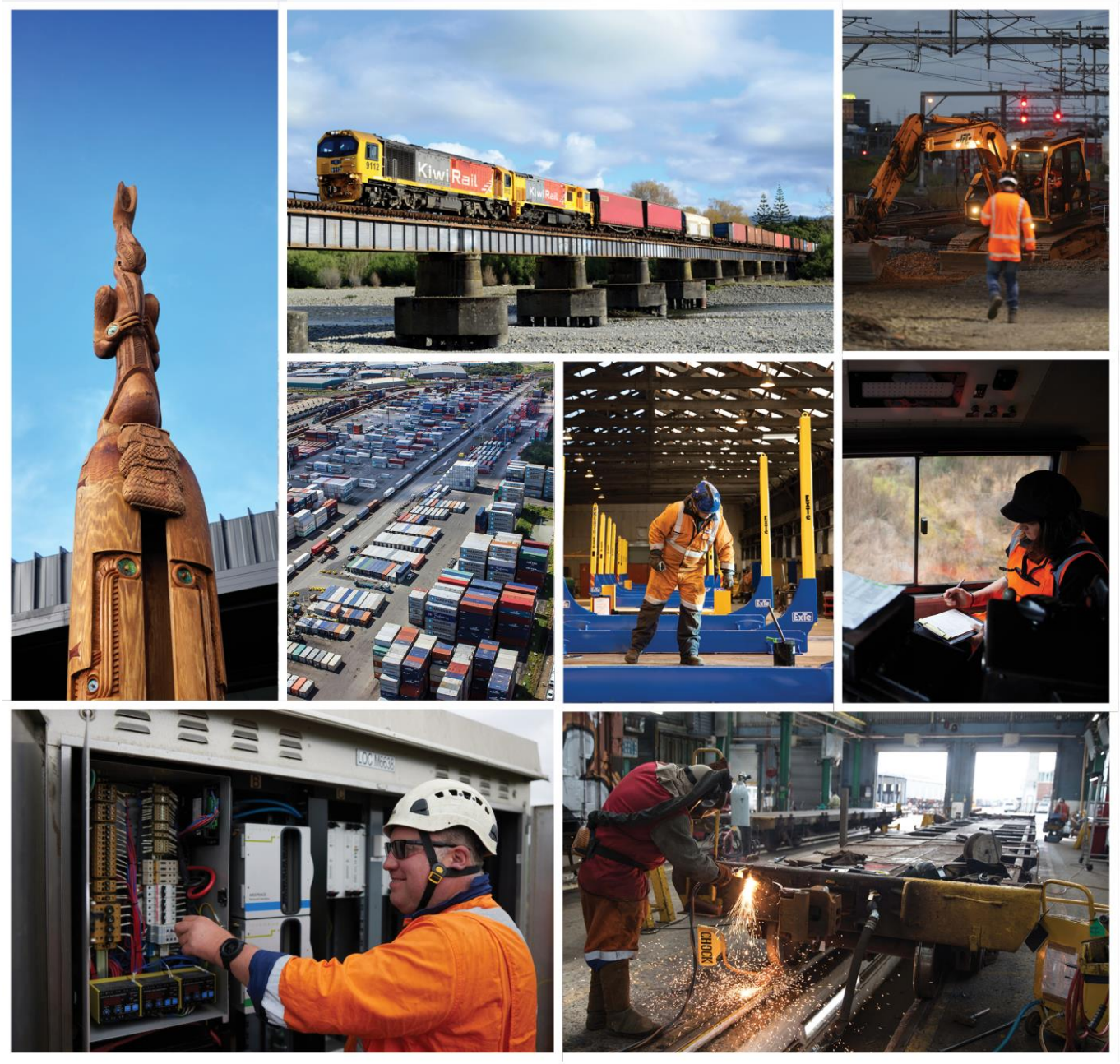


Freight Handling Code

SECTION 12 – CONTAINERISED TRAFFIC

Issue Date: *21 June* 2024

KiwiRail

Table of Contents

This section covers the use of all types of containers, including:

- Dry Box Containers
- Integral Boxes
- Open Sided and Open Top Containers
- Tank Containers and Pods

See Diagram 22 for pictures of container types.

Section 12 Containerised Traffic

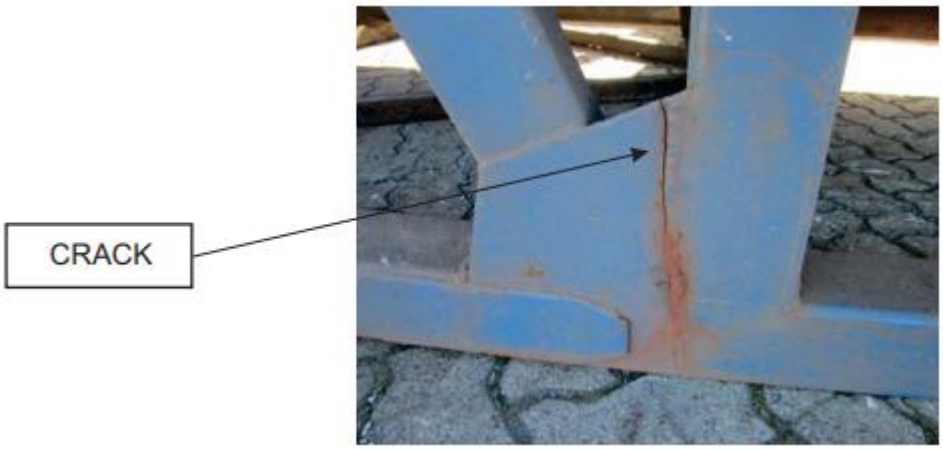
12.1 General Transportation

Four factors are most significant:

- ➔ condition
- ➔ weight
- ➔ height
- ➔ nature of the load

Condition

KiwiRail will not accept any container or unit for rail transport with cracking around the corner castings, in welds or in any other structurally important area. This is to protect KiwiRail's staff and infrastructure, as well as the general public and their property.



Weight

Before loading, DO:

- ➔ Check the **gross weight** on the documentation and ensure:
  - the container is not overloaded
  - the wagon is not loaded beyond its design limits (see Section 12.4 Route and Wagon Capabilities)
  - the wagon will be loaded within its limits for the route (see Section 12.4 Route and Wagon Capabilities)

Note: Overloads are not allowed without specific permission from the RSAS Manager Wagons. Such permission will only be granted in special cases and will be authorised by bulletin.

Height

Before loading, DO:

➔ **Check the height and type** of wagon it is loaded on against the route restrictions. See diagrams 2, 3, and 4.

Nature of the Load

Dangerous Goods

For dangerous goods refer to other sections of the Freight Handling Code as follows:

- Section 6 for Compliance Requirements
- Section 7 for Sender's Responsibilities

Chilled & Frozen Freight

Chilled and frozen freight may have generator attachments to provide temperature control similar to integral boxes. When using Clip-on Refrigeration Units it is important that these units are correctly secured to the wagon.

DO:

➔ check that the generator weight has been included in the total load

➔ check that the generator is working correctly

➔ check that the generator is properly secured, and that any power cables to other wagons are cable tied and wagons kidney linked

Customs & Bond Freight

Customs and bond freight (freight awaiting duty payment before release) must be handled in accordance with Customs Regulations. Bonded freight can be sent only to locations with recognised bond storage facilities. Section 8 of this manual indicates the bond stores operated by KiwiRail.

Onion Containers

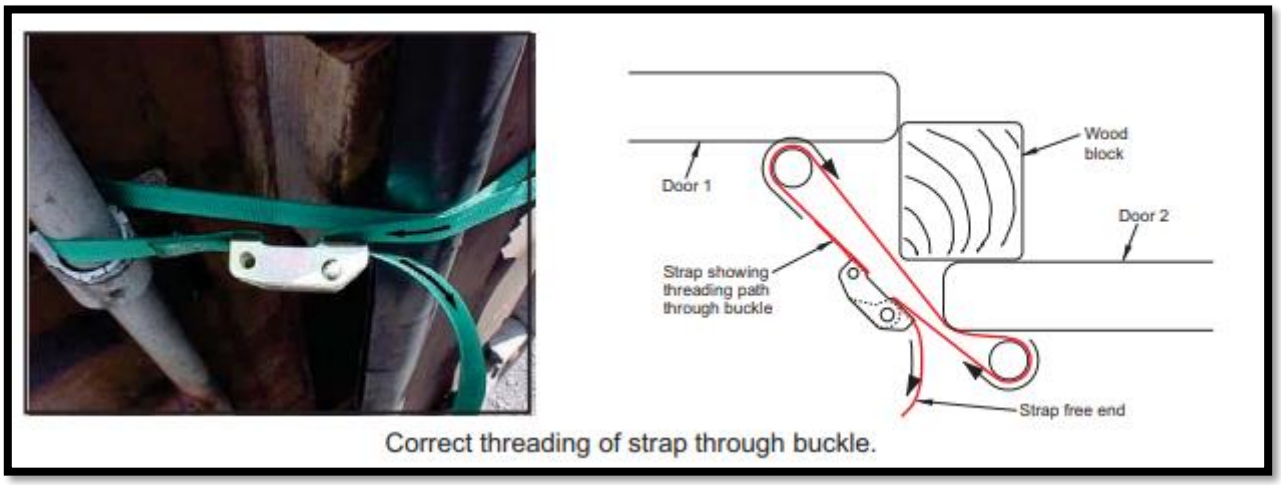
Fan ventilated containers loaded with onions travel between MetroPort Auckland and the Port of Tauranga. These containers may travel with one end door, in the direction of travel, held open about 100mm by a wooden block. On road the door is held against the block using 6mm polyrope. On rail the door must be secured against the blocking using two special 25mm webbing belts secured as shown below. These belts are manufactured for KiwiRail by Ancra NZ (Ancra part No. Tranz-009). The belts are to be removed at Tauranga and returned to MetroPort Auckland for re-use. If the special belts are not available, two standard 50mm webbing strops may be used, either secured right across the end of the container, or between the door locking bars.

DO NOT:

- × Secure doors against blocking with polyrope for rail movement

DO:

- ✓ Secure doors against the blocking with the correct straps threaded through the buckle



Correct threading of strap through buckle.

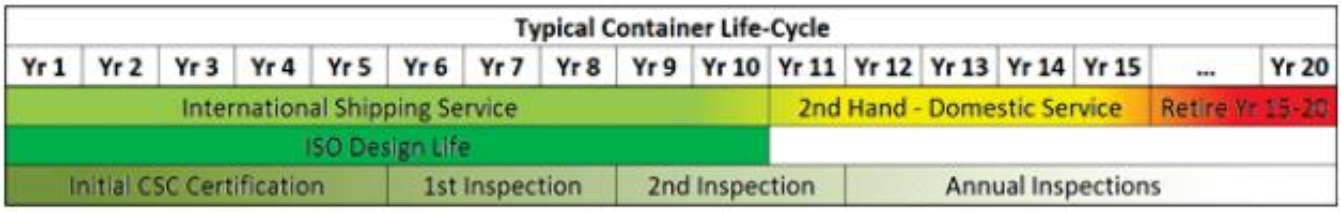
Doors secured using correct strap and buckle.

Stowage

Freight shall be loaded into containers in accordance with all the principles of good stowage, load stability and so on as described in Sections 5 and 6 of this Manual. Refer also to Sections 20 and 21 for palletised and loose general freight.

12.2 ISO Containers

Figure 1 – a typical container life cycle in relation to its likely inspection regime.



Standard ISO containers can be recognised by their current CSC SAFETY APPROVAL plate or Inspection Certificate. Most have a BIC code that is unique to the original owner e.g., KiwiRail's BIC code prefix is 'KRCU'.

