

DESIGN AND FABRICATION OF AQUA SILENCER FOR AUTOMOBILES

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ABSTRACT

“Aqua Silencer” is an attempt made to deal with the control of overall emissions & undesirable sound at tail pipe of a vehicle, before it is emitted to the atmosphere. It can be fitted along with or instead of catalytic converter at the tail pipe of exhaust system of a vehicle. Sound produced due to operation of an engine can be controlled using water as sound produced under water is less hearable than produced in environment. This mainly because of small sprockets in water molecules, which lowers its amplitude thus, lowers the sound level. Because of this property, water is used in this silencer & hence its name, “Aqua Silencer”. Also there is no effect of it after its installation on fuel efficiency of a vehicle, which may be petrol powered or diesel powered. Exhaust emissions can be controlled using a layer of activated charcoal which is highly porous & possesses few extra valances & has high adsorption properties, so it attracts the hazardous gases towards it & releases much less position to environment. The level of noise & smoke coming out of “Aqua Silencer” is considerably less compared to conventional silencer; also it is cheaper to build & maintain. There is no need of catalytic converter getting fitted with it, give no rise to any complications in assembling it & easy to install.

KEYWORDS: Aqua Silencer, Exhaust Emission, Fuel Efficiency, Activated Charcoal, Environment, Sound Pollution

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