

## SYL 1.0 A109 Ser.&PW206/207/A+E/L3

In compliance with "AMC to point 3.1(d) of Appendix III of Part-66" lessons start/finish hour can be adjusted as per exceptional cases.

Lesson	
Subject	Start Day
<b>ATA 00</b> - Air Vehicle <ul style="list-style-type: none"> <li>• General description of the principal aerodynamics characteristics of the A109 helicopter.</li> </ul>	<b>1</b>
<b>ATA 05</b> - Time limits/maintenance checks <ul style="list-style-type: none"> <li>• General description of the helicopter Airworthiness Limitation.</li> <li>• General description of helicopter Scheduled/Unscheduled Maintenance</li> </ul>	<b>1</b>
<b>ATA 06</b> - Dimensions/Areas (MTOM, etc.) <ul style="list-style-type: none"> <li>• General description of the helicopter dimensions.</li> <li>• How and where to find helicopter reference lines, zone and areas, access provision.</li> <li>• General description of helicopter Alphanumeric code for panels.</li> <li>• Explanation on where to find the information on the IETP.</li> </ul>	<b>1</b>
<b>ATA -</b> - Zonal & Station Identification Systems	<b>1</b>
<b>ATA 20</b> - Standard practices – only type particular	<b>1</b>
<b>ATA 53</b> - Airframe Structure (Helicopter) <b>AIRFRAME STRUCTURES</b> <ul style="list-style-type: none"> <li>• General description of the Helicopter Fuselage.</li> <li>• General description of the Helicopter Tail Section.</li> <li>• Major inspections, life times, Service Bulletins applicable.</li> </ul> <b>STABILIZER</b> <ul style="list-style-type: none"> <li>• General description of the helicopter Horizontal Stabilizer.</li> <li>• Major inspections, life times, Service Bulletins applicable.</li> <li>• Description of Horizontal Stabilizer and their installation.</li> </ul> <b>DOORS</b> <ul style="list-style-type: none"> <li>• General description of the Helicopter Doors: passenger/crew, cargo, service, entrance stairs, door warn-ing, landing gear doors.</li> <li>• Major inspections, Life times, Service Bulletins applicable.</li> <li>• Description of Doors and their installation.</li> </ul> <b>WINDOWS</b> <ul style="list-style-type: none"> <li>• General description of the helicopter windows.</li> <li>• Major inspections, life times, Service Bulletins applicable.</li> <li>• Description of Windows and their installation.</li> </ul> <b>STANDARD PRACTICIES AND STRUCTURES</b> <ul style="list-style-type: none"> <li>• General description of the Standard Practice and General data</li> </ul>	<b>1</b>
<b>ATA 07</b> - Lifting and Shoring <ul style="list-style-type: none"> <li>• General description of the helicopter Lifting procedure.</li> <li>• General description of the helicopter Shoring procedure.</li> <li>• General description of the helicopter Jacking procedure.</li> <li>• General description of the helicopter Slings procedure.</li> <li>• General description of Recovering and Transporting procedure.</li> </ul>	<b>2</b>

Lesson	
Subject	Start Day
<b>ATA 08</b> - Levelling and weighing <ul style="list-style-type: none"> <li>• General description of the helicopter Leveling procedure.</li> <li>• General description of the helicopter Weighing procedure.</li> </ul>	2
<b>ATA 24</b> - Electrical Power <ul style="list-style-type: none"> <li>• General description of the Electrical distribution system.</li> <li>• Component location.</li> <li>• DC generation (Generators, External power, GCU description and operation, Main and Aux batteries, Circuit Breakers control panel).</li> <li>• Description of the Functional and Operational checks.</li> </ul>	2
<b>ATA 31</b> - Indicating/Recording Systems <ul style="list-style-type: none"> <li>• Instrument panel installation.</li> <li>• PRIMUS EPIC® architecture</li> <li>• Integrated Avionics.</li> <li>• entral Display System (CDS) shows the primary flight data and navigation data to the aircrew.</li> <li>• CDU functions and operation.</li> <li>• Central Warning System.</li> <li>• Independent instruments: The clock installation / The magnetic compass installation / The outside air thermometer installation.</li> <li>• MPFDR (Multi Purpose Flight Data Recorder) system operation and controls.</li> </ul>	3
<b>ATA 31A</b> - Instrument Systems	3
<b>ATA 33</b> - Lights <p>The lighting system includes the following sub-systems.</p> <ul style="list-style-type: none"> <li>• internal lights.</li> <li>• external lights.</li> <li>• emergency lights.</li> </ul>	3
<b>ATA 29</b> - Hydraulic Power <ul style="list-style-type: none"> <li>• Description of Main hydraulic systems.</li> <li>• Description of Power Control Modules – Operational modes of HYD SYS 1 and HYD SYS 2.</li> <li>• Description of Hydraulic Pumps and their connections with the HYD SYS's.</li> <li>• Description of Shut-off Valves.</li> <li>• Pump operation and function.</li> <li>• Servo system description location and operational checks.</li> </ul>	4
<b>ATA 29A</b> - Hydraulic Power - Monitoring and indicating <ul style="list-style-type: none"> <li>• Description of Hydraulic monitoring and indicating System.</li> <li>• Servo system description location and operational checks.</li> </ul>	4
<b>ATA 09</b> - Towing and taxiing	5
<b>ATA 10</b> - Parking/mooring, Storing & Return to Service	5
<b>ATA 32</b> - Landing Gear <ul style="list-style-type: none"> <li>• General description of the helicopter Landing Gears.</li> <li>• Description of Steering system</li> <li>• Normal and Emergency extension retraction.</li> <li>• General description of wheel and brakes systems.</li> </ul>	5

