



Life of a part

From released design data to a signed FAA Form 8130-3, and what happens when something goes wrong, in MRO Tracker

For accountable managers, quality managers, engineers, planners, machinists and inspectors at STC, PMA, TSOA and production certificate holders · MRO Tracker 2.2

A Part 21 manufacturer lives on proof: every part that leaves the building has to trace back to approved design data, approved material, qualified people and processes, and an inspection that shows it conforms. MRO Tracker's **Production** workspace keeps that chain in one place. This brief follows one production order through it, screen by screen, to shipment, then shows the side roads: a nonconformance, a gauge found out of tolerance, a change to the design, a quality escape with its 24-hour report, an airworthiness directive against our own STC, and the certification work behind a new approval.

The sample. Leesburg Aviation (sample data) holds PMA PQ4471CE for engine accessory brackets and oil cooler adapters, and STC SA02391NY for an electric cowl flap actuator. Valley Aero Supply orders four LA-2210-3 oil cooler adapters (order MO-2026-0003). Planner T. Nakamura releases the order, machinist D. Alvarez makes the parts, Blue Ridge Heat Treating does the heat treat, inspector M. Okafor buys off the work and finds one O-ring groove undersize, and quality manager R. Whitfield signs the release. Every company, person, approval number, serial number and figure in this brief is fictional. The screenshots are real MRO Tracker screens showing this sample data, taken on 28 October 2026; the names on them belong to the sample.

1 • Approve Approvals and released design data	2 • Plan Order and traveler from the routing	3 • Material Approved source, certified, accepted	4 • Make Operations signed in order	5 • Inspect Measurements, buy-off, special processes	6 • Deviate NCR and Material Review Board	7 • Prove Final inspection, FAI	8 • Release 8130-3 or EASA Form 1	9 • Ship Packing slip and C of C	10 • Listen Field reports, escapes, 21.3, ICA, ADs
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When	What happens in the sample
Mon 5 Oct, 9:00	The planner releases MO-2026-0003 for 4 × LA-2210-3 rev A. The traveler is copied from the routing and the parts get serial numbers LA20260024 to 27. A first article inspection is required: it's a new part.
Mon 5 Oct	Bar stock AMS 4115 6061-T4 (heat HT 4479015, mill cert) is issued from Stores. It came from Atlantic Aerospace Metals, an approved source.
Tue 6 – Fri 9 Oct	Op 10 saw cut and op 20 CNC turn and mill are signed. The inspector measures four characteristics on each serial number with calibrated gauges. Serial LA20260025 has the O-ring groove 0.8615 in against a minimum of 0.863; NCR-2026-005 is raised.
Mon 12 Oct	The Material Review Board dispositions NCR-2026-005 <i>rework</i> . The planner later asks engineering to widen the groove tolerance; the change arrives from PLM as a new revision.
Mon 26 Oct	Op 30 heat treat is done outside at Blue Ridge Heat Treating, on the approved supplier list for that special process, with its certificate of conformance.
Next	Penetrant inspection (in house, a Level 2 inspector), anodize (outside), pressure test, marking per 14 CFR 45.15, final inspection, the FAI, and the 8130-3.

1 Production at a glance

Production → Overview is the morning screen for the quality manager and the planner. The red banner at the top is the one nobody can miss: a quality escape whose 14 CFR 21.3 report is due in 18 hours. The tiles count what's waiting: operations to inspect, orders at final inspection, complete orders without a release form, nonconformances waiting for the MRB, suspected counterfeit parts, 21.3 reports to make, FAIs to accept, changes in review, and supplier approvals and qualifications expiring in the next 30 days. Below them: the operations waiting for an inspector, and the open orders with their due dates.

WORK

OverviewOrders8130-3Shipping

QUALITY

NonconformanceEscapes / 21.3Field reportsFAISPCGauges

CONFIGURATION

ProductsChangesADsBaselinesApprovals

CERTIFICATION

CertificationRequirementsConformityDesign reviewsPLM

SYSTEM

Special processesSuppliersAuthorityComplianceRecordsSettings

QE-2026-003 Supplier mill cert correction, heat lot HT 4473390: decide whether it's reportable under 21.3. Report due in 18 h (Oct 29, 2026, 11:06 AM).

1Orders in work

4Operations waiting for inspection

1Waiting for final inspection

1Complete, no 8130-3 yet

0Orders past due

2Nonconformances waiting for MRB

1Suspected unapproved / counterfeit parts

121.3 reports to make

1Field reports to evaluate

0FAIs to accept

2Changes in review / to release

3Supplier approvals / qualifications expiring (30 days)

Operations to inspect

Order ↕	Op ↕	Operation ↕	Done by ↕	When ↕
MO-2026-0006	10	Saw cut bar stock	d.alvarez@example.com	Sep 16, 2026, 2:00 PM
MO-2026-0006	30	Deburr and break edges	d.alvarez@example.com	Sep 19, 2026, 2:00 AM
MO-2026-0003	10	Saw cut bar stock	d.alvarez@example.com	Oct 6, 2026, 9:00 AM
MO-2026-0003	30	Solution heat treat and age to T6 (outside)	t.nakamura@example.com	Oct 26, 2026, 11:15 AM

Open orders

Order ↕	Part number ↕	Qty ↕	Status ↕	Due ↕
MO-2026-0006	LA-1024-1	8	Final inspection	10/30/2026
MO-2026-0004	LA-5530-1	50	On hold	11/6/2026
MO-2026-0003	LA-2210-3	4	In work	11/20/2026
MO-2026-0007	LA-1024-1	6	Planned	12/12/2026
MO-2026-0005	LA-1024-1	6	Planned	12/18/2026

Production → Overview for Leesburg Aviation. Tabs are grouped: Work, Quality, Configuration, Certification and System.

The same work shows on the Mechanic app's Home: a "Production travelers" box lists the operations waiting for inspection and the orders in work. A machinist signs operations from the phone, and an inspector accepts or rejects them and types in measurements next to the part (section 5).

2 What you're approved to make

Approvals is the register of what the organization holds: the PMA, the STC, the production certificate application, with eligibility, limitations and the approval documents. A product is made under one of them, and the database refuses to release an order while its approval is suspended.

Approvals held

Add an approval

The design and production approvals the organization holds. Products are made under one of them; an order can't be released while its approval is suspended.

Kind	Number	Title	Authority	Issued	Covers	Status	Products
PC	Application 2026-01	Production certificate (application)	FAA			Pending	0
PMA	PQ4471CE	Engine accessory brackets and oil cooler adapters	FAA	11/14/2025	Lycoming O-360 and IO-360 series engines as installed on the models listed in the PMA supplement	Active	3
STC	SA02391NY	Electric cowl flap actuator installation	FAA	6/3/2024	Piper PA-28R series	Active	1

Approvals: PMA PQ4471CE, STC SA02391NY and the production certificate application.

Products is the part master: part number, the approval it's made under, the current revision, whether it's critical (kept 10 years and every characteristic inspected), serialized or made in lots, and the 45.15 marking.

Products (part master)							Active	Add a product
The part numbers you make. Each revision holds its design data, bill of materials, routing (the traveler) and inspection characteristics. A released revision is the product baseline and changes only through a change order.								
Part number ↕	Name ↕	Approval ↕	Rev ↕	Critical ↕	Serialized ↕	Status ↕		
LA-1024-1	Alternator mounting bracket	PMA PQ4471CE	B		Yes	Released		
LA-2210-3	Oil cooler adapter	PMA PQ4471CE	A	Critical	Yes	Released		
LA-5530-1	Cowl flap actuator rod end	STC SA02391NY	A		Lot	Released		
LA-8800-1	Engine baffle seal kit	PMA PQ4471CE	—		Lot	Development		

Products. LA-8800-1 is still in development: no revision released, so nothing can be ordered.

A revision is the design the shop builds to

Each revision holds its **design data** (drawings, specifications, test procedures, files), the **bill of materials**, the **routing** (the operations that become the traveler, with work center, instructions, inspection point and special process) and the **inspection characteristics** with their limits, the balloon numbers of AS9102 form 3. While it's a draft, engineering edits it; once released it is the **product baseline** and is locked: the only way to change it is a change order and a new revision (section 8).

LA-1024-1 revision B

Released

Released Apr 8, 2026, 9:00 AM by s.lindqvist@example.com. This is the product baseline; it changes only with a change order (a new revision).

Design data (21.137(a))

Kind	Number	Rev	Title	File
Drawing	LA-1024-1	B	Alternator mounting bracket	
Specification	LA-PS-001	C	Part marking process specification	
Test procedure	LA-TP-1024	A	Static load test procedure	
Manual / ICA	LA-ICA-1024	A	Instructions for continued airworthiness	

Bill of materials

Line	Part number	Stores part	Qty per	Unit	Critical	Optional
10	QQ-A-225/6 2024-T351	—	0.4	FT	☐	☐
20	NAS77B4-012	—	2	EA	☒	☐

Routing (the traveler)

Op	Operation	Work center	Instructions	Inspection	Special process	Hours
10	Saw cut bar s	Saw	Cut 4.75 in blanks. Transfer the heat lot number to each blank.	None	—	0.1
20	CNC machine	Mill-2	Program LA1024-B.nc. First piece to QC before running the	Inspect	—	0.8
30	Deburr and b	Bench	Break all edges 0.005-0.015.	None	—	0.2
40	Fluorescent p	NDT	ASTM E1417 Type 1 Method A Level 3. No relevant indications	Inspect	Fluorescent penetrant in:	0.3
50	Anodize Type	Outside	Send to an ASL source for MIL-A-8625 Type II Class 1, A of B	Inspect	Sulfuric acid anodize (MI	0
60	Press bushin	Bench	Press NAS77B4-012 bushings. Vibro-etch marking per LA-PS-001	Inspect	—	0.2
70	Final inspecti	QC	All characteristics, marking and paperwork.	Inspect	—	0.3

LA-1024-1 revision B, released by ECO-2026-001: design data, bill of materials, routing and characteristics, all fixed.

