping or Destuffing | To empty a container of goods. |
| Stuffing | To position goods inside a container economically, securely and safely. |
| TEU | A 20 Feet Equivalent Unit. |
| TIR | Transport International aux Par La Route. |

| | |
|---|---|
| Top Stack | Cargo placed on the top of the stack because it is light and/or fragile. |
| Unit | One container. |
| Wet Cargo | Any liquid offered for shipment in a prepacked condition. |

**CONTAINER PACKING CERTIFICATE**

It is certified that container number.....…….....was loaded to

vehicle registration no.....or rail wagon no.....

on (date) ..... at .....

I declare that the goods have been packed/loaded into the container in accordance with the following:

1. The container was clean, dry and apparently fit to carry the goods.

2. It has no incompatible goods packed into it.

3. All packages have been externally examined for damage and only sound packages have been packed.

4. Drums have been stowed in an upright position.

5. All packages have been properly packed in the container and secured with suitable securing material.

6. The container and all packages therein are properly marked and addressed, and any irrelevant marks, labels and addresses have been removed

7. The cargo has been evenly distributed within the container.

8. The quantities, weights and measurements of the goods are correct, accurately described, and at the time of despatch were in a good condition for transport.

Signed .....Rank/Grade.....

Name (in Capitals).....Date.....

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# MULTIMODAL DANGEROUS GOODS FORM

| | | | |
|---|---|---|---|
| 1. Shipper / Consignor / Sender | | 2. Transport document number | |
| | | 3. Page of Pages | 4. Shipper's reference |
| | | | 5. Freight Forwarder's reference |
| 6. Consignee | | 7. Carrier (to be completed by the carrier) | |
| | | **SHIPPER'S DECLARATION**<br>**I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name, and are classified, packaged, marked and labelled / placarded and are in all respects in proper condition for transport according to the applicable international and national governmental regulations.** | |
| *8. This shipment is within the limitations prescribed for: (Delete non-applicable)*<br>PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY | | 9. Additional handling information | |
| 10. Vessel / flight no and date | 11. Port / place of loading | | |
| 12. Port / place of discharge | 13. Destination | | |

| 14. Shipping marks | * number and kind of packages, description of goods | Gross mass (kg) | Net mass | Cube ($m^3$) |
|---|---|---|---|---|
| | | | | |

| 15. Container identification No / Vehicle registration No. | 16. Seal number (s) | 17. Container/vehicle size & type | 18. Tare (kg) | 19. Total gross mass (incl tare) (kg) |
|---|---|---|---|---|
| | | | | |

| | | |
|---|---|---|
| **CONTAINER/VEHICLE PACKING CERTIFICATE**<br>**I hereby declare that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with the applicable provisions MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING** | 21 RECEIVING ORGANISATION RECEIPT<br>Received the above number of packages/containers/trailers in apparent good order and condition unless stated hereon. RECEIVING ORGANISATION REMARKS: | |
| 20. Name of company | Haulier's name | 22. Name of company (OF SHIPPER PREPARING THIS NOTE) |
| Name / Status of declarant | Vehicle reg no. | Name/Status of declarant |
| Place and date | Signature and date | Place and date |
| Signature of declarant | DRIVER'S SIGNATURE | Signature of declarant |

* FOR DANGEROUS GOODS: you must specify proper shipping name, hazard class, UN no, packing group (where assigned) and any other element of information required under applicable national and international regulations



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# MULTIMODAL DANGEROUS GOODS FORM

Continuation Sheet

| 1. Shipper / Consignor / Sender | 2. Transport document number | |
|---|---|---|
| | 3. Page of Pages | 4. Shipper's reference |
| | | 5. Freight Forwarder's reference |

| 14. Shipping marks | * number and kind of packages; description of goods | Gross mass (kg) | Net mass | Cube ($m^3$) |
|---|---|---|---|---|
| | | | | |

* FOR DANGEROUS GOODS: you must specify proper shipping name, hazard class, UN no, packing group (where assigned) and any other element of information required under applicable national and international regulations



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# TOPICS TO BE INCLUDED IN TRAINING PROGRAMME FOR THE PACKING AND SECURING CARGOES IN CARGO TRANSPORT UNITS (CTUs)

[Extract from IMO/ILO/ECE Guidelines]

## 1. Consequences of badly packed and secured cargo

1.1 Injuries to humans and damages to the environment
1.2 Damages to ships and CTUs
1.3 Damages to cargo
1.4 Economical consequences

## 2. Liabilities

2.1 Different parties involved in cargo transportation
2.2 Legal responsibility
2.3 Goodwill responsibility
2.4 Quality assurance

## 3. Forces acting on the cargo during transport

3.1 Road transport
3.2 Rail transport
3.3 Sea transport

## 4. Basic principles for cargo packing and securing

4.1 Prevention from sliding
4.2 Prevention from tipping
4.3 Influence of friction
4.4 Basic principles for cargo securing
4.5 Dimensioning of securing arrangements for combined transportation

## 5. CTUs - Types

5.1 Containers
5.2 Flats
5.3 Swap bodies
5.4 Road vehicles
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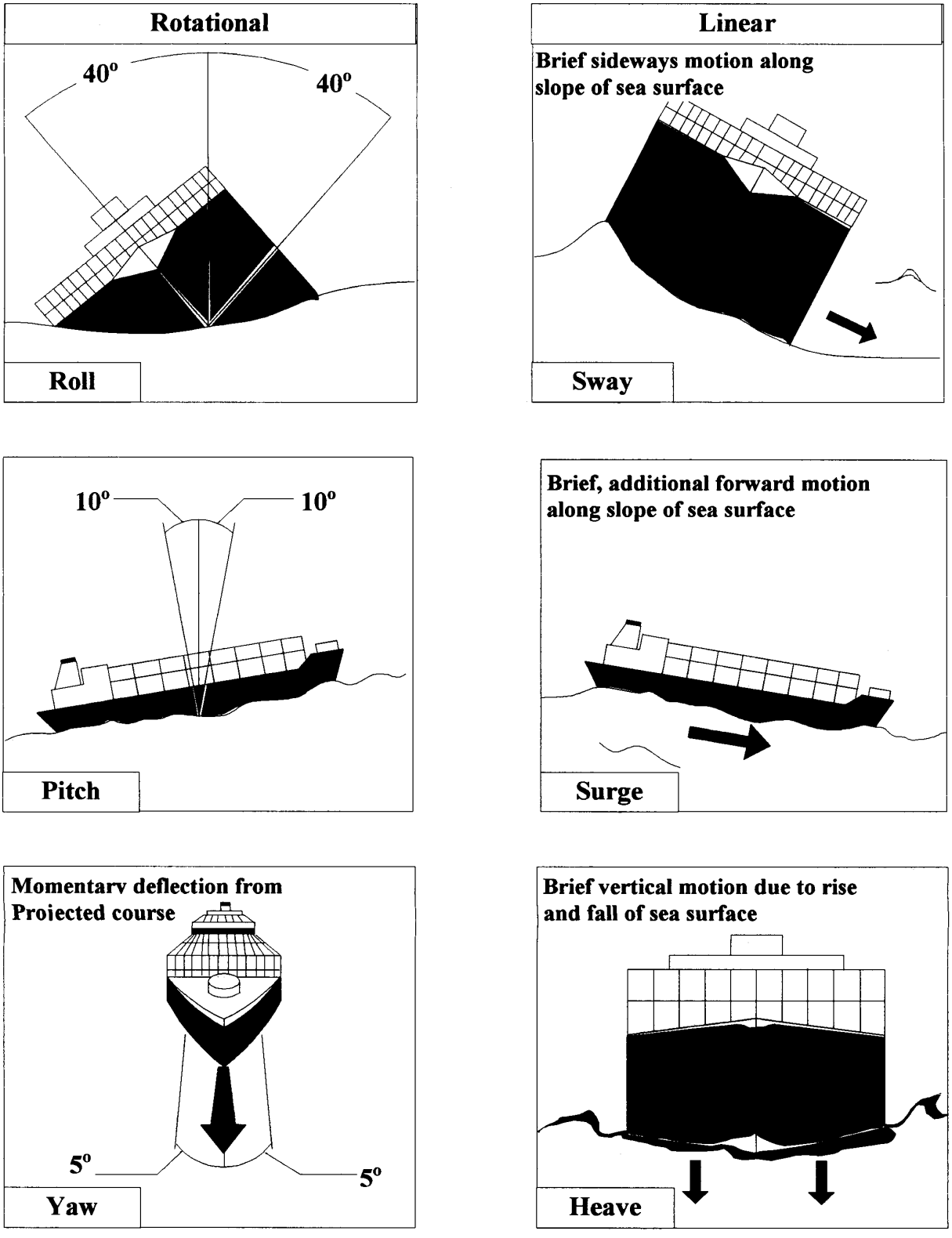
# Ship Motions in a Heavy Seaway



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# FREIGHT CONTAINERS - STUFFING, STRIPPING AND STOWAGE

References:

a. IMO/ILO/ECE Guidelines for Packing of Cargo Transport Units (CTUs)
b. International Convention for Safe Containers, 1972 (CSC): 1996 Edition
c. Procedures for The Use and Handling of Freight Containers for Military Supplies: STANAG 2926 (MH)

## INTRODUCTION

1. Background. Whilst the use of freight containers, swap bodies, vehicles or other cargo transport units (CTU) substantially reduces the physical hazards to which cargoes are exposed, improper or careless packing of cargoes into/onto such units, or lack of proper blocking, bracing and security, may be the cause of personnel injury when they are handled or transported. In addition serious and costly damage may occur to the cargo inside or to the transport/container handling equipment. The person who packs and secures cargo into/onto the CTUs may be the last person to look inside the unit until it is opened by the consignee at its final destination.

2. Terms. The terms of some commonly used words are at Annex A. It should be noted that “stuffing” is the word used for the positioning of goods inside a container economically, securely and safely, whilst “stripping” (or "destuffing") is the term used for the emptying of a container. These terms are used throughout the rest of this Annex.

3. Aim. The aim of this Annex is to outline the principles which should be followed when stuffing, stripping and stowing freight in a container.

4. Applicability. Whilst the Annex is primarily concerned with containers conveying dangerous goods the principles detailed are equally applicable to the stuffing or stripping of other CTUs, such as vehicles, rail wagons and swap-bodies and indeed the carriage of non-dangerous goods in any type of CTU.

5. Training. The stuffing or stripping of containers must always be under the control of a formally trained supervisor. This Annex is no way replaces the need for such training. The training should cover the topics listed at Annex C and such training should be refreshed at least every five years.

## BEFORE STUFFING - CONTAINER INSPECTION

6. Inspecting the Container. All containers are to be inspected before loading any goods especially if they are to carry a class of dangerous goods. Dangerous goods may only be carried in a plated ISO container. The following should be checked:

a. Life. The CSC plate life should have sufficient life remaining for the duration of the planned lease period.

b. Fumigant Notice. Where a fumigant notice is attached to the doors, the expiry date and time are to be checked. If the doors are opened before the expiry time people nearby may be at risk.

c. Cleanliness. The container should be clean and free from any residue and odours left by previous loads. The interior must be dry.

d. Infestation. There should be no signs of infestation by pests as their presence could cause the cargo being delayed by Port Health Authorities.

e. Watertight. The container should be watertight. This can be checked by entering the container and closing the doors. If any spots of light, even in the floor, can be seen then the container is not watertight. If the check has to be carried out at night, a powerful light or torch can be shone within the container and the outside inspected for tell tale signs of light. Be careful not to lock yourself inside the container.

f. Cargo Tie down Cleats or Rings. Where fitted, should be countersunk, in good condition and well anchored.

g. Protrusions. There should be no protrusions, such as nails, bolts or special fittings, on the internal end walls, floor and side which may damage the cargo.

h. Taint Free. If delicate goods susceptible to damage by bad odours are to be packed (e.g. flour), then the container must be sweet smelling. This should be checked immediately on opening the doors when any lingering smells will be at their strongest.

j. Structural Serviceability. See Annex F for detail.

k. Labels. All danger signs and subsidiary hazard signs from previous cargoes are to be removed.

7. Vehicles and Rail Wagons. Vehicles and rail wagons should also be inspected prior to use in accordance with the above requirements, as appropriate.

8. After Inspection. The stuffing supervisor must complete and sign two copies of the Container Interchange and Condition Report at Annex G. One copy should be retained by the unit and one copy sent to the owner of the container. This can save subsequent unjustified claims on MODs for damage to the container.

STUFFING THE CONTAINER - FACTORS

9. Pre-Planning. It is absolutely essential to pre-plan the stuffing operation in order to figure out how the shipment is to be arranged in the containers. Such pre-planning will ensure that delays in stuffing will be minimised. One method of pre-planning involves:

a. Calculating the cargo carrying capacity of the container = Gross weight - Tare weight.

b. Calculating the total weight, and the cubic capacity of the cargo to be stuffed. There may be weight restrictions dictated by regulations (e.g. explosive NEQ limitations) or other circumstances (such as handling and lifting equipment). These are to be strictly observed regardless of the CSC Approval Plate. Another example is two 20 ft containers are loaded to a 40 ft semi trailer. The limit of a bridge on a road route to be used by this vehicle is 40 tonnes. The dead weights are: vehicle and trailer 18 tonnes; two containers at 2.5 tonnes each – total 5 tonnes. Therefore, the grand total = 23 tonnes. The maximum total internal load for the two containers is 40 – 23 = 17 tonnes, which is approximately 8½ tonnes each.

c. Checking that the cargo capacity does not surpass the container cubic capacity and the weight of the cargo does not surpass the cargo carrying capacity of the container. It is very dangerous to overload containers.

d. Draw the container to scale on graph paper and position the cargo using the same scale. The stuffing is two dimensional and so two drawings are required to cover length, width and height (i.e. in plan and elevation).

e. The plan should aim, regardless of the mode of transport, at attaining a tight fit in order to ensure damage free transit. Void spaces and moveable cargo will certainly cause in-transit damage. Unfortunately the dimensions of the NATO standard pallet does not permit a tight fit and so it is necessary to resort to various types of restraint to achieve this object. This is discussed further in para 11 of this Annex.

f. Another method is to go inside a shed/hangar and draw a very large rectangle which is the exact size of the inside floor of the container to be used. Construct (from wood battens) a ‘goal mouth’ with the two sides the exact height of the inside of the container. These two sides are held by a third piece of wood across the top. Pre-stack the load for the container on the rectangle, and then run the ‘goal mouth’ over the load. Always have a few spare packages apart from the stack, to either replace or add them when actually loading the real container.

g. Cargoes to be transported must be

(1) Authorised to be transported by the mode to be used. For example, RID does not permit the movement of self-reacting substances and organic peroxides requiring temperature control.

(2) Mixed cargoes must be compatible and the mode to be used must authorise their carriage together. This is discussed further in para 15 of this Annex.

h. MODs may contract commercial organisations to stuff containers. In these circumstances, it is essential that the contractor is fully informed of the load to be carried, its hazards, weight, how it is packed and the dimensions of the packages and pallets etc.

10. Consignment Checks. All personnel involved in stuffing (and stripping) containers must be fully aware of what the consignment consists of and what hazards it presents. Consignments must be checked before loading. Any packages that are damaged, leaking or incorrectly marked and/or labelled are to be rejected. Such packages are to be set aside and in the case of damaged or leaking packages the immediate area is to be evacuated until the hazard potential has been assessed. Water, snow or ice or other matter adhering to packages should be removed before stuffing. Liquids that have accumulated in drum heads should initially be treated with caution in case they are as a result of leakage of the contents. If dangerous goods are palletised or otherwise aggregated to form a unit load, they should be compacted and secured in a manner which is unlikely to damage the individual packages. The materials used to bind the load to the pallet should be suitable for the purpose and should not be affected by moisture or extremes of temperature.

