

Name: _____ Date: _____
Instructor: _____ Period: _____



Vehicle Maintenance, Fluid Service, and Recycling



Objective: After studying this chapter, you will be able to describe vehicle maintenance, fluid service, and recycling operations of a modern automotive vehicle.

1. Define vehicle maintenance:

Lubrication Service Tasks

2. List the seven lubrication tasks:

Fluid Service

3. A _____ contains detailed information on how to check fluid levels.

4. The manual will usually describe _____ of fluid check points.

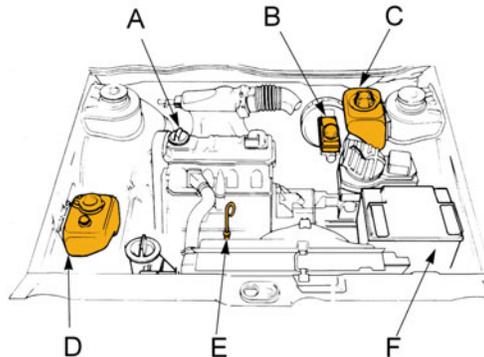
5. The manual will usually describe location of fluid _____ points.

6. The manual will usually describe _____ between fluid checks and changes.

7. The manual will usually describe _____ and _____ of fluid to be used.

8. What are the six fluid checkpoints in the illustration at the right?

A _____
B _____
C _____
D _____
E _____
F _____



9. Engine oil must be _____ and the engine turned _____ in order to check the oil level.
10. The Oil level should be between the _____ and _____ marks.
11. Oil should not be too thick or thin, smell like _____, or be too dirty.
12. Look for a lubrication sticker in the _____ compartment or on the _____ door _____.
13. Use the _____ of oil that was installed during the last _____ change
14. Do not _____ the engine.

Changing Engine Oil and Filter

15. List the twelve steps of changing the oil and filter below:

- A _____
- B _____
- C _____
- D _____
- E _____
- F _____
- G _____
- H _____
- I _____
- J _____
- K _____
- L _____

Automatic Transmission Fluid and Filter Service

16. Automatic transmission and transaxle fluid should be checked and changed at _____ intervals.

17. Fluid can become contaminated with:

- _____,
 - _____,
 - _____,
 - _____,
- this can cause wear and premature transmission failure.

18. Consult the service manual or owner’s manual to see if the engine should be _____ or _____.

19. Fluid level should be between the _____ and _____ marks.

20. Inspect the fluid for discoloration and odor, if it smells _____ or looks _____, change the fluid

Manual Transmission Fluid Service

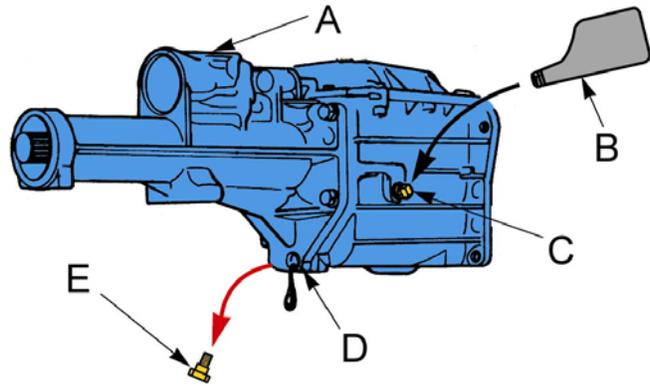
21. To check the fluid, locate and remove the transmission _____ .

22. Generally, warm fluid should be _____ with the fill hole.

23. If a fluid change is needed, remove the _____ on the _____ of the transmission to drain the fluid.

24. Label the items in the image at right:

- A _____
- B _____
- C _____
- D _____
- E _____

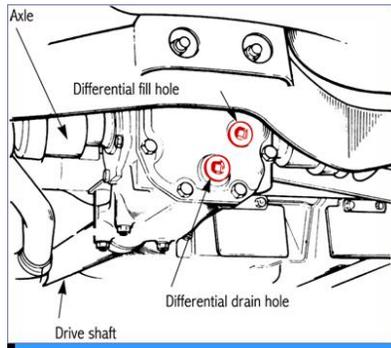


Differential Fluid Service

25. To measure the differential fluid level, _____ the fill plug and fluid should be _____ with the fill hole.

26. At the recommended change _____, remove the _____ plug.

27. After _____, reinstall the plug and fill with the proper _____.



28. If a drain plug is not provided, a _____ must be used to draw out the fluid.

Checking Engine Coolant

29. Coolant must be changed at least once every _____ years.

30. After prolonged use, coolant can become _____, and filled with _____.

31. To check the coolant level, look at the side of the plastic _____ tank coolant should be between the _____ and _____ marks.

