



UNIT 5 CHASSIS AND SAFETY SYSTEMS

TOPIC-Antilock Braking System

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Introduction to Anti-lock Braking System

Anti-lock braking system (ABS) is a safety feature installed in vehicles that prevents the wheels from locking up during sudden braking or hard braking. This technology was introduced in the 1980s and has since become a standard feature in most modern cars.



How Anti-lock Braking System Works

When a driver steps on the brake pedal, the ABS control unit monitors the speed sensors attached to each wheel. If the system detects that one or more wheels are about to lock up, it will quickly release and reapply the brakes to that wheel, preventing it from locking up and allowing the driver to maintain steering control



Advantages of Anti-lock Braking System

One of the main advantages of ABS is that it can significantly reduce stopping distances on slippery roads, such as those covered in snow, ice, or rain. This can help prevent accidents and save lives.



Challenges

While electronic control of automatic transmission has many benefits, there are also some challenges associated with the technology. One of the main challenges is the complexity of the system, which can make it difficult to diagnose and repair if something goes wrong.



Future Developments in Anti-lock Braking System

As technology continues to advance, we can expect to see further developments in the field of ABS. One area of research is focused on improving the accuracy and responsiveness of the speed sensors, which could allow for even more precise control over the braking system.

Another area of interest is developing new materials for brake pads and rotors that can withstand higher temperatures and provide better



THANK YOU