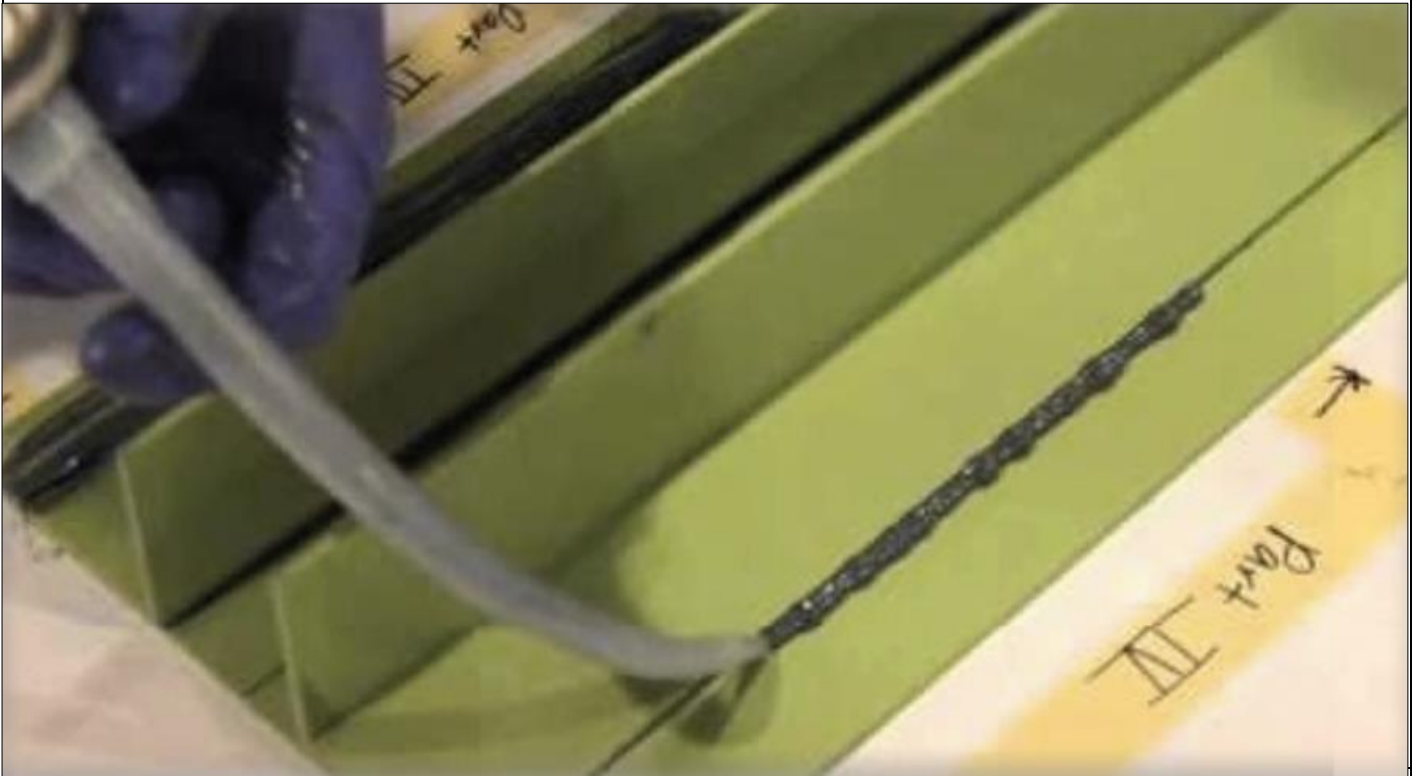


Course Title: Sealant Compound Application



Course Code:
SCA001

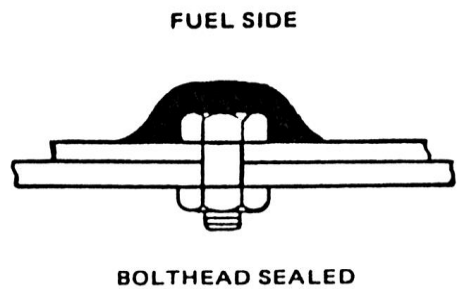
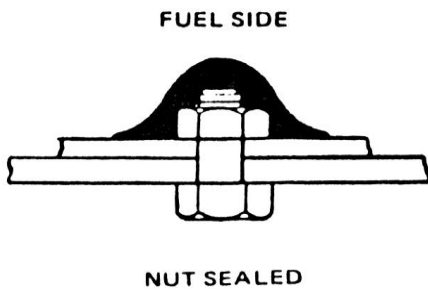
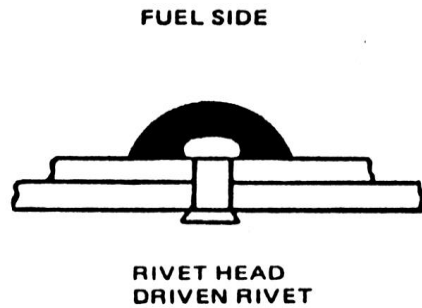
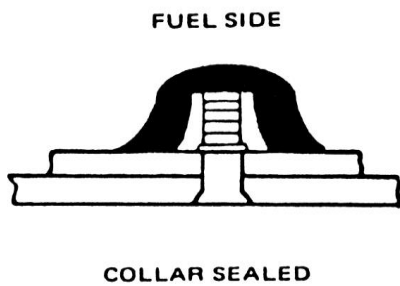
Date:
2018-12

