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May 21, 2014

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RE: Multiple part identification issue

Dear David and Steve:

It seems the issue raised above has slipped through the cracks; unfortunately, it continues to plague the repair station industry.

To refresh our memories of the issue, I have attached the association's original letter (see Attachment 1) and the agency's response (see Attachment 2).

This letter is written to recommend the FAA issue a joint Information for Operators (InFO) on this matter; the association has attached a draft for your consideration (see Attachment 3).

Your Servant,

Sarah MacLeod  
Executive Director

Attachment 1: Draft InFO	4 pages
Attachment 2: ARSA letter to FAA, dated Oct. 19, 2011	5 pages
Attachment 3: FAA response to ARSA letter	2 pages

cc: Anthony Janco                      [anthony.janco@faa.gov](mailto:anthony.janco@faa.gov)

# InFO

**U.S. Department  
of Transportation**

**Federal Aviation  
Administration**

**Information for Operators**

**InFO [ENTER NUMBER]**

**Flight Standards Service  
Washington, DC**

## **Website**

*An InFO contains valuable information for operators that should help them meet certain administrative, regulatory or operational requirements with relatively low urgency or impact on safety.*

## **Subject:**

Maintenance of articles with multiple part numbers.

## **Purpose:**

To outline an acceptable method of—

- (1) Recording part numbers in an article's maintenance record consistent with Order 8130-21; and
- (2) Listing articles by part number on a limited rated part 145 repair station capability list.

## **Background:**

There are times that type certificate (TC) and/or production certificate (PC) holders use original equipment manufacturers (“OEMs”)<sup>1</sup> to produce both production and replacement parts. Under Title 14 Code of Federal Regulations (14 CFR),<sup>2</sup> these “OEMs” must obtain a technical standard order authorization (TSOA) or parts manufacturer approval (PMA) to produce and sell their articles to end-users.

To ensure the “OEM” TSOA/PMA replacement parts are “identical” in design and production methodology, the regulations indicate that the contracts (licensing agreements) among and between the TC/PC and the identity TSOA/PMA holders tie changes in design and/or production methodology in lock-step. When the PMA/TSOA holder has obtained its approval through identity (a “manufacturer assist”, “contract” or “licensing agreement” from the TC/PC holder) for production of a replacement part, sometimes the part number is exactly the same as the TC/PC holder's (except for the suffix or prefix), and sometimes it is completely different, e.g., only the TSOA holder's number.

In some cases, the rules require, and the Aircraft Certification Service (AIR) has allowed, both part numbers to be affixed at the time the identity PMA/TSOA holder actually produces the part. At other times, only one part number is affixed at shipment, depending upon whether the article is purchased as a production or replacement unit. In the latter case, the part only has one part number affixed (i.e., for a production part the TC/PC holder's part number or the identity

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<sup>1</sup> For the purposes of this InFO, we are using this term to identify the actual producer, that is, the company that physically produces the part for the “product” manufacturer, i.e., the type and/or production certification approval holder (e.g., Boeing, Airbus, Pratt & Whitney, Hamilton Sundstrand).

<sup>2</sup> All references are to 14 CFR unless otherwise indicated.

PMA/TSOA holder's part number for replacement articles), but no matter the number, the part has been made to the exact same design and production standard.

When the PMA/TSOA is not based upon identity, the article should have a PMA holder unique part number, as required by part 21. However, there are instances where the TC/PC or identity PMA/TSOA part number is maintained by the independent PMA/TSOA holder and only the suffix or prefix changes.

These varieties have created consternation in the maintenance industry:

- (1) When a maintenance provider wishes to document multiple part numbers on a maintenance record and/or an approval for return to service under [§ 43.9](#), even though an acceptable method for including more than one part number on an FAA Form 8130-3 is contained in Order 8130.21; and
- (2) When air agencies with limited ratings on their part 145 repair station certificate that use capability lists based upon part numbers.

**Discussion:**

Under 14 CFR parts 21 and 45, all production approval holders are required to provide identification markings on new parts.<sup>3</sup> The TC/PC holder usually assigns markings through the design process, where a supplier or another production approval holder (PAH) part number can be identified in a drawing or specification as well as the TC/PC holder part identification.

