Technical Data Sheet

Timber Decks Commercial, Industrial & Marine 7

Recommended Practice / March 2006

Issued by: Timber Queensland Limited

Introduction

Timbers natural appeal, strength and environmental credentials continue to make it the ideal choice for decking in commercial, industrial and marine structures, including:

- boardwalks
- jetties
- pontoons
- marinas
- bridges
- foot bridges
- loading docks
- vehicle parking

Scope

This data sheet provides details for the design, specification and construction of timber decks in fully exposed environments (including marine) in applications for light pedestrian traffic (2.7 kN or 4.5 kN point loads), heavy pedestrian traffic (9.0 kN point loads) and light vehicular traffic (13 kN point loads) with uniformly distributed loads of up to 5 kPa. Details for posts, other supporting/ foundation structures and lateral stability etc. are not included and should be engineered for the specific site conditions.

Species Selection

The traditional timber used in Australia for heavy decking is durability class 1 or 2 hardwood. The reasons for this are ready availability, natural durability and proven performance with minimum maintenance.

Preservative treated seasoned softwoods are now widely used in applications such as foot bridges, boardwalks, etc.

Table 1 provides guidance on readily available species suitable for heavy decking. It is recommended that for hardwood a range of acceptable species be specified for a project rather than a single species which will limit availability.

Grades

Decking is available in both unseasoned and seasoned timber in a range of grades and sizes.

Stress Grade

The general grade descriptions provided by the relevant Australian Standards (AS 2082 - Visually Stress-Graded Hardwood, AS 2858 - Softwood - Visually Stress-Graded For Structural Purposes) satisfy the structural requirements for bearers, joists and decking.

For greater serviceability, the following additional grade requirements should be specified for timber decking boards: - Open timber features such as knot holes, loose or unsound knots, gum pockets, loose gum veins, shakes and termite galleries should not be permitted on the upper face on the decking.

Hardwood bearers over 175 x 175 mm in cross section are permitted to have heart but only within the central 1/3 of the section. Square or near square sections can be more economical than rectangular sections of equivalent structural capacity because they can be cut from smaller logs containing sound boxed heart. Other advantages of square sections include longer length availability and greater lateral stability.

Decking Board Sizes and Profiles

Table 2 provides general guidance on sizes and stress grades which are usually available, however, individual suppliers should be contacted to determine availability of different size, species, grade and quantities.

Surface Texture

Experience has shown that timber with a sawn upper face provides greater long term weathering ability than a dressed surface. Decking therefore should be rough sawn all round or sized on two edges and one face (underside) only.

Arrises and Corners

A 3 mm arris should be specified on the top corners. Some seasoned decking is available with rounded corners. Such treatment of arrises or corners will reduce the incidence of splintering and improve the performance of coatings.

Table 1 Suitable Species

Species	Posts in Ground	Posts, Framing and Decking above Ground
PRESERVATIVE TREATED PINE (Carribean, Hoop, Radiata, Slash)	✔H5 Treatment (H6 Treatment in seawater contact)	✔H3 Treatment
CYPRESS	(See Note 1, 4)	(See Note 4)
BLACKBUTT	(See Note 1)	✔
GUM Forest Red	✔	✔
GUM Grey	✔	✔
GUM Spotted	(See Note 1)	✔
IRONBARK Red or Grey	✔	✔
MAHOGANY Red	(See Note 1)	✔
MAHOGANY White	✔	✔
MESSMATE Gympie	✔	✔
TALLOWWOOD	✔	✔
TURPENTINE	✔	(See Note 6)

NOTES:

1. These timbers are durability class 2 and may be used for in-ground applications only when they can be easily replaced if degrade occurs.
2. Hardwood decking boards containing sapwood must be preservative treated to H3 hazard level. (H5 if less than 400 mm from the ground)
3. Hardwood posts and framing containing more than 10% cross-section area of sapwood must be treated with preservative. (H5 level when in ground contact or less than 400 mm from the ground, H3 elsewhere). Small amounts of sapwood (less than 10% of cross section) may remain untreated provided they do not occur at joints or fixing points (not exceeding 50% of face or edge).
4. Cypress sapwood should be limited to 10% of the cross section (not exceeding 50% of face or edge) and should not occur at joints or fixing points.
5. Untreated softwood heartwood should be limited as for untreated hardwood sapwood (refer note 3).
6. Suitable only for posts and seasoned decking.

Table 2 Decking Board Sizes and Stress Grades

Timber	Finished or Sized Dimensions	Stress Grades
Hardwood - unseasoned	35/45 x 70 *, 35/45 x 90 * 35/45 x 120 *, 35/45 x 140 *	F14, F17, F22
Hardwood - seasoned	35/45 x 70 35/45 x 90 35/45 x 120, 35/45 x 140	F17, F27
Softwood - seasoned	35/45 x 70, 35/45 x 90 35/45 x 120, 35/45 x 140	F7, MGP 12
Cypress - unseasoned	35/45 x 70 * 35/45 x 90 * 35/45 x 120 *, 35/45 x 140 *	F5, F7

* sized dimensions

Moisture Content and Shrinkage

External decking timbers exposed to the weather will reach Equilibrium Moisture Content (EMC) with their surroundings after a period of 9-18 months, depending upon prevailing weather, size and type of timber used.

For coastal Australia, decks that are well ventilated should reach an EMC of approximately 16%. For decks close to and over water, EMC's will normally be a little higher (18-21%) and for dry inland areas considerably lower (10-12%).

Depending on location and species, the amount of shrinkage occurring in unseasoned timber will vary. Generally, about 6% shrinkage (6 mm per 100 mm) should be expected for unseasoned hardwood. An indication of shrinkage rates for individual species is given in Technical Data Sheet 16, Species Properties and Uses.

Allowance should therefore be made for shrinkage in unseasoned bearers, joists and decking, and for the gaps that will develop between the decking boards.

A minimum gap of 6 mm is recommended between decking boards to allow for good drainage and ventilation around boards.

Unseasoned decking boards should be laid tight together, with subsequent shrinkage creating the required gaps. As an example, if unseasoned spotted gum decking (45 x 120 mm) was butted together on installation, the final gap between the boards would be approximately 6% of 120 = 7-8 mm.

Seasoned decking should be installed with the required 6 mm minimum gap at the time of laying. Closing of these gaps may occur during prolonged wet periods. Larger gaps may be necessary for areas of higher EMC e.g. over water.

Construction

On-Site Storage

Timber delivered to site should be stored supported on level bearers not less than 150 mm clear of the ground. Timber should be left block stacked and banded until required. Both seasoned and unseasoned decking should be covered to protect it from the sun and rain.

