

# MEMBER TABLES FOR SEASONED TIMBER

**F17**  
SEASONED

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## STRESS GRADE F17

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- **SIZING TOLERANCES**  
Not less than nominated size

ecoSelect timber

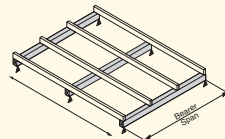
**TABLE 1A — BEARERS SUPPORTING SINGLE STOREY LOADBEARING WALLS**  
**Maximum Floor Load Width – 1800mm**

Bearer Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
MAXIMUM SPAN OF BEARER (mm)								
<b>Single Span</b>								
2 / 85 x 30	1200	1200	1100	1000	1100	1100	NS	NS
2 / 85 x 40	1400	1300	1200	1100	1200	1200	1000	NS
2 / 90 x 35	1400	1300	1200	1100	1300	1200	1000	NS
2 / 90 x 45	1500	1500	1300	1200	1400	1300	1100	1000
2 / 120 x 35	1800	1800	1600	1500	1700	1600	1400	1200
2 / 120 x 45	2000	2000	1800	1600	1900	1800	1500	1300
<b>Continuous Spans</b>								
2 / 85 x 30	1700	1600	1500	1400	1600	1500	1300	1100
2 / 85 x 40	1900	1800	1600	1500	1700	1600	1400	1300
2 / 90 x 35	1900	1800	1700	1500	1700	1700	1400	1300
2 / 90 x 45	2000	2000	1800	1700	1900	1800	1600	1400
2 / 120 x 35	2500	2500	2200	2000	2300	2200	1900	1700
2 / 120 x 45	2700	2700	2400	2200	2500	2400	2100	1800

NS = Not suitable.

- Note:**
1. Table assumes a maximum flooring mass of 40kg/m<sup>2</sup>.
  2. Footing and stump details shall be determined in conjunction with the selection of bearers, refer AS1684.
  3. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.2 for detailed diagram



**TABLE 5 — BEARERS SUPPORTING FLOOR LOAD ONLY**

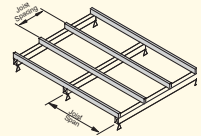
Bearer Size Depth x Breadth (mm)	Floor Load Width (FLW) mm				
	1200	1800	2400	3000	3600
<b>MAXIMUM SPAN OF BEARER (mm)</b>					
<b>Single Span</b>					
2 / 85 x 30	1600	1400	1300	1200	1100
2 / 85 x 40	1800	1600	1400	1300	1200
2 / 90 x 35	1800	1600	1400	1300	1200
2 / 90 x 45	2000	1700	1600	1400	1300
2 / 120 x 35	2500	2100	1900	1800	1700
2 / 120 x 45	2700	2300	2100	1900	1800
<b>Continuous Spans</b>					
2 / 85 x 30	2100	1800	1600	1500	1400
2 / 85 x 40	2300	2000	1800	1700	1600
2 / 90 x 35	2300	2000	1800	1700	1600
2 / 90 x 45	2500	2200	2000	1800	1800

**TABLE 5 — BEARERS SUPPORTING FLOOR LOAD ONLY** (continued)

Bearer Size Depth x Breadth (mm)	Floor Load Width (FLW) mm				
	1200	1800	2400	3000	3600
<b>MAXIMUM SPAN OF BEARER (mm)</b>					
<b>Continuous Spans (continued)</b>					
2 / 120 x 35	3100	2700	2500	2300	2200
2 / 120 x 45	3400	3000	2700	2500	2400

- Note:**
1. Table assumes a maximum flooring mass of 40kg/m<sup>2</sup>.
  2. Footing and stump details shall be determined in conjunction with the selection of bearers, refer AS1684.
  3. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.3 for detailed diagram



**TABLE 6 — FLOOR JOISTS**

Joist Size Depth x Breadth (mm)	Joist Spacing (mm)			
	450		600	
	<b>MAXIMUM JOIST SPAN AND CANTILEVER (mm)</b>			
	Span	Cantilever	Span	Cantilever
<b>Single Span</b>				
70 x 35	1200	300	1100	275
70 x 45	1300	325	1200	300
85 x 30	1400	350	1300	350
85 x 40	1600	400	1500	325
90 x 35	1600	400	1500	375
90 x 45	1800	450	1600	400
120 x 35	2200	550	2000	500
120 x 45	2400	600	2200	550
140 x 35	2600	650	2400	600
140 x 45	2900	725	2700	675

**TABLE 6 — FLOOR JOISTS** (continued)

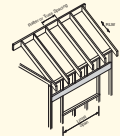
Joist Size Depth x Breadth (mm)	Joist Spacing (mm)			
	450		600	
	<b>MAXIMUM JOIST SPAN AND CANTILEVER (mm)</b>			
	Span	Cantilever	Span	Cantilever
<b>Single Span (continued)</b>				
170 x 35	3300	825	3000	750
170 x 45	3700	925	3300	825
190 x 35	3800	950	3400	850
190 x 45	4200	1050	3700	925
220 x 35	4500	1125	4000	1000
220 x 45	4900	1225	4400	1100
240 x 35	4900	1225	4400	1100
240 x 45	5200	1300	4800	1200
290 x 45	6000	1500	5600	1400
<b>Continuous Spans</b>				
70 x 35	1400	300	1300	275
70 x 45	1500	325	1400	300
85 x 30	1700	350	1500	325

