
AMT-3 STUDY GUIDE

1. When coupling a diesel locomotive to another diesel locomotive in a multiple unit consist which will be used for Over-The-Road movement, which hose connections must be made?

- A:** Only the hoses on the engineer's side.
- B:** Only the main reservoir and brake pipe hoses.
- C:** Only the brake pipe and actuating hoses.
- D:** All application & release, main reservoir, actuating, and brake pipe hoses.

REF: AMT-3, 2.14.3 & Table B

2. What is the maximum allowable brake pipe leakage on a Locomotive?

- A:** 1 psi per minute.
- B:** 3 psi per minute.
- C:** 5 psi per minute.
- D:** No leakage is allowed.

REF: AMT-3, 2.3.3

3. When picking up a locomotive en route, the engineer must perform which of the following:

- A:** Determine the date of the last locomotive calendar day inspection and perform the inspection if required.
- B:** Determine the type locomotive air brake test required and perform the test.
- C:** Perform a locomotive HEP test.
- D:** Both A and B are correct.

REF: AMT-3, 2.1

AMT-3 STUDY GUIDE

4. The MAP100 indicates that a locomotive last had a Calendar Day Inspection (2.2) on Monday 8/17/12 at 1:15AM. When is another calendar day inspection required?

- A:** Before 1:15AM on Tuesday 8/18/12.
- B:** Before midnight on Monday 8/17/12.
- C:** Before midnight on Tuesday 8/18/12.
- D:** Locomotive Engineers are not responsible for locomotive calendar day inspections.

REF: AMT-3, 2.1.2

5. After change of engine crew, the ourbound Engineer will:

- A:** Determine whether any brakes are cut out by reviewing the 'Condition En Route' section of the Summary MAP 1173.
- B:** With face to face relief, outbound engineer will ascertain the condition of the brakes and perform a running brake test.
- C:** Without face to face relief, determine the condtion of the brakes by reviewing the Summary MAP 1173, perform a Class II brake test and a running brake test.
- D:** All of the above are correct.

REF: AMT-3, P4.1.5

6. If Locomotive(s) are hauled dead in train and main reservoir air IS NOT available:

- A:** Connect all hoses and set up brake equipment as instructed in AMT-3, 2.13.1.
- B:** Drain main reservoir pressure to 0 psi and cut in dead engine feature.
- C:** Connect brake pipe hoses and set up brake equipment as instructed in AMT-3, 2.14 and Table A.
- D:** Both B and C are correct.

REF: AMT-3, 2.10.2

AMT-3 STUDY GUIDE

7. After an automatic brake valve initiated emergency brake application, which of the following procedures should the engineer follow regarding locomotive brake cylinder pressure?

- A:** Release all brake cylinder pressure.
- B:** Regulate brake cylinder pressure to prevent sliding wheels.
- C:** Full brake cylinder pressure and emergency brake effort must be allowed.
- D:** None of the above are correct.

REF: AMT-3, P&NP6.1.6

8. After a Undesired Emergency (UDE) brake application, which of the following procedures should the Engineer follow?

- A:** Recover from the emergency application and release the brakes as soon as the PCS light turns off, regardless of speed.
- B:** When train speed reduces to 25 mph, recover from the emergency application and release the brakes.
- C:** When train speed reduces to 10 mph, recover from the emergency application and release the brakes.
- D:** Leave handle in emergency until stopped, move throttle/controller to "idle"/"off".Regulating locomotive brake cylinder pressure is permitted.

REF: AMT-3, P&NP6.1.6

9. Prior to making a preliminary stop, the speed of back-up movements adjacent to station platforms must not exceed?

- A:** 15 mph.
- B:** 10 mph.
- C:** 5 mph.
- D:** 2 mph.

REF: AMT-3, 5.4.1(E)

AMT-3 STUDY GUIDE

10. If required to stop a train immediately after starting, what must be done?

- A:** Fully apply independent brake.
- B:** Do not allow Locomotive brakes to apply until train stops.
- C:** Place train in Emergency.
- D:** Place throttle in Idle immediately.

