

MECHANIC STUDY GUIDE

Electrical Systems

Heavy Duty Trucks

Listed below are a number of items and subjects which make up the mechanic certification tests identified above. An individual's ability to pass the certification test will depend upon the amount of knowledge the person has concerning these items:

System Diagnosis - 22%

Lamp circuits
High & low beam headlamp questions
Dash lights
Alternator circuits
Windshield wiper circuit
Oil pressure sending unit
Circuit diagnosis
Horn Circuits

General - 10%

Batteries
Fusible links
Hydrometer use
Jump starting
Fuse box replacement

Vehicle Lighting - 18%

Turn signal circuit
Tail lamp circuit
Head lamp circuit
Dash light circuit
Clearance lights

Starting Systems - 24%

Battery hook-ups
Starter circuit resistance
Specific gravity readings
Solenoid problems
Starter draw test
Starter drives
Starter no-load test

Charging Systems - 12%

Low or unsteady alternator output
Alternator Circuitry
Overcharged battery problem
Alternator amperage limit

Test Methods & Equipment - 14%

Voltmeter use
Ohmmeter use
Circuit testing
Verifying a circuit drain
Alternator rotor tests
Ammeter use

SAMPLE QUESTION:

The alternator output current is 0 amps. What could cause this condition?

- A. An open diode.
- B. A grounded rectifier bridge.
- C. An open rotor winding.
- D. All of the above

ANSWER: C