

## ORIGINAL ARTICLE

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### DESIGN AND OPTIMIZATION OF SPREADER BEAM

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#### ABSTRACT

A spreader beam is the simplest configuration of the beam, which is used for two or more than two point lift and also a leveled lift. A spreader beam absorbs the compressive force to protect the load being lifted. A spreader beam consists of lifting eyes which is attached to the spreader beam by means of welding. Its purpose is to connect the load to the beam and beam to the crane hook with the help of lifting accessories. In this project, our emphasis is to design a two point lift spreader beam of 10 tonne capacity by selecting 3 standard cross

#### Article Indexed in



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### Introduction

Spreader beams are also known as lifting beam, is a fabricated structure, which is used for two or more than two point lift and also a leveled lift ( horizontal or at a required angle). A spreader beam absorbs compressive and bending force to protect the load being lifted.

#### A Good Introduction :-

*Importance of the expected results to the general inq Extremely briefly depict the exploratory configuration and how it achieved the expressed destinations.*

### Materials

Must add materials in your article .

#### A Good Materials :-

*Materials may be accounted for in a different passage or else they may be distinguished alongside your systems. Inc or supplies that are not generally found in research centers.*

### Result

From the analytical calculation it is clear that, the shear stress and the direct compressive stress are very less however it is accounted in the maximum principle stress.

#### A Good Result :-

*Results are as per aims and objective and useful to further research .*

### Conclusion

The static analysis in industrial spreader beam is gaining importance. In this paper static analysis has been made on 3 types of standard cross section I-beam, square hollow section and circular hollow section. The analysis reflects that the I- Beam is the optimum cross section for the one dimensional bending load.

#### A Good Conclusion :-

*Thus, the research have wider scope for new academician and research scholars.*

### References

- David T. Ricker; Design and Construction of Lifting Beam; Fourth Quarter; American Institute of Steel construction
- Rachakulla Sai Krishna and PV Anil Kumar; Design and Buckling Strength Evaluation of A Lifting Beam For 350 Tonnes Through FEA; International Journal of Engineering Research and Science & Technology; Vol 3, No. 4
- Lifting Equipment Engineers Association; Code of Practice for the Safe Use of Lifting Equipment; Section 20-Lifting Beams; Spreaders and Frames
- India Standard IS 13591:1992; Criteria For Design of Lifting Beams.

#### A Good References :-

*There are Places where the Author Naba Raj Gairhe , Aditya Sharma , Jeevan Yadav , P. Sunil Kumar and G. Durga Prasad Need to Cite a Reference, but Have Not*

**SUMMARY OF ARTICLE**

No.		Very High	High	Average	Low	Very Low
1.	Interest of the topic to the readers		✓			
2.	Originally & Novelty of the ideas	✓				
3.	Importance of the proposed ideas		✓			
4.	Timelines			✓		
5.	Sufficient information to support the assertions made & conclusion drawn	✓				
6.	Quality of writing (Organization, Clarity, Accuracy Grammer)	✓				
7.	References & Citation (Up-to-date, Appropriate Sufficient)					

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College:- **Department of Mechanical Engineering , KLEF (KL University), Vaddeswaram , AP, India.** The research paper is Original & Innovation it is done Double Blind Peer Reviewed. Your article is published in the month of **May** Year 2015.



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Editor-in-Chief

### REVIEWER COMMENTS

- This was a superb give an account of extremely intensive examination.
- The writing audit was careful, the approach was carefully exhaustive and fused the utilization of sufficient quantities of tests in dust size examination and blast tests.

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Review Editor

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