Lesson		Start Day
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<b>ATA 32A</b>	- Landing Gear - Monitoring and indicating	5
<b>ATA 67</b>	- Rotors Flight Control <ul style="list-style-type: none"> <li>• General description of the helicopter Collective Pitch Control.</li> <li>• General description of the helicopter Cyclic Pitch Control.</li> <li>• General description of the helicopter Mixing Control Unit.</li> <li>• General description of the helicopter Tail Rotor Pitch Control.</li> </ul>	6
<b>ATA 64</b>	- Tail rotor <ul style="list-style-type: none"> <li>• Tail rotor hub and blades assy description and operation.</li> <li>• Tail rotor assy removal, installation and maintenance procedure.</li> <li>• Tail rotor blades removal, visual inspection, maintenance, and installation procedure.</li> <li>• Tail rotor hub and blades shimming</li> <li>• Tail rotor pitch change mechanism description, removal, installation and maintenance procedure.</li> </ul>	6
<b>ATA 62</b>	- Rotors <ul style="list-style-type: none"> <li>• General description of the helicopter Main Rotor Blades.</li> <li>• General description of the helicopter Main Rotor Head.</li> <li>• General description of the helicopter Rotating Controls and Swashplate assembly.</li> </ul>	7
<b>ATA 60</b>	- Standard Practices Rotor	7
<b>ATA 18</b>	- Vibration and Noise Analysis (Blade tracking) <ul style="list-style-type: none"> <li>• General presentation about helicopter vibrations and smoothing process.</li> <li>• General description of helicopter Main/Tail rotor charts.</li> <li>• General description of helicopter passive attenuation, vibration absorbers and adjust procedure.</li> </ul>	8
<b>ATA 45</b>	- On-Board Maintenance System (or covered in 31) <ul style="list-style-type: none"> <li>• Central Maintenance Computer</li> <li>• DAU description and operation</li> </ul>	8
<b>ATA 25</b>	- Equipment & Furnishings <ul style="list-style-type: none"> <li>• General description of the Cockpit and Cabin seats and Seat Belts.</li> <li>• Component location.</li> <li>• General description of the Cockpit and Cabin and Baggage compartment liners and upholstery.</li> <li>• Description of the removal and installation of seats and liners, main inspections to seats and seat belts.</li> </ul>	9
<b>ATA 25A</b>	- Electronic Equipment including emergency equipment	10
<b>ATA 95</b>	- Emergency Flotation Equipment <ul style="list-style-type: none"> <li>• Description of system</li> <li>• Maintenance requirements</li> </ul>	10
<b>EXAM</b>	Intermediate exam - 60 MCQ	10

