UNIT 5

TIMBER

Timber measurements are the most complicated and laborious of all the various measurements in use for shipping purposes. The unit of measurement in use in the UK, North European countries, etc. is "a standard" of which there are many varieties, bearing no relation one to the other. In North America the unit of measurement is the 1,000 board feet; in France, Italy, Belgium, etc., the unit is the "Stere", equivalent to the cubic metre of the metric system, while "Petrograd standard" is almost exclusively used in the UK.

Timber cargo may consist of a "composition" of logs, planks, deals, battens, small batten boards, small boards, scantlings, slatings, and laths - the latter two being usually in bundles. A good composition for cargoes is two-thirds deals and battens and one-third boards, and the vessel with clear holds should stow this at about 225 cubic feet per standard.

If the cargo consists of more boards and contains quantities of small boards, slatings and laths, the stowage factor would be subsequently higher. For example bundles of laths stow at about 320 cubic feet to the standard.

By a custom prevailing in the Baltic wood shipping countries a shipper is supposed to have a margin of one-sixteenth of an inch in cutting his planks. This margin is very often exceeded and may be found to be as much as one-eighth which the ship carries free.

Newly cut timber, being full of sap, is naturally much heavier than timber cut the previous season and the vessel is not able to carry so high a deck load as with old cut timber.

The best type of timber carrying vessel is that which has a large beam in proportion to draft with a minimum number of obstructions in the hold, such as stanchions and web frames.

Slings

While the use of chain sling is permissible for handling deals and battens, rope or webbing slings should be used for boards, box boards, slats laths and similar classes of timber as well, of course, as with prime woods. Slings with spreaders will be required for packaged timber.

Packaged timber

Sawn timber is almost invariably packaged or unitised. These packages may vary in length and size, depending on the handling equipment, consignee, etc. Specialised handling equipment, such as straddle carriers, may be used, and special terminals provided for the handling and stowage of this type of cargo. Where packages consist of sawn lengths of varying length, it is normal practice to square off one end to give a flush face. Where such packages of varying lengths are made up, and where the holds of the vessel are not suited to cargo made up in this way, there may be a great deal of wasted space.

Deck loads

When deck loads are carried, which is more frequent than not, the upper deck should be assisted to carry its load by hard wood wedges driven between the deck beams and a plank placed athwart on top of the timber cargo below, and adequate compensation should be made

for any stanchions which have to be removed. The practice of removing stanchions should be restricted as much as possible.

When dunnaging under a deck cargo of timber, use rough 25 mm boards placed diagonally 750 mm to l,000 mm apart, so as to distribute the weight evenly over the beams, etc., and avoiding buckling deck plates.

Stanchions to support deck loads at the side should be of sufficient length so as to extend not less than, 200 mm above the finished level of deck cargo, to permit manropes being fitted to same for the protection of the crew. Stanchions, which are usually supplied by shippers as part of the cargo, should be spaced about 2,500 mm to 3,000 mm apart and be inclined inboard.

Chain lashings are probably the most effective lashing method for deck cargoes of timber.

Lashings are usually shackled to eye plates or wing bolts riveted to the part of the sheer strake, extending above the deck stringer bar, or to the deck, spaced 2,500 mm to 3,000 mm apart. Each length of chain should be long enough to meet its mate in the middle line, where two free ends are connected to a heavy turn-buckle and slip hook by which the chains are set up.

QUESTIONS

1. Why are timber measurements the most complicated of all the measurements in shipping?
2. What are the most frequent measurements and where are they applied?
3. What are these equivalent to?
4. What is a "standard"?
5. What is the timber cargo usually composed of?
6. How can the stowage factor in timber stowing be increased?
7. What is the best kind of a ship carrying timber?
8. What kind of slings are used in handling various types of timber cargo?
9. How is packaged timber carried by sea?
10. What should you be particularly aware of when loading timber cargo on deck?
11. What is used for lashing timber?
12. Where are the chain lashings secured and how are they tightened?

EXERCISES

I COMPREHENSION AND VOCABULARY

1. Some of the most frequent timber measurement units are:
   BOARD FOOT, STERE, PETROGRAD STANDARD, METRIC TON, and MILLE.
   State which of the definitions for timber measurement refers to the units listed above:

   1. a unit equalling to 165 cu. ft, 1/2" x 11" x 12' used in the UK and northern European countries, l20 pieces;
   2. a unit used in America, equal to 83 1/3 cubic feet, usually expressed in 1000 units of the same;
   3. used in France, Italy, Belgium = 35.314 cu.ft;
   4. equals slightly more than half a Petrograd Standard, used in, the American Timber Trade.
   5. unit which equals 1.1023 short tons or 0.9842 long tons

