

## International Journal OF Engineering Sciences & Management Research

### GEAR AND STRIP STEERING SYSTEM.

Kardile S. N.\*<sup>1</sup>, Gaykar V. M.<sup>2</sup>, Arote A.N.<sup>3</sup> & Gadekar A.K.<sup>4</sup>.

\*<sup>1</sup>Department of Mechanical Engineering, Jaihind Polytechnic, Kuran, India.

<sup>2</sup>Department of Mechanical Engineering, Jaihind Polytechnic, Kuran, India.

<sup>3</sup>Department of Mechanical Engineering, Jaihind Polytechnic, Kuran, India.

<sup>4</sup>Department of Mechanical Engineering, Jaihind Polytechnic, Kuran, India.

**Keywords:** 2-6 Keywords are required (10pt Times New Roman, Justified).

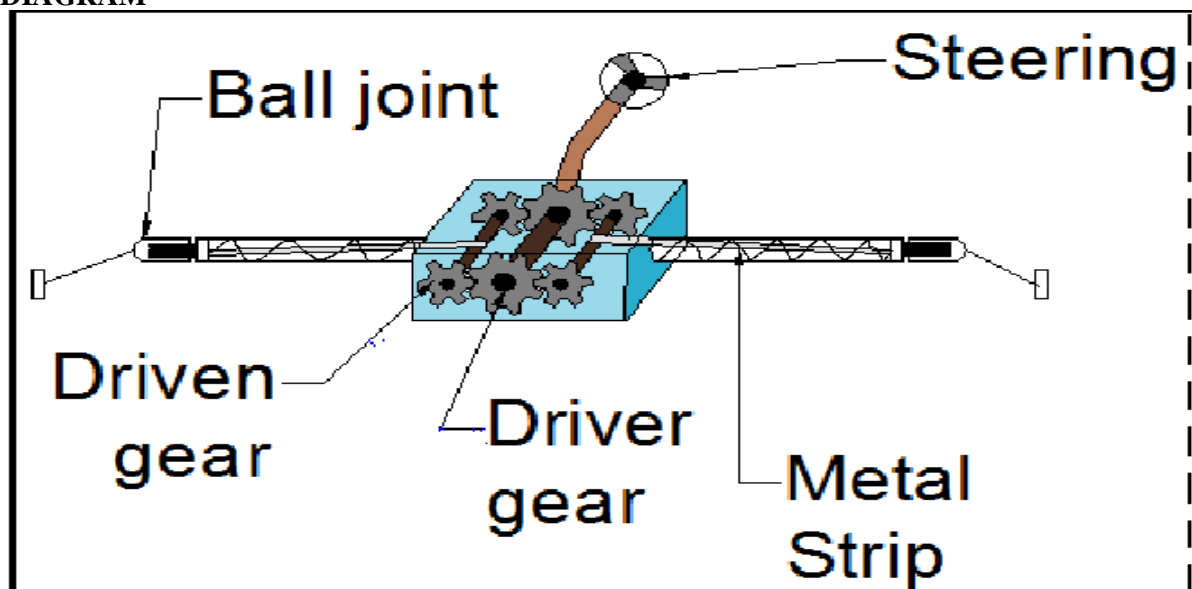
#### ABSTRACT

The Gear and Strip assisted steering is a new steering technology that will be define the future of Vehicle steering. Now days the rack and pinion steering system is used for light duty vehicles small scale transportation vehicle in automobile. In this research paper we are trying to minimize the human efforts as well as circular movement of steering in degree. In this paper we eliminated the rack and pinion arrangement and use a simple gear and strip arrangement. Due to this paper the turning movement of vehicle wheels is equal to the half circular movement of steering. In this project 6 gears are used in that two are big gears and four are small gears. No. of teeth on small gear = 1/3 to the teeth on big gear. In this the no. of mechanical linkages are used. The rotary motion of gear is converted into the reciprocating motion of piston.

#### INTRODUCTION

This is the new concept which is associated with the steering system. The Gear And Strip Assisted steering is a new steering technology that will be define the future of Vehicle steering. In this project the whole system is based on mechanical energy. It is the advance version of rack and pinion steering system. As compare to rack and pinion system this project reduces the human effort and circular movement or turning movement of steering. This project control the vehicle motion and control the velocity of vehicle at minimum steering effort an turning. In this project the cast iron gears are used and flexible strips are used. For small transportation and light duty vehicles this project can be used in absent case of rack and pinion arrangement.

#### DIAGRAM



#### RESULTS AND DISCUSSION

1. Effort will reduces.
2. Turning movement of steering wheel decreases.
3. Angular movement of front wheels will increases.



# International Journal OF Engineering Sciences & Management Research

## TABLES

*Table 1: 9pt Times New Roman, Center.*

Parts	MATERIAL
Gears	Malleable Cast iron
Pipes And box	Steel
Metal Strip	Al

## CONCLUSION

At the less turning movement of steering wheel gives the more angular movement to vehicle as compare of rack and pinion arrangement. It also reduces the human effort as compare to rack and pinion steering system

## ACKNOWLEDGEMENTS

We are profoundly grateful to Prof. Mr. Darekar Sir( PROJECT COORDINATOR) for his expert guidance and continuous encouragement throughout to see that this project rights its target since its commencement to its completion. We would like to express deepest appreciation towards Prof. KOHINKAR Sir (HOD, Mech. Dept), whose invaluable guidance supported us in completing this project. At last we must express our sincere heartfelt gratitude to all the staff members of Mechanical Department who helped us directly or indirectly during this course of work.

## REFERENCES

1. *Automobile Engineering book*
2. *www.Google.com*