

**The Law on Modifying the Engine of a Two-Wheel Motor Vehicle  
Perspective of *Sadd Adz-Dzari'ah***

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**ABSTRACT**

*This study discusses the practice of engine modification on motorcycles in the Medan Tembung District, specifically at the MRT Garage workshop. The modifications are carried out at the request of customers to increase engine capacity. However, this practice is often considered illegal because it does not comply with safety standards and existing regulations in Indonesia. This study analyzes the phenomenon from the perspective of Sadd Adz-Dzari'ah in Islamic law, which prohibits actions that have the potential to lead to harm, even if initially permitted. The study also examines Indonesian legal regulations such as Government Regulation No. 55 of 2012 and Law No. 22 of 2009, which regulate the technical aspects of motor vehicle modifications. The findings show that such modification practices violate both Islamic law and government regulations, as they cause harm such as vehicle instability and an increased risk of accidents. This study contributes to the understanding of motor vehicle modification regulations from both Islamic and Indonesian positive law perspectives.*

Penelitian ini membahas tentang praktik modifikasi mesin pada sepeda motor di Kecamatan Medan Tembung, khususnya di bengkel MRT Garage. Modifikasi tersebut dilakukan atas permintaan pelanggan untuk menambah kapasitas mesin. Akan tetapi, praktik tersebut kerap dianggap melanggar hukum karena tidak sesuai dengan standar keselamatan dan ketentuan yang berlaku di Indonesia. Penelitian ini mengkaji fenomena tersebut dari sudut pandang *Sadd Adz-Dzari'ah* dalam hukum Islam, yang melarang tindakan yang berpotensi menimbulkan bahaya, meskipun pada awalnya diizinkan. Penelitian ini juga mengkaji peraturan hukum Indonesia seperti Peraturan Pemerintah No. 55 Tahun 2012 dan Undang-Undang No. 22 Tahun 2009, yang mengatur aspek teknis modifikasi kendaraan bermotor. Hasil penelitian menunjukkan bahwa praktik modifikasi tersebut melanggar hukum Islam dan peraturan pemerintah, karena menimbulkan bahaya seperti ketidakstabilan kendaraan dan peningkatan risiko kecelakaan. Penelitian ini memberikan kontribusi terhadap pemahaman peraturan modifikasi kendaraan bermotor dari sudut pandang hukum Islam dan hukum positif Indonesia.

**Kata Kunci:** *Engine Modification, Sadd Adz-Dzari'ah, Vehicle Safety.*

## **A. INTRODUCTION**

Indonesia is one of the countries with a steadily increasing number of motor vehicles year after year. Along with this growth, the need for motorcycle service also increases (Cahyani & Hidayah, 2025). Motorcycle service not only involves mechanical repairs but also includes aspects of business transactions and Islamic legal ethics in the relationship between service providers and consumers (Rahayu et al., 2024). As social beings, humans must always adhere to the rules set by Allah Swt, both in worldly and spiritual matters, because all activities will be held accountable in the hereafter. Everyone has rights and responsibilities, and the relationship between these is governed by principles to avoid conflicts of interest (Rohmantoro et al., 2022). The legal principles that regulate these relationships in societal life are referred to as Muamalah Law (Ginasyah et al., 2025).

Motor vehicles serve as crucial means of transportation for mobility from one place to another. According to Law No. 22 of 2009 on Road Traffic and Transportation, a motor vehicle is defined as any vehicle powered by mechanical equipment in the form of an engine, excluding those that operate on rails (UU No.22, 2009). Vehicles operating on public roads must meet administrative and roadworthiness technical requirements. Administratively, this is regulated in Article 65 of the same law, which addresses the registration and identification of motor vehicles. Proof of such registration includes documents like the Vehicle Registration Certificate (STNK), the Motor Vehicle Owner's Book (BPKB), and the license plate. However, there are often modified or custom-built vehicles operating on public roads—such as mini trains, motorized pedicabs, motorcycles with sidecars, or Huller/Dedet vehicles—without proper license plates or registration documents, indicating a lack of official registration. Among the various types of modified vehicles, this study focuses on motorcycles, particularly in the Klaten Regency, where mini trains are more prevalent on public roads than other modified vehicles (Puspita et al., 2024; Sapitri et al., 2025).