End-Plating and Sealing

To reduce end splitting in unseasoned timber, the end grain should be coated immediately after sawing with a suitable sealer such as Petroleum Jelly or Mobilcer-M Wax Emulsion. In addition, all unseasoned sections 300 x 75 mm or greater should be end-plated with a multi-toothed plate connector covering at least 50% of the exposed end section. Timber should be specified and supplied to site with the end-sealing and plating already in place.

Fasteners

All fixings (nails, bolts, screws, plates, etc.) should be either stainless steel, monel metal, hot dipped galvanised or mechanically plated. Table 3 provides relevant fastener details for the fixing of the decks.

Where CCA, ACQ or copper azole treated timber has been used and continual moisture is present, hot dipped galvanised bolts etc., should be coated with a heavy bodied grease, bitumuous epoxy paint or plastic sheath prior to installation.

Table 3 Deck Fixing

DECKING BOARD SIZE (mm x mm)	No.	Fixing Type	Minimum Deck Joist Width (mm)
35 x 70 35 x 90	1 2	100 x 3.75 Flat Head or Dome Head Nail * (Pre-drilling may be required)	50
35 x 70 35 x 90 35 x 120 35 x 140	1 2 2 2	75 mm x No.14 Type 17 Batten Screw	50
45 x 70 45 x 90 45 x 120	1 2 2	125 x 5.6 Dome Head Decking Spike (Pre-drilling Required)	75
45 x 70 45 x 90 45 x 120 45 x 140	1 2 2 2	90/100 mm x No.14 Type 17 Batten Screw	50

* Ring shank if fixed to softwood joists.

Pre-drilling

Bolt holes in unseasoned timber should be drilled to a size equal to the bolt diameter + 10%. Where multiple bolts or fasteners are used in unseasoned timber, allowance for shrinkage should be made to avoid shrinkage restraint and possible splitting.

Pre-drilling for screws or nails may be necessary to avoid splitting. Where pre-drilling for screws or nails is required, the pre-drilled hole should be approximately 80% of the shank diameter of the screw or nail.

The size of fastener required to fix the decking boards may dictate the minimum floor joist thickness. Table 6 provides guidance in this regard.

Joint Detailing

The design of the joints is a key factor in ensuring the durability of the structure. When designing joints in timber decks, the following general guidelines should be considered:

- Keep the contact area between members to a minimum.
- Make all joints self draining.
- Where the contact area is excessive or durability in the joint may be a problem, use a preservative paste (e.g., Koppers CN Emulsion) or a bitumastic type sealer on the contact surfaces.
- Avoid bolt or nail configurations which are likely to cause splitting as the timber seasons.
- Seal all end-grain with a suitable sealer (e.g., Mobilcer-M Wax Emulsion).
- Ensure the joint receives as much natural ventilation as possible.

Ventilation

The long term satisfactory performance of the decking and timber substructure can be markedly enhanced by ensuring adequate ventilation. Care should be taken to avoid dead air pockets. The wider the decking board spacing and the greater the ventilation, the longer the deck will last. As a minimum, a final decking board spacing of 6 mm is recommended.

Finishing and Maintenance

Finishing

For industrial and marine applications, the addition of coatings in addition to those used to protect end-grain joints, etc. is not usually necessary; however, the use of a suitable decking finish will improve long term performance. For LOSP treated timber, all members must be coated all-round with a paint or stain, and maintained as recommended in Timber Queensland Technical Data Sheet 22 - LOSP Treated Timber. For some commercial applications, the use of finishes may be appropriate to provide colour or alternatively, protection against staining during construction or where food and drinks are served.

A number of finishes which are easily maintained are available. An appropriate finish in most cases would be an oil based stain used in conjunction with a water repellent.

Maintenance

Most heavy deck structures are generally designed to have minimal maintenance, however, the areas where maintenance may be required are as follows:

- Replacement of damaged decking boards.
- If a stain finish is used, refinishing will be needed at intervals dependent on exposure and traffic.
- The end sealants may leach out over time on exposed ends and further applications may be required.
- Loose boards may develop as a result of excessive vibration loading and these should be refixed.
- The re-punching of some nails or re-tightening of screws may be necessary after shrinkage.
- The tightening of bolts after shrinkage of larger members may also be necessary.

Table 4 Allowable Decking Board Spans

Point Loads	Size (mm x mm)	Allowable Decking Board Spans					
		F7	MGP12	F14	F17	F22	F27
	35 x 70	580	700	700	740	760	800
Point Load	35 x 90	660	780	760	800	840	880
2.7 kN	35 x 120	720	860	840	880	920	960
	35 x 140	760	900	880	920	960	1020
(Light	45 x 70	780	920	900	940	980	1040
Pedestrian	45 x 90	840	1000	980	1020	1080	1120
Traffic)	45 x 120	940	1100	1080	1140	1180	1200
	45 x 140	980	1160	1140	1200	1200	1200
	35 x 70	340	480	700	740	760	800
Point Load	35 x 90	420	600	760	800	840	880
4.5 kN	35 x 120	560	780	840	880	920	960
	35 x 140	640	900	880	920	960	1020
(Light	45 x 70	580	800	900	940	980	1040
Pedestrian	45 x 90	700	980	980	1020	1080	1120
Traffic)	45 x 120	920	1100	1080	1140	1180	1200
	45 x 140	980	1160	1140	1200	1200	1200
	35 x 70	NS	NS	340	440	560	640
Point Load	35 x 90	NS	NS	420	520	680	700
9.0 kN	35 x 120	NS	380	560	700	740	780
	35 x 140	320	460	640	740	780	820
(Heavy	45 x 70	NS	400	580	720	800	840
Pedestrian	45 x 90	340	500	700	820	860	900
Traffic)	45 x 120	460	640	860	920	960	1000
	45 x 140	540	740	920	960	1000	1060
	35 x 70	NS	NS	NS	300	380	480
Point Load	35 x 90	NS	NS	NS	360	480	580
13 kN	35 x 120	NS	NS	380	480	620	680
	35 x 140	NS	320	440	560	680	720
(Light	45 x 70	NS	NS	400	500	640	740
Vehicular	45 x 90	NS	340	480	600	760	800
Traffic)	45 x 120	320	440	640	800	840	880
	45 x 140	360	520	740	840	880	940

NOTE TO TABLE 4:
These sizes are also capable of carrying uniformly distributed loads of 5 kPa.

Design

AS/NZS 1170 (2002), Structural design actions, provides guidance on the loads required to be considered for most commercial and industrial applications.

Decking Boards

Table 4 gives the allowable spans for various grades and sizes of timber decking for a uniform distributed load up to 5 kPa and point live loads as indicated.