11. Restraint of Loads. During transit, loads inside containers will be subject to accelerations/ decelerations vertically, laterally and longitudinally, and the load must be restrained to withstand these without moving. The accelerations/decelerations to be allowed for are detailed at para 21. For example, this means that a load weighing 10 tonnes has to be restrained in the vertical direction to a loading of 15 tonnes. There are no simple formulae to work to when securing cargo. Each stow must be treated on its own merits, but the following points should be borne in mind.

a. If possible always use any built in securing points which are provided in the containers. Modern containers are fitted with 12 loading rings (6 each side), each capable of being loaded to 4 tonnes. Containers with rings of a lower rating do however exist so that the rating of the rings needs to be checked with the supplier of the containers. Such modern containers should always be used for dangerous goods. Ropes, steel, plastic or nylon straps, chains and nets may be used in conjunction with the loading rings. If plastic or nylon straps are used they must be tensioned, as they may stretch by 9%. If the loading rings cannot be used, then it is necessary to use wood for blocking or other material such as plastic

packing or airbags to fill voids in the stuffing. The following table shows some of the methods and materials which can be used to restrain the load and to fill voids in the stuffing plan (the shaded areas are to be used).

| | **DUNNAGE AND STOWAGE AIDS** | | | | | | | | **ROPES, STRAPS, ETC** | **MATS** |
|---|---|---|---|---|---|---|---|---|---|---|
| APPLICATION | Wooden beams & planks, Blocks, Dunnage, Stowage grids | Empty pallets, Air bags | Empty pack-ages | Intermed-iate decks & walls | Nets | imber onnect-ors | Plastic foam, Corrugated cardboard | Used tyres | Rope, Wire, Bands, Chains, Steel straps, Plastic straps, Nylon straps, Hercules, Span sets | Plastic mats, Sisal mats, Sacks, Rough paper, Anti-slipping spray, Gum mat |
| Bracing & Load Distribution | | | | | | | | | | |
| Securing Cargo | | | | | | | | | | |
| Filling Void Spaces | | | | | | | | | | |
| Loading Layers | | | | | | | | | | |
| Separating Goods | | | | | | | | | | |
| Securing Cargo at Lashing Points | | | | | | | | | | |
| Fixing Pallets & Sledges with wooden blocks | | | | | | | | | | |
| Increasing Friction | | | | | | | | | | |

b. Any timber used must be dry and seasoned. It must also comply with any wood treatment quarantine regulations imposed by the country to which the container is consigned. If required, a certificate to this effect should be placed inside the container in a conspicuous place and, where appropriate, outside the unit in a weather proof pouch. In addition increasingly countries are requiring timber dunnage to be without bark.

c. Some countries enforce a garbage and litter avoidance policy. In such cases re-useable packages and securing material should be used.

d. If nails have to be used to secure cargo to a wooden floor they should only penetrate about 15 mm, in order to achieve adequate grip without total penetration. Care must be taken to ensure that any nails used to secure loads do not penetrate packaging. Holes must not be drilled in floors or walls. Never use nails in a REEFER container.

e. Airbags should only be used where the load has no sharp edges or protrusions which could puncture the airbag. The airbags function at their best in spaces between 10 cm and 20 cm (4” and 8”) but can cope up to 30 cm (12”). The manufacturer’s instructions as to filling pressure should be scrupulously observed. Allowance should be made for the possibility of

a considerable rise in the internal temperature of the CTU above the temperature at the time of packing which might cause the bags to expand and burst. Airbags should never be used as a means of filling space at the doorway as they may cause the door to open violently when the locking bars are released. Nor should they be used between the top of a cargo and the roof of a container.

f. Cases have occurred of the load falling out of a container when the doors are opened. This is very dangerous, especially if dangerous goods are being carried. To prevent this a secure face of the cargo should be built at the door. If this is not possible or if there is doubt as to the securing of the cargo, further steps should be taken to ensure security by weave strapping between securing points or placing timber between the rear posts.

12. Before Start of Stuffing. The following must be considered:

a. The container should rest on level and firm ground or

b. If the container is on a vehicle, rail wagon or trailer, they must be brakes, applied, wheels chocked and care must be taken to ensure that the trailer cannot tip whilst being stuffed, especially if a fork lift truck is being used. If necessary, the trailer should be propped.

c. If a swap-body standing on its legs is to be stuffed, it should be ensured that the swap-body will not tip when a fork lift truck is used. Furthermore, it should be ascertained that the legs of the swap-body rest firmly on the ground and cannot shift, slump or move when forces are exerted to the swap-body during stuffing.

d. Doors of containers are to be secured in the open position and bridge plates should be positioned.

e. The correct MHE should be available for use (Short Masted Fork Lift Truck with a low driver's shelter coverage). If the fork lift truck is to be operated for some time inside the container, one with electric power supply should be used. Container floors are built to withstand a maximum wheel pressure corresponding to an axle load of a lift truck of 5.460 Kg or 2,730 Kg per wheel. Such an axle load is usually found on fork lift trucks with a lifting capacity of 2.5 tonnes.

f. Ample lighting should be provided at the stuffing site.

g. No smoking, eating or drinking should be permitted on the site.

h. One person should be appointed to record what is loaded into the container and where it is positioned within the container, in case there are subsequent queries.

13. Gross Weight. The planned load must not weigh more than the payload of the container which is marked on the container. This ensures that the permitted gross weight of the container on the CSC Safety Approval Payload Plate, which includes the payload, will never be exceeded. Overloading of containers can cause hazards in transit.

14. Weight Distribution. The weight distribution within the container should be such that the container will not tilt when lifted and that:

a. The stow should be so arranged and secured that the approximate centre of the weight of the cargo is close to the mid-length of the container. If this is not so, then special handling of the container may be necessary. In no case is more than 60% of the load to be concentrated in less than half of the length of a container measured from one end.

b. The floor loading capacity of 2 tons per sq. ft (18 tonnes per sq m) is not exceeded.

c. Goods are stowed in a container so that the weight is evenly distributed. The displacement of the centre of gravity should not be more than 2 ft in a lateral or more than 1 ft in a transverse direction from the geometric centre of the container. The centre of gravity should be as low as possible and below the half-height of the container. If all the weight is concentrated on one side, the container will be strained and overhead lifting equipment will not engage. In addition there is a danger that excessive strain will be imposed on lifting gear resulting in failure and a nasty accident.

d. Heavy and/or dense items are not stacked over fragile packages

e. The weight of heavy indivisible loads is spread over a larger area using timber and a method of securing the load is planned in advance.

f. If a stacking height limitation is specified, this must not be exceeded. When not specified a visual check should be made on the lowest package to ensure that it is not distorted, squashed or damaged.

15. Compatibility. Incompatible cargoes must not be carried in the same container.

a. Generally explosives (Class 1) may not be mixed in the same container with any other Class.

b. Foodstuffs should never be carried in the same container as dangerous goods, especially toxics.

c. Materials used for stuffing (including securing) must also be compatible with the dangerous goods to be carried.

16. Moisture. In order to avoid damage from moisture, wet cargoes, moisture inherent cargoes or cargoes liable to leak should not be stuffed with cargoes susceptible to damage by moisture. Moisture may lead to such damage as rust, discolouration, dislodging of labels, collapse of fibreboard packages and mould formation. The moisture may be the result of:

a. Condensation: due to a range of day and night cyclic temperature variations resulting in condensation on the surface of the cargo (cargo sweat) or on the inside surfaces of a container (container sweat). The covering of the cargo with a waterproof sheet can ameliorate this condition and is worthwhile if the container is to move to an area of wide day and night temperature variations.

b. Wet timber: a source of moisture within the container has, on occasion, been traced to the loading of wet packages or the use of wet dunnage. In one case that was investigated, it was established that the moisture content of the timber used per container was the equivalent of a shipper putting a 40 gallon bath-full of water in each container. Hence the importance of loading dry packages and using dry and seasoned timber for blocking etc.

17. Special Instructions. Any special instructions on packages must be obeyed. For example:

a. Cargoes marked “protect from frost” should be stuffed away from the container walls.

b. Cargoes marked “This way up” should be stuffed accordingly.

c. Maximum stacking heights should be followed.

ON COMPLETION OF STUFFING

18. On completion of the stuffing operation:

a. Doors of the container must be shut with all securing lugs properly engaged, forcing the door seals into compression.

b. A serially numbered seal should be fixed in the appropriate position on the right hand door. The number of the seal should be noted.

c. If appropriate, the container should be placarded as required by modal dangerous goods regulations.

d. If the load contains dangerous goods, the Container Packing Certificate in the Dangerous Goods Note (DGN) laid down in the modal dangerous goods regulations must be signed. For normal freight a Container Packing Certificate as in Annex B may be used and attached to the transport document.

STRIPPING A CONTAINER

19. The consignee or user unit are to ensure that the following factors are always given proper consideration:

a. Containers of dangerous goods should be unpacked with care, always bearing in mind that the cargo may have been damaged in transit. Doors to be opened with care in case the cargo has moved so that there is a danger of packages falling out. Doors, once opened, are to be secured in the open position.

b. The possibility that the dangerous goods have been damaged must be borne in mind. If there is evidence of such damage, then expert advice should be sought before commencing stripping.

c. If the container shows any sign of excessive heat, it should be removed to a safe place, if possible, and fire appliances summoned.

d. Any container that has a toxic cargo, including dry ice, should be well ventilated before stripping starts.

e. After the container has been stripped the user unit or consignee is to remove all placards and clean the container so that no hazard remains. If spillage or leaking of the load has occurred, then special cleaning, decontamination or fumigation may be necessary.

f. On completion of stripping, a Container Interchange and Condition Report (Annex H) may be completed in duplicate, one copy being retained by the consignee and one copy sent to the owner of the container.

LIFTING OF CONTAINERS

20. Ports are equipped with specialised lifting equipment and the lifting of containers in ports must be by the following:

a. A specialised container crane at a container berth.

b. A shipboard crane or derrick crane operated by one person.

c. A gantry crane ashore or on board.

d. A conventional dock crane.

e. A floating crane.

21. A union purchase rig or a tandem lift is not to be used.

22. Elsewhere containers should only be lifted by a crane, forklift truck or appliance that has been approved and certificated to lift full containers. In addition, the competent supervisor is to ensure that:

a. The safe working load of the lifting appliance and gear (e.g. spreader frame) exceeds the declared gross weight of the container by at least 25% of that gross weight or 5 tonnes, whichever is the lower.

b. All lifting gear is fully serviceable and bears in-date certification plates.

c. Unless a specialised container crane is being used, the container is only lifted using an approved “Spreader Frame” fitted with four serviceable twist-locks suitable for engaging the four top container interlocks or shackles. Shackles are to be suitable for use with the container corner fitting.

d. All four twist-locks or shackles are fully engaged before permitting each lift.

e. The lifting operation is carried out with the minimum acceleration and deceleration.

f. Whenever possible, containers are not handled in adverse weather conditions e.g. high winds and ice.

g. Containers are not handled in poor light conditions unless adequate artificial lighting is provided to ensure safety.

23. Vehicles and Rail Wagons. Containers are only to be loaded to vehicles, trailers and rail wagons designed and fitted with serviceable twist locks.

STACKING OF CONTAINERS

24. Containers are often stacked in order to save space. They may be stacked four or six high depending on their age and construction. It is essential that the container sits squarely on top of the one below corner to corner, so that the weight is transmitted through the corner posts. The ground area that the containers are stacked upon must be capable of taking the weight of the containers (See Annex I figs 26 and 27).

STOWAGE OF CONTAINERS ON BOARD SHIP

25. Special purpose container vessels are equipped to carry containers safely. Containers may also be carried safely on vessels not fitted with the securing arrangements found on a special purpose vessel. Particular attention must be given to the stowage and securing of containers when carried on deck.

SUPERVISORS AND DRIVERS CHECK LISTS

26. Check lists for use by the Stuffing Supervisor and driver are at Annexes J and K.

ILLUSTRATIONS

27. The sketches at Annex I illustrate the do’s, don'ts and dangers of stuffing and many of the points raised in the above text.

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# FREIGHT CONTAINERS AND VEHICLES

## DEFINITION OF “STRUCTURALLY SERVICEABLE”

1. A freight container or vehicle is said to be “Structurally Serviceable” if it has no major defects in its structural components (e.g. container top and bottom side rails, top and bottom end rails, doors sill and header, floor cross-members, corner posts and corner fittings in a freight container).

2. Major defects are:

   a. Dents or bends in the structural members greater than 19 mm in depth, regardless of length.

   b. Cracks or breaks in any structural members.

   c. Containers with splice repairs are to be rejected, unless cleared for use by the competent authority.

   d. Twisted and/or broken doors and seized hinges, inoperable securing mechanisms, twisted, broken or ill fitting door seals and gaskets.

   e. Floor not adequately secured to container.

   f. Distorted container are to be rejected even if distortion is not sufficient to prevent the proper alignment of handling equipment, mounting and securing on the vehicle or rail wagon or insertion into ship’s cell, unless cleared for use by the competent authority.

   g. Unserviceable and/or damaged twist lock housing and recess.

   h. Deterioration in any component of the container or vehicle, regardless of the material of construction, such as rusted-out metal in sidewalls or disintegrating fibreglass, is unacceptable. Normal wear, however, including oxidation (rust), slight dents and scratches and other damage that does not affect serviceability or weather-tight integrity of the unit, is acceptable.

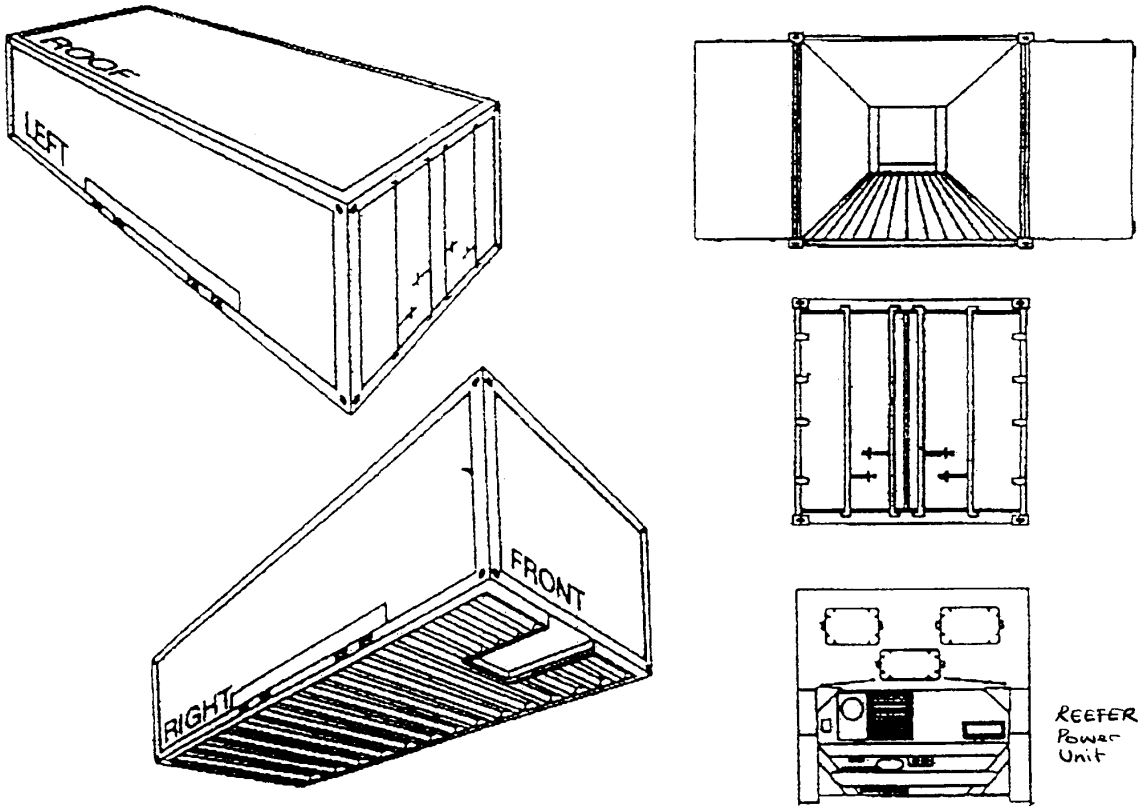
   i. Tarpaulins used to cover open containers are to be undamaged, fire retardant, resistant to cutting, weatherproof and of sufficient size to enable a minimum overlap of 20 cm on each side.

   j. The solid removable lids of open topped containers should not be distorted and should fit properly in the seating.

k. Rusted outside walls, parts of structural members, including twist lock locations and door structure and hinges. However, slight deterioration caused by rust, scratches, and minor dents is acceptable.

# CONTAINER INTERCHANGE AND CONDITION REPORT

| | | | |
|---|---|---|---|
| Customer: | Haulier: | | Temperature Settings: |
| Booking Ref: | Registration No: | | Container Height: |
| Seal No: | Chassis No: | Genset No: | |
| Stack Location: | Container No: | | Dangerous Goods: |
| **DATE OUT** | **DATE IN** | | |




Following symbols may be used: BR - broken T - torn B - bent C - cut H - hole M - missing X - explain

Remarks:

This container was delivered / received in good condition. Except as noted above.

