

[Subsidiary]

SUBSIDIARY LEGISLATION

Rules under section 13

L.N. 174/1971.

THE TIMBER RULES

1. These Rules may be cited as the Timber Rules.

2. In these Rules, except where the context otherwise requires

“air dry” means fully seasoned to equilibrium moisture content with local atmospheric conditions;

“arris” means a sharp external angle formed by the meeting of two surfaces of a piece;

“bark pockets” (also known as “in bark”) means patches of bark partially or wholly enclosed within the wood with resin or gum sometimes present in the pocket;

“blemish” means any feature which mars the appearance of timber but has no adverse effect on its technical quality. Whether a particular feature is classed as a blemish or a defect depends on the purpose for which the timber is to be used;

“bluestain” means the most common form of sapstain producing a bluish discoloration;

“board” means a piece of sawn timber 50 mm. or less in thickness and 150 mm. or more in width;

“borer” means any wood-boring organism (including marine borers) that attacks wood, producing holes or tunnels or similar damage;

“borer holes” means—

(a) pin holes holes not more than 1.5 mm. in diameter;

(b) shot holes holes over 1.5 mm. and not more than 3 mm. in diameter which may be stained or unstained;

(c) large borer holes (grub holes) holes over 3 mm. in diameter;

“bow” means curvature of a piece of sawn timber in the direction of its length, whereby the plane of its face deviates from a straight line;

“boxed heart” means sawn or hewn timber cut so that the heart with any associated defects falls entirely within the four surfaces throughout its length;

“brashness” means a condition that causes wood to be relatively low

[Subsidiary]

in shock resistance;

“brittleheart” means wood near the heart characterized by brashness (brittleness) caused by compression failures;

“checks” means small separations of the wood fibres in a longitudinal direction, not penetrating as far as the opposite or adjoining side of a piece of sawn timber;

“clear” means free from all visible defects;

“compression failures” (also known as “felling shakes”, “thunder”, “rupture”, “lightning” and “transverse shakes”, “upsets”, “cross breaks” or “cross fractures”) means fractures across the grain in which the fibres are broken transversely or are crushed by compression. Various causes are suggested, such as felling across obstructions, and internal stresses in the growing tree caused by high winds and growth stresses, etc.;

“cup” (cupping) means curvature of a piece of sawn timber across its width;

“dead borer holes” means borer holes in timber which are devoid of faecal pellets or frass;

“decay” means the disintegration of wood resulting from the action of wood-destroying fungi including wet rot and dry rot, but does not include infection by sap-staining fungi;

“defect” means any feature which adversely affects the technical quality of a timber;

“dimension stock” means timber sawn to exact dimensions for a special purpose;

“dressed” means sawn timber which is planed or otherwise machined on one or more surfaces;

“edges” means the two narrower surfaces of a piece of square-sawn timber;

“end checks” means checks on the end of a piece of sawn timber;

“equilibrium moisture content” means the moisture content of timber in equilibrium with any given conditions of humidity and temperature;

“faces” means the two wider surfaces of a piece of square-sawn timber and “better face” means the face with the fewer defects on it, and “worse face” means the face with more defects on it;

“face measure” means the area in square feet of one face of a board;

[Subsidiary]

“fine hair cracks” means fine cracks occurring during seasoning probably due to excessive exposure to the sun;

“flat sawn” means timber converted so that the growth rings meet the face in any part at an angle of less than 45°;

“flute” means a natural longitudinal groove on the bole of a tree;

“frass” means the excreta and wood tissue fragments produced by wood-boring insects;

“full sawn” means timber which has been sawn oversize to allow for shrinkage and which should therefore measure more than the nominal dimensions until that timber has been fully seasoned;

“grade” means a classification of timber according to quality;

“graded timber” means timber passed by a grader as conforming to the quality of one of the grades described in the rules, and as being shipping-dry and free from prohibited defects;

“grading inspector” means a person appointed as grading inspector under rule 8 of these Rules;

“grain” means the general direction or arrangement of the fibres in timber;

“green timber” means timber which has been freshly sawn or which is only partially seasoned;

“hardwood” means timber from trees belonging to the botanical group, the Angiosperms;

“heart” means the portion of a log which includes the pith and the associated wood that may be defective;

“heartwood” means timber from the inner portion of a tree in which the cells are dead and no longer engaged in sap conduction and food storage;

“hewn timber” means timber which has been squared with an axe or adze, not by saw;

“interlocked grain” means grain whose inclination is reversed in successive growth layers;

“knot” means a portion of a branch which has become embedded in the wood by the natural growth of the tree being one of the following types—

(a) *centre knot* a knot occurring wholly within the middle half of the face of sawn amber;

(b) *edge knot* a knot occurring wholly or partly on the edge of sawn

[Subsidiary]

timber;

(c) *knot cluster* a group of two or more knots such that the wood fibres are deflected round the entire group. A group of single knots is not a knot cluster;

(d) *loose knot* a dead knot that is not held firmly in place;

