

RAM AIRCRAFT, L.P.
SERVICE BULLETIN

SB2012-01

SECTIONS B, C, & D OF THIS DOCUMENT
ARE FAA APPROVED.

SUBJECT: Engine Coolant - TSIOL-550-A

PURPOSE: To provide updated engine coolant servicing placards and recommended coolant system flush procedure information.

COMPLIANCE: Before next change or addition of engine coolant

MODELS AFFECTED: Cessna 414A modified by STC # SA7633SW-D, or STC # SA8204SW-D, or STC # SA8920SW-D

DOCUMENTS SUPERSEDED: This document supersedes RAM Service Letter # 050191.

PARTS SUPERSEDED: Part no. SB12-1P supersedes p/n 1352-14.
Part no. SB12-1T supersedes p/n 1352-15


A. INTRODUCTION

The FAA approved engine coolant for affected airplanes listed above has been marketed and labeled under different trade names which cause operators some confusion. This Service Bulletin provides the necessary placards and information to allow operators to maintain their aircraft in compliance with FAA requirements. Also, the recommended coolant system flush procedures are provided. Operators should update their applicable RAM Parts and Service Manual Supplements and Airplane Flight Manual Supplement documents with this information as instructed herein.

B. COMPLIANCE INSTRUCTIONS:

FAA approved engine coolant for affected models are any which meet specification **ASTM D3306**. (Products known to meet this specification are: Texaco/Chevron/ Havoline "DEX-COOL" and/or "ETX-6024". Other products meeting this specification are also acceptable. Be aware that some products are sold in 100% concentrate or pre-mixed.)

REQUIRED MIXTURE = 50% concentrate coolant + 50% distilled water.

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MO	DAY	YEAR	MO	DAY	YEAR		1 of 6	
11	09	2012					SB2012-01	

Before next change or addition of engine coolant, RAM recommends the following actions:

- 1) Install 2 ea. coolant door placards (p/n SB12-1P) in place of the existing placards which are located on the underside of each coolant tank filler door. (1 ea. per engine). Attach using 2 ea. MS20426A-3-3 rivets per AC43.13-1B.
- 2) Install 2 ea. coolant tank placards (p/n SB12-1T) in place of the existing placards which are located on the side of each coolant tank. (1 ea. per engine). Carefully pry off existing placard. Avoid nicks/gouges to coolant tank. Clean area with commercial lacquer thinner or equivalent to remove adhesive residue. Pre-form the new placard carefully by hand to match tank curvature. Remove adhesive backing and press new placard to clean/dry surface in the exact location as original placard.
- 3) Paste 1 ea. coolant label (p/n SB12-1L) over the existing illustration for “coolant capacity placard” in applicable FAA approved Airplane Flight Manual Supplement (AFMS):
 - a. AFMS # 1026 Rev. C, section 2.7, page 6 (STC # SA8204SW-D, opt. 2)
 - b. AFMS # 1031 Rev. C, section 2.6, page 12 (STC # SA8204SW-D, opt. 1; SA7633SW-D, standard)
 - c. AFMS # 1078 Rev. A, section 2.5, page 9 (STC # SA8920SW-D)
 - d. AFMS # 1081 Rev. A, section 2.D, page 10. (STC # SA7633SW-D, w/ Robertson STOL)
- 4) Paste 1 ea. coolant label (p/n SB12-1L) over the existing illustration for “coolant capacity placard” in RAM Parts Manual Supplement # 1382, page 7.
- 5) Paste 1 ea. coolant label (p/n SB12-1L) over the existing illustration for “coolant capacity placard” in RAM Service Manual Supplement # 1381, page 1-9.
- 6) Attach a copy of the “FLUSH PROCEDURES” section of this document in the RAM Service Manual Supplement # 1381 after page 2-14. NOTE: This document supersedes RAM Service Letter # 050191.
- 7) Make logbook entry ... as follows:

“Installed placards and updated Parts/Service Manual Supplements and AFM Supplement in accordance with RAM Service Bulletin SB2012-01.”

