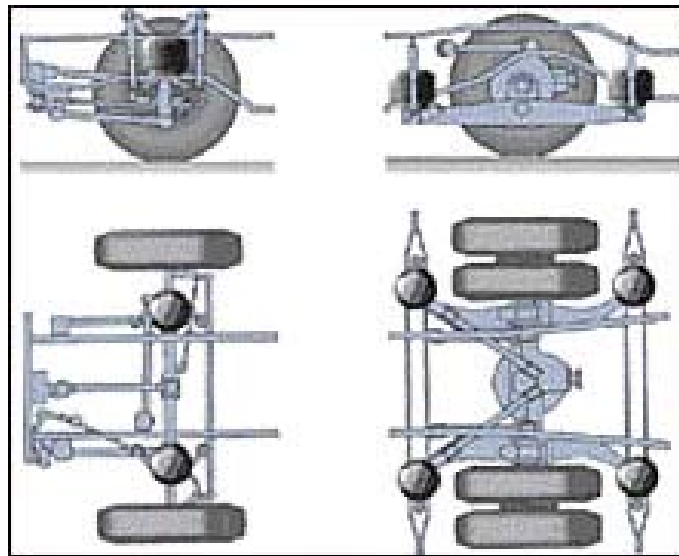


Air Suspension

On the Indian roads the 'Air Bus' means a comfortable long distance ride. Before the advent of these 'Air Buses' on the Indian roads, a long distance over-night journey was a bumpy, tiring, and sleepless experience. But that is all a bad memory with the introduction of air suspension in Indian buses.

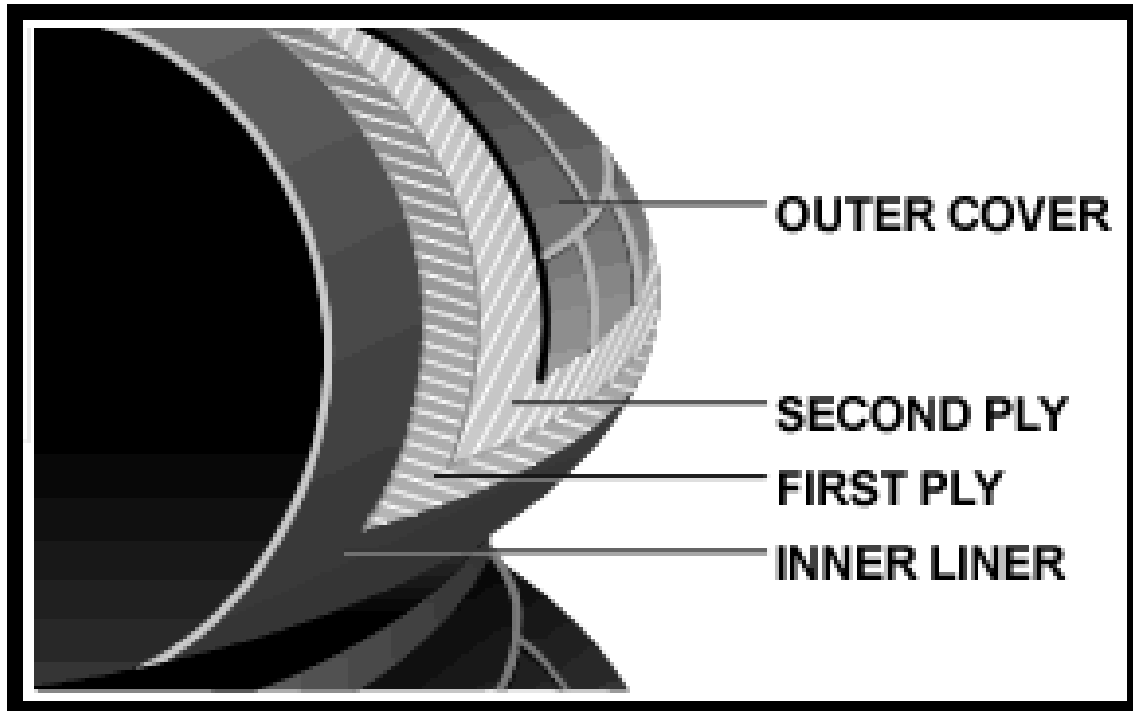
Air suspension is a type of vehicle suspension powered by an engine driven or electric air pump or compressor. This pump pressurizes the air, using compressed air as a spring. Air suspension replaces conventional steel springs. The purpose of air suspension is to provide a smooth ride quality and in some cases self-leveling



Airspring Construction

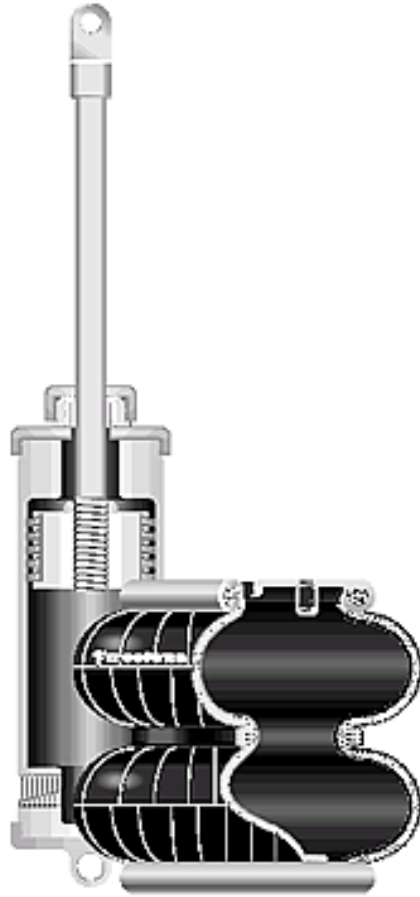
At their simplest, air springs are heavy-duty bellows used for actuation and isolation tasks within industrial equipment and within vehicle suspensions as a smoother riding suspension alternative to metal springs.

Air springs incorporate a carefully designed rubber and fabric bellows that contains a column of compressed air. The rubber bellows itself does not provide force or support load - the column of air does this when the air spring is inflated according to the load required of it. Load capacity can vary from 40-40,000kg.



A standard two ply air spring is actually made up of four layers.

1. An inner liner of calendered rubber,
2. A first ply of fabric-reinforced rubber,
3. A second ply of fabric reinforced rubber (with the cords at a specific bias angle to one another),
4. An outer cover of calendered rubber.



Air springs do three things outstandingly well:

1. Actuate industrial equipment. Used as an actuator to produce motion and force, air springs are especially good for rapid repetition tasks.
2. Isolate industrial equipment. Used as a mounting, air springs remove up to 99 per cent of shock, harshness and vibration.
3. Replace metal springs in vehicle suspensions with a softer-riding alternative. Air springs are road-friendly, passenger-friendly and cargo-friendly. Air springs dominate heavy vehicle suspensions and are increasingly used in lighter vehicles.