

Technology Forecast

Looking Under the Hood

Believe it or not, automakers have talked about the possibility of sealing the hoods of future cars and trucks. What if weekend mechanics couldn't tinker with their cars? Imagine a new-car owner not being able to look under the hood to show off a well-designed engine! While the idea won't likely be put into practice, the thinking behind sealing hoods makes sense.

Engines are becoming so technologically advanced that they are increasingly difficult to service and maintain. Because of sophisticated computers, most owners are able to change only filters, hoses, belts, fluids, and spark plugs. Other procedures—especially removal for repair and replacement—are better left to skilled technicians.

New materials, including magnesium, alloys, and composites, are changing how an engine is removed. These sensitive materials are easily damaged, requiring special tools and techniques to take the engine out properly. Some motors are even fitted with specially placed bolts to ensure that hoisting is done correctly.

Engine removal could become easier in the near future. With the development of electric and fuel cell vehicles, engines are getting lighter. Some of these designs weigh so little that an average person can easily lift them. Modular design would also allow a specific engine section to be readily swapped for a new unit without a complicated removal process.

Action Activity

Brainstorm a list of pros and cons for sealed hoods in vehicles. Include factors such as cost, disposal of old units, and public reaction. Team up with a classmate to debate both sides of the issue. Present the main points of the debate to the class.