

**Completion Of Heritage Annual Inspection
Diesel-electric Locomotives & Railcars**

This cover sheet is to be completed by the inspector for each Heritage Vehicle inspected. The Heritage Vehicle Provider is to provide a copy to ONTRACK.

Heritage Vehicle number _____ presented for inspection by

(name of organisation)

passed its Annual Inspection in
accordance with the requirements of NRSS/11 on ____/____/____ and is fit to run on
(date of inspection)

the National Rail System with the following operational restrictions:¹

This inspection will expire on ____/____/____
(expiry date)

(If left blank the inspection will expire in one year. Note that Heritage Vehicles inspected within the date tolerances shown in NRSS/11 retain their inspection anniversary date).

I am an ***in-house*** / ***independent*** inspector.
(delete one).

Signed by _____
(signature)

(print name of inspector)

Notes:

¹ List only restrictions that need to be conveyed to those involved in operating the vehicle such as speed restrictions, marshalling or other operational requirements.

Notes

- This form is to be used for all annual inspections or inspections after overhaul.
- This form is to function as a guide to assist in ensuring that all locomotives are inspected to an acceptable and common standard for operation on the National Rail Network.
- Some reference to codes and standards may be required to complete this inspection form.
- All items on this form are to be marked as
 √ - Passed; or X - Failed; or NA - Not applicable

Any items that have failed are to be included on the Inspection Fault Report included at the end of this form.

Certifications

Radio certificate - expires	/	/	
Event recorder certificate - expires	/	/	
Fire extinguisher(s) certificate(s) - expires	/	/	

Crack & Corrosion Tests (See B3.1.4.01 - Corrosion, Crack and Structural Inspection)

Axles

Date of Last Test	/	Distance Run Since Test	km
Limits	10 years		50,000 km

Crank Pins

Date of Last Test	/	Distance Run Since Test	km
Limits	10 years		50,000 km

Buffers

Date of Last Test	/	Distance Run Since Test	km
Limits	10 years		50,000 km

Air Reservoirs

Next Internal Inspection Due:	/	Limits	5 – 12 years
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Wheel Readings

Axle	A Side					B Side					Type T/S
	X	Y	V	W	Z	X	Y	V	W	Z	
1											
2											
3											
4											
5											
6											
7											
8											
Limit	40†	6	6	14	*	40†	6	6	14	*	

- * See B3.1.1.01 - Mechanical Code for minimum allowed and max variation.
 † Unless on last turn, tyres should be programmed for turning when $X \geq 24$ to avoid wasting material.

Wheel gauge certification expires:- Date / /

Wheel profiles comply with code requirements YES / NO

Readings Done By:- Name (print): _____

Date: / / Signature: _____

Axel & Wheel Defects

Wheel profiles within code (see above)	
Looseness on axle (Rust discharge, polishing or disturbance of dirt or rust build-up)	
Loose tyres (Rust discharge, polishing or disturbance of dirt or rust build-up)	
Loose Gibson Rings (Rust discharge, polishing or disturbance of dirt or rust build-up)	
Loose tyre set screws	
Visible cracks in spokes	
Visible cracks on tyres †	
Tyre damage (Flats, skids, scaling, spalling or other surface damage) †	
Overheating of tyres †	
Edge rollover of tyres †	
Axle damage (No gouge between the wheels more than 1mm deep. No rubbing.)	
Wheels rubbing on frames	

- † See B3.1.1.01 - Mechanical Code or NRSS-6, Section 8.5 for maximum permissible limits for this damage.

Axleboxes & Bearings - Roller

Boxes – intact, no cracks, bolts secure	
Leakage – no excessive oil or grease discharge from boxes	
Horns, liners and keeps - Secure, no cracked welds, split pins or lock nuts fitted	
Clearances – lateral, longitudinal and to keeps within limits	

Locomotive Frames

Frames - no cracks, damage, loose rivets	
Headstock(s) - Corrosion, damage	
Stretchers - bolts / rivets secure	
Fuel and water tanks – secure, no leaks, no corrosion or cracks in tanks or supports	
Equipment brackets - secure	

Cowcatchers

Height -100 - 175 mm (record)	No 1: mm	No 2 : mm	
General – no cracks or damage, fastenings secure			

Drawgear

	End	No.1	No.2
Drawbar height – record measurements (Locomotives – 715 to 760 mm. Railcars; non-standard - see drawings.)	mm	mm	mm
Buffer pins - Intact, diameter \geq 36 mm, slot protector intact			
Hook bridles – Serviceable; prevents the corresponding hook from lifting.			
Buffer rests - Not worn so as to restrict buffer movement, fastenings secure			
Buffer straightness - Not be bent more than 25 mm from the centreline measured at the buffer face. Wear marks on face not to extend to edge of face.			
Drawbar sideplay – Max of 50 mm side to side (at headstock). No appreciable end movement			
Drawbar packing – 3 mm minimum thickness, no cracked welds (if welded type)			
Janney yokes - No cracks or other damage. Key retaining bolt secure and not excessively worn, carrier plate fastenings secure			
Draft lugs - Undamaged, securely attached			
Spring packs - No deterioration, broken coils (spring type), yoke guide pins intact			
Sidechains - Hang well clear of rail, intact, no cracks, excessive wear			
Drawgear adapter (for non-standard drawgear) – Intact, provides correct coupling to standard drawgear.			
Drawhooks - No distortion, cracks, hole not more than 48 mm in any direction.			
Kidney links and transition heads - No distortion, cracks, holes \leq 55 mm			

