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SERVICE BULLETIN 13-3-21 REV 1

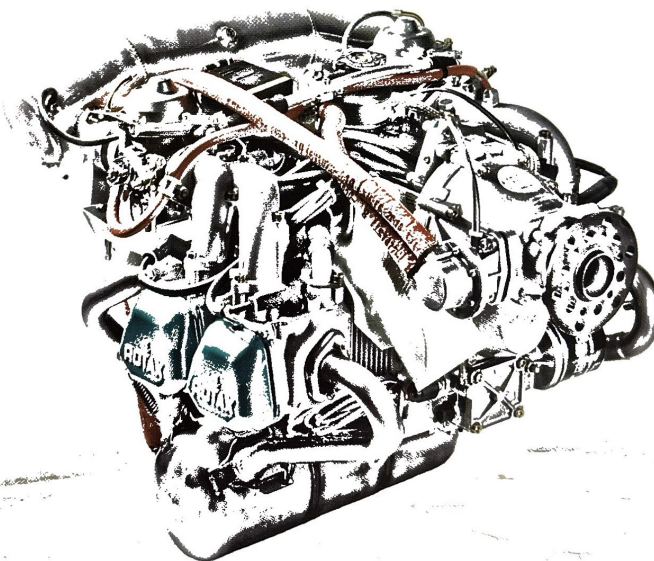
Date Released:

December 20, 2022 - Rev 1 (Added RV-12iS to affected
changes)

ROTAX



OPERATOR'S MANUAL FOR ROTAX® ENGINE TYPE 912 SERIES



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SERVICE BULLETIN 13-3-21 REV 1

Date Released: December 20, 2022 - Rev 1 (Added RV-12iS to affected models, editorial changes)

March 21, 2013 (Initial Release)

Date Effective: December 20, 2022

Subject: Ethanol in gasoline

Affected Models: All flying RV-12 and RV-12iS aircraft

Required Action: See Synopsis

Time of Compliance: At or before the next Annual Condition Inspection.

Synopsis:

The Rotax engine used in the RV-12 is approved by Rotax for use with 10% ethanol. Van's has used 10% ethanol in our factory demo airplane with no apparent problems. However, certain precautions should be taken if the engine is run on gasoline with ethanol added.

Ethanol is a highly aggressive solvent. The aluminum used in the tubing and fuel tank should be impervious to it. But there are other components such as the O rings in the gascolator and fuel pump, the nylon seal in the fuel valve, and the tank sealant which may all be harmed by long term exposure. Periodic replacement or inspection of these items is a good idea. Rotax has recommended a 5-year replacement schedule for rubber hoses and fittings on their engine. See the article below.

Phase separation is also a concern with ethanol in gas. Frequent flyers who fill up regularly (as we do at the factory) should have no trouble. Beware if the airplane sits for extended periods (more than 30 days) with fuel in the tank that may contain ethanol. Drain the tank prior to any extended period of inactivity. You can read more in the three articles included below.

If deterioration of the tank sealant occurs, it may be necessary to remove it from the affected area and apply new sealant, or in extreme cases the tank may need to be rebuilt. We have not yet seen any effect of E10 ethanol on the RV-12 tanks in service. But it is mentioned here so RV-12 owners know to pay attention to the tank sealant during inspections, especially if ethanol separation is likely to have occurred.

We recommend that RV-12 owners use premium auto gasoline without ethanol if practical, per the Rotax operating instructions. 100LL is approved but requires a different and more laborious maintenance schedule for the Rotax. Given the lack of issues with our company airplanes, and in the current fleet, we believe that 10% ethanol premium car gas is preferable to the use of 100LL, provided appropriate precautions are taken and the operator is aware of the potential issues.



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SERVICE BULLETIN SB-00040

Date Released: August 15, 2022 (general release)
September 13, 2021 (limited release for test installation)

Date Effective: August 15, 2022

Subject: RV-12 Landing Gear Beam Reinforcements

Affected Models: Original RV-12 (does not apply to RV-12iS)

Required Action: Add two Landing Gear Beam Reinforcement Plates, four Landing Gear Beam Plugs, two Reinforcement Angles, and a Fuel Tank Spacer. Replace the Wear Pads with new version. Install enlarged and additional fasteners.

Time of Compliance: Compliance with this Service Bulletin is optional, but is recommended for RV-12 aircraft used in flight training and/or on rough/unpaved runways.