CSC SAFETY APPROVAL plates can be recognised as current if the inspection date has not expired or if it has a valid ACEP ID on the plate. Think of the CSC plate as the container's WoF, it's a good indication that the container is being maintained to an acceptable standard.

Details for companies who have certified container inspectors in centres around NZ are available on https://www.iicl.org/certification/inspector-directories/companies-employing-certified-dry-van-container-inspectors/#NewZealand

The duration on CSC inspection after the initial certification provided by the container factory is at the discretion of the inspector and may be anywhere between 3 and 36 months.

Strictly the CSC approval system applies to internationally shipped containers. However, second-hand containers used in NZ domestic traffics are a big potential risk group to KiwiRail if they are not maintained to a structurally sound standard. Therefore customers who operate such containers must make a safety declaration to their KiwiRail Account Manager. The safety declaration must identify which recognised container maintenance and inspection regime they will apply to their equipment. The regime may be to continue with CSC maintenance and inspection or it may be an alternative recognised standard.

12.3 Non-ISO Units

Non-ISO units (e.g., curtain-side containers, accommodation units, oil and gas exploration equipment) are sometimes presented for movement by rail as containers, meaning that four twistlocks alone would secure the container to the wagon. To be accepted, these units must meet the conditions below.

A **loaded** non-ISO unit can be accepted for rail transport as a container **only if** it meets all four of the following conditions:

1. It is a single unit with twistlock connections in the ISO positions, which will ensure it physically fits on the wagon, OR

   It is a multi-box made up of two 3 metre units joined with certified ISO interbox connectors to form a 6 metre unit, with twistlock connections in the ISO positions, which will ensure it physically fits on the wagon, AND in either case,

2. It has a current CSC Plate or Inspection Certificate, OR

   It has an alternative design / manufacturing / maintenance certificate

3. It is not structurally cracked or corroded

4. Its size and weight are within the allowable limit

An **empty** non-ISO unit can be accepted for rail transport as a container if:

- ➔ It meets the criteria for a loaded non-ISO unit above, OR
- ➔ It is made up of two units joined with ISO interbox connectors with twistlock connections in the ISO positions, which will ensure it physically fits on the wagon, OR
- ➔ It meets all of the following conditions:
  - It has twistlock connections in the ISO positions, which will ensure it physically fits on the wagon, and
  - It is not structurally cracked or corroded, and
  - It is within the allowable limits for size and weight, and
  - It passes a KiwiRail visual inspection by a competent person

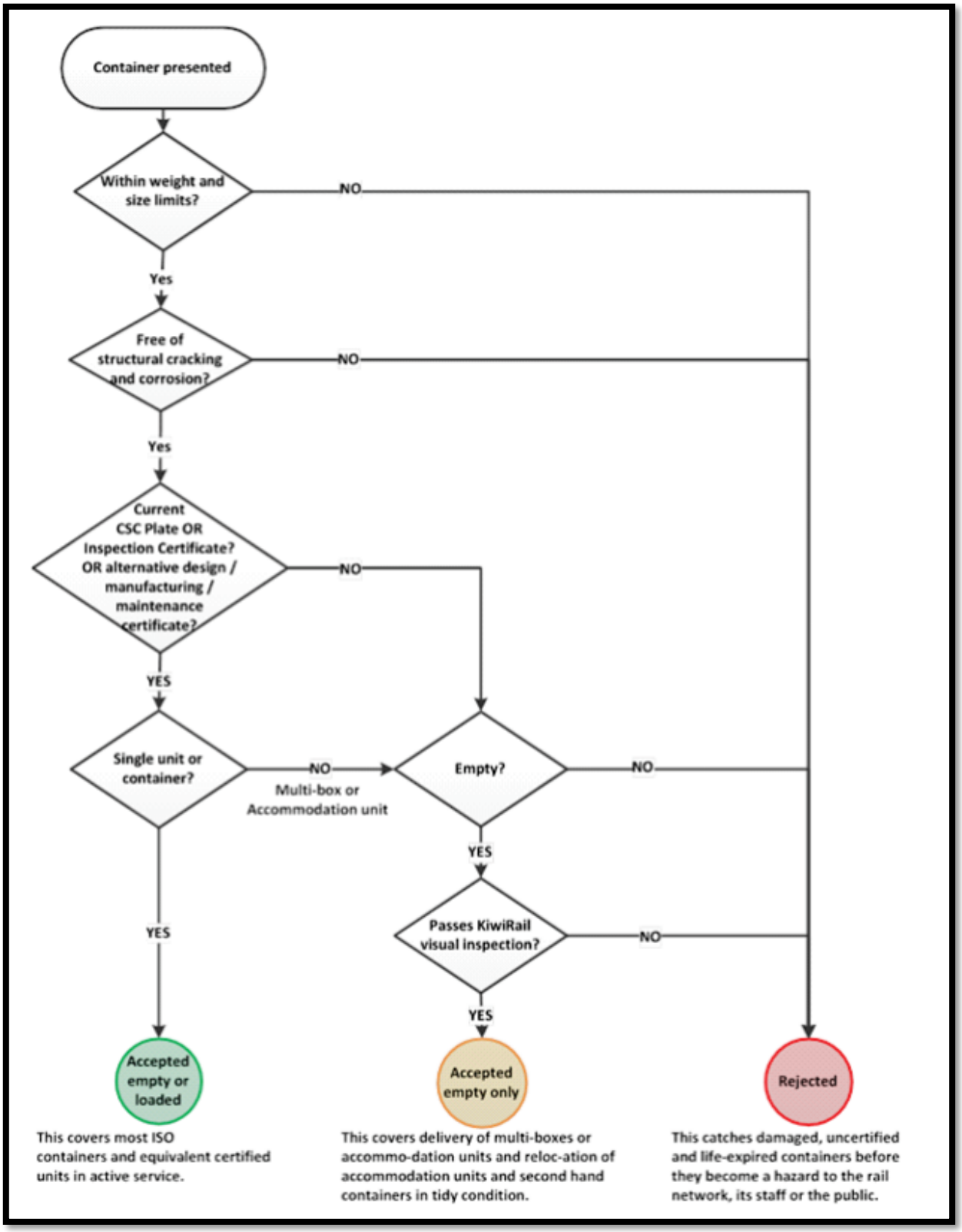
DO:

- ✓ Ensure that the unit is entirely within a standard or hi-cube (route dependant) container profile.
- ✓ Secure or remove accessories or potentially loose items, including doors, windows and vents.
- ✓ Check that any load securing curtains and all supporting items such as curtain end poles, buckles, roof support poles and strops, are in good working condition, correctly fitted in place and fully secured as the design or certificate intended.

If you think the documentation is inadequate or you are uncertain about a non-ISO unit, particularly if a unit is in poor condition, contact KiwiRail's Rolling Stock Asset Services.
IF IN DOUBT – ASK.

In any case, loaded or empty, a container or unit with any cracking visible to the naked eye is not to be accepted for rail transportation.

This **flowchart** guides you in making a decision about whether any container, or container-like unit can be carried by rail as a container:



12.4 Route and Wagon Capabilities

The movement of containers by rail is limited by:

- wagon load capability
- container movement (height) restrictions over certain routes
- axle load limitations on certain routes

KiwiRail has defined running rights for wagons and wagon-container combinations, for more information contact our **Customer Service Centre** on **0800 351 351.**

Container Movement Restrictions

All containers are nominally outside the Standard Loading Gauge (SLG). However, containers with a height at the corners of 2.6m (8 feet 6 inches) or less can be carried nationally.

High Cube containers with a height at the corners of 2.9m (9 feet 6 inches) can be carried on many routes.

High Cube containers with a height at the corners of 3.05m (10 feet) can be carried on specific routes only.

For more information contact our **Customer Service Centre** on **0800 351 351.**

Axle Load Limitations

Axle loads of up to 18 tonne are permitted on many routes, but some routes are limited to 16.3 or 14.3 tonne per axle.

For Axle Load limitations, refer to Diagram 6 of Section 22 Oversize & Overweight Loads.

For more information contact our **Customer Service Centre** on **0800 351 351.**

Wagon Capabilities

Diagram 1 – Wagon Capabilities

Wagon Class	**Maximum Axle Load**	**Maximum Capacity (TEU's)**	**Maximum 3m Box** *If singly loaded on outer slot, weight in brackets must apply*	**Maximum 6m Box** *If dually loaded on outer slots*	**Maximum 6m Box** *If singly loaded on outer slot*	**Maximum 6m Box** *If loaded on inner slot or centre slot for wagons marked with **	**Maximum 6m Box** *If loaded in 'Very Heavy' position*	**Maximum 7.5m Box** *If singly loaded on outer slot*	**Maximum 12m Box** *If weight in brackets reached, no other box permitted*
PKK	14.3	2	14 (10.5)	25.5	25.5	-	-	-	30.5
PKD (LCS)	15.25	2	14 (10.5)	25.5	25.5	-	-	-	34
USQ, USR	14.3	2	-	25.5	25.5	-	-	-	30
USK	14.3	2	14 (14)	25.5	25.5	-	30.5	-	30.5
UKK	14.3	2.5	14 (11)	23.5	19	25	-	25	34 (30.5)
UKD (LCS)	15.6	2.5	14 (11)	24	19	25	-	25	34 (30.5)
HKK	16.3	2.5	14 (12)	27	21.5	29	-	30	34
IAB, IH, IK	18	2.5	15.5 (12)	31	23	31.5	43	30.5	46.5
IA	18	2.5	15.5 (12)	31	23	31.5	-	31.5	35
IAC	18	2.5	15.5 (12)	31	21.5	31.5	43	30	47.5
IB	18	3	-	28	20	24*	-	-	30.5
IC	18	3	-	30	19	30*	-	-	35 (30.5)
IM	18	3	-	29	22	32*	-	-	35
IBB	18	3	-	28.5	21.5	35*	-	-	38
UDA	14.3	1	-	-	-	-	35	-	-
UDK	14.3	2	14 (12.5)	-	-	-	35	-	-
IPA	18	2	*13* (11.5)	28.5	25.5	*43**	-	-	*50*