Multiple part number identification and application creates confusion that is exacerbated by several additional considerations—

- (1) PMA/TSOA articles may be approved for installation in more than one type design by more than one TC/PC holder. While the TC/PC holder and PMA/TSOA holder may mark the part differently, the actual part is produced to the exact same design requirements under the exact same manufacturing controls.
- (2) There may be more than one design and/or production approval holder for the article. For example, the TC holder, the identity PMA/TSOA holder and an independent PMA/TSOA holder.

Therefore, when the part numbers are placed on the article at production, the scenarios are:

- (1) A TC holder part number only; or
- (2) An identity or independent PMA/TSOA holder part number only; or
- (3) The TC/PC holder part number **and** the identity PMA/TSOA holder number.

If only one number is marked on the article during production, the FAA can clearly identify the responsible certificate holder and can request or take appropriate action with any design or production issue under part 21.

If more than one number is marked on an article at production, the FAA can still take appropriate action to ensure correction of any deficiencies in the design and/or production, since both design

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<sup>3</sup> See, §§ [21.146\(d\)-\(e\)](#), [21.316\(d\)-\(e\)](#), [21.616\(d\)-\(e\)](#) and [part 43, Subpart B](#).

and production approval (TC/PC/TSOA/PMA) holders would need to make adjustments to ensure continued compliance under part 21.

When more than one number is marked on or is used to identify an article, issues can arise in maintenance.

(1) Capability List: Many repair stations with limited ratings keep their capability lists (see [§ 145.215](#)) by part number rather than by manufacturer make and model since component maintenance records (see [§ 43.9](#)) usually reflect part numbers; if an FAA Form 8130-3 is used, Order 8130-21 provides the method of completion, including the method for listing multiple part numbers. When the repair station does not place all potential part numbers for a particular article (the TC holder's, the identity and the independent PMA/TSOA holders' part numbers) on its capability list, an aviation safety inspector may question whether the certificate holder is—

- Following its own procedures; and/or
- Appropriately “rated” to perform the work; and/or
- Using the proper maintenance data.<sup>4</sup>

When articles go into service and come back for work under part 43, the FAA is concerned that the right maintenance data be used under [§ 43.13](#). When the PMA/TSOA holder is obtained by identity, both the TC/PC and the PMA/TSOA part numbers are based upon the same approved design, and the same maintenance data would be applicable. Even when the PMA/TSOA holder is independent (i.e., did not obtain the PAH through identity), the FAA has ensured that the original maintenance data is appropriate by default. In other words, during the certification process, AIR guidance states that the “original” maintenance data can be used *unless* there is a difference.<sup>5</sup>

Therefore, any of an article's part numbers could be on a repair station's “capability list”<sup>6</sup> that is consistent with the limited rating; the listing would allow work to be performed on any of the alternative part numbers.

(2) Consistent with Order 8130-21, use of the multiple part number and its alternative part numbers is also acceptable for completion of the maintenance record under [§ 43.9](#). In all cases, the maintenance provider must be able to recognize the part marking and place correct identification on the [§ 43.9\(a\)\(4\)](#) approval for return to service (usually an FAA Form 8130-3).

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<sup>4</sup> Not all component maintenance manuals have both the TC/PC holder and OEM PMA/TSOA holder part numbers represented. Sometimes, a single CMM may apply to “models” of the component which are eligible for installation on several types and models of product or appliance.

<sup>5</sup> See, for example, [Advisory Circular \(AC\) 33.4-1 \(8/27/99\)](#), paragraph 5.c., which states in pertinent part, “ICA's [instructions for continued airworthiness] are also necessary for supplemental type certificates (STCs), part manufacturer approvals (PMAs), design changes, and any repairs or alterations *that introduce new features that the existing ICAs do not adequately cover.*” (Emphasis added.)

<sup>6</sup> Even though capability lists by part numbers are not mandated, they are often used in addition to the nomenclature, make and/or model required by [§ 145.215\(b\)](#).