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 14 Hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Although the RV-12 landing gear structure meets ASTM requirements for landing loads, data from the field indicates that repeated excessively hard landings may cause failure of rivets between the F-1204E Landing Gear Beam and the F-1204D Center Section Aft Bulkhead, and/or fracture the F-1204U Skin Stiffeners, and/or result in fatigue cracks in the F-1204E Landing Gear Beam. Refer to Figure 1 for illustrative examples.

The modifications described in this document add strength and durability to the original model RV-12 landing gear structure to prevent this type of damage. This service bulletin document does not apply to the RV-12iS.

FIGURE 1: DAMAGE TO AND FAILURE OF RV-12 LANDING GEAR STRUCTURE

Done 1/16/24



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SERVICE BULLETIN 00067

Date Released: January 23, 2023

Date Effective: January 23, 2023

Subject: Stabilator Mass Balance Reinforcement

Affected Models: RV-12, RV-12iS

ELSA – All RV-12/12iS Empennage Kits shipped prior to December 28, 2022

SLSA - RV-12/12iS aircraft with serial numbers 12127 and earlier

Required Action: Install HS-01234-L & -R, rebalance stabilator

Time of Compliance: Within 10 hours or at the next 12-month inspection, whichever occurs first

Labor Required / SLSA Warranty Allowance: 1.5 Hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Data from the field suggests that the WD-1223 Counterbalance arm is subject to fatigue failure, which could result in the mass balance weights separating from the stabilator. Complying with this service bulletin will prevent the fatigue failures.

Materials Required:

The following materials are required to complete the steps necessary to achieve compliance with this Service Bulletin

- Purchase SB-00067
- Download KAI Section 11iS/U from the Van's website



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SERVICE BULLETIN 00064

Date Released: January 23, 2023

Date Effective: January 23, 2023

Subject: Cylinder #1 Exhaust Tube Flat Spring Installation

Affected Models: RV-12 aircraft with EX-00044 exhaust systems; or which have complied with SB-00005

RV-12iS aircraft with EX-00021 or EX-00026 exhaust systems; or which have complied with SB-00013

SLSA RV-12 and RV-12iS Aircraft Serial Numbers 12001-12126

Required Action: Install EX-00045 Exhaust Flat Springs on the Cylinder #1 exhaust tube

Time of Compliance: Within 10 hours or at the next annual inspection, whichever occurs first

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 0.5 Hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P

ELSA: Owner (certification not required)

Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Van's Aircraft has found that the slip joints on exhaust tubes EX-00015-1 (RV-12 with SB-00005), EX-00021-1 (RV-12iS with 912iS), EX-00026-1 (RV-12iS with 912ULS) and EX-00044A (RV-12 with 912ULS) may shift during engine start, potentially resulting in interference with the cowling or exhaust tube disengagement at the slip joint. Installation of EX-00045 Exhaust Flat Springs limits the slippage of the Cylinder #1 exhaust pipes while absorbing forces generated during engine start.

Materials Required:

The following materials are required to complete the steps necessary to achieve compliance with this Service Bulletin.

- SB-00064 KIT



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SERVICE BULLETIN 00073

Date Released: February 3, 2023

Date Effective: February 3, 2023

Subject: Notification of Garmin Service Bulletin for G3X Touch Displays

Affected Models: RV-12 and RV-12iS equipped with Garmin G3X Touch systems running G3X software versions 9.10 and previous

Required Action: Mandatory completion of Garmin's Service Bulletin NO.: 22112 Rev A

Time of Compliance: Refer to Garmin's Service Bulletin NO.: 22112 Rev B

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: Refer to Garmin's Service Bulletin NO.: 22112 Rev B

Level of Certification: Refer to Garmin's Service Bulletin NO.: 22112 Rev B

Synopsis:

Van's Aircraft is issuing this Service Bulletin to ensure all RV-12iS and RV-12 owners are aware of and comply with Garmin's Service Bulletin NO.: 22112 Rev B

Materials Required:

Refer to Garmin's Service Bulletin NO.: 22112 Rev B, which is available from Garmin.

Method of Compliance:

Step 1: Complete Garmin's Service Bulletin NO.: 22112 Rev B

Step 2: Make a logbook entry indicating compliance with service document per the requirements of the controlling authority/agency.

Place a copy of this notification in the back of the maintenance manual for your aircraft. Add the name and date of the service information to the Addendum Documents List at the front of the Maintenance Manual.