32. On an _____ car without an _____, carefully remove the radiator cap and check the level in the radiator coolant should be about _____" (____mm) from the top.

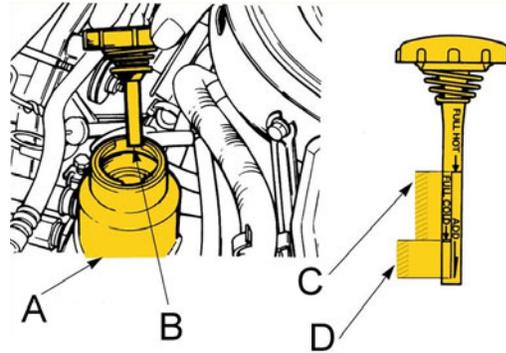
33. If the coolant is _____ or _____, it should be _____ and _____.

Checking Power Steering Fluid

34. If the fluid is contained in a clear plastic _____, compare the fluid level to the markings on the _____ (engine _____).

35. Label the items in the image at right:

- A _____
- B _____
- C _____
- D _____



Checking Brake Fluid

36. Brake fluid level should be checked at least _____ a year.

37. When the reservoir is _____ plastic, compare the fluid level to the marks on the side fluid level should be between the _____ and _____ marks.

Checking Clutch Fluid

38. Some manual transmission clutches use a _____ system to disengage the clutch.

39. If low, add _____ fluid to fill the reservoir almost full.

Checking Manual Steering Box Fluid

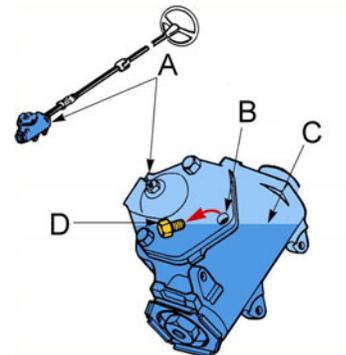
40. Fluid is checked by removing either a _____ or designated _____ from the top of the box.

41. Lubricant should be almost _____ with the _____.

42. If the fluid level is low, add the _____ type fluid.

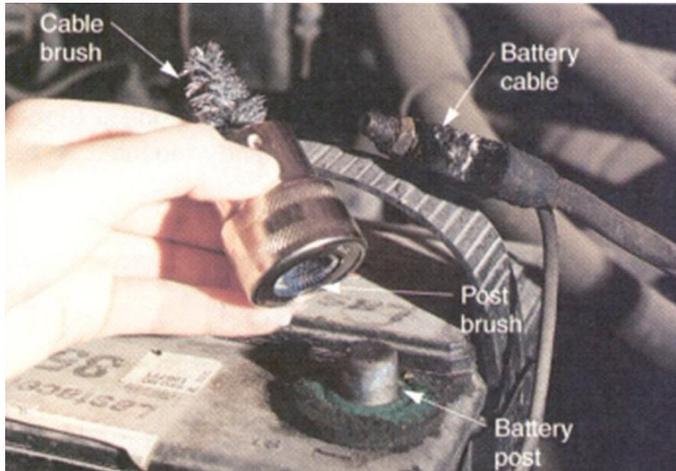
43. Label the items in the image at right:

- A _____
- B _____
- C _____
- D _____



Checking the Battery

44. Make sure the _____ and _____ are clean.
45. Use a post cleaning tool to remove _____ from the posts and cable ends.



Filter Service

46. In addition to the oil and transmission filters, the technician may need to change or clean the _____ and _____ filters.
47. Dirty air filters are usually _____.
48. Refer to the _____ manual or _____ manual for the fuel filter recommended service interval.

Chassis Lubrication

49. Generally involves greasing high-friction points in the _____, _____, and _____ systems.

50. Label the items in the image at right:

A _____
B _____
C _____
D _____

