Day Night Antiglare Wind Screen

Shrenik Dongare¹, Shreyas Dongare², Suyog Anerao³

¹Automobile Diploma, SVP Polytechnic, Maharashtra, India
²,³Mechanical Engineering, RMCET, Maharashtra, India

Abstract - This is the presentation of Day Night Antiglare Wind Screen. This glass is for the safety and comfortable ride to the driver and front passenger to provide a safer journey. From this wind screen glass, driver can drive the vehicle at high sunlight or at the time of night when high exposure of light falls on the glass which effects on the concentration and control of driver on motor vehicle. Misuse of high beam causes accidents so this system will help mainly at night. This Document is created in Microsoft Word 2016.

Key Words: Automobile Safety Feature, Antiglare glass, Day Night Antiglare Wind Screen, Comfortable Night driving, Comfortable driving at high sunlight, Cooling effect on glass.

1. INTRODUCTION

Day Night Antiglare Wind Screen (glass) can be use in front of the vehicle to avoid the high pressure air flow, water in rainy season, dirt and dust particles as well as in addition it avoids High sunlight and high beam at night from disturbance of drivers attention. Some times while driving, bright rays of sunlight troubles the eyes which looses our attention and control from vehicle. The use of sun visor and additional sunshade becomes complicated while driving especially for new drivers they found it difficulty. This glass changes its shade as per the brightness (Intense sunlight) and gives cool view (upto 70% light transmittance) according to the Supreme Court judgment 4th may 2012, also in case of night driving misuse of high beam becomes dangerous for both the opposite vehicles. Due to high exposure, driver feels black gloom in front of eyes as well as scattered light on wind screen (Glass). This is the major reason of accidents on highways at night. This glass reflects the access light coming from front vehicle and gives clear transparent view for safe journey at night.

1. Accidents due to high sunlight

This article is referred from https://www.dailymail.co.uk

The dazzling sunsets that kill 36 drivers in 12 months: Glare contributes to 3,000 accidents and is particularly dangerous at this time of year

- Glare of the sun causes nearly 3,000 accidents a year
- Risk is particularly high as autumn turns to winter when sun sets at busiest time on roads

2. Accidents due to high beam light at night

Among many other dangers of driving in the night, accidents caused by violation of the high beam headlight rule are fast becoming a major concern. Many road users on national highways still continue to install powerful headlights thereby, not only causing inconvenience to other road users but also increasing the risk of accidents. "Headlamps are as essential to a motor vehicle as our eyes are to us. However, when we misuse them, we could end up endangering ourselves and others on the road too," DIG Mirza Faran Baig.
Solution: Solution for Accidents due to high sunlight – To avoid high sunlight while driving we are using Day Night Glass with Anti-reflective optical coating which changes its shade according to the severity of sunlight and reflects the intense sun rays like day night spectacles. Glasses with Day night effect upto 70% light transmittance is shown in figure below.

Day-Night Effect upto 70% light transmittance.

This image is only for understanding purpose referred from https://www.siddharthopticals.com/
As per the above solution for the high sunlight, wind screen changes its shade to clear transparent view at night since no sunlight is there. At the time of night, Optical coated anti-glare glass helps to avoid high beam light from opposite vehicle, it reflects from the glass and gives clear view to the driver and also gives safe journey.

3. CONCLUSION

Accidents caused by the access sunlight and high beam can be avoided by this technique. It gives cool shade effect in daylight and clear transparent view at night. By using this type of wind screen driver can enjoy the safe ride as well as new driver cannot feel complicated. Rate of accidents will decrease.

REFERENCES

[1] Main source www.google.com
[4] cinemas93.org/
[8] insightoasis.com/

BIOGRAPHIES

Shrenik Dongare
Student of Automobile Engineering Diploma (Third Year)
SVP Polytechnic (Borivali).

Shreyas Dongare
Student of Mechanical Engineering Degree (Third Year)
RMCET, Ambav, Ratnagiri.

Suyog Anerao
Student of Mechanical Engineering Degree (Third Year)
RMCET, Ambav, Ratnagiri.