NOT - Affected



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SERVICE BULLETIN 00059 – REV.1

Date Released: February 9, 2023 (Rev 1: Incorporates legacy RV-12 and expands the RV-12iS affected serial number range)

January 23, 2023 (Initial Release)

Date Effective: January 23, 2023

Subject: Canopy Latch Block Improvement

Affected Models: RV-12iS and RV-12

RV-12iS SLSA: Serial Numbers 12075-12127

RV-12iS ELSA/EAB: All fuselage kits shipped prior to November 30, 2022

RV-12 SLSA: Serial Numbers 12001-12074 – only if Notification 17-12-08 has already been completed

RV-12 ELSA/EAB: All aircraft on which Notification 17-12-08 has already been completed

Required Action: Replace C-01205-2 Canopy Latch Block with C-01205-3

Time of Compliance: By December 31, 2024 or with the next 200 hours, whichever comes first.

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 1.0 Hour

Level of Certification: SLSA: LSA Repairman Maintenance or A&P

ELSA: Owner (certification not required)

Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

NOTE: This revision adds coverage for legacy RV-12 aircraft on which the canopy latch modification described in Notification 17-12-08 has already been completed. If you have a legacy RV-12 without that modification, you will need to order that kit, which includes the new part. Please review the Materials Required section, below.

Multiple reports from the field have shown that the canopy latch handle can be forced past the C-01205-2 canopy latch block. Once past the block, it becomes impossible or

DONE 4-16-22



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SERVICE BULLETIN 00053

Date Released: February 16, 2022

Date Effective: February 16, 2022

Subject: Tailcone Skin Stiffening Clips

Affected Models: RV-12, RV-12iS

Required Action: Inspect lower tailcone skin for cracks and install new tailcone stiffener clips

Time of Compliance: Within 100 hours or at the next 12-month inspection, whichever occurs first

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 2.4 hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Van's Aircraft has received reports of cracks forming in the lower tailcone skins of RV-12/12iS aircraft near the tailcone bulkheads. These cracks were observed along the centerline of the aircraft and forward of a bulkhead. Clips have been designed to stiffen these locations, thereby preventing the formation of these cracks.

The clips must be installed whether cracks are present, or not. If cracks are found, an additional patch plate needs to be fabricated and installed along with the clips.

Materials Required:

The following materials are required to complete the steps necessary to achieve compliance with this Service Bulletin:

Purchase SB-00053
Tail Stand
3/8" Plywood
.032 Aluminum Sheet (required only if cracks are found)



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SERVICE BULLETIN SB-00049

Date Released: September 15, 2021

Date Effective: September 15, 2021

Subject: RV-12 Carburetor Support Spring

Affected Models: All RV-12 and RV-12iS aircraft using a carbureted Rotax 912 engine

See Rotax SB-912-075/SB-912-075UL for the list of affected engine serial numbers

Required Action: Mandatory completion of Rotax SB-912-075/SB-912-075UL

Time of Compliance: Refer to Rotax document SB-912-075/SB-912-075UL

Labor Required / SLSA Warranty Allowance: Refer to Rotax document SB-912-075/SB-912-075UL

Level of Certification: Refer to Rotax document SB-912-075/SB-912-075UL

Synopsis:

Van's Aircraft is issuing this Service Bulletin to ensure all RV-12 and RV-12iS owners are aware of and comply with Rotax SB-912-075/SB-912-075UL.

Materials Required:

Refer to the following Rotax documents, which are available to download from the Rotax web site.

- [SB-912-075 Exchange of Carburetor Support Springs](#)
- [SB-912-075UL Exchange of Carburetor Support Springs](#)

Method of Compliance:

Step 1: Complete Rotax SB-912-075/SB-912-075UL.

Step 2: Make a logbook entry indicating compliance with service document per the requirements of the controlling authority/agency.



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NOT
Affected

SERVICE BULLETIN 00028

Date Released: June 15, 2021

Date Effective: June 15, 2021

Subject: GSU25C G3X Noise Induced Erroneous Attitude

Affected Models: RV-12 and RV-12iS aircraft equipped with Garmin G3X avionics kits shipped by Van's between March 2019 and June 2021.

SLSA RV-12iS aircraft with serial numbers 12081-12087 equipped with Garmin G3X

Required Action: Avoid flight at night, above an overcast cloud layer, or into any condition where failure of primary attitude indicator would create a significant safety issue, including Instrument Meteorological Conditions (IMC).

If inaccurate attitude indications exist, cease use of Automatic Flight Control Systems operation and disable ESP. Contact Van's Aircraft Support for further guidance and to obtain needed parts.

Time of Compliance: No further flight into the conditions listed above until addressed.

As soon as practicable, investigate if the described condition exists in VMC.