Joists and Bearers

Tables 5 and 6 provide joist sizes and Tables 7 and 8 provide bearer sizes.

Table 5 Deck Joists - Seasoned Timber

Joist Spacing	Size (mm x mm)	Maximum Joist Span (mm)															
		4.0 kPa Uniform Live Load / 4.5 kN Point Live Load								5.0 kPa Uniform Live Load / 13 kN Point Live Load							
		Single Span				Continuous Span				Single Span				Continuous Span			
		F7	MGP12	F17	F27	F7	MGP12	F17	F27	F7	MGP12	F17	F27	F7	MGP12	F17	F27
	120 x 45	-	-	1000	2000	-	-	1400	2600	-	-	1000	2000	-	-	1400	2600
	140 x 45	-	-	1500	2700	-	1000	2100	3200	-	-	1500	2700	-	1000	2100	3200
300	170 x 45	-	1100	2400	3400	-	1600	3400	3900	-	1100	2400	3400	-	1600	3400	3900
	190 x 45	-	1500	3200	3800	1200	2000	4000	4400	-	1500	3200	3800	1200	2000	4000	4400
	240 x 45	1600	2300	4400	4800	2200	3200	5000	5500	1600	2300	4400	4800	2200	3200	5000	5500
	290 x 45	2500	3200	5300	5800	3500	4500	6100	6600	2500	3200	5300	5800	3500	4500	6100	6600
	120 x 45	-	-	-	1600	-	-	1200	2300	-	-	-	1600	-	-	1200	2300
	140 x 45	-	-	1300	2400	-	-	1700	3000	-	-	1300	2400	-	-	1700	3000
450	170 x 45	-	1000	2000	3200	-	1300	2800	3700	-	1000	2000	3200	-	1300	2800	3700
	190 x 45	-	1300	2700	3600	1100	1700	3600	4100	-	1300	2700	3600	1100	1700	3600	4100
	240 x 45	1400	2000	4200	4600	1900	2700	4700	5200	1400	2000	4200	4600	1900	2700	4700	5200
	290 x 45	2200	2800	5000	5500	2900	3700	5700	6300	2200	2800	5000	5500	2900	3700	5700	6300
	120 x 45	-	-	-	1400	-	-	1000	2000	-	-	-	1400	-	-	1000	2000
	140 x 45	-	-	1100	2100	-	-	1500	2900	-	-	1100	2100	-	-	1500	2900
	170 x 45	-	1000	1800	3100	-	1200	2400	3500	-	1000	1800	3100	-	1200	2400	3500
600	190 x 45	-	1200	2300	3500	1000	1500	3200	3900	-	1200	2300	3500	1000	1500	3200	3900
	240 x 45	1300	1800	4000	4400	1700	2400	4500	5000	1300	1800	4000	4400	1700	2400	4500	5000
	290 x 45	2000	2500	4900	5300	2600	3300	5500	6000	2000	2500	4900	5300	2600	3300	5500	6000
	120 x 45	-	-	-	1300	-	-	1000	1800	-	-	-	1300	-	-	1000	1800
	140 x 45	-	-	1100	1900	-	-	1400	2600	-	-	1100	1900	-	-	1400	2600
	170 x 45	-	1000	1700	3000	-	1200	2200	3400	-	1000	1700	3000	-	1200	2200	3400
750	190 x 45	-	1200	2100	3400	1000	1500	2900	3800	-	1200	2100	3400	1000	1500	2900	3800
	240 x 45	1300	1800	3600	4300	1700	2300	4300	4900	1300	1800	3600	4300	1700	2300	4300	4900
	290 x 45	2000	2400	4700	5200	2400	3000	5200	5900	2000	2400	4700	5200	2400	3000	5200	5900
	120 x 45	-	-	-	1300	-	-	1000	1700	-	-	-	1300	-	-	1000	1700
	140 x 45	-	-	1100	1800	-	-	1400	2400	-	-	1100	1800	-	-	1400	2400
	170 x 45	-	1000	1700	2800	-	1200	2100	3400	-	1000	1700	2800	-	1200	2100	3400
900	190 x 45	-	1200	2100	3300	1000	1500	2700	3800	-	1200	2100	3300	1000	1500	2700	3800
	240 x 45	1300	1800	3400	4200	1700	2300	3900	4800	1300	1800	3400	4200	1700	2300	3900	4800
	290 x 45	2000	2400	4600	5100	2400	3000	4700	5800	2000	2400	4600	5100	2400	3000	4700	5800

NOTES TO TABLE 5:
1. Minimum end bearing length = 35 mm, Minimum internal bearing length = 70 mm.
2. Live load deflection limit = span/150 or 20 mm (This limit is considered appropriate where the maximum loads are only applied occasionally).
3. Maximum cantilever shall be not more than 25% of maximum allowable joist span and not more than 30% of actual span.
4. The availability of different grades, sizes and lengths may vary between individual suppliers. Availability should be checked prior to design/specification.
5. The maximum joist spans are based on a maximum decking mass of 40 kg/m^2.

Table 6 Deck Joists - Unseasoned

Joist Spacing	Size (mm x mm)	Maximum Joist Span (mm)																			
		4.0 kPa Uniform Live Load / 4.5 kN Point Live Load										5.0 kPa Uniform Live Load / 13 kN Point Live Load									
		Single Span					Continuous Span					Single Span					Continuous Span				
		F5	F7	F14	F17	F22	F5	F7	F14	F17	F22	F5	F7	F14	F17	F22	F5	F7	F14	F17	F22
300	125 x 50	-	-	-	1300	1900	-	-	1300	1800	2500	-	-	-	1300	1900	-	-	1300	1800	2500
	125 x 75	-	-	1600	2200	2600	-	-	2200	3000	3100	-	-	1600	2200	2600	-	-	2200	3000	3100
	150 x 50	-	-	1500	2100	2800	-	-	2100	3000	3200	-	-	1500	2100	2800	-	-	2100	3000	3200
	150 x 75	-	-	2500	3100	3300	-	1300	3400	3600	3800	-	-	2500	3100	3300	-	1300	3400	3600	3800
	175 x 50	-	-	2300	3100	3300	-	1100	3200	3600	3800	-	-	2300	3100	3300	-	1100	3200	3600	3800
	175 x 75	1000	1400	3500	3700	3900	1400	1900	4000	4200	4400	1000	1400	3500	3700	3900	1400	1900	4000	4200	4400
	200 x 50	-	1200	3200	3700	3800	1200	1600	4000	4200	4400	-	1200	3200	3700	3800	1200	1600	4000	4200	4400
	200 x 75	1400	1900	4000	4200	4400	1900	2600	4600	4800	5000	1400	1900	4000	4200	4400	1900	2600	4600	4800	5000
	225 x 50	1200	1600	3900	4100	4300	1600	2100	4500	4700	4900	1200	1600	3900	4100	4300	1600	2100	4500	4700	4900
	225 x 75	1900	2600	4500	4800	5000	2600	3600	5200	5400	5700	1900	2600	4500	4800	5000	2600	3600	5200	5400	5700
	250 x 50	1500	2100	4400	4600	4800	2000	2800	5000	5200	5500	1500	2100	4400	4600	4800	2000	2800	5000	5200	5500
	250 x 75	2500	3300	5000	5300	5600	3400	4700	5700	6000	6300	2500	3300	5000	5300	5600	3400	4700	5700	6000	6300
	275 x 75	3100	4200	5600	5800	6100	4300	5400	6300	6600	6900	3100	4700	5600	5800	6100	4300	5400	6300	6600	6900
	300 x 75	3800	5200	6100	6400	6700	5400	6000	6900	7200	7200	3800	5200	6100	6400	6700	5400	6000	6900	7200	7200
450	125 x 50	-	-	-	1100	1600	-	-	1100	1500	2200	-	-	-	1100	1600	-	-	1100	1600	2200
	125 x 75	-	-	1300	1800	2400	-	-	1800	2500	2900	-	-	1300	1800	2400	-	-	1800	2500	2900
	150 x 50	-	-	1300	1700	2500	-	-	1800	2400	3000	-	-	1300	1700	2500	-	-	1800	2400	3000
	150 x 75	-	-	2100	2800	3100	-	1100	2900	3400	3500	-	-	2100	2800	3100	-	1100	2900	3400	3500
	175 x 50	-	-	1900	2600	3100	-	1000	2600	3400	3600	-	-	1900	2600	3100	-	1000	2600	3400	3600
	175 x 75	-	1200	3100	3500	3600	1200	1600	3700	3900	4100	-	1200	3100	3500	3600	1200	1600	3700	3900	4100
	200 x 50	-	1000	2600	3500	3600	1000	1400	3600	3900	4100	-	1100	2600	3500	3600	1000	1400	3600	3900	4100
	200 x 75	1200	1600	3800	4000	4200	1600	2200	4300	4500	4700	1200	1600	3800	4000	4200	1600	2200	4300	4500	4700
	225 x 50	1000	1400	3500	3900	4100	1400	1800	4200	4400	4600	1000	1400	3500	3900	4100	1400	1800	4200	4400	4600
	225 x 75	1600	2200	4300	4500	4700	2200	3000	4800	5100	5300	1600	2200	4300	4500	4700	2200	3000	4800	5100	5300
	250 x 50	1300	1700	4100	4300	4500	1800	2400	4700	4900	5200	1300	1700	4100	4300	4500	1800	2400	4700	4900	5200
	250 x 75	2100	2800	4800	5000	5200	2800	3800	5400	5700	5900	2100	2800	4800	5000	5200	2800	3800	5400	5700	5900
	275 x 75	2600	3500	5200	5500	5800	3600	4800	5900	6300	6500	2600	3500	5200	5500	5800	3600	4800	5900	6300	6500
	300 x 75	3200	4300	5700	6000	6300	4400	5500	6500	6800	7100	3200	4300	5700	6000	6300	4400	5500	6500	6800	7100
600	125 x 50	-	-	-	1000	1400	-	-	1000	1300	1900	-	-	-	1000	1400	-	-	1000	1300	1900
	125 x 75	-	-	1200	1600	2200	-	-	1600	2200	2700	-	-	1200	1600	2200	-	-	1600	2200	2700
	150 x 50	-	-	1200	1500	2200	-	-	1600	2100	2900	-	-	1200	1500	2200	-	-	1600	2100	2900
	150 x 75	-	-	1900	2500	3000	-	1000	2500	3200	3400	-	-	1900	2500	3000	-	1000	2500	3200	3400
	175 x 50	-	-	1700	2300	3000	-	-	2300	3000	3400	-	-	1700	2300	3000	-	-	2300	3000	3400
	175 x 75	-	1100	2700	3400	3500	1100	1400	3600	3800	4000	-	1100	2700	3400	3500	1100	1400	3600	3800	4000
	200 x 50	-	1000	2300	3100	3500	1000	1300	3100	3800	3900	-	1000	2300	3100	3500	1000	1300	3100	3800	3900
	200 x 75	1200	1500	3600	3800	4000	1500	2000	4100	4400	4600	1200	1500	3600	3800	4000	1500	2000	4100	4400	4600
	225 x 50	1000	1300	3100	3800	3900	1300	1600	4000	4300	4500	1000	1300	3100	3800	3900	1300	1600	4000	4300	4500
	225 x 75	1500	1900	4100	4300	4500	2000	2600	4700	4900	5100	1500	1900	4100	4300	4500	2000	2600	4700	4900	5100
	250 x 50	1300	1600	3900	4200	4400	1600	2100	4500	4700	5000	1300	1600	3900	4200	4400	1600	2100	4500	4700	5000
	250 x 75	1900	2500	4600	4800	5100	2500	3400	5200	5500	5700	1900	2500	4600	4800	5100	2500	3400	5200	5500	5700
	275 x 75	2300	3100	5100	5300	5600	3200	4200	5700	6000	6300	2300	3100	5100	5300	5600	3200	4200	5700	6000	6300
	300 x 75	2900	3800	5500	5800	6100	3900	4800	6200	6600	6900	2900	3800	5500	5800	6100	3900	4800	6200	6600	6900
750	125 x 50	-	-	-	1000	1300	-	-	1000	1200	1700	-	-	-	1000	1300	-	-	1000	1200	1700
	125 x 75	-	-	1200	1500	2000	-	-	1500	2000	2600	-	-	1200	1500	2000	-	-	1500	2000	2600
	150 x 50	-	-	1200	1500	2000	-	-	1400	1900	2700	-	-	1200	1500	2000	-	-	1400	1900	2700
	150 x 75	-	-	1700	2200	2900	-	1000	2300	3000	3300	-	-	1700	2200	2900	-	1000	2300	3000	3300
	175 x 50	-	-	1600	2100	2900	-	-	2100	2800	3300	-	-	1600	2100	2900	-	-	2100	2800	3300
	175 x 75	-	1100	2400	3200	3400	1100	1400	3300	3700	3900	-	1100	2400	3200	3400	1100	1400	3300	3700	3900
	200 x 50	-	1000	2100	2800	3400	1000	1300	2900	3700	3800	-	1000	2100	2800	3400	1000	1300	2900	3700	3800
	200 x 75	1200	1500	3300	3700	3900	1500	1900	4000	4200	4400	1200	1500	3300	3700	3900	1500	1900	4000	4200	4400
	225 x 50	1000	1300	2800	3700	3800	1300	1600	3800	4100	4300	1000	1300	2800	3700	3800	1300	1600	3800	4100	4300
	225 x 75	1500	1900	4000	4200	4400	1900	2400	4500	4800	5000	1500	1900	4000	4200	4400	1900	2400	4500	4800	5000
	250 x 50	1300	1600	3600	4100	4300	1600	2000	4200	4600	4800	1300	1600	3600	4100	4300	1600	2000	4200	4600	4800
	250 x 75	1900	2400	4500	4700	4900	2400	3100	5100	5300	5600	1900	2400	4500	4700	4900	2400	3100	5100	5300	5600
	275 x 75	2300	2900	4900	5200	5400	2900	3800	5600	5900	6100	2300	2900	4900	5200	5400	2900	3800	5600	5900	6100
	300 x 75	2700	3500	5400	5700	5900	3500	4300	6100	6400	6700	2700	3500	5400	5700	5900	3500	4300	6100	6400	6700
900	125 x 50	-	-	-	1000	1300	-	-	1000	1200	1600	-	-	-	1000	1300	-	-	1000	1200	1600
	125 x 75	-	-	1200	1500	1900	-	-	1500	1800	2500	-	-	1200	1500	1900	-	-	1500	1800	2500
	150 x 50	-	-	1200	1500	1900	-	-	1400	1800	2500	-	-	1200	1500	1900	-	-	1400	1800	2500
	150 x 75	-	-	1700	2100	2800	-	1000	2100	2800	3200	-	-	1700	2100	2800	-	1000	2100	2800	3200
	175 x 50	-	-	1600	2000	2700	-	-	2000	2600	3300	-	-	1600	2000	2700	-	-	2000	2600	3300
	175 x 75	-	1100	2300	3000	3400	1100	1400	3100	3600	3800	-	1100	2300	3000	3400	1100	1400	3100	3600	3800
	200 x 50	-	1000	2100	2600	3300	1000	1300	2700	3400	3800	-	1000	2100	2600	3300	1000	1300	2700	3400	3800
	200 x 75	1200	1500	3100	3700	3800	1500	1900	3700	4100	4400	1200	1500	3100	3700	3800	1500	1900	3700	4100	4400
	225 x 50	1000	1300	2600	3400	3800	1300	1600	3500	3900	4300	1000	1300	2600	3400	3800	1300	1600	3500	3900	4300
	225 x 75	1500	1900	3900	4200	4300	1900	2400	4200	4700	4900	1500	1900	3900	4200	4300	1900	2400	4200	4700	4900
	250 x 50	1300	1600	3300	4000	4200	1600	2000	3900	4300	4700	1300	1600	3300	4000	4200	1600	2000	3900	4300	4700
	250 x 75	1900	2300	4400	4600	4800	2300	2900	4600	5200	5500	1900	2300	4400	4600	4800	2300	2900	4600	5200	5500
	275 x 75	2300	2800	4800	5100	5300	2800	3600	5100	5700	6000	2300	2800	4800	5100	5300	2800	3600	5100	5700	6000
	300 x 75	2700	3300	5300	5600	5800	3400	3900	5600	6200	6600	2700	3300	5300	5600	5800	3400	3900	5600	6200	6600