Diagram 2 – Standard Sized Container Movement Restrictions

North Island

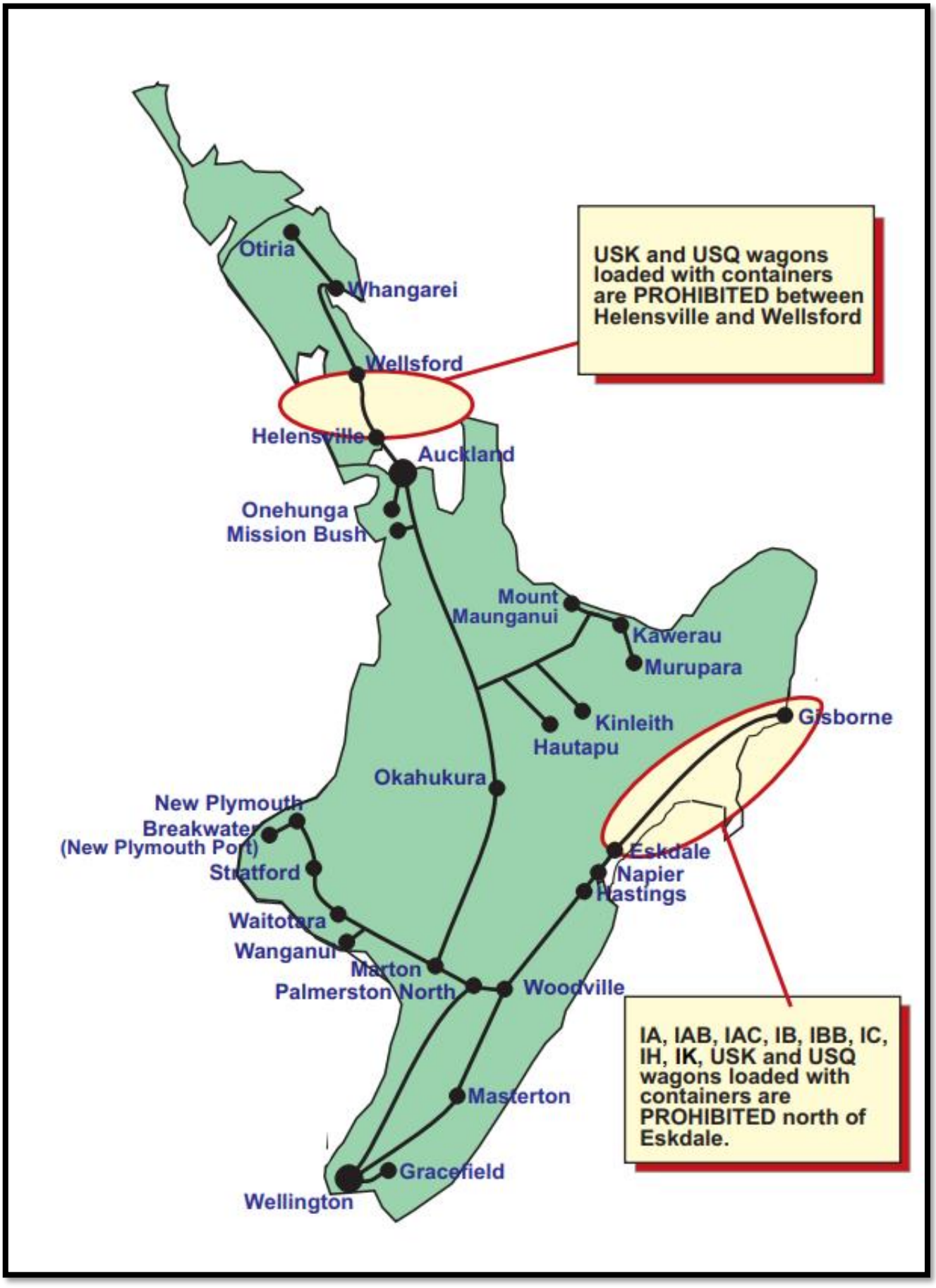


Diagram 3 – Standard Sized Container Movement Restrictions

South Island

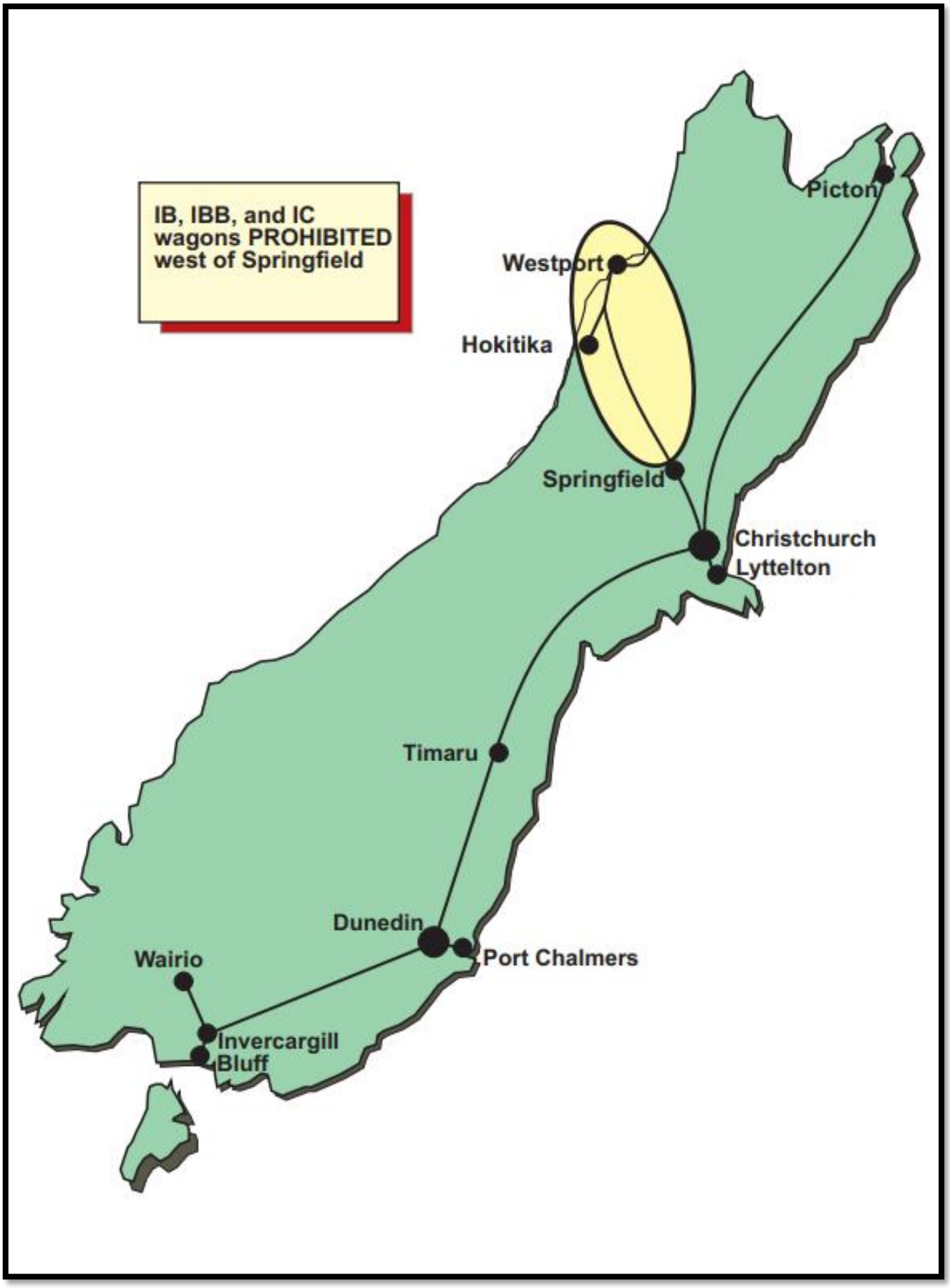


Diagram 4 – 2.9m High Cube Container Movement Restrictions

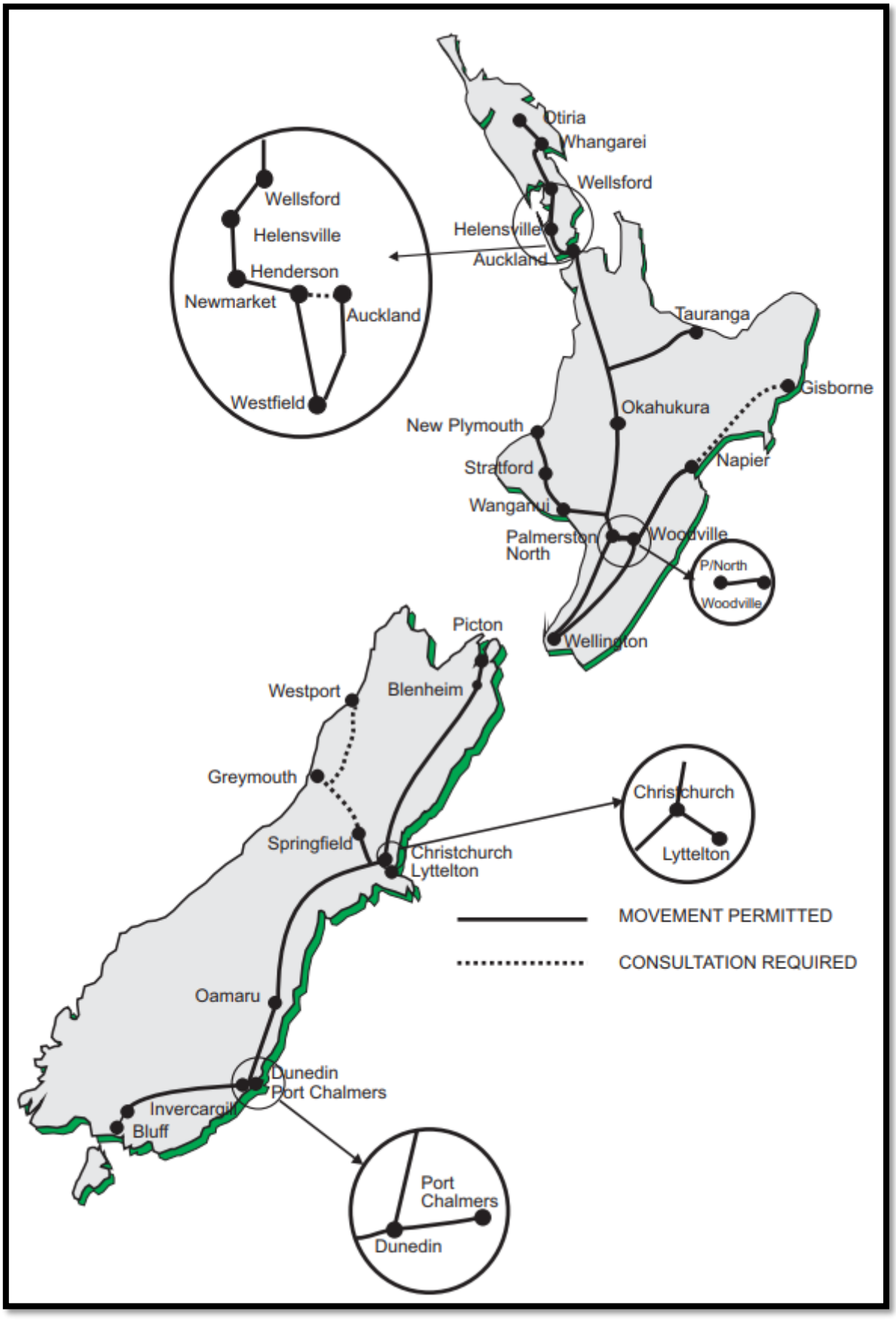


Diagram 5 Container-Wagon Load Combinations: Heavy 6m Containers or Equivalents (Sheet 1 of 2)								
Heavy Loaded Gross Weight (tonne)	Light Container Maximum Allowable Gross Weight (tonne)							
	IA		IAB / IH / IK		IAC		IPA	
	18t/ axle	16.3t/ axle	18t/ axle	16.3t/ axle	18t/ axle	16.3t/ axle	18t/ axle	16.3t/ axle
21.5	-	-	-	-	-	-	-	-
22.0	-	-	-	-	-	-	-	-
22.5	-	-	-	-	-	-	-	-
23.0	-	-	-	-	-	-	-	-
23.5	-	-	-	-	-	-	-	-
24.0	-	-	-	-	-	-	-	-
24.5	-	24.5	-	24.5	-	-	-	-
25.0	-	23.0	-	23.5	-	25.0	-	25.0
25.5	-	23.0	-	23.0	-	23.5	-	22.5
26.0	-	23.0	-	23.0	-	23.5	-	20.0
26.5	-	20.5	-	22.0	-	23.5	-	17.0
27.0	-	16.0	-	17.0	-	21.0	-	14.0
27.5	-	12.5	-	13.5	-	17.0	-	11.5
28.0	28.0	8.5	28.0	9.5	-	13.0	-	8.5
28.5	26.5	4.5	26.5	5.5	28.5	9.0	28.5	5.5
29.0	26.5		26.5		27.0	5.0	25.5	3.0
29.5	26.0		26.5		26.5		22.5	
30.0	24.5		26.0		26.5		20.0	
30.5	20.5		22.0		25.0		17.0	
31.0	16.5		17.5		21.0		14.0	
31.5	12.5		13.5		17.0		11.5	

DO:

- ✓ On IA, IAB, IAC, IH and IK wagons load containers of the same weight symmetrically on either the inner or outer twistlocks. Symmetrically loaded containers can be each up to half of the maximum payload of the wagon. The maximum container weight for symmetrically loaded wagons is the top figure in each column in the table above. Note that for IA wagons on 16 tonne routes, all container combination weights (including symmetrical loads) are reduced.

