









2025
Alternatively Fueled
Vehicle Report

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The Texas Department of Motor Vehicles

The Texas Department of Motor Vehicles is a dynamic state agency with the mission to serve, protect, and advance the citizens and industries in the state with quality motor vehicle related services. In addition to licensing vehicle dealers, awarding grants to law enforcement to combat motor vehicle crimes, and issuing operating authority and oversize/overweight permits to motor carriers, the department oversees the issuance of tens of millions of vehicle registration insignias and millions of vehicle titles annually.

Executive Summary

The Texas Department of Motor Vehicles reports the number of alternatively fueled vehicles (AFV) registered in Texas to the Texas Legislature annually pursuant to <u>Texas Transportation Code</u> §502.004. As defined by statute for the purposes of this report, AFVs are motor vehicles capable of using fuels other than gasoline or diesel fuel and hybrid vehicles.

There were 1,010,862 AFVs registered in Texas at the end of fiscal year (FY) 2025. Although AFVs represent less than 4% of the total number of vehicles registered, their numbers have grown over 213% in the last five years (Chart 1), significantly outpacing the 6.9% growth in total vehicle registrations during the same period (Chart 2).



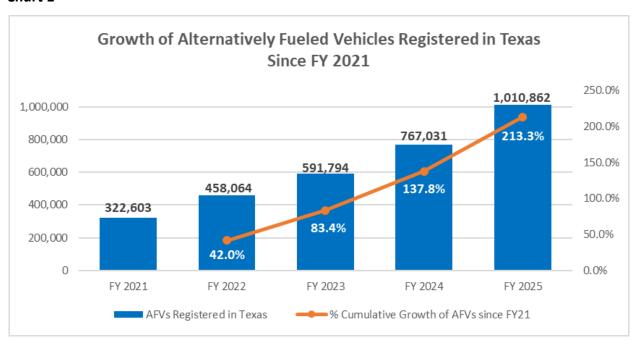


Chart 2

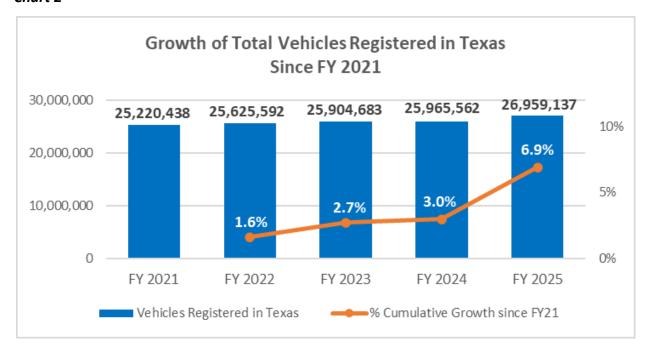


Chart 3 shows the breakdown by fuel type of AFVs registered in Texas. Electric and gas hybrids remain the predominant type of AFV registered, representing 66.2% of registered AFVs, but that share has decreased by more than 13% in the last five years. Over the same period, electric vehicles registered as a percentage of all AFVs have increased by more than 14% with electric vehicles now accounting for 33.1% of registered AFVs.

Chart 3

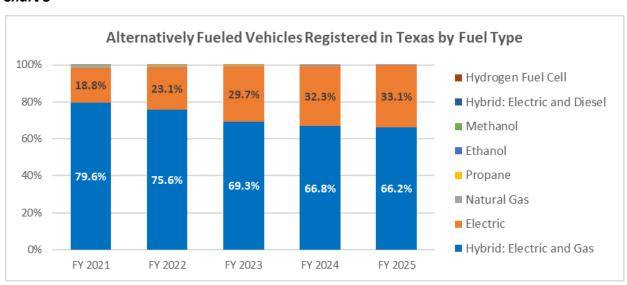
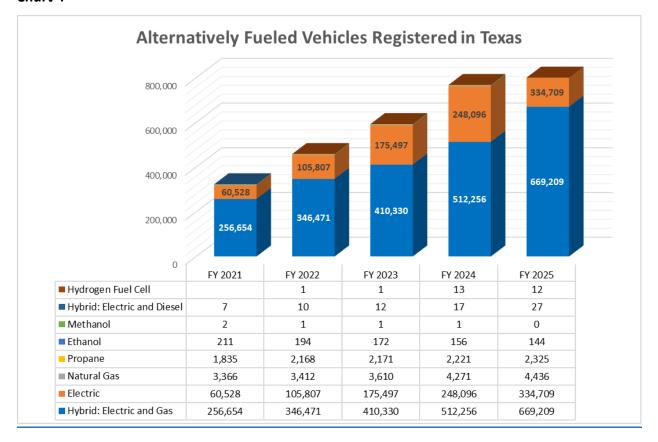


Chart 4 summarizes AFV registration data from the last five years. In that time, the number of registered AFVs in Texas has increased by 688,259 (213.3%), primarily driven by an increase in electric and gas hybrids of 412,555 (160.7%) and electric vehicle registration increases of 274,181 (452.9%).