**Signature** _____

**Printed Name** _____

For the haulier.
This container was delivered / received in good condition. Except as noted above.

**Signature** _____

**Printed Name** _____

INSPECTION FOR CONTAINER INTERCHANGE AND CONDITION REPORT
Annex E paras 6. and 8.

1. Inspecting the Container. All containers are to be inspected before loading any goods especially if they are to carry a class of dangerous goods. Dangerous goods may only be carried in a plated ISO container. The following should be checked:

a. Life. The CSC plate life has sufficient life remaining for the duration of the planned lease period .

b. Fumigant Notice. Where a fumigant notice is attached to the doors, the expiry date and time are checked. If the doors are opened before the expiry time people nearby may be at risk.

c. Cleanliness. The container is clean and free from any residue and odours left by previous loads. The interior is dry.

d. Infestation. There is no sign of infestation by pests. Their presence could cause the cargo being delayed by Port Health Authorities.

e. Watertight. The container is watertight. This can be checked by entering the container and closing the doors. If any spots of light, even in the floor, can be seen then the container is not watertight. If the check has to be carried out at night, a powerful torch can be shone within the container and the outside inspected for tell tale signs of light. Be careful not to lock yourself inside the container.

f. Cargo Tie down Cleats or Rings. Where fitted, they are countersunk, in good condition and well anchored.

g. Protrusions. There are no protrusions, such as nails, bolts or special fittings, on the internal end walls, floor and side which may damage the cargo.

h. Taint Free. If delicate goods susceptible to damage by bad odours are to be packed, then the container must be sweet smelling. To be checked immediately on opening the doors when any lingering smells will be at their strongest.

i. Structurally Sound. The container is structurally sound and serviceable with no major defects, thus:

- Dents or bends in any structural member greater than 19 mm in depth, regardless of length.

- Cracks or breaks in any structural member.

- Splice repairs to members. Containers with these to be rejected. Any subsequent clearance for their use can only be given by the individual nation's competent authority.

- Twisted and/or broken doors and seized hinges, inoperable securing mechanisms; twisted, broken, or ill fitting door seals and gaskets.

- Floor not adequately secured to the container.

- Distortion. Distorted containers are to be rejected even if the distortion is not sufficient to prevent the proper alignment during lifting or stowage.

- Unserviceable and/or damaged twist lock housings and recesses.

- Tarpaulins used to cover open containers are undamaged, fire retardant, weatherproofed, and of a sufficient size to enable a minimum overlap of 20 cm on each side.

- The solid removable lids of open topped containers should not be distorted and should fit properly on the seating.

- Rusted outside walls, parts of structural members, including twist lock locations and door structure and hinges. However, slight deterioration caused by rust, scratches, and minor dents is acceptable.

2. Labels and Marks. All labels and marks from previous cargoes are to have been removed.

3. After Inspection. The stuffing supervisor is to complete and sign two copies of the Container Interchange and Condition Report on the front of this page one copy to be retained by the unit and one copy sent to the owner of the container. This can save subsequent unjustified claims on MODs for damage to the container.

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ANNEX H TO
CHAPTER 1

CLEANING, CONTAMINATION, DECONTAMINATION, FUMIGATION AND VENTILATION

1. After Stripping. When a container has been emptied of cargo it should immediately be checked. All containers must be cleaned as soon as they are emptied, regardless of whether or not they are to be re-used immediately. Some tariffs are so worded that it is obligatory for the consignee to clean out the container he had just emptied. In most cases this cleaning is taken to mean a thorough sweep out.

2. Cleaning. Containers, (as well as vehicles, rail wagons, and ship's holds) are to be clean before the loading of dangerous goods commences. They are also to be cleaned after dangerous goods have been unloaded. This cleaning normally involves the sweeping of the interior with a suitable brush.

3. Contamination. Containers, vehicles, rail wagons, and ship's holds may become contaminated by the dangerous goods being carried. This is normally the result of damage to packages due to rough handling during loading or due to movement of the load during transit. The damaged package can then leak the dangerous goods it contains, especially powders or liquids, into the container, vehicle, rail wagon, or ship's hold. Any container, vehicle, rail wagon or ship's hold which has been or is suspected of being contaminated is to be isolated awaiting decontamination.

4. Decontamination. Advice on how to decontaminate is to be sought from:

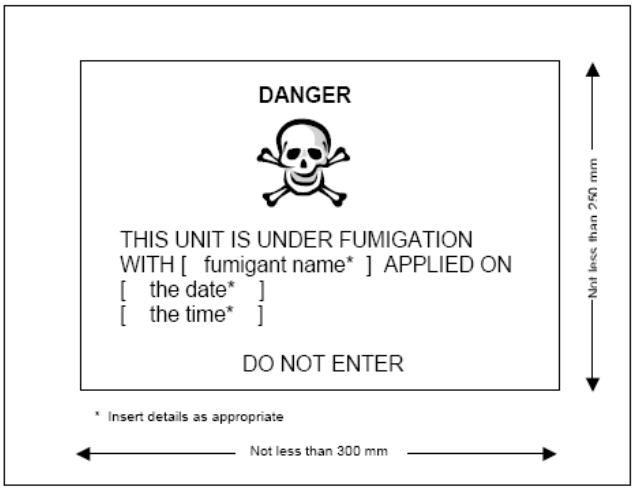
   a. Explosives (Class 1) (In particular Compatibility Groups K and L): The appropriate authority.

   b. Radioactive Materials (Class 7): A Radiological Protection Adviser.

   c. All Other Classes of Dangerous Goods: The appropriate Defence Container Management Service or the provider of the container.

Pending advice from the above mentioned authorities, the relevant IMDG Code Emergency Schedule should be referred to and any advice it contains is to be followed where appropriate. On completion of the decontamination, the certificate at Appendix H1 is to be completed in duplicate by the person in charge of the decontamination. One copy of this certificate is to be given to the owner of the container, vehicle, rail wagon or the ship's captain and one copy retained by the organisation responsible for the decontamination.

5. Fumigation. Containers may become infested with insects or mites, normally as a result of stowage in ship's holds which are already infested. Such containers are to be fumigated. Fumigation is to be carried out by experts. If fumigation of containers carrying Military cargoes becomes necessary, an approved civilian company is to carry out the fumigation. A container which has been fumigated is to display the warning sign below, until the fumigant has been cleared. The approved company should provide the label.




On receipt of a container displaying the warning sign, the container doors are not to be opened or the container entered until defumigation has been completed. Again, advice is to be sought on how to defumigate the container. On completion of defumigation the warning sign is to be removed. Fumigation is covered in detail in the modal dangerous goods regulations.

6. Ventilation of Dry Ice or Other Expendable Refrigerant. Containers or vehicles containing solid carbon dioxide (CO2 - dry ice) used for cooling purposes or other expendable refrigerants are required by the IMDG Code to be marked on the door with the words:

**"DANGEROUS CO2 - GAS (DRY ICE) INSIDE. VENTILATE THOROUGHLY BEFORE ENTERING"**

or the door is to be labelled with the following label (the word WARNING is in red):

APPENDIX 1 TO
ANNEX H TO
CHAPTER 1

# DECONTAMINATION CERTIFICATE

*Form of statement to be given when containers have become contaminated during transit.*

The following containers were found to be contaminated by:

.....(Proper Shipping Name and UN Number)

when examined on.....(date)

at.....(place)

Container numbers.....

They have been decontaminated/any contaminated material has been removed or rendered harmless.

Signature of Certifier.....

..... Rank

..... Date

Signature of Acceptance by Operator.....

..... Date

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# ILLUSTRATED HINTS ON STUFFING

The following drawings illustrate the principles of good container stuffing. Most of the drawings are taken from Packing Guidelines issued by the IMO, to whom acknowledgement is made.

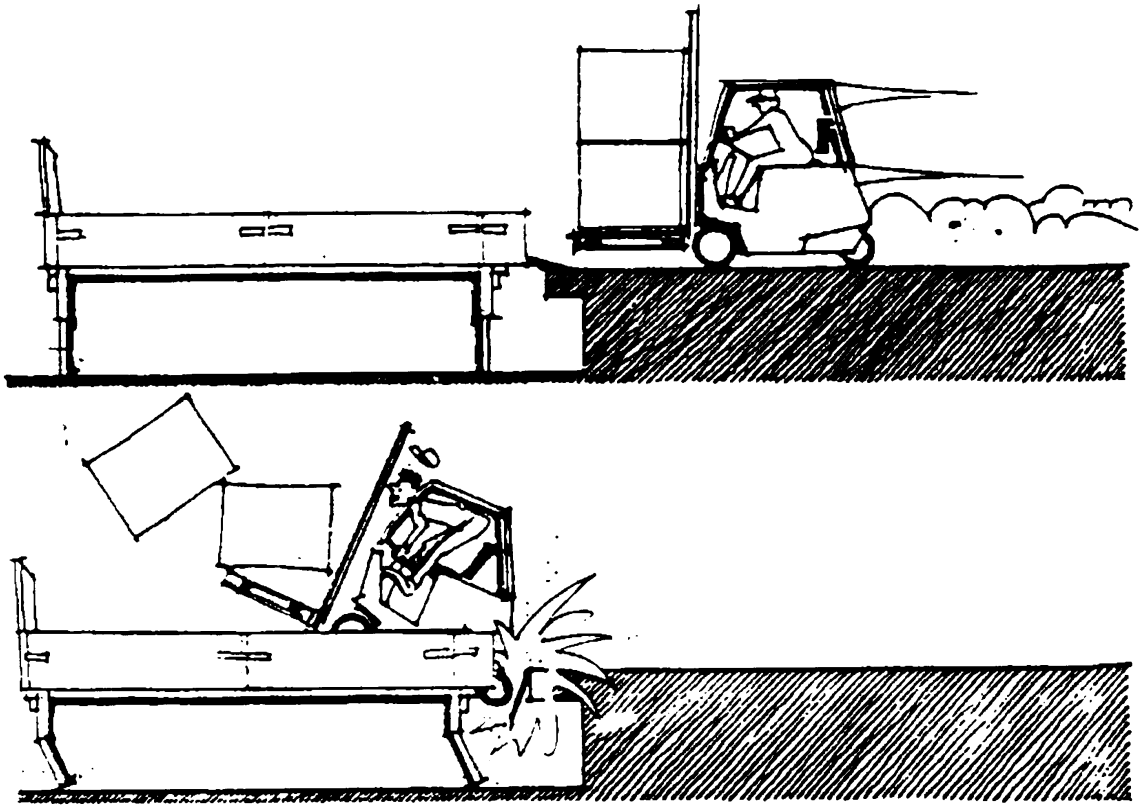


Figure 1: Do not drive too fast with a truck on a swap-body or container

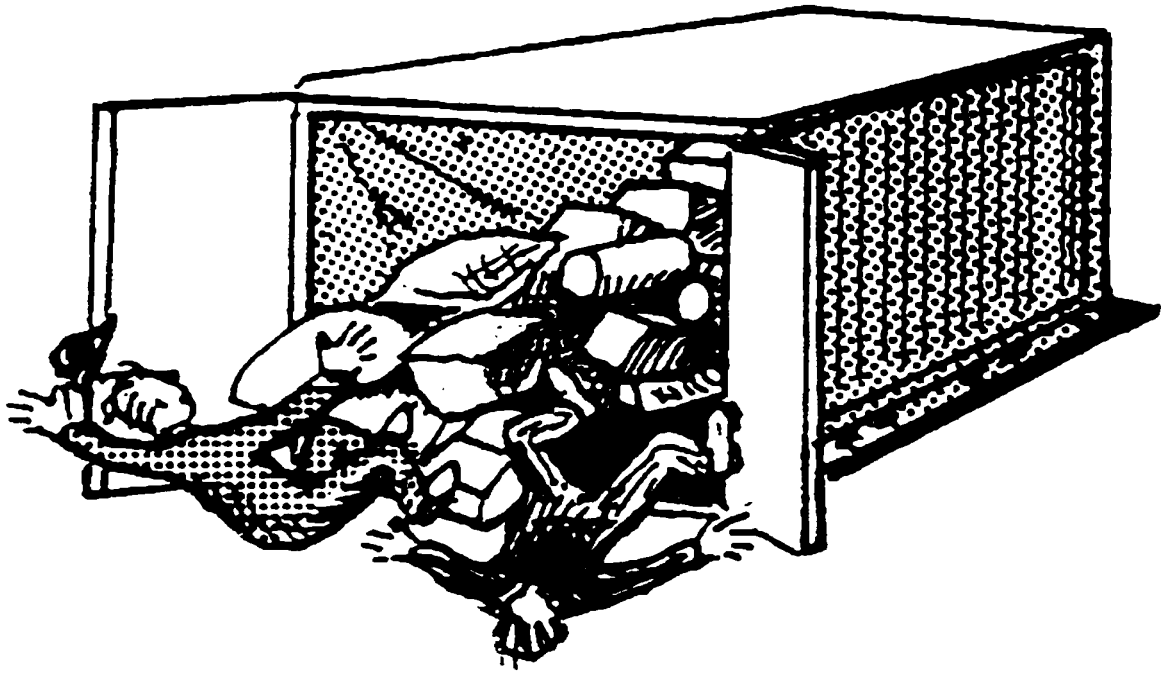


Figure 2: Secure the cargo to avoid cargo from falling when the doors are opened

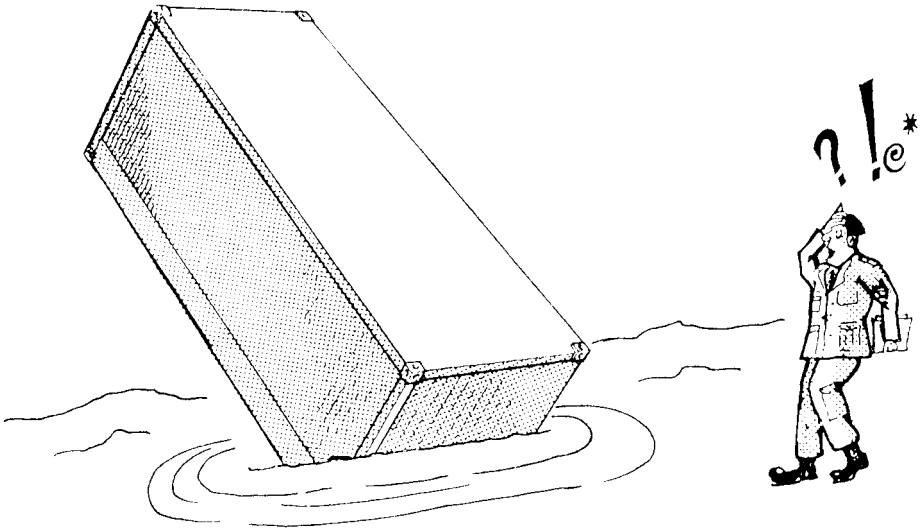



Figure 3: Containers must be stacked or placed for stuffing on ground capable of supporting their weight