(e) *margin knot* a knot occurring wholly or partly on the outer quarters of the face of sawn timber;

(f) *sound knot* a knot solid across its face and as hard as or harder than the surrounding wood to which it is firmly joined, showing no indication of decay and usually darker in colour than the surrounding wood;

(g) *splay knot* a knot sawn approximately parallel to its long axis so that the exposed section is definitely elongated;

(h) *unsound knot* a knot which is not solid across its face or is softer than the surrounding wood due to decay or other defects;

“live borer” means a wood-boring insect which is still alive and may be within timber containing loose faecal pellets or frass;

“log” means a section cross-cut from a tree or branch of a tree; if a log is not further prepared than by removal of bark and/or branches or protuberances it is known as a round log; if a log has been sawn or hewn to an approximately rectangular cross-section it is known as a squared log;

“machined timber” means timber having a surface or dimension that has been subject to machine operation after initial conversion;

“moisture content” means the amount of water in a piece of timber expressed as a percentage of the timber’s oven-dry weight;

“opening out” in respect of splits means the divergence of the split from the line parallel to the longitudinal axis of the piece;

“oversize” means the number of millimetres of which the nominal width or thickness of a piece of timber is exceeded;

“pith” means the central core of the heartwood consisting chiefly of parenchyma or soft tissue;

“plank” means a piece of square-sawn timber more than 50 mm. thick and not less than 150 mm. width, whose thickness does not exceed half its width;

“resin pockets” (also known as “pitch pockets”) means cavities in wood which have become partially or wholly filled with solid or semi-solid resinous

[Subsidiary]

or gummy substances with bark sometimes present in the pocket;

“round timber” means felled trees, logs or poles;

“sapstain” means discolouration of timber resulting from the growth of certain fungi that derive their nourishment from the cell contents but do not cause decomposition of the timber. It is principally confined to the sapwood, cf. decay;

“sapwood” means the outer layers of wood which, in the growing tree, contained living cells and reserve materials such as starch; and “bright sapwood” means sapwood free of stain or borer damage;

“sawn timber” means limber which has been converted with a saw;

“scantling” means a piece of sawn timber of rectangular section more than 1.8 m. long, 50 mm. to 100 mm. thick and less than 150 mm. wide;

“seasoned” means timber with a moisture content of 12 per cent or less;

“shake” means a split, crack or deep check of the following types—

(a) *compound shake*—a combination of two or more types of shake;

(b) *cross shake*—shake in cross-grained timber following the grain;

(c) *felling shake*—any shake caused by felling;

(d) *heart shake*—a radial shake originating at the heart;

(e) *ring shake (or cup shake)*—a curved shake following growth zone;

(f) *shell shake*—part of a ring shake showing on the surface of converted timber; timber so affected is described as shelly;

(g) *start shake*—several radial shakes originating at the heart;

“shipping dry” (of timber) means sufficiently seasoned timber to prevent deterioration in transit, and the expression “deterioration in transit” refers only to the behaviour of timber under normal conditions in covered railway wagons or in a ship’s hold;

“shorts” means short lengths of sawn timber usually less than 1.8m. long;

“slope of grain” means a deviation of the grain (fibres) from the longitudinal axis of the timber, when the deviation is in the same direction throughout the depth of the piece;

“softwood” means the timber from trees belonging to the botanical group, the Gymnosperms;

“split” (also known as “shake”) means a longitudinal separation of the

[Subsidiary]

fibres which extends to the opposite face or adjoining edge of a piece of sawn timber;

“spring” means curvature of a piece of timber in the plane of its edge; known also as edge bend;

“square” means any piece of timber sawn so as to be rectangular and of equal dimensions on all four sides;

“square-sawn timber” means timber sawn to a rectangular cross-section with or without wane;

“stain” means discoloration or variation from natural colour due to fungi, chemical action or other causes;

“stone” means a hard deposit, often calcareous, occurring in pockets in various timber, often a result of old fire damage;

“strip” means—

(a) in the case of softwood—

(i) a piece of square sawn timber less than 50 mm. thick and less than 150 mm. wide;

(ii) a piece of square sawn timber under 45 mm. thick and under 100 mm. wide;

(b) in the case of hardwood - a piece of square-sawn timber 50 mm. and under in thickness, 50 mm. to 140 mm. wide;

“surface” means the two faces and the two edges of a piece of sawn timber;

“twin hearts” means two heartwood centres occurring on the end of a log which has been cross-cut at a place where the bole or branch divides;

“twist” means spiral distortion of a piece of sawn timber;

“undersize” means the number of millimetres by which the width or thickness of a piece of timber falls short of the nominal dimension;

“unseasoned” means timber with a moisture content of more than 12 per cent;

“wane” means the original rounded surface of a tree remaining on a piece of converted timber;

“warp” means distortion of a piece of timber usually developed during seasoning, and includes bow, cup, spring and twist.