- ✓ On IA, IAB, IAC, IH, IK and IPA wagons, load the **heavier** of the two containers on the **inner** twistlocks and the lighter of the two on the outer twistlocks.

- ✓ For IAB, IAC, IH and IK wagons single container loads in excess of these tabled above are allowable up to Diagram 1 maximum. Single heavy containers (i.e. those exceeding the weights tabled above) must be carried in the new 'very heavy' container position.

Diagram 5 Container-Wagon Load Combinations: Heavy 6m Containers or Equivalents (Sheet 2 of 2)					
Heavy Loaded Gross Weight (tonne)	**Light Container Maximum Allowable Gross Weight (tonne)**				
	HKK	**PKK**	**UKK**	**USQ / USR**	**USK**
21.5	-	-	21.5	20.0	19.5
22.0	-	22.0	20.0	18.0	17.5
22.5	-	19.0	20.0	15.5	15.5
23.0	-	16.0	18.0	13.5	13.5
23.5	-	13.0	13.5	11.0	11.5
24.0	-	10.5	9.5	9.0	9.5
24.5	-	7.5	5.0	6.5	7.5
25.0	25.0	4.5		4.0	5.5
25.5	23.5				3.5
26.0	23.5				
26.5	23.0				
27.0	19.5				
27.5	15.5				
28.0	11.5				
28.5	7.5				
29.0	3.5				
29.5					
30.0					
30.5					

Do not load 2nd container, as exceeds wagon rating

One 6m container up to 30.5t can be loaded centrally on USK

DO:

- ✓ On HKK and UKK load containers of the same weight symmetrically on either the inner or outer twistlocks. Symmetrically loaded containers can be each up to half of the maximum payload of the wagon. The maximum container weight for symmetrically loaded wagons is the top figure in each column in the table above. Note that for IA wagons on 16 tonne routes, all container combination weights (including symmetrical loads) are reduced.

- ✓ On HKK and UKK load the **heavier** of the two containers on the **inner** twistlocks and the lighter of the two on the outer twistlocks.
  Note: UKK and PKK wagons loaded with heavy containers at one end can become unstable and derail under some conditions.
  Load combinations in the grey shaded areas above should be avoided where possible.

- ✓ Where only one container is allowed, load as centrally as possible on the leading end, in the direction of travel. If not possible, see diagram 1 for maximum weights.

Diagram 5A Container-Wagon Load Combinations: One Heavy x 12m & One x 3m Containers					
12m Box Gross Weight (tonne)	Maximum 3m Box Gross Weight (tonne)				
	UKK	HKK	IA	IAB / IH / IK	IAC
47.5	12m box exceeds wagon limit				9.0
47.0					9.5
46.5				9.0	9.5
46.0				9.5	10.0
45.0				9.5	10.0
44.0				10.0	10.5
43.0				10.5	11.0
42.0				11.0	11.5
41.0				11.5	11.5
40.0				11.5	12.0
39.0				12.0	12.5
38.0				12.5	13.0
37.0				13.0	13.5
36.0				13.0	13.5
35.0			13.5	13.5	14.0
34.0	No other box allowed	11.0	14.0	14.0	14.5
33.0		11.5	14.5	14.5	15.0
32.0		12.0	15.0	15.0	15.5
31.0		12.5	15.0	15.0	15.5
30.5	9.0	12.5	15.5	15.5	15.5
30.0	9.0	12.5	Maximum allowable weight for 3m boxes		
29.0	9.5	13.0			
28.0	10.0	13.5			
27.0	10.5	14.0			
26.0	10.5	14.0			
25.0	11.0	14.5			
24.0	11.5	15.0			
23.0	12.0	15.5			
22.0	12.0				
21.0	12.5				
20.0	13.0				
19.0	13.5				
18.0	14.0				

Diagram 5B Container-Wagon Load Combinations: Approved Local Circuit Shunts Operating at 55km/h Max				
Heavy Loaded 6m Gross Weight (tonne)	Light 6m Container Maximum Allowable Gross Weight (tonne)			
	PKD	UKD / UKF	USR	USK
21.5	-	-	21.5	21.5
22.0	-	-	21.0	21.0
22.5	-	-	15.5	15.5
23.0	-	-	13.5	13.5
23.5	-	-	11.0	11.5
24.0	24.0	24.0	9.0	9.5
24.5	7.5	5.0	6.5	7.5
25.0	4.5		4.0	5.5
25.5	**Do not load 2nd container, as exceeds wagon rating**			3.5

PKD wagons are selected PK wagons subject to more frequent inspections. They are authorised to operate on **specific Local Circuit Shunts** overloaded up to the limits in the table, **at no more than 55km/h.** See the latest issue of the Rail Operating Code for approved routes. 12m containers up to 34t are permitted on PKD wagons (no change to standard PK).

UKD wagons are selected UK wagons subject to move frequent inspections. They are authorised to operate on **specific Local Circuit Shunts** overloaded up to the limits in the table, **at no more than 55km/h.** See the latest issue of the Rail Operating Code for approved routes. 12m containers up to 34t are permitted on UKD wagons (no change from standard UK).

USR wagons are authorised to operate on **specific Local Circuit Shunts** overloaded up to the limits in the table, **at no more than 55km/h.** See the latest issue of the Rail Operating Code for approved routes. 12m containers up to 30t are permitted on USR wagons (no change from standard USR).

USK wagons are authorised to operate on **specific Local Circuit Shunts** overloaded up to the limits in the table, **at no more than 55km/h.** See the latest issue of the Rail Operating Code for approved routes. Note that USK wagons are able to carry one central 6m container up to 30.5t gross weight at line speed. 12m containers up to 30.5t are permitted on USK wagons (no change from standard USK).

IAD wagons have the same limits as standard IA wagons. The unique classification is for pool allocation only.

Diagram 6 Maximum Loading: ONE x 12m and ONE x 6m CONTAINER (Sheet 1 of 2)				
12m Container Maximum Gross Weight (tonne)	**6m Container Maximum Gross Weight**			
	IB	**IC**	**IM**	**IBB**
38.0	**Do not load 12m box, as exceeds wagon rating**	**Do not load 12m box, as exceeds wagon rating**		1.5
37.5				5.9
37.0				10.3
36.5				14.8
36.0				18.1
35.5				18.2
35.0		**Do not load 6m box, as exceeds wagon rating**	18.3	18.4
34.5			18.4	18.5
34.0			18.6	18.7
33.5			18.7	18.8
33.0			18.9	19.0
32.5			19.1	19.2
32.0			19.2	19.3
31.5			19.4	19.5
31.0			19.5	19.6
30.5	21.2	20.8	19.7	19.8
30.0	21.3	21.0	19.8	19.9
29.5	21.5	21.2	20.0	20.1
29.0	21.6	21.3	20.2	20.3
28.5	21.8	21.5	20.3	20.4
28.0	22.0	21.6	20.5	20.6
27.5	22.1	21.8	20.6	20.7
27.0	22.3	22.0	20.8	20.9
26.5	22.4	22.1	20.9	21.1
26.0	22.6	22.3	21.1	21.2
25.5	22.8	22.4	21.3	21.4
25.0	22.9	22.6	21.4	21.5
24.5	23.1	22.7	21.6	21.7
24.0	23.2	22.9	21.7	21.8
23.5	23.4	23.1	21.9	22.0
23.0	23.6	23.2	22.0	22.2
22.5	23.7	23.4	22.2	22.3
22.0	23.9	23.5	22.4	22.5
21.5	24.1	23.7	22.5	22.6
21.0	24.2	23.9	22.7	22.8
20.5	24.4	24.0	22.8	22.9

Diagram 6 Maximum Loading: ONE x 12m and ONE x 6m CONTAINER (Sheet 2 of 2)				
12m Container Maximum Gross Weight (tonne)	**6m Container Maximum Gross Weight**			
	IB	**IC**	**IM**	**IBB**
20.0	24.5	24.2	23.0	23.1
19.5	24.7	24.3	23.1	23.3
19.0	24.9	24.5	23.3	23.4
18.5	25.0	24.7	23.5	23.6
18.0	25.2	24.8	23.6	23.7
17.5	25.3	25.0	23.8	23.9
17.0	25.5	25.1	23.9	24.0
16.5	25.7	25.3	24.1	24.2
16.0	25.8	25.4	24.3	24.4
15.5	26.0	25.6	24.4	24.5
15.0	26.1	25.8	24.6	24.7
14.5	26.3	25.9	24.7	24.8
14.0	26.5	26.1	24.9	25.0
13.5	26.6	26.2	25.0	25.1
13.0	26.8	26.4	25.2	25.3
12.5	27.0	26.6	25.4	25.5
12.0	27.1	26.7	25.5	25.6
11.5	27.3	26.9	25.7	25.8
11.0	27.4	27.0	25.8	25.9
10.5	27.6	27.2	26.0	26.1
10.0	27.8	27.3	26.1	26.3
9.5	27.9	27.5	26.3	26.4
9.0	28.0	27.7	26.5	26.6
8.5	28.0	27.8	26.6	26.7
8.0	28.0	28.0	26.8	26.9
7.5	28.0	28.1	26.9	27.0
7.0	28.0	28.3	27.1	27.2
6.5	28.0	28.5	27.2	27.4
6.0	28.0	28.6	27.4	27.5
5.5	28.0	28.8	27.6	27.7
5.0	28.0	28.9	27.7	27.8
4.5	28.0	29.1	27.9	28.0
4.0	28.0	29.3	28.0	28.1

Diagram 7 IB Wagon Load Combinations:		
16.3 TONNE AXLE LOAD: THREE x 6m CONTAINERS (Sheet 1 of 2)		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
12.5	24.0	12.5
13.0	23.0	13.0
13.5	21.0	13.5
14.5	19.0	14.5
15.5	17.0	15.5
16.5	15.0	16.5
17.5	13.0	17.5
18.5	11.0	18.5
19.5	9.0	19.5
20.5	7.0	20.5
21.5	5.0	21.5
22.5	3.0	22.5
23.0	No middle container	23.0
24.0	No middle container	24.0

Diagram 7 IB Wagon Load Combinations:	
16.3 TONNE AXLE LOAD: ONE x 12m & ONE x 6m CONTAINER (Sheet 2 of 2)	
12m Container: Maximum Gross Weight (tonne)	**6m Container: Maximum Gross Weight (tonne)**
30.5	16.5
30.0	16.5
29.0	17.0
28.0	17.5
27.0	17.5
26.0	18.0
25.0	18.5
24.0	18.5
23.0	19.0
22.0	19.0
21.0	19.5
20.0	20.0
19.0	20.0
18.0	20.5
17.0	21.0
16.0	21.0
15.0	21.5
14.0	22.0
13.0	22.0
12.0	22.5
11.0	23.0
10.0	23.0
9.0	23.5
8.0	23.5

Diagram 8 IB WAGON LOAD COMBINATIONS		
18 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
16.0	24.0	16.0
17.0	22.0	17.0
18.0	20.0	18.0
19.0	18.0	19.0
20.0	16.0	20.0
21.0	14.0	21.0
22.0	12.0	22.0
23.0	10.0	23.0
24.0	8.0	24.0
25.0	6.0	25.0
26.0	4.0	26.0
27.0	2.0	27.0
28.0	No Middle Container	28.0

Note: If the first end container weighs between 19 and 28 tonnes, there **must** be a container loaded on the second end to prevent an End-to-End loading imbalance.

