



MERENKULUHALLITUKSEN TIEDOTUSLEHTI

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PUUTAVARAKANSILASTIN AHTAUS JA TUKEMINEN

IMCO:n yleiskokous on kahdeksannessa istunnossaan hyväksynyt "Code of Safe Practice for Ships Carrying Timber Deck Cargoes".

Merenkulkuhallitus aikoo kääntää koodin ja julkaista sen Suomessa. Oheisena julkaistaan nyt jo tärkeimmät osat siitä englanninkielellä. Merenkulkuhallitus suosittelee näiden ohjeiden noudattamista, kun suomalainen alus kuljettaa puutavarakansilastia ja kun minkä tahansa maan alus ottaa puutavarakansilastia suomalaisessa satamassa.

Merenkulkuosaston päällikkö
merenkulkuneuvos Oso Siivonen

Toimistoinsinööri Gunnar Edelman

KD 1666/74/344

CODE OF SAFE PRACTICE FOR SHIPS CARRYING TIMBER DECK CARGOES

Section 1 – SCOPE

- 1.1 The provisions given hereunder are recommended for all ships of 24 metres (79 feet) or more in length engaged in the carriage of timber deck cargoes.
- 1.2 Administrations are invited to adopt these recommendations unless they are satisfied that operating experience justifies departures therefrom.
- 1.3 Nothing in these recommendations shall preclude the application of Regulation 44 of the 1966 Load Line Convention as far as ships with timber loadlines are concerned or any national requirements.
- 1.4 For the purpose of these recommendations "Timber Deck Cargo" or "Cargo" means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck, which should include logs, sawn timber whether loose or packaged.

Section 2 – STOWAGE – GENERAL

- 2.1 Openings in the weather deck on which cargo is stowed should be securely closed and battened down. Ventilators and air pipes should be effectively protected from damage by cargo and the check valves in air pipes should be examined to ascertain that they or similar devices are effective against the entry of sea water.
- 2.2 The cargo should be compactly stowed and should be chocked, as necessary, for this purpose; it should not interfere in any way with the navigation and necessary work of the ship and should be stowed as level as practicable. Safety equipment, devices for remote operation of valves and sounding pipes should be clearly marked and left accessible.
- 2.3 Steering gear components should be efficiently protected from damage and the arrangements made for steering in the event of a breakdown in the main steering gear should not be obstructed by deck cargo.
- 2.4 Safe and satisfactory access to the crew's quarters, machinery spaces and all other forward and after parts used in the necessary working of the ship should be provided at all times. Cargo in the vicinity of the openings which give access to such parts should be so stowed that the openings can be properly closed and secured against the entry of water.
- 2.5 Uprights, when required by the nature or height of the timber, should be of adequate strength which should not exceed the strength of the bulwark and the spacing should be suitable for the length and character of timber carried, but should not exceed 3 metres (9.8 feet). Strong angles or metal sockets or equally efficient means should be provided for securing the uprights. Where suitable, permanent ship's structure may be used as uprights.
 - 2.5.1 The uprights should be of such height as to extend above the outboard top edge of the cargo.
 - 2.5.2 They should preferably be fitted with a locking pin or other arrangement to retain the upright in its housing.
 - 2.5.3 They may be secured by a metal bracket attaching the upright to the top of the ship's bulwark, or a similar arrangement.
 - 2.5.4 As far as is practicable, the stowage should be such that the cargo throughout its full height is in solid contact with each upright.
 - 2.5.5 Each port and starboard pair of uprights should be linked by athwartship lashings, set up taut joining each pair as near to the top level of the cargo as possible to give additional strength to these uprights. The lashings should be in accordance with the recommendations of Section 4.

Section 3 – LASHINGS – GENERAL

- 3.1 At the completion of loading, a system of overall independent athwartship lashings to the specification as given in Section 4 should be set up throughout the entire length of a deck stow. The spacing between adjacent lashings should be in accordance with Sub-Sections 5.2 and 5.3 such that each lashing should pass over the cargo and be shackled to eye plates positioned in the sheer strake, deck stringer plate or other strengthened point. Stanchions and brackets or other such points of insufficient strength should not be used for the securing of lashings.

3.2 Stretching devices or similar devices for lashing shall be either a turnbuckle or of a type that produces tightening by a lever action having a proven mechanical arrangement whereby tightening to the required tension and subsequent adjustments can be rapidly effected; each specified device should be so placed in a lashing that it can be safely and efficiently operated when required.

