

## Loco 710: Hi-Rail Vehicle Entry Inspection Checksheet

Vehicle details:	
KiwiRail serial number:	
Owner details:	Contact No:

Clause	Feature	Values	Pass	Fail	N/A
3.12	Book or other system to record faults and repairs provided				
3.13	Vehicle Manual provided meets requirements of Appendix G				
3.13	Vehicle Manual includes training syllabus to appendix H				
6.1	Maximum width of vehicle	mm			
6.1	Maximum height of vehicle	mm			
6.1	Rail wheelbase < 12.192 m	m			
6.1	$X \times Y \leq 26.455$	value:			
6.1	All parts of vehicle and equipment within loading gauge 13090429				
6.2	Drive system	No road tyres driving rail wheels			
6.3	Structural modifications	Heavy Vehicle Specialist Certificate in manual; current Rego, WoF or CoF			
6.3	Rail wheel back to back 996–999 mm	F      mm      R      mm			
6.4	Rail wheel wear within limits of gauge 50107007				
6.4	Rail wheel profile to NRS standard E1 using gauge 50107551				
6.5	Wheel design approved	Wheel details:			
6.6	Wheel nuts	Cone lock; no Nyloc			
6.8	Left front rail wheel load	kPa                      kg	◀ a		
	Right front rail wheel load	kPa                      kg	◀ b		
6.8	Maximum front rail axle load < 16,000 kg?	Add a + b                      kg			
6.8	Axle load (P) : wheel tread diameter (D) ratio, where D > 270 mm and steady load. 27 max.	P/D =			
6.8	Axle load (P) : wheel tread diameter (D) ratio, where D > 270 mm, all other cases. 20 max.	P/D =			
6.9	Side to side rail wheel imbalance < 20%	Difference of a & b	kg	◀ c	
		Lightest of a & b	kg	◀ d	
		× 100 (use chart)	%		

Clause	Feature	Values		Pass	Fail	N/A
6.9	Left rear rail wheel load	kPa	kg	◀e		
	Right rear rail wheel load	kPa	kg	◀f		
6.9	Maximum rear rail axle load < 16,000kg?	Add e + f	kg			
6.9	Maximum rear rail axle load < 20D?	D= mm	20 × D = kg			
6.9	Side to side rail wheel imbalance < 20%	Difference of e & f	kg	◀g		
		Lightest of e & f	kg	◀h		
		g × 100 (use chart)	%			
6.10	No rail wheel lift on 37mm track twist	W'base: m	Packer: mm			
6.11	Load on rubber tyres not to exceed rating	Rating: kg	Actual: kg			
6.11	Tyres approved for Hi-Rail use	Tyre details:				
6.12	No circuit between rails (>1000Ω @ 500V)	Front Ω	Rear Ω			
6.13	Earth path provided to rail					
6.14	Vehicle certified stable under 0.3 g lateral acceleration					
6.15	Vehicle stable when cranes, work platforms, tippers etc are being operated					
6.14	Outriggers contact ground within sleeper length					
6.14	Rail clamps (if used) approved by KiwiRail					
6.14	Correct use of stabilisers documented in vehicle manual and displayed on vehicle.					
6.15	Rotating amber light or amber flashing strobe visible from 5 m to 150 m ahead and behind					
6.16	Hazard lights fitted and operational					
6.17	Reversing beeper fitted and operational					
6.18	Air horn with minimum 110 dB(A) sound pressure level at 1 m		dB(A)			
6.19	Train control radio					
6.20	Maximum speed on rail limited to 50 km/h					
6.21	Speedometer calibrated and marked with maximum speed and 10 km/h					
6.22	Minimum of four wheels braked on rail					
6.23	Stop within 22 m from 25 km/h on dry rail		Dry m			
6.23	Stop within 50 m from 50 km/h on dry rail		Dry m			
6.23	Parking brake holds on 1 in 33 slope on rail – all load conditions and orientations					
6.23	Parking brake prevents runaway during transfer road – rail – road					

Clause	Feature	Values	Pass	Fail	N/A
6.24	Maintenance and test requirements for service and park brakes in the manual				
6.25	Front mounted hi-rail equipment has manually operated locking pin				
6.25	Hi-Rail transfer requires two-handed operation of two separate controls				
6.25	All electrical equipment adequately protected				
6.26	Pressurised systems – relief system				
6.26	Pressurised systems – control of generated heat				
6.26	Pressurised systems – component failure protection				
6.27	Mechanical system design integrity				
6.28	Cranes and elevating work platforms certified				
6.29	All controls robust and, where required, waterproof				
6.29	All controls positioned to prevent accidental operation				
6.29	All controls positioned in a logical sequence				
6.29	All controls clearly and permanently marked in English				
6.29	Arrows on controls to indicate movement of arms etc				
6.29	All controls "dead man" type or overridden by emergency stop				
6.29	Emergency stop at each operator position				
6.30	Contrary operations prevented by interlocks				
6.31	<b>Tunnel Suitable items (vehicle &amp; auxiliary equipment)</b>				
6.26	Pressurised systems safety - record result from 6.26 above				
6.31	Fire extinguishers, access points				
6.31	AFFSS				
6.31	Emergency stops (e-stops). Vehicle, auxiliary, interconnection.				
6.31	Heat shielding of cables, tubes and hoses				
6.31	Battery isolation				
6.31	Battery and generator covers				
6.31	Circuit protection				
6.31	Cabling				
6.31	Sheathing and fluid containment				
6.31	Portable power equipment stowage				
6.32	Exhaust: muffler, heat shielding				
6.32	Catalytic converter or scrubber / emissions				
6.32	Selective catalytic reduction (SCR) operation				

Clause	Feature	Values	Pass	Fail	N/A
	Tunnel suitable pass/fail				
6.33	Ergonomic footsteps and hand holds, within loading gauge.				
6.34	Cab provides adequate heating and ventilating for operators				
6.34	Unobstructed cab visibility.				
6.35	Operator's position logical and ergonomic				
6.36	All on board voltages < 50 VAC or 120VDC. Electrical WoF if > 50 V	Volts			
6.37	All NZ Transport Agency requirements met (Registration, CoF, WoF)				
6.37	Danger Live Wires Above stickers				
6.37	Other operational warnings				
6.37	Loading instructions provided where applicable				
6.38	Operating instructions provided where applicable				
6.39	Safe working loads / capacities marked where applicable				
6.40	Operator protective structures (OPS) provided as appropriate				
7.1	Crane, hoist etc reach restricted to avoid damage proximity to overhead wires or vehicle marked as prohibited from electrified areas (Y / N)				
7.1	Crane, hoist etc has chain restraint or lock out device for travelling in electrified areas (Y / N), or vehicle marked as prohibited from electrified areas (Y / N)				

Vehicle inspected by:	Date:		
Certifying Engineer's Type Approval Certification present and signed?			Yes    No
Details of rework required:			

Please send any requested changes to this checksheet to: [document.controller@kiwirail.co.nz](mailto:document.controller@kiwirail.co.nz)