

## LTSC Trailer Lifting Chain Check and Compliance Certificate

### 1. PURPOSE:

The purpose of this Control Sheet is to assess each individual trailer lifting chain for conformance to the LTSC code, regardless of trailer manufacture as a minimum Code of Compliance to the industry standard.

The assessment is of the chain, including the lifting ring and joining mechanisms only.

The chassis attachment points are presumed to be manufacturer designed, approved and tested but should be visually checked for damage, wear or cracking.

### 2. TOOLS REQUIRED:

- 2.1 Tape measure
- 2.2 Measuring callipers
- 2.3 Lifting device to extend and hold chain taut.

### 3. PROCESS:

#### 3.1 TRAILER DETAILS

Make	
Model	
Registration Number	
Owner/Operator	
Fleet Number	
TARE Weight	

NOTE: TARE Weight rounded up to nearest 100kg: i.e.: 6120kg = 6200kg for calculation purposes.

#### 3.2 SPECIFY CHAIN MAKE UP as provided by APPROVED SUPPLIER

	APPROVED SUPPLIER	GRADE G80 -G100	SIZE mm	WLL (Work Load Limit) Rating (tonne)
Bridle Chains				
Bridle Connectors at ring*				
Bridle Ring / link				
Bridle Connectors at chassis				
Main Lifting Chain				
Main Lifting Chain – grapple region:				
Master link Ring				
Main Lifting Chain Connectors				

\* If used

**NOTE:** Any and all replacement equipment must be procured from an approved supplier.

**NOTE:** If chain marking is obscured chain is deemed to be Grade (G80)

3.3 Check chain for wear visually, particularly looking for worn or damaged links, connectors and lifting rings.

3.3.1 Check several links for wear with calipers through the end of the link and in the middle of the link plus anywhere showing any signs of wear on contact.

**NOTE:** Wear is normally more prevalent close to the lifting ring 6 to 10 links each side but a full check of the whole chain is necessary.

3.4 Any chain link, hammerlock, joining device or lifting ring showing deformity or wear of 10% or more must be condemned as soon as possible. NB: Before lifting the trailer safely again

3.5 Complete the Height Ratio Indicator Calculations and the Ring Lifting Limit.

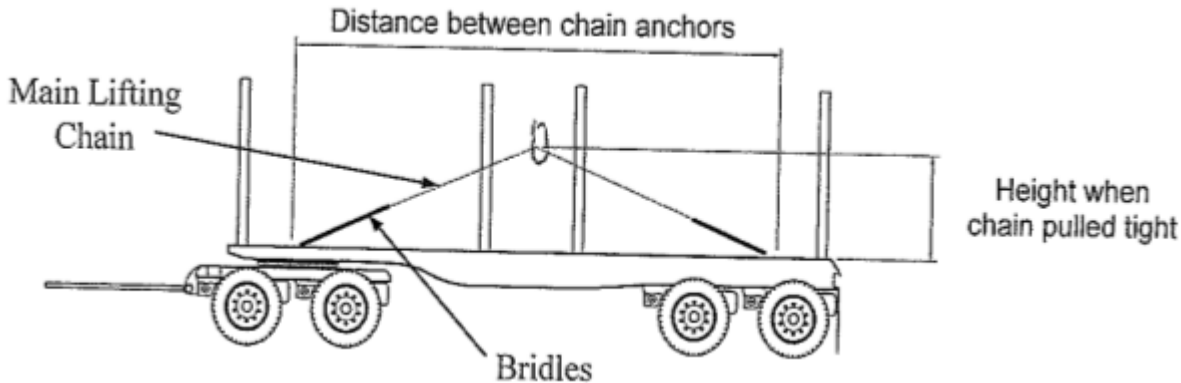
$$\text{Height ratio:} = \frac{\text{Height when chain pulled tight}}{\text{Distance between chain anchors}}$$

Measure the height of the chain when pulled tight = \_\_\_\_\_ meters

Measure the distance between the chain anchors (see diagram) = \_\_\_\_\_ meters

Calculate the chain height ratio \_\_\_\_\_

CHAIN	GRADE (G80 – G100)	DIA (13mm – 16m)	Complies with lifting limits( ✓ )
Bridles (if used)			
Main Lifting Chain			



Write down the lifting weight from the table using the calculated chain height ratio. Follow the flow chart:

Ring lifting limit = \_\_\_\_\_ tonne (from tables on page 3)

Grapple Lifting Limit \* = \_\_\_\_\_ tonne (from tables on page 3)

Fork Lifting Limit \* = \_\_\_\_\_ tonne (from tables on page 3)

\*Based on the section of chain coming into contact with the grapple or forks.