In Medan Tembung District, particularly at the MRT Garage, engine modifications are still commonly carried out among both teenagers and adults. These modifications are typically based on customer requests. This study specifically examines the practice of modifying two-wheeled vehicles or motorcycles. Conducted at the MRT Garage in Medan Tembung, the research investigates how these modifications are performed secretly at the customer's request, even though such practices violate Indonesian legal regulations.

## **B. METODE**

In qualitative research, the research process and scientific understanding require the researcher to think inductively in order to capture various social phenomena through field observations, then analyze and attempt to theorize based on what is observed. This

study was conducted in the field to obtain primary data related to the issue of motorcycle engine modification by conducting interviews to gather accurate data and to determine the extent to which the law is applied in society (Efendi et al., 2019). An interview is a data collection technique conducted through structured and systematic question-and-answer sessions designed to obtain as much information as possible about the vehicle (Nurhayati et al., 2021).

## C. HASIL DAN PEMBAHASAN

### 1. Motorcycle Engine Service Practices in Medan Tembung District

The researcher conducted an interview with Mr. Agil, a mechanic at the MRT Garage workshop. Mr. Agil stated that the reasons for motorcycle engine modifications include enhancing engine performance and speed, as well as keeping up with trends and lifestyle. On the positive side, these modifications can improve engine performance and rider satisfaction. However, on the negative side, they void the official engine warranty and make fuel consumption less efficient.

Mr. Agil also mentioned that most modifications are carried out discreetly because consumers who modify their motorcycles do not want others to know about the specifications of their engines. He emphasized that it is the customers who request such engine modifications, often citing the need for more torque and higher speed. However, in today's context, these modifications are often driven more by lifestyle trends and social community influences.

From the explanation above, it can be concluded that engine modification procedures and management are still widely practiced by the community at the MRT Garage in Medan Tembung District. These modifications are made at the request of customers, each with different motivations.

### 2. Islamic Legal Analysis Based on the *Sadd Adz-Dzari'ah* Perspective

*Saddu Adz-Dzari'ah* comes from the words *Sadd* (to block or close) and *Zari'ah* (means or intermediary). According to scholars like Abu Zahra and Nasrun Harun, *Zari'ah* is something that serves as a means to something else, particularly something forbidden or harmful. Ibn Taymiyyah defines *Zari'ah* as an act that appears permissible but leads to something prohibited. In Islamic legal methodology, *Saddu Adz-Dzari'ah* refers to the serious effort of a *mujtahid* (jurist) to establish legal rulings by considering the consequences of actions—namely, preventing acts that could lead to harm.

Surah Al-Baqarah (2): 104 states:

يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَقُولُوا رَاعِنَا وَقُولُوا انظُرْنَا وَاسْمِعُوا وَلِلْكَافِرِينَ عَذَابٌ أَلِيمٌ

*“O you who have believed, do not say, 'Ra'ina' but say, 'Unzurna' and listen. And for the disbelievers is a painful punishment.”*

This verse indicates a prohibition on certain words or acts that could lead to mockery or misinterpretation, highlighting the concept of preventing harm even in seemingly minor matters. This interpretation forms a foundation for the principle of *Saddu Adz-Dzari'ah* (Nurhasanah et al., 2023).

In the case of motorcycle engine modification, although the act may seem permissible, it becomes prohibited when it leads to harmful consequences, such as increased engine size that results in vehicle instability. Even though such modifications may benefit users during long-distance travel, under the principle of *Saddu Adz-Dzari'ah*, any action that is originally permitted but has the potential to lead to something harmful is forbidden.

Ibn Qayyim categorizes *Dzari'ah* into four types based on the level of harm:

- a. Those that clearly lead to damage or destruction.
- b. Those that are permissible in essence but intended for harmful purposes (e.g., *nikah muhallil*).
- c. Those that are not intended to cause harm, but usually result in greater harm than benefit.
- d. Those that may lead to harm occasionally, but the harm is minor compared to the benefit.

