

*Forced* 7161 S. Peoria 18E, Englewood, Co 80112  
*Aeromotive* (303) 755-0867 FAX (303) 369-8123  
*Technologies* forcedaeromotive.com

**SERVICE BULLETIN 0612-001**  
12-10-2006, Revision IR

**SUPERCHARGER BELT COOLING TUBE**

**Background:**

Supercharger belt life can be significantly reduced by excess heat in the belt area. Some aircraft with well sealed engine baffles do not allow much cooling air to circulate around the accessories. In hot weather temperatures in the firewall area can exceed 210° F during low speed operations like taxiing. The addition of a cooling tube directed at the supercharger pulley has been shown to extend belt life.

**Eligibility:**

Cessna 182 aircraft models E through R modified with Forced Aeromotive Technologies supercharger systems, STC # SA10232SC

**Compliance:** Voluntary

<b>Materials:</b>	<u>Part</u>	<u>Quantity</u>
	0.5 inch 3003-0 or 6061 tube	13.0 inches
	AN743-12 bracket	1
	MS21919-DG8 clamp	2
	AN3 bolt	2
	AN363-3 nut	2
	AN960-3 washer	4
	FAT Inc. P/N 182LR0115	1

**Alteration:**

At the next available maintenance interval (100 hours or annual):

1. Drill a 0.5 inch hole in the baffle at the left edge of the crankcase and just below the baffle seal. De-burr edges and clean area using best shop practice. (Figure 1)
2. Bend a 13.0 inch length of 0.5 inch 3003-0, or 6061 aluminum tube, to approximately a 67 degree angle so it will make a smooth bend from the hole drilled in step 1 to a point 1.0 to 2.0 inches from the supercharger and alternator belts where they meet the drive pulley. Bend the tube to curve it at a point 5.0 inches aft of the engine baffle. (Figure 2)