Diagram 9 IBB WAGON LOAD COMBINATIONS:		
16.3 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
5.5	35.0	5.5
6.0	34.0	6.0
7.0	32.0	7.0
8.0	30.0	8.0
9.0	28.0	9.0
10.0	26.0	10.0
11.0	24.0	11.0
12.0	22.0	12.0
13.0	20.0	13.0
14.0	18.0	14.0
15.0	16.0	15.0
16.0	14.0	16.0
17.0	12.0	17.0
18.0	10.0	18.0
19.0	8.0	19.0
20.0	6.0	20.0
21.0	4.0	21.0
22.0	2.0	22.0
23.0	No Middle Container	23.0

16.3 TONNE AXLE LOAD: ONE x 12m & ONE x 6m CONTAINER	
12m Container: Maximum Gross Weight (tonne)	**6m Container: Maximum Gross Weight (tonne)**
32.5	-
32.0	4.5
31.5	9.0
31.0	13.5
30.5	15.0
30.0	15.5
28.5	16.0
25.5	17.0
22.5	18.0
19.0	19.0
16.0	20.0
13.0	21.0
9.5	22.0
6.5	23.0
3.5	24.0
-	25.0

Diagram 10 IBB WAGON LOAD COMBINATIONS:		
18 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
9.5	35.0	9.5
10.0	34.0	10.0
11.0	32.0	11.0
12.0	30.0	12.0
13.0	28.0	13.0
14.0	26.0	14.0
15.0	24.0	15.0
16.0	22.0	16.0
17.0	20.0	17.0
18.0	18.0	18.0
19.0	16.0	19.0
20.0	14.0	20.0
21.0	12.0	21.0
22.0	10.0	22.0
23.0	8.0	23.0
24.0	6.0	24.0
25.0	4.0	25.0
26.0	2.0	26.0
27.0	No Middle Container	27.0

Note: If the first end container weighs between 21.5 and 28.5 tonne, there **must** be a container loaded on the second end to prevent an End-to-End loading imbalance.

Diagram 11 IC WAGON LOAD COMBINATIONS:		
16.3 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
8.5	30.5	8.5
11.5	25.0	11.5
12.5	23.0	12.5
13.5	21.0	13.5
14.5	19.0	14.5
15.5	17.0	15.5
16.5	15.0	16.5
17.5	13.0	17.5
18.5	11.0	18.5
19.5	9.0	19.5
20.5	7.0	20.5
21.5	5.0	21.5
22.5	3.0	22.5
23.0	No Middle Container	23.0
24.0	No Middle Container	24.0

16.3 TONNE AXLE LOAD: ONE x 12m & ONE x 6m CONTAINER	
12m Container: Maximum Gross Weight (tonne)	**6m Container: Maximum Gross Weight (tonne)**
30.5	16.0
30.0	16.0
29.0	16.5
28.0	17.0
27.0	17.0
26.0	17.5
25.0	17.5
24.0	18.0
23.0	18.5
22.0	18.5
21.0	19.0
20.0	19.5
19.0	19.5
18.0	20.0
17.0	20.0
16.0	20.5
15.0	21.0
14.0	21.0
13.0	21.5
12.0	22.0
11.0	22.0
10.0	22.5
9.0	23.0
8.0	23.0

Diagram 12 IC WAGON LOAD COMBINATIONS		
18 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
13.0	30.5	13.0
14.0	28.5	14.0
15.0	26.5	15.0
16.0	24.5	16.0
17.0	22.5	17.0
18.0	20.5	18.0
19.0	18.5	19.0
20.0	16.5	20.0
21.0	14.5	21.0
22.0	12.5	22.0
23.0	10.5	23.0
24.0	8.5	24.0
25.0	6.5	25.0
26.0	4.5	26.0
27.0	2.5	27.0
28.0	No Middle Container	28.0
28.5	No Middle Container	22.0
29.0	No Middle Container	15.0
29.5	No Middle Container	10.0
30.0	No Middle Container	3.5

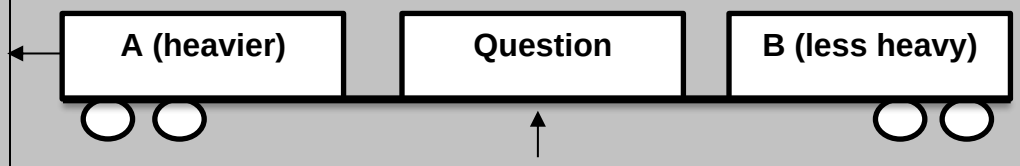
Note: If the first end container weighs between 19 and 30 tonnes, there **must** be a container loaded on the second end to prevent an End-to-End loading imbalance.

Diagram 13 IM WAGON LOAD COMBINATIONS		
18 TONNE AXLE LOAD: THREE x 6m CONTAINERS		
First End Container: Maximum Gross Weight (tonne)	**Middle Container: Maximum Gross Weight (tonne)**	**Second End Container: Maximum Gross Weight (tonne)**
10.6	32.5	10.6
10.9	32.0	10.9
11.9	30.0	11.9
12.9	28.0	12.9
13.9	26.0	13.9
14.9	24.0	14.9
15.9	22.0	15.9
16.9	20.0	16.9
17.9	18.0	17.9
18.9	16.0	18.9
19.9	14.0	19.9
20.9	12.0	20.9
21.9	10.0	21.9
22.9	8.0	22.9
23.9	6.0	23.9
24.9	4.0	24.9
25.9	2.0	25.9
26.9	No Middle Container	26.9

Note: If the first end container weighs between 22 and 29 tonnes, there **must** be a container loaded on the second end to prevent an End-to-End loading imbalance.

Diagram 14
CONTAINER-WAGON LOAD LIMITATIONS:
WITH CENTRAL 3.05m CONTAINERS

Box 'A' is the heavier of the two end boxes



Box 'A' Maximum Gross Weight	Central Container Maximum Allowable Gross Weight (tonne)					
	IA		IAB / IH / IK		IAC	
	18t/axle	16.3t/axle	18t/axle	16.3t/axle	18t/axle	16.3t/axle
13.0	15.5	15.5	15.5	15.5	15.5	15.5
14.0	15.5	15.5	15.5	15.5	15.5	15.5
15.0	15.5	15.5	15.5	15.5	15.5	15.5
16.0	15.5	15.5	15.5	15.5	15.5	15.5
17.0	15.5	15.0	15.5	15.5	15.5	15.5
18.0	15.5	13.0	15.5	13.0	15.5	14.0
19.0	15.5	11.0	15.5	11.0	15.5	12.0
20.0	15.5	9.0	15.5	9.0	15.5	10.0
21.0	14.0	7.0	14.0	7.0	15.0	8.0
22.0	12.0	5.0	12.0	5.0	13.0	6.0
23.0	10.0	3.0	10.0	3.0	11.0	4.0
24.0	8.0		8.0	1.0	9.0	2.0
25.0	6.0		6.0		7.0	
26.0	4.0		4.0		5.0	
27.0	2.0		2.0		3.0	

	HKK	UKK	PKK
13.0	15.5	14.0	
14.0	15.5	14.0	
15.0	15.5	13.0	
16.0	15.5	11.0	
17.0	15.5	9.0	
18.0	14.0	7.0	
19.0	12.0	5.0	
20.0	10.0	3.0	
21.0	8.0		
22.0	6.0		
23.0	4.0		
24.0		**Central Box Not Allowed**	
25.0			
26.0			
27.0			

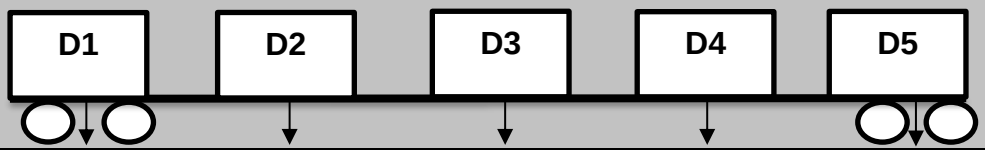
Diagram 15
CONTAINER-WAGON LOAD LIMITATIONS:
WITH CENTRAL 3.05m CONTAINERS

Box 'C' Maximum Gross Weight	Central Container Maximum Allowable Gross Weight (tonne)					
	IA		IAB / IH / IK		IAC	
	18t/axle	16.3t/axle	18t/axle	16.3t/axle	18t/axle	16.3t/axle
13.0	15.5	15.5	15.5	15.5	15.5	15.5
14.0	15.5	15.5	15.5	15.5	15.5	15.5
15.0	15.5	15.5	15.5	15.5	15.5	15.5
16.0	15.5	15.5	15.5	15.5	15.5	15.5
17.0	15.5	15.5	15.5	15.5	15.5	15.5
18.0	15.5	15.5	15.5	15.5	15.5	15.5
19.0	15.5	15.0	15.5	15.0	15.5	15.5
20.0	15.5	13.5	15.5	13.0	15.5 (2.0)	14.5 (2.0)
21.0	15.5	11.5	15.5	11.5	15.5 (2.5)	12.5 (2.5)
22.0	15.5	10.0	15.5	9.5	15.5 (3.0)	10.5 (3.0)
23.0	15.0	8.0	14.5	8.0	15.5 (3.5)	9.0 (3.5)
24.0	13.0 (1.5)	6.0 (1.5)	13.0 (1.5)	6.0 (1.5)	14.0 (4.0)	7.0 (4.0)
25.0	11.0 (2.0)	4.5 (2.0)	11.0 (2.0)	4.5 (2.0)	12.0 (5.0)	5.5 (5.0)
26.0	9.5 (2.5)		9.0 (2.5)		10.5	
27.0	7.5 (3.0)		7.5 (3.0)		8.5	
28.0	6.0 (4.0)		5.5 (3.5)		7.0	
29.0	4.0 (4.5)		4.0 (4.0)		5.0	
	HKK	UKK	PKK			
13.0	15.5	14.0				
14.0	15.5	14.0				
15.0	15.5	14.0				
16.0	15.5	14.0				
17.0	15.5	12.0				
18.0	15.5	10.5				
19.0	15.5	8.5				
20.0	14.5	7.0 (1.0)				
21.0	12.5					
22.0	11.0 (1.0)					
23.0	9.0 (1.5)					
24.0	7.0 (2.0)					
25.0	5.5 (2.5)					

Central Box Not Allowed

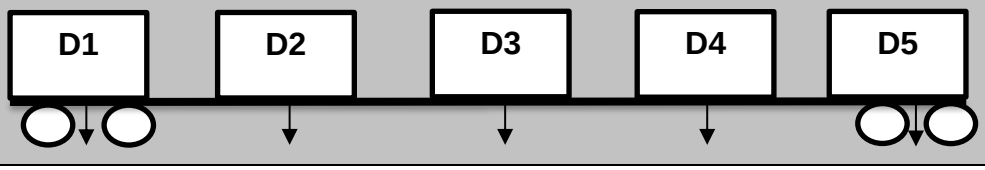
Note: Numbers in brackets are the minimum weight for the centre 3m container to prevent an End-to-End loading imbalance.

