



CAV SYSTEMS

TKS MAINTENANCE TRAINING SYLLABUS

Current Issue: 10 SEPT 2021

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MAINTENANCE TRAINING OVERVIEW

DAY ONE

0830 - 1000	Introduction to TKS
	Introduction of staff, building and course safety briefing, presentation on the history of TKS and CAV Ice Protection.
BREAK	
1030 - 1200	TKS 101
	<p>The designing of a freezing point depressant ice protection system.</p> <ul style="list-style-type: none"> • FPD system description • Design overview • Aircraft physical description • Icing envelope analysis • Panel design process • Typical system operation • System flow balance • Design process summary
LUNCH	
1300 - 1400	General Systems
	<p>Overview of the TKS system</p> <p>Parts: porous panels, stall triggers, proportioning units, pumps, tanks, windshield systems, propeller systems, fluid lines and fittings, control panels.</p>
BREAK	General Systems / Repair Station Tour
1500 - 1630	<p>Continued overview of parts</p> <p>A tour of the repair station: how pumps, proportioning units and windshield pumps are tested</p> <p>Explanation of the test benches we use to test parts</p>
END	



DAY TWO

0830 - 1000	Porous Panel Design & Function
	<ul style="list-style-type: none"> • The design and function of a porous panel • How the fluid is dispensed to and dispersed within the panel
BREAK	
1030 - 1200	Metering Pumps & Proportioning Units
	<ul style="list-style-type: none"> • Hands on training with cutaways of metering pumps and proportioning units • How the main pumps and proportioning units function within the system • Common troubleshooting and issues found on main pumps and proportioning units in the field and when sent into the repair station
LUNCH	
1300 - 1400	Windshield Systems
	<ul style="list-style-type: none"> • Hands on training including windshield pumps, spray bars, solenoid valves, tubing and wiring harnesses. • Common troubleshooting and issues found on windshield pumps, solenoid valves and spray bars in the field and when sent into the repair station.
BREAK	All Other Parts
1500 - 1630	<ul style="list-style-type: none"> • Hands on with tubing and coupling, level senders, control panels and filters. • Includes adjusting fluid levels on the control panel when connected to a level sender. • Common troubleshooting and issues found on tube couplings, level senders and control panels in the field and when sent into the repair station.
END	



DAY THREE

0830 - 1000	Troubleshooting
	<ul style="list-style-type: none"> • Q&A session on troubleshooting TKS systems in the field. • List of common faults found in the field and common questions involving technical support
BREAK	
1030 - 1200	Intro to TKS Purge Tanks
	<ul style="list-style-type: none"> • Presentation of TKS purge tanks and the design and function of the TKS purge tank • Common uses for the purge tank while troubleshooting a system in the field
LUNCH	
1300 - 1400	TKS Purge Tanks
	<ul style="list-style-type: none"> • Hands on training with a TKS purge tank on porous panels • How to use water, shop air and TKS fluid on a porous panel with a TKS purge tank • Common troubleshooting and issues and how they are fixed using a TKS purge tank
BREAK	Q&A, Overhaul Pricing & Certificate Presentation
1500 - 1630	<ul style="list-style-type: none"> • Question and answer session covering the entire course • Overhaul pricing for common TKS parts • Factory training certificates issued individual and/or company • USB drives issued with applicable course materials and troubleshooting documentation
END	