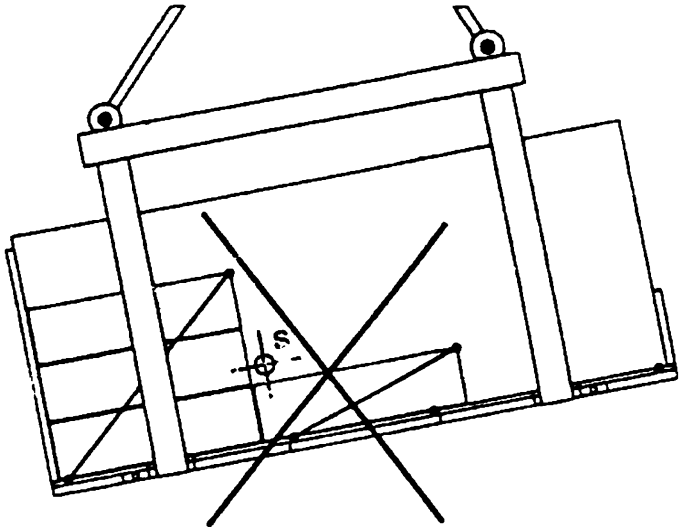



Figure 4: Do not load with eccentric load distribution

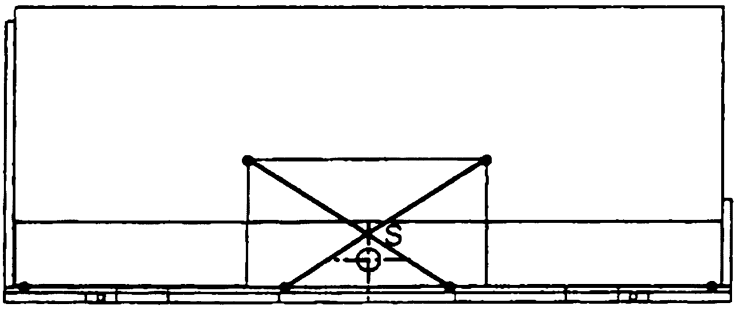



Figure 5: Do load in the centre of the container

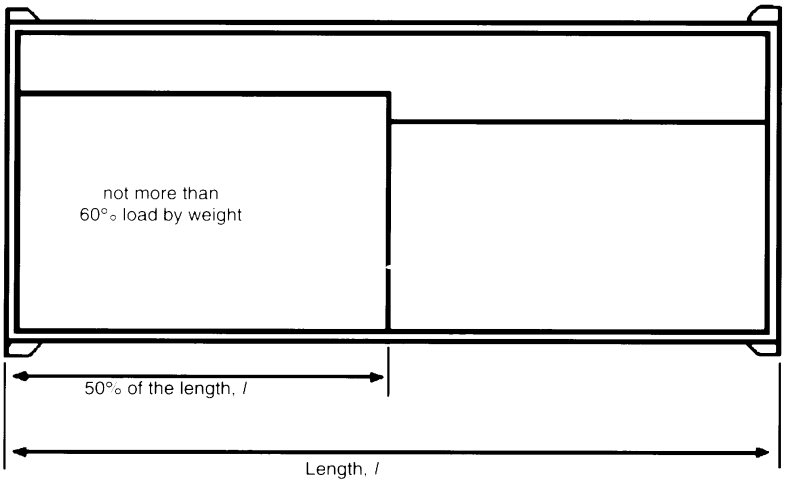



Figure 6: Even load distribution: not more than 60% in one half of the container

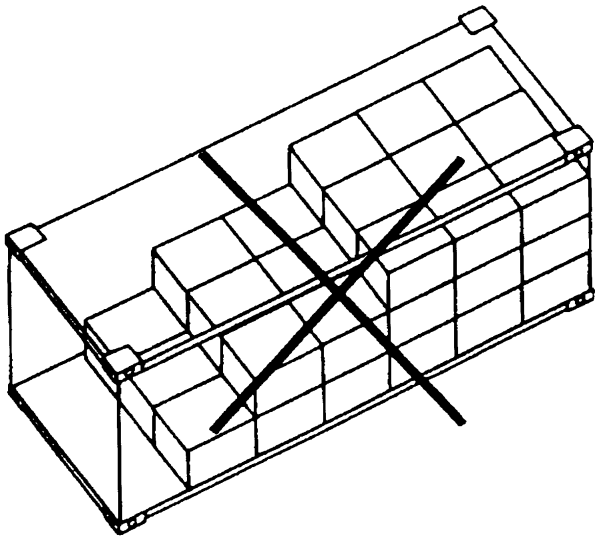


Figure 7: Do not build up irregular layers of packages

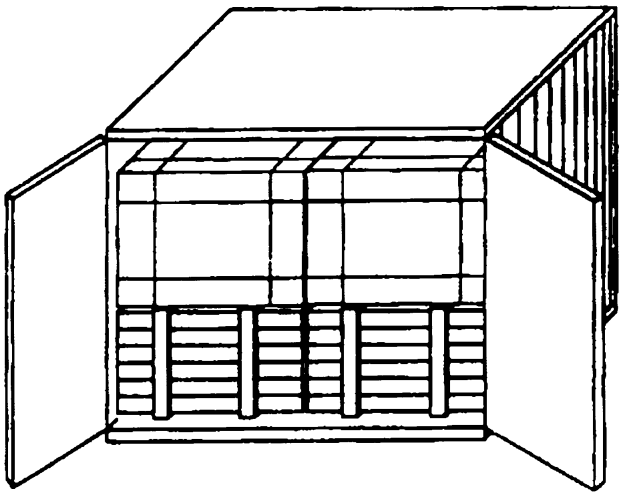


Figure 8: Do load lightweight items on top of heavy ones

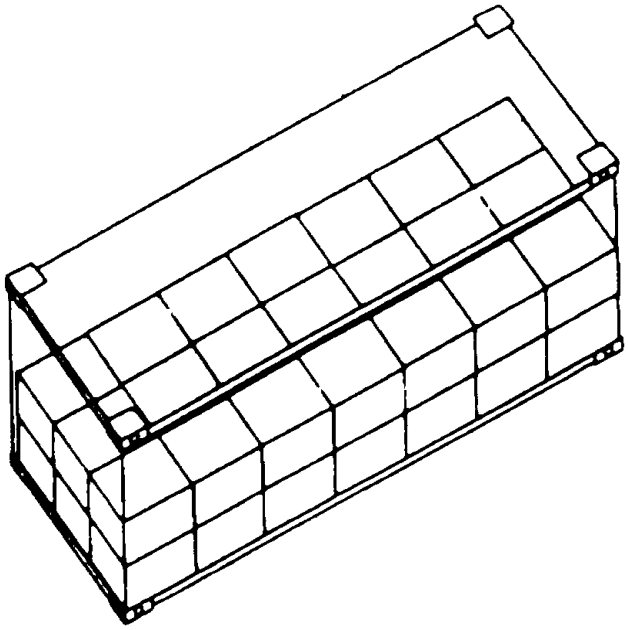


Figure 9: Do exercise a block model in stowing of packages

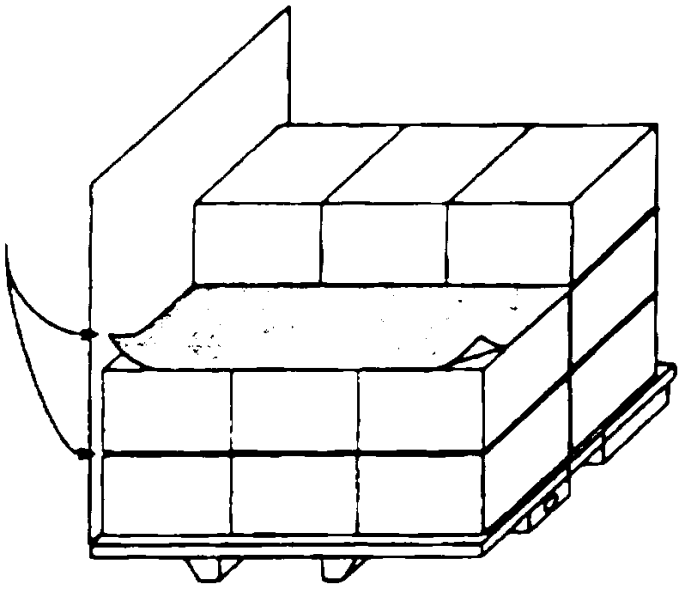


Figure 10: Do use adhesive surface material against sliding of packages

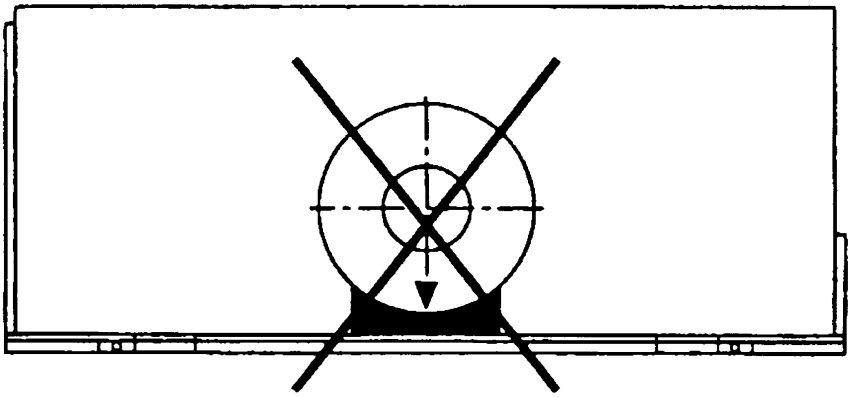


Figure 11: Do not concentrate heavy loads on small areas of the floor

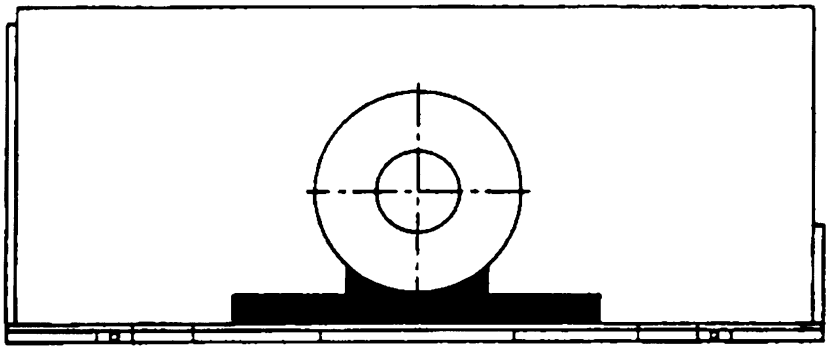


Figure 12: Do distribute heavy loads over a large floor area

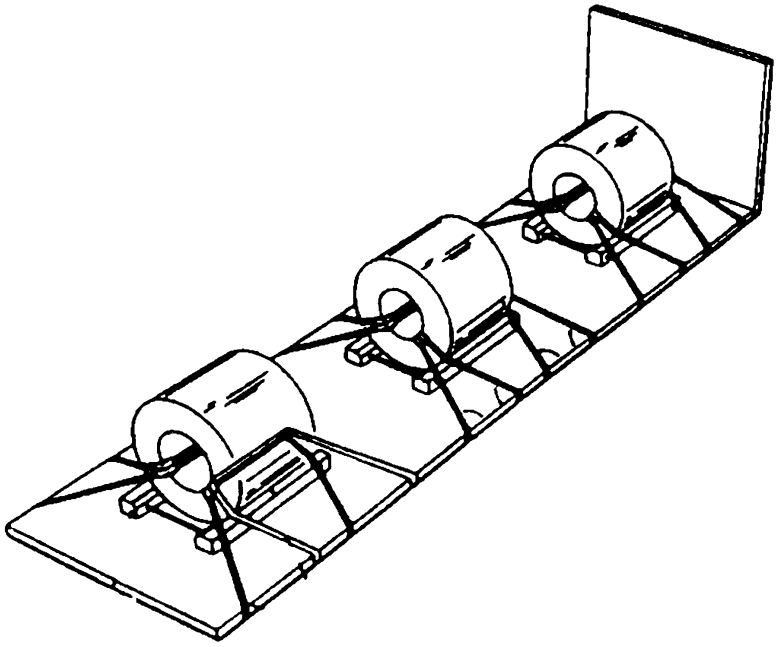


Figure 13: Do secure each single loaded item independently

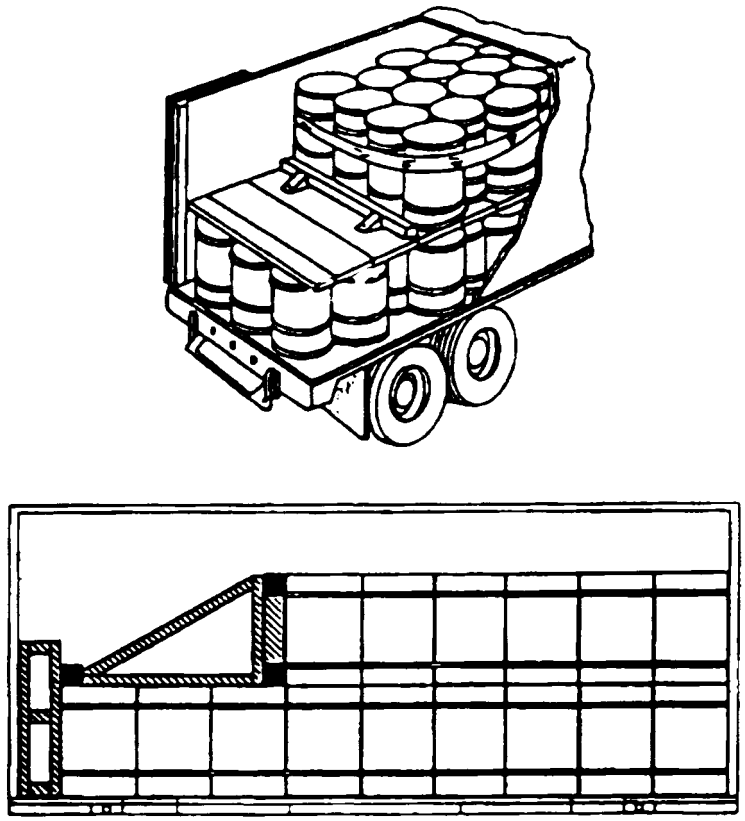


Figure 14: Do secure the upper layer adequately

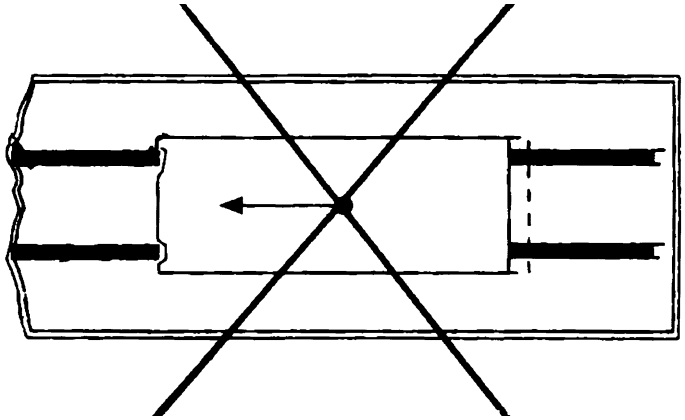


Figure 15: Do not load with devices that produce heavy forces into small areas of the container inside structure

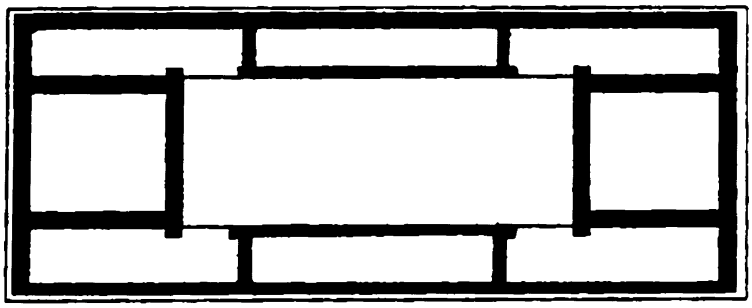
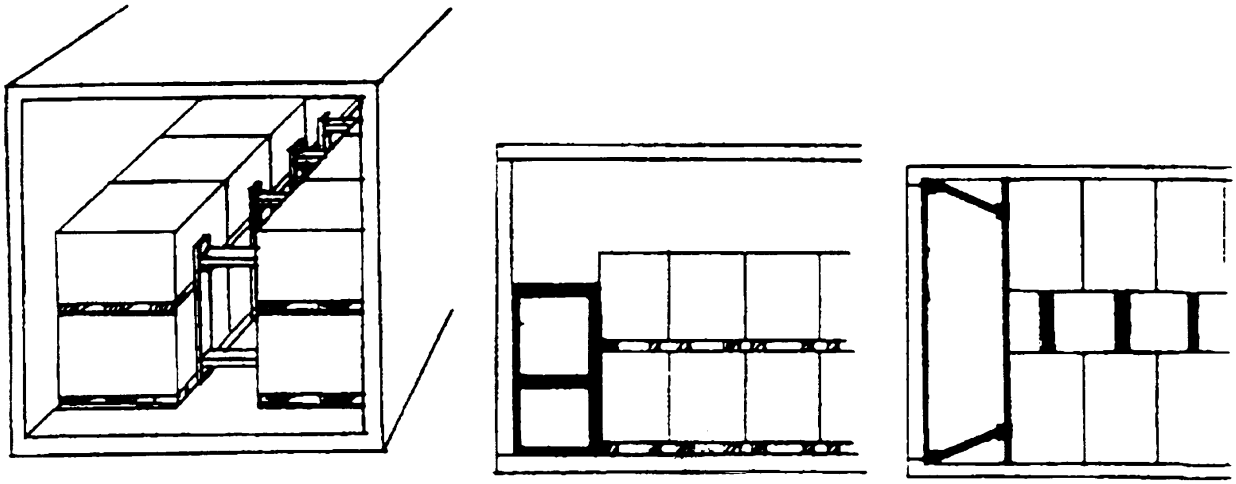


