



TruAtlanticMfg

A GREENWICH AEROGROUP COMPANY

CESSNA

SMOOTHRIDE ENGINE MOUNT SYSTEM

FAA / PMA Approved (STC SA00796AT)

This STC is applicable on Cessna 206, 207 & 210 series



ARE YOU READY FOR A SMOOTHER RIDE?

TruAtlantic Mfg. introduces a revolutionary innovation in engine technology with the SmoothRide Engine Mount System-STC for Cessna 200 series aircraft. Developed and manufactured exclusively by TruAtlantic, the STC kit includes a newly designed and tested six-point engine mount that provides a dramatic reduction of engine vibration to the cockpit environment. The increased stability of the SmoothRide Engine Mount System prevents engine mount sag during engine life and maintains a centered thrust line. Engine vibrations are significantly decreased from takeoff to touchdown, reducing fatigue and stress on both the airplane and the pilot. Additional reductions in vibration can be expected in Cessna 206/207 and Cessna 210 aircraft which have undergone TruAtlantic's IO-550 conversion program.

Engine isolators are increased from four to six, while dual front mounts add strength and stability. The kit includes dual engine mounts, mount legs, heat shields, all new isolators, STC drawing and fittings. Dual front mounts add strength and stability.

- 70 percent reduction in cabin vibration
- Revolutionary six-mount system
- Simple installation
- Engine vibrations decreased
- Reducing fatigue on airplane
- Reduces troublesome engine sag

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FREQUENTLY ASKED QUESTIONS

What's the biggest advantage the SmoothRide Engine Mount System offers over the standard Cessna engine mount system?

The reduction in cabin vibration is striking, especially in the lower RPM ranges. This means you and your passengers will immediately notice that your flights are smoother, less tiring and more enjoyable. You'll stay more alert on those long flights and you'll arrive more relaxed. It also means your airplane won't be subjected to as much vibration, which offers the possibility of future savings through improved component life.

Besides reduction in cabin vibration, are there any other benefits of the system?

Yes. Over time, and in some cases not a very long time, most engines in the Cessna 200 series with the standard four-point engine mount will begin to sag. This is because the weight of the engine compresses the rubber isolator in the front engine mounts. When the engine sags, the thrust line of the propeller moves away from the perfect alignment, which affects efficiency and performance. The SmoothRide Engine Mount System's double front engine mounts provide increased support of the engine's weight, preventing engine sag, restoring thrust efficiency and eliminating the need to shim the engine mounts periodically.

How was the cabin vibration reduction measured?

Our aeronautical engineers attached dual vibration sensors to the pilot seat tracks of several Cessna 210s and the airplanes were first flown with the standard four-point Cessna engine mount. Multiple vibration amplitudes were measured and recorded at each power setting. Then, the SmoothRide Engine Mount System was installed in the same airplanes with the same engines. The flight tests were repeated and cabin vibration was measured and recorded in the same manner using the same instruments. The data was compiled and loaded into a computer spreadsheet.

What does the installation involve and how long does it take?

An FAA-licensed A&P mechanic must install the STC. Experience has shown that removing the engine; locating and installing the SmoothRide Engine Mount System using the supplied templates and then reinstalling the engine accomplish the quickest installation. We have found that the installation can normally be completed in three working days and requires about 20 man-hours. If needed repairs are discovered, the total job may take longer.

My engine is past mid-time. If I have the SmoothRide Engine Mount System STC installed now, will I still enjoy its benefits? Will the system fit my next engine, or will I have to buy another STC kit then?

You will certainly be able to enjoy the benefits of the SmoothRide Engine Mount System, even if your engine is well past mid-time. In fact, you may notice an improvement when the typical engine sag of such engines is corrected. The SmoothRide Engine Mount System is designed for the TCM IO-520 and TCM IO-550 engine series approved for your airplane, so your new engine should fit nicely. Normally there would be no need to purchase an additional SmoothRide Engine Mount System STC kit when the engine is replaced at overhaul.

