

SERVICE BULLETIN 0919-001
9-19-19, Revision IR

DIAMOND DA 40 BELT TENSION PROCEDURES

Background:

The rubber in a multi v-belt supplies the friction against the pulley surface. The power transmission in a belt is supplied by the cords imbedded in the rubber. The cords in a multi v-belt will continue to stretch throughout its useful life and therefore belts require re-tensioning for maximum belt life.

Eligibility:

FAT Diamond DA 40 supercharger systems, STC SA02688LA, serial numbers 3001 and on. Reference Instruction for Continued Airworthiness, document No. 20040-30, Rev A, dated September 7, 2019 or later approved revision.

Schedule:

Check a new belt at 2 hours and again at 10 hours after installation, then every 50 hours. Figure 4. This is important!

Adjusting belt tension:

- Remove the SCAT from the bottom of the supercharger airbox and loosen the clamp securing the airbox to the supercharger and remove the airbox. Figure 1.
- Engage the nuts on the back of the idler bracket with a ½ inch socket, ¼ inch drive and an extension. Figure 2.
- Loosen the bolts holding the idler in place and use a screwdriver or similar device to pry against the starter ring gear teeth and the top of the idler bracket to tension the belt. Figure 3.

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- Tension the belt so a 10-11 pound pull perpendicular to the belt results in a ¼ inch deflection
- Use a scale to measure belt tension. There is no other way to correctly tension belts.
- When replacing the supercharger airbox be sure there is some forward pressure (pre-load) from the cable on the alternate air valve. This is important to help keep vibration of the alt air valve to a minimum.
- Carefully inspect all parts before reassembly

- NOTE: It is possible to check the belt tension removing the upper cowling only.

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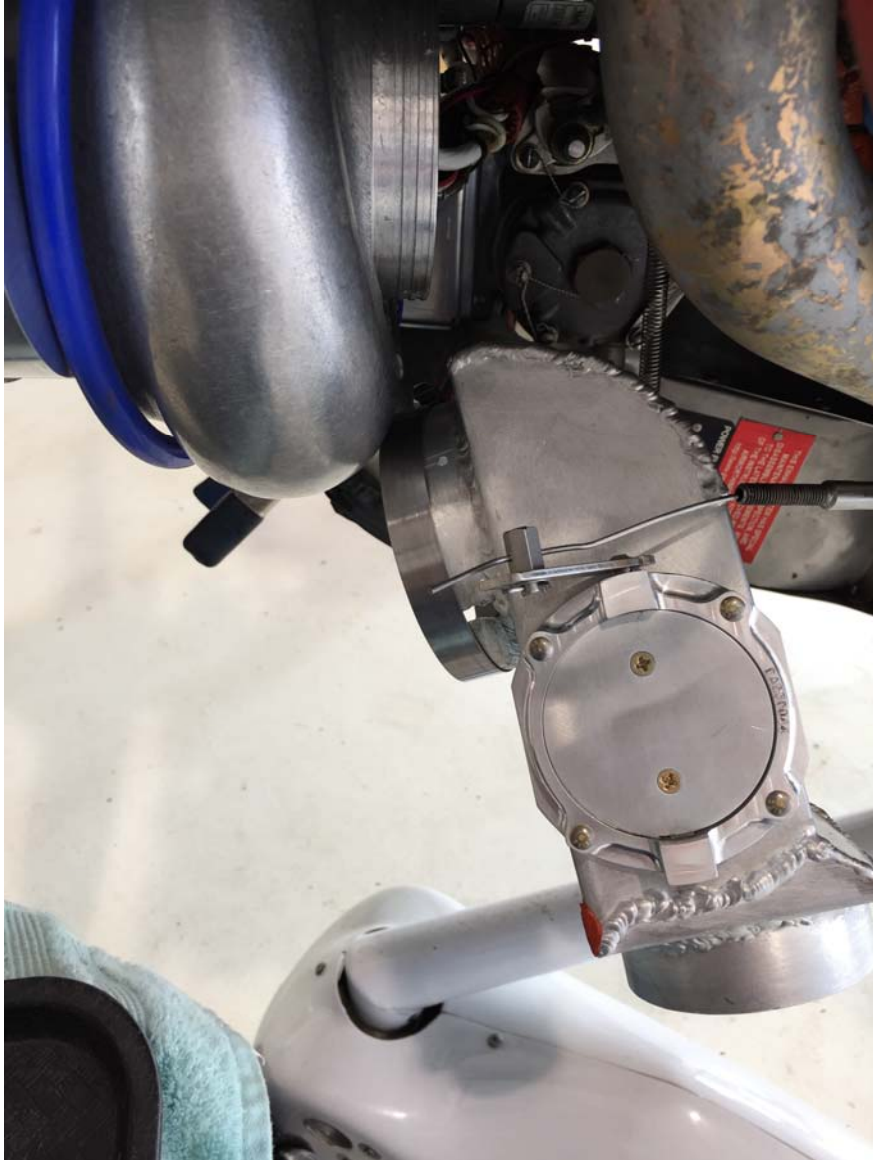


