

Student Name _____

CO-OP IV TASK LIST

Upon completion of a task, the student should enter the date of completion and an authorized employee of the dealership must then validate that the task has been successfully completed by initialing next to the date.

Work Area: Engine Repair

1. Interpret and verify complaint; determine needed repairs _____
2. Inspect engine assembly for fuel, oil, coolant, and other leaks; determine needed repairs _____
3. Listen to engine noises; determine needed repairs _____
4. Diagnose the cause of excessive oil consumption, unusual engine exhaust color or odor; determine needed repairs _____
5. Perform engine vacuum tests; determine needed repairs _____
6. Perform cylinder power balance tests; determine needed repairs _____
7. Perform cylinder leakage tests; determine needed repairs _____
8. Perform cylinder compression tests; determine needed repairs _____
9. Remove engine (front wheel drive); prepare for tear down _____
10. Reinstall engine (front wheel drive) _____
11. Remove engine (rear wheel drive); prepare for tear down _____
12. Reinstall engine (rear wheel drive) _____
13. Remove cylinder head(s); inspect cylinder head(s) for cracks; gasket surface areas for warpage and leakage _____
14. Install cylinder head(s) and gasket(s) _____
15. Inspect and replace camshaft drives _____
16. Inspect and replace pans, covers, gaskets, and seals _____
17. Disassemble engine; measure and inspect engine components _____
18. Reassemble engine parts using correct gaskets and sealants _____
19. Perform oil pressure tests; determine needed repairs _____

- 20. Perform cooling system tests (pressure, combustion leakage, and temperature); determine needed repairs _____
- 21. Inspect, replace, and adjust drive belts and pulleys _____
- 22. Inspect and replace engine cooling and heater system hoses. _____
- 23. Inspect, test, and replace thermostat, and housing _____
- 24. Inspect coolant; drain, flush, refill, and bleed cooling system with recommended coolant _____
- 25. Inspect, test, and replace water pump as needed. _____
- 26. Inspect, test, and replace radiator, pressure cap, and coolant recovery system _____

Work Area: Ignition Systems

- 1. Perform cylinder power balance tests. _____
- 2. Inspect and test ignition system secondary using and ignition oscilloscope. _____
- 3. Inspect and test ignition system secondary using WDS. _____
- 4. Inspect and test ignition primary circuit wiring and components. _____
- 5. Inspect and test an ignition Hall triggering device. _____
- 6. Inspect and test a variable reluctance sensor. _____
- 7. Inspect and test ignition control module. _____
- 8. Inspect and test an ignition coil. _____
- 9. Diagnose ignition related no start and poor running conditions. _____

Work Area: Engine Management - Fuel & Emissions

(Includes Diesel Engine Management Where Applicable)

- 1. Inspect fuel tank and fuel cap; inspect and replace fuel lines, fittings, and hoses _____
- 2. Check fuel for contaminants and quality _____
- 3. Inspect and test mechanical and electrical fuel pumps; replace as needed _____
- 4. Replace fuel filters _____
- 5. Inspect and service air cleaner and element _____
- 6. Inspect and test positive crankcase ventilation (PCV) filter/breather cap, valve, tubes, orifices, and hoses; service or replace as needed _____

7. Inspect and test EGR system; service or replace as needed _____
8. Inspect and test components of air injection systems; service or replace as needed _____
9. Inspect and test components of catalytic converter systems; replace as needed _____
10. Inspect and test components of inlet air temperature control system; replace as needed _____
11. Inspect and test components of early fuel evaporation control systems; service or replace as needed _____
12. Inspect and test components and hoses of evaporative emissions control systems; replace as needed _____

Work Area: Engine Management – Performance

(Includes Diesel Engine Management Where Applicable)

1. Use of Engine Emissions Diagnostic Manual _____
2. Verifies concern prior to repair _____
3. Routinely checks OASIS for pertinent information _____
4. References TSBs as part of routine procedure _____
5. Use of EVTMs as diagnostic/repair aid _____
6. Locate/interpret engine calibration information _____
7. Diagnosing the following Non-EEC Driveability Concerns:
 - Basic Adjustments (throttle stop, etc.) _____
 - Induction System Problems _____
 - Vacuum Leaks _____
 - Poor Compression _____
 - Valve train (cam timing, duration, etc.) _____
 - Exhaust Restriction _____
8. Engine Control Strategies (timing, fuel, EGR, etc.) _____
9. Use of the following equipment:
 - Breakout Box _____
 - Digital Volt/Ohm Meter _____
 - New Generation Star Tester _____

- Oscilloscope/Engine Analyzer _____
 - Exhaust Emissions Analyzer _____
 - Fuel Quality Test Equipment _____
 - Fuel Pressure Test Equipment _____
 - Integrated Diagnostic System (IDS) _____
10. Performs self test preliminary/visual checks _____
 11. Performing EEC-IV System Self Test _____
 12. Interpreting EEC-IV Self Test Codes _____
 13. Performing pinpoint diagnostics when self test indicates a system fault _____
 14. Diagnosing system faults that don't generate a self test code _____
 15. Diagnosing intermittent faults _____
 16. Diagnosing concerns in the following areas:
 - Ignition System and Timing Control circuits _____
 - Potentiometer sensor circuits (TPS, EVP, etc.) _____
 - Thermistor sensor circuits (ECT, IAT, VAT, etc.) _____
 - Frequency generator circuits (MAP, BP, etc.) _____
 - Exhaust Gas Oxygen (EGO) sensor circuit _____
 - Knock sensor circuit _____
 - Fuel delivery system _____
 - Fuel injection system _____
 - EGR valve and control system _____
 - Thermactor valves and control system _____
 - Boost control systems _____
 - Electronic Control Assembly (processor) _____