**TABLE 6 — FLOOR JOISTS** (continued)

Joist Size Depth x Breadth (mm)	Joist Spacing (mm)			
	450		600	
	<b>MAXIMUM JOIST SPAN AND CANTILEVER (mm)</b>			
	Span	Cantilever	Span	Cantilever
<b>Continuous Spans (continued)</b>				
85 x 40	1900	400	1700	375
90 x 35	1900	400	1700	375
90 x 45	2100	450	1900	400
120 x 35	2600	550	2400	500
120 x 45	2900	600	2600	550

- Note:**
1. Cantilevers shall not exceed 50% of the actual backspan.
  2. The allowable cantilevers are only applicable to floor loads.
  3. Joists crippled over supports shall be considered as single span joists.
  4. Table assumes a maximum flooring mass of 40kg/m<sup>2</sup>.

Refer to Fig. 1.13.10 for detailed diagram



**TABLE 17/18 — LINTELS Supporting Single or Upper Storey Loadbearing Walls**

Lintel Size Depth x Breadth (mm)	Rafter or Truss Spacing (mm)	Sheet Roofing				Tiled Roofing			
		Roof Load Width (RLW) mm							
		1500	2100	4500	7500	1500	2100	4500	7500
<b>MAXIMUM SPAN OF LINTEL (mm)</b>									
90 x 35	600	2000	1800	1400	1200	1600	1400	1100	900
	1200	2000	1800	1200	1000	1400	1200	800	600
90 x 45	600	2200	1900	1500	1300	1600	1400	1100	1000
	1200	2200	1900	1400	1100	1600	1300	900	700
120 x 35	600	2600	2300	1800	1500	2000	1700	1400	1100
	1200	2600	2300	1700	1400	2000	1700	1200	900
120 x 45	600	2800	2400	1900	1600	2100	1800	1500	1200
	1200	2800	2500	1900	1500	2100	1900	1300	1000
140 x 35	600	2900	2600	2100	1700	2200	2000	1600	1300
	1200	2900	2700	2000	1700	2300	2000	1400	1100
140 x 45	600	3100	2800	2200	1900	2400	2100	1700	1400
	1200	3100	2800	2200	1900	2500	2100	1600	1300



**TABLE 17/18 — LINTELS Supporting Single or Upper Storey Loadbearing Walls (continued)**

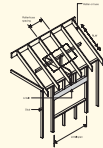
Lintel Size Depth x Breadth (mm)	Rafter or Truss Spacing (mm)	Sheet Roofing				Tiled Roofing			
		Roof Load Width (RLW) mm							
		1500	2100	4500	7500	1500	2100	4500	7500
<b>MAXIMUM SPAN OF LINTEL (mm)</b>									
170 x 35	600	3400	3100	2500	2100	2700	2400	1900	1600
	1200	3400	3100	2500	2000	2700	2400	1900	1500
170 x 45	600	3600	3300	2700	2200	2900	2600	2000	1700
	1200	3500	3200	2700	2200	2900	2600	2000	1600
190 x 35	600	3600	3300	2700	2300	3000	2700	2100	1700
	1200	3600	3300	2800	2300	3000	2700	2100	1700
190 x 45	600	3900	3500	3000	2500	3200	2900	2300	1900
	1200	3800	3500	3000	2500	3200	2900	2200	1900
2 / 190 x 35	600	4300	3900	3300	2900	3500	3200	2600	2200
	1200	4300	3900	3300	2900	3500	3200	2700	2200
220 x 35	600	4000	3700	3100	2600	3300	3000	2400	2000
	1200	4000	3700	3100	2700	3300	3000	2400	2000
220 x 45	600	4300	3900	3300	2900	3500	3200	2600	2200
	1200	4200	3900	3200	2900	3500	3200	2600	2100

**TABLE 17/18 — LINTELS Supporting Single or Upper Storey Loadbearing Walls (continued)**

Lintel Size Depth x Breadth (mm)	Rafter or Truss Spacing (mm)	Sheet Roofing				Tiled Roofing			
		Roof Load Width (RLW) mm							
		1500	2100	4500	7500	1500	2100	4500	7500
<b>MAXIMUM SPAN OF LINTEL (mm)</b>									
2 / 220 x 35	600	4700	4300	3600	3200	3900	3600	3000	2500
	1200	4700	4300	3600	3200	3900	3600	3000	2600
240 x 35	600	4300	4000	3300	2900	3600	3300	2600	2200
	1200	4300	3900	3300	2900	3500	3200	2700	2200
240 x 45	600	4600	4200	3500	3100	3800	3500	2800	2400
	1200	4600	4200	3500	3100	3800	3400	2900	2400
2 / 240 x 35	600	5100	4600	3900	3500	4200	3800	3200	2800
	1200	5100	4600	3900	3400	4200	3800	3200	2800
2 / 240 x 45	600	5300	4900	4200	3700	4400	4100	3400	3000
	1200	5300	4900	4200	3600	4400	4100	3400	3000
290 x 45	600	5300	4800	4100	3600	4300	4000	3300	2900
	1200	5300	4800	4000	3500	4300	4000	3300	2900
2 / 290 x 45	600	6100	5600	4800	4200	5100	4700	3900	3500
	1200	6100	5600	4800	4200	5100	4700	3900	3400