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: N/A

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Flight testing on the RV-12iS has shown that airframe vibrations sometimes affect the performance of the GSU25C, specifically ones shipped in RV-12/12iS Garmin avionics kits beginning in June 2019. Units shipped prior to that date are not affected. The impact



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SERVICE BULLETIN 18-03-06, REVISION 1

Date Released: October 3, 2020
(Rev 1: Adds instruction to complete SB-00026 in Step 2)
March 6, 2018 (Initial Release)

Date Effective: September 23rd, 2020

Subject: Replace the throttle return springs

Affected Models: RV-12 (Powered with Rotax 912ULS)

Required Action: Replace SPRING-00002 with SPRING-00002-L/R-1

Time of Compliance: At or before the next annual condition inspection or upon a part failure of one of the previous spring types installed on the aircraft

Supersedes Notice: SB 14-07-23 and SB 17-12-07 (Internal)

Labor Required / SLSA Warranty Allowance: 1.0 Hours

Level of Certification: (Owner, LSA Repairman Inspection - *not applicable to SLSA*),
LSA Repairman Maintenance, A&P

Synopsis:

Replace the existing throttle springs with SPRING-00002-L/R-1. The previous spring was failing prematurely (before the recommended 100-hour replacement interval) on some aircraft.

NOTE: This spring design is supplied by Van's Aircraft and not available through McFarlane Aviation Products.

Method of Compliance:

Step 1: Remove SPRING-00002 as shown in KAI Section 50. See Figure 1 for reference.

Step 2: Complete SB-00026 and install SPRING-00002-L/R-1 as shown in KAI Section 50.

Step 3: Perform the carb sync procedure found in the RV-12 Maintenance Manual.



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SERVICE BULLETIN 00026

Date Released: October 5, 2020

Date Effective: October 5, 2020

Subject: Addition of retaining plates for throttle springs

Affected Models: SLSA: RV-12 (Powered with Rotax 912ULS) with Serial Numbers 12001 through 120074
ELSA: RV-12 (Powered with Rotax 912ULS) shipped before October 2020

Required Action: Install VA-00276 Throttle Spring Retainers

Time of Compliance: At or before the next annual condition inspection

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 1.0 Hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

The SPRING-00002-L/R-1 can possibly cause wear to the throttle shaft, as the spring rests against the throttle shaft. This potential wear is located at the base of the throttle shaft. To prevent this, a retaining plate has been designed for the spring to be captured in, and serve as a bearing surface for, the inboard leg of the spring.

Wear caused by the spring to the throttle shaft does not require replacement or modification of the throttle shaft, as long as the wear has not reduced the diameter of the shaft below the existing minimum diameter of the shaft (the minimum diameter of the shaft is located at the base of the shaft, where the shaft enters the carburetor housing).



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SAFETY DIRECTIVE 00017

Date Released: March 2nd, 2021 (Rev 1 – Corrected level of certification for ELSA for Steps 3-7)
June 5th, 2020 (Initial Release)

Date Effective: June 5th, 2020

Subject: Fuel return line test

Affected Models: RV-12
SLSA Serial Numbers 12002 – 12074
ELSA All RV-12 aircraft

Required Action: Verify that fuel return line is not blocked

Time of Compliance: Before further flight

Labor Required / SLSA Warranty Allowance: 5 minutes if fuel return line is not blocked.
2.5 hours, followed by a 2-day cure, if AN832-4D bulkhead fitting requires replacement.

Level of Certification: SLSA: Owner (certification not required)
Steps 1, 2, and 8: ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
Steps 3 through 7: ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

An RV-12 aircraft was recently found to have a blocked fuel return line, due to a manufacturing problem with the AN832-4D bulkhead fitting. This could cause interruptions of the fuel flow into the engine. A test should be run to verify that the return fuel line is not blocked.

Method of Compliance:

Step 1: Turn on the Master Switch. Ensure that the EFIS and the electric fuel pump are on.

Step 2: Verify that there is fuel flow through the system:



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SERVICE BULLETIN 00005

Date Released: August 24, 2020

Date Effective: August 24, 2020

Subject: Potential cracking of the EX-00017 and EX-00017-1 Cylinder #2 exhausts

Affected Models: All RV-12 model aircraft (RV-12iS not affected)

Required Action: Inspect EX-00017 or EX-00017-1 Cylinder #2 exhaust tube for cracks as described in this document. If cracks are found, replace the EX-00017 or EX-00017-1 with the EX-00017-2 **AND** replace the EX-00015 exhaust tube with the EX-00015-1.

Time of Compliance: Inspect before further flight

- If no cracks are detected:
 - o Install a carbon monoxide (CO) detector (see possible options below)
AND
 - o Re-inspect every 25 flight hours until the EX-00017/EX-00017-1 is replaced with the EX-00017-2 **AND** EX-00015 is replaced with the EX-00015-1.
- If cracks are detected:
 - o Replace the EX-00017/EX-00017-1 with the EX-00017-2 **AND** the EX-00015 with the EX-00015-1.

