



EESTI LENNUAKADEEMIA

Õppematerjalide ajakohasuse protokoll 2023/2024 õppeaasta

Õppematerjal on vastavuses Eesti Lennuakadeemia õppeprogrammile (MTOE 4.2.0, 4.2.1, 4.2.2, 4.2.3), Euroopa Komisjoni regulatsiooni Osa-66 liitega I.

Mooduli nr: Moodul 16

Õppematerjali nimetus: INTERNATIONAL CENTRE FOR AEROSPACE TRAINING (ICAT)
MODULE 16 - PISTON ENGINE

Lisainfo: International Centre for Aerospace Training (ICAT) paberkandjal ja e-raamatuna
(A, B1 kategooria)

Õppematerjali pealkiri: INTERNATIONAL CENTRE FOR AEROSPACE TRAINING (ICAT)
MODULE 16 - PISTON ENGINE

Revisjoni number: 1

Kasutusperiood: september 2023 – september 2024

Heaks kiidetud veebikeskkond distantsoõppe
läbiviimiseks

Zoom (<https://zoom.us/>)

Google Classroom (classroom.google.com)

Protokolli koostamise kuupäev: 02.08.2023

MTO koolitusjuht: Madis Parv
(allkirjastatud digitaalselt)

ÕPPEMATERJALI VASTAVUSHINDAMISE KONTROLL-LEHT

Mooduli nr. ja nimetus: Module 16 Piston Engine	Tase		Õppematerjali vastavus Osa-66 Lisa III mooduli programmile
	A	B1	
16.1 Fundamentals <i>Mechanical, thermal and volumetric efficiencies; Operating principles — 2 stroke, 4 stroke, Otto and Diesel; Piston displacement and compression ratio; Engine configuration and firing order.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.2 Engine Performance <i>Power calculation and measurement; Factors affecting engine power; Mixtures/leaning, pre-ignition.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.3 Engine Construction <i>Crank case, crank shaft, cam shafts, sumps; Accessory gearbox; Cylinder and piston assemblies; Connecting rods, inlet and exhaust manifolds; Valve mechanisms; Propeller reduction gearboxes.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.4 Engine Fuel Systems 16.4.1 Carburettors <i>Types, construction and principles of operation; Icing and heating.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.4.2 Fuel injection systems <i>Types, construction and principles of operati</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.4.3 Electronic engine control <i>Operation of engine control and fuel metering systems including electronic engine control (FADEC); Systems lay-out and components.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.5 Starting and Ignition Systems <i>Starting systems, pre-heat systems; Magneto types, construction and principles of operation; Ignition harnesses, spark plugs; Low and high tension systems.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.6 Induction, Exhaust and Cooling Systems <i>Construction and operation of: induction systems including alternate air systems; Exhaust systems, engine cooling systems — air and liquid.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.7 Supercharging/Turbocharging <i>Principles and purpose of supercharging and its effects on engine parameters; Construction and operation of supercharging/turbocharging systems; System terminology; Control systems; System protection.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta

16.8 Lubricants and Fuels <i>Properties and specifications;</i> <i>Fuel additives;</i> <i>Safety precautions.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.9 Lubrication Systems <i>System operation/lay-out and components.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.10 Engine Indication Systems <i>Engine speed;</i> <i>Cylinder head temperature;</i> <i>Coolant temperature;</i> <i>Oil pressure and temperature;</i> <i>Exhaust Gas Temperature;</i> <i>Fuel pressure and flow;</i> <i>Manifold pressure.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.11 Powerplant Installation <i>Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.</i>	1	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.12 Engine Monitoring and Ground Operation <i>Procedures for starting and ground run-up;</i> <i>Interpretation of engine power output and parameters;</i> <i>Inspection of engine and components: criteria, tolerances, and data specified by engine manufacturer.</i>	1	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
16.13 Engine Storage and Preservation <i>Preservation and de preservation for the engine and accessories/systems.</i>	-	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta

OTSUS:

Õppematerjal vastab kehtiva määruse Osa-66 Lisa III I liite mooduli programmile.

Õppematerjali vastavuse kontrollis ja kinnitas:

MTO koolitusjuht:

Madis Parv

/allkirjastatud digitaalselt/

Kuupäev: 02.08.2023