- Note:**
1. Double members shall be vertically nail laminated in accordance with Figure 1.9.
  2. Lintels to internal wall openings supporting ceiling joists only may be sized as hanging beams.

Refer to Fig. 1.13.11 for detailed diagram



**TABLE 19/20 – LINTELS Supporting Concentrated Roof Loads**

Roof Area Supported (m <sup>2</sup> )	Roof Load Width (mm)											
	1500			2100			4500			7500		
	5	10	20	5	10	20	5	10	20	5	10	20
Size DxB (mm)	<b>MAXIMUM SPAN OF LINTEL (mm)</b>											
<b>Sheet Roof</b>												
90 x 35	1100	800	600	1100	800	600	1000	800	600	900	700	600
90 x 45	1200	900	700	1200	900	600	1100	900	600	1000	800	600
120 x 35	1600	1200	900	1500	1200	800	1300	1100	800	1200	1000	800
120 x 45	1700	1300	1000	1700	1300	900	1500	1200	900	1300	1100	900
140 x 35	1900	1400	1100	1800	1400	1000	1600	1300	1000	1400	1200	1000
140 x 45	2100	1600	1200	2000	1600	1200	1700	1500	1100	1600	1300	1100
170 x 35	2400	1900	1400	2300	1800	1400	2000	1700	1300	1800	1500	1300
170 x 45	2600	2100	1600	2500	2000	1500	2200	1900	1500	1900	1700	1400
190 x 35	2700	2200	1600	2600	2100	1600	2200	1900	1500	2000	1800	1500
190 x 45	3000	2400	1800	2900	2400	1800	2500	2100	1700	2200	1900	1600

**TABLE 19/20 – LINTELS Supporting Concentrated Roof Loads** (continued)

Roof Area Supported (m <sup>2</sup> )	Roof Load Width (mm)											
	1500			2100			4500			7500		
	5	10	20	5	10	20	5	10	20	5	10	20
Size Dx B (mm)	MAXIMUM SPAN OF LINTEL (mm)											
Sheet Roof												
240 x 35	3400	3000	2300	3300	2900	2200	2900	2600	2100	2600	2300	2000
240 x 45	3700	3200	2600	3500	3100	2500	3100	2800	2300	2800	2600	2200

**Note:** 1. Minimum bearing length = 35mm at end supports.

TABLE 19/20 – LINTELS Supporting Concentrated Roof Loads (continued)

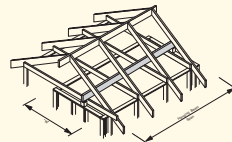
Roof Area Supported (m <sup>2</sup> )	Roof Load Width (mm)											
	1500			2100			4500			7500		
	5	10	20	5	10	20	5	10	20	5	10	20
Size Dx B (mm)	MAXIMUM SPAN OF LINTEL (mm)											
Tile Roof												
90 x 35	800	NS	NS	700	NS	NS	700	NS	NS	600	NS	NS
90 x 45	800	600	NS	800	600	NS	700	600	NS	700	NS	NS
120 x 35	1100	800	NS	1000	800	NS	900	700	NS	900	700	NS
120 x 45	1200	900	NS	1100	900	NS	1000	800	NS	900	800	NS
140 x 35	1300	1000	NS	1300	1000	NS	1100	900	NS	1000	800	NS
140 x 45	1400	1100	NS	1400	1100	NS	1200	1000	NS	1100	900	NS
170 x 35	1700	1300	NS	1600	1200	NS	1400	1200	NS	1300	1100•	NS
170 x 45	1900	1400	700	1800	1400	700	1600	1300	600	1400	1200	600
190 x 35	1900	1500	600•	1800	1500	600•	1600	1300	600•	1400	1200•	600▶
190 x 45	2200	1700	900	2100	1600	900	1800	1500	800•	1600	1400	800•

**TABLE 19/20 – LINTELS Supporting Concentrated Roof Loads** (continued)

Roof Area Supporting (m <sup>2</sup> )	Roof Load Width (mm)											
	1500			2100			4500			7500		
	5	10	20	5	10	20	5	10	20	5	10	20
Size Dx B (mm)	MAXIMUM SPAN OF LINTEL (mm)											
Tile Roof												
240 X 35	2600	2100	1000>	2500	2000	1000>	2100	1800•	1000■	1900	1700>	900■
240 X 45	2900	2300	1700>	2700	2200	1700>	2400	2000	1400>	2100	1900•	1300■

- Note:** 1. Minimum bearing length = 35 mm at end supports.
- Additional 5 mm bearing length required.
  - > Additional 10 mm bearing length required.
  - Additional 15 mm bearing length required.

