



PC-1  
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 Requires PC-1A, PC-1B, PC-3, PC-4,  
 PC-6, PC-7  
 PC-5 if clearances were modified

# Private Car Annual Inspection Report

(Please Print)

Amtrak Car Number	Car Name/Number	Inspection Date	Location
Car Type	Year Built	Amtrak Authorized Inspector	Phone Number

Owner's Name			Phone Number
Address		City	State Zip Code
Air Brake Type	Relay Valve Type	COT&S Date	COT&S Location
Lube Date	Coupler Type 'A' End		Coupler Type 'B' End

**Amtrak Authorized inspector shall initial** each line when that item is in compliance, any item not applicable should be marked N/A. Car must have all defects repaired before Inspector signs the completed form.

**\*Note – star items** in list are only a suggested defect list, and may not be complete.

Inspection Items	Initial
1. Effective October 1, 2014, verify that the wheelset component serial numbers and AAR wheel shop information of all current wheelsets on the car (check against Form PC-4) are documented on Form PC-6, including axle test reports and AAR wheel shop component information sheets. Verify that all wheelsets do not have wheels or axles which are condemnable under AAR Field Manual Rule 90.B.6.a through 90.B.6.l and 90.B.6.n.	
2. Verify that all periodic axle and wheel ultrasonic inspections have been performed when due and documented on Form PC-7	
3. Effective October 1, 2014, verify that any wheelset installed on car since last PC-1 Inspection (check against Form PC-4) is documented to be assembled by AAR certified wheel shop per AAR S-659 and RP-631 procedures; wheels are AAR M-107/M-208 wrought steel; axle is AAR M-101 Grades F, G or H; new axle ultrasonically tested both axially and radially; used or secondhand bare axle magnetic particle tested using fluorescent (black light) wet method and surface defects repaired; used wheelset axle ultrasonically inspected; bearings either new or AAR shop reconditioned; and AP style bearings have mounting shop ID and date stamped on locking plate. Axles condemned through ultrasonic testing are to have both end caps removed, a 3" groove (cut or ground) into the end of the axle, and both axle body and ends painted red.	
4. Verify that the following Private Car forms are kept on the car, and are up-to-date: Form PC-3 Route/Mileage Log, Form PC-4 Shop Report, Form PC-6 Wheelset Serial Number Records, and Form PC-7 Axle and Wheel Periodic Ultrasonic Test Results.	
5. Verify that the last Form PC-2A periodic heavy inspection time or mileage limits will not expire during the next 12 months; if so the PC-2A inspection must be repeated prior to conducting the PC-1 Annual Inspection.	
6. Check that Amtrak 800000 ID number is on both left and right sides of car at B or blind end. Verify that both sides of car are equipped with AEI transponder tags.	
7. Verify that car is fully equipped with Amtrak HEP electrical trainlines, 27 point Door Control/Communication pass-through trainline (must have by January 1, 2014), and a main air reservoir trainline. HEP trainlines are on both A and B ends, and right and left sides. HEP trainline connections conform to Amtrak pigtail and receptacle arrangement.	