Lesson	
Subject	Start Day
<b>ATA 63</b> - Rotor Drive <ul style="list-style-type: none"> <li>• General description of Engine/MGB coupling.</li> <li>• General description of Main Gear Box, Freewheel and attachments.</li> <li>• Rotor Brake.</li> </ul>	<b>11</b>
<b>ATA 63A</b> - Rotor Drive – Monitoring and indicating	<b>11</b>
<b>ATA 65</b> - Tail rotor drive <ul style="list-style-type: none"> <li>• Tail rotor drive shaft.</li> <li>• Tail Gearbox.</li> </ul>	<b>12</b>
<b>ATA 65A</b> - Tail Rotor Drive - Monitoring and indicating	<b>12</b>
<b>ATA 23</b> - Communications <ul style="list-style-type: none"> <li>• General description of the Modular Radio System.</li> <li>• Component location.</li> <li>• Operation of radio tuning, Radio Master switch, Audio Control Panel.</li> <li>• Description of the Functional and Operational checks of the system.</li> <li>• Description of Radio Navigation Equipment and maintenance.</li> </ul>	<b>12</b>
<b>ATA 34</b> - Navigation Integrated PRIMUS EPIC® avionic system and subsystems: - FLIGHT ENVIRONMENTAL DATA - ATTITUDE AND DIRECTION - LANDING AND TAXIING AIDS. - DEPENDENT POSITION DETERMINING. - INDEPENDENT POSITION DETERMINING - FLIGHT MANAGEMENT SYSTEM (FMS).	<b>13</b>
<b>ATA 11</b> - Placards and Markings	<b>13</b>
<b>ATA 12</b> - Servicing	<b>13</b>
<b>ATA 22</b> - Autoflight <ul style="list-style-type: none"> <li>• General description of the AFCS.</li> <li>• Component location.</li> <li>• Description of Flight Director main modes.</li> <li>• Description of the Functional and Operational checks and BITE tests.</li> </ul>	<b>14</b>
<b>ATA 30</b> - Ice & Rain Protection <ul style="list-style-type: none"> <li>• General description of the helicopter Air Data System.</li> <li>• Interface with Autopilot.</li> <li>• General description of Windshield / Wipers system.</li> <li>• General description of Full Ice Protection System.</li> <li>• General description of Detection System.</li> </ul>	<b>14</b>
<b>ATA 21</b> - Air Conditioning <ul style="list-style-type: none"> <li>• General description of the helicopter Environmental Control.</li> <li>• General description of the helicopter Air Distribution System.</li> <li>• General description of the Nose Avionic Bay Ventilation System.</li> </ul>	<b>15</b>

Lesson	
Subject	Start Day
<b>ATA 21A</b> - Air Supply	15
<b>ATA 21C</b> - Safety and Warning Devices	15
<b>ATA 26</b> - Fire Protection <ul style="list-style-type: none"> <li>• General description of the helicopter Fire Protection System.</li> <li>• General description of the helicopter Detection System.</li> <li>• General description of the helicopter Extinguishing System.</li> </ul>	15
<b>ATA 50</b> - Cargo and Accessory Compartments <ul style="list-style-type: none"> <li>• Baggage compartment description</li> <li>• LRU component location</li> <li>• Chapter 25, 26, 33 interfaces</li> </ul>	15
<b>ATA 28</b> - Fuel Systems	16
<b>ATA 28A</b> - Fuel Systems - Monitoring and indicating	16
<b>ATA 71</b> - Powerplant <ul style="list-style-type: none"> <li>• General description of the Helicopter Powerplant.</li> <li>• General description of the Engine Compressors.</li> <li>• General description of the Engine Turbines.</li> <li>• General description of the Accessory Gearbox.</li> <li>• General description of the Combustion chambers.</li> <li>• General description of the Exhaust.</li> <li>• General description of the Oil system.</li> <li>• General description of the Fuel Control System.</li> <li>• Monitoring System.</li> </ul>	17
<b>ATA 72</b> - Engine Turbine/Turbo Prop/Ducted Fan/Unducted Fan <ul style="list-style-type: none"> <li>• General description of the Turbine Section.</li> <li>• Maintenance practice related to Turbine Section.</li> </ul>	17
<b>ATA 70</b> - Standard Practices – Engines	17
<b>ATA 70A</b> - Constructional arrangement and operation	17
<b>ATA 70B</b> - Engine Performance	17
<b>ATA 75</b> - Air <ul style="list-style-type: none"> <li>• General description of the Air Inlet.</li> <li>• General description of the Bleed system.</li> </ul>	18
<b>ATA 73</b> - Engine Fuel and control <ul style="list-style-type: none"> <li>• General description of the helicopter Engine Fuel and control System.</li> <li>• Fuel Management Module (FMM).</li> <li>• (Fuel Heater OPTIONAL).</li> <li>• Ecology Accumulator.</li> <li>• Fuel Nozzle.</li> <li>• Fuel System Troubleshooting.</li> </ul>	18

Lesson		Start Day
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<b>ATA 74</b>	- Ignition <ul style="list-style-type: none"> <li>• General description of the Engine Ignition system.</li> <li>• Maintenance practices related to the System.</li> </ul>	<b>18</b>
<b>ATA 80</b>	- Starting	<b>19</b>
<b>ATA 83</b>	- Accessory Gear Boxes	<b>19</b>
<b>ATA 79</b>	- Oil	<b>19</b>
<b>ATA 78</b>	- Exhaust	<b>20</b>
<b>ATA 76</b>	- Engine controls <ul style="list-style-type: none"> <li>• General description of the helicopter Engine Controls.</li> <li>• Rigging of the Engine Control Lever.</li> <li>• Overview of EEC mode of operation.</li> </ul>	<b>20</b>
<b>ATA 77</b>	- Engine Indicating Systems	<b>20</b>
<b>EXAM</b>	Final exam - 60 MCQ	<b>20</b>