Developed by:
Rick van Opdorp

Signature:

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Scope

High demands are made on today's aircraft with respect to comfort, fuel consumption, noise reduction and above all: Safety. Sealing seams and joints contributes greatly to this security. It is therefore important to train how to apply sealant compound properly

Duration

2 working days, 16 hours

Applicable documents

Structural Repair Manual

Corrosion Handbook

FAA AC 43.13-1B - Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair

Examinations

It will be required to monitor student performance throughout the program. Students will be administered a written exam following lecture classes and practical assessments in classes. The minimum passing grade for all written exams shall be 75% and all grades shall be recorded in the individual's training records.

Written examination:

The written examination shall contain a casus based on a real practical scenario existing of multiple choice and open questions. The examination shall contain questions from each of the Topics listed in the outline for each Part. The examination will be closed book.

Reexamination:

If the student fails the written examination, they may request to retake a written examination.

Certification

Certificated covered by EASA 147 approved training school "Aircraft Maintenance and Training School".

Teaching Levels

The following definitions of minimum teaching levels are derived from Title 14 Code of Federal Regulations, Part 147 and may be exceeded.

Level 1

Level 1 requires knowledge of general principles and includes instruction by lecture, demonstration, and discussion, but does not include practical application or development of manipulative skill. This teaching level generally refers to classroom discussion and does not require practical application. Teaching aids or instructional equipment may include charts, books, diagrams, or other visual teaching aids. If a training organization chooses to teach Level 1 courses incorporating actual components, the components do not have to be operational.

Level 2

Level 2 requires knowledge of general principles and includes instruction by lecture, demonstration, discussion, and limited practical application, but does not include development of sufficient manipulative skill to perform basic operations. This teaching level requires some hands-on manipulative skills and their accompanying actual or simulated components/equipment, but still may be taught primarily in the classroom environment.

Level 3

Level 3 requires knowledge of general principles and includes instruction by lecture, demonstration, discussion, and a high degree of practical application to develop sufficient manipulative skill to accomplish return to service (normal operation). This teaching level requires hands-on skill, as well as sufficient and appropriate instructional aids to train the students to develop manipulative skills sufficient to simulate return to service mechanical skill. At this level, the teaching aids must be similar to or be the actual items of equipment on which the student is expected to develop required skill levels. A Level 3 subject cannot be taught solely by lecture in the classroom; the appropriate training aids and hands-on experience must be used.

Topics and Objectives, Theoretical part

Objective: instruction by lecture, demonstration, and discussion, but does not include practical application or development of manipulative skill. This teaching level generally refers to classroom discussion and does not require practical application.	
Topic:	Level
Introduction of sealing compound	1
Purpose of sealing / Corrosion prevention	1
Definition of sealing compounds	1
Types of sealants	1
Materials and process specification	1
Storage	1
Shelf life and out time	1
Recertification	1
Polymer sealants	1
The term relative humidity	1
Environments, health and safety aspects (EHS)	1
Composites and sealant	1
Curing of polysulfide sealing compounds	1
Two component sealants (hardening type)	1
Types of Adhesion Promoter	1
The use of adhesion promoter	1
Hand mixing	1
Mechanical mixing with the SEMKIT mixer	1
Handling of cleaned parts	1
The use of Topcoats over fuel sealant	1

Topics and Objectives, Practical part

Objective: instruction by lecture, demonstration, discussion, and a high degree of practical application to develop sufficient manipulative skill to accomplish return to service (normal operation). This teaching level requires hands-on skill, as well as sufficient and appropriate instructional aides to train the students to develop manipulative skills sufficient to simulate return to service mechanical skill.	
Topic:	Level
Removal techniques on sheetmetal and composites	3
Masking	3
Promoters and pre-treatment methods	3
Liquid and gas tight sealing	3
Mixing of sealant	3
Isolating materials to prevent corrosion	3
Applying sealant compound	3
Set quality requirements for applied and hardened sealing compound	3
Fillet sealing - Spatulable sealant (B) over brushable sealant (A)	3
Sealing of basic structures	3
Possible leak paths	3
Sealing Faying surfaces	3
Sealing Form in place gaskets	3