Thus, modifying motorcycle engines falls under the type that is outwardly permissible but leads to considerable harm, and therefore, is not allowed from a *Saddu Adz-Dzari'ah* perspective.

### **3. Analysis of the Legal Review in Indonesia Regarding Motorcycle Engine Modification Practices**

With the emergence of regulations in the form of type testing organized by the government for mass-produced vehicles, type testing should indeed be implemented. It should be noted that the meaning of type testing is all actions of testing, as well as inspecting components or parts which aim to meet the requirements, both roadworthiness and technical, for modified vehicles. Initially, verification is indeed fundamentally necessary. The event is related to the type of modification made, whether it has received modification approval from the authorities, whether individuals or bodies responsible for certain manufacturer vehicles. However, it is important to note that under the regulations in Indonesia, modifying motor vehicles requires meeting a series of requirements to comply with the rules and safety standards set by the manufacturer for a vehicle to assist the driver's activities on the road. All modified motor vehicles result in changes to the type, whether in the form of the engine, load capacity, or dimensions, which can be subjected to design

inspections in engineering structures and tested against trailers, semi-trailers, and motor vehicles that serve as tools to meet roadworthiness and technical requirements.

It can be understood why type testing is important not only to ensure vehicle safety but also for the use of the vehicle design from a manufacturer, which also requires permission based on the brand holder itself, because It seems there is no text provided for translation. Please share the text you would like me to translate. It can be said to require permission if an image appears that is very closely related to a product using a brand by the party that produces it, and if the use or registration by another party for a similar or dissimilar product can cause loss to the party that holds exclusive rights. Private ownership workshops that are already available in the Medan Tembung District and its surroundings can alter the appearance of a vehicle, which can actually be classified as an act of violating the modification of a vehicle's appearance from its original manufacturer design. It can be seen from the case of modifying motorcycle engines to become larger than the design that is indeed identical to a certain brand.

Government Regulation of the Republic of Indonesia No. 55 of 2012 concerning vehicles in article 132 paragraphs (5) and (6) explains modifications to technical designs, arrangements, sizes, materials, lighting systems, and reflective devices, as well as the placement of motor vehicle registration plates, which can only be modified with a recommendation from the ATPM (Single Agent of the Brand Holder) and the responsible party from the vehicle manufacturer (Peraturan No.55, 2012). Whereas, as seen in paragraph (7), the workshop referred to can carry out such modifications if it has been appointed by the minister responsible for the industrial sector. If we examine the regulations on modifying motor vehicles, there is another reason for conducting type testing, which is safety, as stipulated in Article 50, paragraph 1 of Law No. 22 of 2009 on Traffic and Road Transportation (hereinafter referred to as UU LLAJ) (UU No.22, 2009). This law states that motor vehicles, whether two-wheeled or four-wheeled, obtained through importation, manufacturing, or assembly within the country for use on the road, are required to undergo testing beforehand. The tests that are intended include type testing and periodic testing. Type testing and periodic testing as explained above are mandatory for all motor vehicles that are imported, manufactured, or assembled domestically, as well as modifications to motor vehicles that result in It seems there is no text provided for translation. Please share the text you'd like me to translate, and I'll be happy to assist you! the change in vehicle type. Type testing is conducted by the type testing implementation unit, namely the Ministry of Transportation.

Vehicle modifications are considered a violation of regulations if they do not comply with specific provisions set forth by legislation. For example, Article 37 of Government Regulation Number 55 of 2012 stipulates that rearview mirrors must meet certain criteria to be used safely. As long as the replacement mirror meets those

criteria, the activity is not considered a violation. Problems arise when adjustments are misused to satisfy individual desires without considering safety or legal compliance. Changes that alter most vehicle components such as exhausts, lights, or engine sizes beyond the manufacturer's guidelines can pose significant dangers, both to the driver themselves and other road users (Firmansyah & Puspitosari, 2022).

