

Fake Motor Parts

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ABSTRACT

Fake motor parts, which are also referred to as counterfeit automotive parts, constitute a significant global challenge affecting road safety, consumer confidence, and economic development. These products are manufactured and sold to imitate genuine vehicle components without meeting the quality, safety, and performance standards established by original equipment manufacturers (OEMs). The counterfeit parts most often include brake pads, engine oil filters, spark plugs, tires, bearings, batteries, airbags, and suspension components. The drivers for its proliferation include factors such as weak regulatory enforcement, high demand for inexpensive spare parts, complex global supply chains, and the growth of online marketplaces. In developing countries, including Nigeria, the prevalence of fake motor parts is particularly worrisome due to inadequate market surveillance, weak enforcement, and limited consumer awareness. The use of fake motor parts poses serious risks, which include increased vehicle breakdowns, road traffic accidents, financial losses for consumers, and reduced profitability for legitimate manufacturers. Furthermore, it undermines government revenue through tax evasion and discourages investment in the automotive sector. Combating this problem will require coordinated efforts involving governments, law enforcement agencies, manufacturers, distributors, stronger legal frameworks, and consumers. The paper takes a look at the pros and cons of fake motor parts, as well as ways to combating its proliferation to ensure human safety.

KEYWORDS: *Fake motor parts, drivers of fake motor parts, market surveillance, consumer awareness/public campaigns, risks of fake motor parts, brake failure, consumer protection, automotive supply chain, vehicle safety, airbag fraud, organized criminal network.*

INTRODUCTION

Fake motor parts, also known as counterfeit or substandard automotive parts, are imitation vehicle components that are deliberately manufactured, packaged, and sold to resemble genuine products without meeting the quality, safety, and performance standards established by original equipment manufacturers (OEMs). These fake parts include brake pads, tires, filters, bearings, spark plugs, engine components, suspension systems, and other critical vehicle parts, as shown in Figures 1, 2, and 3. This has become a global concern, particularly in developing countries where weak regulatory enforcement, porous borders, high demand for

affordable spare parts, and coupled with limited consumer awareness that facilitate their distribution [1].

The economic impact of fake motor parts extends beyond the individual consumers. The original manufacturers lose significant revenue as a result of counterfeit products, governments lose tax income, and while legitimate businesses face unfair competition. The production and distribution of counterfeit parts are often linked to organized criminal networks, making the problem both an economic and a security concern. Required to combat and address the challenges of fake motor parts is the

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need for collaboration among manufacturers, regulatory agencies, vehicle owners, and law enforcement authorities. There is the need also for public awareness campaigns, stronger quality control systems, and effective legal sanctions to effectively reduce the circulation of fake motor parts and improving road safety [1-5], as shown in Figure 4.

HISTORY

Counterfeit auto parts started as cosmetic copies and grew into safety-critical fakes. The shift tracks with globalization, OEM pricing, and later, e-commerce. The history of fake motor parts is linked to the growth of the global automotive industry. The expansion of automobile ownership during the early twentieth century led to increased demand for replacement parts, which created opportunities for counterfeit manufacturers to produce and distribute imitation components. These imitation components resembled genuine products which were made with inferior materials but without adherence to quality or safety standards. Initially, they were produced on a small scale and sold in informal markets, but due to improvements in manufacturing technology and globalization, the trade was transformed into a highly international business [6].

During the 1950s and 1960s, the rapid expansion in North America, Europe, and later Asia led to increased demand for spare parts. As vehicle ownership grew, counterfeiters began copying commonly replaced components such as brake pads, filters, spark plugs, bearings, and suspension parts – which were often difficult for consumers to distinguish from genuine parts because they closely imitated the appearance and packaging of original equipment manufacturers (OEMs) [6], as shown in Figure 5.