REF: AMT-3, 5.3.9

11. To recover from a penalty brake application, the Engineer must:

- A:** Place the automatic brake handle in emergency.
- B:** Bail off all brake cylinder pressure.
- C:** Reduce brake pipe pressure to zero.
- D:** Acknowledge and place automatic brake valve handle in LAP or SUPPRESSION.

REF: AMT-3, 2.13.1

12. If more than _____ car(s) in a 6 car train consist are set in direct release, the entire consist must be set for direct release.

- A:** One.
- B:** Two.
- C:** Three
- D:** Four.

REF: AMT-3, 3.1.15

AMT-3 STUDY GUIDE

13. Which of the following is/are PROHIBITED concerning the use of the independent brake or actuating (bail-off) feature on locomotives?

- A:** Use of independent brake in conjunction with blended brake operation.
- B:** Tampering with any device or appliance associated with the independent brake or actuating (bail-off) feature.
- C:** Introducing any object or means into the independent brake or actuating (bail-off) feature to constantly bail off brake cylinder pressure.
- D:** All of the above are correct.

REF: AMT-3, 2.8

14. On a Grade when securing locomotives to be left unattended, after all hand/parking brakes are applied, how must hand /parking brake(s) be tested?

- A:** Release both automatic and independent brake, if equipment does not move, it is secure.
- B:** Observe equipment for three minutes if it does not move, it is secure.
- C:** Apply minimum amount of traction power for a few seconds then remove power, if equipment does not move, it is secure.
- D:** Release automatic brake, if equipment does not move, it is secure.

REF: AMT-3, 3.5.6

15. Under what condition(s) would a Running Brake Test be required?

- A:** After any standing brake test has been made.
- B:** After striking debris on tracks.
- C:** At any point where motive power, engine crew, or train crew has been changed.
- D:** All of the above are correct.

REF: AMT-3, P4.2.4, NP4.2.5

AMT-3 STUDY GUIDE

16. Prior to change of engine crew, the inbound engineer will enter which information in the appropriate section of the MAP 1173?

A: Locomotive/Cab Car numbers.

B: Number of Cars.

C: Condition of Brakes.

D: All of the above are correct.

REF: AMT-3, P&NP4.1.5

17. At any point where Motive power, Engine Crew OR Train Crew has been changed, which of the following is part of the procedure for performing a train running brake test?

A: Test must be made as soon as train speed is at or above 70 mph.

B: Test must be made as soon as speed of train permits but not exceeding 20 mph.

C: Train air brakes must be applied with no less than a 12 lb brake pipe reduction.

D: Train air brakes must be applied with no less than a 17 lb brake pipe reduction.

REF: AMT-3, P4.2.4&NP4.2.5

AMT-3 STUDY GUIDE

18. Can Locomotive(s) depart a Originating Terminal without a current MAP 101?

- A:** Yes, if MAP 101 information is verified by contacting the mechanical desk at CNOC or through the Train Dispatcher.
- B:** Yes, if MAP 100 is up to date and the Engineer verifies that a Calendar Day Inspection was done by contacting the mechanical desk at CNOC.
- C:** Locomotive(s) must not depart a Originating Terminal without a current MAP 101 on each locomotive.
- D:** Yes, if you use the date indicated in box 7 on the MAP 100 as the last Locomotive Calendar Day Inspection date and note missing MAP 101 on MAP 100.

REF: AMT-3, 2.1.14 (B)

19. Which of the following is true when securing locomotive(s) left unattended ?

- A:** Throttle/controller in Idle or off position, place reverser in neutral and remove. If not removable, place in off position.
- B:** Place generator field switch/breaker in off/down position (if equipped) and isolate all locomotives equipped with an isolation switch.
- C:** Chock both sides of one wheel on a single locomotive and if securing locomotives chock both sides of one wheel if necessary.
- D:** All of the above.

