## **IJARSCT**



## International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal



Volume 5, Issue 7, June 2025

## Safe Usage of Tractor with Double Axle Trolley in Railway Construction Sites in India

Sanjay Kumar<sup>1</sup>, Tarun Prasad Sonwani<sup>2</sup>, Omprakash Thakare<sup>3</sup>

M. Tech, Student, Health, Safety & Environment Engineering<sup>1</sup>
Assistant Professor, Mechanical Engineering<sup>2</sup>
Head of Department, Mechanical Engineering<sup>3</sup>
Shri Rawatpura Sarkar University Raipur, India

**Abstract:** Tractors, as heavy-duty vehicles used in various industries, are essential for moving loads and supporting activities at work locations. This review focuses on a specific operational document dealing with tractors that are equipped with double axle trolleys, highlighting their importance in safety and risk management.

Transporting construction and erection materials constitutes a major challenge close to Indian Railway tracks where suitable roads are unavailable. While the village's unpaved roads can be utilized, the ground clearance is inadequate for many vehicle types. Tractors are recognized as the best option for traversing these unpaved village roads.

Most of the MNC organizations prohibit the use of tractors due to the unstable trolley attached to the tractor engine as well as this equipment is identified as an agricultural equipment.

This journal paper is to evaluate any Risks associated with a Tractor with a double axle trolley before and after deployment for any activity and ensure a safe & healthy work environment.

**Keywords**: Tractor, Double Axle Trolley, 360 Degree Swivel Coupling, Compliance, Hazard, Risk, Checklist

