

Impact Factor: 6.252

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 7, June 2022

## **Design of Hydraulic Floor Crane**

**Yogesh D Kale<sup>1</sup> and Krishan Pandey<sup>2</sup>**, Lecturer, Department of Mechanical Engineering<sup>1,2</sup> Pimpri Chinchwad Polytechnic, Pune, Maharashtra, India

**Abstract**: These hydraulic floor cranes provide an efficient, low-cost alternative to other material handling equipment. Strong, robust, sturdy and built to very standard, these cranes are maneuverable in loading, unloading and shifting of heavy loads. Crane structure consists of chassis, vertical column, horizontal arm, and the hydraulic pump with cylinder assembly. The box crane can take heavy loads effectively, avoids damage under rough and unskilled handling. The hydraulic crane was invented in Newcastle by William Armstrong in about 1845 to help load coal into barges at the Quayside. In this paper the design and analysis of a hydraulic floor crane having arm motion in the vertical.

Keywords: Hydraulic, Crane, Design, Analysis, etc.

## REFERENCES

- "HYDRAULIC CRANE" Ashish Shejwal, Kishore Giri, Mahesh Solunke, Gaurav Rathod, Suraj Balkhande, Prof. M. D. Sirsat, Vol-3 Issue-3 2017 IJARIIE-ISSN(O)-2395-4396
- [2] Steel Work Design and Analysis of a Mobile Floor Crane, Okolie Paul Chukwulozie1, Obika Echezona Nnaemeka1, AzakaOnyemazuwa Andrew1 and Sinebe Jude Ebieladoh1, British Journal of Applied Science & Technology 13(5): 1-9, 2016, Article no.BJAST.23079 ISSN: 2231-0843, NLM ID: 101664541
- [3] Design and Fabrication of a Single Acting Hydraulic Crane J.O. Oyejide1\*, P.J. Eloho1, B.A, Mohammed2 IOSR Journal of Mechanical and Civil Engineering (IOSRJMCE) e-ISSN: 2278-1684, p-ISSN: 2320-334X, Volume 15, Issue 3 Ver. III (May. - June. 2018), PP 01-09
- [4] Fabrication of Hydro-Pneumatic Crane for Automobiles International Journal of Engineering& Technology,7(3.34) (2018)379-381J.
- [5] Pakkanen, R. Vallant, M. Kicin Experimental investigation and numerical simulation of resistance spot welding for residual stress evaluation of DP1000 steel Weld World, 60 (2016), pp. 393-402.