REF: AMT-3, 3.5.6 A-C

AMT-3 STUDY GUIDE

20. When securing locomotive(s) left unattended, is it necessary to test the effectiveness of hand /parking brakes?

- A:** No, applying the hand/parking brakes and applying chocks to the locomotive(s) is sufficient.
- B:** Yes, anytime a locomotive is unattended the hand/parking brakes need to be tested.
- C:** No, if the map 100 indicates no defects on the locomotive(s) and the hand/parking brakes work, there is no reason to test them.
- D:** No, the only time we have to test the hand/parking brakes is when we are coupled to a train.

REF: AMT-3, 3.5.6 B

21. What MAP forms are needed before a passenger train can depart from an Originating Terminal?

- A:** MAP 1173, MAP 10c, MAP 100, MAP101, FRA F -6180 49A (Blue Form).
- B:** MAP 1173, MAP 100, MAP101.
- C:** MAP 101 and MAP 1173 -10C summary is needed to depart from a originating terminal, providing it will not enter Train Control Territory.
- D:** MAP 1173, MAP 100 and note on the bottom of the MAP 100 without delay to train information regarding missing MAP forms.

REF: AMT-3, P4.1.4 C, 2.1.2 , 2.1.14

22. At the beginning of the tour of duty what MAP form should the engineer check on each locomotive in his consist to determine that Locomotive Calendar Day Inspection remains valid?

- A:** MAP 100.
- B:** MAP 101.
- C:** FRA F-6180 49 A (BLUE FORM).
- D:** MAP 10C.

REF: AMT-3, 2.1.2 B

AMT-3 STUDY GUIDE

23. At the beginning of the tour of duty, the Engineer must check to ensure that a MAP 100 is on each locomotive in the consist. If any MAP 100 forms are missing, can locomotives depart an originating terminal?

- A:** Each Locomotive must not depart an originating terminal without a current MAP 100.
- B:** Locomotives can depart an originating terminal without a current MAP 100 on each locomotive in consist as long as MAP 101 is current.
- C:** Locomotives can depart at other than an originating terminal without a current MAP 100 on each locomotive in consist.
- D:** Locomotives can depart at other than an originating terminal without a current MAP 100 on each locomotive in consist as long as the MAP 101 is current.

REF: AMT-3, 2.1.14

24. Is a Locomotive Calendar Day Inspection required each calendar day on non-complying locomotive(s)?

- A:** Non-complying locomotives do not require Calendar Day Inspection.
- B:** Non-complying locomotives do not require a Calendar Day Inspection provided they are not used to control the train movement and must be isolated.
- C:** Non-complying locomotives must have a Calendar Day Inspection performed each Calendar Day and defects noted on MAP 100.
- D:** A Calendar Day Inspection is not required provided that the Shop Foreman authorizes the locomotive to be moved and warning tags are applied.

REF: AMT-3, 2.1.2 A-NOTE

25. When is a 2.5 Locomotive Air brake Test required?

- A:** Each calendar day inspection is performed.
- B:** When a angle cock or MU cock out cock has been turned.
- C:** A locomotive consist changes by coupling or uncoupling units including push-pull equipment.
- D:** At the same time a Passenger Class II or a Non-Passenger Class III is performed.

REF: AMT-3, 2.1.10

AMT-3 STUDY GUIDE

26. When switching in yard operations, should the brake pipe be charged?

- A:** No, brake pipe does not need to be charged provided movement will not leave the confines of the yard.
- B:** Yes, brake pipe must be charged except when brake pipe is defective or damaged.
- C:** The charging of brake pipe is optional and depends on the moves that have to be made.
- D:** Both answers A and C are correct.

REF: AMT-3, 10.1.2

27. When performing a 2.3 Locomotive Departure test, what is the procedure when a Non-Complying condition is discovered?

- A:** Attach a non-complying tag to the control stand, isolation switch or engine control panel; describe defect on MAP 100.
- B:** If non-complying tag is unavailable, write non-complying locomotive in Failures Enroute section of MAP100.
- C:** In multiple unit consist or push-pull operation, note on MAP 100 of lead unit that Non-Complying locomotive(s) are in consist or train.
- D:** All answers are correct.