Figure 16: Do secure loads in a way that forces are distributed over a large area



From the end From the side From the top

Figure 17: Blocking cargoes in a wall-strong cargo unit

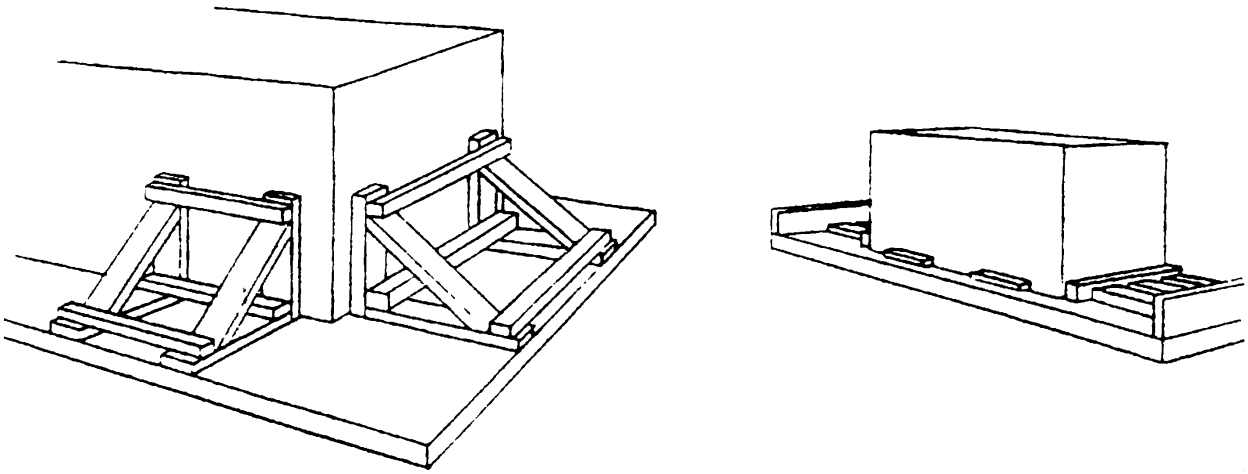


Figure 18: Blocking by the help of battens

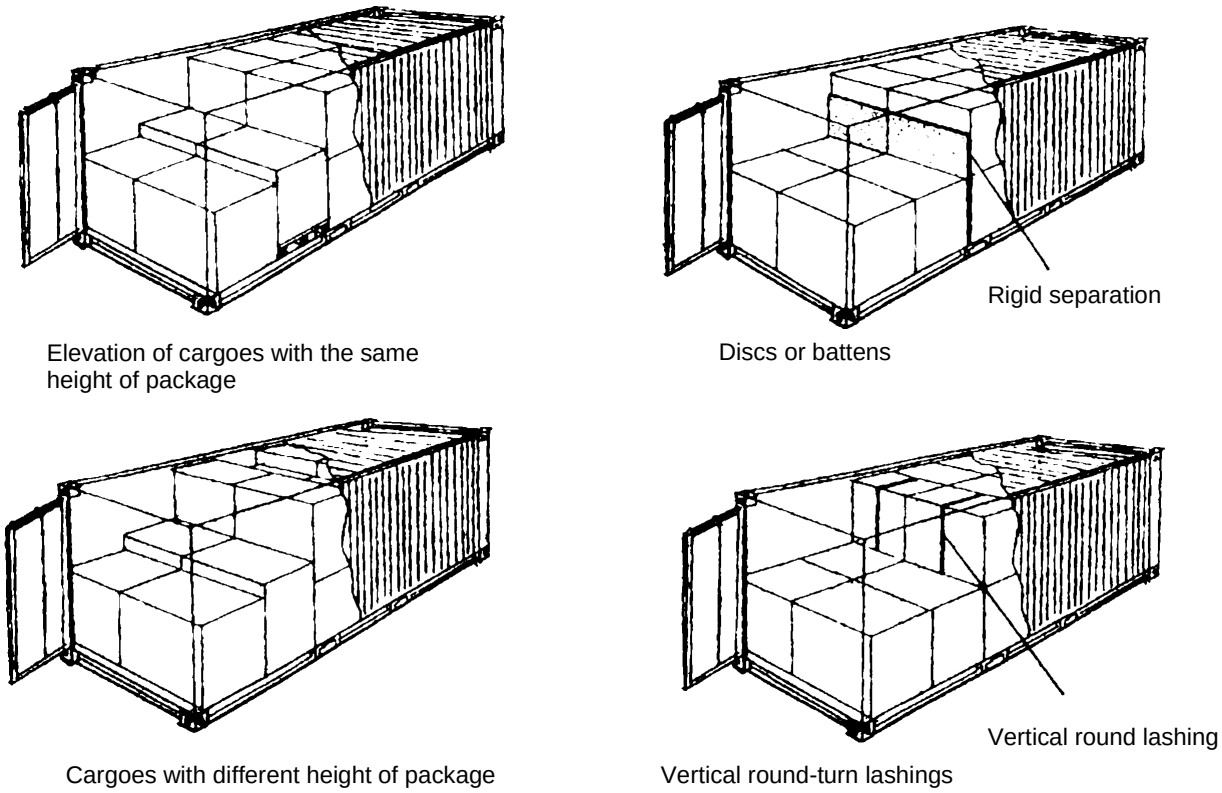



Figure 19: Blocking a second layer

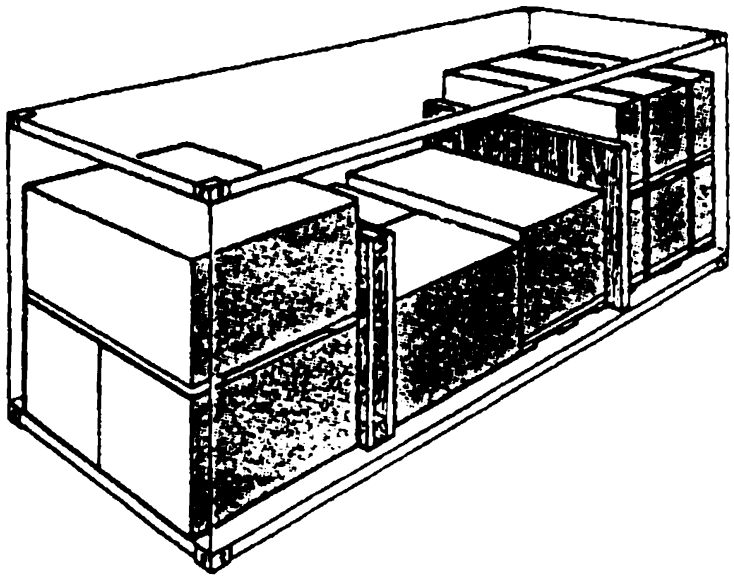


Figure 20: Load securing with vertical separators

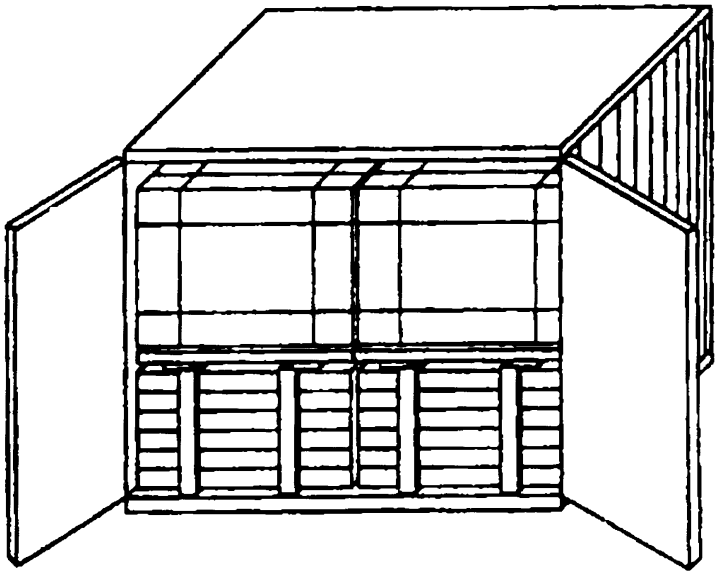
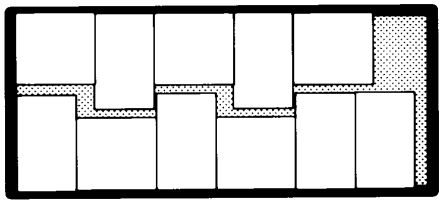
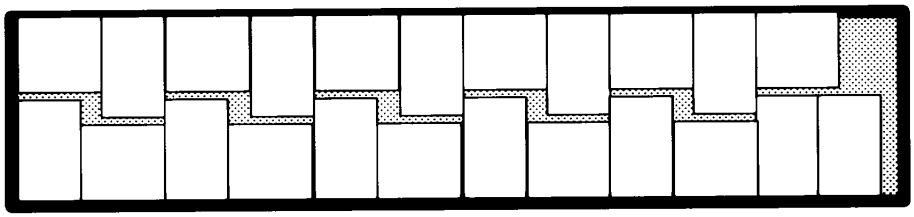


Figure 21: Load securing by interim floor layers



Stowing 800 x 1200 mm unit
loads in 20 ft containers



Stowing 800 x 1200 mm unit
loads in 40 ft containers

Figure 22: Empty spaces to be filled

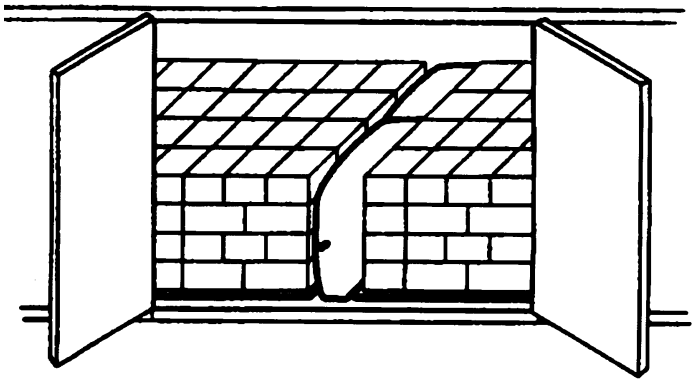
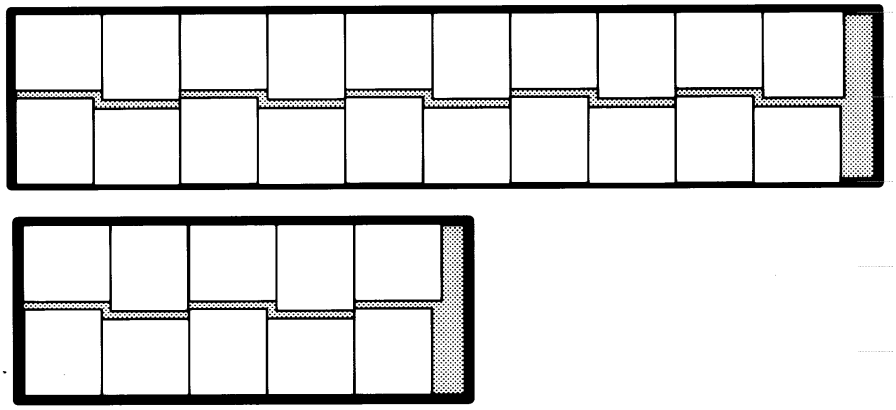


Figure 23: Example of air bag use



Stowing 1000 x 1200 mm unit
Loads in 20 ft and 40 ft containers

Figure 24: Empty spaces to be filled

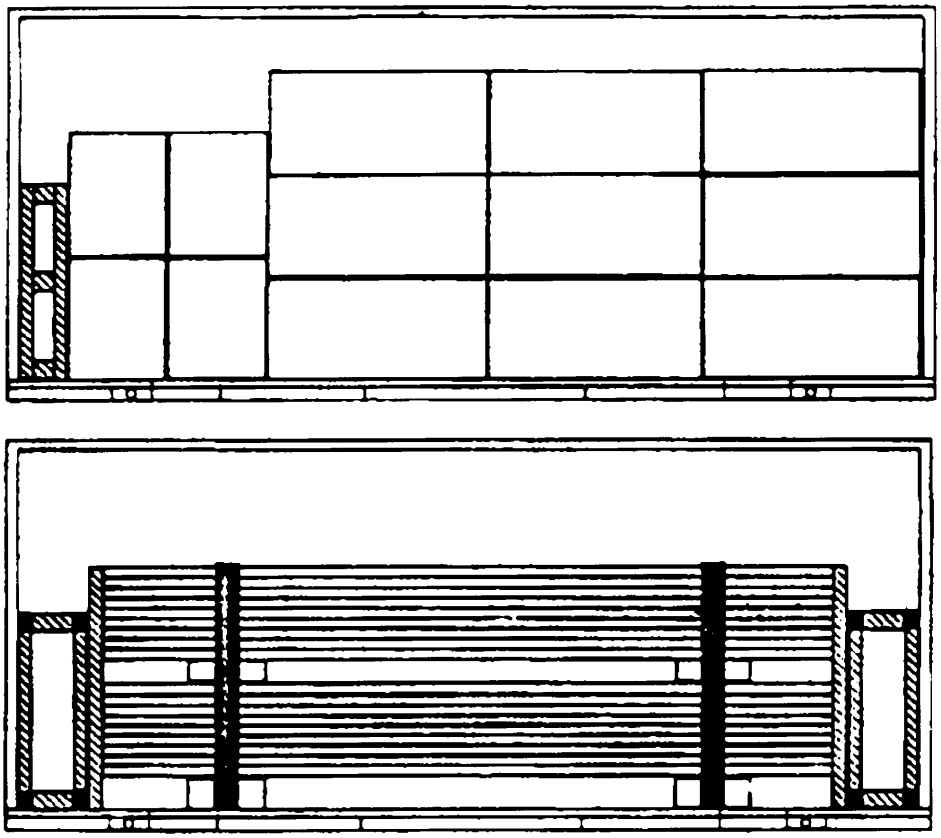


Figure 25: Fill all spaces between load and container wall by securing means

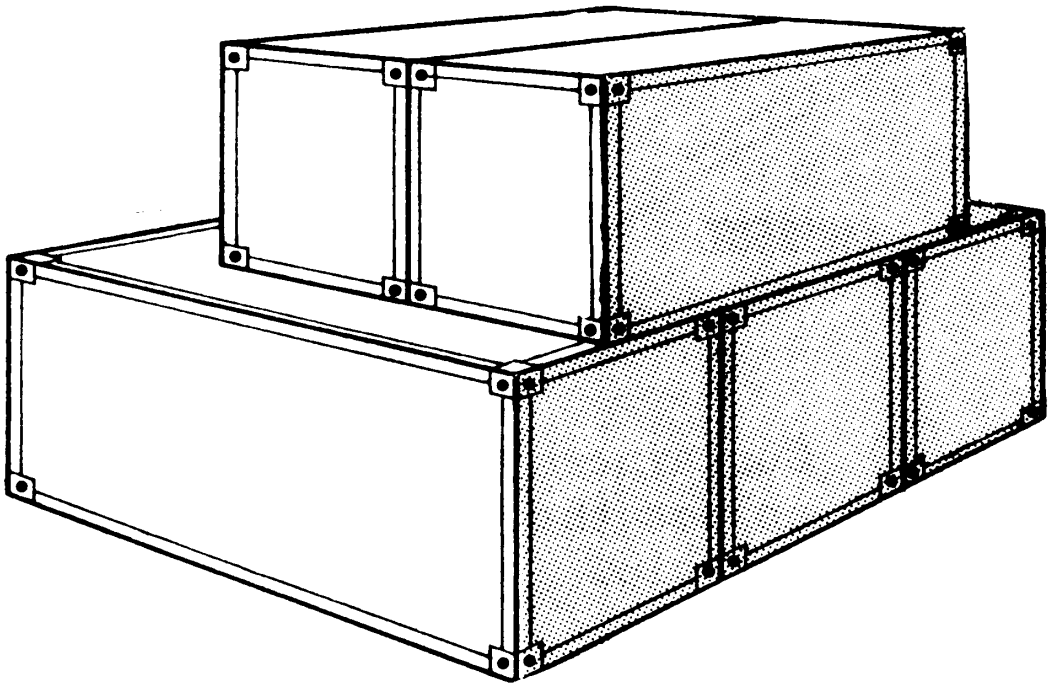


Figure 26: Incorrect stacking of containers

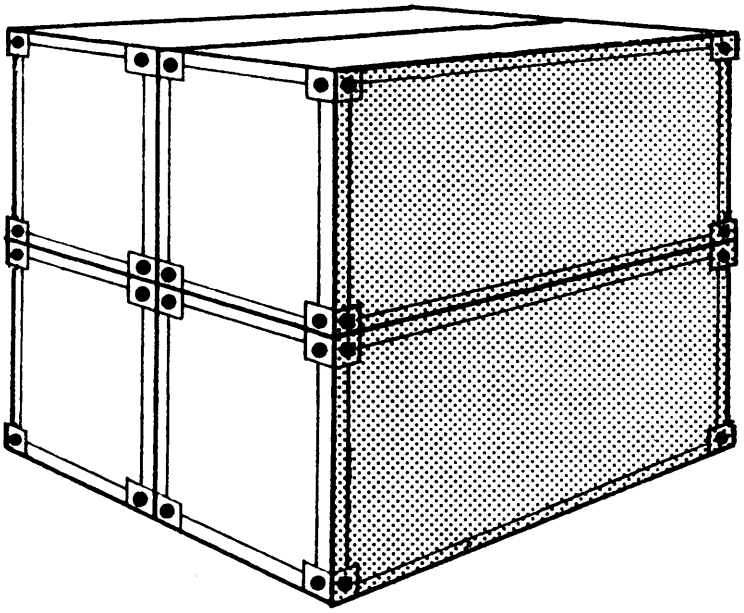


Figure 27: Correct stacking of containers

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# STUFFING SUPERVISOR - CHECK LIST

| | |
|---|---|
| Consignor | Consignee |
| Hazard Division of Load | Total NEQ |
| Weight Limit of Load | Actual Weight |
| **Container Identification No** | |