Chart 4



Methodology

A Vehicle Identification Number (VIN) is a unique alphanumeric identifier that has been assigned to individual vehicles by vehicle manufacturers since 1954. While its form and function have changed over time, the standard 17-character VIN used today was developed by the National Highway Traffic Safety Administration and has been required for all over-the-road vehicles, including passenger cars, multi-purpose passenger vehicles, trucks, buses, incomplete vehicles and motorcycles, since 1981.

Data Limitations Related to VIN Decoding

Third party VIN decoding software is used to determine the fuel types of vehicles registered in Texas. The software can decode VINs back to 1966, but some VINs cannot be decoded due to errors in the automated decoding process, VINs assigned by the manufacturer not including fuel type, or VINs assigned by the department that do not include vehicle-specific information. Additionally, some vehicles like trailers are not self-propelled and do not use fuel. In fiscal year 2025, there were almost 2.7 million vehicle registrations where the fuel type could not be determined or was not indicated; however, that number includes more than 2.4 million trailers that do not use fuel. Since FY 2021, the department has extracted trailer populations from the *Fuel Type Unknown* category and shown them as a separate line item in the appendices of this report.

Data Limitations Related to 2020 and 2021 Registration Waiver

On March 13, 2020, Governor Greg Abbott issued a disaster declaration for all Texas counties in response to the emerging pandemic. Three days later, requirements to register motor vehicles were suspended to ensure customers were not required to physically visit a county tax assessor-collector's office to perform in-person transactions. The waiver resulted in fewer registration transactions during the second half of FY 2020 and the first half of FY 2021. The waiver ended on April 14, 2021, at which time vehicle registration numbers returned to their previous historical upward trend.

Fuel Types and Associated Registered Vehicles

Below are brief descriptions of the various fuel types in use today by self-propelled vehicles. The fuels identified as alternative for purposes of this report include electricity, natural gas, propane, hydrogen fuel cell, ethanol, methanol and hybrid vehicles. Fuel descriptions were sourced from the United States Department of Energy Alternative Fuels Data Center¹.

Hybrid: Gasoline and Electric

Gasoline and electric hybrids can use either fuel type, or both in combination, to propel a vehicle as determined by the design of the vehicle. There are varying degrees to which these vehicles use the electric motor versus the gasoline-powered motor. In some instances, the two motors work together to provide power to the drivetrain. In other instances, the gasoline motor is only used to recharge the batteries for the electric motor. There are 669,209 (2.5%) gasoline and electric hybrid vehicles registered in Texas.

Electricity

Electric vehicles are wholly powered by electricity and use battery packs to store and release energy. There are 334,709 (1.2%) electric vehicles registered in Texas. Although a small fraction of the total vehicles registered in Texas, this category represents the largest percentage of increase of any alternatively fueled vehicle type year-over-year.

Natural Gas

Natural gas primarily consists of methane that is compressed and used by or through a compressed natural gas (CNG) system. It can be used in the form of CNG or liquefied natural gas to fuel vehicles. Conventional gasoline and diesel vehicles can be retrofitted for CNG; however, VIN decoding would not indicate that the engine had been converted. There are 4,436 CNG-fueled vehicles registered in Texas.

Propane

Propane is a hydrocarbon gas that is stored under pressure inside a tank where it turns into liquid. As pressure is released, the liquid propane vaporizes and turns into gas that is used for combustion. There are 2,325 propane-fueled vehicles registered in Texas.

Ethanol

Ethanol can be produced from many high-starch plant sources and is primarily used as an octane enhancer when blended with gasoline but can also be used in higher concentrations by vehicles designed to accommodate its use. There are 144 ethanol-fueled vehicles registered in Texas.

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¹ https://afdc.energy.gov

Hybrid: Diesel and Electric

These hybrid vehicles are similar to gasoline and electric hybrids but use diesel fuel rather than gasoline. There are 27 diesel and electric hybrid vehicles registered in Texas.