Turning point 1980s and 1990s:

A marked turning point in the counterfeit motor parts trade occurred during 1980s and 1990s. The liberalization of international trade, advances in manufacturing technologies, and the expansion of global supply chains enabled counterfeit products to be produced cheaply and distributed across borders. During this period, organized criminal networks became increasingly involved in the production and trafficking of counterfeit automotive components due to the high profits and relatively low risk of prosecution compared to other forms of illicit trade [7]. Early counterfeiting was known to focus on badges, emblems, wheel rims, decals – these did not affect vehicle safety, so enforcement was limited. Decals are brand labels, warning stickers, and ID marks that are stuck or transferred onto vehicle parts.

Aftermarket boom: As OEM parts became expensive, generic “aftermarket” parts grew. Criminals began to repackage cheap generics as genuine OEM brands. “Aftermarket” refers to parts, accessories, or services that are made/sold after the vehicle leaves the original manufacturer.

From 2000s to early 2010s, counterfeit motor parts had become a global concern or issue as it has moved to safety-critical parts, with the increased seizures of fake products such as airbags, brake discs, engine oils, tires, computer components, etc. The rapid growth of e-commerce further facilitated the sale of counterfeit parts, allowing consumers to unknowingly purchase fake products via online marketplace [8].

U.S. Prosecution 2011-2013: ICE/HIS, FBI, CBP charged 3 suppliers that sold counterfeit OEM brakes, brake pads, ignition coils, water pumps, wheel hubs, ABS sensors, tie rods, etc. They bought generic aftermarket parts and repackaged them as Ford, GM, Federal Mogul. The scale became visible: U.S. Customs reported 31,560 shipments of counterfeit goods worth \$1.4 billion seized in one year. One container had 10,000+ fake Nissan parts. Industry losses was estimated at \$20+ billion/year.

From 2016-2021: OECD Quantifies the UK/EU Market as follows:

- 1. OECD 2016:** Estimated around 1 billion pounds of counterfeit automotive parts imported into the UK that year.
- 2. OECD 2021:** The figure rose to 2.2 billion pounds for vehicle and motorcycle sector counterfeits imported into the UK alone.
- 3. EUIPO data:** 7% of all dangerous seized goods were fake car parts, but they accounted for the highest value share. The common fakes were: filters, brake discs/pads, lights, body panels, wheels, spark plugs, batteries, and tires.

From 2018-2024: Governments Formalize Warnings & Campaigns

- 1. UK IPO Guidance:** First published 25 July 2018, updated 18 October 2024. Includes “Business” and “Consumer” guidance to spot, avoid, and report fakes.
- 2. “Fake Always Breaks” Campaign:** UK Intellectual Property Office 2024 campaign defining fakes as “*unauthorized copies of a genuine branded part*” and warning they fail more often and pose safety risks.
- 3. Consumer data 2024:** IPO survey found 1 in 6 motorists bought a counterfeit in the last 12 months, often unknowingly. Top fakes: batteries 25%, tires/wheels 23%, airbags 14%, brakes 12%.

58% of buyers knew it was fake – citing lower cost 31% and no visible difference 34%.

4. **Major seizures:** November 2025 South Gloucestershire operation seized 3,600+ fake spark plugs, filters, wipers, sensors worth 100,000+ pounds. East London raid seized 500 counterfeit airbags.

2020s: E-commerce Makes it Global & Fast

1. **Online surge during COVID:** Sales shifted to eBay, Amazon, Alibaba, AliExpress, Wish, Instagram, Facebook.
2. **U.S. GAO Test 2019-2020:** 50% of goods bought online in a government test were counterfeit, including from Amazon, eBay, Walmart.
3. **Industry warning:** Automotive Anti-Counterfeit Council states that “*almost every type of auto part can be and has been counterfeited*” – seat belts, airbags, brakes, filters, electronics, suspension.

It is to be noted that e-commerce became dominant, providing wider reach and making traceability harder. This has made regulators now treat counterfeiting as a road-safety + organized-crime issue, and not just an intellectual property theft.

2025: Regional Snapshot – Russia

1. **Prevalence:** 60% of Russian motorists reported encountering fakes or substandard parts in 2025.
2. **Top categories:** In the categories are – Oils/fluids 71%, filters 56%, suspension 37%, brakes/electronics 23.5%.
3. **Drivers:** The drivers are the exit of some suppliers, higher OEM prices, and weak audit on online sales [9-14].

