



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.

There are two Cylinder #2 exhaust tube designs (EX-00017 and EX-00017-1) that are affected by this service bulletin. You must inspect your individual aircraft to determine which specific part is installed, and whether action needs to be taken.

Experience in the field suggests that some EX-00017 and EX-00017-1 Cylinder #2 exhaust tubes are prone to fatigue cracking. Complying with this service bulletin will ensure aircraft equipped with the affected parts are operating with sufficiently durable parts, equivalent to aircraft equipped with newer parts.

Note to owners: *Van's Aircraft is making updated exhaust tube parts available for installation, as described in this document. In addition, Van's will be releasing a complete replacement exhaust system retrofit kit (new muffler, exhaust tubes, etc.) for use on the original RV-12 later this year. This new system will utilize certain parts from the RV-12iS exhaust system. Therefore, if an owner is trying to decide whether they want to replace non-cracked exhaust tubes preventatively, they should be aware of the replacement exhaust system option that will be available later this year. Obviously, the cost difference between a complete replacement exhaust system vs. the replacement of two tubes is significant, but we want you to be aware of this future option when making your decisions.*

Materials Required:

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

Purchase: Qty 1 SB-00005 (this SB kit includes exhaust tubes EX-00017-2 and EX-00015-1 as well as the required new exhaust nuts)

If you have previously complied with or purchased exhaust parts to comply with SB 19-03-22, we will supply parts to you on a special reduced pricing program. Please contact Van's Aircraft directly for a replacement kit.

Carbon Monoxide detector options: You may acquire and install an Aithre Shield Carbon Monoxide (CO) detector per Van's Aircraft Service Letter SL-00010, or install any other commercially available, aviation-appropriate CO detector.

Generally speaking, Van's Aircraft recommends operating an aircraft with a CO detector onboard, including after installation of any new exhaust parts.

Method of Compliance:

Step 1: Remove the cowl.

Step 2: Inspect the Cylinder #2 exhaust to determine which part number is installed. Refer to Figure 1.

- If an EXH-1202 is installed, proceed to Step 8.
- If an EX-00017 or EX-00017-1 is installed, proceed to the next step.

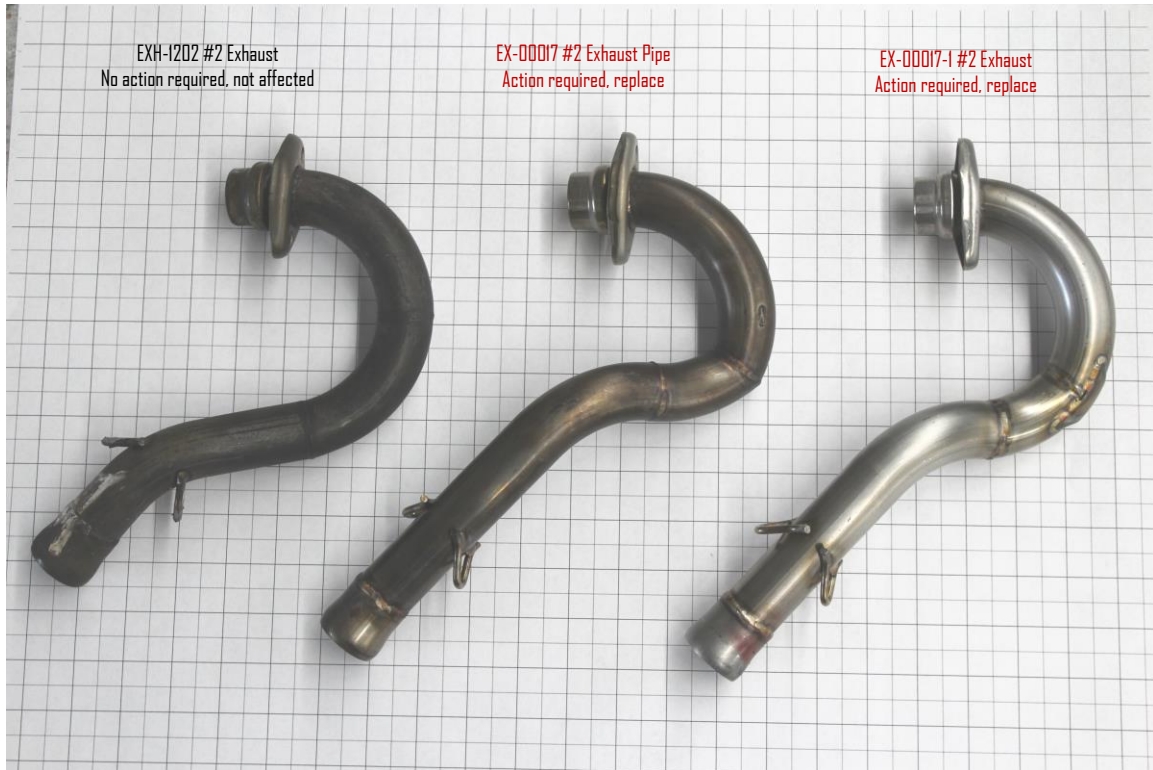


FIGURE 1: CYLINDER #2 EXHAUST VARIANTS

Step 3: Remove the EX-00017/EX-00017-1 and the EX-00015 exhaust tubes. Refer to the RV-12 Maintenance Manual Section 14.

Step 4: Loosen the remaining exhaust tubes.

Step 5: Lubricate the EX-00015-1 slip joints with anti-seize, then install the EX-00015-1. Refer to Figure 2 and the RV-12 Maintenance Manual Section 14.



FIGURE 2: EX-00015-1 INSTALLATION

Step 6: Install the EX-00017-2. Refer to the RV-12 KAI Section 48 and RV-12 Maintenance Manual Section 14.

Step 7: Adjust the muffler side-to-side position and torque the exhaust stud nuts. Refer to RV-12 KAI Section 48 and RV-12 Maintenance Manual Section 14.

Step 8: Install the cowl.

Step 9: Make a logbook entry indicating compliance with SB-00005.

Place a copy of this notification in the back of the maintenance manual for your aircraft. Note the addition of this notification to the bottom of the Maintenance Manual table of contents.

If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify Van's Aircraft, Inc.

Contact:

<https://www.vansaircraft.com/qr/transfer-of-ownership/>