[Subsidiary]

3. Every application for an export permit shall be in Form A in the First Schedule to these Rules.

4. Every export permit shall be in Form B in the First Schedule to these Rules.

5. No person shall export any timber, unless it has been—

(a) graded by a grader in the manner specified in, and complies with one of the grades set out in, the Second, Third and Fourth Schedules to these Rules;

(b) certified as to grade by a certificate of grading which shall be on Form C in the First Schedule to these Rules;

(c) marked on one end or face thereof by a grader with the appropriate grade mark set out in the Second, Third and Fourth Schedules to these Rules;

(d) marked with a distinctive shipping mark either by stencil or some other suitable medium on the same end thereof as is the grade mark prescribed by paragraph (c) of this rule; and

(e) marked by the miller thereof with his own mark, if any.

6. No timber shall be graded unless it is shipping-dry or drier unless green timber is specified by the buyer in which case the timber shall be graded as specified grade.

7. When a purchaser of timber for use within East Africa requires a certificate of grading in respect of the timber he is buying and/or requires that the timber shall be grade marked according to these Rules the seller shall be entitled to charge up to 2 per cent of the agreed sale price of the timber for this service.

8. (1) The Chief Conservator of Forests may in writing appoint any suitably qualified person to be a grading inspector for the purpose of these Rules.

(2) Every such appointment shall be personal to the holder thereof and shall, unless sooner revoked, expire on the 31st December of the year in which it has been issued.

9. (1) A grading inspector may inspect the grading of timber which has been graded by graders, also the lay-out and condition of timber yards and sheds, and may examine any other matter connected with the grading, handling, storage and transport of timber which the Chief Conservator of Forests may require, and shall submit reports on the same to, and in such manner and at such intervals as required by, the Chief Conservator of Forests.

(2) Grading inspectors may, in the execution of their duties, enter any premises at any reasonable time, and they shall be given by the owner of such

[Subsidiary]

premises any reasonable assistance required.

(3) Any person who resists, hinders or obstructs any grading inspector in the exercise of his powers under this rule shall be guilty of an offence and liable to a fine not exceeding one thousand shillings or to a term of imprisonment not exceeding one month or to both such fine and such imprisonment.

FIRST SCHEDULE

FORM A—APPLICATION FOR EXPORT PERMIT

Name and address of applicant

Name and address of shipping agent.....

Name and address of producer.....

Species and grade of timber to be exported

Quantity in cubic metres Value F.O.B.

[Details required on reverse must be given]

State where timber may be inspected

Name and address of firm to whom consigned

Country and port of destination.....

Approximate date of shipment

Name of ship, if known

A separate application must be submitted for each species to be exported.

I HEREBY DECLARE that the particulars which I have given are true and accurate.

Date Signed Applicant

Form to be carefully completed in quadruplicate (preferably typewritten) by applicant

[Subsidiary]

FIRST SCHEDULE—(Contd)

REVERSE OF FORM A

| <i>Sectional Sizes</i> | <i>Length</i> | <i>Volume in cubic metres</i> |
|------------------------|---------------|-------------------------------|
|------------------------|---------------|-------------------------------|

Mill identification mark on timber (if any)

Shipping mark

Moisture content (approx.)

Preservative treatment (if any)
(Name of Chemical or Process)

FORM B—EXPORT PERMIT

Messrs.

are hereby authorized to export, in accordance with the Timber Rules,

.....cu. m.

of timber toas

specified in their application dated

This export certificate is valid for six months only.

Date

Signed.....
for Chief Conservator of
Forests

CERTIFICATE OF GRADING

I hereby certify that I have this day inspected the following timber

the property of

lying at

and found it to conform with the Timber Rules.

[Subsidiary]

FIRST SCHEDULE—(Contd)

| <i>Species</i> | <i>Number of Pieces</i> | <i>Grade</i> | <i>Length</i> | <i>Other Dimensions</i> |
|----------------|-------------------------|--------------|---------------|-------------------------|
|----------------|-------------------------|--------------|---------------|-------------------------|

Total number of pieces passed

This certificate has been issued without any alteration or erasure, this..... day of, 20.....

.....
Grader

SECOND SCHEDULE

HARDWOOD GRADING

PART I—INTRODUCTON

1. The timber of all hardwood species except *Dalbergia melanoxylon* shall be graded under and in accordance with this Schedule.

2. Unless the specifications state otherwise, all grading will be done on the worse face of the timber.

3. No timber may be considered to be graded timber which contains any of the following defects—

- (a) live borers;
- (b) rot or decay;
- (c) soft heart or pulpy heart;
- (d) unsound or loose knots;
- (e) undersize.

4. Timber which contains any of the following defects shall be considered unfit for grading unless otherwise stated in the individual specifications—

- (a) brittleheart;
- (b) compression failure;
- (c) severe surface checking;

[Subsidiary]

SECOND SCHEDULE—(Contd)

(d) warp, twist, cup and bow, unless, in the opinion of the grader, it is so slight that the piece of timber can be surfaced on both sides to its finished dimensions.

