MODIFICATIONS AND THE LAW: A CRITICAL STUDY OF THE LACUNAE IN THE MOTOR VEHICLES ACT, 1988 AND THE CENTRAL MOTOR VEHICLES RULES, 1989

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ABSTRACT

Vehicle modifications in India offer a remarkable example of a regulatory regime that has failed to keep up to date with technological developments, commercial realities, and judicial interpretations. The Motor Vehicles Act, 1988 and the Central Motor Vehicles Rules, 1989, form the main statutory framework regulating vehicle modifications - yet both laws are plagued by important definitional uncertainties, enforcement inconsistencies and structural lacunae that have created much confusion among vehicle owners, manufacturers, accessories dealers, and enforcement agencies. This article provides a doctrinal critique of the regulatory regime relating to vehicle modifications, with particular regard to structural modifications, cosmetic modifications, engine/performance modifications, accessories and EV/CNG retrofitting. It pinpoints the key lacunae in each of these areas, and concludes with a few observations on where legislative and regulatory reform efforts might profitably focus.

Keywords: Motor Vehicles Act, Motor Vehicle Modification, CMVR, Retrofitting, EV, Section 52, EV Conversion, Road Safety, Regulatory Lacunae.

I. INTRODUCTION

In 2019, the Supreme Court of India handed down its decision in S. Rajaseekaran v. Union of India, which said no vehicle shall be modified in a manner not approved under the Motor Vehicles Act. The case was understood to be a ban on vehicle modification - and in that sense it was. What it also did, in an unwelcome manner, was reveal the vagueness of the line between what is and is not permissible modification under India's law. You can't alter without permission under the Act. It doesn't tell you, in much detail, what is an alteration.

Motor vehicle modification is a wide ranging and lucrative activity in India. It ranges from a truck driver fitting a steel body on a chassis to a person in a wheelchair installing hand controls to a car enthusiast installing custom-made alloy rims to a logistics business converting a petrol vehicle to CNG. The legal implications of these actions will be different - or should be different - but the laws are not always clear on that point. We end up with an enforcement regime that is very much a pick, choose and stick approach: the same modification may be punished in one state and tolerated in another, permitted by one Regional Transport Office and not by another.

This article is in six sections. Section II reviews the legislative framework. Section III explores the key definitional gap - the meaning of "alteration". Sections IV to VII review particular modification aspects: structural, cosmetic, performance and engine, electrification/CNG. Section VIII deals with enforcement inequalities. Section IX contains a few reform suggestions.

II. THE STATUTORY FRAMEWORK: AN OVERVIEW

The Motor Vehicles Act, 1988 ('the Act') replaced the previous Motor Vehicles Act, 1939 and is the principal central legislation regarding all issues of motor vehicle registration, licensing, insurance and use in India. Modification of vehicles is provided for primarily under Section 52, which bars any person from modifying a motor vehicle in a way that is not authorised under the Act or already mentioned in the certificate of registration.

Section 52(1) provides that the owner of a motor vehicle shall not alter the vehicle in such a manner that the particulars contained in the certificate of registration of the vehicle are different from the particulars of the vehicle. Section 52(2), however, provides an exemption

for such change with the permission of the registering authority. The Central Motor Vehicles Rules, 1989 ('CMVR') contain the subordinate regulatory detail - outlining the standards for construction and equipment of different types of vehicles, emission standards, lighting, load limits, etc, and processes of type approval.

The Motor Vehicles (Amendment) Act, 2019 brought substantial changes to the fines, but no substantive change to Section 52 or modification. The Ministry of Road Transport and Highways ('MoRTH') periodically issues notifications or circulars clarifying particular issues - for example, guidelines for retrofitment of assistive devices for persons with disabilities, or the process of approval for installing CNG kits. But these notifications are not incorporated in the Act or Rules and are hard to find and apply.

The type approval process under the CMVR - an approval by which a new model of a vehicle is assessed to be in compliance with the construction and emission standards, before it is sold - is separate from the approval process for modifications. The two interact imperfectly. A modification applied to a type-approved vehicle, after it has been sold, may or may not be included in the original type approval; and the CMVR does not offer a clear way to assess whether the modification complies with the standards against which the original vehicle was type approved.