3.3 When such devices are of a portable type, a sufficient number should be carried on board.

3.4 A device capable of quick cargo release, if fitted, should be so designed that it cannot be accidentally released or activated.

3.5 When other devices are substituted for splicing to form an eye in wire rope, they should be sufficient to equal the strength of the splice.

3.6 Lashings should be inspected as required.

Section 4 – LASHINGS, TESTING AND CERTIFICATION

4.1 All testing, marking, and certification of the chains should conform with national regulations.

4.2 In addition to the requirements stated, a visual examination at intervals not exceeding 12 months is recommended.

4.3 Any lashing used in compliance with these Recommendations should withstand an ultimate load of not less than 13600 kg (30,000 lb).

4.4 After testing there should be no treatment applied to chain which would invalidate its test certificate, e.g. galvanizing heat treatment.

4.5 Shackles, stretching devices and all other ancillary components incorporated into a chain or wire rope lashing and its securings should have a minimum ultimate load of 14100 kg (31,000 lb). Each component should be proof loaded to 5600 kg (12,300 lb). No part should be damaged or permanently deformed after proof loading.

Section 5 – STOWAGE AND SECURING OF LOOSE OR PACKAGED SAWN TIMBER CARGOES

5.1 The timber should be loaded to produce a compact stow with a level surface as far as practicable.

5.2 The spacing of the lashing should be determined by the maximum height of the cargo above the weather deck in the vicinity of the lashing:

- (a) for the height of 4 metres (13 feet) and below the spacing should be 3 metres (9.8 feet);
- (b) for the height of 6 metres (19.6 feet) and above the spacing should be 1.5 metres (4.9 feet);
- (c) at intermediate heights the average spacing should be obtained by linear interpolation.

5.3 When timber is in lengths less than 3.6 metres (11.8 feet) the spacing of the lashings shall be reduced or other suitable provisions made to suit the length of timber.

5.4 The spacing should also be such that the first and the final athwartship lashing of each section of continuous deck stow should be positioned as close as is practicable to the extreme end of the stow.

Section 6 – STOWAGE AND SECURING OF LOG CARGOES, PULP WOOD AND PITPROP CARGOES

6.1 Whenever possible logs should be compactly stowed in a fore and aft direction to give a level or crowned top surface such that each log is adequately restrained from movement when the system of securings is in place and set up taut.

6.2 Where uprights are required by the height of the stow they should be fitted to conform with the recommendations of Sub-Section 2.5.

6.3 The stowage of pulp wood and pitprop cargoes on deck should comply with any locally accepted practice which has been shown to be safe so that, at the completion of stowage, the cargo shall be compact, having a level or crowned surface and be secured at least to meet the provisions of this Code.

6.4 When only a part of a total timber deck cargo consists of pulp wood or pitprop logs, the logs should be stowed and secured separately when practicable, but if the nature and quantity of the remainder of the timber deck cargo is such that the pulp wood or pitprop portion can be compactly stowed and contained within the main stowage, and the lashings required by the main stowage will efficiently restrain the pulp wood or pitprops, then such stowage method should be adopted.

Section 7 – STABILITY

7.1 All ships should be supplied with suitable information on stability which takes into account deck cargo to enable the master of the ship to meet national requirements.

7.2 Where no national requirements exist, information on stability should be supplied in accordance with paragraph 7 of the Annex to IMCO Assembly Resolution A.167(ES.IV) as amended by Resolution A.206(VII) (see Annex B).

7.3 The master should establish or verify the stability of his vessel for the worst service condition having regard to the increased weight of deck cargo due to water absorption and/or ice accretion and to variations in consumables. It should be kept in mind that excessive stability might cause more severe force on the lashings in heavy seas.

Section 8 – COMPACTING OF DECK STOW IN SHELTERED WATERS

8.1 At the completion of loading and securing, all tightening devices fitted into the lashings should, after the initial tightening, be left with not less than half the threaded length of screw, or of tightening capacity, to be available for future tightening.

8.2 All vessels should, before leaving sheltered areas, allow time for additional tightening, as necessary, of all lashings by the crew prior to entering the open sea and an entry made in the ship's log-book.

Section 9 – HEIGHT OF CARGO

9.1 On a ship within a seasonal winter zone in winter, the mean height of the cargo above the weather deck should not exceed one-third of the extreme breadth of the ship. For the purpose of this Sub-Section, the "weather deck" means the uppermost complete deck exposed to weather and sea, a deck which is stepped being taken to consist of the lowest line of the deck and the continuation of that line parallel to the upper part of the deck.

