



Engine Shine , One Piece At A Time: Volkswagen Engine Tin Application Guide

Fan Shrouds - Upright or Doghouse Oil Cooler?

Which Fan Shroud is correct for your Air-Cooled VW?

Older VW engines through 1970 used an upright oil cooler. Cool air was forced from the fan through the fins of the oil cooler that fits inside the fan shroud itself. The compact design prevented piston #3 from receiving proper cooling, as air circulation in that area was constricted and preheated by the oil cooler.

In 1971, the fan shroud and oil cooler were redesigned to cool the larger 1600cc engines more efficiently. The oil cooler was moved to the outside of the fan shroud and additional pieces of tin were added on the rear of the fan shroud (toward the front of the vehicle) to create a "doghouse" that forces cool air from inside the shroud through a port and through the fins of the redesigned oil cooler.

It is important to carefully examine your existing fan shroud and oil cooler to select the proper replacement. An older VW may have been upgraded or a newer one retrofitted with a different shroud and oil cooler combination and not be in the original stock configuration.

Rear Cover Plate - With Preheater or Without?

Some Air-Cooled VW engines utilize preheater or heat riser tubes from the original style muffler or exhaust header to the carburetor manifold in a single-carb setup. This warm air keeps the air/fuel mixture vaporized and removes

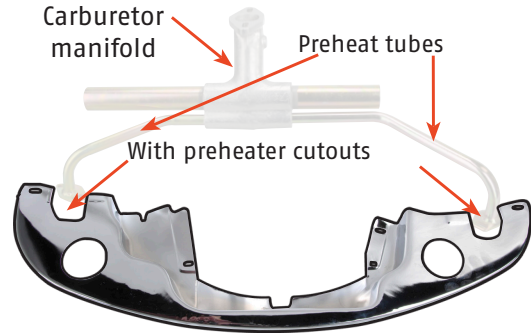
moisture in the fuel that can freeze in cold temperatures. Aftermarket Exhaust systems may not utilize heat risers, as they do not process the exhaust the same way as the original German designs. A dual-carburetor setup does not require heat risers, as the air/fuel mixture goes directly to the cylinder heads, instead of being carried through two separate short manifolds to the heads. Mid America Motorworks stocks both Rear Cover Plates with preheater riser cutouts and without.



Early style fan shroud and "upright" oil cooler

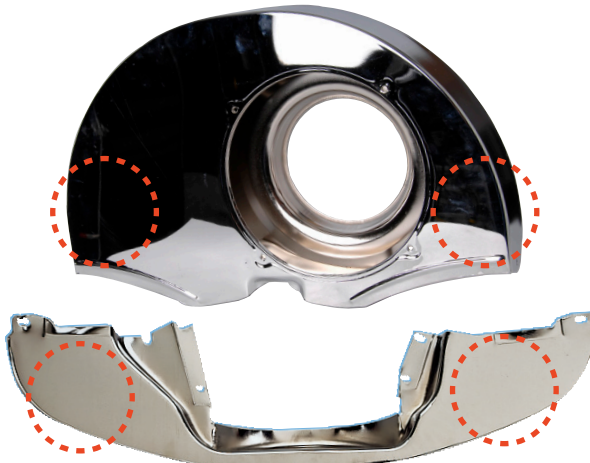


Late style fan shroud and "doghouse" oil cooler



What About Fresh Air & Heat?

Be sure to order the Fan Shroud and Rear Cover Plates that best fit your needs. The heat generated from the engine is used for climate control inside the cab of the vehicle if equipped with heater boxes and fresh air/heater ducts. Mid America Motorworks stocks Fan Shrouds and Rear Cover Plates either with or without the ports for harnessing this heat. Vehicles with custom engines or those in warmer climates that do not require heat can be equipped with closed fan shrouds and rear engine tin. This configuration is also used when J-tubes replace heat exchangers, or with many high-performance exhaust systems that do not include heat exchangers. This option allows for a "cleaner" look to your engine bay, hiding the exhaust system completely, and removes the need for plugs in the fan shroud ports. In climates where a heated cab is desirable in cold weather, the use of Fan Shrouds and Rear Cover Plates with fresh air/heater cut outs is recommended in conjunction with heat exchangers. Fresh air is circulated by the fan through the fresh air ducts, and is warmed by heat from the muffler via heater box or heat exchanger, and carried to the cab of the vehicle.



Without fresh air/heat duct ports



With fresh air/heat duct ports

Keep in mind, Rear Cover Plates with or without heater ports can be ordered with or without preheater cutouts as well.



Without preheater cutouts / Without fresh air/heater duct ports



Without preheater cutouts / With fresh air/heater duct ports



With preheater cutouts / Without fresh air/heater duct ports



With preheater cutouts / With fresh air/heater duct ports