U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Policy

ORDER 8120.18

Effective Date: 12/11/12

SUBJ: Production Approval Holders (PAH) Who Rebuild or Alter Their Own Products Under 14 CFR 43.3(j)

1. Purpose of This Order. This order provides guidance to aviation safety inspectors (ASI) on how to conduct surveillance of production approval holders (PAH) who approve the return to service of products or articles under Title 14, Code of Federal Regulations (14 CFR) 43.3(j) and 43.7(d).

Note: Use of the word "should" throughout this order refers to a recommended practice. The associated activity is not a requirement; therefore, a record of completion is not required.

2. Audience. ASIs who provide surveillance of a PAH involved in the rebuilding, alteration, inspection, and approval of products or articles under a production approval.

3. Where Can I Find This Order. You can find this order on the Directives Management System (DMS) Web site https://employees.faa.gov/tools_resources/orders_notices. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices. or on the FAA's Regulatory and Guidance Library (RGL) website at http://rgl.faa.gov/.

4. Background.

a. Although 14 CFR 43.3(j) allows the rebuilding or alteration privileges for PAHs, additional guidance is necessary concerning these privileges. Since this work is accomplished under a PAH's quality system, manufacturing ASIs are responsible for surveillance of this activity.

b. Section 43.3(j) allows a PAH to rebuild or alter any product or article which it manufactured under a type or production certificate. The regulation also allows for the rebuilding or alteration of any product or article which it manufactures under a Technical Standard Order Authorization, an FAA Parts Manufacturer Approval, or Product and Process Specification issued by the Administrator. Likewise, the regulation allows the PAH the ability to perform any inspection required by part 91 or part 125 of this chapter on aircraft it manufactured under a type certificate, or currently manufactures under a production certificate.

c. Section 43.7(d) specifically grants a PAH the ability to approve for return to service any aircraft, airframe, aircraft engine, propeller, article, or component part that the PAH has worked on under § 43.3(j). However, except for minor alterations, the work must have been done in accordance with technical data approved by the Administrator.

5. Procedures. The manufacturing ASI should –

a. Expect each PAH who rebuilds or alters its own product or article as described in § 43.3(j) to describe within its quality system how it will conduct this activity

b. Ensure the PAH's procedures for rebuilding and altering includes requirements for incoming materials. The PAH should have a means to verify that the incoming product or article was produced under their production approval. Upon receiving and identifying the product or article, the PAH should ensure their segregation from the new production of products or articles.

c. Ensure compliance with § 43.2(b), so that any aircraft, airframe, aircraft engine, propeller, article, or component part described as rebuilt was disassembled, cleaned, inspected, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that either conform to new part tolerances and limits or to approved oversized or undersized dimensions.

d. Ensure compliance with § 43.11 regarding inspections required by part 91 or part 125.

e. Ensure compliance with § 43.13 regarding performance rules.

f. Ensure that appropriate FAA-approved data is being used for the rebuilding or alteration. Section 43.7(d) requires that, except for minor alterations, the work must have been accomplished in accordance with technical data approved by the FAA. If the work is in support of developing an article that will be subsequently presented for certification testing, the technical data must be acceptable to the FAA. The associated technical data must be approved by the FAA before the article or product is returned to service.

g. Ensure that the PAH describes procedures for the development and use of work instructions and/or shop travelers. Such documentation must identify the various operations or steps, as well as inspections accomplished. The PAH must identify what articles are replaced and the results of the functional test and/or final inspection and in addition should also identify the name of the person(s) performing each operation and inspection (traceability through the use of assigned stamps or employee numbers is acceptable).

h. Ensure the PAH has identified the functional test equipment, acceptance or rejection parameters, inspection tools, and dimensional tolerances to be used for the functional test and final inspection.

> **Note:** The PAH may refer to the same functional test and final inspection data used for manufacturing. Section 43.2(b) requires that rebuilt articles or products be tested to the same tolerances and limits as new parts, and either conforms to new article tolerances and limits, or to FAA-approved oversized and undersized dimensions.

i. Ensure the PAH has identified all persons who are authorized under § 43.7(d) to approve for return to service and/or make maintenance record entries as prescribed by §§ 43.9 or 43.11.

(1) There are no regulatory requirements for a PAH to maintain separate facilities for production or rebuilding/alteration operations. It is acceptable to perform manufacturing or rebuilding/alteration processes using the same equipment and personnel, provided that the processes remain independent of one another. Each article or product must be traceable to materials and work or inspection status at all times during production, or rebuilding/alteration processing. However, some PAH manufacturing facilities may choose to maintain separate facilities for production and rebuilding/alteration.