5. All timber shall be classified according to its dimensions under one of the following definitions

- (1) boards and planks;
- (2) strips, including flooring;
- (3) scantlings;
- (4) shorts;
- (5) other graded timber, as defined in Part II of this Schedule,

6. Standard grading, specifications for each of the categories will be found in Part II of this Schedule, and all timber must comply with one of the grades set out in the appropriate grading specifications before it can be considered as graded timber.

7. In certain of the specifications in Part II of this Schedule reference is made to “standard defects”; they are defined in the table below

| <i>Defect</i> | <i>Value</i> |
|---|--------------|
| (1) one sound knot 15 mm. to 30 mm. in diameter or equivalent..... | 1 defect |
| (2) one sound knot over 30 mm. and up to 60 mm in a diameter or equivalent | 2 defects. |
| (3) one sound knot over 60 mm. and up to 90 mm. in diameter or equivalent | 3 defects |
| (4) two sound knots less than 15 mm. in diameter or equivalent | 1 defect |
| (5) three sound knots less than 15 mm. in diameter or equivalent | 2 defects |
| (6) one or more pin holes or shot holes in a group not exceeding 30 mm. in diameter | 1 defect |
| (7) one end split, or splits at each end, not exceeding 275 mm. in aggregate length per square metre of face measure, each split opening out for not more than 1 mm. to each 10 mm. length of the split | 1 defect |

[Subsidiary]

SECOND SCHEDULE—(Contd)

- (8) one end split, or splits at each end, not exceeding 2/3 mm. in aggregate length per squart metre of face measure, each split opening out for not more than 1 mm. and 1 less than 2 mm to each 10 mm. length of the split 2 defects
- (9) 15 mm. of spring shall be admitted in pieces over 3 m. and up to 4 m. long, and 40 mm. in piece. over 4 m. and up to 5 m. long. Each additional 15 mm. in any piece shall be considered as equal to 1 defect. Not more than two such defects shall be admitted in any piece.

8. Specific provision is made for sapwood in the description of each grade.

PART II—GRADE SPECIFICATIONS

There shall be four grades—

- (a) first or prime grade;
- (b) second or select grade;
- (c) third or standard grade;
- (d) fourth or specified grade.

Boards and Planks

1. First or prime grade—

- (a) widths 150 mm. and wider;
- (b) lengths 1.8 m. and longer;
- (c) defects admitted—
 - (i) pieces, containing less than .75 sq. m. face measure to be free from any defect;
 - (ii) pieces containing .75 to 1 sq. m. face measure may admit one standard defect;
 - (iii) pieces containing 1 to 1.5 sq. m. face measure may admit two standard defects;

[Subsidiary]

SECOND SCHEDULE—(Contd)

- (iv) pieces containing over 1.5 sq. m. face measure may admit three standard defects;
- (d) sapwood shall not be admitted;
- (e) pieces shall be generally straight-grained;
- (f) the following tolerances in thickness will be admitted—
 - (i) 1 mm. oversize on pieces up to 20 mm. in thickness;
 - (ii) 2 mm. oversize on pieces over 20 mm. and up to 40 mm. in thickness;
 - (iii) 4 mm. oversize on pieces over 40 mm. in thickness.
- 2. Second or select grade—
 - (a) widths and lengths as for first or prime grade;
 - (b) defects admitted—
 - (i) pieces containing less than .75 sq. m. face measure shall admit two standard defects of which not more than one shall be due to splits;
 - (ii) pieces containing .75 to 1 sq. m. face measure shall admit four standard defects of which not more than two shall be due to splits and not more than two due to spring;
 - (iii) pieces containing 1 to 1.5 sq. m. face measure shall admit six standard defects of which not more than two shall be due to splits and not more than two due to spring;
 - (iv) pieces containing over 1.5 sq. m. face measure shall admit eight standard defects of which not more than two shall be due to splits and not more than two due to spring;
 - (c) bright sapwood shall be admitted provided that it occurs only on worse face and nowhere exceeds one-sixth of the width of that face;
 - (d) the same tolerances in thickness will be admitted as in first grade.
- 3. Third or standard grade—
 - (a) widths and lengths as for first or prime grade;
 - (b) defects admitted—

[Subsidiary]

SECOND SCHEDULE—(Contd)

- (i) sound knots less than 50 mm. in diameter to the extent of one sound knot to every 1,000 sq. cm. of face measure on the graded face;
 - (ii) end splits not exceeding in aggregate length 1 mm. for each 10 mm. length of piece;
 - (iii) bright sapwood shall be admitted provided it does not exceed one-sixth of the width of either face;
 - (iv) spring to the extent of 15 mm. in pieces up to 3 m. long, 20 mm. in pieces 3 to 4 m. long and 35 mm. in pieces more than 4 m. long;
 - (v) borer holes pin holes or shot holes to the extent of two holes to every 0.1 sq. m. of face measure. Large borer holes shall not be admitted;
- (c) the following tolerances in thickness will be admitted—
- (i) 2 mm. oversize on pieces less than 65 mm. in thickness;
 - (ii) 4 mm. oversize on pieces 65 mm. or more in thickness.