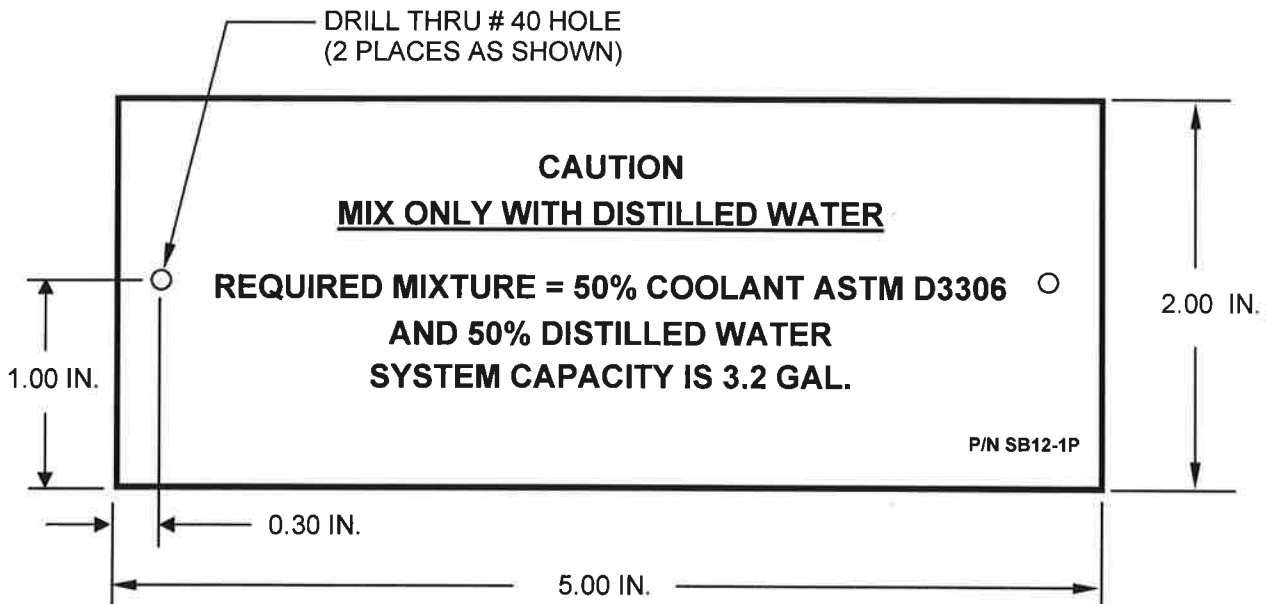
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MO	DAY	YEAR	MO	DAY	YEAR		2 of 6	
11	09	2012				SB2012-01		

B. INSTALLATION KIT P/N SB12-1:

<u>QTY: PER AIRCRAFT</u>	<u>P/N</u>	<u>DESCRIPTION</u>
2 ea.	SB12-1P	Placard, Coolant Door
2 ea.	SB12-1T	Placard, Coolant Tank
3 ea.	SB12-1L	Label, Supplement Documents
4 ea.	MS20426A-3-3	Rivet
1 ea.	SB2012-01	Service Bulletin, Engine Coolant – TSIOL-550-A

C. PLACARD:


RAM placard p/n SB12-1P (supersedes RAM p/n 1352-14 on affected aircraft).



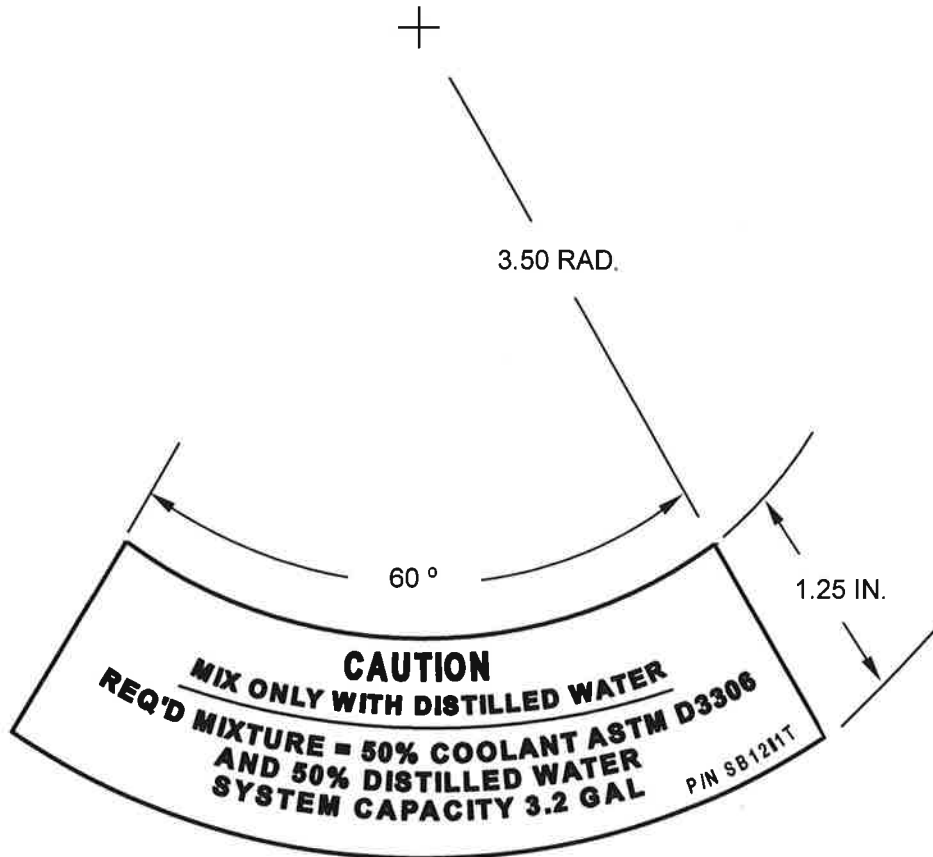
SB12-1P

NOT-TO-SCALE

PRIMARY LETTERING: BLACK / 0.12 – 0.14 INCH HIGH
P/N LETTERING: BLACK / 0.08 – 0.10 INCH HIGH
BACKGROUND: BLUE
MATERIAL: 0.020 ALUMINUM
BACK: 3M ADHESIVE # 467 OR EQUIV.