All lifting limits for foreseeable usage exceed rounded-up trailer tare Yes/No \_\_\_\_\_

**NOTE: REFER TO LTSC GUIDELINES IF NOT COMPLIANT**

Height ratio	13mm Grade 80 chain		
	Ring Lift	Grapple	Forks
0.22	4.27	3.49	3.69
0.23	4.43	3.62	3.83
0.24	4.59	3.75	3.96
0.25	4.73	3.88	4.09
0.26	4.89	3.99	4.22
0.27	5.04	4.11	4.33
0.28	5.18	4.23	4.45
0.29	5.32	4.34	4.57
0.3	5.45	4.45	4.68
0.31	5.58	4.56	4.79
0.32	5.71	4.66	4.90
0.33	5.84	4.76	5.00
0.34	5.96	4.86	5.09
0.35	6.08	4.95	5.19
0.36	6.19	5.05	5.28
0.37	6.30	5.13	5.37
0.38	6.42	5.22	5.46
0.39	6.52	5.31	5.55
0.4	6.62	5.39	5.62

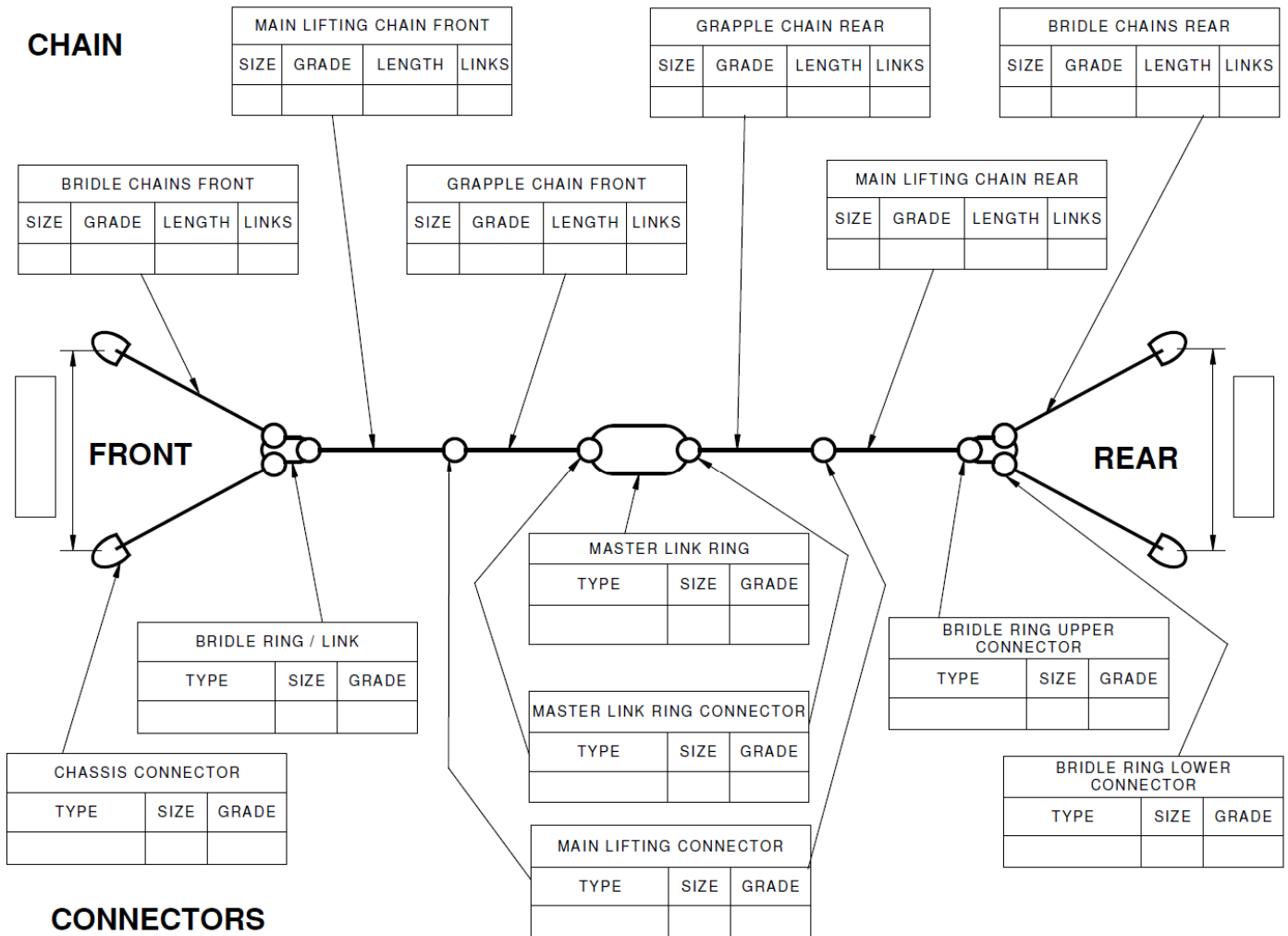
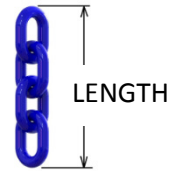
Height ratio	13mm Grade 100 chain		
	Ring Lift	Grapple	Forks
0.22	5.40	4.41	4.67
0.23	5.60	4.58	4.84
0.24	5.80	4.74	5.01
0.25	5.99	4.90	5.17
0.26	6.18	5.05	5.33
0.27	6.37	5.20	5.48
0.28	6.55	5.35	5.63
0.29	6.72	5.49	5.78
0.3	6.89	5.63	5.92
0.31	7.06	5.76	6.06
0.32	7.22	5.89	6.19
0.33	7.38	6.02	6.32
0.34	7.53	6.14	6.44
0.35	7.68	6.26	6.56
0.36	7.83	6.38	6.68
0.37	7.97	6.49	6.79
0.38	8.11	6.60	6.90
0.39	8.24	6.71	7.01
0.4	8.37	6.81	7.11