Strips Including Flooring

1. (a) Scope for grading narrow widths, usually to be used as flooring;—
- (b) grades first, or prime and second or select;
 - (c) widths as specified but less than 150 mm.;
 - (d) lengths as specified;
 - (e) grading requirements applicable to both grades of strips; spring shall be allowed only to the extent of 15 mm. in lengths of 2.5 m. and over. No spring shall be allowed in lengths of less than 2.5 m.
2. First or prime grade—
- (a) one face and both edges shall be free of defect;
 - (b) the worse face shall admit slight defect not caused by splits;
 - (c) sapwood shall not be admitted;
 - (d) the same tolerances in thickness will be admitted as in first grade boards and planks.

[Subsidiary]

SECOND SCHEDULE—(Contd)

3. Second or select grade—

- (a) the better face shall be free from defect;
- (b) edges shall be free from defect other than bright sapwood;
- (c) on the worse face, bright sapwood and sound knots shall be admitted;
- (d) the same tolerances in thickness will be admitted as in first grade.

Shorts (Excluding Flooring Blocks or Strips)

1. (a) Scope for grading short lengths (i.e. lengths less than 1.8 m.) of timber of any width, other than flooring, which should be graded under Item 2 above;—

- (b) grades first or prime and second or select;
- (c) general requirement all lengths must be full, i.e. at least 15 mm. longer than specified.

2. First or prime grade—

- (a) prime is a clear grade, i.e. all short length strips, boards or planks shall have both faces free from any defect, and squares and scantlings shall have all four surfaces free from any defect;
- (b) the same tolerances in thickness will be admitted as in first grade boards and planks.

3. Second or select grade—

- (a) all short-length strips, boards or planks shall have the better face free from all defects. Squares and scantlings shall have two adjacent faces free from all defects;
- (b) the worse face (in strips, boards and planks) or the remaining faces (in squares and scantlings) may contain bright sapwood, provided that this does not exceed one-sixth of the width of the face on which it occurs, and sound knots not exceeding 15 mm. in diameter, but shall be free of any other defects;
- (c) the same tolerances in thickness will be admitted as in first grade.

Scantlings

1. (a) Scope for grading scantlings. Lengths under 1.8 m. shall be graded as shorts;—

[Subsidiary]

SECOND SCHEDULE—(Contd)

(b) in grading scantlings all four surfaces should be examined. All scantlings shall be free from shakes, from obvious compression failures and brittleheart and any other defects which in the opinion of the grader would materially impair the strength of the scantling.

2. First or prime grade—

- (a) slope of grain not to exceed 1 in 16;
- (b) spring not to exceed 10 mm. in 3 m.;
- (c) to be free from any other defect;
- (d) heart shall not be admitted;
- (e) the same tolerances in thickness will be admitted as in first grade boards and planks.

3. Second or select grade—

- (a) slope of grain not to exceed 1 in 12;
- (b) spring not to exceed 20 mm. in 3 m.;
- (c) knots not to exceed one-sixth of the width of any face or edge, and not to exceed one-sixth of the width of any face or edge, and to be confined to one corner;
- (e) heart admitted if sound and well-boxed;
- (f) the same tolerances in thickness will be admitted as in first grade.

4. Third or standard grade—

- (a) slope of grain not to exceed 1 in 12;
- (b) spring not to exceed 20 mm. in 3 m.;
- (c) knots not to exceed one-third of the width of any face or edge, nor to exceed 1 in 1 linear metre;
- (d) sapwood not to exceed one-quarter of the width of any face or edge;
- (e) end splits allowed up to an aggregate of 150 mm. at each end;
- (f) heart admitted if sound and well-boxed;
- (g) the same tolerances in thickness will be admitted as in third grade boards and planks.

[Subsidiary]

SECOND SCHEDULE—(Contd)

Other Graded Timber

1. Timber not meeting any of the standard specifications set out above may be regarded as graded timber, provided that—

- (a) it has been graded by an authorized grader;
- (b) it is shipping-dry or drier (except where green timber is specified by the buyer);
- (c) it is free from live borer, rot, decay, brittleheart, compression failures and unsound or loose knots;
- (d) distortion does not exceed the following limits—
 - (i) bow 25 mm. in 3 m.;
 - (ii) cup 1 mm. in 50 mm.;
 - (iii) twist $3\frac{1}{2}^{\circ}$ per cent.
 - (iv) spring 25mm. in 3 running metres.