9.2 The height of the deck cargo should be so controlled that its weight does not exceed the designed maximum permissible load on weather decks and hatches.

9.3 Masters should be provided with such information as to comply with Sub-Section 9.2.

9.4 The height of the deck cargo should be restricted so that:

- (i) visibility from the navigation bridge is not impaired;
- (ii) any forward facing profile of the deck stow does not present overhanging shoulders to a head sea.

Section 10 – PROTECTION OF CREW

10.1 A satisfactory and safe means of access to crew's quarters, and all parts used in the necessary working of the ship should be provided. This may take the form of guard lines or rails on each side of the deck cargo not more than 33 centimetres (13 inches) apart vertically and to a height of at least 1 metre (3.3 feet) above the walking surface. In addition a lifeline, preferably wire rope with a stretching device, set up taut situated as near as practicable to the centreline of the ship, should be provided. The stanchion supports to all guard rails and lifelines should be spaced so as to prevent undue sagging. Where the cargo is uneven a safe walking surface of not less than 60 centimetres (2 feet) width should be fitted over the cargo and effectively secured beneath or adjacent to the lifeline.

10.2 Fencing or closing should be provided for all openings in the stow such as at masthouses, winches, etc.

10.3 Alternative to the provisions of Sub-Sections 10.1 and 10.2, or where uprights are not fitted, a walkway of substantial construction should be provided having an even walking surface and consisting of two fore and aft sets of guard wires or rails about 1 metre apart, each having a minimum of three courses of wires or rails to a height of not less than 1 metre (3.3 feet) above the walking surface. The lowest course should not exceed 23 centimetres (9 inches) above the walking surface and the other courses should be not more than 38 centimetres (15 inches) apart. Such guard wires or rails should be supported by rigid stanchions spaced not more than 3 metres (9.8 feet) apart and wires should be set up taut by stretching screws.

10.4 Properly constructed ladders or steps fitted with guard wires or handrails should be provided:

- (a) from the top of the cargo to the deck; and
- (b) where the cargo is stepped more than 68 centimetres (27 inches).

SUGGESTED PRACTICES TO MEET THE PROVISIONS OF
THE CODE OF SAFE PRACTICE FOR SHIPS CARRYING
TIMBER DECK CARGOES

The primary requirements for the safe carriage of any timber deck cargo is a solid, compact stowage during all stages of the deck loading. This can only be achieved by constant supervision by ship's personnel during loading and insistence that the cargo be compacted and stowed rather than stacked. Such stacking can occur with packaged timber particularly when loaded in units of 4 to 6 packages per lift. This is a frequent cause of shifts of cargo, listing, failure of lashings with consequent loss of cargo and has sometimes resulted in damage to the ship itself when the latter has been driven incautiously during heavy weather.

1. THE STOWAGE OF PACKAGED TIMBER

1.1 Packages which contain such random lengths as would disrupt the compaction of the stow should not be loaded on deck. Other packages of random lengths capable of compact stowage may be loaded on deck but not on exposed surfaces or in the stowage outboard of the hatch coamings.

1.2 Packages for deck stowage should have strong bands to prevent slackening and disintegration of the package during the voyage which would cause a loosening of the stow. Slack bands on the top surface of a deck cargo are dangerous foot traps.

1.3 Before commencing to load on the deck or hatches a firm and level stowage surface should be prepared by laying dunnage of rough lumber. Such dunnage should be placed in the direction which will spread the load across the ship's underdeck structure.

1.4 Throughout the loading a level and firm stowage surface should be prepared on each working tier by the use of rough dunnage of such lengths as to spread over at least three adjacent packages to produce a binding effect within the stow particularly in the wings. Any gaps occurring around packages such as in the vicinity of hatch coamings and deck obstructions in which the cargo may work at sea should be filled with loose timber or efficiently chocked off. For this purpose a supply of timber chocking material should be available to the ship.

1.5 Packages at the outboard edges of the stow should be positioned so that they do not extend over the eyepads and obstruct the vertical lead of the athwartship lashings.

1.6 Large heavy boards and squares of timber when loaded on deck in combination with packages should preferably be stowed separately. When placed in upper tiers heavy pieces of timber have tended to work at sea and cause some breaking of packages. In the event that boards and squares are stowed on top of packages they should be efficiently restrained from movement.