Hydrogen Fuel Cell

Hydrogen fuel cells harness a chemical reaction to create electricity and propel a vehicle making them similar to hybrid electric vehicles. There are 12 vehicles registered in Texas using this fuel type.

Methanol

Methanol, also known as wood alcohol, has chemical and physical properties like ethanol. There are no methanol-fueled vehicles currently registered in Texas.

Gasoline

Gasoline, a transparent, petroleum-derived liquid that is used primarily as fuel in internal combustion engines, is the most common fuel type and used by almost 19.7 million (73.2%) vehicles in the state.

Flexible (Flex)

Flexible fuel vehicles are designed to operate using either gasoline or gasoline-ethanol blends containing up to 85% ethanol. Almost 1.8 million (6.6%) vehicles in Texas can use flexible fuel, making the total number of vehicles registered in Texas that can use gasoline and/or flexible fuel more than 21.5 million (79.8%).

Diesel

Diesel includes products commonly referred to as kerosene, light cycle oil, #1 diesel fuel, #2 diesel fuel, aviation jet fuel, renewable diesel, biodiesel, distillate fuel, cutter stock, heating oil or simply diesel fuel. There are more than 1.7 million (6.3%) diesel-fueled vehicles registered in Texas.

Convertible

Convertible vehicles have engines that are easily converted from gasoline to propane. There are 2,106 convertible vehicles registered in Texas.

<u>Appendix A – Year-Over-Year Comparison – Registered Vehicle Count</u>

FUEL TYPE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Hybrid (Gasoline)	256,654	346,471	410,330	512,256	669,209
Electric	60,528	105,807	175,497	248,096	334,709
Natural Gas	3,366	3,412	3,610	4,271	4,436
Propane	1,835	2,168	2,171	2,221	2,325
Ethanol	211	194	172	156	144
Hybrid (Diesel)	7	10	12	17	27
Hydrogen	-	1	1	13	12
Methanol	2	1	1	1	-
Subtotal, AFV	322,603	458,064	591,794	767,031	1,010,862
Gasoline	17,244,692	18,589,078	18,825,861	19,065,744	19,732,454
Flexible	2,067,804	2,063,603	1,986,004	1,861,906	1,786,518
Diesel	1,343,897	1,454,229	1,592,323	1,605,598	1,705,346
Convertible	2,811	2,562	2,225	2,074	2,106
Undisclosed*	275,206	256,783	224,073	71,473	52,633
Unknown**	1,570,235	415,115	305,236	260,371	255,300
Trailers	2,393,190	2,386,158	2,377,167	2,331,365	2,413,918
Subtotal, Non-AFV	24,897,835	25,167,528	25,312,889	25,198,531	25,948,275
Total Vehicles Registered	25,220,438	25,625,592	25,904,683	25,965,562	26,959,137

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type. Prior to FY 2021, trailers were included in the "Unknown" category.

<u>Appendix B – Year-Over-Year Comparison – Percentage of Change</u>

FUEL TYPE	FY 2021 – 2022	FY 2022 – 2023	FY 2023 – 2024	FY 2024 – 2025	FY 2021 – 2025
Hybrid (Gasoline)	35.00%	18.43%	24.84%	30.64%	160.74%
Electric	74.81%	65.87%	41.37%	34.91%	452.98%
Natural Gas	1.37%	5.80%	18.31%	3.86%	31.79%
Propane	18.15%	0.19%	2.30%	4.68%	26.70%
Ethanol	-8.06%	-11.34%	-9.30%	-7.69%	-31.75%
Hybrid (Diesel)	42.86%	20.00%	41.67%	58.82%	285.71%
Hydrogen	-	-	1,200%	-7.69%	-
Methanol	-50.00%	-	-	-100.00%	-100.00%
Subtotal, AFV	41.99%	29.20%	29.61%	31.79%	213.35%
Gasoline	7.80%	1.27%	1.27%	3.50%	14.43%
Flexible	-0.20%	-3.76%	-6.25%	-4.05%	-13.60%
Diesel	8.21%	9.50%	0.83%	6.21%	26.90%
Convertible	-8.86%	-13.15%	-6.79%	1.54%	-25.08%
Undisclosed*	-6.69%	-12.73%	-68.10%	-26.36%	-80.88%
Unknown**	-73.56%	-26.47%	-14.70%	-1.95%	-83.74%
Trailers	-0.29%	-0.38%	-1.93%	3.55%	0.87%
Subtotal, Non-AFV	1.08%	0.58%	-0.45%	2.98%	4.22%
Total Vehicles Registered	1.61%	1.09%	0.24%	3.83%	6.89%

 $[\]ensuremath{^{*}}$ The VIN decoding process returned the fuel type in question as $\ensuremath{\textit{Undisclosed}}.$

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled. such as a trailer. Prior to FY 2021, trailers were included in the "Unknown" category.