**Recommended action:**

Maintenance providers should have a method for ensuring the proper part number is reflected in the article's maintenance record. If the article is marked with—

- (1) Only the TC/PC part number, the [§ 43.9](#) record created by the repair station need only reference the TC/PC part number.
- (2) Only the PMA/TSOA number, the [§ 43.9](#) record created by the repair station need only reference the PMA/TSOA number.
- (3) More than one production approval holder number (TC/PC/PMA/TSOA), the maintenance provider needs to carefully review the article and the customer's request to determine how to identify the part. Consistent with the guidance in Order 8130-21:
  - (a) If the customer is an air carrier (part 121 or 135) or commercial operator (part 125) or foreign air carrier with N-registered aircraft (section 129.14), the maintenance provider should follow the customer's direction, as required by [§ 43.13\(c\)](#), and use the identification requested by the customer in the [§ 43.9](#) record (e.g., FAA Form 8130-3).
  - (b) If the customer holds another certificate that is allowed to perform maintenance under 14 CFR, i.e., part 65 mechanic or part 145 repair station, the receiving repair station should follow the customer's direction and use the incoming part identification in the [§ 43.9](#) record (e.g., FAA Form 8130-3).
  - (c) If the customer does not hold a certificate under 14 CFR, the repair station must carefully review the article to determine if there is a method to ascertain the part number attached at production. If the original identification cannot be established, any of the approved part numbers may be used, including, the TC/PC part number or the identity or independent PMA/TSOA part number in the [§ 43.9](#) record (e.g., FAA Form 8130-3).
- (4) If the article has no identification information, the maintenance provider should refer to the procedures suggested in [Advisory Circular \(AC\) 43.213A \(Parts Marking Identification\)](#) to ensure proper re-identification.
- (5) The maintenance provider may also put any or all "other" confirmed part number(s) in comments (e.g., FAA Form 8130-3 block 12) to aid in eligibility for installation.
- (6) If a limited rated repair station is using article identification numbers on its capability list (along with make, model or nomenclature, as required by [§ 145.215\(b\)](#)) any of the approved identification marks can be listed. That listing provides a basis for working on all associated approved replacement parts, although the repair station should verify that the maintenance data is applicable at the time work is being performed, as required by [§ 145.109\(a\)](#).



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October 19, 2011

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RE: Multiple part identification issue

Dear Steve and Terry:

It came to the association's attention that its members have questions about the identification that should be referenced in maintenance records when more than one number is applied to a part at production. ARSA has worked with Anthony Janco and Stephen M. Carbone to address and resolve this issue.

This letter is written to recommend the FAA issue guidance on this matter.

### *Background*

There are times that type certificate (TC) and/or production certificate (PC) holders use "original equipment manufacturers" (OEMs)<sup>1</sup> to produce both production and replacement parts. Under Title 14 Code of Federal Regulations (14 CFR),<sup>2</sup> the OEM must obtain a technical standard order authorization (TSOA) or parts manufacturer approval (PMA) to produce and sell the replacement parts to "end-users." To ensure the OEM replacement parts are "identical" in design and production methodology, the regulations indicate that the contracts (licensing agreements) among and between the TC/PC and OEM TSOA/PMA holders "tie" changes in design and/or production methodology in "lock-step."

When the OEM PMA/TSOA holder has obtained a "manufacturer assist", "contract" or "licensing agreement" from the TC/PC holder to produce a replacement part, sometimes the part number

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<sup>1</sup> For the purposes of this issue, we are using this term to define the actual producer; that is, the company that physically produces the part for the "product" manufacturer, i.e., the type and/or production certification approval holder (e.g., Boeing, Airbus, Pratt & Whitney, Hamilton Sundstrand).

<sup>2</sup> All references are to 14 CFR unless otherwise indicated.