3 Planning the order

The planner plans an order from a product's released revision: quantity, due date, customer and the customer's order number (it goes into block 5 of the 8130-3). **Release the order** copies the routing into the traveler, numbers the serials (or gives the lot number), and checks whether a first article inspection is due: a new part, a design change, or two years without making it.

Production orders							Open	Plan an order
Order	Part number	Qty	Serials / lot	Customer	Due	FAI	Status	
MO-2026-0007	LA-1024-1	6		Prairie Wings Maintenance (Canada)	12/12/2026		Planned	
MO-2026-0005	LA-1024-1	6		Northfield Flight Center	12/18/2026		Planned	
MO-2026-0004	LA-5530-1	50	MO-2026-0004	Stock	11/6/2026		On hold	
MO-2026-0003	LA-2210-3	4	LA20260024, LA20260025, LA20260026, LA20260027	Valley Aero Supply	11/20/2026	FAI	In work	
MO-2026-0006	LA-1024-1	8	LA20260016, LA20260017, LA20260018, LA20260019, LA20260020, LA20260021, LA20260022, LA20260023	Stock	10/30/2026		Final inspection	

Orders: planned, in work, on hold, at final inspection, complete and closed. The FAI flag shows which orders carry a first article.

Contract review

Before an order goes to the floor, the planner or quality reviews the contract (AS9100 8.2.3): the product and its requirements are defined, special requirements are identified (key characteristics, source inspection, export, packaging), we can meet them, the date can be met, differences from the quote are resolved, and operational risks are known. Every point has to be yes before it's signed. In Settings, the organization can make the review a condition for releasing the order.

Contract review

Special requirements: FAA 8130-3. Deliver by the due date: aircraft on ground at the customer.

☐ The product and its requirements are defined (part number, revision, quantity, the release form wanted)

☐ Special requirements are identified (key characteristics, customer source inspection, export, packaging)

☐ We can meet them: approval covers it, capacity, material, special processes, gauges

☐ The delivery date can be met

☐ Any difference from an earlier quote or order is resolved with the customer

☐ Operational risks are identified (new technology, short lead times, single sources)

Special requirements Note

FAA 8130-3. Deliver by the due date: aircraft on ground at the customer.

[Sign the contract review](#)

MO-2026-0005 for Northfield Flight Center, planned, with its contract review waiting.

Material from Stores, only from where it should come from

Issue from Stores on a BOM line picks the stock and takes it out of Stores against the order, keeping the serial or heat lot, the certificate and the source with the order for traceability. The database refuses material that

- wasn't accepted at receiving inspection, or is flagged as a suspected unapproved or counterfeit part;
- has no verified certificate when the part needs one;
- came from a supplier that isn't approved in Stores, or is disapproved on the production approved supplier list;
- isn't the part number on the BOM (unless it's an approved alternate).

A quality manager can override with a reason, which is printed on the traveler next to the material.

4 The traveler

Each operation is signed in order: the operator can't sign op 30 while op 20 is open. After the operator signs **done**, the operation waits for the inspector's buy-off, and the inspector can't be the person who did the work. Operations marked "no buy-off" are accepted when they're signed. A planner or engineer can mark one N/A, with the reason.

MO-2026-0003 - LA-2210-3 rev A - 4 EA
In work

Oil cooler adapter - Valley Aero Supply - PO 46210 - due 11/20/2026 - released 10/5/2026 by t.nakamura@example.com

First article inspection needed (New part). FAI-2026-003: open. The 8130-3 can't be issued until it's accepted.
Open the FAI

Serial numbers / lot
LA20260024 - In work
LA20260025 - Nonconforming
LA20260026 - In work
LA20260027 - In work

Traveler
Gauge for new results
No gauge (visual)

10
Saw cut bar stock - Saw - no buy-off
Cut 3.10 in blanks. Transfer the heat lot number.
Done Oct 6, 2026, 9:00 AM by d.alvarez@example.com
Accepted

20
CNC turn and mill - Lathe-1
Program LA2210-A.nc. 100% inspection of the groove and threads.
Done Oct 9, 2026, 3:30 PM by d.alvarez@example.com - Inspected Oct 9, 2026, 4:20 PM by m.okafor@example.com - S/N LA20260025 groove underside: NCR-2026-005
Accepted

#	Characteristic	Requirement	LA20260024	LA20260025	LA20260026	LA20260027
1 KC	O-ring groove diameter	0.866 in (0.863 to 0.869)	0.86663 Again	0.8615 Again	0.86493 Again	0.866 Again
2 KC	Thread 3/4-16 UNF-3B	Pass / fail	Pass Again	Pass Again	Pass Again	Pass Again
3	Sealing face flatness	0 in (0 to 0.002)	0.00079 Again	0.00075 Again	0.00092 Again	0.00145 Again
4	Overall length	3 in (2.995 to 3.005)	2.9987 Again	2.9989 Again	3.0012 Again	3.0015 Again

30
Solution heat treat and age to T6 (outside) - Outside -
Special process: Solution heat treat and age (aluminum)
AMS 2770 at an ASL source. Furnace chart, hardness and conductivity with the cert.
Done Oct 26, 2026, 11:15 AM by t.nakamura@example.com at Blue Ridge Heat Treating, Inc. (C of C BRHT-C-118432) - Back from Blue Ridge Heat Treating with cert BRHT-C-118432. Waiting for receiving inspection.
Done to inspect
Accept
Reject

#	Characteristic	Requirement	LA20260024	LA20260025	LA20260026	LA20260027
5 KC	Hardness after heat treat	min 47 HRB	Value	Value	Value	Value

40
Fluorescent penetrant inspection - NDT - Special process: Fluorescent penetrant inspection
Open
Sign done
N/A

#	Characteristic	Requirement	LA20260024	LA20260025	LA20260026	LA20260027
6	Penetrant: no relevant indications	Pass / fail	Result	Result	Result	Result

50
Anodize Type II (outside) - Outside - Special process: Sulfuric acid anodize
Open
Sign done
N/A

60
Pressure test - Test
LA-TP-2210: 300 psi oil for 5 minutes, no leaks.
Open
Sign done
N/A

#	Characteristic	Requirement	LA20260024	LA20260025	LA20260026	LA20260027
7 KC	Pressure test, no leaks	Pass / fail	Result	Result	Result	Result

70
Mark and final inspection - QC
Dot-peen per LA-PS-001. All characteristics (critical part).
Open
Sign done
N/A

#	Characteristic	Requirement	LA20260024	LA20260025	LA20260026	LA20260027
8	Part marking per 45.15	Pass / fail	Result	Result	Result	Result

Material (traceability)

Line	Part number	Needed	Issued
10	AMS 4115 6061-T4 Critical	1 FT	1
20	MS29513-016	4 EA	0

Issue from Stores

Part number	Serial / batch	Qty	Certificate	Source	Issued
AMS 4115 6061-T4	HT 4479015	1	Mill cert AAM-880003	Atlantic Aerospace Metals	Oct 5, 2026, 9:00 AM d.alvarez@example.com

Nonconformance

NCR-2026-005	O-ring groove diameter undersize	Dispositioned	rework
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Traveler (PDF)
Raise a nonconformance
Put on hold
Cancel the order
Close

MO-2026-0003 on the website. Op 10 needs no buy-off, op 20 is accepted with its measurements per serial (the red 0.8615 is the undersize groove), op 30 was done outside at Blue Ridge Heat Treating with their certificate and waits for receiving inspection, op 40 onward is open. The material issued and the NCR on this order are at the bottom.

Labor hours. Operators log their hours against the operation (a planner can log them for others). The order shows actual against the routing's estimate per operation, and flags an operation more than 20% over.

Contract review

Special requirements: FAA 8130-3 with each part. Pack each part separately, VCI bag.

Reviewed 1/18/2026 by t.nakamura@example.com. Repeat order, same terms as PO 41190.

Labor hours

11.0 h actual of 9.5 h estimated (116%)

Op	Operation	Estimated	Actual
10	Saw cut bar stock	0.5	0.5
20	CNC machine complete	4.0	5.0
30	Deburr and break edges	1.0	1.0
40	Fluorescent penetrant inspection	1.5	1.8
50	Anodize Type II (outside)	0.0	
60	Press bushings and mark	1.0	1.0
70	Final inspection	1.5	1.8

MO-2026-0001: contract review done before release, and 11.0 hours actual against 9.5 estimated; op 20 ran over.

5 Inspection

Every characteristic gets a result for each serial number: a value against the limits, or pass / fail for an attribute (thread gauge, visual, penetrant). Pass or fail is worked out by the database from the drawing limits, not typed. The inspector picks the gauge, and **a gauge overdue for calibration is refused** (21.137(f)). Re-measuring after rework keeps the first result as superseded. An operation can't be accepted until each of its characteristics has a passing result for every serial; a failing value offers to raise a nonconformance report at once.

Special processes

Heat treat, penetrant inspection, anodize, passivation: processes whose result can't be fully checked afterwards. When an operation has one, signing it asks **who did it**. In house, the person signing must hold a current qualification for that process (Special processes → qualified people, with level and expiry). Outside, the source must be on the approved supplier list for that process, and its certificate of conformance number is recorded.

Special processes						Add a process
Processes whose result can't be fully checked afterwards (heat treat, HDT, plating, welding, ...) done only by qualified people or approved sources, to a controlled specification (21.137(f), AS9100 8.5.1.2). An operation with a special process can't be signed by anyone else.						
Process	Kind	Specification	Where	Qualified people	Approved sources	
Fluorescent penetrant inspection	Nondestructive testing	ASTM E1417 Type I, Method A, Sensitivity Level 3	In house	1 1 signed		
Passivation (stainless)	Chemical processing	AMS 2700 Method 1, Type 6	In house	2		
Sulfuric acid heat treat and age (aluminum)	Heat treating	AMS 2720 - Nadcap	Outside	0	Blue Ridge Heat Treating, Inc.	
Sulfuric acid anodize	Chemical processing	MIL-A-8625 Type II, Class 1 - Nadcap	Outside	0	Shenandoah Metal Finishing	

Special processes with specification, Nadcap flag, qualified people and approved sources.