Bogies

	Bogie	1	2	3
Springs and hangers - No broken leaves / coils, loose buckles, corrosion, wear & wastage, correctly seated and aligned.				
Dampers - (vertical and horizontal) secure, no leakage, dust covers intact				
Safety brackets – secure, no damage				
Upper bolsters - level, correct height				
Bolster swing links and pins – Wear, security, cracks				
Centre castings – Clearance, security, fretting (no cracks in webs)				

Centre pins – cotters, pins, retainers secure, locking wires intact			
Centre bogie rollers - wear of rollers and plates, lubrication			
Horns, liners and keeps - Secure, split pins fitted, clearances within limits			
Bogie safety chains - secure, chain wear (max 25% of area).			
Float blocks and brackets - secure, no cracks or damage, correct packing			
Float clearances - within limits, no cross cornering (See Mechanical Code for limits)			
Clearance to underframe – within limits, no fouling as bogie moves			

Brakes

Brake piston travel - within limits	
Brake blocks - wear within limits, even	
Brake shoes – intact, secure	
Brake hangers - condition and wear (max lift of spreaders not to exceed 10mm)	
Brake spreaders and pull rods - pinned and secure	
Brake rigging - Intact. Split pins, washers and pins correctly fitted. Not fouling frames	
Safety straps - intact, secure, not fouling	
Hoses and Brake Cocks - No significant deterioration. Cocks operate smoothly.	
Piping – secure, no leaks, corrosion or damage	
Hand brake - applies and will hold locomotive	
Air reservoirs and mountings – secure, no corrosion, cracks, leaks	
Brake cylinders and mountings – secure, good condition	
Brake Air Test – all tests (including vigilance) correctly passed (attach test record)	

Cab(s)

Wipers – operate correctly, no leaks, wiring / piping in good condition	
Horn(s) - operate correctly	
Equipment controls – operate correctly	
Internal fittings, signage - intact, secure	
Cab seats – secure, serviceable	

Body Exterior

Body attachments – secure, no corrosion or cracking	
Framing and structural members condition (if recently examined)	
Body panels, cladding - Intact, no rot or corrosion	
Doors – open / close correctly, latch in closed position, locks operate	
Windows – Intact, open/close smoothly, latch securely open / closed, approved safety glass	
Steps, ladders and handgrabs – secure, no cracks, corrosion	
Warning Signs (Electrical hazard etc) - Intact	
Vehicle ID - Clearly displayed on both sides of body or underframe	

Body Interior (Railcars)

Interior doors - Open/close easily from both sides. Latch securely in closed position	
Flooring - Smooth, free from cracks, peeling, tears etc that may cause trips	
Seats - Secure to floor, wall	
Seat squabs - Securely fastened to frames	
Seat fittings - Armrests secure, seats turn smoothly, no sharps edges, screw heads etc	
Luggage racks - Secure, intact	
Emergency lighting (if fitted) - To operate for a minimum of 1 hour	
Signage - Intact and secure	
Toilets - Handgrabs secure, general condition	
General safety - No sharp edges that could cause injuries. No loose equipment.	

General

Headlamps – operate correctly on high and low beam, correctly aligned	
Tail lamps, ground, shunters, engine room lights - operate correctly	
Sanders - feeding correctly, directed onto rails, secure, intact	
Detonators – Sufficient number, securely locked, current expiry date	
Flags - sufficient red and green, intact	
Fault reports – no outstanding faults	

Inspection Fault Report

Vehicle ID		Inspection Date	/	/	Page	of
Inspected by - Name		Signature				

Fault Details	Reference		Priority	
Repair Details	Date completed	/	/	
Repaired by -Name		Signature		
Checked by -Name		Signature		

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Repaired by -Name		Signature		
Checked by -Name		Signature		

Priority

- 1 – Vehicle not to run until repairs made.
- 2 – Repairs to be completed as soon as practical but vehicle may run in the interim.
- 3 – Attention required at next shopping or as noted.

Issue	Prepared (P), Reviewed (R), Amended (A)	Approved by	Effective Date
1	P McCallum (P)	Heritage Technical Committee	27 June 2006
2	P McCallum (A)	Heritage Technical Committee	7 May 2007
2.1	P McCallum (A)	Heritage Technical Committee	22 April 2008

Amendment History

Version	Section	Amendment
2	Page 1	Revised cover page format
	Page 2	Added or revised crack tests in accordance with B3.1.4.01
	Wheel readings	Added gauge certification and code compliance check
2.1	Page 1	Amended "restrictions" para and added footnote