



PATENT PROTECTION IN THE AUTOMOBILE INDUSTRY: AN ANALYSIS

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ABSTRACT

The patent protection in the automobile industry plays a prominent role in increasing innovations and safeguarding the rights of the manufacturers and companies. The Standard Essential Patents (SEP's) involves the process of standardization which ensures that the various technical advancements are compatible with one another. There is a necessity to comprehend the relationship between these standards and the patents. The Standard Essential Patents are not explicitly documented though it forms an essential part in the Automobile Industry. The technology producers adopt the Fair, Reasonable and Non-Discriminatory (FRAND) principles in order to obtain patent for their technologies. The Standard Essential Patents enables the automobile manufacturers to use the cutting edge technology at a reduced cost which is beneficial. The patent pools and compliance with the FRAND Principles creates a difficulty on the implementation of Standard Essential Patents where the automobile manufacturers have adopted few strategies in order to enable the implementation. The trade secrets have a great prominence in the patent protection of automobile industry as violation of trade secrets in the technologies can affect the patent protection. The suitable trade secret approach is required to be used by the automobile companies in order to obtain patent protection. Over the recent years, there has been a tremendous increase in the trade secret litigations around the world. The initiatives of protecting a design patent have been reduced on a legal basis due to the subjectivity in determining the design patents in countries like U.S and India. The registration of design patents becomes challenging while determining the innovation or novelty in the designs pertaining to the automobile industry.

KEYWORDS: Patents, Legal Compliance, Standard Essential Patents, Trade Secrets, Designs, Confidential, Automakers, Advanced Technologies, Standardized Technologies.

INTRODUCTION:

The automobile industry is ideally recognized to be one of the rapid growing industries across the globe. There is an unrestraint level of competition in the automobile industry which has led to the revenue safeguards through the Intellectual Property Rights. The inventions in the automobile industry are mostly protected by patents which act as a primary form of protection for innovations under the Intellectual Property Law. The patent protection will be granted for a vehicle or any technology present in the vehicle provided that it full fills the basic criteria of novelty, non-obviousness, having an inventive step and also capable of industrial application.

Apart from the technology related patents, the design patent is also considered as an essential element in the automobile industry which covers the ornamental parts of the vehicle. The Standard Essential Patents are an advanced form of patent which is granted for a technology leading to implementation of a standard. This forms a crucial part in the automobile industry as many manufacturers aim at holding a license for the Standard Essential Patents. The Trade Secrets in the automobile industry lies on a parallel level to patents as confidentiality between business organizations are necessary prior to granting of patents. This paper provides an analysis on the crucial aspects of patent protection in the automobile industry.

RESEARCH PROBLEM:

The automobile industry is facing a tremendous growth by means of technical innovations; still there exists a difficulty in obtaining patent protection for many advanced technologies. The Standard Essential Patents under the automobile industry does not have any specific legal compliance which leads to uncertainty in protecting the standardized technologies of vehicles. There is a necessity of protecting trade secrets in a legally recognizable manner which forms an influence on patent in the automobile industry. The determination of design patents in the automobile industry is subjective which is to be addressed under the patent laws.

RESEARCH QUESTIONS:

1. How does the Standard Essential Patents play an important role in the Automobile Industry?
2. How do trade secrets influence the patent protection in the automobile industry?
3. Whether the design patents have absolute legal validity under the automobile industry?

RESEARCH OBJECTIVES:

1. To analyse the role of Standard Essential Patents in the automobile industry.
2. To analyse the influence of trade secrets on patents in automobile industry.
3. To determine the validity of design patents in the automobile industry.