Fake motor parts are the *unauthorized copies of genuine branded parts* which are made to look like OEM or legit aftermarket, but are without safety testing, quality control, or legal approval. Let’s look at [9, 10, 14-17]:

1. Parts that are commonly faked

According to regulators and enforcement agencies, it is well known that “*almost every type of auto part can be and has been counterfeited.*” The most common and dangerous faked include:

- a) **Brakes:** Brake pads, brake discs, ABS sensors
- b) **Safety systems:** airbags, seat belts
- c) **Engine/Drivetrain:** ignition coils, water pumps, wheel hubs, tie rods
- d) **Filters & fluids:** Oil filters, air filters, engine oils
- e) **Electrical & emissions:** Spark plugs, sensors, faulty emission devices

- f) **Cosmetics/body:** Wheels, lights, body panels, wipers

2. How do fakes enter the market

Some of the ways by which fake/counterfeit motor parts enter the market include:

- a) **During repairs:** This occurs as workshop owners often buy from the illegal supply chain without knowing that the parts are counterfeit.
- b) **Repackaging:** Criminals are known to buy cheap generic aftermarket parts and repackage them as Ford, GM, Nissan, Toyota, etc.
- c) **Online platforms:** During COVID the sale shifted heavily to eBay, Wish, AliExpress, Alibaba, Instagram, Facebook.
- d) **Cross-border crime:** This is where the production in one country is sold in another. Eurojust notes that this requires cross-border judicial coordination.

3. Scale and Economic Impact

- a) **Value:** From EUIPO study – fake car parts are only 7% of all seized dangerous goods, but *by far the most valuable* confiscated products.
- b) **UK market:** OECD estimated ~1 billion pounds of counterfeit auto parts imported to UK in 2016, rising to 2.2 billion pounds in 2021.
- c) **U.S. seizures:** One container can hold 10,000+ fake parts. While industry losses are estimated at \$20+ billion/year.
- d) **High profit, “low risk”:** The production of counterfeit parts is a rising criminal phenomenon with high profit margins. For this main reason counterfeit auto parts keeping growing. Law enforcement and IP agencies call it one of the most attractive crimes for organized groups.

4. Safety and Legal Risks

- a) **Road safety:** “*Growing security risk for road users, leading to deadly accidents and serious bodily harm*”. Faulty brake pads and other essential devices (such as airbags, tires, etc.) cause casualties.
- b) **Brand damage:** This is where original manufacturers are *wrongly accused and lose credibility and/or considerable revenue*.
- c) **Prosecution approach – Cumulative charging:** Eurojust 2022 meeting recommended adding charges like *manslaughter, causing bodily harm, and fraud* to copyright infringement to raising sentencing levels.
- d) **IP infringement:** The use of fake parts is a serious infringement of copyrights of original producers.

5. Major Enforcement Actions

- a) **Eurojust 2022 meeting:** Prosecutors and law enforcement gathered to discuss how to prosecute fake parts more effectively across the EU.
 - b) **Eurojust 2022 emission case:** Coordination meeting for searches in Germany, Italy, Hungary against faulty emission devices fitted in Japanese car diesel engines.
 - c) **U.S. 2013:** ICE/HSI charged 3 suppliers for selling counterfeit brakes, ignition coils, water pumps, wheel hubs repackaged as OEM. The three individuals involved were Shashi Malhotra (67), Fadi Kilani (28) and Richard Dininni (57), who were arrested on February 2013 at their homes and charged in Manhattan Federal Court. They were charged for conspiracy plus trafficking in counterfeit auto parts, with up to 10 years imprisonment.
 - d) **UK 2025:** 3,600+ fake spark plugs, filters, wipers, sensors worth 100,000+ pounds seized in South Gloucestershire, and while 500 counterfeit airbags were seized in East London.
- ## 6. Why buyers get fakes:
- Some of the reasons adduced are:
- a) **Price:** 31% of buyers cite lower cost.
 - b) **No visible difference:** 34% say fakes look identical.
 - c) **Unawareness:** Many workshops and consumers do not know they bought counterfeit.
 - d) **Online anonymity:** It is harder to trace sellers on e-commerce and social media.
- ## 7. How to reduce risk:
- The reduction in risk can be enhanced by:
- a) **Buy from authorized dealers:** Do not buy from random online listings.
 - b) **Check packaging, holograms, part numbers** – but fakes are getting better.
 - c) **“If the price is too good to be true”** – most especially for safety parts like brakes, airbags, tires.
 - d) **Report** – UK, IPO, US CBP, EUIPO all have reporting channels. Eurojust pushes across-border reporting.