Approved supplier list							Approve a supplier for a scope
What each supplier is approved to provide for production (21.137(f), AS9100 8.4), on top of the supplier's overall approval in Stores. Material from a supplier that isn't approved is refused when it's issued to an order. Counterfeit part prevention (AS9120B 8.3.4): buy from the manufacturer or its authorized distributors; independent distributors only to AS9091 / AS9120 with the test reports.							
Supplier	Stores approval	Scope	Basic / certificate	Expiry	Flow-down	Status	
Blue Ridge Heat Treating, Inc.	approved	Special process: Solution heat treat and age (aluminum) Solution heat treat and age - 6061 and 2024 aluminum	Nadcap Heat Treating accreditation: AS9100D - Nadcap HT sample sent on file	3/31/2027	Acknowledged 10/2/2025	Approved	
Shenandoah Metal Finishing	approved	Special process: Sulfuric acid anodize Anodize Type II, Class 1 and 2	Nadcap Chemical Processing: AS9100D - Nadcap CP sample sent on file	11/25/2026	Acknowledged 11/20/2025	Approved	
Atlantic Aerospace Metals	approved	Raw material Aluminum and stainless bar stock with mill certs	AS9120B certificate: annual survey - AS9120B (sample)	8/14/2027	Acknowledged 8/14/2025	Approved	
Piedmont Fasteners Supply	conditional	Distributor M6 / M8 / M10 standard hardware	ISO 9001 only: AS9120 audit pending, 100% receiving inspection and C of C review	12/31/2026	Acknowledged 6/30/2026	Conditional	
Tri-County Calibration Lab	approved	Calibration Gauge calibration: micrometers, calipers, bore gauges, hardness testers	ISO/IEC 17025 accreditation - 17025 (sample)	6/9/2026	Acknowledged 5/9/2025	Approved	
Harbor Point Aero Surplus	disapproved	Distributor Surplus hardware	Parts supplied without traceable certificates (supplier audit, Dec 2025)		Not yet	Disapproved	

Approved supplier list by scope: what each supplier may provide, its basis and certificate, expiry and flow-down acknowledgment.

A purchase order to a supplier on this list prints the organization's **production requirements** (right of access, notification of nonconforming product, changes need approval, record retention, counterfeit prevention) after the Stores quality clauses, on the PO PDF and on the supplier's portal.

When a gauge turns out to be wrong

If calibration finds a gauge out of tolerance, everything it measured since its last good calibration is suspect (21.137(f)). **Gauges → A gauge was found out of tolerance** lists those measurements by order and serial, flags parts that are already released or shipped and results close to a limit, and raises a nonconformance report per order from there. The evaluation (how far out, what was re-measured, who was told) is recorded before the recall closes.

Gauge recall · BG-0375-02

Evaluated

Found out of tolerance 10/25/2026 · measurements since 4/11/2026 · recorded by r.whitfield@example.com · Tri-County Calibration Lab, certificate TCL-26-04418: as found +0.00018 in at 0.3750 in (limit ±0.00010). Adjusted and recalibrated, as left +0.00002.

MO-2026-0002 · LA-1024-1

9 result(s) on parts that left

Raise a nonconformance

LA20260006	2 Mounting bore diameter	0.37544	Shipped	4/23/2026
LA20260007	2 Mounting bore diameter	0.37522	Shipped	4/23/2026
LA20260008	2 Mounting bore diameter	0.3762	Shipped	4/23/2026
LA20260009	2 Mounting bore diameter	0.37556	Shipped	4/23/2026
LA20260010	2 Mounting bore diameter	0.37563	Shipped	4/23/2026
LA20260011	2 Mounting bore diameter	0.37531	Shipped	4/23/2026
LA20260012	2 Mounting bore diameter	0.37541	Released (8130-3)	4/23/2026
LA20260013	2 Mounting bore diameter	0.37553	Released (8130-3)	4/23/2026
LA20260014	2 Mounting bore diameter	0.37573	Released (8130-3)	4/23/2026
LA20260015	2 Mounting bore diameter	0.37552	Scrapped	4/23/2026

Bore gauge BG-0375-02 read 0.00018 in high at calibration: 18 measurements since April, 9 on parts that already shipped. The lowest still clears the limit.

Gauge R&R. A measurement system analysis by the AIAG average and range method (2 or 3 operators, up to 10 parts, 2 or 3 trials) gives repeatability, reproducibility, %GRR of the total variation and of the tolerance, and the number of distinct categories, with a verdict.

Micrometer on LA-1024-1 web thickness (char 3)

Marginal

Title

Gauge

Tolerance (USL - LSL)

Operators (comma separated, 2 or 3)

Micrometer on LA-1024-1 web th

MIC-0231

0.01

D. Alvarez, M. Okafor, T. Nakam

Parts (2 to 10)

Trials (2 or 3)

Date

10

3

06/18/2026

Apply operators / parts / trials

Part	D. Alvarez 1	D. Alvarez 2	D. Alvarez 3	M. Okafor 1	M. Okafor 2	M. Okafor 3	T. Nakamura 1	T. Nakamura 2	T. Nakamura 3
1	0.1898	0.1897	0.19	0.1898	0.1901	0.1898	0.1891	0.1893	0.1895
2	0.1908	0.1905	0.1905	0.1909	0.1909	0.1905	0.1908	0.1906	0.1907
3	0.1946	0.1937	0.1936	0.1943	0.1939	0.1947	0.1939	0.1938	0.1937
4	0.1893	0.1897	0.1897	0.1898	0.1902	0.19	0.1897	0.19	0.1894
5	0.19	0.1901	0.1902	0.1907	0.1902	0.1907	0.1897	0.1905	0.1899
6	0.191	0.1911	0.1908	0.191	0.1915	0.1913	0.1909	0.1908	0.1902
7	0.1866	0.1874	0.1867	0.1875	0.1872	0.1877	0.1877	0.1875	0.187
8	0.1901	0.1897	0.1901	0.1905	0.1909	0.1903	0.1901	0.1899	0.1896
9	0.1909	0.1912	0.1922	0.1916	0.1916	0.1916	0.1909	0.1911	0.1913
10	0.1926	0.1929	0.1922	0.193	0.193	0.1928	0.1926	0.1925	0.1928

13.4%
Repeatability (EV)

9.8%
Reproducibility (AV)

16.6%
%GRR of total variation

21.5%
%GRR of tolerance

8
distinct categories

Close

Calculate and save

The micrometer on the web thickness: 16.6% of the variation, 21.5% of the tolerance, 8 categories: marginal.

On the shop floor

The Mechanic app (iPhone, iPad, Android) has the same traveler: **Sign done, Accept, Reject** with a note (which raises the NCR), N/A, the special-process question, and a value box per characteristic and serial with the gauge picker. The database applies the same rules as on the website: sequence, independent inspection, qualification, calibrated gauges.

6 When it doesn't conform

A rejected operation, a failing measurement, a receiving inspection or a customer report raises a **nonconformance report**. It records what was found, the requirement it misses, the containment, and evidence photos. The **Material Review Board** then disposes it. Scrap, return to vendor and rework (back to the drawing) need one MRB member. **Use as is, repair and regrade** don't meet the drawing, so they need the departure classified minor or major, the approved data the part is accepted to, and two signatures, one of them engineering. Rework and repair are closed only after the re-inspection is recorded, and the operation reopens for it.

Nonconformance reports									
Nonconforming parts and material are identified, segregated and dispositioned by the Material Review Board (21.1370). A suspected unapproved or counterfeit part is quarantined in Stores.									
NCR #	Title	Source	Part number	Serials	Qty	Disposition	Raised	Status	
NCR-2026-004	Suspected counterfeit washers	Receiving inspection	AN900C10L	Lot 26-1007	500		10/22/2026	Open	
NCR-2026-003	Overall length over the maximum	Production	LA-5530-1	Lot MO-2026-0004	50		10/20/2026	At the MRB	
NCR-2026-005	O-ring groove diameter undersize	Production	LA-2210-3	LA20260025	1	Rework (to the drawing)	10/9/2026	Dispositioned	

Nonconformance reports in the sample, from production, receiving and the field.

NCR-2026-003 - Overall length over the maximum

Production - LA-5530-1 - Lot MO-2026-0004 - qty 50 - order [MO-2026-0004](#) - raised Oct 20, 2026, 9:15 AM by m.okafor@example.com

Requirement not met Suspected unapproved / counterfeit

LA-5530-1 rev A, characteristic 1 No

What was found
Sample of 5: two at 1.258 in (limit 1.245-1.255). Bar stop moved. Whole lot suspect until sorted.

Containment
Lot held at the lathe. Order on hold.

Material Review Board

Engineering s.lindqvist@example.com Oct 21, 2026, 10:30 AM Proposed: 100% sort; rework over-length parts by facing to 1.250 ±0.005, re-inspect.

Disposition Departure from design Approved data (engineering order, SRM, DER data...)

Rework (to the drawing) Minor

Reason

Sign the disposition

Corrective action

Repeat or significant nonconformances get a corrective action (root cause, 21.1370(i)).

Raise a corrective action

PDF Cancel the report Close Save

NCR-2026-003 at the MRB: one signature so far.

Suspected unapproved or counterfeit parts. Marking a report as a suspected unapproved or counterfeit part quarantines the stock in Stores at once and flags it, so it can't be issued to an order. Such a part can't be used, repaired or reworked; the screen offers the draft of the FAA unapproved part report (Form 8120-11).

NCR-2026-004 - Suspected counterfeit washers

Open

Receiving inspection · AN960C10L · Lot 26-1007 · qty 500 · Piedmont Fasteners Supply · raised Oct 22, 2026, 1:40 PM by m.okafor@example.com

Suspected counterfeit part. Quarantined; never used, repaired or returned to the supplier for credit until the investigation is done. Report it to the FAA (unapproved parts: FAA Form 8120-11; GIDEP where applicable).

