



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 7A

**Õppematerjali nimetus:** AIRCRAFT TECHNICAL BOOK (ATB) MODULE 7A - MAINTENANCE PRACTICES FOR B1 & B2 CERTIFICATION

**Lisainfo:** Aircraft Technical Book (ATB) paberkandjal ja e-raamatuna (B1; B2 kategooria)

**Õppematerjali pealkiri:** AIRCRAFT TECHNICAL BOOK (ATB) MODULE 7A - MAINTENANCE PRACTICES FOR B1 & B2 CERTIFICATION

**Revisjoni number:** 1

**Kasutusperiood:** september 2023 – september 2024

Heaks kiidetud veebikeskkond distantõppe läbiviimiseks

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

Google Classroom ([classroom.google.com](https://classroom.google.com))

Protokolli koostamise kuupäev: 02.08.2023

MTO koolitusjuht: Madis Parv  
(allkirjastatud digitaalselt)

## ÕPPEMATERJALI VASTAVUSHINDAMISE KONTROLL-LEHT

Mooduli nr. ja nimetus: <b>Module 7A Maintenance Practices</b>	Tase			Õppematerjali vastavus Osa-66 Lisa III mooduli programmile
	A	B1	B2	
<b>7.1 Safety Precautions-Aircraft and Workshop</b>  <i>Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemical.</i>  <i>Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.</i>	3	3	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.2 Workshop Practices</b>  <i>Care of tools, control of tools, use of workshop materials;</i> <i>Dimensions, allowances and tolerances, standards of workmanship;</i> <i>Calibration of tools and equipment, calibration standards.</i>	3	3	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.3 Tools</b>  <i>Common hand tool types;</i> <i>Common power tool types;</i> <i>Operation and use of precision measuring tools;</i> <i>Lubrication equipment and methods.</i> <i>Operation, function and use of electrical general test equipment.</i>	3	3	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.4 Avionic General Test Equipment</b>  <i>Operation, function and use of avionic general test equipment.</i>	-	2	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.5 Engineering Drawings, Diagrams and Standards</b>  <i>Drawing types and diagrams, their symbols, dimensions, tolerances and projections;</i> <i>Identifying title block information;</i> <i>Microfilm, microfiche and computerised presentations;</i> <i>Specification 100 of the Air Transport Association (ATA) of America;</i> <i>Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.</i>	1	2	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.6 Fits and Clearances</b>  <i>Drill sizes for bolt holes, classes of fits;</i> <i>Common system of fits and clearances;</i> <i>Schedule of fits and clearances for aircraft and engines;</i> <i>Limits for bow, twist and wear;</i> <i>Standard methods for checking shafts, bearings and other parts.</i>	1	2	1	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<b>7.7 Electrical Wiring Interconnection System (EWIS)</b>	1	3	3	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta

<p><i>Continuity, insulation and bonding techniques and testing;</i>  <i>Use of crimp tools: hand and hydraulic operated;</i>  <i>Testing of crimp joints;</i>  <i>Connector pin removal and insertion;</i>  <i>Co-axial cables: testing and installation precautions;</i>  <i>Identification of wire types, their inspection criteria and damage tolerance.</i>  <i>Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding;</i>  <i>EWIS installations, inspection, repair, maintenance and cleanliness standards.</i></p>				
<p><b>7.8 Riveting</b></p> <p><i>Riveted joints, rivet spacing and pitch;</i>  <i>Tools used for riveting and dimpling;</i>  <i>Inspection of riveted joints.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.9 Pipes and Hoses</b></p> <p><i>Bending and belling/flaring aircraft pipes;</i>  <i>Inspection and testing of aircraft pipes and hoses;</i>  <i>Installation and clamping of pipes.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.10 Springs</b></p> <p><i>Inspection and testing of springs.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.11 Bearings</b></p> <p><i>Testing, cleaning and inspection of bearings;</i>  <i>Lubrication requirements of bearings;</i>  <i>Defects in bearings and their causes.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.12 Transmissions</b></p> <p><i>Inspection of gears, backlash;</i>  <i>Inspection of belts and pulleys, chains and sprockets;</i>  <i>Inspection of screw jacks, lever devices, push-pull rod systems.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.13 Control Cables</b></p> <p><i>Swaging of end fittings;</i>  <i>Inspection and testing of control cables;</i>  <i>Bowden cables; aircraft flexible control systems.</i></p>	1	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.14 Material handling</b></p> <p><b>7.14.1 Sheet Metal</b></p> <p><i>Marking out and calculation of bend allowance;</i>  <i>Sheet metal working, including bending and forming;</i>  <i>Inspection of sheet metal work.</i></p>	-	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.14.2 Composite and non-metallic</b></p> <p><i>Bonding practices;</i>  <i>Environmental conditions;</i>  <i>Inspection methods.</i></p>	-	2	-	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.15 Welding, Brazing, Soldering and Bonding</b></p> <p><i>(a) Soldering methods; inspection of soldered joints.</i></p> <p><i>(b) Welding and brazing methods;</i>  <i>Inspection of welded and brazed joints;</i>  <i>Bonding methods and inspection of bonded joints.</i></p>	-	2	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.16 Aircraft Weight and Balance</b></p>	-	2	2	<input checked="" type="checkbox"/> Kontrollitud, vastab

<p>(a) <i>Centre of Gravity/Balance limits calculation: use of relevant documents;</i></p> <p>(b) <i>Preparation of aircraft for weighing; Aircraft weighing.</i></p>	-	2	-	<input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.17 Aircraft Handling and Storage</b></p> <p><i>Aircraft taxiing/towing and associated safety precautions;</i></p> <p><i>Aircraft jacking, chocking, securing and associated safety precautions;</i></p> <p><i>Aircraft storage methods;</i></p> <p><i>Refuelling/defuelling procedures;</i></p> <p><i>De-icing/anti-icing procedures;</i></p> <p><i>Electrical, hydraulic and pneumatic ground supplies.</i></p> <p><i>Effects of environmental conditions on aircraft handling and operation.</i></p>	2	2	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.18 Disassembly, Inspection, Repair and Assembly Techniques</b></p> <p>(a) <i>Types of defects and visual inspection techniques; Corrosion removal, assessment and re-protection;</i></p> <p>(b) <i>General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;</i></p> <p>(c) <i>Non-destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods;</i></p> <p>(d) <i>Disassembly and re-assembly techniques;</i></p> <p>(e) <i>Trouble shooting techniques.</i></p>	2 - - 2 -	3 2 2 2 2	3 - 1 2 2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.19 Abnormal Events</b></p> <p>(a) <i>Inspections following lightning strikes and HIRF penetration;</i></p> <p>(b) <i>Inspections following abnormal events such as heavy landings and flight through turbulence.</i></p>	2 2	2 2	2 -	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta
<p><b>7.20 Maintenance Procedures</b></p> <p><i>Maintenance planning;</i></p> <p><i>Modification procedures;</i></p> <p><i>Stores procedures;</i></p> <p><i>Certification/release procedures;</i></p> <p><i>Interface with aircraft operation;</i></p> <p><i>Maintenance Inspection/Quality Control/Quality Assurance;</i></p> <p><i>Additional maintenance procedures;</i></p> <p><i>Control of life limited components.</i></p>	1	2	2	<input checked="" type="checkbox"/> Kontrollitud, vastab <input type="checkbox"/> Kontrollitud, ei vasta