III. THE CENTRAL LACUNA: WHAT IS AN 'ALTERATION'?

The biggest issue with the modification regime is that the Act fails to define 'alteration' for the purposes of Section 52. This is no small matter. The whole prohibition in Section 52 hinges on this word and its omission from the definition section (Section 2) of the Act means that its meaning has been left to be determined by administrative practice and the occasional judicial pronouncement - neither of which has been consistent.

The vehicle registration certificate states the class, manufacturer, model, date of manufacture, engine and chassis numbers, fuel used, number of seats, unladen weight and colour of the vehicle. Section 52 bars modifications that create a difference with these details. A literal interpretation of this provision would require any alteration to these particulars to be approved. But this literal reading, if applied, would outlaw an enormous array of widely accepted changes - a tow hitch, a roof rack, a new radio, a seat cover, a respray - none of which has any impact on the safety or performance of the car.

The lack of definitional clarity as to what constitutes "alterations" as opposed to maintenance, customisation or accessorisation creates a wide degree of discretion in enforcement. The discretion of traffic police and RTO officers is left to vary between states, between officers, and sometimes even between days. The Supreme Court's directive in S. Rajaseekaran, while by no means wrong, has made this situation worse, by supplying a high-level citation for extensive enforcement practice without clarifying the definition of "alterations".

Other countries solve this problem by providing a taxonomy of modifications: some require certification by an approved engineer; some require only notification to the registration authority; some require neither, as they are not "material". India does not have such a classification. It's either alteration (not allowed without consent) or not, and there is no guidance on where the dividing line lies.

IV. STRUCTURAL MODIFICATIONS: SAFETY WITHOUT A STANDARD

Structural changes - changes to the chassis, body size, load bearing elements and seats - is the category of alteration where safety matters are at stake, and regulatory deficiencies are, therefore, most significant.

Post-manufacture structural changes are prevalent in the commercial vehicle industry. Truck chassis is bought from an original equipment manufacturer and a body, a tanker, tipper, flat bed, refrigerator, is designed and installed by a body builder. This is so common that MoRTH had issued guidelines in 2018 for body builder registration, and provided a body builder approval process. But the CMVR does not yet specify detailed structural integrity standards for the construction of a body - strength, material, integrity of mounting - that would allow an RTO to verify if a body is safe to be used for a particular purpose.

The result is clear on Indian roads: overloaded trucks with structurally deficient bodies, passenger cars modified to carry more passengers than the vehicle chassis is designed to carry, and three-wheelers with extended load carrying platforms that result in a change in the centre of gravity of the vehicle beyond its design specifications. These changes are not just unauthorised, they are also unsafe. But the corresponding regulatory apparatus does not have the technological detail to differentiate a safe body modification from an unsafe one, where the former is competently fabricated and safe. Both are either approved or unapproved.

The passenger vehicle dimension is no less problematic. The addition of a third row of seats to

a four-seater vehicle to make it a seven-seater (as is often done in states where seven-seaters pay less tax than four-seaters) changes the seating, seatbelt anchor points and possibly the suspension load.

V. COSMETIC MODIFICATIONS: THE OVERREACH OF SECTION 52

The opposite end of the spectrum from structural modifications are cosmetic modifications such as a change of colour, stickers, seat cover, alloy wheels, window tints, body kits and the like. These are the sorts of things that private vehicle owners are most likely to do, and they are also the sorts of things to which the application of Section 52 has the greatest disproportionate effects.

The colour is on the certificate of registration. Changing the colour of a vehicle - even to the same colour but made by a different manufacturer - alters the particulars registered with the RTO, and therefore requires the latter's approval before the change can be made (at least, according to a literal interpretation of Section 52). It is highly unlikely that any RTO in India gives approval to colour repaints. This means that millions of vehicles on Indian roads are technically in violation of Section 52 at any time - not because the owner was aware of the need for approval; not because the change posed a safety issue, but because the law did not make a distinction between cosmetic and structural changes.

The position of the Supreme Court in the case of fancy number plates, off-standard markings, and some types of accessories on vehicles has been more clear - they are banned and the ban has been upheld. But it has not considered the issue of a de minimis standard for cosmetic changes. The High Courts have sometimes read common sense into the rules - the Bombay High Court, for example, has been more liberal in permitting aesthetic changes - but there is no national consistency.