Requirement not met

Suspected unapproved / counterfeit

PO flow-down: traceability to the

Suspected counterfeit part

What was found

Head marking and packaging differ from the OEM; C of C traces to a broker not named on the PO. Hardness below the spec on 3 of 10.

Containment

Quarantined in the bonded cage, tag Q-1187. Supplier notified. GIDEP report being prepared.

Material Review Board

No signatures yet.

Disposition

Departure from design

Approved data (engineering order, SRM, DER data ...)

Rework (to the drawing)

Minor

Reason

Sign the disposition

Corrective action

Repeat or significant nonconformances get a corrective action (root cause, 21.137(l)).

Raise a corrective action

PDF

FAA unapproved part report (draft)

Send to the MRB

Cancel the report

Close

Save

NCR-2026-004: washers with head marking and packaging that differ from the OEM's, from a conditionally approved distributor. Quarantined in the bonded cage.

Any report can raise a **corrective action** in Quality → Findings (root cause, actions, effectiveness check), and a part that had already left becomes a **quality escape** (section 10).

7 Final inspection and the first article

When every operation is bought off, the order goes to **final inspection**. The inspector's "conforms" is refused while any characteristic lacks a passing result for any serial, the BOM isn't fully issued, or a nonconformance on the order is still open. Completing it writes the **as-built record**: the revision built to, every operation with who signed it and when, every material with its serial or lot and certificate, the NCRs and their dispositions. It also sets how long the records are kept.

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MO-2026-0006 · LA-1024-1 rev B · 8 EA
Final inspection

Alternator mounting bracket · Stock · due 10/30/2026 · released 9/15/2026 by t.nakamura@example.com

Serial numbers / lot

LA20260016 · Conforming
LA20260017 · Conforming
LA20260018 · Conforming
LA20260019 · Conforming
LA20260020 · Conforming
LA20260021 · Conforming
LA20260022 · Conforming
LA20260023 · Conforming

Traveler

Gauge for new results
No gauge (visual)

10
Saw cut bar stock · Saw · no buy-off

Done: to inspect
Accept
Reject

Cut 4.75 in blanks. Transfer the heat lot number to each blank.
Done Sep 16, 2026, 2:00 PM by d.alvarez@example.com

20
CNC machine complete · Mill-2

Accepted

Program LA1024-B.nc. First piece to QC before running the order.
Done Sep 17, 2026, 8:00 PM by d.alvarez@example.com · inspected Sep 17, 2026, 10:00 PM by m.okafor@example.com

#	Characteristic	Requirement	LA20260016	LA20260017	LA20260018	LA20260019	LA20260020
1	Overall length	4.5 in (4.49 to 4.51)	4.4971 Again	4.4979 Again	4.4997 Again	4.5046 Again	4.4994 A
2	Mounting bore diameter	0.375 in (0.375 to 0.376)	0.37539 Again	0.37549 Again	0.3757 Again	0.37573 Again	0.37547
3	Web thickness	0.19 in (0.185 to 0.195)	0.1891 Again	0.19 Again	0.1921 Again	0.1899 Again	0.1886 A
4	Web-to-flange radius	0.09 in (0.08 to 0.1)	0.0897 Again	0.0918 Again	0.0936 Again	0.0869 Again	0.088 A
5	Bore true position	0 in dia (0 to 0.005)	0.00277 Again	0.00329 Again	0.00267 Again	0.00151 Again	0.00233
6	Surface finish, bore	max 63 µin Ra	39.5 Again	42.6 Again	27.7 Again	28.1 Again	36.1 Ag

30
Deburr and break edges · Bench · no buy-off

Done: to inspect
Accept
Reject

Break all edges 0.005–0.015.
Done Sep 19, 2026, 2:00 AM by d.alvarez@example.com

MO-2026-0006, eight LA-1024-1 brackets waiting for final inspection.

First article inspection (AS9102). Form 1 (part number accountability) and form 2 (materials, special processes, functional tests) are filled from the order's own records; form 3 (characteristic accountability) comes from the first article's measurements. A delta FAI after a change covers only the characteristics the change affects. Accepting it is the quality manager's, and the database checks that form 3 is complete and passing. The 8130-3 can't be signed until the FAI for the revision is accepted.

FAI-2026-002 · LA-1024-1 rev B

Accepted

Design change · accepted May 4, 2026, 11:30 AM by r.whitfield@example.com: Delta FAI for ECO-2026-001: characteristics 3 and 4.

Form 1: part number accountability

Reason

First article (serial / lot)

Full or partial

Design change

LA20260006

Partial (delta) FAI

Part LA-1024-1 Alternator mounting bracket · drawing LA-1024-1 B · order MO-2026-0002 · Leesburg Aviation, LLC

Form 2: materials, special processes, functional tests

Kind ↕	Material / process / test ↕	Specification / certificate ↕	Source ↕
Material	QQ-A-225/6 2024-T351 HT 4473390	Mill cert AAM-880002	Atlantic Aerospace Metals
Material	NAS77B4-012 LOT 25-0912	C of C PFS-COC-77120	Piedmont Fasteners Supply
Special process	Op 40 Fluorescent penetrant inspection	ASTM E1417 Type 1, Method A, Sensitivity Level 3	In house
Special process	Op 50 Sulfuric acid anodize	MIL-A-8625 Type II, Class 1 · SMF-C-20644	Shenandoah Metal Finishing

Form 3: characteristic accountability

Results come from the order's inspection of the first article. Partial FAI: tick the characteristics the change affects.

In scope	#	Characteristic	Requirement	Result	Gauge	
☐	1	Overall length	4.5 in (4.49 to 4.51)	4.5028	CAL-0114	Conforms
☐	2	Mounting bore diameter	0.375 in (0.375 to 0.376)	0.37544	BG-0375-02	Conforms
☒	3	Web thickness	0.19 in (0.185 to 0.195)	0.1885	MIC-0231	Conforms
☒	4	Web-to-flange radius	0.09 in (0.08 to 0.1)	0.0855	RG-0007	Conforms
☐	5	Bore true position	0 in dia (0 to 0.005)	0.00164	CMM-01	Conforms
☐	6	Surface finish, bore	max 63 µin Ra	34	SRT-0003	Conforms
☐	7	Penetrant: no relevant indications	Pass / fail	Pass		Conforms
☐	8	Anodize coverage and color	Pass / fail	Pass		Conforms
☐	9	Part marking per 45.15	Pass / fail	Pass		Conforms

AS9102 forms (PDF)

Close

FAI-2026-002, the delta FAI for LA-1024-1 rev B: characteristics 3 and 4 changed with the larger radius.

8 The release

From a complete order, **Prepare the 8130-3** fills the form: authority, organization and address, the customer's order number, description, part number, the serial numbers or lot, NEW in block 11, remarks with the approval and marking, and the approval number. Only an **authorized signatory** can sign it, and the database checks the order is complete, the parts are conforming, the FAI is accepted and no nonconformance is open. Signing gives the form tracking number, puts the signatory's name in block 13d and the date in 13e, and marks the serial numbers released. A void form puts the parts back to conforming without a release, and stays on file.

For an organization producing under an EASA production organisation approval, the same screen issues an **EASA Form 1** with the POA reference in block 13c. For an **export**, the importing country and its special requirements are entered on the draft and stated in block 12 (21.331 to 21.335).

FAA Form 8130-3 LA-2026-00004 Issued

Order MO-2026-0002. Issued 6/3/2026 by R. Whitfield.

Form	1. Authority / country	4. Organization	5. Work order / contract / invoice
FAA Form 8130-3	FAA, United States	Leesburg Aviation, LLC	MO-2026-0002
6. Item	7. Description	8. Part number	11. Status / work
1	Alternator mounting bracket	LA-1024-1	New
13a. Conforms to	13c. Approval / authorization number		
Approved design data, in cor	PQ4471CE		
4. Address			
Hangar 4, Leesburg Executive Airport (JYO) Leesburg, VA 20175, USA			
9 / 10. Parts covered ☒ LA20260012 ☒ LA20260013 ☒ LA20260014			
12. Remarks			
Rev B (ECO-2026-001). PMA PQ4471CE. Replaces LA-2026-00003 (void).			
PDF		Void	
		Close	

LA-2026-00004 issued for MO-2026-0002.

1. Approving Civil Aviation Authority/Country FAA, United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, Airworthiness Approval Tag			3. Form Tracking Number LA-2026-00004	
4. Organization Name and Address Leesburg Aviation, LLC Hangar 4, Leesburg Executive Airport (JYO) Leesburg, VA 20175, USA				5. Work Order/Contract/Invoice Number MO-2026-0002		
6. Item	7. Description	8. Part Number	9. Quantity	10. Serial/Batch Number	11. Status/Work	
1	Alternator mounting bracket	LA-1024-1	3	LA20260012, LA20260013, LA20260014	New	
12. Remarks Rev B (ECO-2026-001). PMA PQ4471CE. Replaces LA-2026-00003 (void).						
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.						
14a. Not applicable: new parts (maintenance return to service is not certified on this form).						
13b. Authorized Signature Signed electronically: R. Whitfield		13c. Approval/Authorization No. PQ4471CE		14b. Authorized Signature		
13d. Name (Typed or Printed) R. Whitfield		13e. Date (dd/mm/yyyy) 03/Jun/2026		14c. Certificate/Approval Ref. No.		
14d. Date (dd/mm/yyyy)						

User / Installer: this certificate alone does not authorize installation. Check that the article is eligible for the aircraft or product and that it is installed and returned to service in accordance with the applicable regulations.

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The PDF in the Form 8130-3 block layout. Maintenance blocks 14a to 14e are left blank for new parts.

9 / 10. Parts covered ☒ LA20260016 ☒ LA20260017 ☒ LA20260018 ☒ LA20260019 ☒ LA20260020 ☒ LA20260021 ☒ LA20260022 ☒

LA20260023

Export to (country)

Canada

Importing authority's requirements met

TCCA, Canada-US BASA impler

12. Remarks

Rev B. PMA PQ4471CE.
Export approval: this part conforms to its approved design and meets the special import requirements of Canada (TCCA, Canada-US BASA implementation procedures).

