



Appendix A: What Lashings Do I Need?

Example scenario

Write the nett load weight in each bay
What is the log overhang in each bay?
Friction estimated – wet or dry, slippery or bark
What is the lashing capacity of my lashings?
Insert the number of lashings (from tables below)
Are the lashings in good condition?

Bunk 1	2	3	4
14	14	14	
35cm	35cm	35cm	
60%	60%	60%	
5t	5t	5t	
2	2	2	

Dry softwood logs with bark must be contained with no less than lashing numbers to supply sufficient lashing capacity as per tables over page. All logs to be located inside stanchions no less than 300 mm from the log ends as shown in FIC Standard Operating Procedure (SOP)

For straight dry pine logs with bark, a case for increasing the friction value to 60% may be considered. Recommend to always 'belly-chain' the rear bunk. (See orange lashing tables).

For wet and slippery hardwood logs. These require much more lashing capacity than dry softwood. One trailer consideration is to fit front and rear load racks to block all logs. Another option to keep lashing numbers down is to use 10mm lashing chain with 6t LC. (See green lashing tables.)

Dry Softwood with bark

Bunk Weight	Forward Restraint = 80%	Nett Bunk Wght	Load less friction = Nett Clamping Force	Nett ÷ friction = Total clamping force LC required for typical bunk weight	Chains or Straps Minimum Assembly LC Strength Rating
10 t	Forward - 80%	= 8.0 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 2 x 3t LC 2 x 3t LC
	Friction - 50% estimated - 60%	= 5.0 t = 6.0 t	8.0 - 5.00 = 3.0t 8.0 - 6.00 = 2.0t	3.0 ÷ 0.5 = 6.00 t LC * 2.0 ÷ 0.6 = 3.33 t LC	
12 t	Forward - 80%	= 9.6 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 2 x 4t LC 2 x 4t LC
	Friction - 50% estimated - 60%	= 6.0 t = 7.2 t	9.6 - 6.00 = 3.6t 9.6 - 7.20 = 2.4t	3.6 ÷ 0.5 = 7.20 t LC * 2.4 ÷ 0.6 = 4.00 t LC	
14 t	Forward - 80%	= 11.2	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 2 x 5t LC 2 x 5t LC
	Friction - 50% estimated - 60%	= 7.0 t = 8.4 t	11.2 - 7.00 = 4.2t 11.2 - 8.40 = 2.8t	4.2 ÷ 0.5 = 8.40 t LC * 2.8 ÷ 0.6 = 4.60 t LC	
16 t	Forward - 80%	= 12.8 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 2 x 5t LC 2 x 5t LC
	Friction - 50% estimated - 60%	= 8.0 t = 9.6 t	12.8 - 8.00 = 4.8t 12.8 - 9.60 = 3.2t	4.8 ÷ 0.5 = 9.60 t LC * 3.2 ÷ 0.6 = 5.30 t LC	
18 t	Forward - 80%	= 14.4 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 3 x 4t LC 2 x 3t LC
	Friction - 50% estimated - 60%	= 9.0t = 10.8 t	14.4 - 9.00 = 5.4t 14.4 - 10.80 = 3.6t	5.4 ÷ 0.5 = 10.80 t LC * 3.6 ÷ 0.6 = 6.00 t LC	
20 t	Forward - 80%	= 16.0 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 3 x 5t LC 3 x 5t LC
	Friction - 50% estimated - 60%	= 9.0 t = 9.6 t	16.0 - 10.00 = 6.0t 16.0 - 9.60 = 6.4t	6.0 ÷ 0.5 = 12.00 t LC * 6.4 ÷ 0.6 = 10.60 t LC	

Wet Hardwood with NO bark

Bunk Weight	Forward Restraint = 80%	Nett Bunk Weight	Load less friction = Nett Clamping Force	Nett ÷ friction = Total clamping force LC required for typical bunk weight	Chains or Straps Minimum Assembly LC Strength Rating
20 t	Forward - 80%	= 16.0 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 7 x 5t LC 4 x 5t LC
	Friction - 30% estimated - 40%	= 6.0 t = 8.0 t	16.0 - 6.00 = 10.0t 16.0 - 8.00 = 8.0t	10.0 ÷ 0.3 = 33.00 t LC * 8.0 ÷ 0.4 = 20.0 t LC	
24 t	Forward - 80%	= 19.2 t	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 8 x 5t LC 5 x 5t LC
	Friction - 30% estimated - 40%	= 7.2 t = 9.6 t	19.2 - 7.2 = 12.0t 19.2 - 9.6 = 9.6t	12.0 ÷ 0.3 = 40.00 t LC * 9.6 ÷ 0.4 = 24.00 t LC	
28 t	Forward - 80%	= 22.4	Load less friction = Net CF	Net ÷ friction = CF required	Lashings Per Bunk 10 x 5t LC 6 x 5t LC
	Friction - 30% estimated - 40%	= 8.4 t = 11.2 t	22.4 - 8.4 = 14.0t 22.4 - 11.2 = 11.2t	14.0 ÷ 0.3 = 46.6 t LC * 11.2 ÷ 0.4 = 28.00 t LC	