Figure 1

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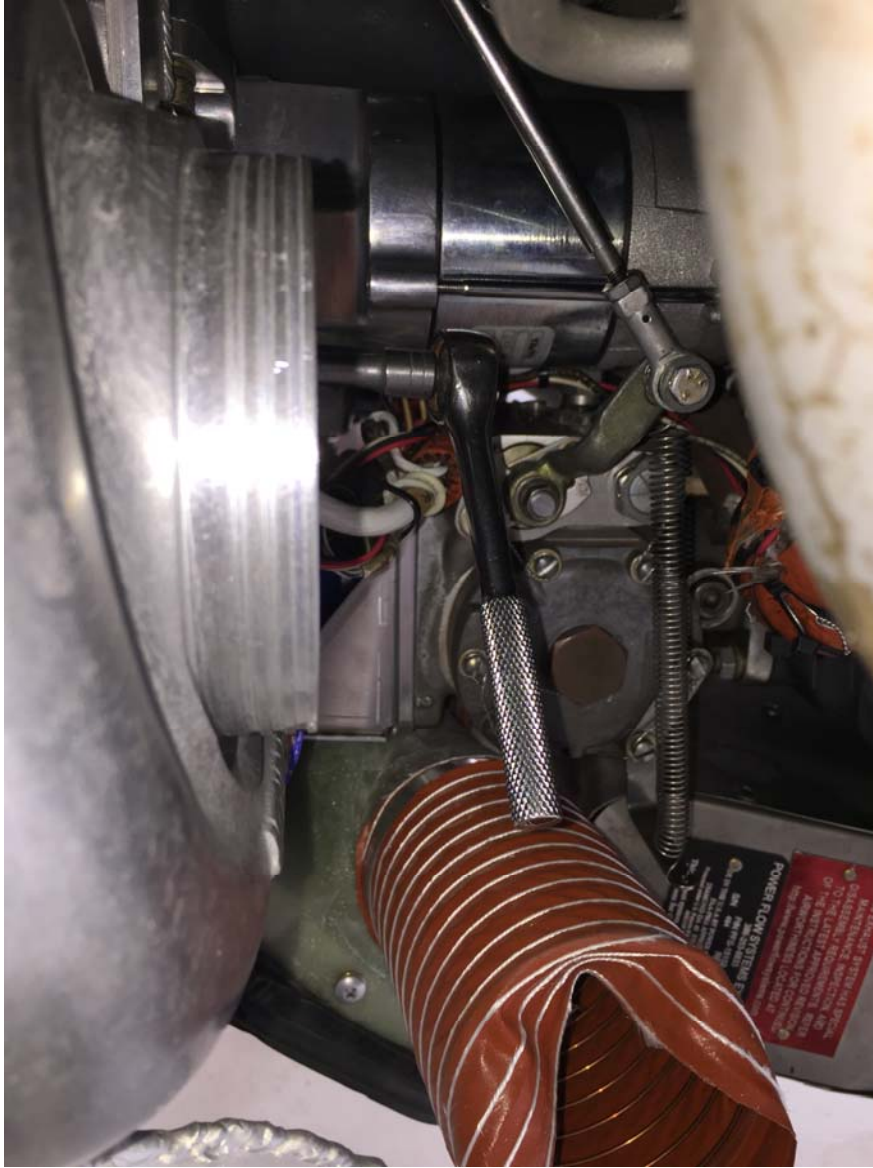


Figure 2.