Why fake motor parts are often called “victimless crime” - and why that view is wrong

The “victimless” label comes from how the crime was treated historically, not from the actual harm. This perception exists due to [10, 14, 19]:

1. The reasons people call it “victimless” is because it is:

- a) Seen as IP/copyright infringement only.
- b) Buyers and shops often do not know.
- c) Generic parts can look/work the same – at first.
- d) Low initial legal risk.

2. Why it is NOT actually victimless

- a) Safety risk = real victims
- b) Many parts do not meet federal safety standards
- c) Brand and economic victims
- d) Trickle-down victims

3. The shift in how law treats it

This is why agencies now reject the “victimless” idea.

Eurojust 2022: Pushed for *cumulative charging* with bodily harm and fraud.

ICE/HSI: Says criminals are “*willing to counterfeit and market any product that will sell, regardless of whether it could result in serious and significant injury*”.

DETERRENCE TO FAKE MOTOR PARTS

Deterrence refers to the actions that make selling/buying of fakes riskier, costlier, and less profitable. To this end, we have:

1. Legal & Criminal deterrence

In this case, law enforcement moved from “IP crime” to “safety + fraud crime” to increase penalties.

- a) Higher criminal charges – where prosecutors now use “*cumulative charging, adding charges such as manslaughter, causing bodily harm and fraud to copyright infringements to raise the level of sentencing*” [10, 14, 15]. What does “cumulative charging” mean? It means that instead of 1 charge: “trademark infringement” – Prosecutors file 3-4 charges: “trademark infringement + fraud + causing bodily harm + manslaughter” if someone dies. The goal is to ensure much longer prison sentences + asset seizure.
- b) Federal trafficking charges [10].
- c) Asset forfeiture – SDNY sought forfeiture of proceeds and property used in the 2013 scheme [10, 20].
- d) Joint agency task forces
FBI + ICE HS I + CBP + Department of Commerce investigated the 2013 case [10, 20].

2. Border & Supply Chain Deterrence

- a) CBP/ICE seizures at ports [19].
- b) IPR Center operations
ICE runs the National IPR Center to target online sellers and importers of counterfeit parts.
- c) Importer liability
ICE warned: *"Many types of aftermarket parts....do not have to meet independent federal safety standards"* – so importers can be liable for safety violations, not just trademarks [19].

3. Market & Industry Deterrence

a) OEM authentication

Holograms, QR codes, serial numbers, tamper-evidence packaging. Ford, GM, Bosch now have verification hotlines, as shown in Figure 6.

b) Authorized distributor programs

OEMs cut off supply to shops caught with fakes. The 2013 ring sold to shops "including repair shops that service New York City's taxis and limousines" – cutting them off hits revenue [20].

c) Consumer awareness campaigns

NHTSA alerts on counterfeit airbags [18], and while DOJ/FBI set up hotlines for inspection after the 2013 case [10].

4. Civil & Economic Deterrence

a) Lawsuits by OEMs

Trademark infringement + unfair competition + product liability claims. Brand sue to recover *"credibility and/or considerable revenue lost"* [16].

b) Insurance denial

If a crash is traced to a counterfeit safety part, insurers can deny claims.

c) Reputation risk

Eurojust: *"leading to deadly accidents and serious bodily harm"* – shops will face lawsuits and loss of business [14].