THE ROLE OF STANDARD ESSENTIAL PATENTS IN THE AUTOMOBILE INDUSTRY:

The process of creating standards by mutual agreement is known as standardization. Stated differently, it is the institutionalization of techniques and standards for the progressive and dynamic confirmation of their perspectives. Publicly available documents known as standards are the result of the standardization process. They contain specifications and guidelines meant to guarantee that a given process or product serves its intended purpose and operates as it is intended. All technical agreements and more specifically legislations have their foundations laid by standardization. It is therefore possible to argue that standards help consumers decide on a product based on information about its performance, quality, safety, and environmental impact. Their crucial function is to ensure that different product components are compatible with one another, hence promoting global trade. Although standards compliance is voluntary, governments frequently impose mandatory standards compliance on the grounds of public interest. It may be argued that the standard transforms into a technical rule if it becomes necessary. To create the standards, it is even more crucial to comprehend how the underlying patents and the standards are related to one another. Although Standard Essential Patents have well-established licensing procedures and models in the telecom industry, their use in other sectors, such as the automotive industry in general and vehicular safety systems in particular, has never been documented in an explicit manner. The following factors are considered to be prominent in regulating Standard Essential Patents in the Automobile Industry¹:

i. The Indian Patent System and the Standard Essential Patents:

Standards support widespread technology adoption by enabling systematic development and interoperability of the technology's numerous components, whereas patents aid in protecting and introducing new technologies to the market for the general public. It is crucial to realize that a business might have to select a certain technology that could be safeguarded in order to operate a specified standard. When applying these rules it results in the usage of technology that is protected which might lead to violation of patent rights resulting in a conflict.

Different Standard Setting Organizations (SSOs) have been found in order to prevent patent infringement. These SSOs license out patents which are necessary for standards, also known as SEPs, in accordance with the Fair, Reasonable, and Non-Discriminatory (FRAND) principles. Technology producers that license their patents at nominal costs and benefit in large quantities, as well as end users who obtain cutting-edge technology at a reduced cost, have mutually benefitted from the usage of Standard Essential Patents under FRAND. For instance, establishing industry standards based on vital technologies, especially safety systems, in the automobile sector may benefit technology manufacturers at a sizable user base.

ii. The Implementation of Standard Essential Patents in the Automobile Industry:

The automobile sector is undergoing a strong opposition when it comes to implementing the Standard Essential Patents. In fact, while the industry as a whole including the consumers gain from the widespread adoption of standards; the Standard Essential Patent holders have to receive remuneration for their Resource

¹ Sowmya Prakash Patra and KD Raju, Standards in Automotive Industry; Impact of Patents on its Development, Vol 25, JIPR, pp. 140-145, (September 2020)

& Development expenditures. Expensive Standard Essential Patent licensing may potentially imperil the business models of the automobile players at every stage of the manufacturing chain.

The Standard Essential Patent licensing negotiations are therefore very important, and the automotive stakeholders have to deal not only with the FRAND royalty rate but also with the risk of (i) creating a precedent in the industry because FRAND terms are often determined using similar licenses, and (ii) the risk of an injunction if the implementer is not granted a license. The concentration of Standard Essential Patents in the hands of patent pools, or non-practicing entities that are either having assigned or licensed Standard Essential Patents related to a same standard from multiple Standard Essential Patents holders in order to enforce them through licensing or litigation. This is one of the common practices of Standard Essential Patent holders that may present numerous challenges in the automobile industry.

The use of patent pools raises serious concerns for the implementers despite of its existence as a useful one-stop shop offering greater transparency and predictability. This is because using patent pools carries no industrial risk that may require exorbitant fees, and is unlikely to cover all of the Standard Essential Patents for a given standard.

iii. Strategies to protect Standard Essential Patents (SEP's) in the Automobile Industry:

Due to the rise in Standard Essential Patents litigation threats in the automobile industry over the past few years, automakers have implemented a variety of solutions, either as Standard Essential Patent holders or as implementers.

The aforementioned strategies are primarily related to (i) the contractual arrangements between automakers and component suppliers (warranties, liability caps, litigation control), (ii) selecting the most appropriate forum (national court, arbitration), and (iii) the litigation alternatives (infringement action, tort action, revocation action, FRAND royalty determination action, competition action or complaints, etc.)².