The draft release for MO-2026-0006 with the export line for Canada in block 12.

Shipping

Released parts go out on a **shipment**: the customer and their order, the address, carrier and tracking. Only parts with a release form can be added. **Ship it** numbers the shipment and marks each serial shipped to that customer, so a field report

or an escape finds who holds which part. The packing slip prints with the **certificate of conformance** in the organization's own words (Settings). After shipping, only carrier and tracking can still be added.

Shipping

New shipment

Released parts (with their 8130-3 / EASA Form 1) go out on a shipment with a packing slip and a certificate of conformance. Shipping marks each serial number shipped to the customer, so field reports and escapes find who has which part. 3 released parts() waiting to ship.

Shipment	Customer	Customer order	Parts	Carrier / tracking	Shipped	Status
Draft	Northfield Flight Center	PO NFC-2026-118	3	FedEx 2Day		Draft
SH-2026-0002	Northfield Flight Center	PO NFC-2026-118	4	FedEx 2Day 7781 4420 9915	May 23, 2026, 9:00 AM	Shipped
SH-2026-0001	Valley Aero Supply	PO 46871	3	UPS Ground 1284F2292312847754	Feb 11, 2026, 10:00 AM	Shipped

Shipments: two shipped, the balance of Northfield's order in draft.

Packing slip and certificate of conformance

SH-2026-0002

Shipment

From

Customer

Customer order

Ship to

Carrier / tracking

Shipped

SH-2026-0002

Leesburg Aviation, LLC
Hangar 4, Leesburg Executive Airport (JYO)
Leesburg, VA 20175, USA

Northfield Flight Center

PO NFC-2026-118

Northfield Flight Center, Maintenance
Hangar 2, 410 Aviation Way
Lancaster, PA 17601

FedEx 2Day 7781 4420 9915

May 23, 2026, 9:00 AM

Contents

Part number	Description	Serial / lot	Qty	Release form
LA-1024-1	Alternator mounting bracket	LA20260006	1	LA-2026-00002
LA-1024-1	Alternator mounting bracket	LA20260007	1	LA-2026-00002
LA-1024-1	Alternator mounting bracket	LA20260008	1	LA-2026-00002
LA-1024-1	Alternator mounting bracket	LA20260009	1	LA-2026-00002
LA-1024-1	Alternator mounting bracket	LA20260010	1	LA-2026-00002
LA-1024-1	Alternator mounting bracket	LA20260011	1	LA-2026-00002

Certificate of conformance

Leesburg Aviation, LLC certifies that the parts listed above were manufactured and inspected under PMA PQ4471CE / STC SA02391NY in conformity with the approved design data and the requirements of the purchase order, and that each is accompanied by the FAA Form 8130-3 listed. Inspection and test records are on file and available for review for 10 years.

Approval

PQ4471CE

Certified by

j.osei@example.com (electronically), 5/23/2026

SH-2026-0002: packing slip and certificate of conformance.

9 Changing the design

A released revision changes only through an **engineering change order**: why, what changes, the classification under 14 CFR 21.93 (minor, or major with an appreciable effect on weight, balance, strength, reliability or other airworthiness characteristics), effectivity (from the next order, immediately, from a serial or a date), what happens to work in progress, and whether a delta FAI is needed. Engineering drafts the new revision from the current one and makes the change there. Engineering and quality both approve; a **major change can't be approved by quality without the FAA's approval reference** (an amended STC, a PMA supplement). Releasing it makes the new revision current, supersedes the old one and records a new product baseline.

ECO-2026-002 - LA-1024-1 - Change material to 7075-T7351

In review

Revision B → C - started by s.lindqvist@example.com 10/1/2026

Major change (21.93): it needs the FAA's approval (an amended STC / TC, a PMA supplement ...) before quality approves it. Enter the approval's reference.

Title

Change material to 7075-T7351

New revision

C

Classification (21.93)

Major (21.93): FAA approval

FAA approval of a major change

Effectivity

From (serial / date / order)

From a serial number

From the first serial number mac

Work in progress

Work in progress: finish to th

Delta first article inspection

☐

Reason

Supply: 2024-T351 bar in this size has a 26-week lead time. 7075-T7351 is stocked by our distributor.

What changes (drawings, BOM, routing, characteristics)

Change the material from 2024-T351 to 7075-T7351 (BOM line 10). Re-run the static load test LA-TP-1024. Update the stress analysis.

Why minor / major

Material change to a PMA part: needs the FAA's approval of the design change (PMA supplement) before release.

New revision

Revision C Draft

Open revision C

Change its design data, BOM, routing and characteristics there. It's released with this change.

Approvals

Engineering approved s.lindqvist@example.com Oct 9, 2026, 4:05 PM - Test report LA-TR-1024-C submitted with the PMA supplement request.

Approve

Reject

Quality

Approve

Reject

Save PDF Back to draft Cancel the change Close

ECO-2026-002: the material change to 7075-T7351, classified major, approved by engineering, waiting for the FAA's approval of the PMA supplement.

From the PLM. Engineering organizations that run Teamcenter, Windchill or 3DEXPERIENCE send released item revisions to MRO Tracker's partner API; they wait in **PLM** until an engineer applies them. A first revision becomes a draft revision; a later one becomes a change order with the new revision drafted from the PLM's drawings, BOM and characteristics (the routing stays as planned here). A small shop can upload a JSON or a BOM spreadsheet instead.

PLM inbox

Add from a file

Released item revisions from Teamcenter, Windchill or 3DEXPERIENCE. The PLM sends them to the partner API (POST /api/v3/p/ta_inbox; a super admin sets up the connection in Admin → API Partners, with the plm_inbox resource). An engineer applies each one: a first revision becomes a draft revision; a later one becomes a change order with the new revision drafted from it. The routing stays as planned here. BOM, characteristics and documents come from the PLM.

What the PLM sends

Received

From

Part number

Rev

Change

Contents

Status

Oct 27, 2026, 4:42 PM

Windchill
WTPart LA-2210-3 B.1

LA-2210-3

B

ECN-0117

2 documents - 0 BOM lines - 3 characteristics

New

Oct 9, 2026, 8:10 AM

Windchill
WTPart LA-1024-1 C.3

LA-1024-1

C

ECN-0309

1 documents - 0 BOM lines - 0 characteristics

Rejected

PLM inbox: LA-2210-3 rev B from Windchill (ECN-0117, the wider groove tolerance after NCR-2026-005).

Engineering changes

Open

Start a change

Every change to released design data goes through a change order: classified minor or major (21.93), approved by engineering and quality, then released as a new revision (configuration management, A9100.8.1.2 / 8.5.4).

Change

Part number

Title

Rev

Class

Effectivity

Status

ECO-2026-003

LA-2210-3

Revise the part marking to the flat

A → B

Y

From the next order planned

Draft

ECO-2026-002

LA-1024-1

Change material to 7075-T7351

B → C

Major

From a serial number: From the first serial number made after release

In review

Changes in the sample: released, in review, draft.

LA-2210-3 rev B from Windchill

New

Received Oct 27, 2026, 4:42 PM - WTPart LA-2210-3 B.1

Change: ECN-0117 Wider O-ring groove tolerance (minor)
NCR-2026-005: groove undersize; tolerance opened per the seal maker

Documents

drawing

LA-2210-3

B

Oil cooler adapter

model

LA-2210-3 prt

B.1

3D model

Bill of materials

None (kept from the current revision)

Characteristics

1

O-ring groove diameter

1.375 in (1.372 to 1.378)

2

Port thread

Pass / fail

3

Overall height

1.25 in (1.24 to 1.26)

Reject

Close

Apply

What Apply turns into a change order.

Baselines. Besides the product baseline, engineering keeps the functional baseline (what the product must do) and the allocated baseline (what each item and supplier must meet), with requirement IDs, sources and how each is verified, per EIA-649.

10 After delivery: field reports, escapes and 21.3

Field reports log what operators, customers and repair stations report: a failure, malfunction or defect, with the part and serial number, aircraft and hours (21.137(m)). Each is evaluated: a nonconformance, a quality escape, or nothing to act on, with the reason.

Field reports

Log a field report

Failures, malfunctions and defects reported by operators, customers and repair stations (21.137(m)). Each is evaluated: a nonconformance, a quality escape, a possible 21.3 report.

Report	Received	From	Part number	Serial	Kind	Status
FR-2026-003	10/24/2026	Owner-operator	LA-5530-1		Malfunction	Evaluating
FR-2026-002	7/14/2026	Northfield Flight Center maintenance	LA-1024-1		Question / other	Closed
FR-2026-001	3/18/2026	Valley Aero Supply (for an owner-operator)	LA-1024-1	LA20260003	Failure	Closed

Field reports in the sample.

A **quality escape** is nonconforming product that already left. It records the affected serial numbers, containment and customer notice, and starts the clock for the **14 CFR 21.3 report**: 24 hours from the determination that a failure, malfunction or defect could result in one of the occurrences listed in 21.3(c) (72 hours for EASA, 21.A.3A). The quality manager decides whether it's reportable, drafts the report from the escape, and records when it went, to whom, and the reference. Until then MRO Tracker **alerts** the quality and production managers by email and Microsoft Teams when it's recorded, at half the window, at 4 hours and 1 hour left (with a text message), and when it's overdue.

QE-2026-003 - Supplier mill cert correction, heat lot HT 4473390

Open

LA-1024-1 - determined Oct 28, 2026, 10:17 AM - recorded by rwhitfield@example.com

21.3: report due by Oct 29, 2026, 10:17 AM (18 h left), if it could result in an occurrence listed in 21.3(c). Alerts go by email and Teams until it's reported or marked not reportable. Report to FAA Manufacturing Inspection District Office (MIDO).

Affected serial numbers / lots

MO-2026-0002: LA20260006 - I

Product has left the organization

What happened

Atlantic Aerospace Metals notified us that the mill cert for heat HT 4473390 listed the wrong temper. They are getting the corrected cert from the mill.

