Daugavpils Būvniecības tehnikums

Mācību priekšmets:
Elektronisko sistēmu remonta pamati
Specialitāte:
Automehāniķis

Vadības sistēmu un to sastāvdaļu pārbaude

Metodiskā izstrādne

Profesionālās izglītības pedagogs: **Deniss Goršentovs**

Daugavpils
2020

Mācību līdzeklis- Electude - programma automehāniķu apmācībai: www.demodbtlv.electude.eu *(katram lietotājam ir savs lietotāja konts)*

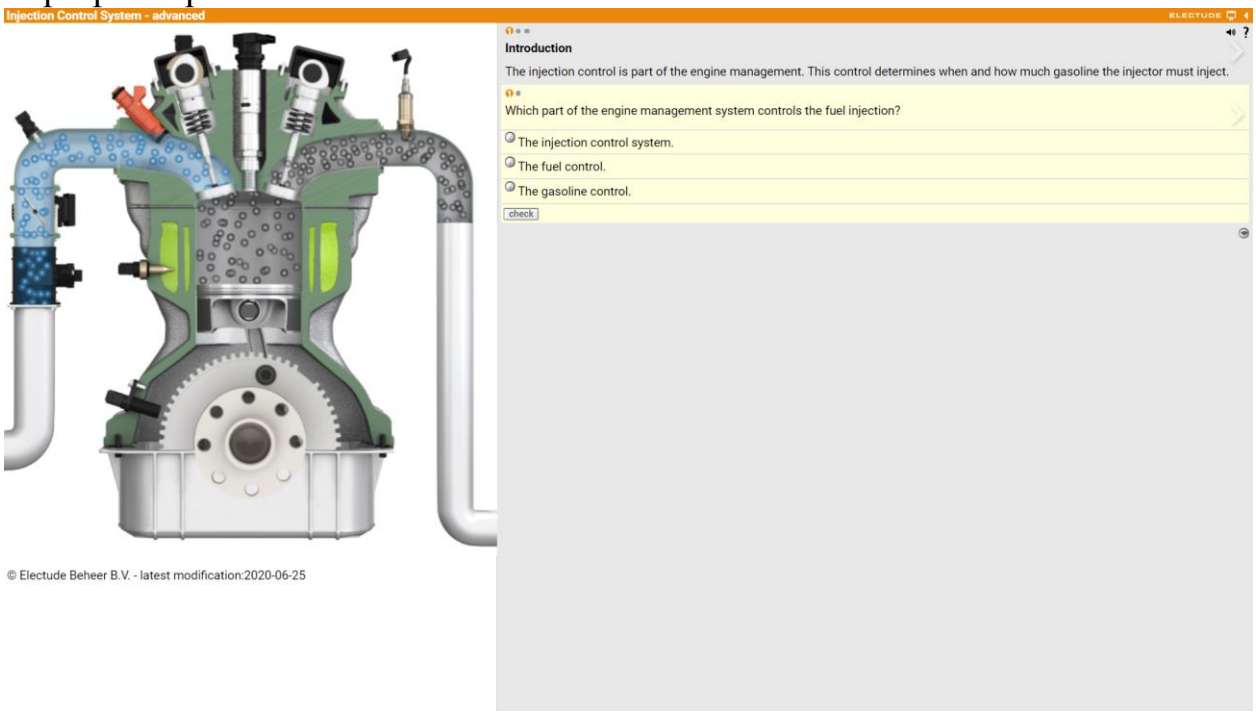
Darba adresāts: DBT autotransporta nodaļas audzēkņi.

Temats: Vadības sistēmu un to sastāvdaļu pārbaude.

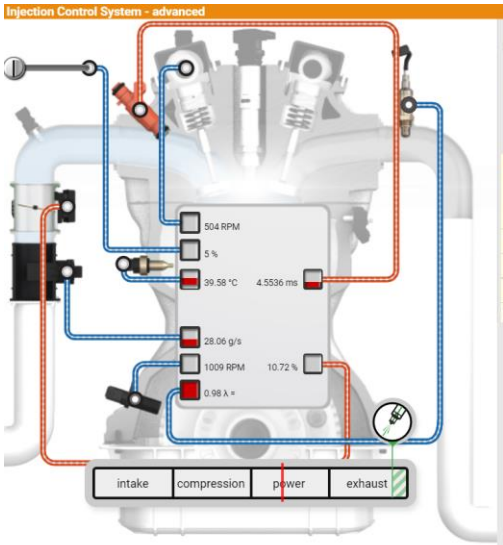
Materiāla uzdevums: Apgūt zināšanas par iesmidzināšanas sistēmas darbības principu un tās niansēm.

Praktiskais pielietojums: pēc materiāla apguves audzēkņi zinās sistēmas darbības principu, kā arī iegūs izpratni, kas ļaus viņiem defektēt un labot iesmidzināšans sistēmas problēmas.

Lapaspuses piemēri:



Injection Control System - advanced



Injection Timing

Air and fuel need time to mix and form a homogeneous mixture. By injecting fuel before the intake valve opens, the mixture has sufficient time to form.

When the desired injection quantity increases, the injection needs to start earlier. How much earlier depends on how much fuel is to be injected..

Take a good look at the 4-stroke cycle diagram.

When does the fuel injection end?

- At the end of the intake stroke.
- At the end of the exhaust stroke, right before the intake stroke starts.
- At the start of the compression stroke, after the intake stroke is complete.

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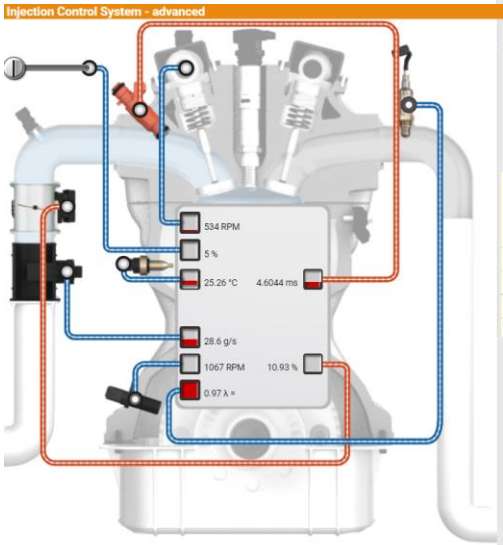
Injection Control System - advanced



Injection Quantity

The amount of gasoline injected by the injector is highly dependent on the amount of air drawn in. An indirect gasoline injected engine uses a homogeneous mixture. In order for the mixture to burn completely, the lambda value needs to be around 1.

If the engine control unit (ECU) controls the injector briefly, the injector does not inject much fuel. If the injector is controlled for a long time, the injector injects a lot more fuel. The pressure at which the injector injects fuel is adjusted to the air pressure in the intake manifold.

Operate the accelerator pedal with the slider.

What do you notice as the throttle valve opens further?

- The air mass increases.
- The amount of injected gasoline increases.
- The crankshaft speed increases.

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