REF: AMT-3, 2.3.13, 2.1.15

28. When moving Locomotives within the confines of a Yard or Terminal, what hoses must be coupled and cut in?

- A:** Brake pipe only.
- B:** Brake pipe, Main Reservoir and all Mu hoses.
- C:** Brake pipe and Main Reservoir hoses.
- D:** No hoses need to be coupled within the confines of the yard or terminal.

REF: AMT-3, 2.14.3 (B)

AMT-3 STUDY GUIDE

29. Are engineers required to keep a supply of MAP 100's available while on duty?

- A:** No, the mechanical department is required to have a supply of MAP 100's at all crew bases/sign up points for engineers.
- B:** No, Amtrak Supervisors are required to supply MAP 100's to engineers required to perform a (2.2) inspection.
- C:** Yes, engineers are required to keep a supply of MAP 100's available while on duty.
- D:** Engineers are not qualified to perform a (2.2) Locomotive Inspection; therefore MAP 100's are not required while on duty.

REF: AMT-3, 2.1.12

30. When using dynamic brake while operating through turnouts and crossovers with more than 3 units in a consist, dynamic brake effort must be limited to what percent?

- A:** 25% of maximum effort.
- B:** 50% of maximum (dynamic controller position 4).
- C:** 75% of maximum effort.
- D:** Dynamic brake use is prohibited.

REF: AMT-3, 5.1.9 D

31. What must be done before you move locomotive(s) or car(s) that have wheel(s) with a single flat or shelled spot that are 2 1/2" inches or more in length, or wheel(s) that have adjoining flat or shelled spots that are 2" in length?

- A:** After inspecting the equipment and unable to contact a QMP, proceed not exceeding 80 mph to next Repair Point where a QMP can inspect the car(s).
- B:** After inspecting the equipment and unable to contact a QMP, if on a host railroad contact a supervisor from the host railroad to get permission to proceed.
- C:** Contact a QMP before equipment is moved communicating any host railroad rules or instructions concerning the defect, and note on the MAP100 or 21A.
- D:** Locomotives or cars must be set out when they exceed the dimensions described above.

REF: AMT-3, 9.1.5

AMT-3 STUDY GUIDE

32. At a engine crew change point , the outbound engineer discovers that brakes have been cut out on the train when reviewing the "Condition En Route" section of the MAP1173, what should be done next?

- A:** Proceed, no further action is necessary.
- B:** Communicate with your Conductor concerning defect, perform a Passenger Class II test and a Running Brake test.
- C:** Notify Dispatcher and CNOC mechanical desk as soon as possible without delaying train, communicating car number(s) and number of axles cut out.
- D:** Notify a QMP or Dispatcher that the defect has to be corrected because trains can not depart an originating terminal with air brakes cut out.

REF: AMT-3, P-4.1.5 D

33. For the purpose of determining operative brakes, what are Cab Control cars and NPCU's considered?

- A:** Locomotives.
- B:** Depends if the cab control car or NPCU is the controlling unit in a train consist or if it is in the trail position.
- C:** Cars.
- D:** Answers A and B are correct.

REF: AMT-3, P 6.2.3. F Note

34. What must be done when a Engineer experiences inadequate performance of train brakes?

- A:** Stop your train and a walking inspection of a brake application must be performed to determine the cause.
- B:** If no defects are found train may proceed making periodic running brake tests.
- C:** When equipped with Two -Way End Of Train Device, verify changes in brake pipe pressure at rear of train during running brake tests.
- D:** All of the above answers are true.

REF: AMT-3, P & NP 6.1

AMT-3 STUDY GUIDE

35. When using the Braking With Power Applied method to slow a Mixed Consist train, what is the maximum throttle notch allowed?

A: Idle.

B: Notch 2.

C: Notch 4.

D: Notch 6.

REF: AMT-3 5.3.7

36. When previously inspected and tested car(s)/locomotive(s) are added to a Passenger Train, what brake test must be done?

A: Passenger Class I Brake Test

B: Passenger Class II Brake Test.

C: Passenger Class III Brake Test.

D: Non Passenger Class III Brake Test.

REF: AMT-3, P4.2.3

37. How long is a Class I Brake Test Valid for?

A: 24 Hours.