Containment (stock checked, parts recalled, customers told...)

Stock units LA20260012 - LA20260014 put on hold. Asked the supplier for the corrected cert and a hardness check on the drop.

Customers notified on

mm/dd/yyyy

Service bulletin / letter

Status

Open

21.3 decision (quality manager)

Reported to

Reference (FAA report number, email)

FAA Manufacturing Inspection D

Report text (what was sent)

Not reportable

Draft the report (PDF)

Record the 21.3 report

Linked

Raise a nonconformance

Raise a corrective action

Close

Save

QE-2026-003, a supplier mill cert correction: report due in 18 hours.

ICA and service bulletins

For each approval, **ICA and supplements** keeps the instructions for continued airworthiness, flight manual supplements, installation instructions and service bulletins by revision (a new revision supersedes the old), and the holders: owners, operators, repair stations and distributors. It shows who has the current revision and sends it to those without it, by email with a download link, or records it as sent by mail (21.50).

Quality escapes and 21.3 reports

Record a quality escape

Nonconforming product that left the organization (21.137(m)). A failure, malfunction or defect that could result in one of the occurrences in 21.3(c) is reported to the FAA within 24 hours of the determination (21.3).

Escape	Title	Affected	Determined	21.3	Status
QE-2026-003	Supplier mill cert correction, heat lot HT 4473390	MO-2026-0002: LA20260006 - LA20260014	Oct 28, 2026, 10:17 AM	Due in 18 h	Open
QE-2026-002	Fatigue crack at the bracket web radius	All rev A: LA20260001 - LA20260005	Mar 19, 2026, 2:00 PM	Reported 3/20/2026	Reported
QE-2026-001	PMA marking missing "TAA-PMA"	LA20260001 - LA20260005 (M40-2026-0001)	Feb 24, 2026, 10:00 AM	Not reportable	Closed

Escapes: one closed as not reportable, one reported, one open.

STC SA02391NY: ICA and supplements

Instructions for continued airworthiness, flight manual supplements and service bulletins are made available to every holder of the approval, and new revisions sent to them (21.50).

Documents

Kind	Number	Rev	Title	Issued	File	Holders who have it	Status
Flight manual supplement	LA-AFMS-5530	IR	Airplane flight manual supplement	11/3/2025		5 of 5	current
Instructions for continued airworthiness	LA-ICA-5530	B	Instructions for continued airworthiness, cowl flap actuator rod end	7/20/2026		3 of 5	current
Instructions for continued airworthiness	LA-ICA-5530	A	Instructions for continued airworthiness, cowl flap actuator rod end	11/3/2025			superseded
Installation instructions	LA-II-5530	A	Installation instructions	11/3/2025		5 of 5	current
Service bulletin	LA-SB-2026-02	-	Rod end replacement (AD 2026-19-04)	10/26/2026		0 of 5	current

Kind

Number

Revision

Title

Instructions for continued air

File

Choose File

No file chosen

What changed

Add the revision

Holders

Name	Organization	Email	Kind	Aircraft	Current revisions
Director of Maintenance	Northfield Flight Center	dom@northfield.example.com	operator	N4127F, N8830Q (PA-28R-201)	1 missing
Helen Sato			owner	N77HS (PA-28R-201)	2 missing
Paul Marchetti		p.marchetti@example.com	owner	N512PM (PA-28R-200)	2 missing
Ridgeline Aircraft Services	Ridgeline Aircraft Services (Part 145)	records@ridgeline.example.com	repair_station		1 missing
Valley Aero Supply, parts desk	Valley Aero Supply	parts@valleyaero.example.com	distributor		1 missing

Name

Organization

Email

Kind

Owner

Aircraft

Add the holder

Close

STC SA02391NY: ICA revision B reached 3 of 5 holders; the new service bulletin none yet.

Airworthiness directives on our own approvals

When the FAA issues an AD against a product we hold the design approval for, the design change is ours to make and make available (21.99). **ADs** records each one with its applicability, what it requires of us, the evaluation and the due date; **Raise the change order** starts the change, and the service bulletin goes out through ICA distribution.

Airworthiness directives on our approvals

When the FAA finds an unsafe condition in a product we hold the design approval for, the design change it needs is ours to make and to make available (21.99); a change order, new revisions, and the ICA or service bulletin to the holders.

Log an AD

AD	Title	Approval	Product	Effective	Due	Change	Status
2020-21-02	Oil cooler adapters: O-ring material	PMIA PQ4473CE	LA-2210-3	10/22/2026	11/21/2026		Evaluating
2020-19-04	Cowl flap actuator rod end: cracking at thread relief	STC SA02391NY	LA-5530-1	9/24/2026	11/23/2026	Yes	Change required
2020-08-11	Alternator brackets on Licensing O-360 bracket ear cracking	PMIA PQ4473CE	LA-1024-1	4/14/2026			Not applicable

Three ADs: one needs a change, one doesn't apply, one in evaluation.

AD 2026-19-04

AD number

2026-19-04

Title

Cowl flap actuator rod end: cracking at thread rel

Effective

09/24/2026

Our action due

11/23/2026

Approval

STC SA02391NY

Product

LA-5530-1 Cowl flap actuator rod end

Status

Change required

Applicability (serials, lots, installations)

LA-5530-1 rod ends, serials LA20260001 through LA20260040, installed under STC SA02391NY.

What it requires of us as the design approval holder

As design approval holder: make a design change correcting the unsafe condition available to the holders (21.99(a)), with revised ICA and a service bulletin.

Evaluation

Root cause: thread relief radius below the fatigue allowable at the actuator load. Change order raised; service bulletin LA-SB-2026-02 drafted.

Change order:

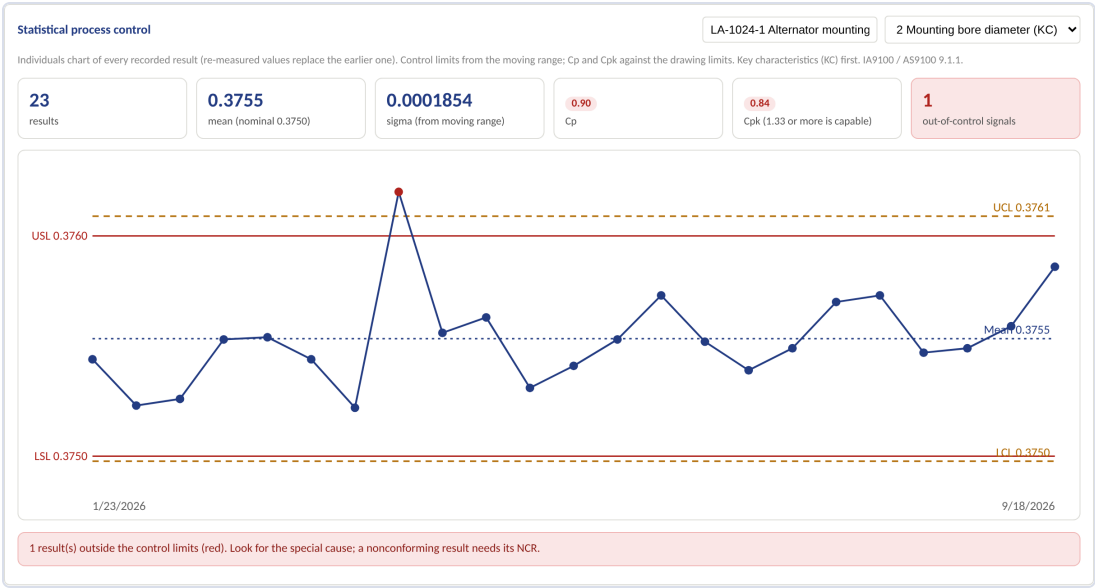
ECO-2026-004 (review)

Close

Save

AD 2026-19-04 on the rod end, with change order ECO-2026-004.

SPC. Every recorded measurement feeds an individuals chart per characteristic with control limits, Cp and Cpk, and out-of-control signals (a point outside the limits, a run of 8 on one side), key characteristics first (AS9100 9.1.1, IA9100).



LA-1024-1 mounting bore: 23 results, Cpk 0.84, one point outside the control limits.

11 Certification behind a new approval LARGER PROGRAMS

Before LA-8800-1 can be produced, Leesburg Aviation has to show compliance for its PMA supplement. **Certification** keeps the compliance register: the certification basis, each requirement, its means of compliance (MC0 compliance statement to MC9 equipment qualification), the compliance documents with revisions, who shows it (engineer, DER, ODA unit member), and the finding. It prints as the compliance checklist the FAA asks for.

PMA supplement: LA-8800-1 engine baffle seal kit Showing compliance

PMA - LA-8800-1 - FAA - PQ4471CE-S3 - FAA Aircraft Certification Office (sample) - 3 of 8 found compliant

Certification basis: Test and computation (14 CFR 21.303). Eligible airplanes: the models listed on the PMA supplement; certification basis per their type certificate data sheets (14 CFR Part 23 as amended, applicable sections below). No special conditions, no equivalent level of safety findings.

Requirement	Title	Applies	Means of compliance	Compliance documents	Shown by	Status	Finding	Trace
21.303(c)	PMA appl	Yes	MC0	LA-8800-CP B	S. Lindqv	Foun	08/23/2026	0
23.603	Materials	Yes	MC2, MC4	LA-8800-MR A	Materials	Data	mm/dd/yyyy	1
23.609	Protector	Yes	MC1, MC7	LA-8800-1 A	DER / OC	Foun	09/02/2026	0
23.863	Flammab	Yes	MC2, MC4	LA-8800-FT A	Powerpla	Planr	mm/dd/yyyy	0
23.1041	Cooling: f	Yes	MC5, MC6	LA-8800-CTP A	Powerpla	Planr	mm/dd/yyyy	0
23.1043	Cooling ti	Yes	MC6	LA-8800-CTP A	Powerpla	Open	mm/dd/yyyy	1
23.1529	Instruction	Yes	MC0, MC1	LA-8800-ICA draft	DER / OC	Open	mm/dd/yyyy	0
45.15	PMA mar	Yes	MC7		DER / OC	Foun	09/02/2026	0
23.1183	Lines, fitti	No	MC2, MC4		DER / OC	N/A	mm/dd/yyyy	0

[Add a requirement](#)

Or paste rows (requirement, title, means of compliance; tab or comma separated, e.g. from the certification plan)

23.2235 Structural strength MC2 MC4

[Edit project](#) [Compliance checklist \(PDF\)](#) [CSV](#) [Close](#) [Add pasted rows](#)

The PMA supplement project: 3 of 8 found compliant.