Supersedes Notice: SB 19-03-22

Labor Required / SLSA Warranty Allowance: 2.5 Hours

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling agency and the operating limitations for your aircraft.

Synopsis:

Note that depending on when the RV-12 firewall-forward kit was produced, there are three possible designs for the Cylinder #2 exhaust tube.



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SAFETY DIRECTIVE 00001

Date Released: July 8, 2020 (Revision 1 – Added servo tray identification)
May 14, 2020 (Initial Release)

Date Effective: July 8, 2020

Subject: Pitch trim assembly inspection and modification

Affected Models: RV-12, RV-12iS

SLSA: Serial Numbers 12001 to 12086

ELSA: Any aircraft including an Empennage Kit shipped on or before 05/12/2020

Required Action: Inspect the pitch trim motor shaft for straightness.
Determine the model number of the installed trim motor.
Determine the part number of the installed servo tray.
Examine and ensure the F-1294B-1 lower tailcone fairing does not contact the trim servo linkage.

If an ES MSTS-T3-7A-2 trim unit is installed, replace with the newer model unit, bushing, and F-1287A-1 Servo Tray once the life limit is reached; per the time of compliance below. Bag 2670 is also required.

If an ES MSTS-B6-7T-165 is installed with F-1287A-1, add part BUSH-BS.188X.313X.222 per the time of compliance below.

If an ES MSTS-B6-7T-165 is installed with F-1287A, replace F-1287A with F-1287A-1, and add part BUSH-BS.188X.313X.222 per the time of compliance below. Bag 2670 is also required.

9-1-21 NOT Bent
Time of Compliance:
10-10-22 NOT Bent
9-8-23 NOT Bent

Aircraft with ES MSTS-T3-7A-2:

Inspect the trim motor shaft for straightness before further flight. Replace if bent or if trim unit time in service exceeds 1000 flight hours.

Aircraft with ES MSTS-B6-7T-165 and F-1287A-1:
Inspect the trim motor shaft for straightness before



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SERVICE BULLETIN 20-01-17

Date Released: February 5, 2020

Date Effective: February 5, 2020

Subject: Safety Wire Engine Plugs

Affected Models: All RV-12iS and RV-12 model aircraft

Affected Serial Numbers: All RV-12iS and RV-12 aircraft – all serial numbers

Required Action: Safety wire engine plugs

Time of Compliance: At or before the next condition/100-hour inspection

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: N/A

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)

Synopsis:

The magnetic plug, oil pressure regulator plug, and oil tank drain plug on Rotax 912iS and 912ULS engines should be safety wired to prevent loosening.

Materials Required:

The following materials are required to complete the steps necessary to achieve compliance with this Service Bulletin:

- a. Aircraft safety wire
- b. Safety wire pliers (or similar tool)
- c. KAI Section 46iS or 46U or 46

Method of Compliance:

Step 1: For RV-12iS using Rotax 912iS engines, perform all steps on KAI page 46iS-11 to safety wire the engine plugs.

For RV-12iS using Rotax 912ULS engines, perform all steps on KAI page 46U-17 to safety wire the engine plugs.

For RV-12 using Rotax 912ULS engines, perform all steps on KAI page 46-22 to safety wire the engine plugs.



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SERVICE BULLETIN 19-08-26

Date Released: January 27, 2020
January 31, 2020 – applicability clarifications added

Date Effective: January 27, 2020

Subject: WD-1201 Nose gear leg replacement

Affected Models: All RV-12/RV-12iS with finish kits shipped before 06-10-19

Affected Serial Numbers: SLSA RV-12/RV-12iS aircraft with serial numbers 12080 and earlier

Required Action: Replace WD-1201 with WD-1201-1-RTR Nose Gear

Time of Compliance: At or before the next annual condition inspection

Labor Required / SLSA Warranty Allowance: 7.0 hours

Level of Certification: S-LSA: LSA Repairman - Maintenance or A&P
E-LSA/EAB: Aircraft Owner

Synopsis: An RV-12 training aircraft with more than 1700 hours of accumulated flight time recently experienced a nose gear fatigue failure. This is the only reported instance; no other fatigue-related nose gear failures have been reported. The failure occurred in the nose gear leg at the point where the leg tube meets the lower attachment bracket, and was caused by a fatigue crack that propagated across the tube. The crack occurred at a location that is not visually inspectable. It is, therefore, strongly recommended that owners of RV-12/RV-12iS aircraft with the original style nose gear leg (WD-1201) replace that part with the available updated, reinforced leg - part number WD-1201-1.