2. Such timber will be described in the grading certificates as fourth or specified grade.

PART III—GRADE MARKS

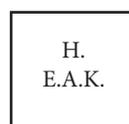
1. First or prime grade—
a circle containing the letters “H.E.A.K.”
arranged thus—



2. Second or select grade—
a triangle containing the letters
“H.E.A.K.” arranged thus—



3. Third or standard grade—
a square containing the letters
“H.E.A.K.” arranged thus—



[Subsidiary]

SECOND SCHEDULE—(Contd)

4. Fourth or specified grade—
the letters “H.S.E.A.K.” arranged
thus—
- H.
S.
E.A.K.

THIRD SCHEDULE

SOFTWOOD GRADING

Part I—Grades of Timber

In this Schedule—

1. The timber or all softwood species shall be graded under and in accordance with this Schedule.

2. There shall be six strength grades and five appearance grades.

3. Any species of softwood may be graded either in the strength grades or in the appearance grades.

4. The strength grades shall be—

- (a) first grade;
- (b) second grade;
- (c) third grade;
- (d) fourth grade;

which grades are defined in Part IV of this Schedule; and

- (e) general grade this grade shall consist of 50 per cent second grade and better and 50 per cent third grade;
- (f) specified grade this grade shall provide for special requirements in cases where an exceptional specification has been agreed between buyer and seller and shall include round timber.

5. The appearance grades shall be—

- (a) first grade;
- (b) second grade;
- (c) third grade;

which grades are defined in Part V of this Schedule; and

[Subsidiary]

THIRD SCHEDULE—(Contd)

- (d) general grade this grade shall consist of 50 per cent second grade and better and 50 per cent third grade;
- (e) specified grade this grade shall provide for special requirements in cases where an exceptional specification has been agreed between buyer and seller and shall include round timber.

Part II—Instructions for Grading

1. (a) Timber to be graded under the strength rules shall be graded on the worse face and edge.

(b) Timber to be graded under the appearance rules shall be graded on the better face.

2. Where any defect which is not included in the grading rules is seen, such defect shall be considered on its estimated damaging effect on the piece of timber.

3. The size of an edge knot shall be measured—

(a) where the knot touches the arris, as the width between the arris and a line touching the knot parallel to the arris; or

(b) where the knot does not touch the arris, as the width between lines touching the knot and parallel to the arris.

4. The size of a margin knot shall be measured in the same manner as an edge knot.

5. The size of a centre knot shall be the mean of its greatest and least diameters.

6. The size of a knot cluster shall be taken as the sum of the diameters of individual knots measured as centre knots.

7. The amount of wane shall be expressed as a fraction of the width of the surfaces on which it occurs.

8. Slope of grain shall be measured over a distance of not less than twice the width of the piece or edge as relevant disregarding slight local deviations; and it shall be measured as the tangent of the angle of the inclination of the fibres to the long axis of the piece.

9. The size of resin pockets and bark pockets shall be limited to the width specified, and the lengths shall be expressed as the sum of the lengths of all pockets in millimetres to the length of the piece in metres.

10. The size of checks and splits shall be limited to the lengths specified.

THIRD SCHEDULE—(Contd)

11. The amount of bow shall be measured over a length of 3 m. and shall be expressed as the maximum deviation of the face from a straight line joining two points 3 m. apart.

12. The amount of spring shall be measured over a length of 3 m. and expressed as the maximum deviation of the edge from a straight line joining two points 3 m. apart.

13. The amount of twist shall be measured over a length of 3 m. and shall be expressed in degrees.

14. The amount of cup shall be measured over a width of 150 mm. and shall be expressed as mm. per 150 mm.

Part III—Special Conditions

1. “Sapwood” (*Juniperus procera*). Up to 10 per cent is allowed first grade, 20 per cent in second grade, and it is unrestricted in the third grade. This applies only when *Juniperus procera* is graded by the appearance rules.

2. “Live borer”. Shall be prohibited in all grades.

3. “Rot”. Shall be prohibited in all grades except in the case of unsound knots.

[Subsidiary]

THIRD SCHEDULE (Contd)

Part IV—Strength Grades—First, Second, Third and Fourth

Maximum Permissible Size of Defect or Characteristic per Grade

| Defect and Characteristic | First | Second | Third | Fourth |
|--------------------------------|-------------------------------------|---|---|------------------------|
| Knot..... | Sound knots only | Sound knots only | Unsound knots included | Unsound knots included |
| Edge | 1/2 thickness | 1/2 thickness | 3/4 thickness | Unrestricted |
| Margin | 1/8 width | 1/4 width | 1/3 width | Unrestricted |
| Centre | 1/6 width | 1/3 width | 1/2 width | Unrestricted |
| Splay | 1/4 width | 1/3 width | 1/2 width | Unrestricted |
| Cluster (in total) ... | 1/4 width | 1/3 width | 1/2 width | Unrestricted |
| Rot | Not Allowed except in Unsound Knots | | | |
| Wane | | | | |
| Edge | Not allowed | 1/8 thickness | 1/4 thickness | 1/2 thickness |
| Face | Not allowed | 1/12 width | 1/6 width | 1/3 width |
| Length | Not allowed | 1/4 length | 1/3 width | Unspecified |
| Slope of Grain | 1 : 14 | 1 : 8 | Unrestricted | Unrestricted |
| Resin Pockets and Bark Pockets | Not allowed | Not more than 6mm. wide Not more than 40 mm. in length per metre length of piece | Not more than 6mm. wide Not more than 80 mm. in length per metre length of piece | Unrestricted |
| Checks and Splits | Total length not exceeding 150 mm. | Total length not exceeding 225 mm. | Total length not exceeding 300 mm. | Unrestricted |
| Bow | 6mm. in 3m. of length | 13 mm. in 3 m. of length | 25 mm. in 3 m. of length | Unrestricted |
| Spring | 6mm. in 3m. of length | 13 mm. in 3 m. of length | 25 mm. in 3 m. of length | Unrestricted |
| Twist | 3° in 3 m. of length | 6° in 3 m. of length | 9° in 3 m. of length | Unrestricted |
| Cup | 1.5 mm. in 150 mm. of width | 3 mm in 150 mm. of width | 3 mm in 150 mm. of width | Unrestricted |