Compliance checklist

PMA supplement: LA-8800-1 engine baffle seal kit

Project: PMA supplement: LA-8800-1 engine baffle seal kit (PMA)
Product: LA-8800-1
Authority: FAA - PQ4471CE-S3 - FAA Aircraft Certification Office (sample)
Status: Showing compliance
Found compliant: 3 of 8

Certification basis

Test and computation (14 CFR 21.303). Eligible airplanes: the models listed on the PMA supplement; certification basis per their type certificate data sheets (14 CFR Part 23 as amended, applicable sections below). No special conditions, no equivalent level of safety findings.

Means of compliance

MC0 Compliance statement; MC1 Design review; MC2 Calculation / analysis; MC3 Safety assessment; MC4 Laboratory tests; MC5 Ground tests on the aircraft; MC6 Flight tests; MC7 Design inspection / audit; MC8 Simulation; MC9 Equipment qualification

Requirements

Requirement	Title	MoC	Compliance documents	Shown by	Status	Finding
21.303(c)	PMA application: design data and test reports	MC0	LA-8800-CP B	S. Lindqvist	Found compliant	8/21/2026
23.603	Materials: suitability and durability	MC2 MC4	LA-8800-MR A	Materials DER (sample)	Data submitted	
23.609	Protection of structure (abrasion, chafing)	MC1 MC7	LA-8800-1 A		Found compliant	9/2/2026
23.863	Flammable fluid fire protection (engine compartment materials)	MC2 MC4	LA-8800-FT A	Powerplant DER (sample)	Planned	
23.1041	Cooling: general	MC5 MC6		Powerplant DER (sample)	Planned	
23.1043	Cooling tests	MC6	LA-8800-CTP A	Powerplant DER (sample)	Open	
23.1529	Instructions for continued airworthiness	MC0 MC1	LA-8800-ICA draft		Open	
45.15	PMA marking of the kit and its parts	MC7			Found compliant	9/2/2026

Not applicable

23.1183 Lines, fittings and components

PMA supplement: LA-8800-1 engine baffle seal kit | Page 1 of 1 | Generated 10/26/2026, 4:24:58 PM / Tracker | © 2026 Leesburg Aviation LLC. All rights reserved.

The compliance checklist PDF.

Requirements from the MBSE tool. MRO Tracker doesn't replace Cameo, Capella, DOORS, Polaron or Jama. Their requirements come in as ReqIF, SysML v2 API JSON or CSV; each is traced here to what verifies it (a certification requirement, a test report, an inspection characteristic, a conformity, a change, an FAI), and the set goes back out as ReqIF with its verification status. Untraced requirements show in red.

Requirements All [Import from the MBSE tool](#) [Export ReqIF](#)

MRO Tracker doesn't replace the MBSE tool (Cameo, Capella, DOORS, Polaron, Jama...). Requirements come in from ReqIF, SysML v2 API JSON or CSV, are traced to what verifies them here, and go back out as ReqIF with their verification status.

7 requirements 5 traced to verification 2 not traced yet

ID	Requirement	Source	Rev	Verified by
BS-SYS-001	Seal the cooling air plenum The baffle seal kit shall seal the upper cool cooling plenum so that cooling air passes through the cylinder fins.	reqif	2	1
BS-SYS-002	Cylinder head temperature With the kit installed, cylinder head temperatures in a best-rate climb shall stay at or below the engine limits.	reqif	2	2
BS-SYS-003	Service temperature The seal material shall keep its properties from -55 C to 260 C.	reqif	1	2
BS-SYS-004	Fire resistance Seal material in the engine compartment shall be fire resistant.	reqif	1	1
BS-SYS-005	No chafing of structure Seal edges shall not chafe the cowling or the baffles; riveted edges shall be bound.	reqif	1	None
BS-SYS-006	Marking Each seal and the kit bag shall be marked FAA-PMA with the part number and the holder's name.	reqif	1	1
BS-SYS-007	Installation time A mechanic shall be able to install the kit in under 4 hours with hand tools.	reqif	1	None

Seven system requirements imported from ReqIF; two not traced yet.

BS-SYS-002 Cylinder head temperature

reqif - rev 2 - Requirement - under _bs-sys-1 - imported Sep 15, 2026, 2:00 PM

With the kit installed, cylinder head temperatures in a best-rate climb shall stay at or below the engine limits.

Verified by

Certification requirement	Test	Reference (test report, document number)	Note
23.1043 Cooling tests	LA-8800-CTP rev A cooling test plan	Climb test, 4 cylinders instrumented	

Verified by: Inspection characteristic Which: (use the reference) [Close](#) [Add the trace](#)

BS-SYS-002 cylinder head temperature: traced to 23.1043 and to the cooling test plan.

Conformity. When the FAA asks for conformity of a test article (Request for Conformity, Form 8120-10), the articles are listed and checked against their drawings, deviations described, and the quality manager signs the statement of conformity (Form 8130-9 information). The FAA inspector's or DAR's result and the 8100-1 reference are recorded with it.

Conformity C-26-0412

Statement issued

Statement of conformity signed Oct 21, 2026, 3:30 PM by R. Whitfield.

Request number (8120-10)

Project

Requested by

Requested on

C-26-0412

PMA supplement: LA-8800-1

ACO engineer (sample)

10/06/2026

Kind

Status

Flight test article

Statement issued

What is to be inspected / witnessed

Baffle seal kit on the cooling test airplane: kit parts to drawing LA-8800-1 rev A, installation per the draft ICA, instrumentation.

Articles

Part number	Rev	Serial	Drawing	Description	Our check	Deviation / note
INST-CHT	-	TA-01	LA-8800-CTP re	CHT instrument	Conforms m.okafor@example.com 10/20/2026	
LA-8800-1	A	TA-01	LA-8800-1 rev A	Baffle seal kit (te	Conforms m.okafor@example.com 10/20/2026	
LA-8800-11	A	TA-01	LA-8800-1 shee	Front seal, left	Conforms m.okafor@example.com 10/20/2026	
LA-8800-12	A	TA-01	LA-8800-1 shee	Front seal, right	Deviation m.okafor@example.com 10/20/2026	Edge binding 3 mr
LA-8800-20	A	TA-01	LA-8800-1 shee	Rear seal assen	Conforms m.okafor@example.com 10/20/2026	

FAA / DAR inspection (8100-1)

Inspector (ASI / DAR)

Inspected on

Result

8100-1 reference

mm/dd/yyyy

—

Notes

FAA inspection scheduled for 4 November.

Statement (PDF)

Close Save

C-26-0412: the baffle seal kit on the cooling test airplane, one deviation accepted for the test only, statement signed.

Design reviews. Each review (requirements, PDR, CDR, test or production readiness) is recorded with who took part, what was reviewed, the outcome and the actions with owners and due dates (AS9100 8.3.4), and prints as a PDF.

Design reviews

Reviews at the planned stages of design and development (AS9100 8.3.4) who took part, what was reviewed, the outcome and the actions, each with an owner and a due date.

Record a design review

Date	Review	Product	Scope	Open actions	Outcome
10/19/2026	Design review	LA-8800-1	10/2026-10/24 changes: thread relief radius, technical hole, ICA rev C draft, service bulletin LA-88-2026-02	2	Open
9/24/2026	Critical design review (CDR)	LA-8800-1	Drawing LA-8800-1 rev A (draft), characteristics list, test report LA-78-8800-01 (flammability, fit check on O-300), In	0	Passed
7/9/2026	Preliminary design review (PDR)	LA-8800-1	LA-8800-1 engine baffle seal kit; requirements LA-8800-01; concept drawings LA-8800-1 sheets 1-3 draft; material l	1	Passed with actions

Design reviews in the sample: the baffle seal kit's PDR and CDR, and the AD change.

Preliminary design review (PDR) - 7/9/2026

Kind

Held on

Product

Outcome

Preliminary design review (P

07/09/2026

LA-8800-1 Engine baffle seal kit

Passed with actions

Participants (names and functions; include someone independent of the design)

S. Lindqvist (design engineer), R. Whitfield (quality, independent of the design), T. Nakamura (production planning), D. Alvarez (machining)

What was reviewed (documents and revisions)

LA-8800-1 engine baffle seal kit: requirements LA-8800-01 rev 1, concept drawings LA-8800-1 sheets 1-3 draft, material trade study (silicone vs. fluorosilicone), test plan LA-TP-8800 draft.

Findings

Requirements are complete and traceable to 23.2430 and 23.2440. The fluorosilicone choice is supported. Concerns: the flammability test sample count is not in the test plan; the clip spacing at the cylinder fins needs a tolerance analysis.

Actions

Action	Owner	Due	Done
Add the flammability test (12 s vertic	—	07/31/2026	☒
Tolerance stack-up for the clip spac	—	08/28/2026	☒
Confirm the seal material is availabl	—	08/15/2026	☐

Add an action

Attach (minutes, slides)

Choose Files

No file chosen

PDF

Close Save

The PDR, passed with actions; one still open.