**NOTE: Loading of a Vehicle, Rail Wagon or Trailer.** Many of these checkpoints are equally applicable to the loading of a vehicle, rail wagon or trailer. The checklist should therefore be used, ignoring the obviously inappropriate questions. The vehicle, rail wagon or trailer number should be recorded instead of the Container Identification Number

| No | QUESTION | **YES** | **NO** | Action to Rectify Fault |
|---|---|---|---|---|
| 1. | Is the container appropriate for the load as requisitioned? | | | |
| 2. | Does the container have an in-date Convention for Safe Containers (CSC) plate? | | | |
| 3. | Is the container clean and free from any residue left by previous loads? | | | |
| 4. | Is the container dry, and free from any defects that prevent it from being completely weatherproof? | | | |
| 5. | Are the internal end walls, floor and sides free of any protrusions? | | | |
| 6. | Is the container structurally sound and serviceable with no major defects? | | | |
| 7. | Are the cargo tie-down cleats or rings countersunk, in good condition and well anchored? | | | |
| 8. | Is the container to be loaded on level and firm ground or on a rail wagon or trailer? | | | |
| 9. | Is the load well packed and braced to prevent movement? | | | |
| 10. | When mixed with non-dangerous goods, have the dangerous goods been loaded last? | | | |
| 11. | Does the segregation of a mixed load of dangerous goods comply with the IMDG segregation requirements? | | | |
| 12. | Is the planned load within the payload limitations of the container? | | | |
| 13. | Has the load been evenly distributed throughout the container to prevent tipping during lifting? | | | |
| 14. | Has the weight of a heavy item been spread over a large area to prevent the floor strength being exceeded? | | | |
| 15. | Have dangerous goods been overstacked? | | | |
| 16. | Have fragile items not been overstacked by heavy items? | | | |
| 17. | Is the centre of gravity as central and as low as possible? | | | |
| 18. | Have containers of liquid dangerous goods been stowed so as to prevent puncturing by other cargo? | | | |
| 19. | Is there a method of securing a heavy indivisible load in the container? | | | |
| 20. | Have packaged dangerous goods been sufficiently restrained to prevent movement? | | | |
| 21. | Are any of the packages damaged? | | | |

| No | QUESTION | **YES** | **NO** | Action to Rectify Fault |
|---|---|---|---|---|
| 22. | Are any of the packages leaking? | | | |
| 23. | Are any of the packages incorrectly marked or labelled? | | | |
| 24. | Is the dunnage, pallets or packaging dry? | | | |
| 25. | Has water, snow, ice or other matter been removed from packages? | | | |
| 26. | Has the cargo loaded nearest the door been blocked and braced to prevent slippage during transport? | | | |
| 27. | Have the container openings been sealed against unauthorised access? | | | |
| 28. | Has a container packaging certificate been completed? | | | |
| 29. | Has the container been placarded? | | | |
| 30. | Are additional safety markings provided? | | | |
| 31. | Does the safe working load of the mechanical handling equipment exceed the gross weight of the container by either 25% or 5 tonnes, whichever is the lower? | | | |
| 32. | Is the lifting gear serviceable? | | | |
| 33. | Is a spreader bar being used with serviceable twist-locks engaged before lifting the container? | | | |
| 34. | Are all 4 twist-locks engaged before lifting the container? | | | |
| 35. | Is the lifting operation conducted with the minimum amount of acceleration of deceleration? | | | |
| 36. | Are the weather conditions and lighting levels suitable for handling containers? | | | |
| 37. | Is the vehicle, trailer or rail wagon fitted with serviceable twist-locks? | | | |
| 38. | Is the container clear of any hazards which requires cleaning before the dangerous goods placards, orange panels and any other marks and signs relevant to the dangerous goods can be removed? | | | |
| 39. | Has a Container Interchange and Condition Report been completed. | | | |

| | |
|---|---|
| Date | Rank/Grade |
| Name<br>(In Blocks) | Signature<br>Stuffing Supervisor |

ANNEX K TO
CHAPTER 1

## DRIVER'S CHECK LIST - CONTAINER MOVEMENTS

Consignor: …… ..... Consignee: .....

Hazard Division of Load: ..... Total NEQ: .....

Weight Limit of Load: ..... Actual Weight: .....

Container Identification No: ..... Vehicle Reg No. .....

| Question | Yes/No | Action taken to Rectify Fault |
|---|---|---|
| 1. Have you been provided with a dangerous goods declaration which clearly identifies what goods are being carried and in what quantities? | Yes/No | |
| 2. Have you been given a container/vehicle packing certificate certifying that the goods have been safely packed? (Note: The same document may meet the requirements of 1 and 2, but two separate signatures will be necessary). | Yes/No | |
| 3. Has the container a valid safety approval plate? | Yes/No | |
| 4. Have you visually examined the outside of the container and found no sign of damage or leakage? | Yes/No | |
| 5. Have you ensured that the doors of the container are properly secured? | Yes/No | |
| 6. Are you carrying the appropriate written instructions which identifies the dangerous goods, the nature of the hazard and emergency procedures? | Yes/No | |
| 7. Have you familiarised yourself with the emergency procedures? | Yes/No | |
| 8. Is the appropriate first aid kit and protection equipment readily available in the vehicle? | Yes/No | |
| 9. Are appropriate fire extinguisher(s) available? | Yes/No | |
| 10. Are the ends and sides of the vehicle and container suitably placarded? | Yes/No | |
| 11. Are placards secure, durable and unobstructed? | Yes/No | |
| 12. Have all irrelevant (i.e. from previous journeys) placards been removed? | Yes/No | |
| 13. Has any irrelevant information in the vehicle cab been removed and placed in a securely closed box which has been marked to indicate that any information therein does not relate to the load being carried? | Yes/No | |
| 14. Have you taken precautions against fire and explosion during the journey? | Yes/No | |
| 15. Will you take care when parking to avoid creating a risk to the health and safety of people living nearby? | Yes/No | |

Rank: ..... Name: ..... Signature: …… Date:.....
Driver

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# CONTAINER BOOKING AND MOVEMENT BID

| A | GENERAL |
|---|---|
| 1. Ref No/Authority: | |
| 2. Op/Ex Name: | |
| 3. Budget Ref: | |

| B | CONSIGNOR DETAILS |
|---|---|
| 1. Unit: | |
| 2. Full Postal Address: | |
| 3. a. Type of Container(s) Required: | |
| b. Quantity of Container(s) Required: | |
| 4. a. Contact Name: | |
| b. Contact Telephone No: | |
| c. Contact Fax No: | |
| 5. Application for Shipping Space Serial No (if applicable): | |
| 6. a. Dangerous Goods/Non Dangerous Goods: | |
| b. UN No and UN Class (if applicable): | |
| c. Dangerous Goods Note Serial No (if applicable): | |

| C | CONSIGNOR SPECIAL INSTRUCTIONS |
|---|---|
| 1. Will container(s) require to be grounded? | |
| 2. Is crane with spreader bar or is MHE available if ground dumping is required? | |
| 3. Is there a requirement to delay trailer? State how long: | |
| 4. Are there any access/manoeuvring restrictions for container vehicles? | |
| 5. Has Dangerous Goods Note been prepared for any Dangerous Goods? (DGN to be submitted with Application for Shipping Space) | |
| 6. Any other special requirements: | |

| D | CONSIGNEE DETAILS |
|---|---|
| 1. Unit | |
| 2. Full Postal Address | |
| 3. a. Contact Name: | |
| b. Contact Telephone No: | |
| c. Contact Fax No: | |
| 4. a. Latest Date Container Required at Destination (Note 1): | |
| b. Expected Date of Return (Note 2): | |

Notes:

1. This date is the critical date. Date of container into unit lines for stuffing will be calculated to meet this date.

2. Containers will not be issued without this date.

| E | CONSIGNEE SPECIAL REQUIREMENTS |
|---|---|
| 1. Is crane with spreader bar or is MHE available at destination? | |
| 2. Will unit collect at POD? | |
| 3. Is there a requirement for HNS/Military Mov Rep assistance? | |
| 4. Can location handle/accept 40' containers? | |
| 5. Is there a requirement to retain container at destination? State reason: | |
| 6. Any other special requirements: | |

Signature: .....

Name in blocks: .....

Rank/Grade: ..... Unit Date Stamp

# STANDARDS

ISO Standards

1. The complete set of Container Standards is contained in the ISO Standards Handbook: Freight containers 1992, Ed. 2, 598 p., ISBN 92-67-10177-3; it defines:

a. The Series 1 Containers general purpose and special purpose, i.e. thermal, tank, dry bulk and named cargo types.
b. Standardisation of external dimensions and mass ratings, corner fittings, specifications and testing.
c. Details and instructions on how the container is handled, secured and stacked.
d. A complete terminology of freight containers.
e. Requirements for identifying country of origin, size and type and other details.

**ISO 668:1995** Series 1 freight containers – Classification, dimensions and ratings
**ISO 830:1999** Freight containers – Terminology
**ISO 830:1999 / Cor 1:2001**
**ISO 1161:1984** Series 1 freight containers – Corner fittings – Specification
**ISO 1161:1984 / Cor 1:1990**
**ISO 1496-1:1990** Series 1 freight containers – Specification and testing – Part 1: General cargo containers for general purposes
**ISO 1496-1:1990 / Amd 1:1993 – 1AAA and 1BBB containers**
**ISO 1496-1:1990 / Amd 2:1998**
**ISO 1496-2:1996** Series 1 freight containers – Specification and testing – Part 2: Thermal containers
**ISO 1496-2:1996 / Cor 1:1997**
**ISO 1496-3:1995** Series 1 freight containers – Specification and testing – Part 3: Tank containers for liquids, gases and pressurised dry bulk
**ISO 1496-4:1991** Series 1 freight containers – Specification and testing – Part 4: Non pressurized containers for dry bulk
**ISO 1496-4:1991 / Amd 1:1994**
**ISO 1496-5:1991** Series 1 freight containers – Specification and testing – Part 5: Platform and platform-based containers
**ISO 1496-5:1991 / Amd 1:1993 – 1AAA and 1BBB containers**
**ISO 1496-5:1991 / Amd 2:1994**
**ISO 2308:1972** Hooks for lifting freight containers of up to 30 tonnes capacity – Basic requirements
**ISO 3874:1997** Series 1 freight containers – Handling and securing
**ISO 3874:1997 / Amd 1:2000 –** Twistlocks, latchlocks, stacking fittings and lashing rod systems for securing of containers
**ISO 3874:1997 / Amd 2:2002 –** Vertical tandem lifting

**ISO 6346:1995** Freight containers – Coding, identification and marking
**ISO 8323:1985** Freight containers – Air/surface (intermodal) general purpose containers – Specification and tests (Incorporates the changes made by Technical Corrigendum 1:1990 to ISO 1161:1984 Freight containers, Edn 2 Page 2 of 2)
**ISO 9669:1990** Series 1 freight containers – Interface connections for tank containers
**ISO 9669:1990 / Amd 1:1992** Sections 3 and 4
**ISO 9711-1:1990** Freight containers – Information related to containers on board vessels – Part 1: Bay plan system
**ISO 9711-2:1990** Freight containers – Information related to containers on board vessels – Part 2: Telex data transmission
**ISO 9897:1997** Freight containers – Container equipment data exchange (CEDEX) – General communication codes
**ISO 9897:1997 / Cor 1:2001**
**ISO 10368:1992** Freight thermal containers – Remote condition monitoring
**ISO 10374:1991** Freight containers – Automatic identification
**ISO 10374:1991 / Amd 1:1995**
**ISO 14829:2002** Freight containers – Straddle carriers for freight container handling – Calculation of stability
**ISO/TR 15069:1997** Series 1 freight containers – Handling and securing – Rationale for ISO 3874 Annex A
**ISO/TR 15070:1996** Series 1 freight containers – Rationale for structural test criteria
**ISO/DIS 17712:2003** Freight containers – Mechanical Seals

European Standards

**EN 12195–1** Load restraint assemblies on road vehicles – Safety – Part 1: Calculation of lashing forces
**EN 12195–2** Load restraint assemblies on road vehicles – Safety – Part 2: Web lashing made from man-made fibres
**EN 12195–3** Load restraint assemblies on road vehicles – Safety – Part 3: Lashing chains
**EN 12195–4** Load restraint assemblies on road vehicles – Safety – Part 4: Lashing steel wire ropes

International Maritime Organization

International Convention for Safe Containers, 1972 (CSC)
IMDG Code Supplement – IMO/ILO/UN ECE Guidelines for Packing of Cargo Transport Units (CTUs)

# CHAPTER 2

## NATIONAL POINTS OF CONTACT FOR DANGEROUS GOODS MOVEMENT

201. Attached as Annexes to this Chapter are the National Points of Contact for Dangerous Goods Movement.

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ANNEX C TO
CHAPTER 2

# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN CANADA

1. Nation **CANADA**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | J4 Mov DG (Dangerous Goods Policy) |
| b. | Address | National Defence Headquarters<br>Mgen George R Pearkes Building<br>101 Colonel By Drive<br>Ottawa, Ontario<br>CANADA<br>K1A 0K3<br>Attention: J4 Log/J4 Mov DG |
| c. | Phone No | 001(613) 996-7015 |
| d. | Fax No | 001(613) 995-0053 |
| e. | Email | bognar.fj@Forces.gc.ca |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Canada)

| | | |
|---|---|---|
| a. | Road | Transportation of Dangerous Goods Regulations (TDG Regs), published by Transport Canada |
| | Exemptions | TDG Act Section 3(4)(a) – TDG Regs Part *2.2* |
| b. | Rail | As per Road |
| c. | IWT | As per Road |
| d. | Sea | International Maritime Dangerous Goods Code |
| | Exemptions | Nil |

e. Air

(1) ICAO and IATA Dangerous Goods Regulations

(2) A-LM-117-001/FP-001 Transportation of Dangerous Goods by Canadian Forces Aircraft (military publication)

Exemptions Nil

f. Any Others STANAG 3854

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Canada):

a. Road Transportation of Dangerous Goods Regulations (TDG Regs), published by Transport Canada

Exemptions TDG Act Section 3(4)(a) – TDG Regs Part 2.2

b. Rail As per Road

c. IWT As per Road

d. Sea International Maritime Dangerous Goods Code

Exemptions Nil

e. Air

(1) ICAO and IATA Dangerous Goods Regulations

(2) A-LM-117-001/FP-001 Transportation of Dangerous Goods by Canadian Forces Aircraft (military publication)

Exemptions Nil

f. Any Others STANAG 3854

5. Any Other Useful Information Department of National Defence is fully exempt from civilian Transport of Dangerous Goods Regulations, for Road and Rail movements, if required for military operations. However, it is DND policy to comply, wherever possible, with all national and international Dangerous Goods regulations. A copy of the DND exemption is at Appendix 1.