NOTE: Only original WD-1201 legs, which were shipped prior to June 10th, 2019, are affected by this service bulletin. If you have received a WD-1201-1 gear leg since that time either with your kit or as a backorder item, it is not affected.

NOTE: In addition, only if your RV-12 or RV-12iS is currently under construction, and you received your finishing kit prior to June 10, 2019, and you have not yet completed the following steps in your plans, please contact Van's Aircraft to order a replacement gear leg rather than ordering the retrofit kits listed below.

- RV-12iS: Section 46iS-05, Steps 1-7
- Original RV-12: Section 46-08, Steps 1-3

If you have already completed those steps, please follow the instructions that appear starting on the next page.



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SERVICE BULLETIN 14-10-14, REV 1

Date Released: December 14, 2020 (Rev 1 Replaced reference to Rotax service information SB-912-074 UL was SB-912-065 UL)

October 14th, 2014 (Rev 0 Initial release corresponding to SB-912-064L)

Date Effective: December 14th, 2020

Subject: Carburetor float replacement

Affected Models: RV-12, RV-12iS

Any RV-12 or RV-12iS aircraft using Rotax 912 ULS engines using carburetors floats with affected serial numbers. For affected engine, carburetor and float part numbers refer to:

ROTAX Service Bulletin SB-912-074 UL and SB-912-074

Required Action: Refer to ROTAX Service Bulletin SB-912-074 UL

Time of Compliance: Refer to ROTAX Service Bulletin SB-912-074 UL

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 2.0 Hours to preform test

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

A mandatory service bulletin has been issued by ROTAX related to Rotax 912 ULS engines using carburetors equipped with floats that may gain weight, leading to a loss in buoyancy and improper regulation of fuel in the float chamber. Affected floats must be replaced.

SB-912-074 UL was released by Rotax in December, 2020 and replaces/supersedes SB-912-065 UL. This new service information document expands the range of serial numbers affected. **If you have already complied with SB-912-065 UL and have**

12-5-20
no crack



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SERVICE BULLETIN 00023 - REV 1

Date Released: December 1, 2020 (Rev 1, note to support tail during lift added)
November 20, 2020 (Initial release)

Date Effective: November 20, 2020

Subject: WD-1221 Engine Mount Standoff inspection/replacement

Affected Models: RV-12/12iS
SLSA Aircraft Serial Numbers 120001-120094
RV-12/12iS Finish Kits shipped before 10/31/2020

Required Action:

Remove the top cowl. Inspect the WD-1221 Engine Mount Standoff for cracks in the main cross tube (refer to Figure 1 for specific location).

If cracks are discovered in the standoff, notify Van's Aircraft support at support@vansaircraft.com and replace it with a WD-01221-1 Engine Mount Standoff as described in this document. If no cracks are discovered, 100-hour inspections are required until the standoff is replaced.

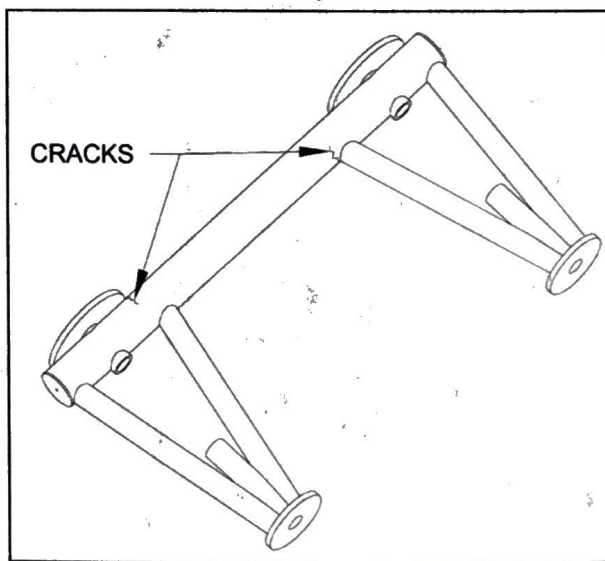


FIGURE 1: WD-1221 CRACK LOCATIONS

Time of Compliance: Inspect before further flight

Labor Required / SLSA Warranty Allowance: 2.0 Hours (if applicable)

Level of Certification: SLSA: LSA Repairman Maintenance or A&P
ELSA: Owner (certification not required)
Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