NOTES TO TABLE 6:

1. Minimum end bearing length = 35 mm, Minimum internal bearing length = 70 mm.
2. Live load deflection limit = span/150 or 20 mm (This limit is considered appropriate where the maximum loads are only applied occasionally).
3. Maximum cantilever shall be not more than 25% of maximum allowable joist span and not more than 30% of actual span.
4. The availability of different grades, sizes and lengths may vary between individual suppliers. Availability should be checked prior to design/specification.
5. The maximum joist spans are based on a maximum decking mass of 40 kg/m^2.

Table 7 Deck Bearers - Unseasoned Timber

Floor Load Width	Size (mm x mm) (d x b)	Bearer Span (mm) - 4.0 kPa Uniform Live Load / 4.5 kN Point Live Load										Bearer Span (mm) - 5.0 kPa Uniform Live Load / 13 kN Point Live Load									
		Single Span					Continuous Span					Single Span					Continuous Span				
		F5	F7	F14	F17	F22	F5	F7	F14	F17	F22	F5	F7	F14	F17	F22	F5	F7	F14	F17	F22
2400	175 x 75	1400	1600	2300	2500	2900	1400	1600	2300	2500	2900	-	1200	2000	2300	2600	1200	1400	2000	2300	2600
	2/175 x 50	1800	2000	2900	3100	3200	1800	2000	2900	3200	3700	1500	1800	2600	2900	3100	1600	1800	2600	2900	3300
	2/175 x 75	2200	2400	3300	3500	3600	2200	2400	3400	3800	4200	1900	2200	3100	3300	3400	1900	2200	3100	3500	3900
	175 x 175	2100	2400	3400	3600	3700	2100	2400	3400	3800	4300	1900	2100	3000	3400	3500	1900	2100	3000	3400	3900
	200 x 75	1600	1800	2600	2900	3300	1600	1800	2600	2900	3300	1200	1500	2300	2600	3000	1500	1600	2300	2600	3000
	2/200 x 50	2100	2300	3300	3500	3600	2100	2300	3300	3700	4200	1900	2100	3000	3300	3400	1900	2100	3000	3300	3800
	2/200 x 75	2500	2800	3700	3800	4000	2500	2800	3900	4400	4600	2200	2500	3500	3600	3800	2200	2500	3500	4000	4400
	200 x 175	2400	2700	3800	4000	4100	2400	2700	3800	4300	4800	2200	2400	3500	3800	3900	2200	2400	3500	3900	4400
	200 x 200	2600	2900	4000	4100	4300	2600	2900	4100	4600	5000	2300	2600	3700	3900	4000	2300	2600	3700	4100	4700
	250 x 75	2000	2300	3300	3600	4000	2000	2300	3300	3600	4100	1800	2100	2900	3300	3700	1800	2100	2900	3300	3700
	2/250 x 50	2600	2900	4000	4100	4300	2600	2900	4100	4600	4900	2300	2600	3700	3900	4000	2300	2600	3700	4100	4700
	2/250 x 75	3100	3500	4400	4600	4700	3100	3500	4900	5300	5500	2800	3100	4100	4300	4500	2800	3100	4400	4900	5200
	250 x 175	3000	3400	4600	4700	4900	3000	3400	4800	5300	5700	2700	3100	4300	4500	4600	2700	3100	4300	4800	5400
	250 x 200	3200	3600	4700	4900	5100	3200	3600	5100	5700	5900	2900	3300	4500	4600	4800	2900	3300	4600	5200	5600
	250 x 250	3600	4000	5000	5200	5400	3600	4000	5700	6000	6200	3300	3700	4700	4900	5100	3300	3700	5100	5700	5900
	300 x 75	2500	2800	3900	4400	4500	2500	2800	3900	4400	5000	2200	2500	3500	3900	4300	2200	2500	3500	3900	4500
	2/300 x 50	3100	3500	4500	4700	4900	3100	3500	4900	5500	5700	2800	3100	4300	4500	4600	2800	3100	4400	5000	5400
	2/300 x 75	3700	4100	5000	5200	5400	3700	4100	5800	6100	6300	3400	3700	4800	4900	5100	3400	3700	5300	5800	5900
	300 x 175	3600	4100	5200	5400	5600	3600	4100	5700	6300	6500	3300	3700	4900	5100	5300	3300	3700	5200	5800	6200
	300 x 200	3900	4300	5400	5600	5800	3900	4300	6100	6500	6800	3500	3900	5100	5300	5500	3500	3900	5500	6200	6400
	300 x 250	4300	4800	5700	5900	6100	4300	4800	6700	6900	7100	3900	4400	5400	5600	5800	3900	4400	6100	6500	6800
	300 x 300	4700	5300	5900	6100	6300	4700	5300	7000	7200	7200	4300	4800	5700	5900	6100	4300	4800	6600	6800	7100
3600	175 x 75	1100	1300	1800	2100	2400	1100	1300	1800	2100	2400	-	1100	1700	1900	2100	1000	1200	1700	1900	2100
	2/175 x 50	1500	1600	2300	2600	2900	1500	1600	2300	2600	3000	1300	1500	2100	2400	2700	1300	1500	2100	2400	2700
	2/175 x 75	1700	2000	2800	3100	3200	1700	2000	2800	3100	3600	1600	1800	2500	2800	3100	1600	1800	2500	2800	3200
	175 x 175	1700	1900	2700	3100	3400	1700	1900	2700	3100	3500	1500	1700	2500	2800	3200	1500	1700	2500	2800	3200
	200 x 75	1300	1500	2100	2400	2700	1300	1500	2100	2400	2700	1200	1300	1900	2100	2400	1200	1300	1900	2100	2400
	2/200 x 50	1700	1900	2700	3000	3200	1700	1900	2700	3000	3400	1500	1700	2400	2700	3100	1500	1700	2400	2700	3100
	2/200 x 75	2000	2200	3200	3500	3600	2000	2200	3200	3600	4100	1800	2000	2900	3200	3400	1800	2000	2900	3200	3700
	200 x 175	2000	2200	3100	3500	3700	2000	2200	3100	3500	4000	1800	2000	2800	3200	3500	1800	2000	2800	3200	3600
	200 x 200	2100	2400	3300	3700	3900	2100	2400	3300	3700	4300	1900	2100	3000	3400	3700	1900	2100	3000	3400	3900
	250 x 75	1700	1900	2600	3000	3400	1700	1900	2600	3000	3400	1500	1700	2400	2700	3000	1500	1700	2400	2700	3000
	2/250 x 50	2100	2300	3300	3700	3800	2100	2300	3300	3700	4300	1900	2100	3000	3400	3600	1900	2100	3000	3400	3800
	2/250 x 75	2500	2800	4000	4100	4300	2500	2800	4000	4500	4900	2300	2500	3600	3900	4000	2300	2500	3600	4000	4600
	250 x 175	2500	2800	3900	4300	4400	2500	2800	3900	4400	5000	2200	2500	3500	4000	4200	2200	2500	3500	4000	4500
	250 x 200	2600	3000	4200	4400	4600	2600	3000	4200	4700	5300	2400	2700	3800	4200	4300	2400	2700	3800	4200	4800
	250 x 250	2900	3300	4500	4700	4800	2900	3300	4600	5200	5600	2700	3000	4200	4400	4600	2700	3000	4200	4700	5300
	300 x 75	2000	2200	3200	3600	4000	2000	2200	3200	3600	4000	1800	2000	2900	3200	3700	1800	2000	2900	3200	3700
	2/300 x 50	2500	2800	4000	4300	4400	2500	2800	4000	4500	5100	2300	2600	3600	4000	4200	2300	2600	3600	4000	4600