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MO	DAY	YEAR	MO	DAY	YEAR		3 of 6	
11	09	2012					SB2012-01	

RAM placard p/n SB12-1T (supersedes RAM p/n 1352-15 on affected aircraft).



SB12-1T

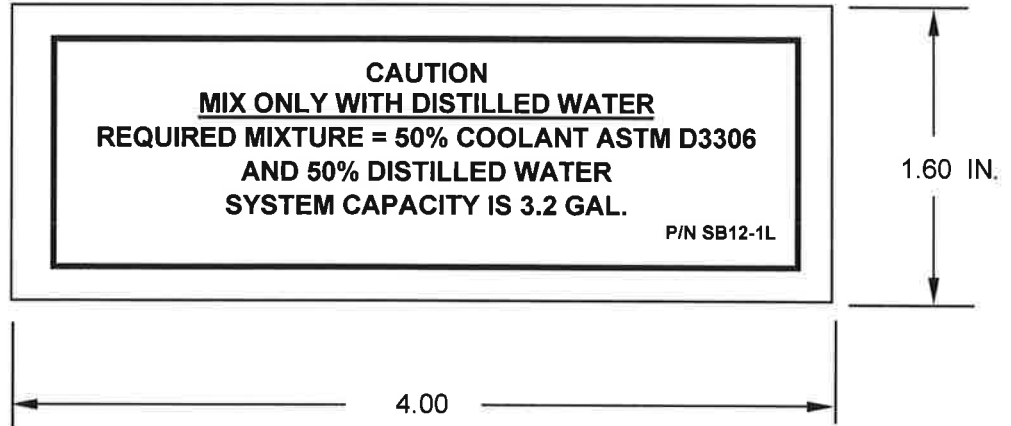
NOT-TO-SCALE

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 P/N LETTERING: BLACK / 0.08 – 0.10 INCH HIGH
 BACKGROUND: BLUE
 MATERIAL: 0.010 ALUMINUM
 BACK: 3M ADHESIVE # 467 OR EQUIV.

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MO	DAY	YEAR	MO	DAY	YEAR		4 of 6	
11	09	2012					SB2012-01	

D. LABEL:

RAM label p/n SB12-1L:



SB12-1L

NOT-TO-SCALE

- PRIMARY LETTERING: BLACK ARIAL FONT 10 PT. BOLD
- P/N LETTERING: BLACK ARIAL FONT 7 PT.
- BACKGROUND: WHITE
- ARTWORK POSITION: CENTER VERT. AND HORIZ. ON LABEL
- BORDER: BLACK, LINE-WEIGHT 2.25 PT.
- MATERIAL: AVERY 5197 OR EQUIVALENT LABEL WITH ADHESIVE BACK

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MO	DAY	YEAR	MO	DAY	YEAR		5 of 6	
11	09	2012					SB2012-01	

E. RECOMMENDED FLUSH PROCEDURES:

Materials Furnished by RAM Aircraft, L.P.: (contact Customer Service Dept.)

Flush cart
2 each BT372-MPG filters
5 gallons Radiflush

Materials Furnished by Customer:


3 gallons distilled water
3 gallons FAA approved coolant (ASTM D3306)

Procedure:

1. Secure aircraft, ensure magnetos off and power switches off.
2. Drain and dispose of coolant properly.
3. Remove radiator inlet and return hoses at firewall.
4. Install hoses supplied with the flush cart.
5. Position flush cart in front of engine and install hoses to flush cart with outlet of cart pump to return from radiator and inlet of reservoir tank to radiator inlet. (This hook-up is to facilitate back flushing of the radiator.)
6. Fill tank on cart with 1 container of Radiflush and 3 gallons of distilled water.
7. Heat water for 10 minutes.
8. Install new BT372-MPG flush filter on flush cart before starting pump.
9. Start pump and begin flow through system
10. Flush for 2.5 - 3 hours.
11. Disconnect cart, drain and replace filter.
12. Drain radiator.
13. Fill flush cart with approximately 4 gallons distilled water.
14. Hook cart to aircraft as previously described in step 4.
15. Flush for 15 minutes (water *need not be heated*).
16. Disconnect cart, and drain. (Do not replace filter.)
17. Drain radiator.
18. Install cart on other engine as in steps 1-4.
19. Fill tank on cart with 1 container of Radiflush and 3 gallons of distilled water.
20. Heat water for 10 minutes.
21. Repeat flush procedures as in steps 8-14 using the same filter.
22. Remove cart, drain water and dispose of filter.
23. Service both coolant systems per RAM Service Manual Supplement # 1381.
24. Test fly aircraft IAW applicable AFM to check coolant temperatures and pressures.

F. CONTACT INFORMATION:

RAM Aircraft, L.P. Customer Service Dept. at (254) 752-8381 (M-F, 8 AM to 5 PM, CENTRAL).

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MO	DAY	YEAR	MO	DAY	YEAR		6 of 6	
11	09	2012					SB2012-01	