B: 36 Hours.

C: Calendar Day.

D: Two Calendar Days.

REF: AMT-3, P4.2.1 A

AMT-3 STUDY GUIDE

38. What braking methods must be used to slow or stop trains for 'Other Than Mixed Consist' trains under normal conditions?

- A:** Blended brake; Dynamic brake only; Dynamic brake supplemented with Air Brakes; Air brakes.
- B:** Blended brake; Dynamic brake only; Dynamic brake supplemented with Air Brakes; Air brakes; Braking with power applied.
- C:** Blended brake only.
- D:** Braking with power applied.

REF: AMT-3, 5.2

39. What braking methods must be used to slow or stop a 'Mixed Consist' train under normal conditions?

- A:** Blended brake; Dynamic brake only; Dynamic brake supplemented with air; Air brake only.
- B:** Blended brake; Dynamic brake only; Dynamic brake supplemented with air; Air brake only; Braking with power applied.
- C:** Blended brake only.
- D:** Braking with power applied.

REF: AMT-3, 5.3

40. When slowing or stopping while 'Braking With Power Applied' on a mixed consist train, what is the maximum throttle position allowed?

- A:** Idle
- B:** Notch 2, (Auto Train Lowest throttle position to control slack and conserve fuel)
- C:** Notch 4, (Auto Train Lowest throttle position to control slack and conserve fuel)
- D:** Notch 6, (Auto Train Lowest throttle position to control slack and conserve fuel)

REF: AMT-3, 5.3.7 E

AMT-3 STUDY GUIDE

41. What procedures must be followed after an emergency brake application has occurred?

- A:** Inspect entire train for derailed cars, shifted loads, etc.
- B:** Perform a P Class II brake test for Passenger operations or a NP Class III brake test for Non-Passenger operations.
- C:** After proceeding, perform a running brake test.
- D:** All the above.

REF: AMT-3, 2.18

42. Engineers must use dynamic brake to control train speed when conditions permit to save energy at what locations?

- A:** Ascending grades.
- B:** Descending grades.
- C:** Other locations with out sacrificing schedule time.
- D:** Both B and C are correct.

REF: AMT-3 5.1.9

43. What methods of train braking must be used on 'Other than Mixed Consist' passenger trains?

- A:** Blended Brake; Dynamic Brake Only; Dynamic Brake Supplemented With Air Brakes; Air Brakes.
- B:** Blended Brake; Dynamic Brake Only; Dynamic Brake Supplemented With Air Brakes; Air Brakes; Braking With Power Applied.
- C:** Blended Brake only.
- D:** Braking With Power Applied Only.

REF: AMT-3 5.2

AMT-3 STUDY GUIDE

44. Which of the following is an acceptable method of slowing or stopping a train consist of 1 P-42 and 3 horizon cars?

- A:** Blended Brake.
- B:** Dynamic Brake Supplemented with Air Brake.
- C:** Air Brakes
- D:** All of the above are correct.

REF: AMT-3 5.2

45. When slowing or stopping a train consist of 1 P-42 and 7 Superliners using air brakes, when will the throttle be reduced to idle?

- A:** 30 seconds after the automatic brake reduction
- B:** 15 seconds after the automatic brake reduction
- C:** 10 seconds after the initial automatic brake reduction if speed is 20mph or greater
- D:** Throttle does not need to be reduced to idle

REF: AMT-3 5.2.5 & 5.3.6

AMT-3 STUDY GUIDE

ANSWERS	
1.	D
2.	B
3.	D
4.	C
5.	D
6.	D
7.	C
8.	D
9.	C
10.	B
11.	D
12.	A
13.	D
14.	A
15.	D
16.	D
17.	B
18.	C
19.	D
20.	B
21.	B
22.	A
23.	A
24.	C
25.	C
26.	B
27.	D

AMT-3 STUDY GUIDE

28. C

29. C

30. B

31. C

32. C

33. C

34. D

35. B

36. B

37. C

38. A

39. B

40. B

41. D

42. D

43. A

44. D

45. C