



Spartan Motors Chassis, Inc.

SERVICE BULLETIN

RSB14-270-003

NHTSA Id: 14V-022

Transport Canada Id: TC14-027

8/5/2014

SUBJECT: Engine cooling fan vibration and material strength.

CONDITION: Engine cooling fan may come apart.

APPLIES TO: This bulletin applies to certain Gladiator model emergency response chassis cabs equipped with a CAT® C9 engine, clutched drive fan, and built between August 18, 2008 and September 7, 2011.

CORRECTION: Install new engine cooling fan.

LABOR ALLOCATION: 2.0 hrs.

PARTS NEEDED:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2452-001	Kit-Service, Fan 2007 C9, ERC

Kit # S-2452-001 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	1342-FF1-007	Fan-30", ACS #39325A-30
4	M10150040H7Y	Bolt-M10 X 1.50 X 40 GR10.9
6	0624HSNZ	Nut-3/8-24 GR8
10	06FWSAE8Y	Washer, Flat 3/8 GR8
2	M10150020SCS12B	Bolt-M10 X 1.50 X 20 Socket Cap GR12.9
2	M10150035SCS12B	Bolt-M10 X 1.50 X 35 Socket Cap GR12.9
1	RSB14-270-003	Document Instructions

GENERAL INSTRUCTIONS:

Please thoroughly review entire work procedure before starting work. If there are questions and/or concerns with steps defined in this procedure, contact Spartan Motors Chassis, Inc. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.



STEP-BY-STEP INSTRUCTIONS:

1. Tilt cab up following instructions on placard.



Coolant components and other engine components can be very hot if serviced shortly after operation. Serious personal injury can occur if hot components are touched.



Ensure nuts, bolts, washers, and other hardware items are not dropped into the fan shroud. Loose items left in, or around, the fan may become projectiles resulting in damage or personal injury.



Master Switch and Ignition Switch must be in the “OFF” position before removal of any components; it must remain in “OFF” position during this entire process. Serious personal injury can occur.

2. Remove charge air pipe from cooler to engine on passenger side. Retain pipe and clamps for re-use.



Do not allow dirt or debris in pipe, cooler or engine intake.

3. Remove hardware securing fan blade to clutch. Properly dispose of hardware.
4. Slide fan blade forward in shroud out of the way. If spacers come off with fan, note order to re-install. Refer to FIG. 3-1.



Ensure the radiator is not damaged by the fan.



FIG. 3-1

5. Relieve tension and remove serpentine belt. Inspect belt and replace if needed, otherwise retain belt for re-use.
6. Remove fan clutch hardware consisting of 4 to 6 fasteners. There could be three types of mounting depending on options or when the unit was built.
 - a. The first mounting configuration utilizes four exposed hex head fasteners. Refer to FIG. 3-2. Properly dispose of hardware.

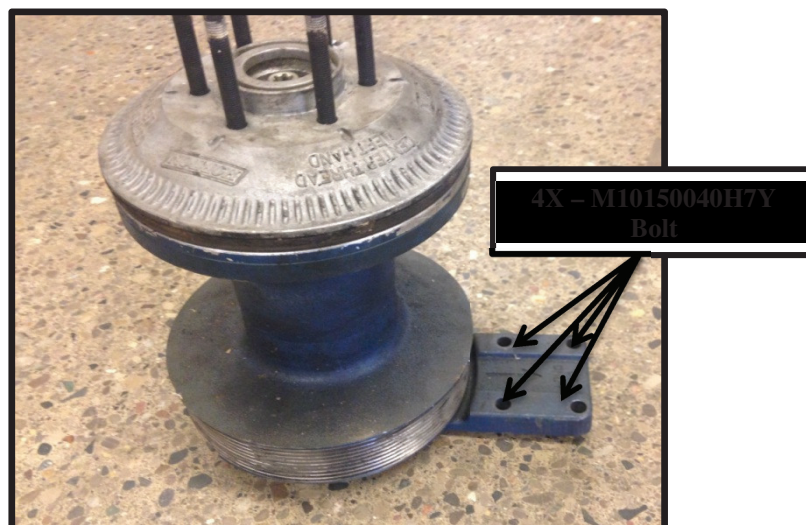


FIG. 3-2



- b. The second mounting configuration utilizes four exposed hex head fasteners and two 8mm Allen socket head cap screws accessed through a machined hole in the pulley. Refer to FIG. 4-1. Properly dispose of hardware.