AMovP-5

APPENDIX 1 TO
ANNEX C TO
CHAPTER 2

# EXCERPTS FROM TRANSPORT CANADA's TRANSPORT OF DANGEROUS GOODS REGULATIONS

## APPLICATION

**Department of National Defence**

2.2 For the purpose of paragraph 3(3)(b) of the Act, the handling, offering for transport or transporting of dangerous goods is deemed to be under the sole direction or control of the Minister of National Defence if the dangerous goods are

**Act 3(3)(b): Exception for goods under sole control of Min of National Defence**

(a) in or on a means of transport owned and operated by the Department of National Defence or operated on behalf of the Department of National Defence by

(i) an employee of the Department of National Defence,

(ii) an officer or a man of the Canadian Forces, or

(iii) civilian personnel who are not employed by the Department of National Defence, where the means of transport is accompanied at all times by and is under the direct responsibility of an employee of the Department of National Defence or an officer or a man of the Canadian Forces;

(b) in or on a means of transport owned and operated by the military establishment of a member country of the North Atlantic Treaty Organization or operated on behalf of that establishment by

(i) the military or civilian personnel of that establishment, or

(ii) civilian personnel who are not employed by that military establishment if the means of transport is accompanied at all times by and is under the direct responsibility of military or civilian personnel of that country's military establishment; or

(c) in or on a means or transport owned by another country and operated by it in Canada pursuant to an agreement with the Department of National Defence, or operated on behalf of that other country, pursuant to such an agreement, by

(i) the military or civilian personnel of the military establishment of that other country, or

(ii) civilian personnel who are not employed by the military establishment of that country if the means of transport is accompanied at all times by and is under the direct responsibility of military or civilian personnel of the military establishment of that country.

**APPLICATION OF ACT**

**Binding on Her Majesty**

3 (1) This Act is binding on Her Majesty in right of Canada or a province.

**General application**

(2) This Act applies in relation to all matters within the legislative authority of Parliament, including dangerous goods outside Canada that are carried on a ship or aircraft registered in Canada.

**Exceptions - regulations and permits**

(3) This Act does not apply to the extent that its application is excluded by a regulation made under paragraph 27(1)(e) or a permit issued under section 31.

**Other exceptions**

(4) This Act does not apply in relation to

(a) any activity or thing under the sole direction or control of the Minister of National Defence or in circumstances in which it is prescribed to be under that Minister's sole direction or control;

(b) commodities transported by a pipeline governed by the National Energy Board Act or the Oil and Gas Production and Conservation Act or by the law of a province; or

(c) dangerous goods confined only by the permanent structure of a ship.

ANNEX D TO
CHAPTER 2

POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN THE CZECH REPUBLIC

1. Nation **THE CZECH REPUBLIC**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | National Movement Coordination Centre of Armed Forces |
| b. | Address | NCKPD OS<br>Vitězné nám.5<br>160 01 Praha 6<br>Czech Republic |
| c. | Phone No | 00420 220 218 930/205 |
| d. | Fax No | 00420 220 218 807 |
| e. | Email | |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through this nation):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | |
| b. | Rail | RID |
| | Exemptions | |
| c. | IWT | ADNR |
| | Exemptions | |
| d. | Sea | IMDG Code |
| | Exemptions | |

e. Air IATA DGRs

Exemptions

f. Any others

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an national movement (within this nation only):

a. Road ADR

Exemptions

b. Rail RID

Exemptions

c. IWT ADNR

Exemptions

d. Sea IMDG Code

Exemptions

e. Air IATA DGRs

Exemptions

f. Any others (e.g. AASTP2)

5. Any other useful information

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POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN FRANCE

1. Nation **FRANCE**

2. National Point of Contact

a. Appointment Conseiller à la sécurité pour le transport des marchandises dangereuses (voies de surface)
Centre opérationnel des transits interarmées maritimes (voie maritime)
Centre logistique air (voie aérienne)

b. Address

Voies de surface: CFLT
EM/MTT/BTS
BP 281
00700 ARMEES

Voie maritime: COTIM
Caserne Renaudin
BP 522
17022 LA ROCHELLECEDEX 1

Voie aérienne: CDAOA/CLA 13542
BA 117
22, boulevard Victor
00460 ARMEES

c. Phone No

Voies de surface: 0033 1 64 92 46 37 ou 46 78

Voie maritime: 0033 5 46 51 45 25

Voie aérienne: 0033 1 45 52 91 31

d. Fax No

| | |
|---|---|
| Voies de surface: | 0033 1 64 92 46 52 |
| Voie maritime: | 0033 1 46 51 46 05 |
| Voie aérienne : | 0033 1 45 52 19 14 |

e. Email

| | |
|---|---|
| Voies de surface: | http://www.cflt.terre.defense.gouv.fr/portail |
| Voie maritime: | cotim@bti.interarmées.defense.gouv.fr |
| Voie aérienne: | emocpa@wanadoo.fr (attention LTC NGUYEN) |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through this nation):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | Nil |
| b. | Rail | RID |
| | Exemptions | Nil |
| c. | IWT | ADNR |
| | Exemptions | Nil |
| d. | Sea | IMDG |
| | Exemptions | Nil |
| e. | Air | IATA DGRs |
| | Exemptions | Nil |
| f. | Any others | |

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within this nation only):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | Nil |
| b. | Rail | RID |
| | Exemptions | Nil |
| c. | IWT | ADNR |
| | Exemptions | Nil |
| d. | Sea | IMDG |
| | Exemptions | Nil |
| e. | Air | IATA DGRs |
| | Exemptions | Nil |
| f. | Any others | Nil |

5. Any other useful information Nil

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ANNEX H TO
CHAPTER 2

POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN GERMANY

1. Nation **GERMANY**

2. National Point of Contact:

a. Appointment GEFAHRGUTBEAUFTRAGTER DER BUNDESWEHR
*GERMAN ARMED FORCES HAZMAT COMMISSIONER*

b. Address Logistikamt der Bundeswehr
Gefahrgutbeauftragter
der Bundeswehr
und Dezernat Gefahrgutwesen
Alte Heerstraße 81
D – 53757 St. Augustin
Germany

*Bundeswehr Logistics Office*
*Bundeswehr Commissioner for Hazardous Goods and Hazardous Goods Section*

c. Phone No 0049-(0)2241-152800

d. Fax No 0049-(0)2241-152801

e. Email GGBw@bwb.org

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Germany)

a. Road Verordnung über die innerstaatliche und grenzüberschreitende Beförderung gefährlicher Güter auf Straßen (GGVS) gemeinsam mit ADR.
*Regulation on the Domestic and Border – Crossing Transport of Hazardous Goods by Road (GGAV), together with ADR*

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben S
Decree on Exemptions from the Regulation Concerning the Transport of Hazardous Goods by Road (RLBwGGVS), Exemptions with Code Letter S

| | | |
|---|---|---|
| | Exemptions | Richtlinien der Bundeswehr zur Gefahrgutverordnung Straße (RLBwGGVS)<br>Bundeswehr Directive Concerning the Regulation on Transportation of Hazardous Cargo by Road (RLBwGGVS)<br><br>Allgemeine Ausnahmegenehmigungen der Bundeswehr zur Gefahrgutverordnung Straße 1999 (AGBwGGVS 1999)<br>General Bundeswehr Waivers to the Regulation on Transportation of Hazardous Goods by Road (AGBwGGVS 1999) |
| b. | Rail | Verordnung über die innerstaatliche oder grenzüberschreitende Beförderung gefährlicher Güter mit Eisenbahnen (GGVE) gemeinsam mit RID<br>*Regulation on the Domestic and Border – Crossing Transport of Hazardous Goods by Rail (GGVE), together with RID*<br><br>Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben E<br>*Decree on Exemptions from the Regulation Concerning the Transport of Hazardous Goods (GGAV), Exemptions with Code Letter E* |
| | Exemptions | Richtlinien der Bundeswehr zur Gefahrgutverordnung Eisenbahn (RLBwGGVE)<br>*Bundeswehr Directive Concerning the Regulation on Transportation of Hazardous Goods by Rail (RLBwGGVE)* |
| c. | IWT | ADNR |
| | Exemptions | Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben B<br>*Decree on Exemptions from the Regulations Concerning the Transport of Hazardous Goods (GGAV), Exemptions with Code Letter B* |
| d. | Sea | Verordnung über die Beförderung gefährlicher Güter mit Seeschiffen (GGVSee) gemeinsam mit dem IMDG – Code, deutsch<br>*Regulation on Transportation of Dangerous Goods by Seagoing Vessels* |

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben M
*Decree on Exemptions from the Regulations Concerning the Transport of Hazardous Goods (GGAV), Exeptions with Code Letter M*

Exemptions Richtlinie der Bundeswehr zur Gefahrgutverordnung See (RLBwGGVSee)
*Bundeswehr Directive Concerning the Regulation on Transportation of Dangerous Goods by Seagoing Vessels (RLBwGGVSee)*

e. Air Luftverkehrsgesetz (LVG)
*Air Navigation Act*

ICAO – Technical Instructions

IATA – Dangerous Goods Regulations

Exemptions Richtlinie zur Beförderung gefährlicher Güter in militärischen Luftfahrzeugen (RLGGLuft)
*Directive Concerning the Transport of Hazardous Goods in Military Aircraft (RLGGLuft)*

f. Any others Nil

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (within Germany only):

a. Road Verordnung über die innerstaatliche und grenzüberschreitende Beförderung gefährlicher Güter auf Straßen (GGVS) gemeinsam mit ADR.
*Regulation on the Domestic and Border – Crossing Transport of Hazardous Goods by Road (GGAV), together with ADR*

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben S
*Decree on Exemptions from the Regulation Concerning the Transport of Hazardous Goods by Road (RLBwGGVS), Exemptions with Code Letter S*

Exemptions Richtlinien der Bundeswehr zur Gefahrgutverordnung Straße (RLBwGGVS)
*Bundeswehr Directive Concerning the Regulation on Transportation of Hazardous Cargo by Road (RLBwGGVS)*

Allgemeine Ausnahmegenehmigungen der Bundeswehr zur Gefahrgutverordnung Straße 1999 (AGBwGGVS 1999)
*General Bundeswehr Waivers to the Regulation on Transportation of Hazardous Goods by Road (AGBwGGVS 1999)*

b. Rail — Verordnung über die innerstaatliche oder grenzüberschreitende Beförderung gefährlicher Güter mit Eisenbahnen (GGVE) gemeinsam mit RID
*Regulation on the Domestic and Border – Crossing Transport of Hazardous Goods by Rail (GGVE), together with RID*

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben E
*Decree on Exemptions from the Regulation Concerning the Transport of Hazardous Goods (GGAV), Exemptions with Code Letter E*

Exemptions — Richtlinien der Bundeswehr zur Gefahrgutverordnung Eisenbahn (RLBwGGVE)
*Bundeswehr Directive Concerning the Regulation on Transportation of Hazardous Goods by Rail (RLBwGGVE)*

c. IWT — ADNR

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben B
*Decree on Exeptions from the Regulations Concerning the Transport of Hazardous Goods (GGAV), Exemptions with Code Letter B*

d. Sea — Verordnung über die Beförderung gefährlicher Güter mit Seeschiffen (GGVSee) gemeinsam mit dem IMDG – Code, deutsch
*Regulation on Transportation of Dangerous Goods by Seagoing Vessels*

Verordnung über Ausnahmen von den Vorschriften über die Beförderung gefährlicher Güter (GGAV), Ausnahmen mit dem Kennbuchstaben M
*Decree on Exemptions from the Regulations Concerning the Transport of Hazardous Goods (GGAV), Exeptions with Code Letter M*

| | | |
|---|---|---|
| | Exemptions | Richtlinie der Bundeswehr zur Gefahrgutverordnung See (RLBwGGVSee)<br>*Bundeswehr Directive Concerning the Regulation on Transportation of Dangerous Goods by Seagoing Vessels (RLBwGGVSee)* |
| e. | Air | Luftverkehrsgesetz (LVG)<br>*Air Navigation Act*<br><br>ICAO – Technical Instructions<br><br>IATA – Dangerous Goods Regulations |
| | Exemptions | Richtlinie zur Beförderung gefährlicher Güter in militärischen Luftfahrzeugen (RLGGLuft)<br>*Directive Concerning the Transport of Hazardous Goods in Military Aircraft (RLGGLuft)* |
| f. | Any others | Nil |

5. Any other useful information:

In addition to the regulation mentioned above, obtaining Diplomatic Clearances for military sea and air transport assets is obligatory.

Exemptions from the regulations mentioned above are possible to be made for military assets. Requests to submit to national authority mentioned in item 2 of this chapter. These exemptions are granted only if otherwise tasks of the forces cannot be fulfilled and transport safety is guarantied by adequate precautions.

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# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN HUNGARY

1. Nation **HUNGARY**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | Senior Transportation Officer |
| b. | Address | M & T Branch of HDF<br>1885 POB 25<br>Budapest<br>Hungary |
| c. | Phone No | 0036 1 434 6018 |
| d. | Fax No | 0036 1 434 6019 |
| e. | Email | miltransp@intermail.hu |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Hungary):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | - |
| b. | Rail | RID |
| | Exemptions | - |
| c. | IWT | ADNR |
| | Exemptions | - |
| d. | Sea | Although ‘Land-locked’ HUN follows the IMDG Code |
| | Exemptions | - |
| e. | Air | IATA DGRs |
| | Exemptions | - |

f. Any others: HUN has not yet ratified AASTP-2

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an national movement (within Hungary):

a. Road Various outdated military regulations and SOPs.

Exemptions

b. Rail RID

Exemptions

c. IWT ADN

Exemptions -

d. Sea -

Exemptions -

e. Air IATA DGRs. There are no special military regulations

Exemptions -

f. Any others -

5. Any other useful information: -

# NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN ITALY

1. Nation **ITALY**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | Chief of the M&T Branch and Italian Member AC/326 (Main Group) |
| b. | Address | Ispettorato Logistico dell'Esercito<br>Reparto Coordinamento e Supporti Generali<br>Ufficio Movimenti e Trasporti<br>Viale Castro Pretorio 123<br>00185 ROMA |
| c. | Phone No | 0039-06-47357470 or 0039-06-4440498 |
| d. | Fax No | 0039-06-4884040 or 0039-06-4885994 |
| e. | Email | caseztramotra@ispel.esercito.difesa.it |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Italy):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | |
| b. | Rail | RID |
| | Exemptions | |
| c. | IWT | AND |
| | Exemptions | |
| d. | Sea | IMDG Code |
| | Exemptions | |

e. Air ICAO

Exemptions

f. Any Others

(1) Pub. N. 6106 – of the IT Army General Staff – “Military Transportation of Dangerous Substances and Articles” – Ed 1997. this publication summarises the technical and security dispositions, useful for the organisation, conduct and control of handling and multimodal (road, rail, maritime and air) transport of dangerous goods (UN Class 1 to 9). This publication does not disagree with national legislation but gives standing military provisions, which nearly accepts the entire international provisions (ADR, RID, ADN, IMDG Code, and ICAO). This harmonisation with civilian regulations is opportune considering that normally civilian freight transport assets are widely used for large transports of military ammo and dangerous goods.

(2) AASTP-2
The national Annexes show the differences between national regulations (Pub N 6106) and AASTP-2.

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Italy):

a. Road Pub n 6106

Exemptions

b. Rail Pub n 6106

Exemptions

c. IWT Pub n 6106

Exemptions

d. Sea Pub n 6106

Exemptions

e. Air Pub n 6106

Exemptions

f. Any Others

5. Any other useful information: Requests for waivers against these Regulations are to be made through this office (ISPEL MOTRA).

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POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN THE NETHERLANDS

1. Nation **NETHERLANDS**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | MOD NL M&T Division, Office of the Dangerous Goods Safety Advisor |
| b. | Address | Van der Burchlaan<br>PO Box 90701<br>2509 LS Den Haag, The Netherlands |
| c. | Phone No | 0031-70-3168280 |
| d. | Fax No | 0031-70-3168283 |
| e. | Email | jc.elve@.mindef.nl |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through The Netherlands)

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | ADR Art 1. However, a Road Movement Bid is obligatory. In case of onward movement, after having reached the destination, national regulations will be applicable. |
| b. | Rail | RID (assumed to be civil transport only) |
| | Exemptions | None; as within RID itself |
| c. | IWT | ADNR (assumed to be civil transport only) |
| | Exemptions | None |
| d. | Sea | IMDG Code |
| | Exemptions | Within NL territorial waters, military vessels can be |

exempted from the NL regulations concerning the transportation of dangerous goods by vessels

e. Air — Intention to comply with ICAO-TI / IATA-DGR

Exemptions — National law is in development. Special status for the international movement of dangerous goods with military aircraft

f. Any others — Nil

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (within The Netherlands):

a. Road — ADR (being the Annex to NL Legislation: VLG)

Exemptions (1) Formal NL regulation BVOSK, concerning

(a) Waivers on technical requirements for military vehicles carrying class 1 goods, both tactical and logistical; special BVOSK certificate is obligatory

(b) Packaging, labelling: NATO regulations on packaging and labelling for class 1 goods are implemented

(2) Special ministerial regulations, concerning less strict rules within military locations (barracks, training areas, ammunition sites etc.)