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			8. Verify that carbody is in sound condition* without excessive corrosion, and all car sheathing, roof sheets, skirting and other components are securely attached. Verify that car exterior is neatly finished and lettered.
			9. Verify that exterior dimensions have not changed since last Amtrak PC-5 Clearance Inspection, re-measure any recent changes to verify. Perform new PC-5 Clearance Inspection if dimensions have changed.
			10. Check bearings for overheating, water submersion, leaking seals, improperly installed. Check that a car with inside journal bearings is equipped with an on-board hot journal detector system with a visual and audio alarm display inside the car.
			11. If not NFL bearings, check that roller bearing lubrication dates* are not past due. Oil - 30 days (prohibited after January 1, 2020), Grease - 90 days, AP bearing - 1 year.
			12. Check for defective roller bearing boxes* - cracked, excessive wear or broken, no excessive wheel lateral motion causing wheel contact with truck frame or parts.
			13. Check roller bearing cap screws and lock plates/safety wire. Verify that AP bearing cap center hole plastic shipping plug is present, and that all AP style bearing locking plates are stamped with proper date and mounting shop identification.
			14. Check pedestal jaws and liners for visible defects - *broken, loose, bent or broken weld, defective elastomer linings, cracks at bottom attaching tab of non-metallic liners.
			15. Check all pedestal tie bars or journal box stops for *securement, correct fasteners, and not loose or missing. Must be present on all pedestals.
			16. Visual inspect all truck equalizers, shock absorbers, swing hangers, springs, truck frames, bolsters, stops, center plate, spring planks, pins, bushings, center plate liner and fasteners for *unusual wear, rubbing or defective conditions. No visible defects such as *cracked, broken or collapsed springs, shiny/rubbing area, loose bolster anchor rods, defective rubber anchor rod bushings, truck contacting carbody, components rubbing on wheel, etc.
			17. "Clean and inspect all axles, wheels and brake discs for defects*. Verify all axles do not have any cracks, welds, breaks nor bends. Verify no loose brake disc, disc surface wear exceeding 1/4", loose bolts, missing lock plates or safety wires. Disc surface scratches are permissible. Nicks on outside edges of brake discs shall not exceed 3/4" wide radially or more than 1/4" deep into braking surface. Disc thermal cracks shall not exceed 3", be located within 1/2" of the outer or inner edge of the ring, or reach the edge of the ring."
			18. Check brake shoes and brake pads for adequate service, alignment and proper application. Minimum thickness: 1/4" for disc brake pads, 3/4" for tread brake shoes.
			19. Check brake system* slack adjuster, brake rigging, bushings, brake cylinders and brake heads. Verify no loose bolts, pins or worn bushings, misadjusted/inoperative slack adjusters, binding. Verify that levers, rods, brake beams and hangers are properly secured, and not worn more than 30%. Inspect safety chains or safety lug on brake frame side bearing arms of "C" Frame (CFM) disc brakes.
			20. Verify no Spicer drive units* (prohibited after January 1, 2015) for proper amount of lubrication (dip stick level). Inspect drive shaft clutch and Spicer drive. Check play in universal joints and grease.
			21. Inspect all wheels for defects. Gauge all wheels to or applicable AAR Manual of Standards and Recommended Practices (Section G, Part II). Record rim thickness, flange height and flange thickness. Document if any wheel is of cast steel construction.
			22. Verify all underfloor equipment is securely mounted to carbody*, no loose or broken bolts or rivets, no loose pipes, frayed wires, all trainline piping is properly secured, safety guards or shields in place, no uncovered holes through floor from removed equipment, elastic lock nuts have 2-5 threads showing, etc.
			23. Verify that any engine system* has no fuel, oil or coolant leaks, and no fluid accumulation in engine compartment. Check that all fuel, oil, coolant, or other fluid system piping is shielded from debris damage. Verify that engine set has shielded exhaust system directed away from air intakes, fuel lines or wayside detectors. Verify that any on-board generator uses a load transfer switch.
			24. Verify that any undercar fuel tank and fuel lines are not damaged, protected against foreign object damage, electrically grounded to carbody, and line connection at tank has a valve.
			25. Verify that all toilet systems are equipped with retention (holding) tank or biological treatment system. Retention tank drain piping is equipped with a valve and an Andrews 4"