Diagram 16
CONTAINER-WAGON LOAD LIMITATIONS:
3.05m CONTAINERS
Sheet 1 of 3



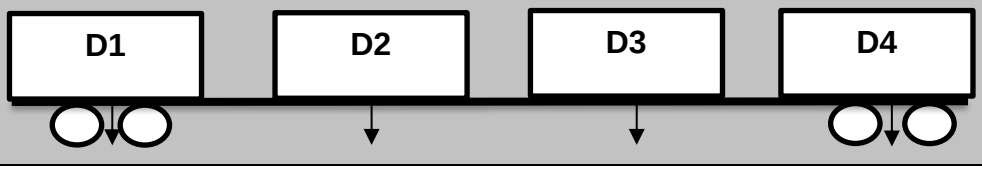
For IA / IAB / IH / IK 18t / axle	**Maximum Gross Weight Combinations (tonne)**				
	15.5	15.5	-	-	15.5
	15.0	7.0	15.0	-	15.5
	14.0	14.0	-	14.0	14.0
	13.0	13.0	4.0	13.0	13.0
	11.0	11.0	12.0	11.0	11.0
	15.0	13.0	-	13.0	15.0
For IA / IAB / IH / IK 16.3t / axle	**Maximum Gross Weight Combinations (tonne)**				
	15.0	12.5	-	-	15.0
	15.5	2.0 (MT)	15.0	-	15.5
	12.0	11.5	2.0 (MT)	11.5	12.0
	12.5	12.0	-	12.0	12.5
	10.0	10.0	9.0	10.0	10.0
	15.0	9.5	-	9.5	15.0
For IAC 18t / axle	**Maximum Gross Weight Combinations (tonne)**				
	15.5	15.5	-	-	15.5
	15.0	7.5	15.0	-	15.5
	14.0	14.5	-	14.5	14.0
	13.0	13.5	4.0	13.5	13.0
	11.0	11.0	12.0	11.0	11.0
	15.0	13.5	-	13.5	15.0
For IAC 16.3t / axle	**Maximum Gross Weight Combinations (tonne)**				
	15.0	13.0	-	-	15.0
	15.5	2.0 (MT)	15.5	-	15.5
	12.0	12.0	2.0 (MT)	12.0	12.0
	12.5	12.5	-	12.5	12.5
	10.0	10.0	10.0	10.0	10.0
	15.0	10.0	-	10.0	15.0

Diagram 16
CONTAINER-WAGON LOAD LIMITATIONS:
3.05M CONTAINERS
Sheet 2 of 3



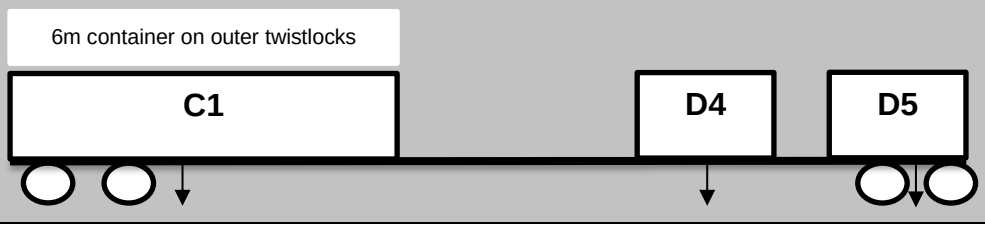
	Maximum Gross Weight Combinations (tonne)				
For UKK	14.0	7.5	-	7.5	14.0
	14.0	-	14.0	-	14.0
	12.0	8.0	2.0 (MT)	8.0	12.0
	11.0	10.0	-	10.0	11.0
	9.0	8.0	8.0	8.0	9.0
	Maximum Gross Weight Combinations (tonne)				
For HKK	14.0	14.0	-	-	14.0
	14.0	2.0 (MT)	14.0	2.0 (MT)	14.0
	12.0	13.0	-	13.0	12.0
	13.0	12.0	-	12.0	13.0
	10.0	10.0	10.0	10.0	10.0

Diagram 16
CONTAINER-WAGON LOAD LIMITATIONS:
3.05m CONTAINERS
Sheet 3 of 3

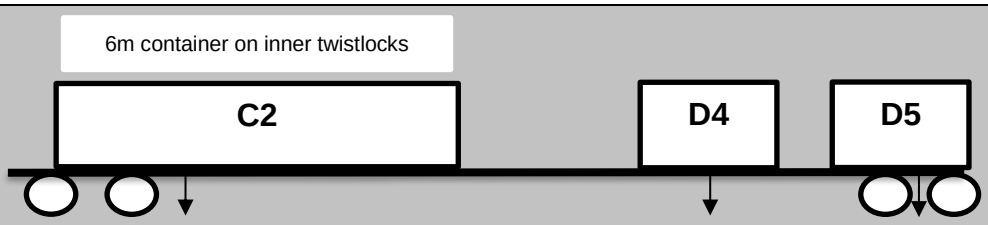


For PK 14.3t/axle	**Maximum Gross Weight Combinations (tonne)**			
	11.0	11.0	11.0	11.0
	10.0	12.0	12.0	10.0
	9.0	13.0	13.0	9.0
	8.0	14.0	14.0	8.0
	13.0	13.0	-	13.0
	10.5 max (3m container singly loaded in outer slot)			
For IPA 16.3t/axle	**Maximum Gross Weight Combinations (tonne)**			
	12.5	12.5	12.5	12.5
	12.0	13.0	13.0	12.0
	13.0	*13.0*	*10.0*	*13.0*
	11.5 max (3m container singly loaded in outer slot)			
For IPA 18t/axle	**Maximum Gross Weight Combinations (tonne)**			
	13.0	*13.0*	*13.0*	*13.0*
	Any combination of 2 or 3 containers up to *13.0t* each			
	11.5 max (3m container singly loaded in outer slot)			

Diagram 17
CONTAINER-WAGON LOAD LIMITATIONS:
ONE x 6m CONTAINER and TWO x 3.05m CONTAINERS
Sheet 1 of 3



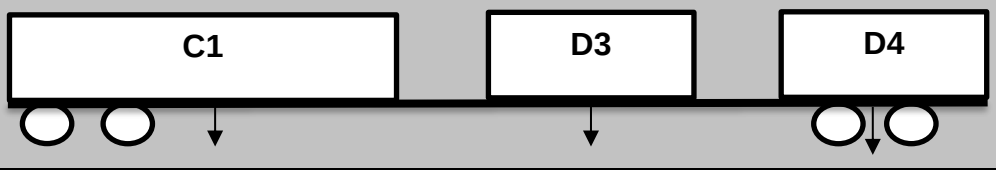
	Maximum Gross Weight Combinations (tonne)			
For IAB / IH / IK 18t/axle	30.5	-	3.0	**With no 3m container in D5 Slot**
	29.0	-	9.0	
	28.0	-	13.0	
	27.3	-	15.5	
	27.6	-	15.5	13.0 (9.0)
	27.8	-	15.0	13.3 (4.0)
	28.0	-	14.0	14.0 (10.0)
	28.3	-	13.0	14.8 (11.5)
	28.6	-	12.0	15.5 (13.5)
	29.0	-	10.6	15.5 (15.5)
	30.5	-	4.7	15.5 (13.5)
	31.5	-	-	15.5



	Maximum Gross Weight Combinations (tonne)			
For IAB / IH / IK 18t/axle	31.5	-	5.5	**With no 3m container in D5 Slot**
	30.5	-	9.2	
	29.0	-	14.9	
	28.8	-	15.5	
	28.0	-	15.5	11.7
	28.0	-	15.0	12.0
	29.0	-	14.0	12.7
	29.5	-	13.0	13.3
	30.0	-	12.0	14.0 (8.5)
	30.5	-	10.0	15.5 (7.5)
	31.5	-	-	15.5

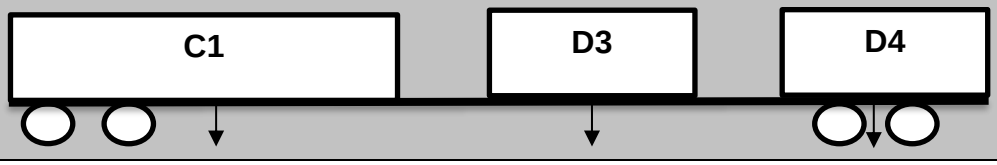
Note: Numbers in brackets are the minimum weight for the 3m container in the D5 slot to prevent an End-to-End loading imbalance.

Diagram 17
CONTAINER-WAGON LOAD LIMITATIONS:
ONE x 6m CONTAINER and TWO x 3.05m CONTAINERS
Sheet 2 of 3



	Maximum Gross Weight Combinations (tonne)		
For PK 14.3t/axle	25.5	-	14.0
	25.0	3.0	14.0
	24.5	4.5	14.0
	24.0	6.0	14.0
	21.5 to 23.5	6.5	14.0
	19.5 to 21.0	14.0	9.0
	16.0 to 19.0	14.0	9.5
	12.5 to 15.5	14.0	10.5
	9.0 to 12.0	14.0	11.0
	22.0	11.0	11.0
	17.0	11.5	11.5
	11.0	12.0	12.0
	5.0	12.5	12.5
	Maximum Gross Weight Combinations (tonne)		
For IPA 16.3t/axle	29.5	-	14.0
	29.0	2.0	14.0
	28.5	3.5	14.0
	28.0	5.0	14.0
	27.5	6.0	14.0
	27.0	7.5	14.0
	26.5	9.0	14.0
	24.5 to 26.0	10.0	14.0
	22.5 to 24.0	14.0	11.5
	19.0 to 22.0	14.0	12.0
	16.0 to 18.5	14.0	12.5
	12.5 to 15.5	14.0	13.0
	9.0 to 12.0	14.0	13.5
	8.5	14.0	14.0
	20.0	13.0	13.0
	25.0	12.0	12.0
	25.5	11.0	11.0
	26.0	10.0	10.0

Diagram 17
CONTAINER-WAGON LOAD LIMITATIONS:
ONE x 6m CONTAINER and TWO x 3.05m CONTAINERS
Sheet 3 of 3



	Maximum Gross Weight Combinations (tonne)		
For IPA 18t/axle	32.4	4.0	14.0
	32.0	5.0	14.0
	31.5	6.0	14.0
	31.0	7.5	14.0
	30.5	9.0	14.0
	30.0	10.0	14.0
	29.5	11.5	14.0
	29.0	12.5	14.0
	28.5	14.0	14.0

12.5 Loading & Securing Containers on Rail

DO:

- ✓ Load containers onto the wagon directly **without** dunnage.
- ✓ Ensure that **all** containers have **all twistlocks up, locked and pinned / tied.** Diagram 18 shows how rail twistlocks are secured and pinned / tied.
- ✓ Always load LGD and LTD tank containers with the **outlet pipe** to the **centre** of the wagon.

Automatic Twistlocks

Several types of automatic twistlocks are fitted to wagons (such as the OM and USQ). Specific instructions on the operation of automatic twistlocks are shown in Diagram 19.

General Restriction

DO NOT:

- × Load GST and TST KiwiRail containers on PK wagons.
- × Load GST, GSY, GTX, and TST KiwiRail containers on the ends of HKK, IA, IB, and UKK wagons - load only in the centre position.

HCC, HEC and HLC Containers

HCC, HEC, and HLC containers may be placed on HKK, IA, IB and UKK wagons as follows:

- ➔ Loaded on the outer twistlocks:
  - the doors must face inboard, i.e., toward the centre of the wagon.
- ➔ Loaded on the inner twistlocks:
  - no restriction on the way the doors face.