12 The records behind it all

Record	What MRO Tracker keeps
Approvals	Each TC, STC, PMA, TSOA, PC with eligibility, limitations, status and documents.
Revisions and baselines	Design data, BOM, routing and characteristics per revision; released ones locked; product, allocated and functional baselines.
Orders and as-built	The traveler with every signature, every measurement with the gauge, every material with lot, certificate and source, the NCRs, the final inspection.
Release forms	8130-3 / EASA Form 1 with tracking number, signatory and date; void forms kept.
Nonconformance and escapes	NCRs with MRB signatures and re-inspection; escapes with containment, customer notice and the 21.3 report.
Changes and FAIs	Change orders with classification, approvals and effectivity; AS9102 forms 1 to 3.
Certification	Compliance register, requirement traces, conformity statements, design reviews.
Shipments	Contract review per order; shipments with each serial and its release form; the certificate of conformance.
Gauges	Recalls with the measurements affected and the evaluation; gauge R&R studies with their data.
Continued airworthiness	ICA and supplement revisions, holders and what was sent to whom; ADs against our approvals.
Authority	The accountable manager's sign-off of each quality manual revision; changes notified to the FAA; authority delegated to suppliers.
Retention	Kept at least 5 years after manufacture (10 for critical parts; settable). Records on file can't be deleted: orders, release forms, NCRs and escapes can only be cancelled or voided.

Compliance matrix. Each element of 14 CFR 21.137, the holder's other duties (21.3, 21.5, 21.138, 45.15 ...), AS9100 clause 8, IA9100 and EASA Part 21 Subparts G and J, with how it's met, the procedure reference in the quality manual, the owner, status and the MRO Tracker screen that holds the evidence. It exports to PDF and CSV for the FAA or the registrar.

Compliance matrix

CSV

PDF

Each change saves as you go. "Where the evidence is" points at the MRO Tracker screen that holds the records.

14 CFR 21.137 quality system 10 met · 5 in progress · 0 not started

Element	Requirement	How we meet it	Procedure	Where the evidence is	Owner	Status
(a)	Design data control	Procedure QM-01. Evidence in Production → Products	QM-01	Production → Products (revisions), Changes	—	Met
(b)	Document control	Procedure QM-02. Evidence in Quality → Read & sign; Production → Products	QM-02	Quality → Read & sign; Production → Products	—	Met
(c)	Supplier control	Procedure QM-03. Evidence in Production → Suppliers (ASL)	QM-03	Production → Suppliers (ASL); Quality → Suppliers	—	Met
(d)	Manufacturing process control	Procedure QM-04. Evidence in Production → Orders (traveler)	QM-04	Production → Orders (traveler), Special processes	—	Met
(e)	Inspecting and testing	Procedure QM-05. Evidence in Production → Orders (inspection)	QM-05	Production → Orders (inspection, measurements)	—	Met
(f)	Inspection, measuring and test equipment	Procedure QM-06. Evidence in Tools → Calibration (gauges on)	QM-06	Tools → Calibration (gauges on measurements)	—	Met
(g)	Inspection and test status	Procedure QM-07. Evidence in Production → Orders (operation)	QM-07	Production → Orders (operation status, units)	—	Met
(h)	Nonconforming product and article control	Procedure QM-08. Evidence in Production → Nonconformance	QM-08	Production → Nonconformance (MRB)	—	Met
(i)	Corrective and preventive actions		QM 4.2	Quality → Findings (from NCRs and escapes)	—	In progress
(j)	Handling and storage		QM 4.2	Stores (receiving, shelf life, quarantine)	—	In progress

Holder duties 0 met · 3 in progress · 4 not started

The compliance matrix for Leesburg Aviation, 21.137 section.

Authority. The accountable manager signs each revision of the quality manual the FAA approved (21.135, 21.138). Changes the FAA has to know about are recorded with when and to whom they were notified, and a facility move with the FAA's approval before it (21.139, 21.150). Authority delegated to a supplier, such as source inspection, is recorded with its scope, period and conditions (21.316(h)).

Quality manual

The accountable manager signs each revision of the quality manual the FAA approved (21.135, 21.138). The manual itself is controlled in Quality → Read & sign.

QM-001 revision D signed by Kathleen Brennan on 9/17/2026.

Sign a quality manual revision

Changes notified to the FAA

Record a change

A move or new location needs the FAA's approval first (21.139); changes to the quality system that could affect conformity are notified (21.150, 21.320); so are changes of accountable or quality manager.

Change	Kind	Effective	Notified	To / reference	Status
Source inspection delegated to Atlantic Aerospace Metals	Supplier with delegated authority	11/11/2026	Not yet		Planned
Quality manual QM-001 revision D	Quality system change	9/17/2026	9/19/2026	MIDO principal inspector (email) · QM-001 rev D transmittal	Notified
Machining moves to Hangar 6 (same airport)	Facility (location, move, new site)	8/3/2026	6/10/2026	FAA Manufacturing Inspection District Office (MIDO), principal inspector · Letter LA-FAA-2026-03	Approved
New quality manager	Management (accountable manager, quality manager)	2/1/2026	1/20/2026	MIDO · Letter LA-FAA-2026-01	Closed

Authority delegated to suppliers

Delegate

When a supplier inspects or releases on our behalf (source inspection, direct ship), the delegation is recorded with its scope, period and conditions (21.316(h)).

Supplier	Scope	Product	Valid	Status
Atlantic Aerospace Metals	Receiving inspection and release of 6061-T6511 bar cut blanks for LA-2210-3: chemistry and mechanical properties against the mill cert, dimensions of the blank, marking.	LA-2210-3	11/11/2026 – 11/11/2027	active
Blue Ridge Heat Treating, Inc.	Hardness and conductivity test of heat treated LA-2210-3 on our behalf.	LA-2210-3	6/1/2025 – 5/31/2026	suspended

System → Authority: QM-001 revision D signed, four FAA notifications, two delegations (one suspended).

13 Who uses what

Role	Where they work	What MRO Tracker does for them
Accountable manager	Overview, Authority, Compliance	Sees the 21.3 clock, open MRB items and the compliance status; signs the quality manual revision; records FAA notifications and supplier delegations; gets the 21.3 alerts if set in Settings.
Quality manager	Overview, Escapes / 21.3, FAI, Suppliers, Compliance	Decides and records 21.3 reports, accepts FAIs, runs gauge recalls and gauge R&R, keeps the approved supplier list and qualifications, overrides material issue with a reason, approves changes for quality.
Engineer	Products, Changes, ADs, Baselines, Certification, Requirements, Design reviews, PLM, Approvals → ICA	Releases design data, drafts revisions, classifies changes, signs engineering dispositions, evaluates ADs, sends ICA revisions, records design reviews, keeps the compliance register and the traces.
Planner	Orders	Reviews the contract, plans and releases orders, issues material, holds or cancels orders, marks operations N/A, logs hours for others.
Operator / machinist	Mechanic app, Orders	Signs operations in order; special processes only with a current qualification; logs hours.
Inspector	Mechanic app, Orders, FAI	Records measurements with calibrated gauges, buys off or rejects operations, does final inspection, closes reworked NCRs.
MRB member	Nonconformance	Dispositions; two signatures with engineering for use as is, repair and regrade.
8130-3 signatory	8130-3	The only person who can issue or void a release form.
Shipping	Shipping	Puts released parts on shipments, ships them with the packing slip and certificate of conformance, adds tracking.

Roles are given in Production → Settings, per person, with a stamp or authorization number; group admins hold all of them. The database checks the role on every signature, so the website and the apps can't sign what the rules don't allow.

Holder details and rules

Organization name (8130-3 / Form 1 block 4) Leesburg Aviation, LLC	FAA approval / authorization number (block 13) PQ4471CE	Authority (block 12) FAA, United States	Rules followed FAA (14 CFR Part 21)	EASA PDA reference (Form 1 block 13a) e.g. DE 21G 0123
EASA DOA reference e.g. EASA 213.123	Failure / occurrence reports go to FAA Manufacturing Inspection District	Report within (hours) FAA 21.3.14, EASA 21A.3A.72) 24	Also alert about report deadlines (email) accountable.manager@...	Keep records (years) 5
Critical parts (year) 10	Repeat the FAI after (months without production) 24	Serial number prefix LA	Release form tracking number prefix LA-	

Address (block 4)
**Hanger 4, Leesburg Executive Airport (DPO)
Leesburg, VA 20155, USA**

Requirements flowed down to production supplies (21.137G), AS9100 8.4.3). Purchase orders to a supplier on the approved supplier list print them under "Production requirements", after the Stores quality clauses.

Right of access for Leesburg Aviation, its customers and the FAA to the facility and records. Notify us of nonconforming product and get our approval before shipping it. Notify us of changes to the process, location or sub-tier sources. Use only the special process sources we approve. Keep records for 10 years. Certificate of conformance with every shipment, with traceability to the mill or OEM. Counterfeit part prevention per AS1553 / AS1574.

☒ The person who did the work can't also inspect it.
☐ An order can't be released to the floor until its contract review is done (AS9100 8.2.3).

Certificate of conformance statement (printed on packing slips)
 Leesburg Aviation, LLC certifies that the parts listed above were manufactured and inspected under PMA PQ4471CE / STC 5602391N in conformity with the approved design data and the requirements of the purchase order, and that each is accompanied by the FAA Form 8130-3 listed. Inspection and test records are on file and available for review for 10 years.

Save

Production → Settings: the holder's details for the release form, the reporting office and window, retention, prefixes, the flow-down text, the contract review rule and the certificate of conformance wording. Saves in place.

Getting started

1. In Production → Settings, enter the organization name and address, approval number, rules followed (FAA, EASA or both), the office 21.3 reports go to, the flow-down requirements and the certificate of conformance wording. Give people their roles, including the accountable manager and shipping.
2. Add the approvals and products. For each product, enter the first revision's design data, BOM, routing and characteristics, and release it.
3. Add the special processes with their qualified people, and the approved supplier list by scope.
4. Plan and release a first order; issue its material; sign and inspect it on the website or the Mechanic app; do the FAI and the 8130-3; ship it.
5. Add each approval's ICA holders, have the accountable manager sign the quality manual, and fill in the compliance matrix.

Companion briefs: *Life of a maintenance job* and *Life of a flight operation*, and *MRO Tracker and 14 CFR Part 21* (the gap analysis). © 2026 Leesburg Aviation LLC. All rights reserved.