Appendix C – Vehicles Registered in Texas by Fuel Type – FY 2025

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	669,209	2.48%
Electric	334,709	1.24%
Natural Gas	4,436	0.02%
Propane	2,325	0.01%
Ethanol	144	0.00%
Hybrid (Diesel)	27	0.00%
Hydrogen Fuel Cell	12	0.00%
Methanol	-	-
Subtotal, AFV	1,010,862	3.75%
Gasoline	19,732,454	73.19%
Flexible	1,786,518	6.63%
Diesel	1,705,346	6.33%
Convertible	2,106	0.01%
Fuel Type Undisclosed*	52,633	0.20%
Fuel Type Unknown**	255,300	0.95%
Trailers	2,413,918	8.95%
Subtotal, Non-AFV	25,948,275	96.25%
Total Vehicles Registered	26,959,137	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type.

Appendix D – Vehicles Registered in Texas by Fuel Type – FY 2024

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	512,256	1.97%
Electric	248,096	0.96%
Natural Gas	4,271	0.02%
Propane	2,221	0.01%
Ethanol	156	0.00%
Hybrid (Diesel)	17	0.00%
Hydrogen Fuel Cell	13	0.00%
Methanol	1	0.00%
Subtotal, AFV	767,031	2.95%
Gasoline	19,065,744	73.43%
Flexible	1,861,906	7.17%
Diesel	1,605,598	6.18%
Convertible	2,074	0.01%
Fuel Type Undisclosed*	71,473	0.28%
Fuel Type Unknown**	260,371	1.00%
Trailers	2,331,365	8.98%
Subtotal, Non-AFV	25,198,531	97.05%
Total Vehicles Registered	25,965,562	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type.

Appendix E – Vehicles Registered in Texas by Fuel Type – FY 2023

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	410,330	1.58%
Electric	175,497	0.68%
Natural Gas	3,610	0.01%
Propane	2,171	0.01%
Ethanol	172	0.00%
Hybrid (Diesel)	12	0.00%
Hydrogen Fuel Cell	1	0.00%
Methanol	1	0.00%
Subtotal, AFV	591,794	2.28%
Gasoline	18,825,861	72.67%
Flexible	1,986,004	7.67%
Diesel	1,592,323	6.15%
Convertible	2,225	0.01%
Fuel Type Undisclosed*	224,073	0.86%
Fuel Type Unknown**	305,236	1.18%
Trailers	2,377,167	9.18%
Subtotal, Non-AFV	25,312,889	97.72%
Total Vehicles Registered	25,904,683	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type.

Appendix F – Vehicles Registered in Texas by Fuel Type – FY 2022

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	346,471	1.35%
Electric	105,807	0.41%
Natural Gas	3,412	0.01%
Propane	2,168	0.01%
Ethanol	194	0.00%
Hybrid (Diesel)	10	0.00%
Hydrogen Fuel Cell	1	0.00%
Methanol	1	0.00%
Subtotal, AFV	458,064	1.79%
Gasoline	18,589,078	72.54%
Flexible	2,063,603	8.05%
Diesel	1,454,229	5.67%
Convertible	2,562	0.01%
Fuel Type Undisclosed*	256,783	1.00%
Fuel Type Unknown**	415,115	1.62%
Trailers	2,386,158	9.31%
Subtotal, Non-AFV	25,167,528	98.21%
Total Vehicles Registered	25,625,592	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type.

Appendix G – Vehicles Registered in Texas by Fuel Type – FY 2021

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	256,654	1.02%
Electric	60,528	0.24%
Natural Gas	3,366	0.01%
Propane	1,835	0.01%
Ethanol	211	0.00%
Hybrid (Diesel)	7	0.00%
Hydrogen Fuel Cell	-	-
Methanol	2	0.00%
Subtotal, AFV	322,603	1.28%
Gasoline	17,244,692	68.38%
Flexible	2,067,804	8.20%
Diesel	1,343,897	5.33%
Convertible	2,811	0.01%
Fuel Type Undisclosed*	275,206	1.09%
Fuel Type Unknown**	1,570,235	6.22%
Trailers	2,393,190	9.49%
Subtotal, Non-AFV	24,897,835	98.72%
Total Vehicles Registered	25,220,438	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process or the VIN not designating a fuel type.