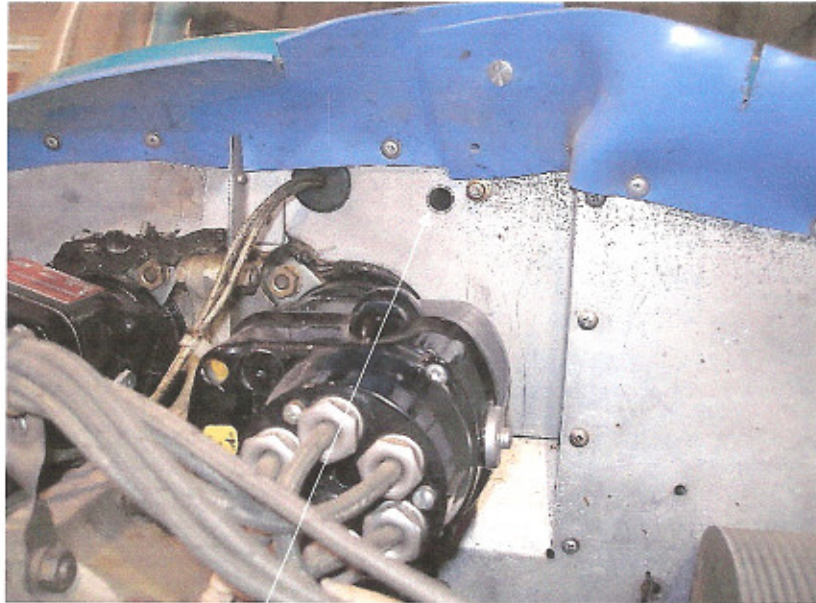


Figure 1

Drill 0.5 inch hole for tube  
Bend tube here

P/N 182LR0115

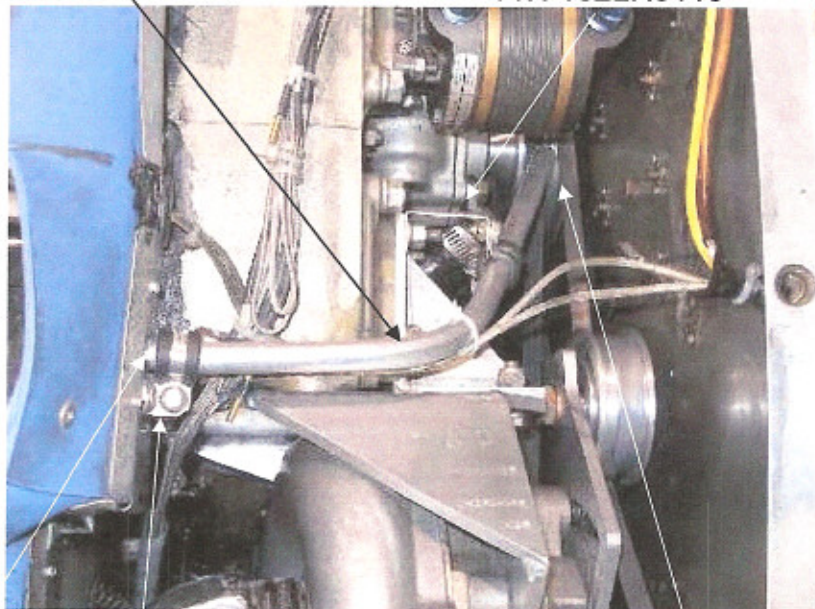


Figure 2

Hole through baffle  
AN743-12 bracket and MS21919-DG8 clamp

supercharger/alternator drive pulley

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MS 21919-DG8 clamp

P/N 182LR0115



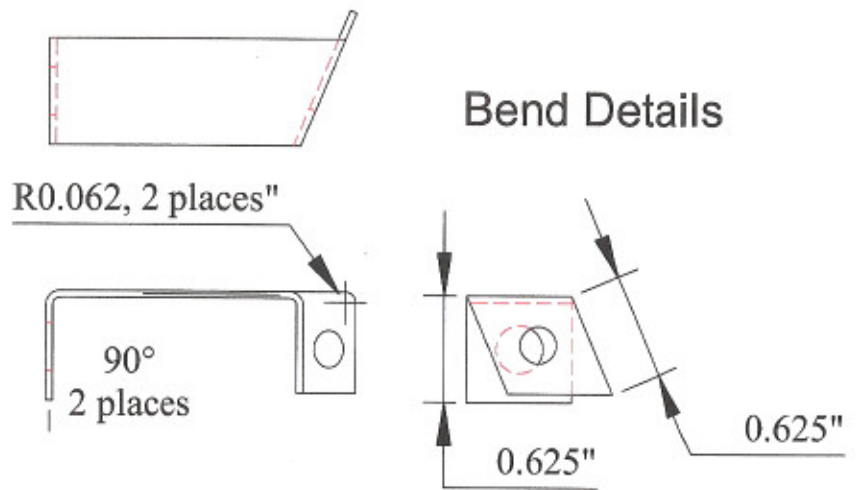
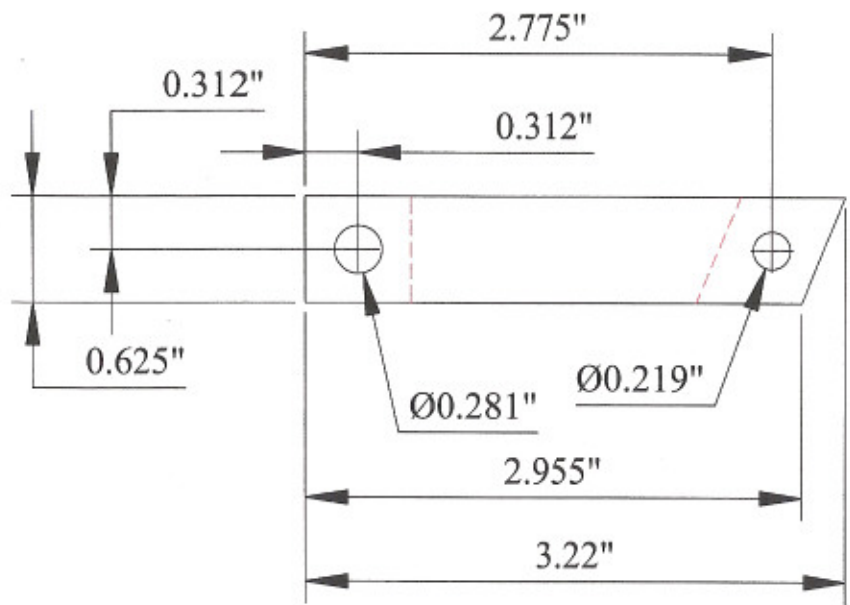
Figure 3

3. Insert the tube in the baffle with approximately 1/16 inch protruding forward of the baffle. Seal around the tubing using RTV. Secure the tube to the baffle using an AN743-12 bracket and MS 21919-DG8 clamp and an AN3 bolt and AN363 nut (Figure 2).
4. Secure the tube to the upper right stud on the left accessory pad using an MS21919-DG8 clamp, FAT Inc. bracket, P/N 182LR0115, and an AN3 bolt and AN363 nut (Figure 3). Ensure the tube is directed at the accessory drive pulley which drives the supercharger and alternator belts and that it terminates at a distance of 1-2 inches from the pulley.

Contact FAT for technical assistance.

END

- - - REVISIONS - - -			
REV.	DESCRIPTION	DATE	OK'D
N/C	PRODUCTION PROTOTYPE	3/26/06	



**ELIGIBILITY:**  
 Cessna 182 E,F,G,H,J,K,L,M,N,P,Q,R.  
 S/Ns 634, 675, 18253599 through 18268586.  
 Continental O-470-L, -R, -S, -U.

<small>UNLESS OTHERWISE SPECIFIED          DIMENSIONS ARE IN INCHES          UNLESS NOTED OTHERWISE</small> DECIMALS: +/- .1 +/- .12 +/- .125 ANGLES: +/- 3 degrees FRACTIONS:	.X	.XX	.XXX	APPROVALS DRAWN Rod Sage CHECKED R. Sage ISSUED	DATE 3/26/06 3/26/06	Rod Sage <b>O470R Supercharger Installation</b>	
	Title: SC Cooling Tube Bracket P/N182LR0115		REV. N/C				
MATERIAL: 040 2024-T3, AMS4037 or 5052 H32, AMS 4016	SCALE: NONE		SHEET 1 OF 1				