5. Technical Deterrence

a) FMVSS compliance testing

Parts must meet Federal Motor Vehicle Safety Standards. Fakes skip this – which was why ICE flagged it [19].

b) Blockchain/tracking

Some OEMs now use track-and-trace from factory to installer to prove authenticity.

The bottom line is that the main deterrence now is 3-part i.e.:

1. Jail time + safety charges not just fines.
2. Border seizures + supply chain cutoffs.
3. Consumer/shop liability if a fake part causes a crash.

The key differences in deterrence are that deterrence in the US and the EU are very strong, while Nigeria has strong laws but weak enforcement. In Nigeria, the Standard Organization of Nigeria (SON) Act gives power to seize, destroy, and prosecute fake and low quality products, as shown in Figure 7. Federal Competition and Consumer Protection Commission (FCCPC) can fine companies, but market raids are inconsistent and penalties are low vs profit. Biggest risk is FRSC/Police action if fake part causes accident [21, 22]. The bottom line is that in the US counterfeiters get jailed + huge fines; EU = jail + safety charges added, and in Nigeria = seizure + fines, but criminal jail is rare. The profit margin is high everywhere, but legal risk is now highest in US/EU because prosecutors treat it as a safety crime.

Common Risk for Sellers in all 3 (i. e. US, EU and Nigeria)

1. **Supply chain cut-off:** OEMs blacklist shops – as happened to shops in 2013 case.
2. **Reputational damage:** *"Manufacturers are wrongly accused and lose credibility"* [14].
3. **Product failure liability:** If brakes/airbags fail, seller can be sued for damages [20].

CONCLUSION

The proliferation of fake motor parts remains a serious challenge to road safety, consumer protection, and economic development worldwide, particularly in developing countries. Counterfeit parts are often manufactured with substandard materials and without adherence to recognized quality and safety standards. Due to this, they are more likely to fail prematurely, causing vehicle breakdowns, road traffic accidents, increased maintenance costs, and, in severe cases, loss of lives. Counterfeit parts undermine legitimate producers/manufacturers and distributors by reducing sales, damaging reputations, and discouraging innovation. It also causes governments to suffer significant revenue losses due to tax evasion, smuggling, and illegal trade associated with counterfeit products. The widespread availability of fake parts via informal markets and online platforms has further complicated efforts to control their distribution. Addressing this problem requires a coordinated approach that will involve governments, manufacturers, law enforcement agencies, customs authorities, standards organizations, retailers, and consumers. There is the need also for stronger legislation, stricter border controls, enhanced market surveillance, tougher penalties for counterfeiters (death penalty or life imprisonment), public awareness campaigns, and the adoption of authentication technologies such as QR codes, RFID, holograms, and blockchain-based traceability which

can significantly reduce the circulation of fake motor parts. Consumers should as well purchase vehicle components only from authorized dealers and verify product authenticity before installation. More information can be obtained in the books in [23-34] and the following related journals:

Journal of Intellectual Property Law & Practice

Mehran University Research Journal of Engineering and Technology

Asian Journal of Criminology

Academic Journals and Conferences (SEMI)

European Journal of Business and Management

Academic Journal of Lviv Polytechnic National University

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Figure 4. Protect IP Act

Source:

https://en.wikipedia.org/wiki/PROTECT_IP_Act



Figure 5. Counterfeiters

Source: <https://en.wikipedia.org/wiki/Counterfeit>

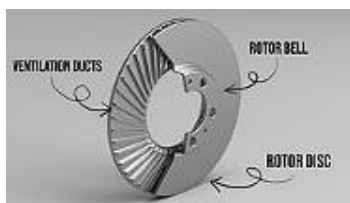


Figure 1. Disc brake

Source: https://en.wikipedia.org/wiki/Disc_brake



Figure 2. Suspected-counterfeit-goods-worth-ps20000-seized-by-police-in-sutton-3063119



Over 600 plugs sold in Ireland hit with 'stop use immediately' warning

Figure 3. Fake plugs sold in Ireland.



Figure 6. QR code

Source: https://en.wikipedia.org/wiki/QR_code



Figure 7. How-to-identify-fake-or-lowquality-inverter-batteries-in-the-market