

## AER 0892 - Automotive Engine Performance II

2013 NATEF JOB TASKS COMPLETION REQUIREMENT: **P1 - 95% P2 - 80% P3 - 50%**

Student Name: \_\_\_\_\_

### DETAILED COURSE CONTENT

AUTOMOTIVE ENGINE PERFORMANCE TECHNICIAN - INDUSTRY TITLE

#### DEMONSTRATE PROFICIENCY IN FUEL, AIR INDUCTION, AND

EXHAUST SYSTEMS DIAGNOSIS AND REPAIR – The student will be able to:

		P1	P2	P3	Level	Date	Textbook Ch CDX Task
VIII-D-1	Check fuel for contaminants; determine necessary action.						48: C420
VIII-D-2	Inspect and test fuel pumps and pump control systems for pressure, regulation, and volume; perform necessary action.						48: C868
VIII-D-3	Replace fuel filter(s).						48: C422
VIII-D-4	Inspect, service, or replace air filters, filter housings and intake duct work.						8: C962
VIII-D-5	Inspect throttle body, air induction system, intake manifold and gaskets for vacuum leaks and/or unmetered air.						50: C424
VIII-D-6	Inspect and test fuel injectors.						48: C842
VIII-D-7	Verify idle control operation.						40: C665
VIII-D-8	Inspect the integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shield(s); perform necessary action.						50: C428
VIII-D-9	Inspect condition of exhaust system hangers, brackets, clamps, and heat shields; repair or replace as needed.						8: C963
VIII-D10	Perform exhaust system back-pressure test; determine necessary action.						50: C429
VIII-D-11	Check and refill diesel exhaust fluid (DEF).						8: C965

#### DEMONSTRATE PROFICIENCY IN EMISSIONS CONTROL

SYSTEMS DIAGNOSIS AND REPAIR - The student will be able to:

		P1	P2	P3	Level	Date	Textbook Ch CDX Task
VIII-E-1	Diagnose oil leaks, emissions, and driveability concerns caused by the positive crankcase ventilation (PCV) system; determine necessary action.						51: C666

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### DEMONSTRATE PROFICIENCY IN EMISSIONS CONTROL

#### SYSTEMS DIAGNOSIS AND REPAIR - continued

		P1	P2	P3	Level	Date	Textbook Ch CDX Task
VIII-E-2	Inspect, test, and service positive crankcase ventilation (PCV) filter/breather cap, valve, tubes, orifices, and hoses; perform necessary action.						51: C432
VIII-E-3	Diagnose emissions and driveability problems caused by the exhaust gas recirculation (EGR) system; determine necessary action.						51: C667
VIII-E-4	Inspect, test, service, and replace components of the EGR system including EGR tubing, exhaust passages, vacuum/pressure controls, filters and hoses; perform necessary action.						51: C434
VIII-E-5	Inspect and test electrical/electronically-operated components and circuits of air injection systems; perform necessary action.						51: C435
VIII-E-6	Inspect and test catalytic converter efficiency.						51: C714
VIII-E-7	Inspect and test components and hoses of evaporative emissions control system; perform necessary action.						51: C870
VIII-E-8	Interpret diagnostic trouble codes (DTCs) and scan tool data related to the emissions control systems; determine necessary action.						49: C668

	P1	P2	P3
Tasks Completed	0	0	0
Total Tasks	7	7	5
% of Total Tasks	0	0	0