



121 North Henry Street  
Alexandria, VA 22314  
703.739.9543  
[www.arsa.org](http://www.arsa.org)

# Replacement Parts in Non-critical Applications

---

2019 GA Engine Summit  
September 17, 2019  
**Sarah MacLeod**, Executive Director

# About the Aeronautical Repair Station Association

[ARSA](#) is devoted to the worldwide civil aviation maintenance industry—from its global corporations to the small, independent businesses. [ARSA](#) members are located on five continents and in nearly 20 countries.

The association's experts create tools for members to navigate the maze of government mandates while enhancing safety, efficiency and productivity.

[ARSA](#) is managed by the law firm of [Obadal, Filler, MacLeod & Klein, P.L.C.](#), which provides management, government affairs, and legal services to trade associations and transportation-centric companies.

## About the Presenter – Sarah MacLeod

[Sarah MacLeod](#) is managing member of [Obadal, Filler, MacLeod & Klein, P.L.C.](#) and a founder and executive director of the [Aeronautical Repair Station Association](#). She has advocated for individuals and companies on international aviation safety law, policy and compliance issues for 30 years.

Ms. MacLeod obtained a bachelor's degree from Evergreen State College, Olympia, Washington and a law degree from Catholic University of America.

## Legal Disclaimer

This material is provided for educational and informational purposes only. It does not constitute any type of professional advice. Law, regulations, guidance and government policies change frequently. While this material is updated, its accuracy cannot be guaranteed.

In addition, the application of this material is always dependent on the particular facts and circumstances involved. The use of this material is therefore at your own risk.

## Replacement parts under sections [1.1](#) and [43.13](#)

- Standards and requirements for approval of products, appliances, parts, materials and processes are contained in part [21](#), which applies to the designer and producer.
- FAA Form [8130-3](#) no longer has an “eligibility for installation” box—has always warned that installer is responsible for making that determination.
- Evaluation of a maintenance provider’s determination of eligibility of any part starts with an evaluation of the end result.

## Replacement parts under sections [1.1](#) and [43.13](#)

- Section [1.1](#) defines maintenance to mean inspection, overhaul, repair, preservation, and the *replacement of parts*, but excludes preventive maintenance. (Emphasis added.)
- Maintenance is controlled by part [43](#) – specifically, section [43.13](#) must—
  - Use manufacturer’s information, including method and order of removing and replacing parts—often depicted between IPC and applicable maintenance manual or service bulletin (or other methods, techniques and practices).
  - Do the work in such a manner and use materials of such a quality as to return the article to at least its original condition—a purely technical evaluation—always starts with an evaluation of the end result.

## Replacement parts under sections [1.1](#) and [43.13](#)

- Standard parts—particularly in non-critical applications—
  - Many general aviation product designs have not changed for years.
  - Manufacturers like to control every replacement part—protect their investment.
  - Part numbers are not the end-all-be-all determination of eligibility for installation—whether the replacement part will return the article to at least its original condition is the barometer.

## Replacement parts under sections [1.1](#) and [43.13](#)

- Standard parts in general aviation
  - CAR certification basis
  - Advisory circular [43.13-1B](#), Chapter 4, section 2 contains valid information for evaluating metal; AMT Handbook - General [[FAA-H-8083-30A](#); 2018]; chapter 7 – Aircraft Materials, Hardware, and Processes—Aircraft Bolts, p. 7-39 – 7-52; Figure 7-19 contains specific information on different grades and uses in GA
  - [Fastener Quality Act](#) and 14 CFR part [3](#) provide assurance and capability to catch substandard articles.
  - Applying a part number by the DAH/PAH does not change the technical requirements for the article under section [43.13](#).



## Replacement parts under sections [1.1](#) and [43.13](#)

- PMA parts—approval under part [21](#) is the starting, but not ending point, for determining eligibility for installation.
- PMAs are issued by part number.
- Maintenance providers begin with the manufacturer's illustrated parts lists or catalogs.
  - The order and method of replacing parts is required by 14 CFR part [33](#), appendix [A](#) 33.3(a)(8); has always been provided under section [33.4](#).
  - The claim that IPCs are not “approved data” is a red herring; they are and have always been created from drawings and specifications in the type design which is approved when the type or supplemental type certificate is issued.
- Under part [3](#), and AC [20-62](#), a part number and PMA marking provide evidence that the article is eligible for installation per the IPC/IPL.

## Replacement parts under sections [1.1](#) and [43.13](#)

- PMA parts—potential solutions
  - Provide training on the difference between approving articles under part [21](#) and determining eligibility for installation under part [43](#)—can be used by the agency and the industry.
  - Clarify guidance between AIR and AFS on eligibility of part numbers that are the same across multiple makes and models.
  - Provide clarification on determining eligibility for installation of new PMA parts based upon the part number approved.

# Questions?



**Obadal, Filler,  
MacLeod & Klein, P.L.C.**

117 North Henry Street, Alexandria, VA 22314–2903

**Sarah MacLeod**

Managing Member

T: 703.299.0784 Ext. 114

M: 703.785.6605

F: 703.299.0254

sarah.macleod@potomac-law.com

[www.potomac-law.com](http://www.potomac-law.com)

## Contact ARSA

121 North Henry Street  
Alexandria, VA 22314-2903

Tel. 703.739.9543

Fax 703.299.0254

[www.arsa.org](http://www.arsa.org)

[arsa@arsa.org](mailto:arsa@arsa.org)

## Members Only

Secure Online Portal: [arsa.member365.com](http://arsa.member365.com)