

SERVICE BULLETIN SR22-5-09-001
5/23/2009, Revision IR

SR22 SUPERCHARGER BELT TENSION

Background:

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

Compliance: Mandatory.

Belt slippage:

Below 4.5 pounds of tension a belt may begin to slip at higher engine RPMs. A slipping belt will fail prematurely. Signs of a slipping belt are:

- less than full take-off power or cruise power. (belt is slipping at full RPM but not cruise RPM)
- soot around the cowling even after the belt is well broke in.
- fluctuating manifold pressure (belt is close to failure)

For maximum belt life:

- Tension a new belt until a 6.5-8.5 lb. pull at the center of the lower portion of the belt, between the two pulleys, results in a .25 inch belt deflection.
- The belt will stretch the most during the initial run in.
- Re-tension a new belt after 2-4 hours, again at 10-12 hours, and again at 25 hours, then every 25 hours. The interval may be increased to 50 hours once the belt is found within limits at the 25 hour interval. Make a logbook entry.
- Use only approved belts.
- Use a scale and a graduated device to measure belt tension. There is no other way to correctly tension belts.

FAT will supply a scale and graduated device at no charge on request.

Contact FAT for technical assistance.

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