[Subsidiary]

THIRD SCHEDULE (Contd)

Part IV—Strength Grades—First, Second, Third and Fourth (Contd)

| Defect and Characteristic | Maximum Permissible Size of Defect or Characteristic per Grade | | |
|-------------------------------|--|-------------|---|
| | First | Second | Third |
| Pith | Not allowed | Not allowed | 50 mm. in 3 m. |
| Dead Borer Holes | Not allowed | Not allowed | Not allowed |
| Undersize (unseasoned timber) | Not allowed | Not allowed | Not allowed |
| Undersize (seasoned timber) | Not allowed | Not allowed | Must not exceed 3 mm. in thickness nor 3 mm. in width |
| Oversize (unseasoned timber) | All timber to be sawn oversize by 1 mm. per 20 mm. thickness and width | | |
| Oversize (seasoned timber) | Not more than 3 mm. in thickness and not more than 6 mm. in width | | |

Part V—Appearance Grades—First, Second and Third

| Defects and Characteristics | Maximum Permissible Size of Defect and Characteristic per Grade | | |
|-----------------------------|---|-----------------------------|--|
| | First | Second | Third |
| Knots per .5 sq. m. | Sound knots only | Sound knots only | Unsound knots included |
| Centre or Margin | Up to 40 mm. total diameter | Up to 75 mm. total diameter | Up to 150 mm. total diameter |
| Splay | Not allowed | 1 up to 1/4 width | 2 up to 1/4 width |
| Rot | Not allowed except in unsound knots | | |
| Wane | Not exceeding 1/8 thickness 1/12 width 1/4 length | As for First | Not exceeding 1/4 thickness 1/6 width 1/3 length |

[Subsidiary]

THIRD SCHEDULE—(Contd.)
Part V— Appearance Grades—First, Second and Third—(Contd.)
Maximum Permissible Size of Defect and Characteristic per Grade

| Defect and Characteristics | First | Second | Third |
|---|--|--|---|
| Slope of grain | 1 : 14 | 1 : 8 | Unrestricted |
| Resin Pockets or Bark Pockets .. | Not more than 6 mm. wide. Not more than 40 mm. in length per metre length of piece | Not more than 6 mm. wide. Not more than 80 mm. in length per metre length of piece | Unrestricted |
| Checks and Splits | Not more than 1 mm. wide. Not more than 40 mm. in length per metre length of piece | Not more than 2mm. wide. Not more than 80 mm. in length per metre length of piece | Not more than 3 mm. wide. Not more than 160 mm. in length per metre length of piece |
| Bow | 13 mm. in 3 m. of length | 25 mm. in 3 m. of length | 50 mm. in 3 m. of length |
| Spring | 6 mm. in 3 m. of length | 13 mm. in 3 m. of length | 25 mm. in 3 m. of length |
| Twist | 3° in 3 m. of length | 6° in 3 m. of length | 9° in 3. of length |
| Cup | 1.5 mm. in 150 mm. of width | 3 mm. in 150 mm. of width | 6 mm. in 150 mm. of width |
| Dead Borer holes | Not allowed | Not allowed | Unrestricted |
| Sapwood, where distinct from heartwood | Not allowed | up to 20 % of face graded | Unrestricted |
| Bluestain | 5% | 15% | |
| Undersize (unseasoned timber) | Not allowed | Not allowed | Not allowed |
| Undersize (seasoned timber) .. | Not allowed | Not allowed | Not exceeding 3 mm. in thickness not 6 mm. in width |
| Oversize (unseasoned timber) .. | All timber to be sawn oversize by 1 mm. per 20 m. of thickness and width | | |
| Oversize (seasoned timber) | Not more than 3 mm. in thickness and not more than 5 mm. in width | | |

THIRD SCHEDULE—(Contd.)

