

AR HARLEY & SONS LTD

EPA – A Brief Explanation

Building a custom bike is a scary task for the uninitiated and an expensive one too. It's even scarier if you make a big expensive mistake that can prevent your new custom from ever being ridden on the road. If it can't legally be ridden its not much fun watching it rusting away in your garage. I hope the information below is useful.

The American Motorcyclist Association (AMA) had met with the EPA last year to get more information about new EPA regulations and how they applied to kit and custom bikes since there seemed to be a lot of talk and confusion on the issue.

When the EPA wrote their new air quality rules for motorcycles, they placed restrictions on kit bikes and custom motorcycles and had a specific idea in mind of what each class of motorcycle was:

Kit bikes are motorcycles typically built by individuals using off-the-shelf components, while custom bikes are generally show bikes built by a business and sold to a customer.

Under the regulations, a person is allowed only one kit motorcycle in their lifetime that is exempt from meeting EPA emissions requirements. For custom motorcycles, a builder may create and sell up to 24 bikes a year that don't meet EPA emissions requirements, but those machines must be labelled as exempt and are show bikes that only rarely may be ridden.

There is a way to build a bike without triggering the "one per lifetime" rule for a kit motorcycle and that is to use an EPA certified engine in the motorcycle, provided it is installed in the configuration in which it was approved by the EPA, which means with the same exhaust system, same carburetors or fuel injection, however the package was originally set up. In that case, you can build as many bikes as you want. This would apply to custom motorcycles as well.

The engine must also be installed to operate in the same or lower engine rpm in relation to vehicle speed, and no greater vehicle weight than specified in the original test.

The installation must follow instructions included with the engine which contain:

A description of the fuel tank, fuel lines, vapour lines, fuel cap, gaskets,

fittings, O-rings and other permeable components that must be installed on the vehicle, which may be the components previously certified for that vehicle by a highway motorcycle manufacturer, or a fuel tank and fuel line that meet EPA evaporative requirements through exemption (e.g. steel tanks) or through EPA design-based certification. For engines to be installed as part of a kit, the kit must include a fuel tank and fuel line that meet EPA evaporative requirements through exemption (e.g. steel tanks) or through EPA design-based certification. If a catalytic converter was specified, that must be installed, too.

So what does it all mean?

Building your own motorcycle just became a whole lot more complex, if you want to do everything your own way you can, ... once. If you want to build more than one, prepare to follow the rules.

Engine builders will need to pass increasingly stringent EPA emission testing before they can sell their engines and will need to carefully detail the installation parameters to keep the engine EPA legal in any given motorcycle. Smaller engine builders may have it very tough since the added costs of meeting these rules cannot be spread over a large number of engines.

There will probably be some room for interpretation of the "show bikes that only rarely may be ridden" portion of the description defining custom motorcycles.

If I read the rules correctly, (if someone knows otherwise, please let me know) motorcycles built prior to 1980 are not affected by these new or any EPA regulations. If engine work is important to you and you get a lot of your enjoyment from that aspect of the build, start rebuilding and restoring pre-1980 vintage bikes.

If you have anything to add to this information or any corrections to make, please let us know.

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