Appendix H – Vehicles Registered in Texas by Fuel Type – FY 2020

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	201,629	0.84%
Electric	36,418	0.15%
Natural Gas	2,836	0.01%
Propane	1,451	0.01%
Ethanol	200	0.00%
Hybrid (Diesel)	4	0.00%
Methanol	3	0.00%
Subtotal, AFV	242,541	1.01%
Gasoline	15,024,613	62.56%
Flexible	1,945,689	8.10%
Diesel	1,188,617	4.95%
Convertible	2,926	0.01%
Hydrogen Fuel Cell	-	-
Fuel Type Undisclosed*	291,046	1.21%
Fuel Type Unknown**	5,319,377	22.15%
Subtotal, Non-AFV	23,772,268	98.99%
Total Vehicles Registered	24,014,809	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled, such as a trailer.

Appendix I – Vehicles Registered in Texas by Fuel Type – FY 2019

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	225,212	0.90%
Electric	29,540	0.12%
Natural Gas	3,284	0.01%
Propane	1,517	0.01%
Ethanol	238	0.00%
Methanol	3	0.00%
Hybrid (Diesel)	6	0.00%
Subtotal, AFV	259,800	1.04%
Gasoline	16,845,463	67.12%
Flexible	2,168,253	8.64%
Diesel	1,276,164	5.08%
Convertible	3,830	0.02%
Hydrogen Fuel Cell	-	-
Fuel Type Undisclosed*	329,708	1.31%
Fuel Type Unknown**	4,214,381	16.79%
Subtotal, Non-AFV	24,837,799	98.96%
Total Vehicles Registered	25,097,599	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled, such as a trailer.

Appendix J – Vehicles Registered in Texas by Fuel Type – FY 2018

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	233,645	0.95%
Electric	18,990	0.08%
Natural Gas	3,063	0.01%
Propane	1,310	0.01%
Ethanol	54	0.00%
Methanol	4	0.00%
Hybrid (Diesel)	4	0.00%
Subtotal, AFV	257,070	1.04%
Gasoline	17,510,554	71.15%
Flexible	2,231,880	9.07%
Diesel	1,258,596	5.11%
Convertible	4,473	0.02%
Hydrogen Fuel Cell	-	-
Fuel Type Undisclosed*	336,527	1.37%
Fuel Type Unknown**	3,012,625	12.24%
Subtotal, Non-AFV	24,354,655	98.96%
Total Vehicles Registered	24,611,725	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled, such as a trailer.

Appendix K – Vehicles Registered in Texas by Fuel Type – FY 2017

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	217,084	0.90%
Electric	11,724	0.05%
Natural Gas	3,901	0.02%
Propane	1,276	0.01%
Ethanol	-	-
Methanol	-	-
Hybrid (Diesel)	-	-
Subtotal, AFV	233,985	0.97%
Gasoline	17,237,827	71.39%
Flexible	2,215,878	9.18%
Diesel	1,369,414	5.67%
Convertible	5,756	0.02%
Hydrogen Fuel Cell	-	-
Fuel Type Undisclosed*	715	0.00%
Fuel Type Unknown**	3,084,014	12.77%
Subtotal, Non-AFV	23,913,604	99.03%
Total Vehicles Registered	24,147,589	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled, such as a trailer.

Appendix L – Vehicles Registered in Texas by Fuel Type – FY 2016

FUEL TYPE	REGISTERED VEHICLES	PERCENT OF TOTAL
Hybrid (Gasoline)	199,096	0.83%
Electric	8,397	0.03%
Natural Gas	3,889	0.02%
Propane	1,038	0.00%
Ethanol	-	-
Methanol	-	-
Hybrid (Diesel)	-	-
Subtotal, AFV	212,420	0.88%
Gasoline	16,622,760	69.17%
Flexible	2,127,669	8.85%
Diesel	1,327,585	5.52%
Convertible	6,549	0.03%
Hydrogen Fuel Cell	-	-
Fuel Type Undisclosed*	555	0.00%
Fuel Type Unknown**	3,734,699	15.54%
Subtotal, Non-AFV	23,819,817	99.12%
Total Vehicles Registered	24,032,237	100.00%

^{*} The VIN decoding process returned the fuel type in question as *Undisclosed*.

^{**} Unknown fuel types are the result of an error in the VIN decoding process, the VIN not designating a fuel type, or the vehicle in question not being self-propelled, such as a trailer