In all cases the door lever locking pins must be in place at all times.

TSM and GSM Containers

- ➔ TSM and GSM containers are 7.6m long and fitted with three sets of bottom ISO securing fittings.
- ➔ They are specifically designed to overhang into the central space on UKK, IA and IB wagons when fitted to the outer 6m container slots.
- ➔ These containers are 2.9m high so are subject to route restrictions.
- ➔ Due to the large internal volume of these containers, they can be very heavy.
- ➔ Load ratings for these wagons must not be exceeded when carrying these containers.

TSD Containers

- ➔ TSD containers are 7.6m long and fitted with three sets of bottom ISO securing fittings.
- ➔ They are specifically designed to overhang into the central space on UKK, IA and IB wagons when fitted to the outer 6m container slots.
- ➔ These containers are 3.05m high so are permitted on specifically authorised routes only.
- ➔ Due to the large internal volume of these containers, they can be very heavy.
- ➔ Load ratings for these wagons must not be exceeded when carrying these containers.

45 Foot Containers

- ➔ Most 45 foot containers are fitted with extra bottom castings at 12m container centre distance away from each end.
- ➔ These containers can be carried on any 12m container capable wagon using the 12m container twistlocks with the extra length accommodated on the wagon deck.
- ➔ Do not exceed the wagon load rating for 12m containers.

UES 45 Foot Containers

- ➔ UES 45 foot containers have extra bottom castings at 12m container spacing with an overhang at each end.
- ➔ On most KiwiRail wagons this results in the container overhanging the headstock, which is not acceptable.
- ➔ They may be carried on specially modified UKV wagons.
- ➔ These wagons have extra twistlocks fitted to engage with the bottom castings on the containers.

12.6 Multiple Stacked Containers

This section applies to all multiple stacked containers, including half heights, collapsible flatracks and platform containers.

Multiple Stacking Rules

- ➔ The gross weight of multiple staked containers **shall not exceed** the weight limits defined for standard height containers (see Section 12.4 Route & Wagon Capabilities).
- ➔ The combined height of multiple stacked containers must not exceed the maximum container height for the route.

DO:

- ✓ Secure the bottom container to the wagon with all four twistlocks up, locked and pinned or tied.
- ✓ Lock the containers to each other at each corner using built-in connectors or double-ended shipping twistlocks.
- ✓ Secure the collapsed end walls (bulkheads) of the top collapsed flatrack to its platform, and ensure the lock down mechanisms are engaged.

ADDITIONALLY:

- ✓ **For spring loaded bulkheads,** the bulkheads must be secured with a minimum of two strops or chains tensioned over each bulkhead.
- ✓ **For non spring loaded bulkheads,** the bulkheads must be secured with a minimum of one strop or chain tensioned over each bulkhead.
- ✓ **Strops** must be at least 38mm wide, and comnpliant with AS/NZS4380.

DO NOT:

- × Stack **loaded** containers on top of **empty** containers.

12.7 Containers in HSB Bins

HSB scrap bins may carry loaded or empty containers (6m x 2.5m x 2.6m) when not loaded with anything else. Maximum weight depends on wagon and route restrictions.

12.8 Container Types

Diagram 22 illustrates the container types most frequently found in the KiwiRail system.

12.9 Twistlocks

Twistlocks with worn side pins

- ➔ Twistlocks have been found with worn side pins, which may permit the twistlock to rotate when loaded.
- ➔ Twistlocks with worn side pins are being modified with the addition of a security pin.

Twistlocks with security pins

- ➔ Security pins will prevent the twistlock from rotating when the security pin is engaged.
- ➔ Security pins **MUST** be placed in the locked position when the twistlock is in use.

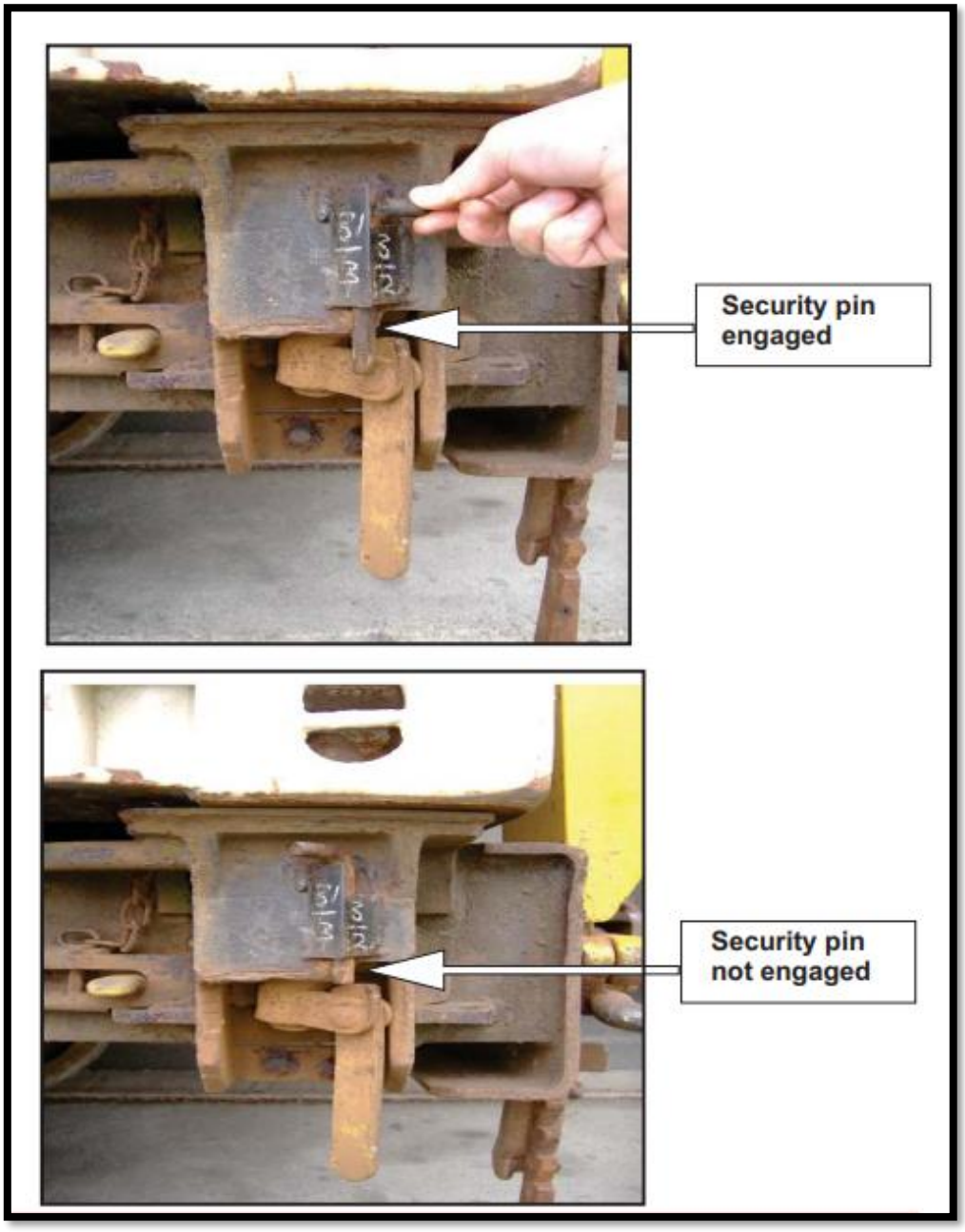


Diagram 18 – Securing a Container

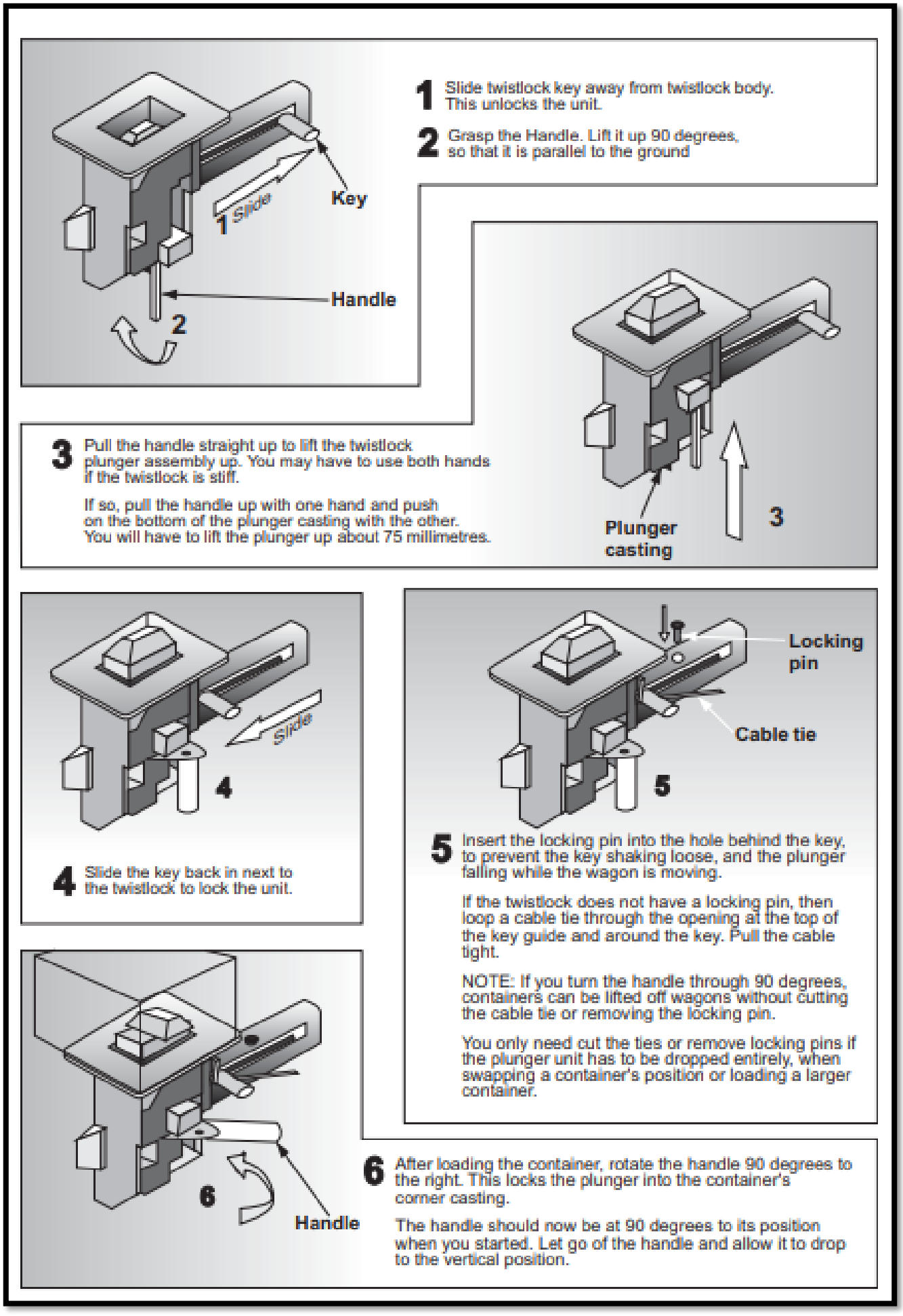


Diagram 19 – Automatic Twistlocks

The automatic twistlocks on **USQ** wagons are **FULLY AUTOMATIC** and **DON'T** require manual operation for either loading or unloading.