Refer to Fig. 1.13.13 for detailed diagram

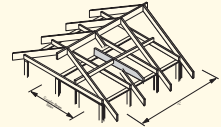


**TABLE 23 — HANGING BEAMS**

Beam Size Depth x Breadth (mm)	Ceiling Load Width (CLW) mm				
	1800	2400	3000	3600	4200
<b>MAXIMUM SPAN OF HANGING BEAM (mm)</b>					
120 x 35	3100	2700	2500	2300	2200
140 x 35	3500	3200	2900	2700	2500
170 x 35	4300	3800	3500	3300	3100
190 x 35	4700	4300	3900	3600	3400
220 x 35	5500	5000	4600	4200	3900
220 x 45	5900	5400	4900	4600	4300
240 x 35	5900	5300	4900	4600	4300
240 x 45	6300	5700	5300	4900	4600

- Note:**
1. Where the ceiling joist spans are not the same each side of the hanging beam, the average of the spans may be used.
  2. Roof loads must not be strutted onto hanging beam.
  3. Maximum ceiling mass of 12kg/m<sup>2</sup> assumed.

Refer to Fig. 1.13.14 for detailed diagram



**TABLE 24 — COUNTER BEAMS**

Beam Size Depth x Breadth (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
	<b>MAXIMUM SPAN OF COUNTER BEAM (mm)</b>					
120 x 35	3100	2800	2600	2500	2400	2300
120 x 45	3300	3100	2900	2700	2600	2500
140 x 35	3600	3300	3100	2900	2800	2600
140 x 45	3800	3600	3300	3100	3000	2900
170 x 35	4200	3900	3700	3500	3300	3200
170 x 45	4400	4100	3900	3800	3600	3500
190 x 35	4500	4200	4000	3900	3700	3600
190 x 45	4800	4500	4300	4100	4000	3800
220 x 35	5100	4800	4600	4400	4200	4100
220 x 45	5400	5100	4800	4600	4500	4300
240 x 35	5400	5000	4800	4600	4400	4300
240 x 45	5700	5300	5100	4900	4700	4600

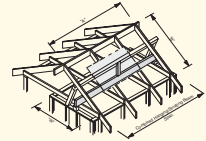


**TABLE 24 — COUNTER BEAMS** (continued)

Beam Size Depth x Breadth (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
<b>MAXIMUM SPAN OF COUNTER BEAM (mm)</b>						
290 x 35	6200	5800	5500	5200	4900	4700
290 x 45	6500	6100	5800	5600	5400	5200

- Note:**
1. Where the hanging beam spans are not the same each side of the counter beam, the average of the spans may be used.
  2. Maximum ceiling mass of 12kg/m<sup>2</sup> assumed.

Refer to Fig. 1.13.15 for detailed diagram



**TABLE 25 — COMBINED STRUTTING/HANGING BEAMS**

Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
<b>MAXIMUM SPAN OF BEAM (mm)</b>										
<b>Sheet Roofing</b>										
2 / 120 x 35	3000	2600	2200	2000	1800	2500	2200	2000	1900	1700
2 / 120 x 45	3300	2800	2500	2200	2100	2700	2500	2200	2100	1900
2 / 140 x 35	3600	3100	2700	2500	2300	3000	2700	2500	2300	2100
2 / 140 x 45	3800	3400	3000	2800	2500	3200	3000	2700	2500	2400
2 / 170 x 35	4200	3800	3500	3200	3000	3600	3400	3100	2900	2700
2 / 170 x 45	4400	4100	3800	3500	3300	3900	3600	3400	3200	3000
2 / 190 x 35	4500	4200	3900	3700	3400	4000	3700	3600	3300	3200
2 / 190 x 45	4800	4400	4200	3900	3700	4200	4000	3800	3700	3500
2 / 220 x 35	5200	4800	4500	4200	4000	4500	4200	4000	3900	3700

**TABLE 25 — COMBINED STRUTTING/HANGING BEAMS** (continued)

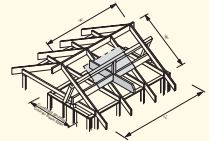
Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
<b>MAXIMUM SPAN OF BEAM (mm)</b>										
<b>Sheet Roofing (continued)</b>										
2 / 220 x 45	5500	5100	4800	4500	4300	4700	4500	4300	4100	4000
2 / 240 x 35	5400	5000	4800	4500	4300	4700	4500	4300	4200	4000
2 / 240 x 45	5700	5300	5000	4800	4600	5000	4800	4600	4400	4300
2 / 290 x 35	6200	5800	5500	5300	5100	5500	5200	5000	4900	4700
2 / 290 x 45	6500	6200	5900	5600	5400	5800	5500	5300	5200	5000
<b>Tiled Roofing</b>										
2 / 120 x 35	2400	1900	1600	1400	1200	2200	1800	1500	1300	1200
2 / 120 x 45	2700	2100	1800	1600	1400	2400	2000	1700	1500	1400
2 / 140 x 35	3000	2300	2000	1700	1600	2600	2200	1900	1700	1500
2 / 140 x 45	3300	2600	2200	2000	1800	2900	2400	2100	1900	1700
2 / 170 x 35	3700	3000	2600	2300	2100	3300	2800	2500	2200	2000

**TABLE 25 — COMBINED STRUTTING/HANGING BEAMS** (continued)

Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
MAXIMUM SPAN OF BEAM (mm)										
<b>Tiled Roofing (continued)</b>										
2 / 170 x 45	4000	3400	2900	2600	2400	3600	3100	2700	2500	2300
2 / 190 x 35	4100	3500	3000	2700	2500	3700	3200	2800	2600	2400
2 / 190 x 45	4300	3800	3400	3000	2800	3900	3500	3200	2900	2600
2 / 220 x 35	4700	4100	3700	3300	3000	4200	3800	3500	3100	2900
2 / 220 x 45	5000	4400	4000	3700	3400	4400	4000	3700	3500	3200
2 / 240 x 35	4900	4400	4000	3700	3400	4400	4100	3800	3500	3300
2 / 240 x 45	5200	4700	4300	4000	3700	4700	4300	4000	3800	3600
2 / 290 x 35	5700	5100	4700	4400	4100	5200	4800	4400	4200	4000
2 / 290 x 45	6100	5500	5000	4700	4500	5500	5100	4800	4500	4300

- Note:**
1. Beam ends may be chamfered to a minimum depth of 100mm or one-third of the beam depth, whichever is greater.
  2. Where the depth to breadth ratio exceeds 3:1, hoop iron strapping or similar restraint is to be provided at mid-span and at the beam ends.
  3. Where ceiling joist spans are not the same each side of the beam, the average of the spans may be used.
  4. Maximum ceiling mass of 12kg/m<sup>2</sup> assumed.
  5. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.16 for detailed diagram



**TABLE 26 — COMBINED STRUTTING/COUNTER BEAMS**

Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
<b>MAXIMUM SPAN OF BEAM (mm)</b>										
<b>Sheet Roofing</b>										
2 / 120 x 35	3100	2600	2300	2000	1900	2800	2400	2200	2000	1800
2 / 120 x 45	3400	2900	2500	2300	2100	3000	2700	2400	2200	2000
2 / 140 x 35	3700	3200	2800	2500	2300	3300	2900	2600	2400	2200
2 / 140 x 45	3900	3500	3100	2800	2600	3600	3200	2900	2700	2500
2 / 170 x 35	4300	3900	3600	3300	3000	3900	3600	3300	3100	2900
2 / 170 x 45	4500	4100	3800	3600	3300	4100	3900	3600	3400	3200
2 / 190 x 35	4600	4200	4000	3700	3500	4200	4000	3700	3500	3300
2 / 190 x 45	4900	4500	4200	4000	3800	4500	4200	4000	3800	3600
2 / 220 x 35	5200	4800	4500	4200	4000	4800	4500	4200	4000	3900

**TABLE 26 — COMBINED STRUTTING/COUNTER BEAMS** (continued)

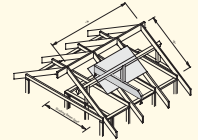
Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
	MAXIMUM SPAN OF BEAM (mm)									
<b>Sheet Roofing (continued)</b>										
2 / 220 x 45	5500	5100	4800	4600	4300	5000	4700	4500	4300	4100
2 / 240 x 35	5500	5100	4800	4600	4300	5000	4700	4500	4300	4200
2 / 240 x 45	5700	5400	5100	4800	4600	5300	5000	4800	4600	4400
2 / 290 x 35	6300	5900	5600	5300	5100	5700	5500	5200	5000	4900
2 / 290 x 45	6500	6200	5900	5700	5400	6000	5800	5500	5400	5200
<b>Tiled Roofing</b>										
2 / 120 x 35	2500	1900	1600	1400	1200	2300	1800	1600	1400	1200
2 / 120 x 45	2800	2100	1800	1600	1400	2600	2100	1800	1500	1400
2 / 140 x 35	3000	2400	2000	1800	1600	2800	2300	1900	1700	1600
2 / 140 x 45	3300	2700	2200	2000	1800	3100	2500	2200	1900	1800
2 / 170 x 35	3800	3100	2600	2300	2100	3500	2900	2600	2300	2100