Vehicles to increase speed. Many teenagers are driven to replace their vehicle engines to achieve better performance, often without considering safety advice (Van Harling & Urbata, 2020). Vehicle engines are designed with specific measures by manufacturers to maintain a balance between power and performance. Adjustments that exceed specific limits can shorten the engine's lifespan and increase the risk of accidents because the vehicle becomes more difficult to control. According to the rules, engine replacement is allowed if it is due to irreparable damage, and it must use an engine of the same type and specifications. In addition, vehicles that undergo engine replacement must undergo a feasibility test to ensure the vehicle remains safe for use on the road. Legal sanctions for violators of vehicle engine modification regulations are very strict and variable, depending on the type of violation committed. Vehicle owners who make modifications without approval can face various sanctions, ranging from fines in the form of official penalties to vehicle impoundment (Nanlohy & Samangun, 2025).

For example, if the modifications made endanger the safety of the driver or other road users the police. For example, if the adjustments made endanger the safety of the driver or other road users, local police can issue a ticket with a substantial fine. local authorities can impose fines that are quite substantial. In more serious cases, vehicles that have been unlawfully modified can be reallocated until the vehicle owner meets the requirements and makes the necessary adjustments with the relevant authorities. Illustration of vehicle modification violation cases occurring in Medan shows that many vehicle owners still modify their vehicles without permission, even with changes that can endanger safety. From the explanation above, it can be understood. Modifying motor vehicles that occurs at the MRT Garage workshop in Medan Tembung District. For example, modifying the engine to increase speed beyond factory specifications can increase the risk of accidents and add to the burden on law enforcement officers in maintaining activities within the city.

From the explanation above, it can be understood that modifying motor vehicles that occurs at the MRT Garage workshop in Medan Tembung district, which involves changing the shape, engine, and capacity of the motor vehicles, and is not allowed to endanger someone's life while driving on the road, also violates the regulations set by the government (Tampubolon et al., 2021).

Thus, crime can become a social phenomenon that occurs in society and, until now, is difficult to eradicate or eliminate, but prevention and mitigation efforts are still being carried out in various ways. Crime must be eradicated because it disrupts

the achievement of societal welfare, thus requiring social regulation as it relates to welfare or how the state's role in the welfare of its citizens and the government's approach to activities that directly impact the welfare of citizens. In relation to the criminal approach, essentially, in agreement with Muladi and Barda Nawawi, efforts or endeavors to combat crime are an inseparable part of efforts for social defense and efforts to achieve social welfare, so it can be said that the main goal or ultimate objective It seems there is no text provided for translation. Please share the text you'd like me to translate, and I'll be happy to assist you! from criminal policy is to ensure the realization of societal welfare, so that social regulation coordinating criminal regulation within it, or in other words, the criminal approach is part of the overall social regulation. Thus, because criminal regulation cannot be separated from other regulations, every effort to secure society must be viewed as a unity. The intelligence to ensure that these approaches do not clash and conflict with each other so that the goal of ensuring society and welfare can be achieved (Daming & Islami, 2024).

#### D. SIMPULAN

Modifying the motorcycle engine from the perspective of *Sadd Adz-Dzari'ah* is prohibited because it causes harm, one of which is the change in the motorcycle engine becoming larger and affecting the stability of the motorcycle itself. Although this modification can make it easier for consumers on long journeys, in *Sadd Adz-Dzari'ah*, actions that are fundamentally permissible because they contain benefits, but when viewed from their implementation, there is a possibility of leading to something forbidden. Government Regulation of the Republic of Indonesia No. 55 of 2012 concerning vehicles in article 132 paragraphs (5) and (6) explains modifications to technical designs, arrangements, sizes, materials, lighting systems, and reflective devices, as well as the placement of motor vehicle registration plates, which are commonly referred to as vehicle number plates. Therefore, modifications can only be carried out with a recommendation from the ATPM (Single Agent of the Brand Holder), which is directly responsible to the PT from the vehicle manufacturer. Whereas if we look at paragraph (7), the workshop referred to can carry out such modifications, which are workshops appointed by the minister responsible for the industrial sector.

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