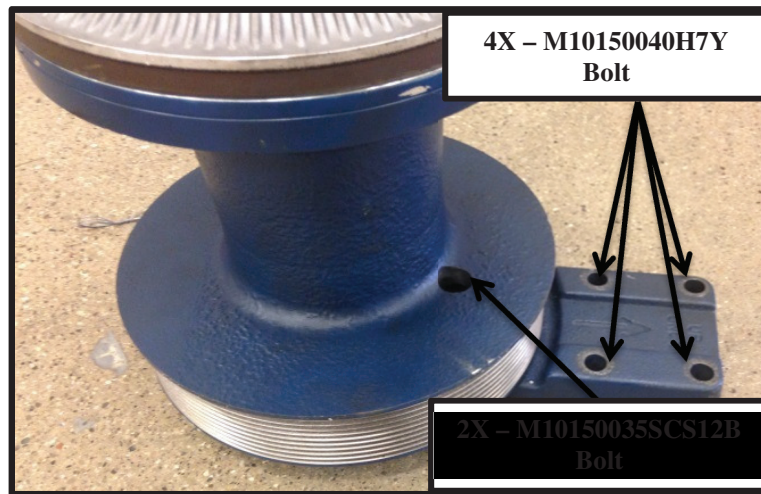


FIG. 4-1

- c. The third mounting configuration utilizes two exposed hex head fasteners and four 8mm Allen socket head cap screws accessed through a machined hole in the pulley. The top cap screws can be accessed through the hole shown in FIG. 4-2. The bottom cap screws can be accessed through the hole shown in FIG. 5-1. Properly dispose of hardware.