**TABLE 26 — COMBINED STRUTTING/COUNTER BEAMS** (continued)

Beam Size (mm)	Ceiling Load Width (mm)									
	1800					3600				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
	MAXIMUM SPAN OF BEAM (mm)									
<b>Tiled Roofing (continued)</b>										
2 / 170 x 45	4000	3400	3000	2600	2400	3800	3300	2800	2600	2300
2 / 190 x 35	4100	3600	3100	2700	2500	3900	3400	3000	2700	2400
2 / 190 x 45	4400	3800	3400	3100	2800	4100	3700	3300	3000	2700
2 / 220 x 35	4700	4100	3700	3400	3000	4400	3900	3600	3200	3000
2 / 220 x 45	5000	4400	4000	3700	3400	4700	4200	3900	3600	3300
2 / 240 x 35	5000	4400	4000	3700	3400	4700	4200	3900	3600	3300
2 / 240 x 45	5300	4700	4300	4000	3800	4900	4500	4200	3900	3700
2 / 290 x 35	5800	5200	4700	4400	4200	5400	4900	4600	4300	4100
2 / 290 x 45	6100	5500	5100	4700	4500	5700	5200	4900	4600	4400

- Note:**
1. Beam ends may be chamfered to a minimum depth of 100mm or one-third of the beam depth, whichever is greater.
  2. Where the depth to breadth ratio exceeds 3:1, hoop iron strapping or similar restraint is to be provided at the beam ends.
  3. Where ceiling joist spans are not the same each side of the beam, the average of the spans may be used.
  4. Maximum ceiling mass of 12kg/m<sup>2</sup> assumed.
  5. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.17 for detailed diagram



**TABLE 27 — STRUTTING BEAMS**

Beam Size (mm)	Sheet Roofing					Tiled Roofing				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
	<b>MAXIMUM SPAN OF ROOF STRUTTING BEAM (mm)</b>									
2 / 120 x 35	3600	3000	2500	2200	2000	2800	2000	1700	1400	1300
2 / 120 x 45	4100	3400	2800	2500	2200	3100	2300	1900	1600	1500
2 / 140 x 35	4600	3700	3100	2700	2400	3500	2500	2100	1800	1600
2 / 140 x 45	5100	4200	3500	3100	2800	3900	2800	2300	2000	1800
2 / 170 x 35	5700	4900	4100	3600	3200	4500	3400	2800	2400	2200
2 / 170 x 45	6200	5400	4600	4000	3600	5000	3800	3100	2700	2400
2 / 190 x 35	6400	5600	4800	4200	3800	5300	3900	3300	2800	2500
2 / 190 x 45	7000	6100	5300	4700	4300	5800	4400	3700	3200	2900
2 / 220 x 35	7200	6400	5700	5100	4600	6200	4800	4000	3500	3100
2 / 220 x 45	7200	6800	6200	5600	5200	6500	5300	4500	3900	3500
2 / 240 x 35	7200	7000	6400	5800	5300	6800	5500	4600	4000	3600

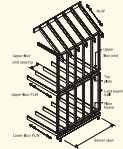


**TABLE 27 — STRUTTING BEAMS** (continued)

Beam Size (mm)	Sheet Roofing					Tiled Roofing				
	Roof Area Supported (m <sup>2</sup> )									
	2	4	6	8	10	2	4	6	8	10
	<b>MAXIMUM SPAN OF ROOF STRUTTING BEAM (mm)</b>									
2 / 240 x 45	7200	7200	6800	6300	5900	7200	6000	5100	4500	4000
2 / 290 x 35	7200	7200	7200	7000	6600	7200	6700	6000	5300	4700
2 / 290 x 45	7200	7200	7200	7200	7000	7200	7200	6400	5900	5300

- Note:**
1. The allowable spans are based on the support of roof loads only.
  2. Hoop iron strapping or similar restraint is to be provided at mid-span and at the beam ends.
  3. Beam ends may be chamfered to a minimum depth of 100mm or one-third of the beam depth, whichever is greater.
  4. A minimum initial clearance of 25mm shall be provided at mid-span between the underside of the strutting beam and the tops of the ceiling joist, ceiling lining or ceiling battens as appropriate.
  5. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.23 for detailed diagram



**TABLE 33 — BEARERS SUPPORTING TWO STOREY  
LOADBEARING WALLS**  
Lower Floor Load Width – 900mm or 1800mm

Bearer Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
	MAXIMUM SPAN OF BEARER (mm)							
<b>UPPER FLOOR LOAD WIDTH 1800mm</b>								
<b>Single Span</b>								
2 / 85 x 30	1000	1000	NS	NS	NS	NS	NS	NS
2 / 85 x 40	1100	1100	1000	1000	1100	1000	NS	NS
2 / 90 x 35	1100	1100	1000	1000	1100	1000	NS	NS
2 / 90 x 45	1200	1200	1100	1100	1200	1100	1000	NS
2 / 120 x 35	1500	1500	1400	1300	1400	1400	1300	1100
2 / 120 x 45	1700	1600	1500	1400	1600	1500	1400	1300
<b>Continuous Spans</b>								
2 / 85 x 30	1400	1400	1300	1200	1300	1300	1200	1000
2 / 85 x 40	1500	1500	1400	1300	1500	1400	1300	1200

**TABLE 33 — BEARERS SUPPORTING TWO STOREY LOADBEARING WALLS**  
**Lower Floor Load Width – 900mm or 1800mm (continued)**