2. The following are some of the basic types and sizes of timber cargo. Classify them according to their thickness:

- BATTEN (daska, deblja): a sawn piece of timber from 6" to 7" wide and not less than 4" thick, stow at 220/225 c.ft. per Standard; 150x180x100 mm
- BAULK (sljemenjača, greda): a large, heavy beam of timber - hewn (otesan) or sawn
- BOARD, (daska, tanja): sawn timber 2" (30 mm) thick and under, any width;
- DEAL (daska odr. dimenzija): sawn timber not less than 2" thick and 9" or 10" wide; 50x250 mm
- FLOORING (podne daske, brodski pod): white or yellow boards, chiefly 3/4 to 1 1/2" thick, planed, either square edged or tongued and grooved;
- LATH (letva, motka): thin narrow strip of wood for the building trade, Sawn laths: 1" to 1 1/4" to 5/16";
- LOG (trupac, balvan): a heavy piece of timber either round, hewn or sawn;
- PICKET (kolac, proštac): sharpened stakes - shipped in bundles;
- PIT-PROP (rudarska drvena grada): short, straight lengths of timber, mostly fir, denuded of the bark;
- PLANK, (planka, trenica, podnica, debela daska): any substantial piece of sawn wood of substantial thickness;
- SCAFFOLDING (drvena grada za skele) light poles of varying lengths;
- SCANTLING (četvrtača, greda): a timber of comparatively small cross section; ("murali}")
- SHINGLE (krovne drvene pločice): thin slats used for roofing);
- SHOOK (dašćica, za bačve): a complete set of staves (body and head) for making casks or cases ready for assembly;
- SLAT (letva): strips of wood used in the manufacture of light cases - shipped in bundles
- SLEEPER (želj. pragovi): usually of Baltic Fir or hard-wood (oak jarrah); railway-ties;
- STAVE (duga, dužica, prečka; za bačve, sanduke) thin pieces of wood (staves) usually used for cases, barreis, etc;
- POLE (stup, kolac, motka, "pilot"): a long rounded piece of wood, pointed at one end; stake;
- BATTEN ENDS (krajevi) a sawn piece of timber under 2,500 mm in length

3. Here is a list of the common types of timber carried by sea. Find their Croat equivalents in the dictionary:

ash	cork	greenheart	oak
beech	cottonwood	ironwood	pine
birch	deal	lignum vitae	redwood
box	ebony	lime	sycamore
cedar	elm	mahogany	teak
chestnut	fir	maple	yew

4. Fill in the missing words from the list below:
(CUBIC, MEASUREMENT, SECURED, LASHINGS, STANDARD, BOARD FEET, STANCHION, PETROGRAD STANDARD)

1. Timber measurements are the most complicated in the use for shipping purposes.
2. The American unit is the 1000 _____, equal to 83 l/3 cubic feet.
3. Belgium, Italy and France use the "stere", which _____ is equivalent to one metre.
4. There are several varieties of the _____, which have no relations to each other at all.
5. In the northern European countries and in GB the _____ is in common use.
6. Over-all of sufficient strength should be placed throughout the timber deck cargo.
7. _____ are pieces of timber fitted vertically to support deck loads of timber.
8. The timber deck cargo must be compactly stowed,_____ lashed and _____.

II GRAMMAR

1. Word Forms. Insert the right word from the brackets and check its meaning :
(measure, measurement; package, packaged, packing, packaging)

1. _____ timber is usually made up into pallet slings.
2. General cargo is carried in various types of _____, such as cases, crates, containers, etc.
3. Three _____ have been lost in transit.
4. Timber _____ are among the most complicated ones.
5. Timber planks must be cut to _____.
6. The standard is the most frequent timber _____.
7. On inspection it was found that both the cargo and its _____ were damaged.

2. Result. Study the sentences below, showing result or consequence:

1. When dunnaging use boards placed 750 to 1000 mm apart so as to distribute the weight evenly over the beams.
2. Stanchions should be of sufficient length so as to extend not less than l200 mm above the finished level of the cargo.
3. Each length of chain should be long enough to meet its mate in the middle line.

Join the pairs of sentences so as to convey the idea of result:

1. The cargo of timber was wet. We had to increase the freight.
2. The stowage factors are very high. They ensure the proper economy of cargo space.
3. The packages are too heavy. They cannot be handled with the ship's cranes.
4. The timber is full of sap. It cannot be carried on deck.

III TRANSLATION

1. Teret drva na palubi mora se složiti, vezati i učvrstiti tako da ne dođe (there + be) do pomjeranja tereta u najoštrijim vremenskim uvjetima.
2. Nogostupi (walkways) moraju biti široki najmanje 1m i moraju se postaviti (fit) preko tereta drva na palubi.
3. Teret drva na palubi mora se rasporediti da se izbjegne preveliko (excesive) opterećenje palube i cijele nosive konstrukcije (supporting structure) trupa broda.
4. Lančane brage (pasci) smiju se koristiti za rukovanje debljih dasaka, tavalona, greda i

trupaca, dok se brage od konopa koriste za tanje daske (do 2" debljine) i letve.

5. Pakovano drvo prevozi se u kontejnerima i na paletama, kao jedinični teret.
6. Koleti drva su preteški da bi se krcali na palubu.
7. Jedinice za drvo (timber measurement) su složene, pa se moraju posebno proučavati (study).