*Complied
During Build*

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SERVICE BULLETIN 17-10-14

Date Released: October 14, 2017

Date Effective: October 14, 2017

Subject: Rotax SB-912-070
<https://legacy.rotaxowner.com/si tb info/serviceb/sb-912-070.pdf>
<https://legacy.rotaxowner.com/si tb info/serviceb/sb-912-070ul.pdf>

Affected Models: All RV-12 aircraft using ROTAX 912 ULS engines
from S/N 6 785 971 up to S/N 6 786 198 inclusive
from S/N 6 786 501 up to S/N 6 787 000 inclusive
from S/N 9 569 001 up to S/N 9 569 690 inclusive
from S/N 9 569 693 up to S/N 9 569 702 inclusive
S/N 9 569 823

Required Action: Refer to the ROTAX Service Bulletin shown above

Time of Compliance: Refer to the ROTAX Service Bulletin shown above

Labor Required: Estimate 1.5 Hours for inspection
SLSA Warranty Allowance: N/A – refer to Rotax documentation

Level of Certification: LSA Repairman Maintenance or A&P

Synopsis: Refer to the ROTAX Service Bulletin shown above

Method of Compliance: Refer to the ROTAX Service Bulletin shown above

Done
During build

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SERVICE BULLETIN 16-08-24

Date Released: September 6, 2016

Date Effective: September 6, 2016

Subject: Loose WD-1204 Engine Mount Bracket attachment rivets.

Affected Models: All RV-12 aircraft.

Required Action: Inspect the condition of the rivets attaching the WD-1204 Engine Mount Brackets to the F-1202B Panel Base. Inspect for any indications of wear including a smoky or greasy appearing film around the rivet. Signs of rivet wear require the removal and replacement of the rivets as described in the Method of Compliance section of this document.

Time of Compliance: At or before the next annual condition inspection. If no loose rivets are found, make a log entry indicating compliance with the inspection portion of this service bulletin and re-inspect at every annual condition inspection or until the modifications described in this document are completed.

Labor Required / SLSA Warranty Allowance: 1.5 Hrs

Level of Certification: ELSA - LSA Repairman Inspection, A&P
SLSA - LSA Repairman Maintenance, A&P

Synopsis: Loose rivets attaching the engine mount brackets to the panel base have been reported on two flying RV-12s. In both cases, only rivets in the aft two rows were loose, the four remaining rows were unaffected.

Method of Compliance:

Step 1: Remove the F-1240 Upper Forward Fuselage Skin to gain access to the WD-1204 Engine Mount Brackets.

Step 2: Inspect the two engine mount brackets for loose rivets.

- If loose rivets are found, complete the remaining steps in this service bulletin.
- If loose rivets are not found, make a log entry indicating that recurrent inspection is due at the next annual condition inspection.



SERVICE BULLETIN

Replacement of circlip (carburetor) for ROTAX® Engine Type 912 and 914 (UL Series)

ATA System: 73-00-00 Fuel system

MANDATORY

 Serial #
 6786552

1) Planning information

To obtain satisfactory results, procedures specified in this publication must be accomplished with accepted methods in accordance with prevailing legal regulations.

BRP-Rotax GmbH & Co KG cannot accept any responsibility for the quality of work performed in accomplishing the requirements of this publication.

1.1) Applicability

All versions of ROTAX® engine types 912 UL, 912 ULS and 914 UL are affected if at least one of the following criteria applies.

Criterion A) Engine serial number:

Engine type	Serial number
912 UL	from S/N 6771575 up to S/N 6772185 inclusive from S/N 9580001 up to S/N 9580683 inclusive
912 ULS	from S/N 6784306 up to S/N 6787000 inclusive from S/N 9565001 up to S/N 9573266 inclusive from S/N 9573268 up to S/N 9573271 inclusive
914 UL	from S/N 7683826 up to S/N 7684000 inclusive from S/N 9575001 up to S/N 9577192 inclusive from S/N 9577194 up to S/N 9577207 inclusive from S/N 9577209 up to S/N 9577214 inclusive from S/N 9577216 up to S/N 9577221 inclusive / S/N 9577223 / S/N 9577225

NOTE: Engine with S/N higher than the range listed above, have already been inspected during serial production and are equipped with the carburetor circlip part no. 945786.