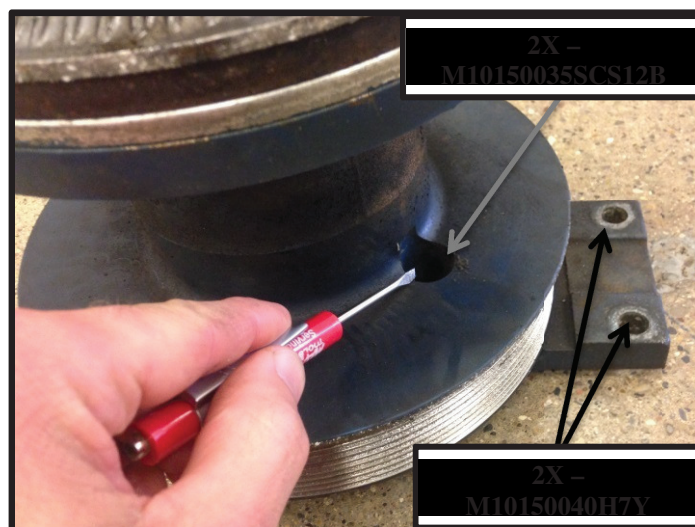


FIG. 4-2

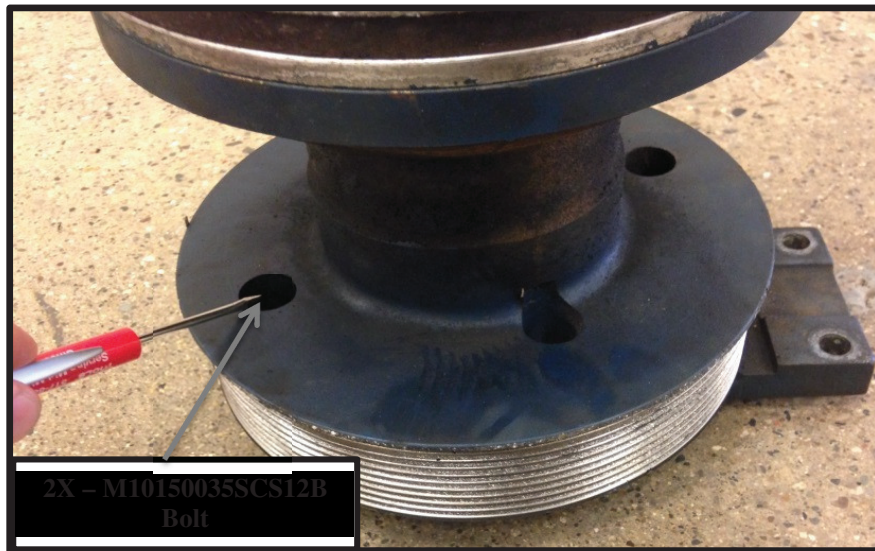


FIG. 5-1

7. Remove fan drive and retain for re-use.
8. Remove fan from shroud and properly dispose of.
9. Carefully place new fan in shroud.
10. Clean the back of the fan clutch mounting surface from oil/cosmolene.
11. Clean the mounting surface on the engine and the mounting holes with brake cleaner. Be sure to wear proper personal protective equipment.

Note: For the following instructions apply Loctite® 242® Threadlocker to the bolt on the first five threads from end of bolt.

12. Install fan drive. Be sure to mount in previously used holes utilizing correct hardware as shown in FIG's. 3-2, 4-1, 4-2, and 5-1. Torque fasteners to 41 lbs. ft.
13. Install serpentine belt. Align in grooves of all pulleys.
14. Install the spacers in the same order removed and supplied fan.
15. Install the supplied six (6) fasteners and washers and torque in a crisscross pattern to 33-37 lbs. ft. Refer to FIG. 6-1.

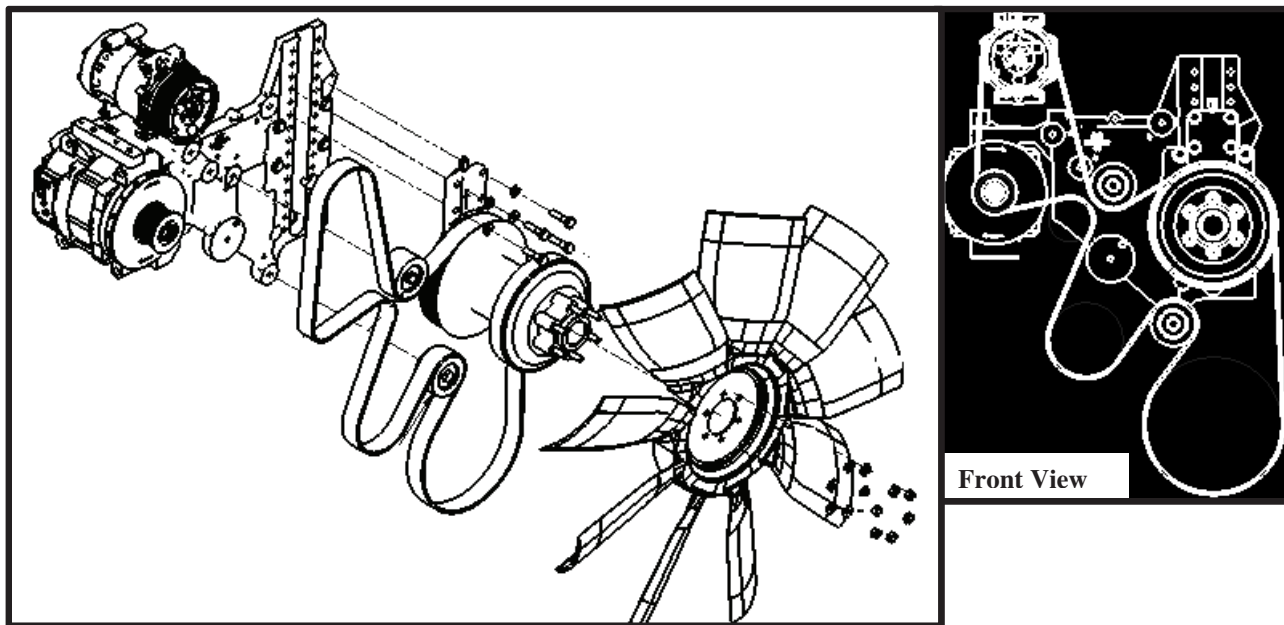


FIG. 6-1

16. Re-install retained charge air pipe and clamps. Torque to 90 lbs. in.
17. Start engine and ensure proper fan operation.
18. Tilt cab down following instructions on placard.