

“SAFETY ANALYSIS OF AIR BAGS IN AUTOMOBILES”

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Abstract

The present paper represents a brief review of life saving system that is an air bag system in roll- over accidents, while driving vehicles on roads. An Airbag is an automotive safety restraint system for an occupant as well as passengers. The system consists of a flexible fabric envelope or cushion, designed to inflate rapidly during an automobile collision. Its purpose is to cushion occupants during a crash and provide protection to their bodies when they strike interior objects such as the steering wheel or a window etc. Thus it lowers the number of injuries by reducing the force exerted by steering wheel, windows and the dashboard at any point on the body. Continuing research and developments are going on in its module design, combustible material, air bag fabric design and material, coating etc. in making this life saving safety device further efficient. However, success of any safety restraint device depends on its correct implementation and certain safety rules to be followed [1], [2].

Keywords: automobile, air bag, safety, vehicle, fabric, life, safety

Introduction

In modern world , vehicles becomes an essential feature for any service class as well as businessman to meet with the stringent demand of hectic lifestyle. Safety of the driver as well as passengers becomes an important feature along with comfort and performance of any family car. Airbags have even been suggested from the beginning of the motor vehicle safety [2]. It has been used for the protection of head, knees and legs. Rear passenger airbags and side airbags in addition to driver air are developed for providing protection in roll- over accidents by shielding the occupants and passengers from side window glass and protecting the head. An Airbag is an automotive safety restraint system [3]. It is an occupant restraint system consisting of a flexible fabric envelope or cushion designed to inflate rapidly during an automobile collision. Its purpose is to cushion occupants during a crash and provide protection to their bodies when they strike interior objects such as the steering wheel or a window. Thus it lowers the number of injuries by reducing the force exerted by steering wheel and the dashboard or any point on the body. This is accomplished in two ways that are (1) by increasing the interval over the force being applied or (2) by spreading the force over a large area of the body [4] [5].



Conclusion

The number of persons killed or injured in traffic has dropped continuously since the development of air bag system. Over the time, the development of seat belt becomes an indisputable matter of course. Today, the three-point automatic seat belt, seat belt and airbag constitute a carefully matched passenger protection system. Implementation of these safety restraint systems with due care and regulation can further drop the fatality rate and serious injuries at the time of road accidents.

References

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