RE: Multiple part identification issue

is exactly the same as the TC/PC holder's (except for the suffix or prefix) and sometimes it is completely different, e.g., TSOA number and TC/PC "installation" number. In some cases, the rules require and Aircraft Certification Service (AIR) has "allowed" both part numbers to be affixed at the time the OEM PMA/TSOA holder actually produces the part and other times, these "different" part numbers are affixed at "shipment". In the latter case, the part only has one part number affixed (either the TC/PC holder's or the OEM PMA/TSOA holder's), but no matter the number, the part has been made to the exact same design and production standard.

When the PMA/TSOA holder is not the OEM, the part number should have the PMA holder's "unique" number as required by part 21. However, we know of instances where the TC/PC or OEM part number is maintained by the "aftermarket" PMA holder and only the suffix or prefix changes.

#### *Design and Production Discussion*

Identification of "new" articles is covered under 14 CFR part 45. Other than critical parts, there is no specific part marking requirements for TC/PC holders. Normally, the TC/PC holder applies its part numbers through drawings or specifications. During this process, the OEM part number can be identified in the drawing or specification as well as the TC/PC holder part identification.

Part number confusion is exacerbated by several additional considerations—

- (1) The OEM part may be approved in more than one type design by more than one TC/PC holder. While the TC/PC holder and even the OEM may mark the part differently, the actual part is produced to the exact same design requirements under the exact same manufacturing controls.
- (2) There may be more than one design approval holder for the part. For example, the TC holder, the OEM PMA holder and an "aftermarket" PMA holder.

Therefore, when the part numbers are "attached" at production, the scenarios are:

- (1) A TC holder part number only; or,
- (2) A PMA/TSOA holder part number only; or,
- (3) The TC/PC holder part number **and** the PMA/TSOA holder number.

If only one part number is "attached" at production, the FAA has a clear understanding of the certificate holder responsible for the design and production of the article and can take appropriate action if something is wrong with either the design or production under part 21.

If both part numbers are "attached" at production, the FAA still can take appropriate action to ensure correction of any deficiencies in the design and/or production, since the actual producer

RE: Multiple part identification issue

(the PMA/TSOA holder) would need to make adjustments to ensure continued compliance for both design and production approvals.

### *Issues at and Solutions for Repair Stations*

When more than one number applies to the exact same part, issues arise in the repair station world.

- (1) Capability List: Many repair stations keep their capability lists (see, section 145.215) by part number rather than by manufacturer make and model since the component maintenance record (see, section 43.9) is issued against a part number. When the repair station does not place all potential part numbers for a particular article (the TC holder's and the PMA/TSOA holder's part numbers) on its capability list, an Aviation Safety Inspector questions whether the certificate holder is—
- Following its own procedures and/or,
  - Appropriately “rated” to perform the maintenance and/or,
  - Using the proper maintenance data.<sup>3</sup>

When a part goes into service and comes back for work under part 43, the FAA is concerned that the right “maintenance data” be used under section 43.13. When the TC/PC and OEM PMA/TSOA holder are “joined at the hip” through a “licensing agreement” or other contractual relationship recognized by the FAA, there is only one “actual” producer (the OEM) and both part numbers would be using the same maintenance data.

When the PMA/TSOA holder is an “aftermarket” provider, the FAA has ensured that the original maintenance data is appropriate by default. In other words, during the certification process, AIR guidance states that the “original” maintenance data can be used UNLESS there is a difference.

Therefore, under either condition, the applicable part numbers should be on a repair station’s “capability list”<sup>4</sup>—if they are not, a quick remedy can be achieved since section 43.13 is satisfied and section 43.9 doesn’t even have a “direct” part number requirement.

- (2) Customers may or may not understand the significance of applying the “dual” part numbers to commercial and regulatory documentation. The FAA should be clear on the extent part number usage is covered by the regulations, enabling more standardization in the commercial world.

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<sup>3</sup> Not all component maintenance manuals have both the TC/PC holder and OEM PMA/TSOA holder part numbers represented. Sometimes, a single CMM may apply to “models” of the component which are eligible for installation on several types and models of product or appliance.

<sup>4</sup> Even though part numbers are not “officially” needed for capability lists, they are often used instead of the nomenclature, make and/or model required by section 145.215(b).

