Noise & Heat Reduction

By Bob Bidonde 11/2014

It's a wonderful experience when you step on the clutch and coast down the road in a Model "A." Why you ask? Because the noise goes from a roar to a whisper. Noise detracts from the joys of a touring adventure in Model "A," but there are some things you can do to make it much better.

First let's review some science about noise as it applies to vintage automobiles like our Model "A." Noise is a product of vibration, and we are well aware of how the Model "A" vibrates. The engine and the road surface make the sheet metal body panels vibrate and produce noise. Substantial noise reduction is possible by adding mass (weight) to the body panels, and by covering the panels with a muffling material.

The most common automotive material for reducing noise is a mat sandwich of foil and heavy rubber with an adhesive backing. A popular brand of the automotive mat material has a list price of $38 for an 18-inch by 32-inch piece, and pre-cut kits of mat material for Model "A's" cost as much as $500! The simple and affordable technique that follows will make driving your Model "A" a more pleasurable experience.

Roofing Shingles to Reduce Noise

Rolled roofing starter strip with a sticky backing is heavy, it's easily cut and readily available. Use a sharp razor knife to cut the roofing material into rectangles at least 3 inches wide, and long enough to span the body panels. Stick the shingle rectangles onto each body panel so that it crosses the body panel's center. Add shingles to both cowl panels, all lower door panels, all body side and rear panels. The ceiling panels are too small and sharply curved to make noise, so these panels do not require shingles.

Duct Insulation to Reduce Noise & Heat

Frost King FV516 Duct Insulation by Thermwell Products Company is a wrapping material used to insulate heating, ventilation & air conditioning ducts, and it is also massive enough to reduce panel vibration. FV516 comes in rolls and it is available in the big box home goods stores such as Home Depot and Lowes. FV516 is a sandwich of foil and foam materials with an adhesive backing having an R Value of 3. One roll of FV516 is 12 inches wide, 15 feet long, 1/8th of an inch thick and it has a retail unit price of $18.77. Two rolls of FV516 should be sufficient for a Coupe, a Tudor, a Victoria and a truck cab. Three rolls will be necessary for a Fordor. Although the FV516 has an adhesive backing, a roll of aluminum foil duct tape comes in handy to cover seams and small gaps when installing the material in the car.

Using a scissors, cut the FV516 Insulation to completely cover the interior surfaces of every body and door panel except the firewall. Exclude the firewall because most of it is visible. Also cut pieces of insulation to cover the sheet metal ceiling panels alongside the roof opening. Avoid placing insulation material under the vinyl roofing because it may reflect enough heat to melt the vinyl. Cover seams and gaps with aluminum foil duct tape. Wherever possible, install the insulation to cover the sheet metal behind body wood parts.

Aluminum Sheet Metal Heat Shield

The exhaust system muffler is below the horizontal front wood floorboard, so it's a good idea to do something about heat radiating from the muffler. There is a muffler heat shield available from Model A parts suppliers, but you can augment the shield to further reduce heat radiation through the floor. A simple solution is to cover the bottom of the floorboard on the passenger's side with bare aluminum sheet metal you can buy from the big box home improvement stores. Get the thinnest 16 x 9 inch piece of sheet metal available, and attach it to the floor board with construction adhesive. Also use brads or staples along the perimeter of the sheet metal. Leave the sheet metal bare (unpainted) so it behaves as a reflector.

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Roofing Shingle Application In A 190A Victoria



FV516 Foil Application