Height ratio	16mm Grade 80 chain		
	Ring Lift	Grapple	Forks
0.22	6.45	5.26	5.58
0.23	6.69	5.47	5.78
0.24	6.93	5.66	5.98
0.25	7.15	5.85	6.17
0.26	7.38	6.03	6.36
0.27	7.61	6.21	6.54
0.28	7.82	6.39	6.72
0.29	8.02	6.56	6.90
0.3		6.72	7.07
0.31		6.88	7.24
0.32		7.03	7.39
0.33		7.19	7.55
0.34		7.33	7.69
0.35		7.47	7.83
0.36		7.62	7.98
0.37		7.75	8.11
0.38		7.88	
0.39		8.01	
0.4			

Height ratio	16mm Grade 100 chain		
	Ring Lift	Grapple	Forks
0.22	8.06	6.58	6.97
0.23		6.84	7.22
0.24		7.07	7.48
0.25		7.31	7.72
0.26		7.54	7.96
0.27		7.76	8.18
0.28		7.99	
0.29			
0.3			
0.31			
0.32			
0.33			
0.34			
0.35			
0.36			
0.37			
0.38			
0.39			
0.4			

## Chain sling configuration

All components to be identified and confirmed



3.6 Complete the inspection date and set next inspection date – Maximum 13 Months.

3.7 Signature and date required on completion by competent person.

**NOTE: Competent Person Definition:** A person with knowledge of truck servicing and measurement tools such as a mechanic, transport manager or experienced vehicle inspector, trained service manager, engineer or manufacturers representative.

**If in doubt contact your trailer manufacture.**

## 4. INSPECTION DATE AND COMMENTS

I confirm I am competent to complete this inspection, and that the above information is true and correct at the date below

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Comments: