



The Environment is Everyone's Responsibility

Engine Builders take their responsibilities very seriously.

Recycle your engine?

Why not! You make the effort to recycle paper, aluminum cans and glass bottles. Did you know you can recycle the engine in your car?

Engine recyclers (also called rebuilders or remanufacturers) have been recycling engines for as long as there have been engines.

Why would you want to recycle your engine?

- If your vehicle is in good shape interior, body, driveline, and so on it is less expensive to rebuild an engine than to purchase a new vehicle.
- Increase the resale value of a vehicle you are planning to sell with a rebuilt engine.
- Restore a vehicle with high sentimental value with a rebuilt engine.

Why could a rebuilt engine be a better choice than a "brand new" engine?

A brand new engine may not be practical because of the high cost. Rebuilt engines often carry longer warranty periods than new engines. A "factory" new engine will often carry a 90-day or 4,000 mile warranty, while a similar engine rebuilt by a professional engine rebuilder will usually be warranted for 12 months or 12,000 miles.

How does an engine rebuilder restore my engine back to service?

Before beginning any work, a professional engine rebuilder will first conduct a thorough inspection of the engine to determine if the engine is recyclable.

The engine may not be suitable for rebuilding for a variety of reasons, including:

- broken or cracked engine block
- excessive cylinder wear
- warped engine block

If none of these conditions exist and the engine is suitable for rebuilding, then the rebuilder will return your engine to "original equipment" specifications using standard and uniform sizing throughout. The process of restoring your engine to this "original equipment" condition involves a series of several procedures, including:

- Straighten, regrind, and/or polish the crankshaft
- Straighten and recondition connecting rods
- Install and fit new pistons and piston rings
- Bore and hone cylinders and "re-sleeve" if necessary
- Straighten and/or resurface cylinder head(s)
- Completely recondition cylinder heads (valve job)
- Rebalance engine components, if necessary
- Install new crankshaft and camshaft bearings
- Replace and fit camshaft, lifters, timing chain, timing gears
- Replace oil pump and/or oil pump drive components
- Assemble the engine following strict guidelines for bolt torque, tightening sequence and parts alignment
- Pre-lube and pressure test final assembly (if required)
- and more!

Where can I find an engine recycler?

Professional engine rebuilders are highly trained machinists. These rebuilders care the most about maintaining professionalism, about keeping up with the endless flow of new information, and are members of a professional engine rebuilding association.

The nearly 5,000 members of the Automotive Engine Rebuilders Association (AERA) have access to informational bulletins, updated engine specifications via computer, a Technical Hotline and receive the latest technical and management information on a monthly basis.

The majority of rebuilder members of AERA are also ASE-certified machinists. This standard of excellence for the rebuilding industry assures you that the ASE-certified machinist has passed a series of tests on specific aspects of engine rebuilding. You can be satisfied that your ASE-certified machinist can perform machining operations to extremely close tolerances, fit components together, prepare metal surfaces and understands the complex functions of engine operation.

To receive information about an ASE-certified AERA member nearest you, please call AERA toll-free 888-326-2372 or visit our website at **www.aera.org**.

--

The purpose of the AERA is:

The development and encouragement of high standards of workmanship and ethics among its members; the improvement of business conditions through the exchange of information and ideas; the promotion of the common business interests of persons and organizations engaged in the remanufacturing of internal combustion engines or basic internal components of such engines in automotive machine shops.