RE: Multiple part identification issue

In all cases, the maintenance provider must be able to recognize the part marking and place the “right” identification on the section 43.9(a)(4) approval for return to service (usually an 8130-3 tag).

In other words, the part number that came in should be the part number that goes out, therefore—

- (1) If the part is marked with only the TC/PC part number, the section 43.9 record created by the repair station needs to reference only the TC/PC part number.
- (2) If the part is marked with only the OEM PMA/TSOA number, the section 43.9 record created by the repair station needs to reference only the OEM PMA/TSOA number.
- (3) If the part is marked with more than one design and/or production approval holder number (TC/PC/PMA/TSOA). The repair station must carefully review the article and the customer’s request to determine how to identify the part.
  - (a) If the customer is an air carrier (part 121 or 135) or commercial operator (part 125) or foreign air carrier with N-registered aircraft (section 129.14), the repair station should follow the customer’s direction as is required by section 145.205 and use the “originating” part in the appropriate block on the 8130-3 tag.
  - (b) If the customer holds another certificate that is allowed to perform maintenance under 14 CFR, i.e., part 65 mechanic or part 145 repair station, the receiving repair station should follow the customer’s direction and use the “originating” part in the appropriate block on the 8130-3 tag.
  - (c) If the customer does not hold a certificate under 14 CFR, the repair station must carefully review the article to determine if there is a method to ascertain the part number attached at production. Since that is unlikely, it can use either the TC/PC part number or the OEM PMA/TSOA part number in the appropriate block of the 8130-3. It can also put the “other” part number in block 13 if it wishes so that the “article” is fully identified as it actually exists (the part would actually match the “paperwork”).

Remember, this “allowance” would only apply to parts that are actually marked with more than one number at the time of production, not just because the repair station happens to know other numbers “may” apply to the part. Additionally, it would apply when the customer is not necessarily knowledgeable about the article, such as a distributor or owner/operator pilot that has no authority to perform work under 14 CFR.

To avoid issues in the future, we recommend guidance be issued to the FAA and the industry in the next revision to Order 8130.21. If that document is not appropriate, we recommend that Advisory Circular 43-9 be updated to reflect current practices relating to maintenance records issued by persons authorized to approve work for return to service under section 43.3.

October 18, 2011  
Messrs. Allen and Douglas  
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RE: Multiple part identification issue

I look forward to discussing the solution further.

Your Servant,

A handwritten signature in blue ink, appearing to read "Sarah MacLeod". The signature is fluid and cursive, with the first name "Sarah" written in a larger, more prominent script than the last name "MacLeod".

Sarah MacLeod  
Executive Director

cc: Anthony Janco  
Stephen M. Carbone

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Ms. Sarah MacLeod  
Executive Director  
Aeronautical Repair Station Association  
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RE: Multiple Part Numbering Issue

Dear Ms. MacLeod:

Thank you for your letter dated October 19, 2011. You recommended that the FAA issue guidance to address questions about part identification information when more than one part number has been applied during production or distribution.

As you know, under Title 14 Code of Federal Regulations, a manufacturer is given a minimum requirement for identifying a part. We share your concern that the presence of multiple part numbers may cause confusion when maintaining such parts and interfere with recordkeeping.

We plan to review affected FAA policy and guidance and revise them as necessary. Specifically, in Aircraft Certification, the Production and Airworthiness Division, is drafting a revision to FAA Order 8130.21, *Procedures for Completion and Use of the Authorized Release Certificate*, FAA Form 8130-3, Airworthiness Approval Tag, to address the practice of recording dual part numbers on FAA Form 8130-3.

In Flight Standards, the Aircraft Maintenance Division is reviewing its policy and applicable guidance to clarify requirements for maintaining parts and related recordkeeping for parts with dual identification numbers.

If you have any questions, please contact Carlos Quiles, Repair Station Branch, AFS-340, at (202) 385-6454.

Sincerely,

Steven W. Douglas  
Manager, Aircraft Maintenance Division

cc: Acting Manager, Production and Airworthiness Division, AIR-200  
Manager, Production and Airworthiness Division, AIR-201  
Acting Manager, Production Certification Branch, AIR-220