	2/300 x 75	3000	3400	4500	4700	4900	3000	3400	4800	5300	5700	2700	3100	4300	4500	4600	2700	3100	4300	4800	5400
	300 x 175	3000	3300	4700	4900	5100	3000	3300	4700	5200	5900	2700	3000	4200	4600	4800	2700	3000	4200	4700	5400
	300 x 200	3200	3500	4900	5100	5300	3200	3500	5000	5600	6100	2900	3200	4500	4800	5000	2900	3200	4500	5100	5800
	300 x 250	3500	4000	5200	5400	5600	3500	4000	5600	6200	6500	3200	3600	4900	5100	5300	3200	3600	5000	5600	6100
	300 x 300	3900	4300	5400	5600	5800	3900	4300	6100	6500	6800	3500	3900	5100	5300	5500	3500	3900	5500	6200	6400
4800	175 x 75	1000	1100	1600	1800	2000	1000	1100	1600	1800	2000	-	1000	1400	1600	1800	-	1000	1400	1600	1800
	2/175 x 50	1200	1400	2000	2200	2600	1200	1400	2000	2200	2600	1100	1300	1800	2000	2300	1100	1300	1800	2000	2300
	2/175 x 75	1500	1700	2400	2700	3000	1500	1700	2400	2700	3100	1400	1500	2200	2400	2800	1400	1500	2200	2400	2800
	175 x 175	1500	1700	2400	2600	3000	1500	1700	2400	2600	3000	1300	1500	2100	2400	2700	1300	1500	2100	2400	2700
	200 x 75	1100	1300	1800	2000	2300	1100	1300	1800	2000	2300	1000	1100	1600	1800	2100	1000	1100	1600	1800	2100
	2/200 x 50	1400	1600	2300	2600	2900	1400	1600	2300	2600	2900	1300	1400	2100	2300	2700	1300	1400	2100	2300	2700
	2/200 x 75	1700	1900	2700	3100	3300	1700	1900	2700	3100	3500	1600	1700	2500	2800	3200	1600	1700	2500	2800	3200
	200 x 175	1700	1900	2700	3000	3500	1700	1900	2700	3000	3500	1500	1700	2400	2700	3100	1500	1700	2400	2700	3100
	200 x 200	1800	2000	2900	3200	3600	1800	2000	2900	3200	3700	1600	1800	2600	2900	3300	1600	1800	2600	2900	3300
	250 x 75	1400	1600	2300	2500	2900	1400	1600	2300	2500	2900	1300	1400	2100	2300	2600	1300	1400	2100	2300	2600
	2/250 x 50	1800	2000	2900	3200	3600	1800	2000	2900	3200	3700	1600	1800	2600	2900	3300	1600	1800	2600	2900	3300
	2/250 x 75	2200	2400	3400	3800	4000	2200	2400	3400	3800	4400	2000	2200	3100	3500	3700	2000	2200	3100	3500	4000
	250 x 175	2100	2400	3400	3800	4100	2100	2400	3400	3800	4300	1900	2100	3100	3400	3900	1900	2100	3100	3400	3900
	250 x 200	2300	2500	3600	4000	4300	2300	2500	3600	4000	4600	2100	2300	3300	3700	4000	2100	2300	3300	3700	4200
	250 x 250	2500	2800	4000	4400	4500	2500	2800	4000	4500	5100	2300	2600	3600	4100	4300	2300	2600	3600	4100	4600
	300 x 75	1700	1900	2700	3100	3500	1700	1900	2700	3100	3500	1500	1700	2500	2800	3200	1500	1700	2500	2800	3100
	2/300 x 50	2200	2400	3500	3900	4100	2200	2400	3500	3900	4400	2000	2200	3100	3500	3900	2000	2200	3100	3500	3900
	2/300 x 75	2600	2900	4100	4400	4500	2600	2900	4100	4600	5300	2400	2600	3700	4200	4300	2400	2600	3700	4200	4800
	300 x 175	2600	2900	4000	4500	4700	2600	2900	4000	4500	5200	2300	2600	3700	4100	4500	2300	2600	3700	4100	4700
	300 x 200	2700	3100	4300	4700	4900	2700	3100	4300	4800	5500	2500	2800	3900	4400	4600	2500	2800	3900	4400	5000
	300 x 250	3100	3400	4800	5000	5200	3100	3400	4800	5400	6000	2800	3100	4400	4700	4900	2800	3100	4400	4900	5600
	300 x 300	3300	3700	5000	5200	5400	3300	3700	5300	5900	6300	3000	3400	4800	4900	5100	3000	3400	4800	5300	5900
6000	175 x 75	-	1000	1400	1600	1800	-	1000	1400	1600	1800	-	-	1300	1400	1600	-	-	1300	1400	1500
	2/175 x 50	1100	1200	1800	2000	2300	1100	1200	1800	2000	2300	1000	1100	1600	1800	2100	1000	1100	1600	1800	2000
	2/175 x 75	1300	1500	2100	2400	2700	1300	1500	2100	2400	2700	1200	1300	1900	2200	2500	1200	1300	1900	2200	2500
	175 x 175	1300	1500	2100	2300	2700	1300	1500	2100	2300	2700	1200	1300	1900	2100	2400	1200	1300	1900	2100	2400
	200 x 75	1000	1100	1600	1800	2100	1000	1100	1600	1800	2000	-	1000	1400	1600	1900	-	1000	1400	1600	1700
	2/200 x 50	1300	1400	2000	2300	2600	1300	1400	2000	2300	2600	1100	1300	1800	2100	2400	1100	1300	1800	2100	2200
	2/200 x 75	1500	1700	2400	2700	3100	1500	1700	2400	2700	3100	1400	1500	2200	2500	2800	1400	1500	2200	2500	2800
	200 x 175	1500	1700	2400	2700	3100	1500	1700	2400	2700	3100	1400	1500	2200	2400	2800	1400	1500	2200	2400	2800
	200 x 200	1600	1800	2600	2900	3300	1600	1800	2600	2900	3300	1500	1600	2300	2600	3000	1500	1600	2300	2600	3000
	250 x 75	1300	1400	2000	2300	2600	1300	1400	2000	2300	2500	1100	1300	1800	2000	2300	1100	1300	1800	2000	2200
	2/250 x 50	1600	1800	2600	2900	3300	1600	1800	2600	2900	3200	1400	1600	2300	2600	3000	1400	1600	2300	2600	2800
	2/250 x 75	1900	2200	3100	3400	3700	1900	2200	3100	3400	3900	1700	1900	2800	3100	3500	1700	1900	2800	3100	3500
	250 x 175	1900	2100	3000	3400	3800	1900	2100	3000	3400	3800	1700	1900	2700	3000	3500	1700	1900	2700	3000	3500
	250 x 200	2000	2300	3200	3600	4000	2000	2300	3200	3600	4100	1800	2000	2900	3300	3700	1800	2000	2900	3300	3700
	250 x 250	2300	2500	3600	4000	4300	2300	2500	3600	4000	4600	2000	2300	3300	3600	4000	2000	2300	3300	3600	4200
	300 x 75	1500	1700	2400	2700	3100	1500	1700	2400	2700	3000	1400	1500	2200	2500	2800	1400	1500	2200	2500	2600
	2/300 x 50	1900	2200	3100	3400	3900	1900	2200	3100	3400	3900	1700	2000	2800	3100	3600	1700	2000	2800	3100	3300
	2/300 x 75	2300	2600	3700	4100	4300	2300	2600	3700	4100	4700	2100	2300	3300	3700	4100	2100	2300	3300	3700	4200
	300 x 175	2300	2500	3600	4000	4500	2300	2500	3600	4000	4600	2100	2300	3300	3700	4200	2100	2300	3300	3700	4200
	300 x 200	2400	2700	3900	4300	4600	2400	2700	3900	4300	4900	2200	2500	3500	3900	4400	2200	2500	3500	3900	4500
	300 x 250	2700	3000	4300	4700	4900	2700	3000	4300	4800	5500	2500	2800	3900	4400	4600	2500	2800	3900	4400	5000
	300 x 300	3000	3300	4700	4900	5100	3000	3300	4700	5300	5900	2700	3000	4300	4700	4800	2700	3000	4300	4800	5400