THE INFLUENCE OF TRADE SECRETS IN THE AUTOMOBILE INDUSTRY:

In the automobile industry, trade secret litigation is fast emerging as a major new front in the conflict. The surge of trade secret lawsuits being filed in US federal courts parallels this new trend. There have been 30% more trade secret cases since the Defend Trade Secrets Act was passed in 2016. In addition, trade secret litigation in US federal courts has increased dramatically over the previous 30 years, nearly tripling every ten years. These developments are especially crucial for the car sector, which is undergoing rapid technological development and could lead to an increase in trade secret conflicts.

Due to the quick protection trade secrets laws provide their ability to cover a wide range of information. The use of trade secrets has become more relevant with the advent of new technologies and innovation, such as networked autonomous cars and electric vehicles (EVs). Trade secret protection, in contrast to other intellectual property rights, is revocable and modifiable as needed, provided internal right policies are followed.

²Archana Wafgaonkar, Role of Intellectual Property Rights in Automobile Industry, Vol 10 Issue 3, IRJMSH (2019)

Eleven patents pertaining to infotainment and collision avoidance technology were allegedly violated, and Eagle Harbor Holdings LLC et al. sued Ford Motor Company, requesting \$750 million in damages. Ford learned throughout the discovery process that the plaintiff had utilized confidential Ford technical documents which were obtained from one of the company's suppliers to support patent claims against Ford. Ford filed counterclaims for the misuse of trade secrets in response to this disclosure. Both the trade secret misappropriation and all of the plaintiffs' patent claims were successfully argued by Ford during the trial. In this case, Ford was represented by Wilmer Hale. This case illustrates the dangers automakers confront due to the intricate supply chain that produces many technological components found in cars and a network that gets more intricate as the number of technology partners and technologies increases. Suppliers are typically required to exchange proprietary information and technical specifications, subject to confidentiality limitations, with automakers in order for them to produce the necessary components. In order to safeguard automakers and enable them to effectively source automotive components from suppliers worldwide, it is imperative that the appropriate trade secret approach be used. Ford turned a defensive patent battle that could have cost hundreds of millions of dollars in damages into a resounding offensive victory in this case by utilizing trade secret protections as a key component of its entire trial strategy. Thus trade secrets have a great influence over the patent claims in the automobile industry. It is evident that the companies choose trade secrets over patents in order to obtain a competitive advantage³.

AMBIGUITY OF DESIGN PATENTS IN THE AUTOMOBILE INDUSTRY:

The design patents cover the ornamental appearance of hoods, fenders, side mirrors, headlights, taillights, and other components due to the intricacy of automobile vehicles. Whereas, the utility patents intend to protect the structure and functionality of the vehicle which has a new and productive process. Recent initiatives have aimed to lessen the design patent protection of key component parts in order to increase customer choice, lower the cost of repair and replacement for drivers and insurance companies, and boost competition in the market for auto repair parts.

In the 2019 Federal Circuit case, **Auto Body Parts Association v. Ford Glob. Techs., LLC**⁴, the court was urged by the Automotive Body Parts Association (ABPA) to rule that certain Ford models' headlamp and hood design patents were unenforceable or invalid. To begin with, ABPA claimed that these design patents were void since they were "primarily functional." Drawing upon the legal concept of "aesthetic functionality" in trademark law, which may deny trademark protection for design elements that enhance a product's aesthetic appeal instead of identifying its source, ABPA contended that repairing a damaged vehicle to its original appearance rendered a design feature such as the hood which is primarily functional (meaning that there is functionality in matching the component part's aesthetic to the rest of the vehicle). Secondly, the ABPA contended that Ford's patents had run out at the time the cars were first bought and that consumers are entitled to have their products repaired. An authorized sale "exhausts" the patent holder's power to regulate subsequent sales and uses of that item, according to the exhaustion or first sale concept in patent law. To put it another way, the ABPA claimed that any Ford design patent rights included in the