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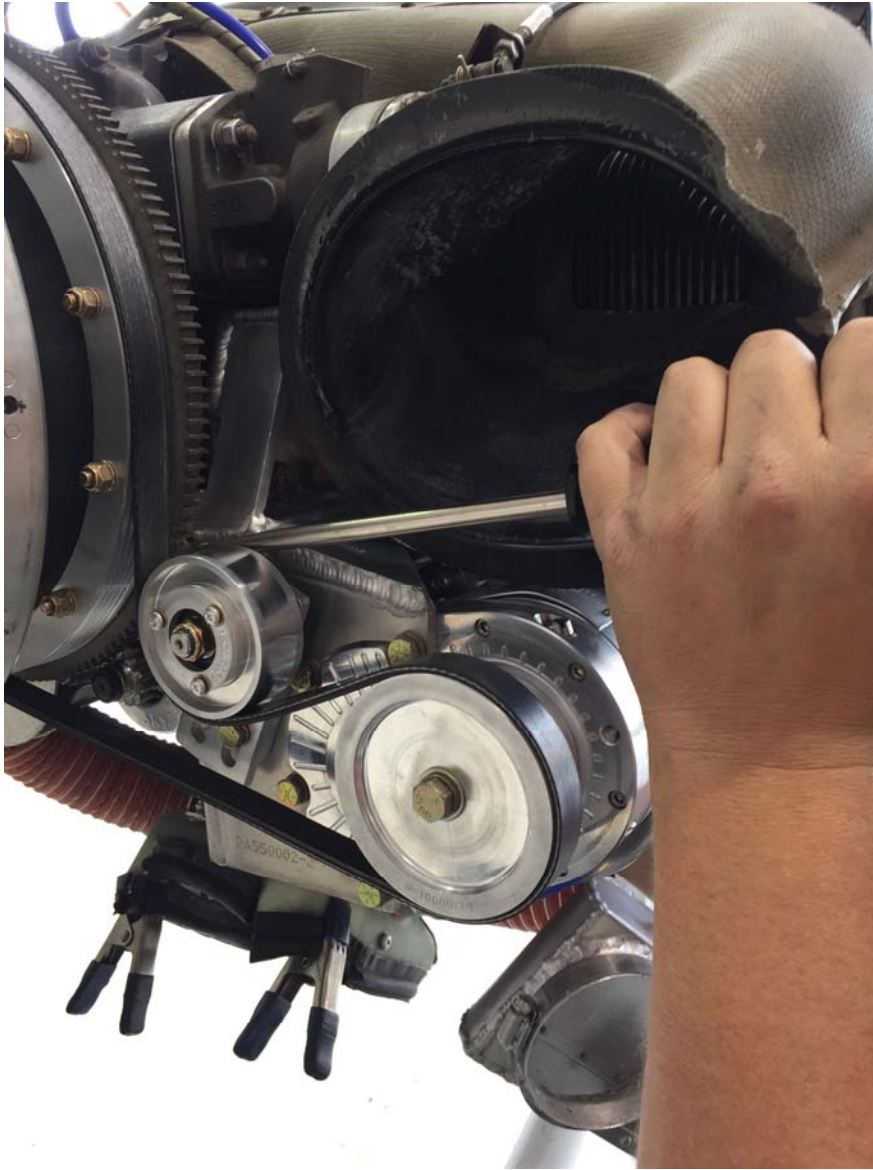


Figure 3.

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Figure 4.

Contact FAT for technical assistance.