The emergency release pins are provided to enable the twistlock head to turn freely with no spring action operating.

Use the emergency release pins **ONLY IF**:

- Lifting Equipment capacity is insufficient to lift container plus 2 tonnes for the twistlocks, or;
- One or more twistlocks fail to operate when the container is lifted normally, or;
- Container is being removed from a derailed wagon and sudden movements are undesirable.

TO OPERATE EMERGENCY RELEASE PINS

1. **Pull the emergency release pin out and rotate the head a little towards the unlocked position to keep the pin out against its spring.**
2. **Repeat for each twistlock.**
3. **Lift the container from the wagon.**
4. **Rotate the head until the pin springs back in and check that it can no longer freely rotate. Repeat for each twistlock.**

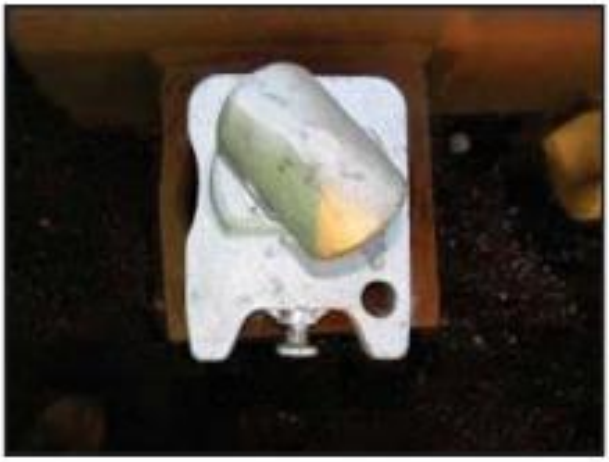
REMEMBER

☑ **RELEASE PINS ARE ONLY FOR USE IN EMERGENCIES**
☑ **THE PIN MUST BE PUSHED BACK IN AFTER USE**
☑ **THE TWISTLOCK HEAD MUST BE CHECKED TO ENSURE IT CAN NO LONGER TURN FREELY**

Diagram 20 – New Model Automatic Twistlocks

Normal Position:

- Yellow indicator should be retracted
- Indicator will be momentarily visible as the twistlock is locked or opened.
- Twistlock head will be at a 45 degree angle



Defective Twistlock:

- Yellow indicator will not be retracted
- Twistlock head will at a 90 degree angle (as shown below)

Diagram 21 – Manual / Removable Twistlocks

Manual movable twistlocks to allow for different combinations of containers which must be manually configured for the load to be carried.

Moving Twistlocks

- Turn whole twistlock body and lift it to remove
- Drop twistlock in the required wagon mount bracket and turn the whole twistlock body to lock it in place
- Storage slots are provided for unused twistlocks
- Damaged twistlocks can be easily replaced

Locked / Released Position

- Rotate the twist handle to the **left** to **lock** and
- **right** to **release**

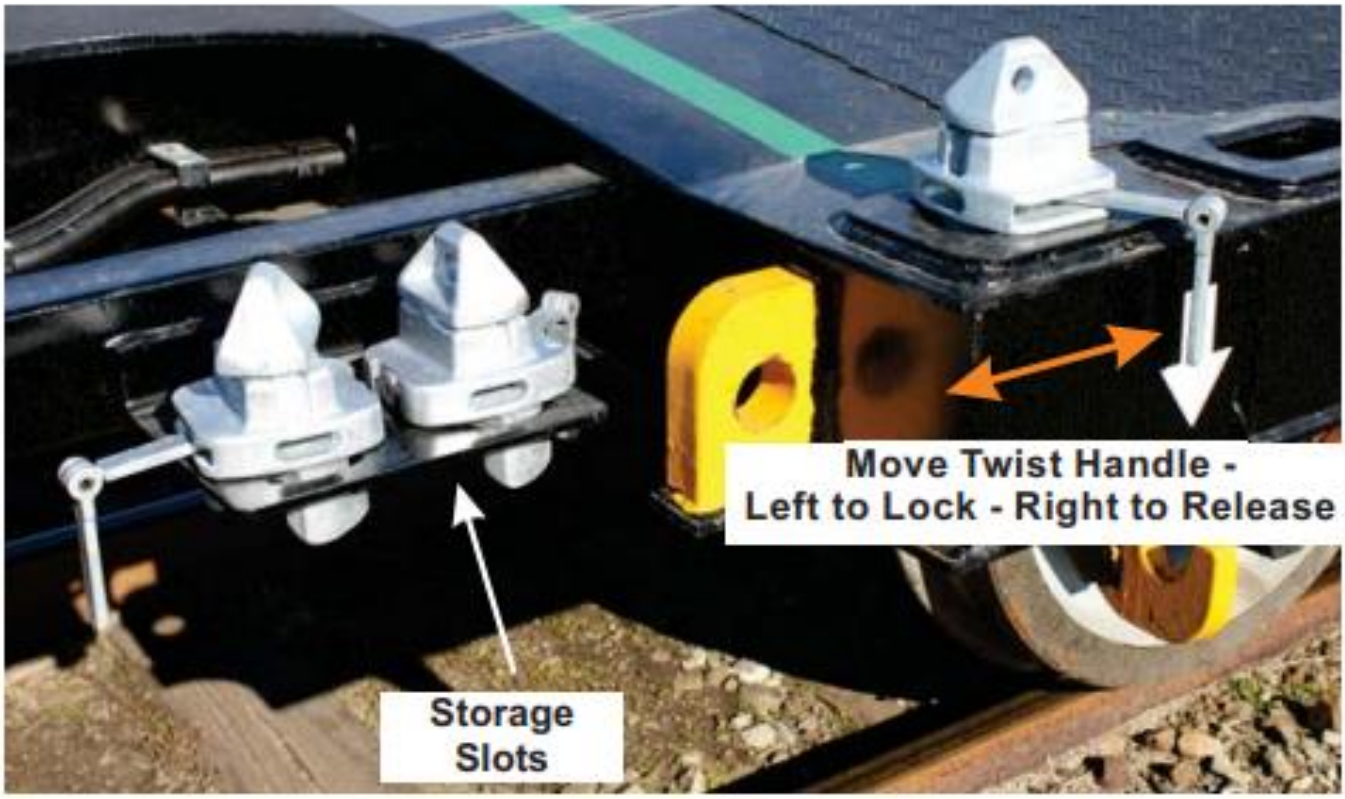


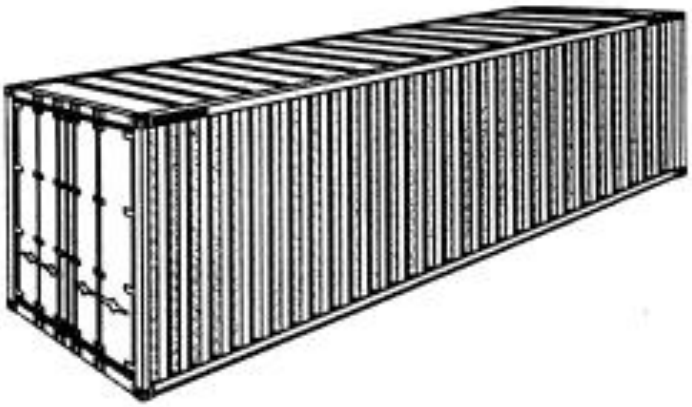
Diagram 22 – Container Types (Sheet 1 of 3)

GENERAL BOX CONTAINER

Six metres (twenty feet) and twelve metres (forty feet) long containers used for ordinary cargo.

HIGH CUBE CONTAINER

Overheight containers used for light, bulky or high loads. Most are twelve metres (forty feet) long. Height is 2.8 or 2.9 m.



HARD TOP CONTAINER

Six metres (twenty feet) long containers with removable solid steel roofs. Used for heavy lifts, excessively high cargoes, and for loading from above, e.g., by crane. Some units have a removable doorheader to make loading and unloading easier.

OPEN TOP CONTAINER

Six metres (twenty feet) and twelve metres (forty feet) long containers with removable tarpaulin cover. Used for excessively high cargoes and for loading from above, e.g. by crane.

Some units have a removable doorheader to make loading and unloading easier.

Frequently referred to as TILT containers by British shippers.

Diagrams continued on next page…

Diagram 22 – Container Types (Sheet 2 of 3)

FLAT RACK CONTAINER

Six metres (twenty feet) and twelve metres (forty feet) long containers used for heavy lift and out of gauge cargoes.

PLATFORM CONTAINER

Six metres (twenty feet) and twelve metres (forty feet) long containers used for heavy lift and out of gauge cargoes.

VENTILATED CONTAINER

Six metres (twenty feet) long containers used for cargoes requiring ventilation.

Diagrams continued on next page…

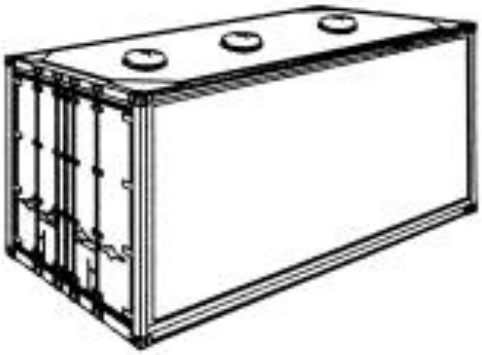
Diagram 22 – Container Types (Sheet 3 of 3)

INTEGRAL REEFER CONTAINER

Six metres (twenty feet) and twelve metres (forty feet) long insulated containers used for cargo requiring transport at a constant temperature. The refrigeration unit is built in to the container.

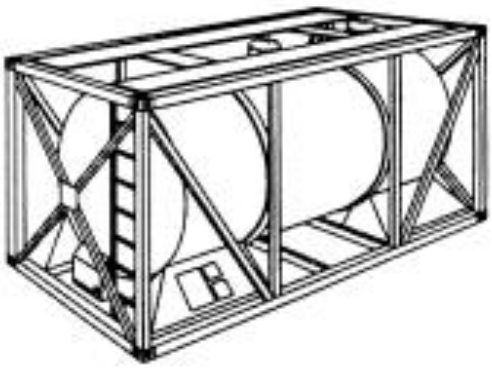
BULK CONTAINER

Six metres (twenty feet) long containers used for loose bulk cargoes such as grain.



TANK CONTAINER

Six metres (twenty feet) long containers used to transport liquid chemicals and food products.



12.10 Multi-Box Containers

This section applies to containers connected together horizontally to form a longer ISO size container.

CONTAINER (INTERBOX) CONNECTIONS

Certified horizontal container connectors must be used to connect both the top and bottom corner fittings together. Welding, bolting, chaining or other makeshift arrangements will not be accepted for carriage. Some typical container connectors are shown below.

Loaded Containers

- ➔ Loaded containers must have a current CSC Plate or Inspection Certificate, or have an alternative design / manufacturing / maintenance certificate.
- ➔ Properly connected containers making up a 6m equivalent may be carried loaded. This will generally be two 3m containers but other combinations are possible.
- ➔ The gross weight of each small container **must not exceed** the load rating of that container.
- ➔ The gross weight of the locked together unit **must not exceed** the weight limits defined for the wagon.

DO:

- ✓ Secure the combined unit to the wagon with all four twistlocks up, locked and pinned or tied.

DO NOT:

- × Combine loaded 6m containers into 12m units.

EMPTY CONTAINERS

- ➔ Properly connected empty containers making up a 6m equivalent may be carried. This will generally be two 3m containers but other combinations are possible.
- ➔ Properly connected empty 6m containers making up a 12m equivalent may be carried.

DO:

- ✓ Secure the combined unit to the wagon with all four twistlocks up, locked and pinned or tied.