1.7 Due to the system of athwartship lashing the stowage of packages should generally be in the fore and aft direction. This is not always possible and some athwartship stowage cannot be avoided due to the necessity of blocking out where the stow is broken by deck structures. Excluding the wings of the two topmost tiers and the outboard packages of the stow, it is advisable to have one or more non-adjacent tiers stowed athwartship when above the level of the hatches to produce a binding effect within the cargo. When practical it is recommended that at least two athwartship lashings secure each package at the side vertical faces of the stow. If necessary, when a tier has been stowed athwartship, the outboard edge of the tier may be secured by laying a line of packages in the fore and aft direction.

1.8 Rounded angle pieces of suitable material should be used along the top outboard edge of the stow to bear the stress and permit free roving of the athwartship lashing thus ensuring efficient tightening and securing of the deck cargo. For increased efficiency such angle pieces should have a leg length of at least one foot.

2. THE SECURING OF HEAVY LOGS ADDITIONAL TO THAT GIVEN IN THIS CODE

2.1 When a cargo of logs has been stowed to a height of one tier of logs over the hatches, a system of athwartship lashings of wire rope to the specifications of Section 4 of this Code should be set up in short lengths over the entire length of the cargo such that:

- (a) lashings should be secured at an upright and then rove between two or more port and starboard pairs of uprights, at the same height as the cargo to cover the length of the cargo;
- (b) when overstowed the lashings shall be given sufficient slack to enable the logs to tension the wire without disturbing the compaction but to produce an inboard binding effect on the uprights; and
- (c) when the height of the deck stow or the size of logs are such that additional lashings as described in this section are considered necessary, they should be set up identically at appropriate levels of the cargo.

2.2 The use of a continuous wire rope lashing, as described below, has been found extremely effective in preventing movement and loss in deck cargoes of heavy logs. To compact the deck stow and facilitate tightening of the chain lashings, additional overall lashings of wire rope may be used such that:

- (a) these lashings are shackled at eye plates in the sheer strake, deck stringer plate or other strengthened point at positions midway between the uprights;
- (b) they consist primarily of bights of wire connecting adjacent securing positions in a fore and aft direction, each bight to be of sufficient length to stretch over the top surface of the final stow to an inboard distance of approximately one third of the immediate breadth of the cargo; or
- (c) as an alternative to bights, single independent wire pendants with eye-splices may be shackled at eye plates in the sheer strake or deck stringer plate or other strengthened point at positions close to the uprights throughout the extent of the deck cargo, each pendant being of sufficient length to extend across the top surface of the cargo to a distance inboard of about one third of the immediate breadth.

2.3 A snatch block or roller shackle is attached at the inboard part of each bight or pendant through which is rove a continuous wire rope which passes from side to side across the top of the cargo to lace together all such snatch blocks or roller shackles in an athwartship direction along the entire length of each section of deck cargo. One or both ends of the lacing wire should be brought to a winch or winches and, after tightening to facilitate further tensioning of the main athwartship lashings, made fast.

3. THE STOWAGE OF PULP WOOD AND PITPROPS

When stowed in the manner here described good compaction of the deck cargo can be obtained.

- 3.1
- (a) In the deck area clear of the line of hatches, the logs should be stowed in the athwartship direction, canted inboard by some logs laid fore and aft in the scuppers;
 - (b) at the centre of the stow, along the line of hatches, the logs are laid in the fore and aft direction when the wing cargo has reached hatch height; and
 - (c) at the completion of loading, the cargo should have a level surface with a slight crown towards the centre.

3.2 To prevent logs being washed out from below their lashings it is recommended that nets or tarpaulins may be used as follows:

- (a) the ends of each continuous section of deck cargo, if not stowed flush with a superstructure bulkhead, may be fitted with a net or tarpaulin stretched and secured over the athwartship vertical surface;
- (b) over the fore end of each continuous section of deck cargo, and in the waist of the ship, the top surface may be fitted with a net or tarpaulin stretched and secured across the breadth of the cargo and brought down the outboard vertical sides to securings at deck level.



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STUVNING OCH SÄKRING AV DÄCKSLAST AV TRÄ

IMCO:s generalförsamling antog på sitt åttonde möte "Code of Safe Practice for Ships Carrying Timber Deck Cargoes".

Sjöfartsstyrelsen har för avsikt att översätta koden och publicera den i Finland. Bifogade publiceras redan nu de viktigaste avsnitten på engelska. Sjöfartsstyrelsen rekommenderar att dessa anvisningar följes då finskt fartyg transporterar däckslast av trä och då fartyg från vilket land som helst tar däckslast av trä i finsk hamn.

Chefen för sjöfartsavdelningen
sjöfartsrådet **Oso Siivonen**

Byråingenjör **Gunnar Edelmann**

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