MAINTAINING CARS DURING EXTREME SUMMER HEAT

With the scorching summer still going on, it's imperative to keep ourselves hydrated and cool to combat fatigue and heat strokes. Those who commute every day will also often find that cars tend to get heated quickly when under the extreme summer heat - something that can cause all sorts of problems for the engine and the overall longevity of the vehicle. There are also instances of cars catching fires when it is too hot, an instance you must avoid to ensure your car's well-being. Here are some basic maintenance tips to keep in mind to keep your car cool even during the summer heat.

WHY DO CARS CATCH FIRE?

No matter how new your car may be, it can be prone to catching fire for a variety of reasons, and not all of those reasons have to do with extreme heat. One of the main causes of cars catching fire is faults in electrical wiring, which can cause short circuits and cause ignition without notice. Fuel leaks or faults in the fuel tank can cause gasoline to spill, which is highly flammable and can ignite if it comes in contact with a heat source. Be sure to check any malfunctions in the exhaust system, as a damaged or faulty exhaust can lead to temperatures in the car rising very high - risking a fire.

Aside from faulty parts or malfunctions, your car's engine or exhaust system can get heated up if exposed to high temperatures for a long time. While regular summer heat might not be a problem, temperatures higher than the standard can be problematic, so always be careful and park your car under a cool shade when not in use. Avoiding smoking inside the car and not leaving flammable materials inside are also obvious but safe ways to avoid car fires.

COMMON CAR PROBLEMS IN EXTREME HEAT

If you live in an area with high temperatures or a lot of humidity, your car can be prone to some common problems, including but not limited to overheating, tire blowouts, problems in the internal electrical system and battery failure. Some of the more problematic ones are listed below.

AC problems: During summer, one of the most common car problems regular commuters face has to do with the AC, which is overexerted during hotter days and thus becomes prone to damage in the long run. Overheating, in general, can also damage the engine - so be extra careful to check the engine regularly for signs of exertion and heating. Regular servicing of the AC and other internal electric wirings will also help you stay on top of your car maintenance during summer.

Tire pressure: Overheating can cause the air inside your car's tires to expand, which can always lead to blowouts or leaks. As such, it is crucial to regularly check your tire pressure during summer. Look out for any signs of tears or overinflation. The general tire pressure for passenger cars is between 30 to 35 PSI, but if you aren't sure, consult an expert or a mechanic.

Fuel evaporation: While fuel doesn't evaporate as fast as water, the fuel inside your car's tank is still prone to evaporation in areas with high humidity or during high temperatures. As such, you should keep a closer eye on your fuel consumption during summer, and keep the tank at least half full so the risk of evaporation is reduced. You should also be on top of your coolant fluid levels, which you can check using the indicator lines on the coolant reservoir unit of your car. Sufficient coolant fluid will help prevent your car from overheating.

Air filter clogging: Air filters help keep your car clean from outside dust and dirt, while ensuring the engine is safe from harmful debris. Because air filters tend to soak up a lot of dust during warmer weather, you should clean them regularly. The air filter is usually located on top of the engine, often with a cover which you will need to remove before taking out the filter to clean it.

Emergency cooling: If you are on the road and find your car is overheating, you need to conduct an emergency cooling. First and foremost, pull over to a nearby shade and turn off the engine. Let the car cool for at least 10 minutes, after which you should open the hood to let any trapped air escape. Once you feel the car has cooled off, turn on the ignition without starting the engine. Keep an eye on the temperature gauge - if it shows a normal range, feel free to start the engine. However, if there are noises from the car or the temperature remains high, keep the engine off and seek professional help.

MEET THE STARTUP THAT MAY FLY YOU FROM DHAKA TO NEW YORK IN 4 HOURS

Destinus aims to make its planes fly some 7000 miles in 3.5 hours or so

Imagine leaving Dhaka after breakfast to catch a lunch meeting in New York, or an afternoon date in London, on the same day. While it may sound like fantasy, Destinus, a European hypersonic startup, is in fact making rapid progress towards its goal of ushering in a new age of hypersonic travel. With their prototypes already making successful test flights and their third prototype set to take off by the end of the year, Destinus aims to make its planes fly at hypersonic speeds, cutting down flight duration to less than a quarter of current commercial air travel.

The company's approach involves the development of smaller autonomous drones before scaling up to larger passenger-carrying aircraft. The company's prototypes are blended-body planes in the wave rider shape, a hypersonic design first conceived in the 1950s but never before reaching production. Additionally, CNN reports that Destinus is using hydrogen as its fuel of choice due to its renewable and clean energy source, increasing affordability, and ability to help the company achieve its long-range and high-speed goals. The company's long-term goal is to be fully hydrogen-powered and zero-emission, but for now, they plan to use Jet A for takeoff and then switch to hydrogen once they reach supersonic speeds.

According to a CNN report, Destinus has already secured private investment and public funding, including grants worth 26.7 million euros ($29.4 million) from the Spanish government to expand its hydrogen propulsion capabilities.

The company's ultimate goal is to have multiple classes of passengers, including economy, and to significantly reduce the price of ultra-long-range flights by the 2040s. However, Destinus acknowledges that their plans are dependent on the hydrogen market, which they do not control. To address this, Destinus recently acquired Dutch company OPRA, which has gas turbines that are already built and being sold. This acquisition will provide additional revenue and help the company weather any challenges.

Hypersonic air travel has been a topic of fascination for decades. The idea of flying at incredible speeds, reducing travel times significantly, has captured the imagination of engineers and scientists for generations. The first hypersonic flight was achieved by the North American X-15 rocket-powered aircraft in the 1960s, reaching a top speed of Mach 6.7. Since then, various countries and companies have continued to explore the potential of hypersonic travel, with NASA, the US Air Force, and private companies such as SpaceX and Blue Origin all working on hypersonic projects.

On the note of super-speed air travel, Concorde was a supersonic jet that operated from 1976 to 2003, developed jointly by British and French engineers. It was a technological marvel, capable of reaching speeds of Mach 2.04, or more than twice the speed of sound, and flying from New York to London in just over three hours. However, Concorde ultimately failed to take off as a commercial success due to a number of factors, including high operating costs, noise pollution, and environmental concerns. Additionally, a tragic accident in 2000, when an Air France Concorde crashed shortly after takeoff, killing 113 people, dealt a severe blow to the aircraft's reputation and ultimately led to its retirement from service in 2003.

While there have been some setbacks and failures, the pursuit of super-speed air travel continues, with companies like Destinus aiming to finally make it a reality for commercial use.