A particular case to note is window tinting. The CMVR Rule 100 stipulates certain visible light transmission (VLT) for windshields and windows: 70% VLT for windshields and front side windows, 50% VLT for the rear windows. While these are not aesthetic requirements, they are safety standards and have been more rigorously enforced. But the regulatory distinction between acceptable and unacceptable window tinting - which is a measurement - is not yet accompanied by a regulatory field test protocol that enforcement officers can carry out.

VI. ENGINE AND PERFORMANCE MODIFICATIONS: EMISSION, SAFETY, AND THE APPROVAL GAP

Engine modifications - ECU "tuning", adding a performance air filter, changing the exhaust, adding a turbocharger to a naturally aspirated engine - are in an odd legal position. They often affect a vehicle's emissions, a regulated aspect of vehicles under the CMVR and the subject of specific and highly technical regulation. But the criteria for assessing whether a given engine modification will make a vehicle compliant or non- compliant after modification is virtually non-existent.

Bharat Stage emission standards (brought in through CMVR Schedule V) regulate vehicles at the time of manufacture and type approval. A vehicle purchased as a BS-VI- compliant vehicle, for instance, may fail to comply with BS-VI after engine modification. There is no periodic emission test after modification that could detect this. The Pollution Under Control (PUC) certificate system tests vehicles at regular intervals, but applies threshold levels for unmodified vehicles, not modified ones, and does not require disclosure of engine modifications.

Aftermarket exhaust modifications are the most common. The installation of loud exhausts - a common modification among motorcycle enthusiasts - is prohibited both in the noise emission limits specified in CMVR Rule 120 and possibly by the ban on devices that increase noise under Section 190 of the Act. Enforcement is inconsistent and the penalties, even post the 2019 Amendment, are not deterrent given the widespread nature of the practice. More importantly, there is no certification of aftermarket exhaust components that would allow the manufacturer of a compliant performance exhaust to be able to have the component certified as compliant with CMVR noise limits.

The most significant regulatory gap is ECU tuning for performance. It is purely software-driven, leaves no physical change that can be detected by an inspection officer and can dramatically affect a vehicle's power, fuel economy and emission. ECU modification is not mentioned at all in the CMVR. With the rapid rise in complexity of the vehicle electronics, this shortfall will only increase as vehicles are increasingly software defined.

VII. EV AND CNG CONVERSIONS: RETROFITTING IN A POLICY VACUUM

Vehicle retrofits that transform combustion engine vehicles to electric or compressed natural

gas propulsion is the type of modification that has the most obvious policy implications - and, until recently, the most obvious regulatory gaps.

India has been retrofitting vehicles with CNG since the late 1990s, mainly as a response to Supreme Court orders for CNG conversion of public transport fleets in Delhi and other cities. The regulatory regime for CNG kit approval evolved in response to circumstances: MoRTH notifications put in place a type approval system for CNG kits, requiring kits to be type approved by authorised testing agencies prior to installation and installation to be done only in authorised workshops. This is a sound system in theory. However, the number of authorised installers is low outside of major cities, testing agencies have limited capacity, and many CNG conversions in smaller urban areas and rural areas are done using unapproved kits at unauthorised workshops - everyone knows this, and enforcement is patchy.

EV retrofitting - converting a petrol- or diesel-powered vehicle to electric power - is a newer, more technically challenging and much less regulated activity. In 2021, the Ministry of Road Transport and Highway (MoRTH) released guidelines for EV retrofitment, which set up a process for the approval of retrofitting kits and authorisation of retrofitting workshops. These guidelines are a good start. However, they are not without flaws: battery safety standards for retrofitted vehicles are not clearly defined; the interdependence between the retrofitted drivetrain and the original braking, steering and chassis of the vehicle - none of which have been designed to work with electric propulsion - is not evaluated in any engineering assessment; and the liability regime in case of an accident after retrofitting, due to a defective retrofitting conversion, is unclear.

Let's consider the liability issue. When a vehicle that has been manufactured by a factory is involved in an accident, and the accident is caused by a defect in the vehicle, the product liability regime - recently given teeth in the Consumer Protection Act, 2019 - allows a claim to be brought against the manufacturer. When a retrofitted vehicle crashes as a result of a conversion defect, it's not so clear: is the retrofitter a 'manufacturer'? Is the kit supplier? Is the OEM still liable for a vehicle that has had its drive train changed? The Motor Vehicles Act, CMVR and retrofit guidelines do not provide answers.