NOTES TO TABLE 7:

1. Minimum end bearing length = 100 mm, minimum internal bearing length = 150 mm.
2. Double bearers should be effectively fixed together at the third points within each span.
   Double bearers may be spaced using blocking pieces at the third points within each span.
3. Live load deflection limit = span/150 or 20 mm (This limit is considered appropriate where the maximum loads are only applied occasionally).
4. Maximum cantilever shall be not more than 25% of maximum allowable bearer span and not more than 30% of actual span.
5. The maximum bearer spans are based on a maximum decking mass of 40 kg/m^2.
6. The availability of different grades, sizes and lengths may vary between individual suppliers. Availability should be checked prior to design specification.

Table 8 Deck Bearers - Seasoned Timber

Floor Load Width	Size (mm x mm)	Bearer Span (mm) - 4.0 kPa Uniform Live Load / 4.5 kN Point Live Load								Bearer Span (mm) - 5.0 kPa Uniform Live Load / 13 kN Point Live Load							
		Single Span				Continuous Span				Single Span				Continuous Span			
		F7	MGP12	F17	F27	F7	MGP12	F17	F27	F7	MGP12	F17	F27	F7	MGP12	F17	F27
2400	2/170 x 35	1500	1900	2500	3000	1500	1900	2500	3100	1100	1600	2200	2800	1400	1700	2200	2800
	2/170 x 45	1800	2200	2800	3200	1800	2200	2800	3600	1400	1900	2500	3000	1600	1900	2500	3200
	2/190 x 35	1700	2100	2800	3300	1700	2100	2800	3500	1400	1900	2500	3100	1600	1900	2500	3200
	2/190 x 45	2000	2400	3100	3500	2000	2400	3100	4000	1800	2200	2800	3300	1800	2200	2800	3600
	2/240 x 35	2200	2600	3500	3900	2200	2600	3500	4400	2000	2300	3200	3700	2000	2300	3200	4000
	2/240 x 45	2500	2900	3900	4200	2500	2900	4000	4800	2300	2600	3600	3900	2300	2600	3600	4500
	2/290 x 35	2700	3000	4200	4500	2700	3000	4200	5200	2400	2700	3800	4300	2400	2700	3800	4800
	2/290 x 45	3000	3400	4500	4800	3000	3400	4800	5600	2700	3100	4200	4500	2700	3100	4300	5300
3600	2/170 x 35	1200	1500	2000	2500	1200	1500	2000	2500	1100	1400	1800	2300	1100	1400	1800	2100
	2/170 x 45	1400	1800	2300	2900	1400	1800	2300	2900	1300	1600	2100	2600	1300	1600	2100	2500
	2/190 x 35	1400	1700	2200	2900	1400	1700	2200	2700	1300	1500	2000	2600	1300	1500	2000	2300
	2/190 x 45	1600	1900	2600	3100	1600	1900	2600	3200	1400	1700	2300	2900	1400	1700	2300	2800
	2/240 x 35	1800	2100	2800	3500	1800	2100	2800	3400	1600	1900	2600	3300	1600	1900	2600	2900
	2/240 x 45	2000	2400	3200	3800	2000	2400	3200	4100	1800	2100	2900	3600	1800	2100	2900	3600
	2/290 x 35	2200	2400	3400	4100	2200	2400	3400	4100	2000	2200	3100	3800	2000	2200	3100	3500
	2/290 x 45	2500	2700	3900	4300	2500	2700	3900	4900	2200	2500	3500	4100	2200	2500	3500	4300
4800	2/170 x 35	1100	1300	1700	2200	1100	1300	1700	1900	1000	1200	1600	2000	1000	1200	1500	1700
	2/170 x 45	1200	1500	2000	2500	1200	1500	2000	2400	1100	1400	1800	2200	1100	1400	1800	2000
	2/190 x 35	1200	1500	1900	2500	1200	1500	1900	2200	1100	1300	1700	2200	1100	1300	1700	1900
	2/190 x 45	1400	1700	2200	2800	1400	1700	2200	2600	1200	1500	2000	2500	1200	1500	2000	2200
	2/240 x 35	1500	1800	2400	3100	1500	1800	2400	2700	1400	1600	2200	2800	1400	1600	2100	2300
	2/240 x 45	1700	2000	2800	3500	1700	2000	2800	3300	1600	1800	2500	3200	1600	1800	2500	2800
	2/290 x 35	1900	2100	3000	3800	1900	2100	3000	3300	1700	1900	2700	3400	1700	1900	2600	2800
	2/290 x 45	2100	2400	3400	4000	2100	2400	3400	4000	1900	2100	3000	3800	1900	2100	3000	3400
6000	2/170 x 35	-	1200	1500	1900	-	1200	1500	1600	-	1100	1400	1700	-	1100	1300	1400
	2/170 x 45	1100	1300	1700	2200	1100	1300	1700	2000	1000	1200	1600	2000	1000	1200	1500	1700
	2/190 x 35	1100	1300	1700	2200	1100	1300	1700	1800	1000	1200	1500	1900	1000	1200	1400	1600
	2/190 x 45	1200	1500	1900	2500	1200	1500	1900	2200	1100	1300	1800	2200	1100	1300	1700	1900
	2/240 x 35	1400	1600	2200	2800	1400	1600	2100	2300	1200	1400	2000	2400	1200	1400	1800	2000
	2/240 x 45	1500	1800	2500	3100	1500	1800	2500	2800	1400	1600	2200	2800	1400	1600	2200	2400
	2/290 x 35	1700	1800	2600	3400	1700	1800	2500	2700	1500	1700	2400	2900	1500	1700	2200	2400
	2/290 x 45	1900	2100	3000	3800	1900	2100	3000	3300	1700	1900	2700	3400	1700	1900	2600	2800

NOTES TO TABLE 8:

1. Minimum end bearing length = 100 mm, minimum internal bearing length = 150 mm.
2. Double bearers should be effectively fixed together at the third points within each span.
   Double bearers may be spaced using blocking pieces at the third points within each span.
3. Live load deflection limit = span/150 or 20 mm (This limit is considered appropriate where the maximum loads are only applied occasionally).
4. Maximum cantilever shall be not more than 25% of maximum allowable bearer span and not more than 30% of actual span.
5. The maximum bearer spans are based on a maximum decking mass of 40 kg/m^2.
6. The availability of different grades, sizes and lengths may vary between individual suppliers. Availability should be checked prior to design specification.

Safe Working

Working with timber produces dust particles. Protection of the eyes, nose and mouth when sanding, sawing and planing is highly recommended. Refer to tool manufacturers for safe working recommendations for particular items of equipment.

Disposal of Offcuts and Waste

For any treated timber, do not burn offcuts or sawdust. Preservative treated offcuts and sawdust should be disposed of by approved local authority methods.

Timber Queensland Limited
ACN 092 686 756 • ABN 50 092 686 756
500 Brunswick Street, Fortitude Valley
Brisbane Queensland 4006
PO Box 2014, Fortitude Valley BC Qld 4006

TIMBER QUEENSLAND

Phone: (07) 3254 1989
Fax: (07) 3254 1964
Website: www.timberqueensland.com.au
Email: admin@timberqueensland.com.au

Whilst every effort is made to ensure the accuracy of advice given, Timber Queensland Limited cannot accept liability for loss or damage arising from the use of the information supplied.