

► TASK Remove and reinstall engine on a newer vehicle equipped with OBD; reconnect all attaching components and restore the vehicle to running condition.

MAST
1A10

CDX Tasksheet Number: C671

Time off _____

Time on _____

Total time _____

1. Research the procedure and specifications for removing and installing the engine in the appropriate service information.

- a. List the flat rate time for R&R engine: _____ hr
- b. List the flat rate time for R&R engine and O/H: _____ hr
- c. List any special tools required for this task:

- d. List the specified engine oil: _____
- e. List the engine oil capacity: _____ qt/lb
- f. List the specified coolant: _____
- g. List the cooling system capacity: _____ qt/lb
- h. List any precautions specific to replacing the engine in this vehicle:

2. Following the specified procedure(s), prepare the vehicle for engine removal by properly locating it in the work stall, draining any appropriate fluids such as engine coolant and oil, and removing any body components such as the hood, inner fender(s), etc.
3. Following the specified procedure(s), remove the engine assembly from the vehicle.
4. Inspect the assembly for any damaged components, fasteners, etc., and list your observation(s):

5. List the amount of time it took to remove the engine assembly:
_____ hr
6. Have your supervisor/instructor verify removal of the engine assembly.
Supervisor's/instructor's initials: _____

NOTE If you are rebuilding the engine, continue on to the Cylinder Head Removal, Inspection, and Installation tasksheet. After completion of those tasks, return here to reinstall the engine assembly.

7. Following the specified procedure(s) and specifications, reinstall the engine into the engine compartment.
8. Reconnect all hoses, wiring, belts, cables, and components, being careful to install them in their proper places.
9. Refill the engine with the specified oil. Ensure that the oil filter is installed.
10. Refill the cooling system with the specified coolant and bleed any air from the system.
11. Check all other fluid levels such as power steering fluid and brake fluid. Top off as necessary.
12. Recheck that all fasteners are properly torqued.
13. Perform any other prestart procedures such as charging the vehicle's battery, priming the lubrication system, etc.
14. List any specified break-in/start-up procedures:

15. Have your supervisor/instructor verify that the engine is ready to start.
Supervisor's/instructor's initials: _____

NOTE It is good practice to have a fire extinguisher close by in case of a fire.

16. Install the exhaust hose(s). Start the engine and check for proper oil pressure, leaks, and abnormal noises. If any problems arise, shut down the engine and repair any issues. List your observation(s):
17. Verify the proper adjustment of any timing components, if applicable.
18. Continue the break-in/start-up procedure, being careful to monitor the engine temperature, oil pressure, and malfunction indicator lamp (MIL). Stop the engine if any issues arise.
19. Once the initial break-in period is complete, shut down the engine and check for leaks, loose components, etc. List any observation(s):

20. Have your supervisor/instructor verify proper engine operation. Supervisor's/
instructor's initials: _____

21. Reinstall any removed items such as the hood and inner fenders. Align as
necessary.

22. Recheck the fluid levels and inspect for any leaks.

23. List the amount of time it took to install the engine assembly:
_____ hr

24. With your instructor's permission, test drive the vehicle to verify correct
operation. List your observation(s):

25. Have your supervisor/instructor verify satisfactory completion of this
procedure, any observations found, and any necessary action(s) recommended.

Performance Rating

CDX Tasksheet Number: C671

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Supervisor/instructor signature _____ Date _____