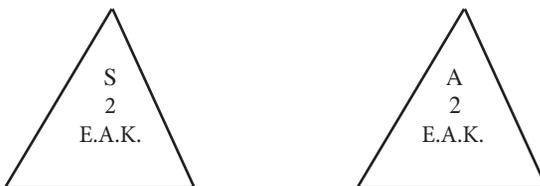
Part VI—Grade Marks

1. In all grades, the letter “S” above the grade number shall denote that the timber has been graded by the strength rules, and the letter “A” shall denote that the timber has been graded by the appearance rules.

2. (a) In the case of first grade, a circle containing the letters E.A.K. surmounted by the figure 1—



(b) In the case of second grade, a triangle containing the letters E.A.K. surmounted by the figure 2—



(c) In the case of third grade, a square containing the letters E.A.K. surmounted by the figure 3—



(d) In the case of fourth grade, the letters E.A.K. surmounted by the figure 4—

S
4
E.A.K.

(e) In the case of general grade, the letters E.A.K. surmounted by the letter G—

S
G
E.A.K.

A
G
E.A.K.

[Subsidiary]

(f) In the case of specified grade, the letters E.A.K. surmounted by the letter S—

| | |
|--------|--------|
| S | A |
| S | S |
| E.A.K. | E.A.K. |

FOURTH SCHEDULE

BLACKWOOD GRADING

Part I—Introduction

1. In this Schedule, unless the context otherwise requires “blackwood” means the species *Dalbergia melanoxylon*, also known as East African Blackwood and Mpingo.

Part II—Grading Instructions

1. Blackwood timber shall be graded in accordance with the following instructions—

- (a) the grading of blackwood timber shall be done on all faces of the timber and all cut surfaces shall be free from any form of coating before grading is attempted;
- (b) no blackwood timber shall be graded unless the heartwood is black, very dark brown or very dark purple;
- (c) no blackwood timber shall be graded unless it is cut full to the sizes specified by the purchaser;
- (d) no blackwood log shall be graded if the sapwood exceeds 20 mm. in width at its narrowest point measured radially;
- (e) no blackwood timber shall be graded if the outer parts of such log are deeply or severely fluted;
- (f) no blackwood timber shall be graded if it contains live borer;
- (g) no blackwood timber shall be graded as “first grade” unless it conforms with the specifications set out in section 2 of this part;
- (h) no blackwood timber shall be graded as “second grade” unless it conforms with the specifications set out in section 3 of this part;
- (i) no blackwood timber which has been graded shall be marked with any grading mark other than the mark delineated and described in

FOURTH SCHEDULE—(Contd)

[Subsidiary]

Part III which is appropriate to its grade;

- (j) when defects are encountered in any blackwood timber which are not defined in the list of defects contained in Appendix I to this Part, they shall be considered as equivalent to such defects according to their damaging effect on the piece of timber under inspection.

Grades of Blackwood Timber

2. For first grade—

- (a) logs to be 230 mm. or more in minimum diameter of the heartwood at the smaller end;
- (a) logs to be 9 in. or more in minimum diameter of the heartwood at the smaller end;
- (b) logs to be generally round in shape at the ends, reasonably straight, free from excessive fluting, completely free from very deep flutes, and free from twin hearts;
- (c) logs to have 75 per cent or more of the heartwood at the ends free from the visible defects as defined in paragraph 4 of this Part;—
- (d) logs to be free from unsound knots and free from sound knots over 150 mm. in average diameter of heartwood. Sound knots and knot clusters under 50 mm. in average diameter of heartwood will be permitted up to a maximum of three knots in each 1m. length of log;
- (e) sawn or machined timber to be completely free from visible defects as defined in paragraph 4 of this Part and free from knots of any size.

3. For second grade—

- (a) logs to be 150 mm. or more in minimum diameter of the heartwood at the smaller end;
- (b) logs to be generally round in shape at the ends, reasonably straight, free from very deep flutes, and free from twin hearts;
- (c) logs to have 60 per cent or more of the heartwood at the ends, free from defects as defined in paragraph 4 of this part;
- (d) logs to be free from unsound knots and free from sound knots over 75 mm. in average diameter of heartwood. Sound knots and knot cluster under 75 mm. average diameter of heartwood will be permitted up to a maximum of three knots in each 1m.

[Subsidiary]

FOURTH SCHEDULE—(Contd)

length of log;

(e) sawn or machined timber to have 95 per cent of each face completely free from visible defects as defined in paragraph 4 of this Part and free from knots of any size

4. The visible defects are—

(a) hollow, soft, rotten or shattered heart;

(b) borer holes in the heartwood;

(c) all types of shakes;

(d) checks more than 15 mm. deep;

(e) included bark or inbark;

(f) pockets containing bark, stone, sand, resin or foreign matter;

(g) sound knots, over 75 mm. in diameter of heartwood; unsound knots of any size;

(h) twin hearts in the heartwood of a piece of timber;

(i) sapwood;

(j) fine hair cracks (in sawn timber only).

Part III—Grade Marks

1. First grade

A circle containing the letters “B.1.E.A.K.” arranged thus



2. Second grade

A triangle containing the letters “B.2.E.A.K.” arranged thus