Bearer Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
<b>MAXIMUM SPAN OF BEARER (mm)</b>								
<b>UPPER FLOOR LOAD WIDTH 1800mm (continued)</b>								
<b>Continuous Spans</b>								
2 / 90 x 35	1500	1500	1400	1300	1500	1400	1300	1200
2 / 90 x 45	1700	1700	1600	1500	1600	1600	1400	1300
2 / 120 x 35	2100	2000	1900	1800	2000	1900	1700	1600
2 / 120 x 45	2300	2200	2100	2000	2200	2100	1900	1700
<b>UPPER FLOOR LOAD WIDTH 3600mm</b>								
<b>Single Span</b>								
2 / 85 x 30	NS	NS	NS	NS	NS	NS	NS	NS
2 / 85 x 40	1000	1000	NS	NS	NS	NS	NS	NS
2 / 90 x 35	1000	1000	NS	NS	NS	NS	NS	NS
2 / 90 x 45	1100	1100	1000	1000	1000	1000	NS	NS
2 / 120 x 35	1300	1300	1300	1200	1300	1300	1200	1100
2 / 120 x 45	1500	1400	1400	1300	1400	1400	1300	1200

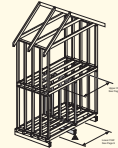
**TABLE 33 — BEARERS SUPPORTING TWO STOREY LOADBEARING WALLS**  
**Lower Floor Load Width – 900mm or 1800mm (continued)**

Bearer Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
MAXIMUM SPAN OF BEARER (mm)								
<b>UPPER FLOOR LOAD WIDTH 3600mm (continued)</b>								
<b>Continuous Spans</b>								
2 / 85 x 30	1200	1200	1200	1100	1200	1100	1000	NS
2 / 85 x 40	1300	1300	1300	1200	1300	1300	1200	1100
2 / 90 x 35	1400	1300	1300	1200	1300	1300	1200	1100
2 / 90 x 45	1500	1500	1400	1300	1400	1400	1300	1200
2 / 120 x 35	1800	1800	1700	1700	1800	1700	1600	1400
2 / 120 x 45	2000	2000	1900	1800	1900	1900	1700	1600

NS = Not suitable.

- Note:**
1. Table assumes a maximum flooring mass of 40kg/m<sup>2</sup>.
  2. Footing and stump details shall be determined in conjunction with the selection of bearers, refer AS1684.
  3. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.24 for detailed diagram



**TABLE 35 — FLOOR BEARERS (Lower Storey of Two Storey Supporting Upper and Lower Floor Loads Only)**

Joist Size Depth x Breadth (mm)	Upper Floor Load Width (mm)		
	3600	4800	6000
	<b>MAXIMUM SPAN OF BEARER (mm)</b>		
<b>LOWER FLOOR LOAD WIDTH 1800mm</b>			
<b>Single Span</b>			
2 / 85 x 30	NS	NS	NS
2 / 85 x 40	1000	NS	NS
2 / 90 x 35	1000	NS	NS
2 / 90 x 45	1100	1000	1000
2 / 120 x 35	1400	1300	1200
2 / 120 x 45	1500	1400	1300
<b>Continuous Spans</b>			
2 / 85 x 30	1300	1200	1100
2 / 85 x 40	1400	1300	1200
2 / 90 x 35	1400	1300	1200

**TABLE 35 — FLOOR BEARERS (Lower Storey of Two Storey Supporting Upper and Lower Floor Loads Only) (continued)**

Joist Size Depth x Breadth (mm)	Upper Floor Load Width (mm)		
	3600	4800	6000
<b>MAXIMUM SPAN OF BEARER (mm)</b>			
<b>LOWER FLOOR LOAD WIDTH 1800mm (continued)</b>			
<b>Continuous Spans</b>			
2 / 90 x 45	1500	1400	1300
2 / 120 x 35	1900	1700	1600
2 / 120 x 45	2100	1900	1800
<b>LOWER FLOOR LOAD WIDTH 3600mm</b>			
<b>Single Span</b>			
2 / 85 x 30	NS	NS	NS
2 / 85 x 40	NS	NS	NS
2 / 90 x 35	NS	NS	NS
2 / 90 x 45	1000	1000	NS
2 / 120 x 35	1300	1200	1100
2 / 120 x 45	1400	1300	1200

**TABLE 35 — FLOOR BEARERS (Lower Storey of Two Storey Supporting Upper and Lower Floor Loads Only) (continued)**

Joist Size Depth x Breadth (mm)	Upper Floor Load Width (mm)		
	3600	4800	6000
<b>MAXIMUM SPAN OF BEARER (mm)</b>			
<b>LOWER FLOOR LOAD WIDTH 3600mm (continued)</b>			
<b>Continuous Spans</b>			
2 / 85 x 30	1100	1000	NS
2 / 85 x 40	1300	1200	1100
2 / 90 x 35	1200	1200	1100
2 / 90 x 45	1400	1300	1200
2 / 120 x 35	1700	1600	1500
2 / 120 x 45	1900	1800	1700

- Note:**
1. Table assumes a maximum flooring mass of 40kg/m<sup>2</sup>.
  2. Double members shall be vertically nail laminated in accordance with Figure 1.9.