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			male cam lock fitting with cap, with no provision for remote drain valve operation from inside the car.	
			26. Verify that any propane compressed gas system* is maintained in accordance with AAR Recommended Practice RP-037, 1955 revision, metallic piping is used, and gas cylinders are not stored in the car interior or vestibule.	
			27. Visual inspection of all couplers, draft gear and components*. Verify coupler at both ends is Tightlock type CS, F, or H, with draft gear free slack not to exceed 1/2". Gauge test both couplers. Verify no worn knuckles, worn knuckle pin, loose carrier iron bolts, broken springs, etc. Check operating rod clearance. Measure coupler height (maximum 35", preferred 34-1/2", minimum 34").	
				<b>A End:</b>
			<b>B End:</b>	
			28. Inspect and check operation of diaphragm, buffer, suspension rods, and springs at A and B ends*. Buffer height or adapter is 52"-54" from top of rail for single level cars, and 104"-105" for bi-level Superliner type cars.	
				<b>A End:</b>
			<b>B End:</b>	
			29. Check sill steps, hand holds and other safety appliances* for compliance with FRA safety appliance standards. Verify that all hand holds have a minimum clearance of 2", sill steps have required lateral braces for two or more steps, etc.	
			30. Verify operation of FRA approved marker light at both the A and B ends, and that it has a self-contained battery backup source.	
			31. Verify that no tools, parts or materials are stored in the car electrical locker, and that flammable liquids are not stored in the interior of a car occupied by passengers.	
			32. Inspect* all 480 volt HEP trainlines, Door Control/Communications trainline and any Locomotive MU Control trainline, cables and jumpers for any defects, deterioration in the insulation, debris damage, cracking or fraying of insulation. Inspect conduit over trucks for securement. Inspect for missing High Voltage warning signs.	
			33. Check the call bell (door bell) system at the A and B ends for proper operation.	
			34. Check if Amtrak air brake COT&S date is past due: UC - use is prohibited; D22 - 3 years; 26C and KE - 4 years; ABD, ABDW, ABDXL and DB-60 - 6 years.	
			35. Verify that at least one Conductor valve is located in car interior near end doorway. Verify that car equipped with disc brakes has a labeled "disc brake applied" indicator on each side of car.	
			36. Verify that car is equipped with suitable test connections to permit passenger car single car air test to be conducted. Verify that air brake system connection to brake pipe uses AAR dirt collector/cutout cock, properly orientated on top of pipe. Check that truck cutout cocks are accessible by train crew from side of car and are identified.	
			<b>37. Check that all brake pipe, main reservoir hoses and intermediate air brake hoses (such as carbody to truck) are not damaged. Check that any hose using AAR M-601 fabric reinforced hose is less than 8 years old. Check that any AAR M-618 or M-927 style wire reinforced hose, or hose under 5/8" inside diameter, is less than 12 years old (10 years preferred).</b>	
				<b>A-End Brake Pipe:</b>
				<b>A-End Main Reservoir:</b>
				<b>B-End Brake Pipe:</b>
			<b>B-End Main Reservoir:</b>	
			38. Verify that any auxiliary air devices* (water raising system, etc.) are supplied by supply reservoir of air brake system using a cutout cock, governor and regulator valve, and has regular maintenance performed.	
			39. Inspect and test hand brake for proper application and release, regardless of brake wear, with no binding of chain/linkage. Inspect each brake shoe/disc brake pad location for proper application and release. Stencil date and location where tested.	

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<p>40. Perform a Single Car Air Test of brake system, using appropriate procedures and Single Car Testing Device for the design of the car brake system*. Verify that Testing Device is within calibration date. Test an ABDW air brake system with freight Single Car Testing Device, using AAR S-486 test codes including test code Section 4.3, Auxiliary Devices, for tests of other auxiliary devices such as relay valve and modulating valve. Record on form PC-1B.</p> <p>Brake cylinder full service application pressure: _____</p> <p>Brake cylinder emergency application pressure: _____</p>			

Wheel Number	Rim Thickness	Flange Height	Flange Thickness	Wrought Steel (Y/N)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				


**Note:** Finger gauge may not be used to condemn wheels for flange height or thickness. If finger gauge indicates condemning limit has been reached, confirm condition with Combined Wheel Gauge W620-4.

Glazing Location	Certified Glazing (YES/NO)	Glazing Type, if YES
Side Facing		
End Facing		

Emergency Window Type:  Pull Handle \  Breakable Safety Glass with Hammer

Is Emergency Window identified inside of the Car:  Yes  No

Additional inspection documentation attached:  Yes  No

I certify that each item on this form was inspected, all items are found to be in compliance, and agree that Amtrak may rely upon the accuracy of this form.	
Inspector Signature 	Inspection Date