The insurance aspect is also unclear. Motor insurance is written on the basis of the vehicle as registered - fuel type and engine. CNG or EV conversion alters these particulars. Whether an insurance company can decline a claim on grounds of non- disclosure of a conversion, and

what is the nature of the insured's disclosure obligation, are ongoing issues in the Insurance Ombudsman system and not settled by statute.

VIII. ENFORCEMENT: SELECTIVE, INCONSISTENT, AND INCREASINGLY PUNITIVE

Even in cases where the law is relatively clear, enforcement of vehicle modification laws in India is highly variable across geography and category of vehicle. A roof-mounted carrier on a passenger vehicle (for example) may be permissible in one state but attract vehicle confiscation in another. Blinking lights that are common on trucks in Punjab are not enforced for years, then are the subject of a High Court suo motu action. It's not arbitrary but not rational either.

The 2019 Amendment to the 1994 Act, which increased penalties - fines for various traffic and vehicle offences were increased severalfold - has rendered inconsistent enforcement matters more. A car driver who receives a Section 52 notice post- amendment faces a much higher penalty than before, for an offence that may involve a modification that was permitted for many years in the jurisdiction. The amendment dealt with the level of penalties, but not the vagueness of the substantive law - a sequence that enhances the coercive effect of vague law, rather than reducing it.

The absence of a register of modification approvals adds to the problem. There is no centralised list of approved modifications - approved kits, approved body builders, approved retrofitters - that an enforcement officer can check to confirm whether a particular modification was properly done. The Vahan database has details of vehicle registration but not of modification approvals. An enforcement officer who comes across a CNG-converted vehicle has no electronic way of checking if the conversion was undertaken using an approved kit by an approved workshop. This leads to policing by visual inspection.

IX. TOWARDS REFORM: BRIEF OBSERVATIONS

It is not possible within the scope of this article to provide a full discussion of reform. However, a couple of observations can be made.

First, there is an immediate need for clear definitions. Section 52 needs to be refined to clarify the definition of 'alteration' so that it encompasses changes that affect the vehicle's structure,

safety or emissions in a way that is relevant to the safety of the vehicle (and so should require approval) and changes that do not (and so should not). A cascading classification, with various approval processes for various levels of alteration, would more closely align the system to the risk.

Second, the CMVR should be amended to provide technical regulations for vehicle body construction, aftermarket part approval, and post-modification emissions testing. The current rules are stuck in the late 1980s in too many ways. The CMVR does not cover ECU modification, electric retrofits or advanced driver assistance system retrofits.

MoRTH's attempts to plug these gaps through notifications are insufficient - notifications are not as clear as rules, are not readily accessible to vehicle owners or enforcement agencies, and do not fit within the broader regulatory framework.

Third, a national modification approval registry, integrated with the Vahan system, would help drive and improve compliance, and remove the room for discretion that currently exists. A enforcement officer on the road, with access to a vehicle's modification history - including approved conversions and certified aftermarket components - can make a compliance determination more quickly and fairly than the current visual inspection approach.

X. CONCLUSION

The Motor Vehicles Act and the Central Motor Vehicles Rules are a regime that is vanilla in terms of its prohibitions, vanilla in terms of the definitions it contains, and increasingly anachronistic in terms of the technology of the vehicles it regulates. The gaps in the regime highlighted in this article - the lack of definition of "alteration", the lack of technical specifications for structural modifications, the absence of any mention of ECU remapping, the nascent regime for EV retrofitting, and the structurally disjointed enforcement framework - are not minor issues. They relate to the integrity and effectiveness of the regulatory framework.

Road safety is a serious public interest. India's road death figures - some of the highest in the world - justify stringent regulation of vehicles. But rigour means far from everything. A regulation that provides a blanket ban and, in practice, regulates little, implemented arbitrarily and without technical rigour is not the answer for road safety. It serves the pretence of regulation while the real issues - structurally unsafe commercial vehicles, unsafe engine

modifications, untested retrofits - go largely unregulated. The reform project is not about deregulation of modification. It is about improving the regulation of modification.

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