Refer to Fig. 1.13.30 for detailed diagram



**TABLE 47/48 — LINTELS Lower Storey Loadbearing Walls**

Lintel Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
	<b>MAXIMUM SPAN OF LINTEL (mm)</b>							
<b>UPPER FLOOR LOAD WIDTH 1800mm</b>								
90 x 35	1200	1200	1100	1000	1100	1100	900	800
90 x 45	1300	1200	1100	1000	1200	1100	1000	900
120 x 35	1500	1500	1400	1200	1400	1300	1200	1000
120 x 45	1700	1600	1500	1300	1500	1400	1300	1100
140 x 35	1800	1700	1600	1400	1600	1500	1300	1200
140 x 45	1900	1900	1700	1600	1800	1700	1500	1300
170 x 35	2100	2100	1900	1700	2000	1900	1600	1400
170 x 45	2300	2200	2100	1900	2100	2000	1800	1600
190 x 35	2400	2300	2100	1900	2200	2100	1800	1600
190 x 45	2600	2500	2300	2100	2400	2300	2000	1700



**TABLE 47/48 — LINTELS Lower Storey Loadbearing Walls (continued)**

Lintel Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
<b>MAXIMUM SPAN OF LINTEL (mm)</b>								
<b>UPPER FLOOR LOAD WIDTH 1800mm (continued)</b>								
2 / 190 x 35	3000	2900	2600	2400	2700	2600	2300	2000
220 x 35	2700	2700	2400	2200	2500	2400	2100	1800
220 x 45	3000	2900	2600	2400	2700	2600	2300	2000
2 / 220 x 35	3300	3200	3000	2800	3100	3000	2600	2300
240 x 35	3000	2900	2700	2400	2800	2600	2300	2000
240 x 45	3200	3100	2900	2600	3000	2800	2500	2200
2 / 240 x 35	3500	3400	3200	3000	3300	3200	2900	2500
2 / 240 x 45	3700	3700	3400	3200	3500	3400	3100	2800
290 x 45	3600	3600	3300	3100	3400	3300	3000	2700•
2 / 290 x 45	4300	4200	3900	3700	4000	3900	3500	3200
<b>UPPER FLOOR LOAD WIDTH 3600mm</b>								
90 x 35	1000	1000	900	900	1000	900	800	800
90 x 45	1100	1100	1000	900	1000	1000	900	800

**TABLE 47/48 — LINTELS Lower Storey Loadbearing Walls (continued)**

Lintel Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
	MAXIMUM SPAN OF LINTEL (mm)							
<b>UPPER FLOOR LOAD WIDTH 3600mm (continued)</b>								
120 x 35	1300	1300	1200	1100	1200	1200	1100	1000
120 x 45	1400	1400	1300	1200	1300	1300	1200	1000
140 x 35	1500	1400	1400	1300	1400	1400	1200	1100
140 x 45	1600	1600	1500	1400	1500	1500	1300	1200
170 x 35	1800	1700	1700	1600	1700	1600	1500	1300
170 x 45	1900	1900	1800	1700	1800	1800	1600	1500
190 x 35	2000	1900	1800	1700	1900	1800	1700	1500
190 x 45	2200	2100	2000	1900	2100	2000	1800	1600
2 / 190 x 35	2500	2400	2300	2200	2400	2300	2100	1900
220 x 35	2300	2300	2100	2000	2200	2100	1900	1700•
220 x 45	2500	2400	2300	2200	2400	2300	2100	1900
2 / 220 x 35	2900	2800	2700	2500	2700	2700	2400	2200
240 x 35	2500	2500	2300	2200	2400	2300	2100•	1900•

**TABLE 47/48 — LINTELS Lower Storey Loadbearing Walls (continued)**

Bearer Size Depth x Breadth (mm)	Sheet Roofing				Tiled Roofing			
	Roof Load Width (RLW) mm							
	1500	2100	4500	7500	1500	2100	4500	7500
	MAXIMUM SPAN OF LINTEL (mm)							
<b>UPPER FLOOR LOAD WIDTH 3600mm (continued)</b>								
240 x 45	2700	2700	2500	2400	2600	2500	2300	2100
2 / 240 x 35	3100	3100	2900	2700	3000	2900	2600	2400
2 / 240 x 45	3300	3200	3100	3000	3200	3100	2800	2600
290 x 45	3200	3200	3000	2900•	3100	3000	2700•	2500▶
2 / 290 x 45	3800	3700	3600	3400	3700	3600	3300	3100

- Note:**
1. Minimum bearing length = 35 mm at end supports.
    - Additional 5 mm bearing length required.
    - ▶ Additional 10 mm bearing length required.
  2. These lintels are not designed to support concentrated loads.
  3. Lintels to internal wall openings supporting floor loads only shall be sized as bearers.
  4. Double members shall be vertically nail laminated in accordance with Figure 1.9.

(Blank)