³ Aryan Yashraj, Automotive Trade Secrets and Why is it different from Patents; Vol. II Issue II, IJIRL

⁴ Auto Body Parts Association v. Ford Glob. Techs., LLC, Case No. 4:13-CV-705 E.D. Tex. (Sep. 17, 2014)

vehicle had been exhausted by the time it was sold. The feasibility, validity, and enforcement of design patents on component automotive parts were strengthened when the court rejected both of these claims. A bipartisan group led by Congressman Darrel Issa reintroduced a bill in 2021 that would limit the enforceability of design patents for certain automotive component parts, despite the Federal Circuit having upheld the value of these patents. The original bill was introduced in 2013.

The House Bill 3664 adopted the **Save Money on Auto Repair Transportation Act or "SMART Act,"** which made it illegal to: (a) manufacture, import, or offer for sale any part meant to return a motor vehicle to its factory condition; and (b) use or sell those parts more than thirty months after they were first made available for purchase as a component of a motor vehicle. Thirty months after a car containing the component part is put up for sale, the aftermarket vendors may start selling design-patented component parts. The inflatable restraint system or any other component element that is located within a motor vehicle is not covered by the SMART Act; rather, it only applies to exterior component parts, such as a hood, fender, tail light, side mirror, or quarter panel. There is an increasing popularity for design patent protection in the automobile industry irrespective of the SMART Act gaining sufficient traction in changing the scope and applicability of design patents⁵.

In the Indian case of *Brighto Auto Industries vs Raj Chawla*⁶, The petition was submitted by M/s Brighto Auto Industries, a partnership company that produces a range of goods, including rearview mirrors. In their petition, M/s Brighto Auto Industries requested that the rear view mirror design that was filed under class I of the Designs Act of 1911 be cancelled.

The lawsuit argued that there was nothing novel or inventive about the registered design. The rear view mirror with the registered design had been on the market for a considerable amount of time, as the plaintiff provided proof to support his claim. The defendant asserted, however, that the design was original and that he had created it. The defendant however offered no proof to back up his assertion. The defendant acknowledged in this instance that there were rear view mirrors with rounded edges, width sides that curved or sloped, and a sloping lower length side on the market. The additional curve in the sloping top length side was the novelty that the defendant inserted. There was no such top side curve on the rear view mirrors that were previously on the market. The defendants' claimed invention was deemed insufficient by the court to qualify the design as novel. The design in question was declared to be nothing more than a straightforward modification of an earlier product that was on the market by the court, which also issued an order to annul it. Because industrial designs are unique locally, they are not invalidated by publication or usage out of the nation before registration. Until the contrary is shown, all industrial designs are legitimate. In order to claim registration, the design must be original and innovative and should not be petty. It is established that for functional aspects of any product, design registration cannot be obtained. It is pertinent to note that there is an existence of subjectivity in determining whether a design has got functionality features with regard to the automobile industry.

⁵ Alexander J. Neuwirth, Scott D. Anderson, Christopher K. Brunnquell, Design Patent Protection Remains a Valuable Tool for Automotive Manufacturers, Foley and Lardner (Dec 2022)

⁶ Brighto Auto Industries vs Raj Chawla on 24 December, 1972, ILR 1978 Delhi 120, 1977 RLR 158

CONCLUSION:

The patent protection has a great prominence over the automobile industry by way of innovations of new technologies and unique creations which stands to be outstanding in the industry. The automakers have implemented various strategies with regard to the Standard Essential Patents even though there is no specific legal compliance. There is a need to protect trade secrets legally in a confidential manner in order to obtain genuine patent claims relating to the technical inventions in the automobile industry. Though there are legislations with regard to designs, reliable eligibility criteria are required to be in place in leading to the determination of design patents across the jurisdictions. Hence, it is the responsibility of the automobile manufacturers and companies to protect their technical inventions in an advanced manner right from the initial stage of trade secrets until obtaining patents for such inventions.

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