(2) Work performed under § 43.7(d) authorizes the PAH to approve for return to service any aircraft, airframe, aircraft engine, propeller, article, or component part worked on under § 43.3(j). Any authorized employee or representative of the PAH may therefore issue return to service documents, but the PAH should deem them qualified and authorized in writing. Each authorized employee or representative of the PAH should have experience with, and a thorough working knowledge of, the FAA regulations, methods of compliance, policy, processes, and procedures applicable to the rebuilding and alteration of the PAH's products or articles. The signing of documents for approval for return to service is part of the PAH's authorization. Issuing return to service approval documents for rebuild and alteration activities is not a designee function. Under some circumstances, the person authorized to issue the return to service approval documents is also an FAA designee. If so, that person must not approve the return to service in a designee capacity or record their designee number on any return to service document.

(3) FAA Order 8130.21, Procedures for Completion and Use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag, allows the use of Form 8130-3 as a return to service document and provides guidance for completing the form for rebuilding and alteration.

(4) Airframes, aircraft engines, propellers, or appliances that are returned to a manufacturer for repairs or service, that are not within the scope of this order, will continue to require compliance with the provisions of 14 CFR, part 145, Repair Stations.

(5) Advisory Circular 43-9, Maintenance Records, describes maintenance record making and record keeping requirements under parts 43 and 91 for general aviation.

(6) Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records are outlined in § 43.9 (to include part 43, Appendix B, and § 91.421, Rebuilt engine maintenance records). The PAH should have a method for tracking the rebuild and/or alteration performed and who performed it. This documentation method must become part of the FAA-approved quality system.

James Seipel
Manager
Production and Airworthiness Division, AIR-200

Appendix A. Administrative Information

1. Distribution. This order is distributed to the Washington Headquarters division levels of the Aircraft Certification Service and Flight Standards Service; to the branch levels of the Aircraft Certification Service; to the branch levels in the regional Flight Standards Divisions and Aircraft Certification Directorates; to all Flight Standards District Offices and International Field Offices; to all Aircraft Certification Offices; to all Certificate Management Offices and all Manufacturing Inspection District and Satellite Offices; and to the Aircraft Certification and Airworthiness Branches at the FAA Academy.

2. Deviations. Adherence to the procedures in this order is necessary for uniform administration of this directive material. Any deviations from this guidance material must be coordinated and approved by the Production and Airworthiness Division, AIR-200. If a deviation becomes necessary, the FAA employee involved should ensure the deviations are substantiated, documented, and concurred with by the appropriate supervisor. The deviation must be submitted to AIR-200 for review and approval. The limits of Federal protection for FAA employees are defined in Title 28 CFR 2679.

3. Definitions. For the purpose of this order, the following definitions apply:

a. Approved. Unless used with reference to another person, approved by the FAA.

b. Major alteration. An alteration not listed in the aircraft, aircraft engine, or propeller specifications—

(1) That might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness; or

(2) That is not done according to accepted practices or cannot be done by elementary operations (§ 1.1).

c. Minor alteration. An alteration other than a major alteration.

d. Person. An individual, firm, partnership, corporation, company, association, joint-stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative.

e. Rebuild. A used product or article that has been completely disassembled, inspected, repaired as necessary, reassembled, tested, and approved in the same manner and to the same tolerances and limits as a new item with either new or used parts. However, all parts used must conform to the production drawing tolerances and limits for new parts or be of approved oversized or undersized dimensions for a new engine

4. Suggestions for Improvements. Please forward all comments on deficiencies, clarifications, or improvements regarding this order to:

Aircraft Certification Service
Administrative Services Branch, AIR-510
ATTN: Directives Management Officer
800 Independence Ave. SW.
Washington, DC 20591

FAA Form 1320-19, Directive Feedback Information, is located as appendix B to this order for your convenience. If you require an immediate interpretation, please contact AIR-200 at (202) 385-6346; however, you should also complete Form 1320-19 as a follow-up to the conversation.

5. Records Management. Refer to FAA Orders 0000.1, FAA Standard Subject Classification System; 1350.14, Records Management; and 1350.15, Records Organization, Transfer, and Destruction Standards; and AIR-FAA-IR-04-01, or see your office Records Management Officer/Directives Management Officer for guidance regarding retention or disposition of records.

Appendix B. FAA Form 1320-19, Directive Feedback Information

U.S. Department
of Transportation

Federal Aviation Administration

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order 8120.18

To: Administrative Services Branch, AIR-510

(Please check all appropriate line items)

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject:
(briefly describe what you want added)

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (10-98)