Criterion B) Carburetors:

The part numbers and serial numbers of the carburetors:

Carburetors	Carburetors part no.	Serial number
912 UL	1/3 part no. 892500 2/4 part no. 892505	from S/N 144628 up to S/N 190938 inclusive from S/N 144589 up to S/N 190858 inclusive

006768.fm

Install
5-20-18
Pre Flight

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NOTIFICATION 16-12-14

Date Released: December 14, 2016

Date Effective: December 14, 2016

Subject: Angle-Of-Attack Installation

Affected Models: RV-12

Required Action: Optional Installation

Time of Compliance: Optional Installation

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: 6.5 Hours / N/A

Level of Certification: (Owner, LSA Repairman Inspection - *not applicable to SLSA*), LSA Repairman Maintenance, A&P

Synopsis: This Notification allows the installation of an Angle-Of-Attack (AOA) system on the RV-12.

Method of Compliance:

Step 1: Purchase the RV-12 AOA RETRO KIT.

Step 2: Remove both wings, both Seat Backs and Bottom cushions, F-1227 Seat Ramp Cover, Flap Detent Bracket Assy, F-1228 Seat Floor Cover, F-1229 and F-1206E or F-00081 Baggage Floor Covers, F-1207F or F-00102 and F-00103 Baggage Bulkhead Corrugation, and the Left F-00032 Fuselage Side Cover.

Step 3: Place the left wing upside-down on padded sawhorses or table.

Step 4: Remove the VA-195H Access Hatch from the left wing.

Step 5: Drill #30 a hole for the SD-42-BSLF AOA Pressure Port Rivet on lower surface of the left wing as per Figures 1 and 2.

Set the SD-42-BSLF rivet until it is tight in the skin without breaking the mandrel off.

Drive out the mandrel. Place a block of wood with a 3/16 in. hole behind the rivet so as to not distort the wing skin while driving out the mandrel.



5-20-18
B-Sort 1st flight

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SERVICE BULLETIN 18-02-02

Date Released: February 2nd, 2018

Date Effective: February 2nd, 2018

Subject: Potential cracking in the horizontal stabilator front spar

Affected Models: RV-12

Required Action: Inspect stabilator front spar for cracks. If cracks are not present the aircraft may be returned to service until the next 100 hour or annual inspection, when this service bulletin should be performed before further flight. If cracks are found, complete this SB immediately. Kits under construction should perform this SB prior to stabilator attachment or first flight.

Time of Compliance: Before further flight

Supercedes Notice: None

Labor Required / SLSA Warranty Allowance: 6.0 Hours / \$XX US (if applicable)

Level of Certification: (Owner, LSA Repairman Inspection - *not applicable to SLSA*), LSA Repairman Maintenance, A&P

Synopsis:
Some aircraft may develop fatigue cracks in the front spar of the horizontal stabilator.

Method of Compliance:

Step 1: Remove the F-1294A and F-1294B Upper and Lower Tailcone Fairings. See KAI Section 12.

Step 2: Disconnect the F-1287E Pushrod from the Anti Servo Tab Assembly as shown in KAI Page 11-08.

Step 3: Mark the upper F-1247B Aft Stabilator Cable with a segment of tape. Disconnect both cables from the WD-1207 and WD-1208 Stabilator Horns as shown on KAI Page 32-13. Temporarily connect both cables together with a piece of wire to prevent them from falling back into the tailcone.

NOTE: The following Step is more easily accomplished with more than one person.



5-20-18
Before flight

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SERVICE BULLETIN 18-02-03

Date Released: February 2, 2018

Date Effective: February 2, 2018

Subject: Inspect anti servo tab (AST) skins for cracks and replace AST ribs at the control horns with upgraded parts.

Affected Models: Van's RV-12 and empennage kits shipped prior to December 09, 2016.

Required Action: Inspect the HS-1221 AST Skin for cracks, stop drill and install skin doublers as described in this service bulletin. Replace two inboard ribs with upgraded versions.

Time of Compliance: Inspect before further flight.

- If no cracks are detected, re-inspect at every annual condition inspection or until the modifications required by this service bulletin have been completed.
- If cracks are detected above 3/8in in length the modifications required by this service bulletin must be completed before further flight.
- If cracks are detected stop drill the end of the crack before further flight. The modifications required by this service bulletin must be completed before or at the next condition inspection.

Supersedes Notice: Not applicable.

Labor Required / SLSA Warranty Allowance: 1.5 Hrs, to replace ribs only; or 1.75 Hrs, to replace ribs and add doublers.

Level of Certification: ELSA - Minimum, Repairman (LSA) with inspection rating
SLSA - Minimum, Repairman (LSA) with maintenance rating, or A&P

Synopsis:

Three reported cracked HS-1221 Anti Servo Tab Skins in aircraft with over 900 hours. This Service Bulletin provides procedures for the repair of cracked skins and for upgrading the sub-structure to prevent cracks from developing.

Parts shipped after December 09, 2016 are not affected by this service bulletin.