**TYRE MANAGEMENT SYSTEM**

Develop an Application that will monitor the **life span** of tyres fitted on both Dump Trucks and Loader Machines so as to determine the Cost of tyres and also to make warranty claims to Suppliers should these tyres prematurely fail (i.e. before the Expected life span)

The idea is to capture the Running hours of an Equipment when a component is installed and also to capture the Running hours of the Equipment when the Component is Defective.

Each Equipment has an hour meter installed on it that captures the running hours of the Machine. Operators have Daily Checklists where they fill in the Operated hours of these machines. The final running hours of the Machine is calculated by finding the difference between the Start Meter reading and the end meter reading.

Hours done by Component = Hours meter (when component is Fitted) – Hour meter (When component is defective)

**The system should be able to capture the following parameters:**

Equipment No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Expected Life of Tyre \_\_\_\_\_\_\_\_\_\_\_ (UOM = Hours) e.g. 10,000hrs

Date Tyre Fitted\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rear or Front Left Tyre\_\_\_\_\_\_\_\_\_

Rear of Front Right tyre\_\_\_\_\_\_\_\_\_

Fitted by\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equipment Running Hours when Fitted\_\_\_\_\_\_\_\_\_\_\_

Date Tyre is Defective

Nature of Defect: Worn Out: Rock Penetration: E.t.c

Rear or Front Left Tyre\_\_\_\_\_\_\_\_\_

Rear of Front Right tyre\_\_\_\_\_\_\_\_\_

Removed by\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equipment Running Hours when Removed\_\_\_\_\_\_\_\_\_\_\_

**System Requirements**

1. System should calculate Hours Done by Defective tyre by subtracting Hours done by Tyre when Removed – Hours done when tyre was fitted
2. System should be able to Capture daily Hours done and possibly recommend when tyre is about to do its full life span
3. System should be able to determine if the defective tyre is premature or not
4. System should be able to compile a Report on total number of tyres a machine consumes per week/month/year and display this information in form of graphs or pie charts if possible because Managers understand processed data in order for them to make decisions.
5. **It would be a plus if the system can extend its capabilities on monitoring other components as well, since on a daily basis critical components like Alternators, Starter motors, Transmissions, gear boxes, Engines are changed due to break downs.**

If a demo version can be available it would be fine so that we can start pushing for a test run.