



Southeastern Pennsylvania Transportation Authority
Operations Training Department
Technical Training Section

SILVERLINER IV CALENDAR DAY MECHANICAL INSPECTION

Exterior Calendar Day Inspection Tier I Passenger Equipment

The purpose of the Exterior Calendar Day mechanical inspection, which is mandated by Federal law, is to find and correct if possible, any defects which may interfere with the safe, reliable operation of SEPTA's commuter equipment. All MU's will be inspected where they layover between midnight and eight (8:00) AM. All defects found and repairs made must be reported in accordance with the instructions for each location.

The qualified maintenance person responsible for the Exterior Calendar Day mechanical inspection and repairs must be familiar with the latest rules, regulations, and procedures of the Federal Railroad Administration (FRA) and SEPTA. You must comply with all Blue Signal rules. Inspectors should provide themselves with the necessary tools, flashlight and gages to make the inspection and a notebook to record unit numbers and defects.

Safety

- You must comply with all Blue Signal rules and regulations.
 - Secure cars by applying sufficient hand brakes and chocks.
1. Start at one end of the draft, with all pantographs up and a control plug inserted.
 2. Charge the brake system and leave it applied. Inspect the end roof cap and end sheet for damage. Make sure the roof ducts are not damaged or blocked. Check the headlight and number signs glass and gaskets.
 3. Check the end glass and gaskets, make sure the safety chains are hung and the end door shut and latched.

4. Inspect the buffer, buffer pins and step plates for damage. Inspect the coupler, coupler lock block, centering springs, jumpers, hoses, electric head and the track receivers for damage or defects.
5. Check for the coupler adapter and the uncoupling wrench and grab irons or steps for any damage
6. Check all cut out cocks; they should be in their normal operating position. Check the clearance lights.
7. Inspect the truck frames, bolsters and springs for cracked, bent or missing parts. Make sure the motor leads, ground straps, shunt straps and sensor leads are secure, not frayed or rubbing.
8. Check the traction motor covers, ducts and filters to make sure they are secure and in place.
9. Check the air springs are cut in and have no leaks or worn areas. Inspect the vertical and horizontal shock absorbers for leaks, looseness and broken or missing parts.
10. Inspect the horizontal and vertical snubbers & the bolster anchor rods for looseness or wear, and check side bearings.
11. Inspect roller bearings. Ensure there are no signs of overheating or any other defects.
12. Inspect the wheels for cracks, flat spots or any other defect: gage any wheel which is questionable as far as tread thickness, flange height or flange thickness.
13. Inspect the tread brake units for loose or missing parts or air leaks. Make sure each brake is applied, brake shoe is not below minimum thickness, securely fastened, aligned with the wheel and free of cracks.
14. Check the motor suspension, make sure all parts are secure and in place and the motor is not down on the safety hanger.
15. Inspect the gear units for large oil leaks, missing breathers and fill caps. Check drain plugs for safety wires.
16. As you move along the side of the car check that all safety notices and signs are present, all covers are in place, undamaged and securely latched, the pantograph pole is in place and secure in its storage tube.
17. Check the pantograph for damage or defects.
18. Inspect all rotating equipment for proper operation. Checking for excessive noise, vibration, leaks, missing or broken mounts, shunts straps or leads
19. Check the air compressor for air or oil leaks, and oil level. Start the compressor by opening the main reservoir drain valve manually. Any more than a small amount of water exhausted indicates a bad dryer.
20. Inspect the other truck as described in steps 7, 8, 9, 10, 11, 12, 13, 14, & 15.
21. Check the grab irons and steps for any damage.
22. At the coupled end check the buffers, no more than 3/4" difference. Check if applicable the diaphragms.

23. Proceed along the train inspecting as described, and upon reaching the end of the draft, return along the other side inspecting as described in steps 1 through 23.
24. When you complete the inspection, go into the cab. Check the vestibule lights, marker lights, headlights and gage lights are all working. Test the horn IF ALLOWED at your location. Test the windshield wiper and cab heater/defroster.
25. Test the draft to make sure it takes power in both directions.

Fill out the documentation for the inspection.

- **Must contain the date and time, the location, the identification number of the unit and any non-complying conditions found.**

Interior Calendar Day Inspection Tier I Passenger Equipment

The purpose of the Interior Calendar Day mechanical inspection, which is mandated by Federal law, is to find and correct if possible, any defects which may interfere with the safe, reliable operation of SEPTA's commuter equipment. All MU's will be inspected where they layover between midnight and eight (8:00) AM. All defects found and repairs made must be reported in accordance with the instructions for each location.

The qualified maintenance person or qualified person responsible for the Interior Calendar Day mechanical inspection and repairs must be familiar with the latest rules, regulations, and procedures of the Federal Railroad Administration (FRA) and SEPTA. You must comply with all Blue Signal rules. Inspectors should provide themselves with the necessary tools, flashlight and gages to make the inspection and a notebook to record unit numbers and defects.

1. Check each vestibule for damage, remove any MP-11's in the cab, if defects can be repaired, do so; otherwise report them as per the instructions for your location. **Restock Cab with new MP-11's**
2. Check the Blue Form for expired Inspection Dates.
3. Check the fire extinguisher. Remove any loose items in the vestibule.
4. Check each Fusee Box for 4 fusees and a Head Dogging Tool.
5. Test Auxiliary Cab Heater for proper operation.
6. Test PA system for proper operation.
7. Inspect each side door for proper operation; local and trainlined, and ALL emergency exit instruction signs are in place.
8. Inspect each B-3-B to ensure "Emergency Brake Valve" is stenciled on or marked on an adjacent badge plate.

9. Check each trap door for proper functioning, the trap door should rise approximately eight (8) inches when unlatched, and securely latch in place in both the up and down position. Inspect for damage, loose or missing screws or springs.
10. Leave the control plug in and walk through the car. Check the lights, evaporator fans and exhaust fans are working and are not noisy or vibrating.
11. Check for torn or vandalized seats, loose or missing hardware or graffiti. Check the floor for tripping or slipping hazards.
12. Check for damaged windows and window gaskets, emergency window handles and that ALL safety related signs and instructions are in place.
13. Check the center partition, make sure that the batteries are cut in, motors are cut in, cab signal is cut in and wired.
14. Check the emergency tools. Remove any loose items in the passenger compartment and make sure the car is not dirty. If dirty, report it or make sure it is cleaned.
15. When you reach the other end of the car, inspect the vestibule as described in steps 1, 2, 3, and 4.
16. Pay particular attention to the end and side doors, trap doors and latches. Check the safety chains and diaphragms between the cars.
17. Check that the buffer pins are at or below the top of the buffer.
18. Check and inspect each car in the draft as described in steps 1 through 17.

Fill out the documentation for the inspection.

- **Must contain the date and time, the location, the identification number of the unit and any non-complying conditions found.**

It is the responsibility of the qualified maintenance person or qualified person to check each car for MP-11's, to repair any defects found or reported on the MP-11's if time permits; to report all defects and repairs made in accordance with the instructions for each location; to complete the forms for all cars inspected and to fill out the forms for any repairs made.

When you complete any of the tests you will follow all rules and regulations concerning the removal of Blue Signal protection and any other instructions required by SEPTA and the shop or yard location.