(3) Special military regulations, concerning temporary waivers on technical requirements for military vehicles carrying dangerous goods; e.g. speed limitation device, retarder, ABS.

(4) Extra: NL national regulation (Annex to VLG) for all vehicles (both civil and military), concerning

(a) Tunnels: not every tunnel may be used for certain transports of dangerous goods (mainly class 1 and LPG)

(b) Routes: obligation to follow indicated routes for certain transports of dangerous goods (mainly

class 1 and LPG). For the use of other routes, a waiver may be needed.

(c) Ferries: special rules for the crossing of inland waterways by ferry

(d) Weather conditions: if the visibility is less than 50 meters (and for some goods less than 200 meters) and/or the road is slippery (ice, snow) the transportation of dangerous goods is not allowed

b. Rail — RID (being the Annex to the NL Legislation: VSG)

Exemptions — None

c. IWT — ADNR (being the Annex to the NL Legislation: VBG)

Exemptions — Within NL territorial waters, military inland waterway vessels can be exempted from the NL regulations concerning the transportation of dangerous goods by inland waterways

d. Sea — Not applicable. See international movement above

Exemptions -

e. Air — Intention to comply with ICAO-TI / IATA-DGR

Exemptions — National law is in development:

(1) Special status for the national movement of dangerous goods class 1 with military aircraft.

(2) Special regulations for the carriage of dangerous goods by crew and other personnel being transported

(3) Special regulations for dangerous goods being a part of the equipment of the aircraft and/or weapon systems carried by the aircraft

f. Any others — In addition to all modes of transport the rules of the Environment law and the Law on Nuclear Energy could apply for (inter alia):

(1) Restrictions in handling and storage

(2) Restrictions on maximum NEQ per port/airport/ railway station etc.

(3) Restrictions on storage with time limits

(4) Restrictions on noise level

5. Any other useful information: In addition to the regulations mentioned above, the regulations of AMovP-1 to 4 have to be applied too. They concern e.g. the Movement Bid (based on AMovP-1, Chapter 5), the Notification of Movement and the obligation of obtaining Diplomatic Clearances for (military) sea- and air transport assets (based on AMovP-2, Chapters 6, 7, 8 and 9).

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ANNEX P TO
CHAPTER 2

# NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN POLAND

1. Nation **POLAND**

2. National Point of Contact

| | | | |
|---|---|---|---|
| a. | Appointment | Polish Armed Forces General Staff<br>Logistics Directorate J-4<br>Materiel Division | |
| b. | Address | Generalny Zarzad Logistyki<br>Zarzasd Materialowy<br>ul Lekarska 25<br>00-911 WARSZAWA | *Logistics Directorate*<br>*Materiel Division* |
| c. | Phone No | 0048 22 68 76 786 | |
| d. | Fax No | 0048 22 68 76 786 | |
| e. | E-mail | | |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Poland):

| | | |
|---|---|---|
| a. | Road | Regulation of the Minister of Transportation and Maritime Economy on dangerous materials road transportation, together with ADR |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |
| b. | Rail | Regulation of the Minister of Communication on dangerous goods enabled for and excluded from rail transportation, together with RID |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |

| | | |
|---|---|---|
| c. | IWT | Regulation of the Minister of Shipping on requirements in IWT, together with ADN |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |
| d. | Sea | Regulation of the Minister of Shipping on dangerous goods sea transportation, together with IMDG |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |
| e. | Air | (National – TBD), together with ICAO Technical Instructions, and IATA – Dangerous Goods Regulations |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |
| f. | Any Others | None |

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Poland):

| | | |
|---|---|---|
| a. | Road | Regulation of the Minister of Transportation and Maritime Economy on dangerous materials road transportation, together with ADR Regulations on military transportation of dangerous goods – MOD Edition |
| | Exemptions | MOD exemptions for particular cases, in relation to regulations mentioned above |
| b. | Rail | Regulation of the Minister of Communication on dangerous goods enabled for and excluded from rail transportation, together with RID Regulations on military transportation of dangerous goods – MOD Edition |
| Exemptions | | Exceptional MOD permissions for particular cases, in relation to regulations mentioned above |

| | | |
|---|---|---|
| c. | IWT | Regulation of the Minister of Shipping on requirements in Inland Water Transport, together with AND Regulations on military transportation of dangerous goods – MOD Edition |
| | Exemptions | Exceptional MOD permissions for particular cases, in relation to regulations mentioned above |
| d. | Sea | Regulation of the Minister of Shipping on dangerous goods sea transportation, together with IMDG |
| | Exemptions | Exceptional MOD permissions for particular cases, in relation to regulations mentioned above |
| e. | Air | (National – TBD), together with ICAO Technical Instructions, IATA Dangerous Goods regulations |
| | Exemptions | Exceptional MOD permissions for particular cases, in relation to regulations mentioned above |
| f. | Any Others | None |

5. Any other useful information: None

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ANNEX Q TO
CHAPTER 2

NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN PORTUGAL

2. Nation: **PORTUGAL**

2. National Point of Contact

a. Appointment Maj Alexandre Reis

b. Address Chefia dos Serviços de Transportes/Cmd Logística
Av. Ifante Santo, 49
1399-028 LISBOA
PORTUGAL

c. Phone No 00351 21 3954807

d. Fax No 00351 213956138

e. Email reis.amnr@mail.exercito.pt

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Portugal):

a. Road ADR

Exemptions

b. Rail RID

Exemptions

c. IWT Nil

Exemptions

d. Sea IMDG Code

Exemptions

e. Air IATA DGRs

Exemptions

f. Any others When with other NATO/EAPC countries AASTP 2 could be used for the carriage of Ammunition and Explosives

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Portugal):

| | | |
|---|---|---|
| a. | Road | The PO Armed Forces follow the prescriptions stated in ADR. |
| | Exemptions | |
| b. | Rail | Carriage of Dangerous Goods by Rail. |
| | Exemptions | Nil. |
| c. | IWT | Nil. |
| | Exemptions | Nil. |
| d. | Sea | IMDG Code |
| | Exemptions | Nil |
| e. | Air | IATA DGRs |
| | Exemptions | |
| f. | Any others | Nil |

5. Any other useful information

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ANNEX S TO
CHAPTER 2

NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN SLOVAKIA

1. Nation: **SLOVAKIA**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | Movement Transportation Coordination Centre J-4 GS Slovak Armed Forces |
| b. | Address | CKPP Bratislava<br>Za Kasárňou 3<br>832 31 Bratislava<br>Slovakia |
| c. | Phone No | 00421 960 329 669 or 00421 960 329 672 |
| d. | Fax No | 00421 960 329 328 |
| e. | Email | mtcc@mil.sk |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Portugal):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | Nil |
| b. | Rail | RID |
| | Exemptions | Nil |
| c. | IWT | ADNR |
| | Exemptions | Nil |
| d. | Sea | IMDG Code |
| | Exemptions | Nil |
| e. | Air | IATA DGRs |
| | Exemptions | Nil |

| | | |
|---|---|---|
| f. | Any others | Nil |

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Portugal):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | Nil |
| b. | Rail | RID. |
| | Exemptions | Nil |
| c. | IWT | ADNR |
| | Exemptions | Nil |
| d. | Sea | IMDG Code |
| | Exemptions | Nil |
| e. | Air | IATA DGRs |
| | Exemptions | Nil |
| f. | Any others | Nil |

5. Any other useful information

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**AWAITING RESPONSE FROM SPAIN**

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# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN THE UNITED KINGDOM

1. Nation: **UNITED KINGDOM**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | SO2 Movements/DG Standards |
| b. | Address | Defence Dangerous Goods and Hazardous Stores Gp<br>Defence Surface Transport Policy Branch<br>DLO Andover<br>SP11 8HT, UK |
| c. | Phone No | 0044 (O) 1264 382464/382835/382686 |
| d. | Fax No | 0044 (O) 1264 382965 |
| e. | Email | adrian.johnson556@mod.uk |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through the United Kingdom):

| | | |
|---|---|---|
| a. | Road | ADR |
| | Exemptions | |
| b. | Rail | RID, including the Channel Tunnel regulations, which are more prescriptive than RID. |
| | Exemptions | |
| c. | IWT | Nil |
| | Exemptions | |
| d. | Sea | IMDG Code |
| | Exemptions | |

| | | |
|---|---|---|
| e. | Air | IATA DGRs and Joint Service Publication 335 (Dangerous Air Cargo Regulations) |
| | Exemptions | Some in JSP 335 |
| f. | Any others | When with other NATO/EAPC countries AASTP 2 could be used for the carriage of Ammunition and Explosives |

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within the United Kingdom):

| | | |
|---|---|---|
| a. | Road | The Armed Forces follow the various Great Britain and Northern Ireland Regulations for the carriage of dangerous goods, which are very closely aligned to ADR. |
| | Exemptions | There are some exemptions, and advice can be sought from the POC. |
| b. | Rail | Carriage of Dangerous Goods by Rail. |
| | Exemptions | Nil |
| c. | IWT | Nil. |
| | Exemptions | Nil |
| d. | Sea | IMDG Code |
| | Exemptions | Nil |
| e. | Air | IATA DGRs and Joint Service Publication 335 (Dangerous Air Cargo Regulations) |
| | Exemptions | Some in JSP 335 |
| f. | Any others | Nil |

5. Any other useful information

# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN THE UNITED STATES

1. Nation **UNITED STATES**

2. National Point of Contact

   a. Appointment International Standards Coordinator (Mr Bob Richards)

   b. Address Office of Hazardous Materials
   DHM-5
   700 7th Street, SW
   Washington, DC 205900-001

   c. Phone No 001-202-366-0656

   d. Fax No 001-202-366-5713

   e. Email

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through this nation):

   a. Road See para 5

      Exemptions

   b. Rail

      Exemptions

   c. IWT

      Exemptions

   d. Sea

      Exemptions

e. Air

Exemptions

f. Any others (e.g. AASTP2)

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within this nation only):

a. Road See para 5

Exemptions

b. Rail

Exemptions

c. IWT

Exemptions

d. Sea

Exemptions

e. Air

Exemptions

f. Any others (e.g. AASTP2)

5. Any other useful information:

There are several regulations for the movement of dangerous goods on road, rail, sea and air. The Office of Hazardous Materials is the single point of contact in the United States for all dangerous goods movements and can provide the current regulations for all movements.

ANNEX Y TO
CHAPTER 2

# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN AUSTRIA

1. Nation **AUSTRIA**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | MOD Op-Division NMCC |
| b. | Address | A-1140 VIENNA<br>Hűtteldorferstr 126 |
| c. | Phone No | 0043-1-5200-25530 |
| d. | Fax No | 0043-1-5200-17255 |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of, or through Austria)

| | | |
|---|---|---|
| a. | Road | AU follows the regulations of the ADR |
| | Exemptions | Military vehicles from AUT and foreign countries are under the exemptions stated in the ADR. General permission for moving into or through AUT is necessary. When transiting tunnels with flammable goods you must request permission from the tunnel authority. Special equipment may be required, for example warning lights or escort vehicles. |
| b. | Rail | AU follows the regulations of RID |
| | Exemptions | There are no exemptions on rail for dangerous goods. |
| c. | IWT | AU follows the regulations of ADN which is the same as to ADNR. Announcement is necessary. The barges must display the placards for dangerous goods, and proper documentation must be carried on the vessel. When a non-Austrian vessel transits through Austrian waterways, the regulations of home port regulations provide the same level of safety and security for passenger and cargo as the Austrian regulations. |

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ANNEX Z TO
CHAPTER 2

# POC AND NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN SWEDEN

1. Nation **SWEDEN**

2. National Point of Contact

| | | |
|---|---|---|
| a. | Appointment | Dangerous Goods Safety Adviser |
| b. | Address | Armed Forces Logistic Centre, FMUhC<br>SE 651 80 KARLSTAD<br>SWEDEN |
| c. | Phone No | 0046 (0) 54 10 31 73 |
| d. | Fax No | 0046 (0) 54 10 32 22 |
| e. | E-mail | stig.tedfeldt@fmuhc.mil.se |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Sweden):

| | | |
|---|---|---|
| a. | Road | ADR and for explosives AASTP-2 |
| | Exemptions | |
| b. | Rail | RID and for explosives AASTP-2 |
| | Exemptions | |
| c. | IWT | Not applicable |
| | Exemptions | |
| d. | Sea | IMDG and for explosives AASTP-2 |
| | Exemptions | |
| e. | Air | ICAO-TI and for explosives AASTP-2 |
| | Exemptions | |

f. Any Others AASTP-2

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Sweden):

All the same as number three (international movement)

5. Any other useful information: Swedish Armed Forces have separate regulation for transport of explosives, IFTEX, and flammable liquids, BVKF. These two regulations are harmonised with ADR.

ANNEX AA TO
CHAPTER 2

# NATIONAL AND INTERNATIONAL REGULATIONS FOR THE TRANSPORTATION OF DANGEROUS GOODS INTO, OUT OF, THROUGH, OR IN SWITZERLAND

1. Nation: **SWITZERLAND**

2. National Point of Contact:

| | | |
|---|---|---|
| a. | Appointment | Technical Group for hazardous freight (SDR/ADR) of the Swiss Army. |
| b. | Address | General Staff<br>Logistics Directorate Division<br>Movement and Transportation<br>Technical group for hazardous freight<br>Blumenbergstrasse 39<br>CH 3003 Bern, Switzerland |
| c. | Phone No | 0041 (0) 31 324 28 77 |
| d. | Fax No | 0041 (0) 31 324 29 98 |
| e. | E-mail | urs.kälin@gst.admin.ch |

3. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of an international movement (into, out of or through Switzerland):

| | | |
|---|---|---|
| a. | Road | ADR |
| | | Ordonnance relative au transport des marchandises dangereuses par route (SDR), supplément à l'ADR |
| | Exemptions | Nil |
| b. | Rail | RID |
| | | Règlement concernant le transport des marchandises dangereuses par chemin de fer (RSD), supplément au RID |
| | Exemptions | Nil |

| | | |
|---|---|---|
| c. | IWT | ADN; ADNR |
| | Exemptions: | Nil |
| d. | Sea: | Nil |
| | Exemptions: | Nil |
| e. | Air: | ICAO-Technical Instructions; IATA-Dangerous Goods Regulations |
| | Exemptions: | Nil |
| f. | Any others: | Nil |

4. Regulations to be applied when transporting Dangerous Goods by military transport assets as part of a national movement (within Switzerland):

| | | |
|---|---|---|
| a. | Road: | ADR<br><br>Ordonnance relative au transport des marchandises dangereuses par route (SDR), supplément à l'ADR |
| | Exemptions: | Ordonnance sur la circulation militaire (OCM), article 52 et appendice<br><br>SDR/RSD-Autorisation spéciale pour le Département de la défense, de la protection de la population et des sports (DDPS), issue du Département fédéral de l'environement, des transports, de l'énergie et de la communication (DETEC) |
| b. | Rail: | RID<br><br>Règlement concernant le transport des marchandises dangereuses par chemin de fer (RSD), supplément au RID |
| | Exemptions: | SDR/RSD-Autorisation spéciale pour le Département de la défense, de la protection de la population et des sports (DDPS), issue du Département fédéral de l'environement, des transports, de l'énergie et de la communication (DETEC) |

| | | |
|---|---|---|
| c. | IWT: | ADN; ADNR |
| | Exemptions: | Nil |
| d. | Sea: | Nil |
| | Exemptions: | Nil |
| e. | Air: | ICAO-Technical Instructions; IATA-Dangerous Goods Regulations |
| | Exemptions: | |
| f. | Any others: | Directives relatives au transport de munitions par chemin de fer (DTM) |

5. Any other useful information: It is absolutely mandatory to obtain diplomatic clearances for foreign military transport assets to be on Swiss territory in addition to the regulation mentioned above.

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